NRCS
Natural Resources Conservation Service

Utah Water Supply Outlook Report

June, 2011

Flooded farmland near Marysvale on the Sevier River, May 28, 2011. Photo by Randy Julander

Water Supply Outlook Reports
and Federal - State - Private Cooperative Snow Surveys

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How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snowcourses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

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STATE OF UTAH GENERAL OUTLOOK
June 1, 2011

SUMMARY

Snowpacks are much above average over most of Utah with the exception of southeast Utah and the Escalante basins which have melted out. May continued the cool wet pattern started in March. Southern Utah has melted about 50% of the total snowpack across those watersheds whereas in a normal year, snowpacks would be 80% to 85% melted. In contrast to the relatively better behaved snowpacks of southern Utah where a more sequential snowmelt is in process, the Bear River in northern Utah has melted a paltry 12% of its total snowpack leaving nearly 90% to melt in the next few weeks. Normally 70% to 75% of the Bear River watersheds snowpack would be melted by June 1. The numbers are staggering – 5 times the average amount of snow remains to melt on the Bear River and the snowmelt season has been effectively shortened by as much as 8 weeks. The numbers are similar on the Weber and Provo watersheds and on the Uintah Basin – only 3.8 times the average amount of snow to melt makes it look tame in comparison. The probability of getting at least some very warm temperatures and high energy input to snowpacks over the next 4 weeks is very high and should these occur, streamflows will respond very quickly. We are very near the time when even average temperatures will cause rapid snowmelt. Last month's Bear Lake inflow was a record high and the inflow for May at 179.9 KAF is in 4th place out of nearly 100 years of record – ***with nearly 90% of its snowpack yet to melt!*** Many agricultural areas are feeling the impacts of too much water with inundation common as well as the inability to access and work the farmlands for plowing and planting. Weather conditions of this spring will have many adverse impacts on agricultural production.

SNOWPACK

June first snowpacks as measured by the NRCS SNOTEL system are as follows: Bear - 507% (record high), Weber - 500%(record high), Provo - 563%(record high), Uintahs - 377%(near record high), southeast Utah - 459%, Sevier - 327%, southwest Utah - 402% and the statewide figure is 476% of average(record high).

PRECIPITATION

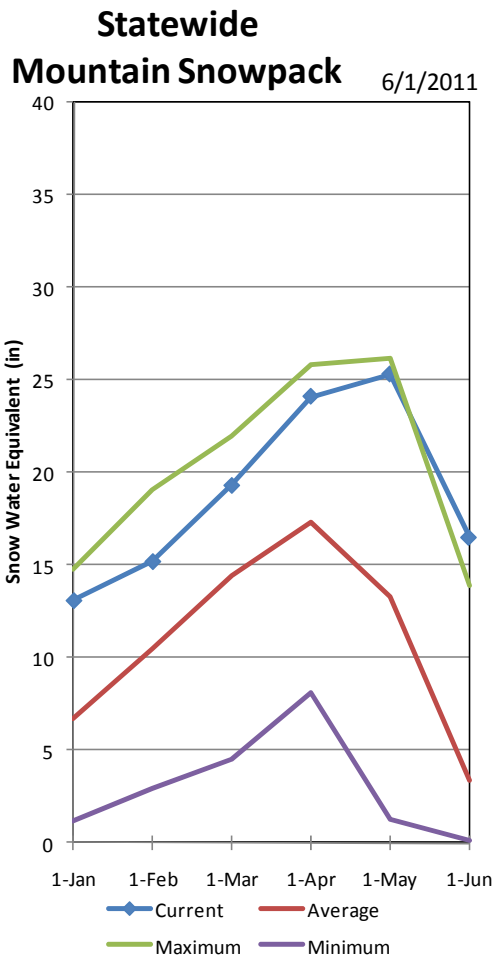
Mountain precipitation as measured by the NRCS SNOTEL system during April was: Bear – 155%, Weber – 166%, Provo – 185%, Uintahs – 186%, SE Utah – 170%, Sevier – 194%, SW Utah – 177% and the statewide figure is 177% of average. This brings the seasonal accumulation (Oct-May) to 150% of average statewide.

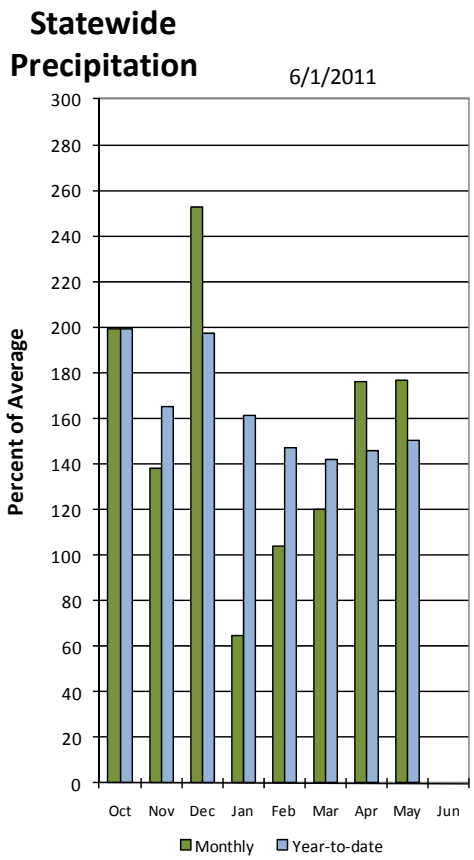
RESERVOIRS

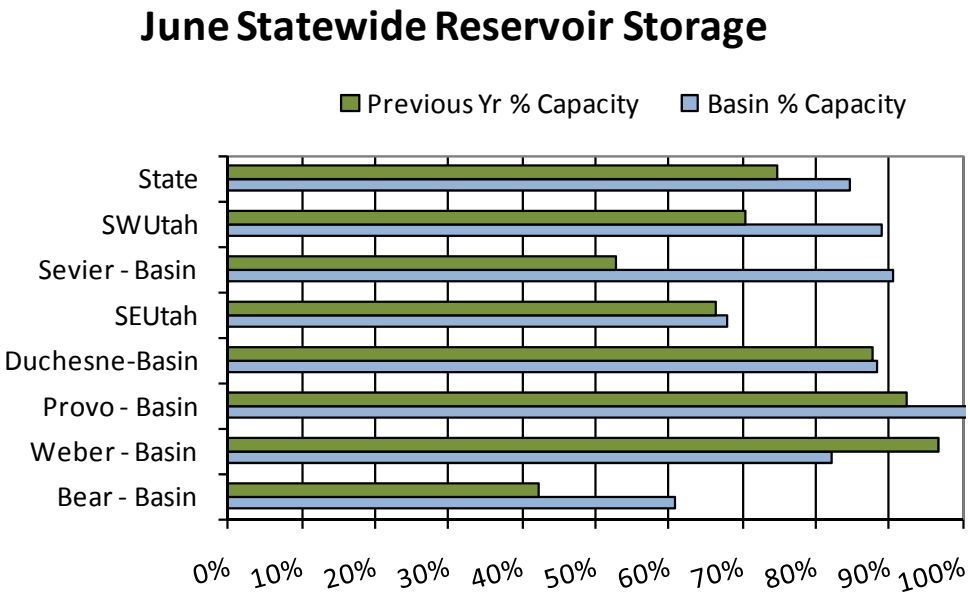
Storage in 41 of Utah's key irrigation reservoirs is at 85% of capacity, 10% more than last year. Reservoir storage by Basin: Bear – 61%, Weber – 82%, Provo – 101%, Uintah Basin – 88%, SE Utah – 68%, Sevier – 90%, SW Utah – 89% of capacity.

STREAMFLOW

Snowmelt streamflows are expected to be above to much above average across the state this year. Most flows are forecast to be in the 160% to 250% range. Streamflows are responding quickly to snowmelt and saturated soils with many sites running in the upper 10% of recorded flows. There is a huge snowpack yet to melt in northern Utah and streamflows will high in volume and long in duration.

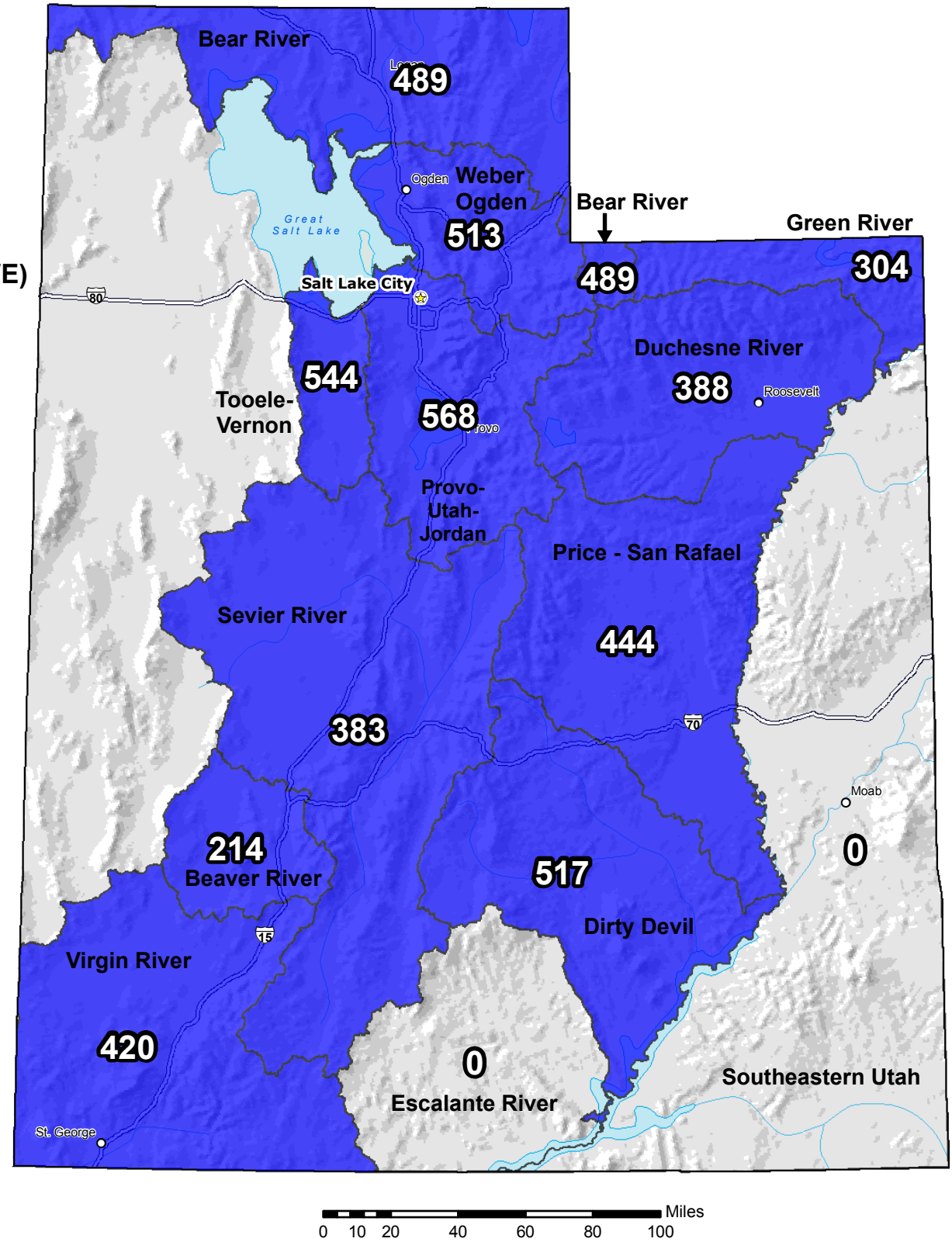

Statewide
Mountain Snowpack
6/1/2011
Snow Water Equivalent (in)
40
35
30
25
20
15
10
5
0
1-Jan
1-Feb
1-Mar
1-Apr
1-May
1-Jun
Current
Average
Maximum
Minimum


Statewide
Precipitation
6/1/2011
Percent of Average
300
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Monthly
Year-to-date


June Statewide Reservoir Storage
Previous Yr % Capacity
Basin % Capacity
State
SWUtah
Sevier - Basin
SEUtah
Duchesne-Basin
Provo - Basin
Weber - Basin
Bear - Basin
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

Utah
SNOTEL Current Snow Water Equivalent (SWE)
% of Normal

Jun 01, 2011



Snow Water Equivalent (SWE) 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*

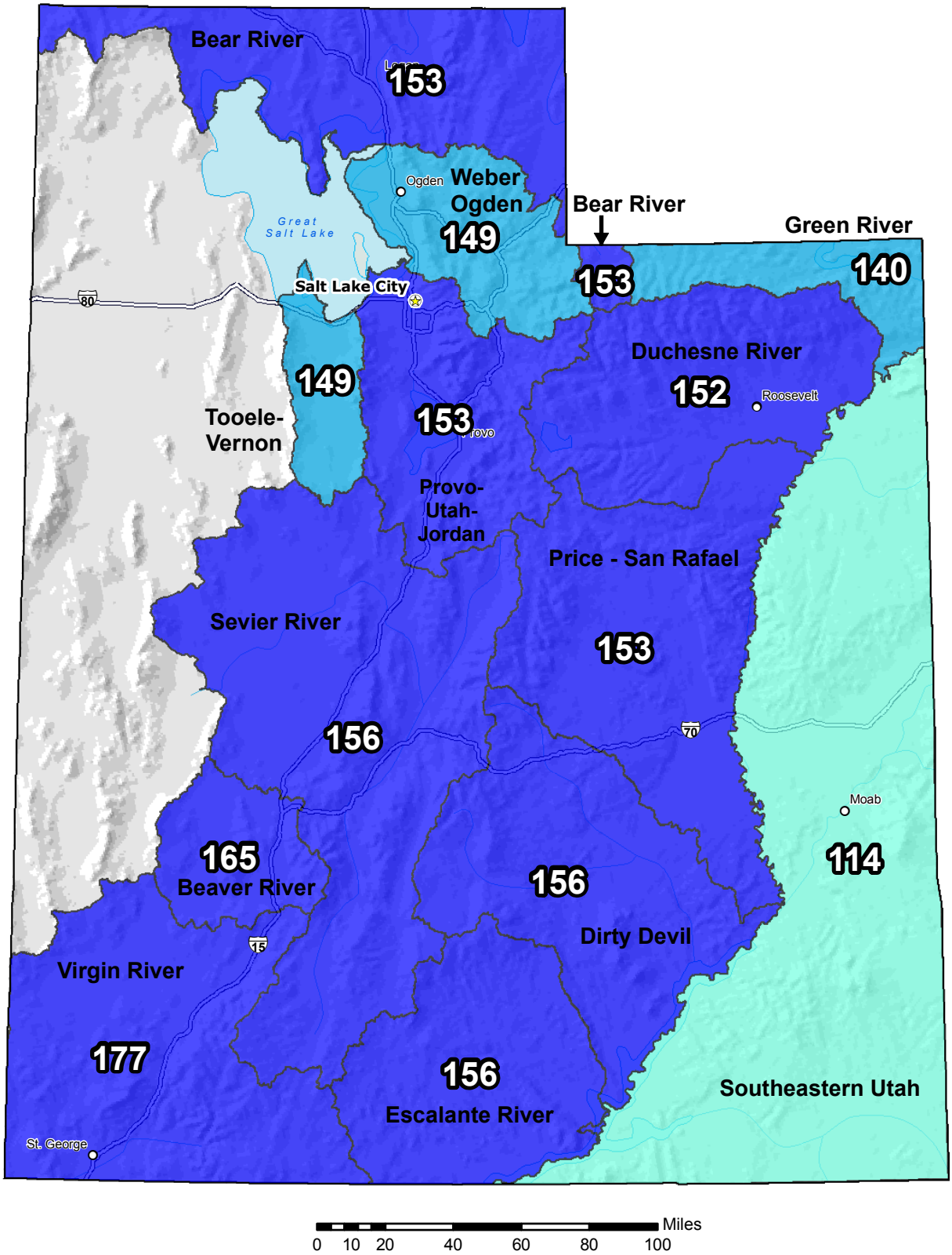
Provisional Data Subject to Revision

The 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

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

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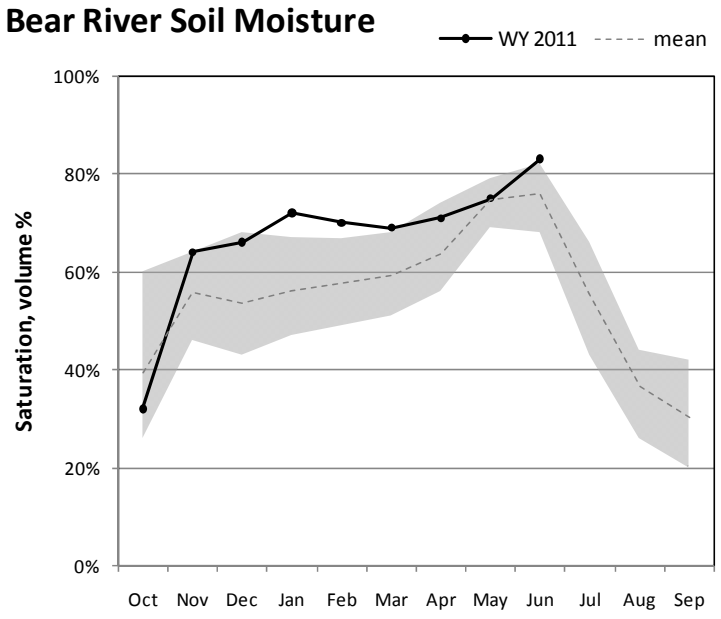
Provisional Data Subject to Revision

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).

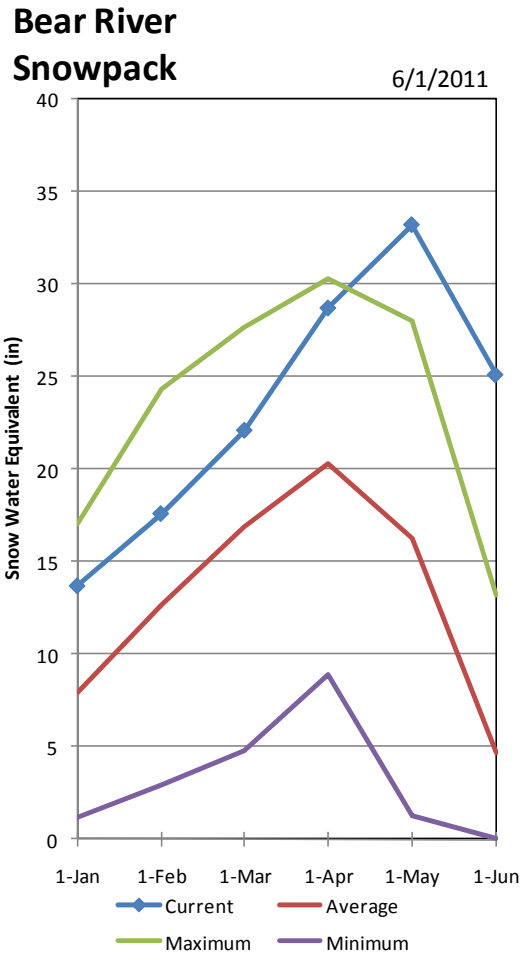
Prepared by the USDA/NRCS National Water and Climate Center
Portland, Oregon http://www.wcc.nrcs.usda.gov/gis/
Based on data from http://www.wcc.nrcs.usda.gov/reports/
Science contact: Jim.Marron@por.usda.gov 503 414 3047

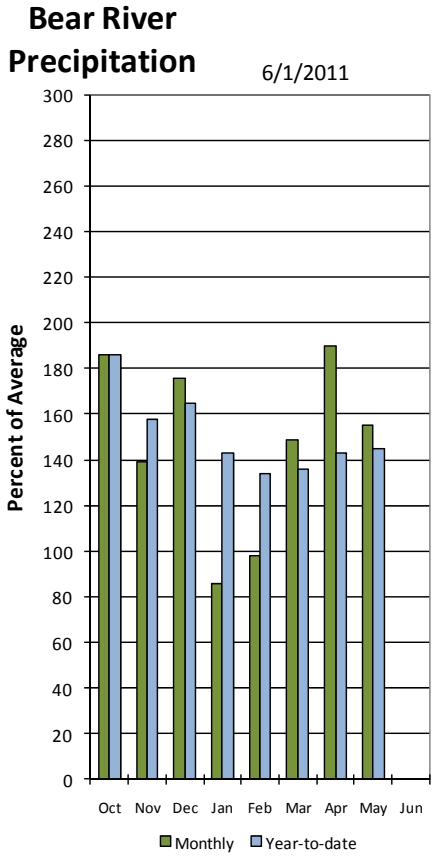
Bear River Basin
June 1, 2011

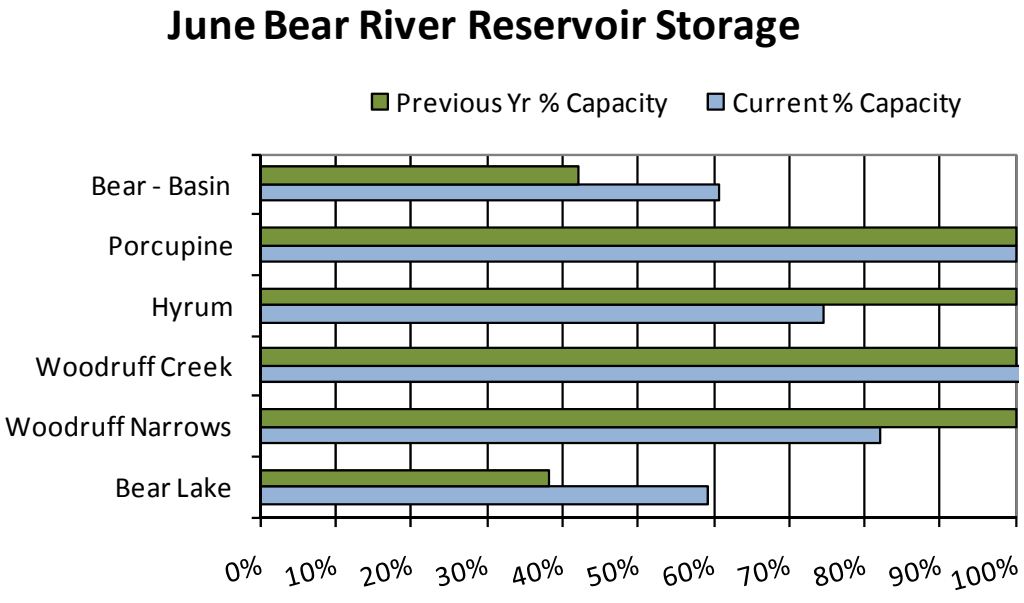
Snowpacks on the Bear River Basin are much above average at 610% of normal, and 491% of last year. May precipitation was much above average at 158%, which brings the seasonal accumulation (Oct-May) to 145% of average. Soil moisture levels in runoff producing areas are at 83% of saturation in the upper 2 feet of soil compared to 78% last year. Forecast streamflows (June-July) are much above average (205%-375%) volumes for this spring and summer. Reservoir storage is at 61% of capacity, which is 19% higher than this time last year. The Surface Water Supply Index is at 64% for the Bear River, in other words, 36% of years have had more total water available. Overall water supply conditions are above average.



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.







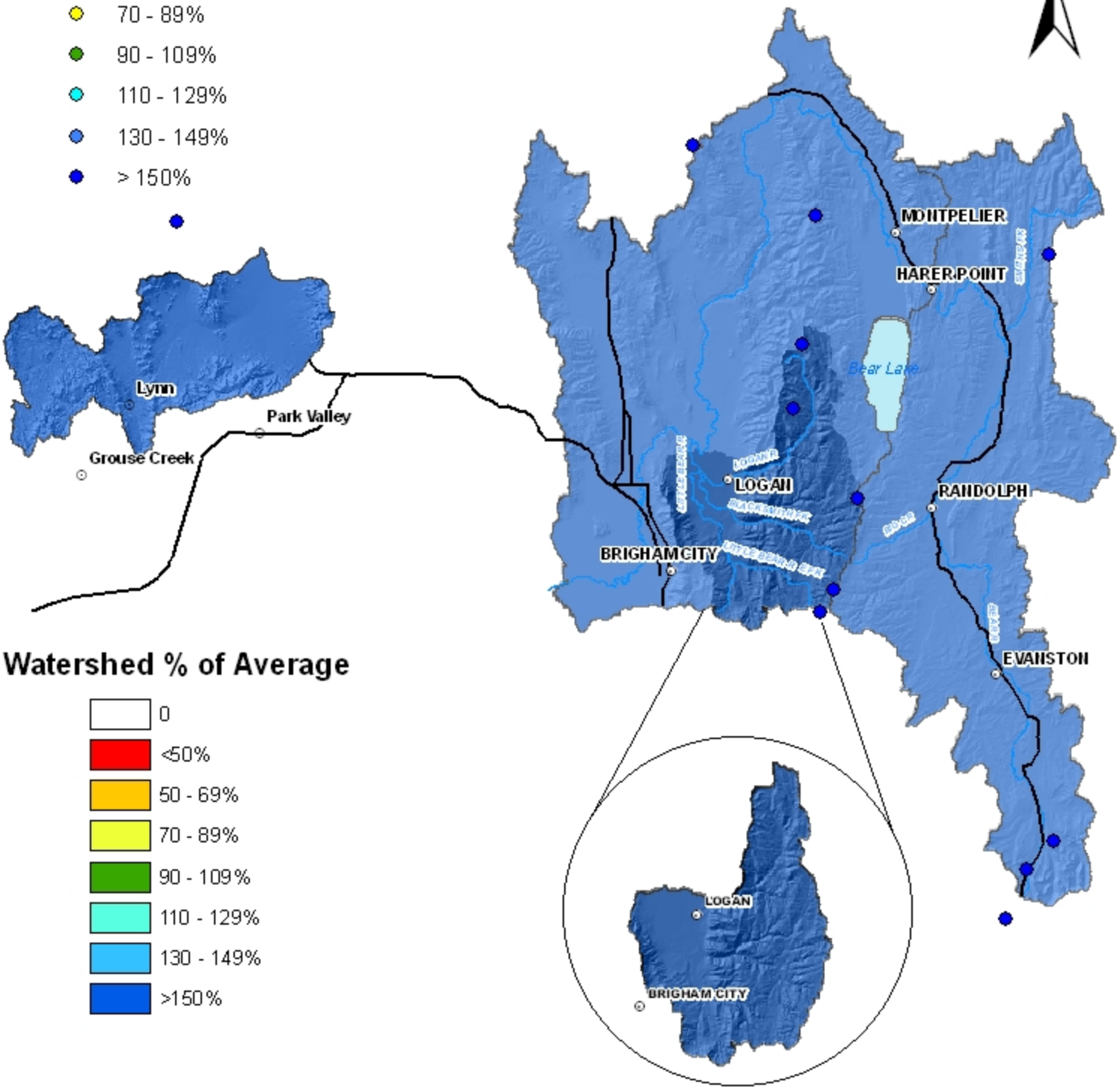
Bear River & Raft River Basins

Basinwide Average

503%

Snotel % of Average

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



Watershed % of Average

- 0
- <50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- >150%

Provisional Data Subject to Revision

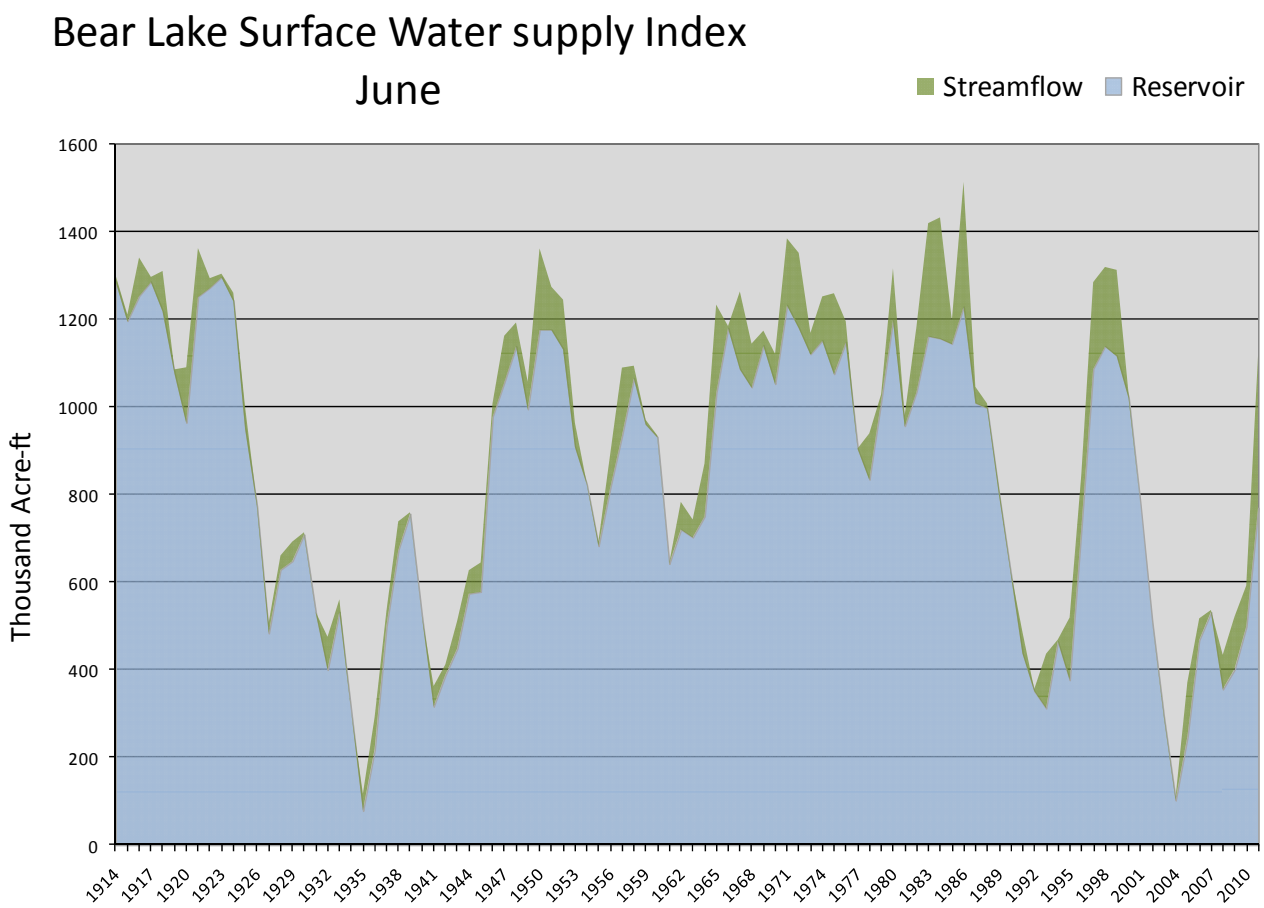
0 5 10 20 30 40 50 Miles

June 1, 2011

Surface Water Supply Index

Basin or Region	May EOM* Bear Lake	June-July Forecast below Stewart Dam	Reservoir + Streamflow	SWSI#	Percentile	Years with similar SWSI
	*KAF^*	*KAF*	*KAF*		*%*	
Bear River	**770**	**350**	**1120**	**1.14**	**64**	**20,58,68,70**

**EOM, end of month; # SWSI, Surface Water Supply Index; ^KAF, thousand acre-feet.*



BEAR RIVER BASIN
Streamflow Forecasts - June 1, 2011

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Bear R nr UT-WY State Line	APR-JUL	205	215	225	199	235	245	113
	JUN-JUL	174	183	190	271	197	205	70
Bear R ab Res nr Woodruff	APR-JUL	330	345	360	265	375	390	136
	JUN-JUL	220	230	240	375	250	260	64
Big Ck nr Randolph	APR-JUL	15.30	15.70	16.00	327	16.30	16.70	4.90
	JUN-JUL	6.70	7.10	7.40	322	7.70	8.10	2.30
Smiths Fk nr Border	APR-JUL	153	161	167	162	173	181	103
	JUN-JUL	111	119	125	205	131	139	61
Bear R bl Stewart Dam	APR-JUL	510	560	595	254	630	680	234
	JUN-JUL	295	325	350	318	375	405	110
Little Bear R at Paradise	APR-JUL	88	96	102	222	108	116	46
	JUN-JUL	35	38	40	336	42	45	11.9
Logan R nr Logan	APR-JUL	205	225	235	187	245	265	126
	JUN-JUL	157	165	170	243	175	183	70
Blacksmith Fork nr Hyrum	APR-JUL	100	112	120	250	128	140	48
	JUN-JUL	45	50	53	265	56	61	20
Dunn Ck nr Park Valley	APR-JUL	3.20	4.30	5.00	161	5.70	6.80	3.10
	JUN-JUL	0.10	1.99	3.60	217	5.00	7.10	1.66

BEAR RIVER BASIN
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BEAR LAKE	1302.0	769.6	498.8	---
HYRUM	15.3	11.4	15.7	14.4
PORCUPINE	11.3	11.3	11.3	10.5
WOODRUFF NARROWS	57.3	47.0	57.3	40.3
WOODRUFF CREEK	4.0	4.1	4.0	---

BEAR RIVER BASIN
Watershed Snowpack Analysis - June 1, 2011

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
BEAR RIVER, UPPER	8	432	449
BEAR RIVER, LOWER	9	519	569
LOGAN RIVER	4	409	514
RAFT RIVER	1	178	716
BEAR RIVER BASIN	17	557	503

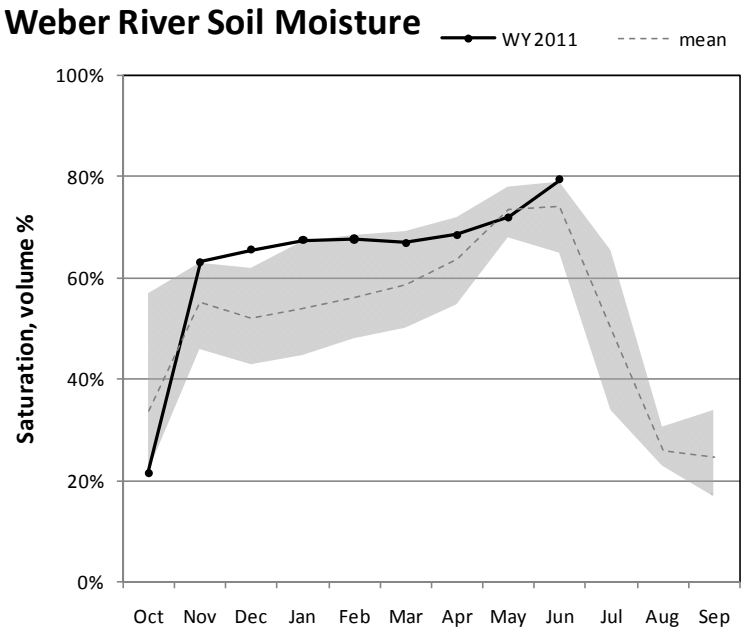
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.
(3) - Median value used in place of average.

Weber and Ogden River Basins
June 1, 2011

Snowpacks on the Weber and Ogden Watersheds are much above average at 542%, and 564% of last year. May precipitation was much above average at 159% bringing the seasonal accumulation (Oct-May) to 149% of average. Soil moisture levels in runoff producing areas are at 79% of saturation in the upper 2 feet of soil compared to 73% last year. Streamflow forecasts (June-July) range from 249% to 364% of average. Reservoir storage is at 82% of capacity, 15% lower than last year. The Surface Water Supply Index is at 98% for the Weber River and 97% for the Ogden River indicating that overall water supply conditions are much above average.



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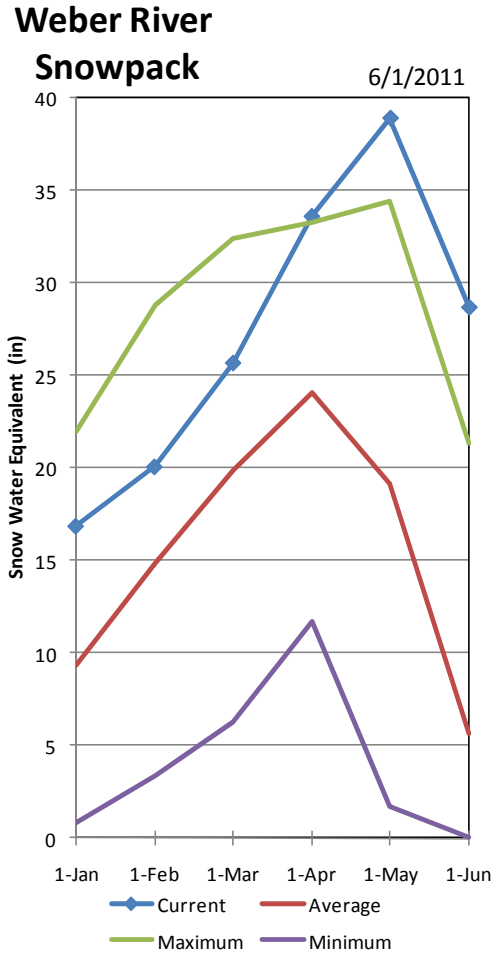
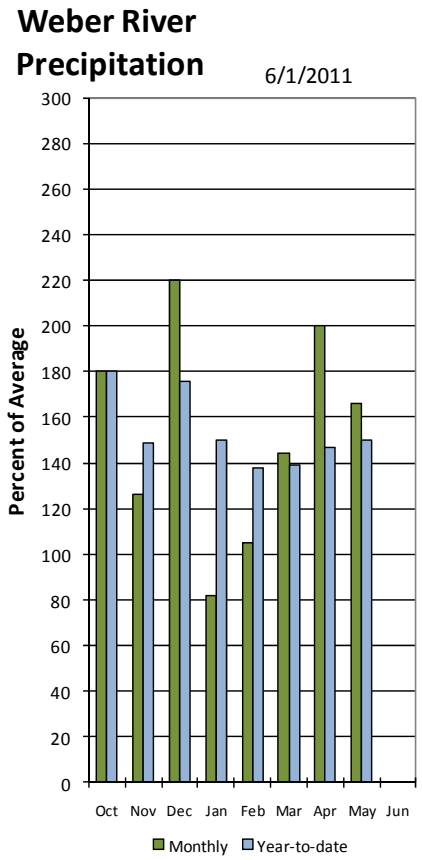
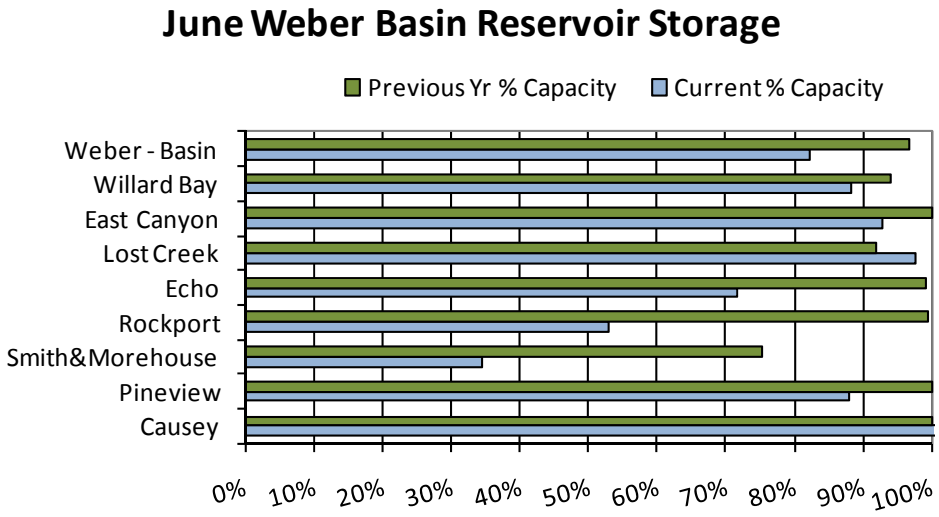






Weber & Ogden Basins

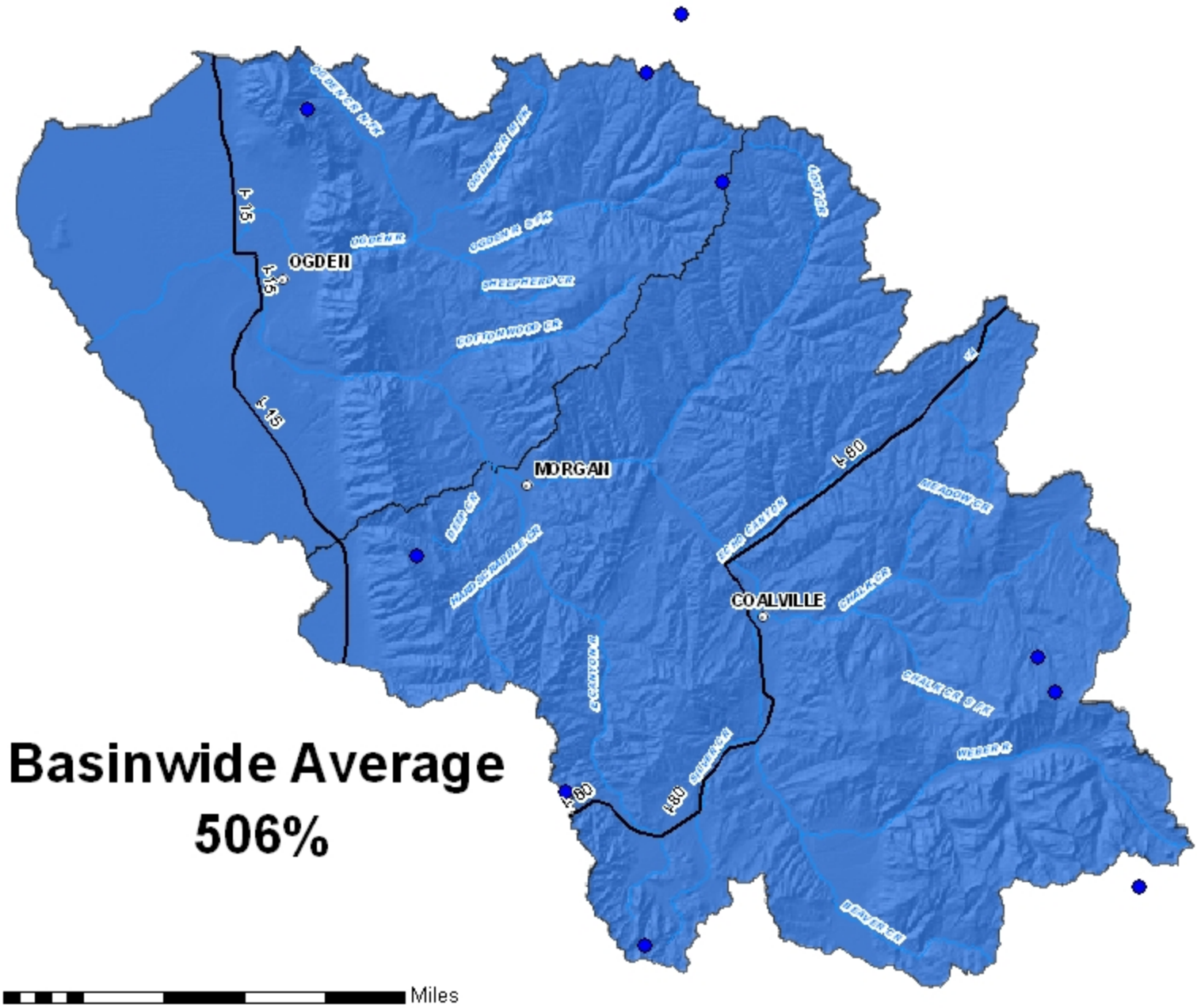
Watershed % of Average

- 0
- <50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- >150%

Snotel % of Average

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

N



Basinwide Average
506%

0 2.5 5 10 15 20 25 Miles

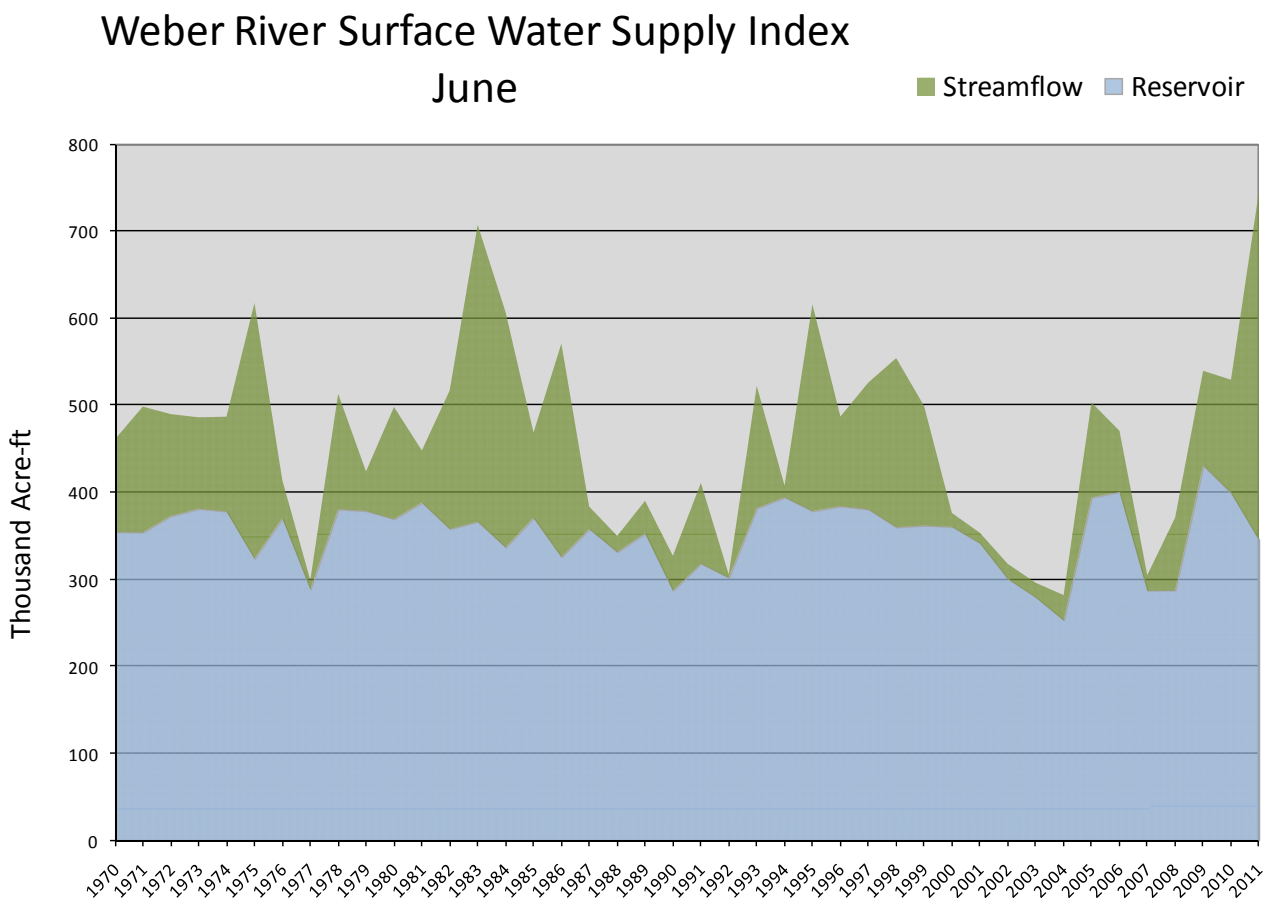
Provisional Data
Subject to Revision

June 1, 2011

Surface Water Supply Index

Basin or Region	May EOM* Reservoirs	June-July Forecast Weber River at Gateway	Reservoirs + Streamflow	SWSI#	Percentile	Years with similar SWSI
	*KAF^*	*KAF*	*KAF*		*%*	
Weber River	**346**	**400**	**746**	**3.97**	**98**	**75,83,84,95**

**EOM, end of month; # SWSI, Surface Water Supply Index; ^KAF, thousand acre-feet.*

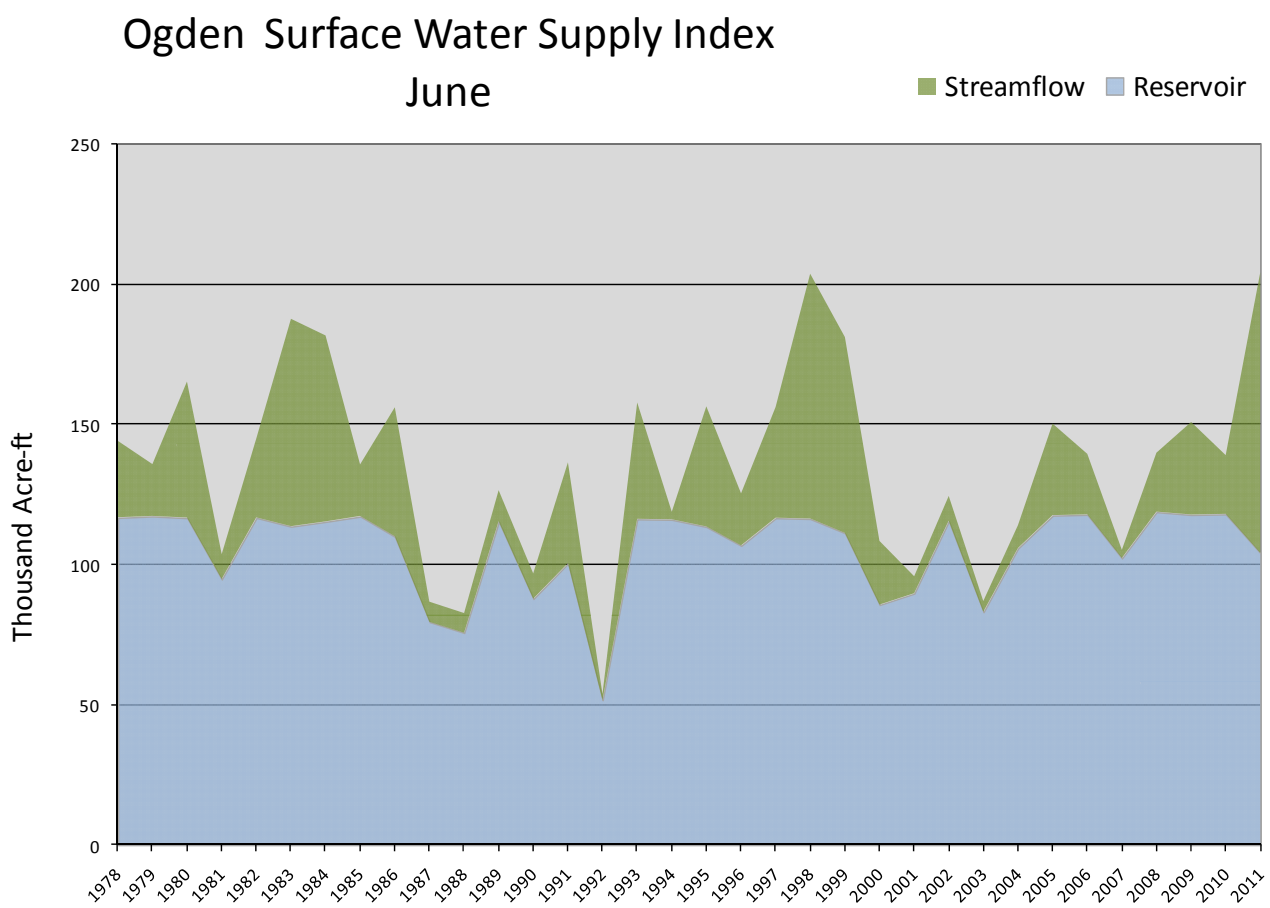


June 1, 2011

Surface Water Supply Index

Basin or Region	May EOM* Pine View & Causey	June-July Forecast Pineview Reservoir Inflow	Reservoir + Streamflow	SWSI#	Percentile	Years with similar SWSI
	*KAF^*	*KAF*	*KAF*		*%*	
Ogden River	**104**	**100**	**204**	**3.93**	**97**	**83,84,98,99**

**EOM, end of month; # SWSI, Surface Water Supply Index; ^KAF, thousand acre-feet.*



WEBER & OGDEN WATERSHEDS in Utah as of June 1, 2011

WEBER & OGDEN WATERSHEDS in Utah
Streamflow Forecasts - June 1, 2011

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Smith & Morehouse Res Inflow	APR-JUL	56	58	59	174	60	62	34
	JUN-JUL	45	47	48	251	49	51	19.1
Weber R nr Oakley	APR-JUL	205	220	230	187	240	255	123
	JUN-JUL	156	169	177	249	185	198	71
Rockport Res	APR-JUL	235	255	270	202	285	305	134
	JUN-JUL	163	176	185	257	194	205	72
Weber R nr Coalville	APR-JUL	250	265	280	204	295	310	137
	JUN-JUL	161	175	184	271	193	205	68
Chalk Ck at Coalville	APR-JUL	100	109	116	258	123	132	45
	JUN-JUL	46	55	60	349	65	74	17.2
Echo Res Inflow	APR-JUL	320	355	380	212	405	440	179
	JUN-JUL	174	200	220	265	240	265	83
Lost Ck Resv Inflow	APR-JUL	35	40	43	244	46	51	17.6
	JUN-JUL	11.80	13.70	15.00	326	16.30	18.20	4.60
East Canyon Ck nr Jeremy Ranch	APR-JUL	40	42	44	310	46	48	14.2
	JUN-JUL	12.80	14.70	16.00	364	17.30	19.20	4.40
East Canyon Ck nr Morgan	APR-JUL	65	70	74	239	78	83	31
	JUN-JUL	25.00	28.00	30.00	319	32.00	35.00	9.40
Weber R at Gateway	APR-JUL	660	745	800	225	855	940	355
	JUN-JUL	335	375	400	318	425	465	126
SF Ogden R nr Huntsville	APR-JUL	95	116	131	205	146	167	64
	JUN-JUL	42	46	48	296	50	54	16.2
Pineview Res Inflow	APR-JUL	200	250	285	214	320	370	133
	JUN-JUL	76	90	100	333	110	124	30
Wheeler Ck nr Huntsville	APR-JUL	6.70	8.10	9.00	143	9.90	11.30	6.30
	JUN-JUL	6.10	6.90	7.40	352	7.90	8.70	2.10
Centerville Ck	APR-JUL	3.10	3.40	3.60	281	3.80	4.10	1.28
	JUN-JUL	0.53	1.24	1.74	311	2.30	2.90	0.56
	APR-JUL	3.10	3.40	3.60	281	3.80	4.10	1.28
	JUN-JUL	0.53	1.24	1.74	311	2.30	2.90	0.56

WEBER & OGDEN WATERSHEDS in Utah
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
CAUSEY	7.1	7.3	7.1	6.7
EAST CANYON	49.5	46.0	49.5	46.8
ECHO	73.9	52.9	73.3	66.7
LOST CREEK	22.5	22.0	20.7	20.3
PINEVIEW	110.1	96.9	110.1	97.7
ROCKPORT	60.9	32.2	60.6	49.1
WILLARD BAY	215.0	189.6	188.4	174.3

WEBER & OGDEN WATERSHEDS in Utah
Watershed Snowpack Analysis - June 1, 2011

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
OGDEN RIVER	4	659	438
WEBER RIVER	9	497	546
WEBER & OGDEN WATERSHEDS	13	541	505

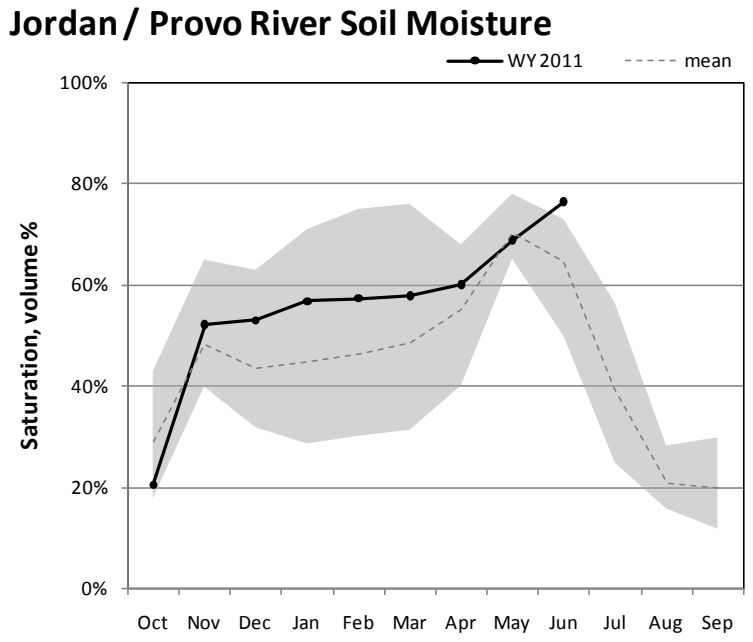
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

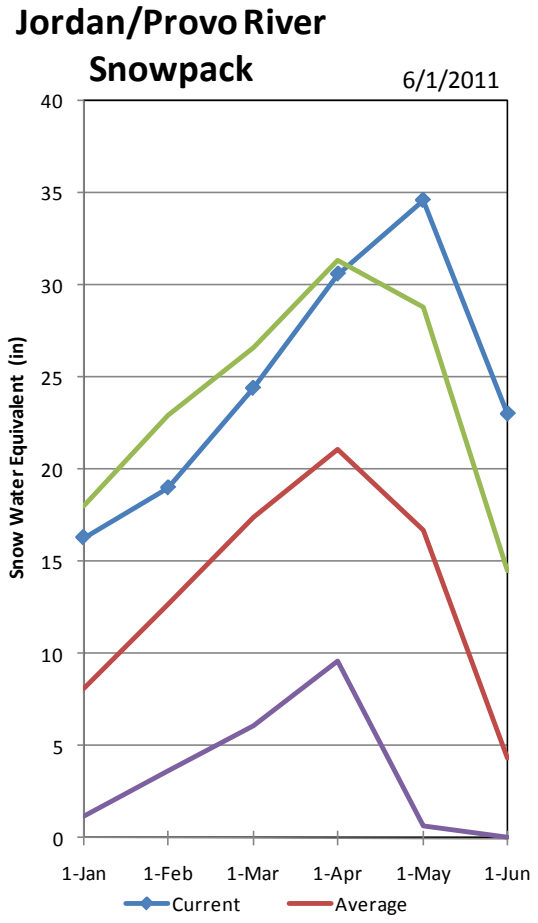
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.
(3) - Median value used in place of average.

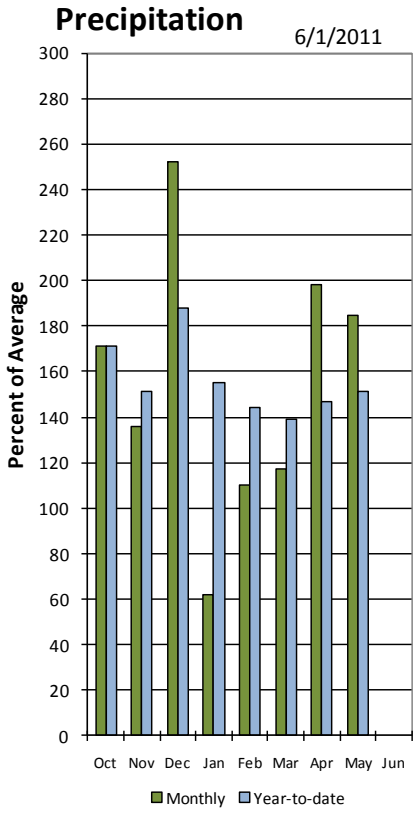
Utah Lake, Jordan River & Tooele Valley Basins
June 1, 2011

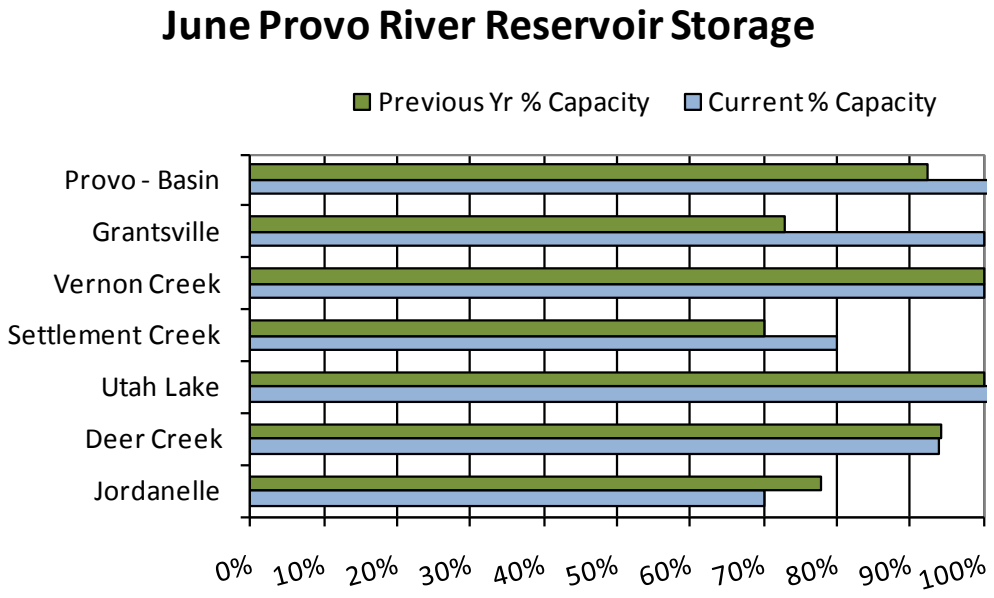
Snowpack over these basins are much above average at 577%, which is 330% of last year. May precipitation was much above average at 188%, bringing the seasonal accumulation (Oct-May) to 152% of average. Average soil moisture in runoff producing areas is estimated at 76% of saturation in the upper 2 feet of soil compared to 70% at this time last year. Reservoir storage is at 101% of capacity, 9% higher than last year. Streamflow forecasts (June-July) range from 200% to 348% of average. The Surface Water Supply Index below Deer Creek reservoir is 82%, indicating general water supply conditions are much above average.



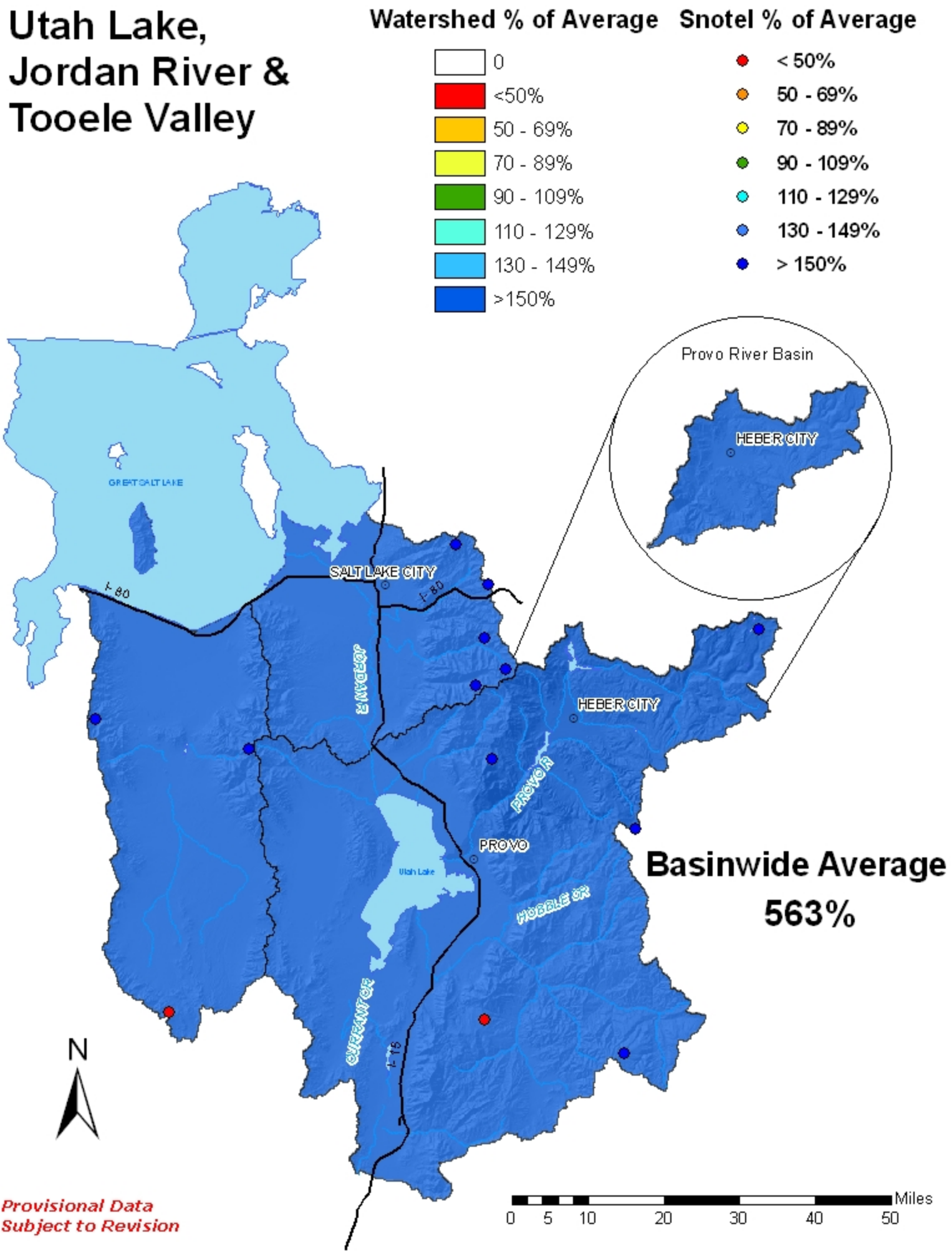
Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.







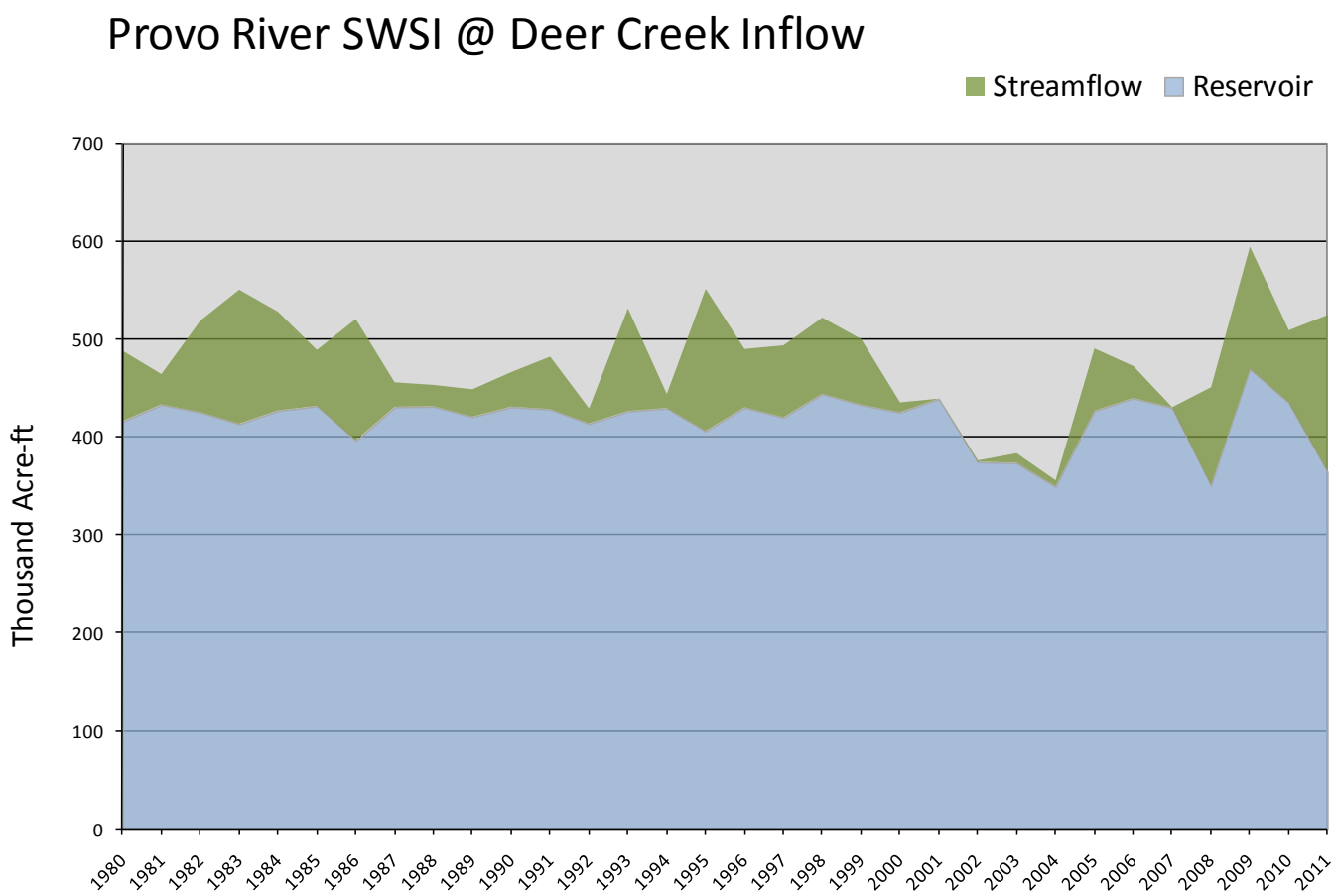
Utah Lake, Jordan River & Tooele Valley



Provisional Data
Subject to Revision

June 1, 2011	**Surface Water Supply Index**					
Basin or Region	May EOM* Deer Creek, Jordanelle	June - July Forecast Provo River below Deer Creek	Reservoir + Streamflow	SWSI#	Percentile	Years with similar SWSI
	*KAF^*	*KAF*	*KAF*		*%*	
Provo River	**365**	**160**	**525**	**2.65**	**82**	**86,98,84,93**

**EOM, end of month; #SWSI, Surface Water Supply Index; ^KAF, thousand acre-feet.*



UTAH LAKE, JORDAN RIVER & TOOELE VALLEY
Streamflow Forecasts - June 1, 2011

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Salt Ck at Nephi	APR-JUL	7.50	16.10	22.00	234	28.00	37.00	9.40
	JUN-JUL	8.80	10.20	11.20	246	12.20	13.60	4.56
Spanish Fk at Castilla	APR-JUL	97	138	166	216	194	235	77
	JUN-JUL	30	57	75	289	93	120	26
Provo R nr Woodland	APR-JUL	122	152	174	169	198	235	103
	JUN-JUL	107	121	130	250	139	153	52
Provo R nr Hailstone	APR-JUL	128	168	198	182	230	285	109
	JUN-JUL	104	125	140	264	156	182	53
Provo R bl Deer Ck Dam	APR-JUL	210	230	245	194	260	280	126
	JUN-JUL	139	152	160	242	168	181	66
American Fk ab Upper Powerplant	APR-JUL	53	59	62	194	65	71	32
	JUN-JUL	42	47	50	250	53	58	20
Utah Lake Inflow	APR-JUL	525	725	865	266	1000	1210	325
	JUN-JUL	121	300	425	348	550	730	122
W Canyon Ck nr Cedar Fort	APR-JUL	5.00	5.50	5.90	246	6.30	6.80	2.40
	JUN-JUL	2.70	3.00	3.20	276	3.40	3.70	1.16
L Cottonwood Ck nr SLC	APR-JUL	47	54	60	150	66	75	40
	JUN-JUL	40	47	52	200	57	65	26
Big Cottonwood Ck nr SLC	APR-JUL	51	57	62	163	67	73	38
	JUN-JUL	39	43	46	219	49	53	21
Mill Ck nr SLC	APR-JUL	9.50	11.50	12.90	184	14.30	16.30	7.00
	JUN-JUL	7.00	8.00	8.70	242	9.40	10.40	3.60
Parley's Ck nr SLC	APR-JUL	29	33	35	210	37	41	16.7
	JUN-JUL	13.40	14.90	16.00	276	17.10	18.60	5.80
Dell Fk nr SLC	APR-JUL	11.00	13.20	14.70	216	16.20	18.40	6.80
	JUN-JUL	4.10	5.00	5.70	339	6.40	7.30	1.68
Emigration Ck nr SLC	APR-JUL	7.40	8.90	9.90	220	10.90	12.40	4.50
	JUN-JUL	3.30	3.70	4.00	323	4.30	4.70	1.24
City Ck nr SLC	APR-JUL	14.80	16.80	18.10	208	19.40	21.00	8.70
	JUN-JUL	11.30	12.30	13.00	310	13.70	14.70	4.20
Vernon Ck nr Vernon	APR-JUL	1.59	2.10	2.50	169	2.90	3.40	1.48
	JUN-JUL	0.99	1.19	1.32	232	1.45	1.65	0.57
Settlement Ck nr Tooele	APR-JUL	2.20	3.10	3.70	176	4.30	5.20	2.10
	JUN-JUL	1.95	2.30	2.60	248	2.90	3.20	1.05
S Willow Ck nr Grantsville	APR-JUL	7.00	7.70	8.20	254	8.70	9.40	3.23
	JUN-JUL	5.40	5.80	6.00	332	6.20	6.60	1.81

UTAH LAKE, JORDAN RIVER & TOOELE VALLEY
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
DEER CREEK	149.7	140.4	140.8	140.2
GRANTSVILLE	3.3	3.3	2.4	2.8
SETTLEMENT CREEK	1.0	0.8	0.7	0.9
STRAWBERRY-ENLARGED	1105.9	1045.5	997.0	702.5
UTAH LAKE	870.9	1064.8	870.9	905.1
VERNON CREEK	0.6	0.6	0.6	---

UTAH LAKE, JORDAN RIVER & TOOELE VALLEY
Watershed Snowpack Analysis - June 1, 2011

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
PROVO RIVER & UTAH LAKE	7	805	485
PROVO RIVER	4	670	474
JORDAN RIVER & GSL	6	320	619
TOOELE & RUSH VALLEY WATE	3	457	544
UTAH LAKE/JORDAN R./TOOEL	16	409	563

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

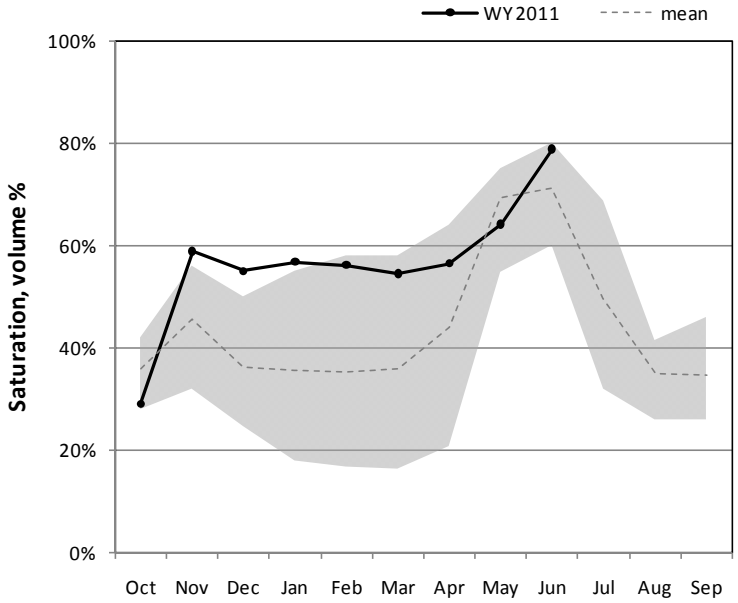
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.
(3) - Median value used in place of average.

Uintah Basin and Dagget SCDs

June 1, 2011

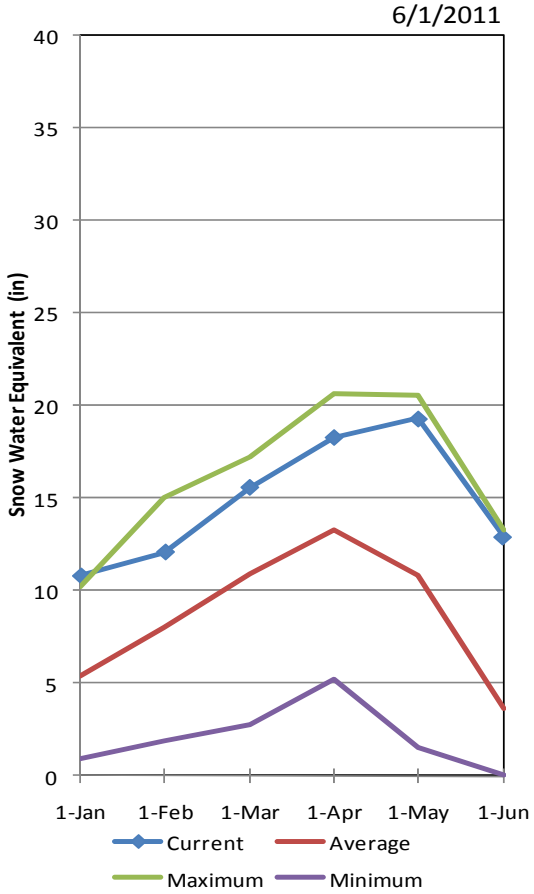
Snowpack across the Uintas is much above average at 354% which is 322% of last year. Precipitation during May was much above average at 187% bringing the seasonal accumulation (Oct-May) to 148%. Soil moisture values in runoff producing area are at 79% of saturation in the upper 2 feet of soil compared to 64% last year. Reservoir storage is at 88% of capacity, same as this time last year. Streamflow forecasts (May-July) range from 119% to 355% of average. The Surface Water Supply Index for the western area is 98% and for the eastern area it is 91% indicating much above normal conditions on the west side and above average on the eastern side. General water supply conditions are much above average.

Uintah Basin Soil Moisture

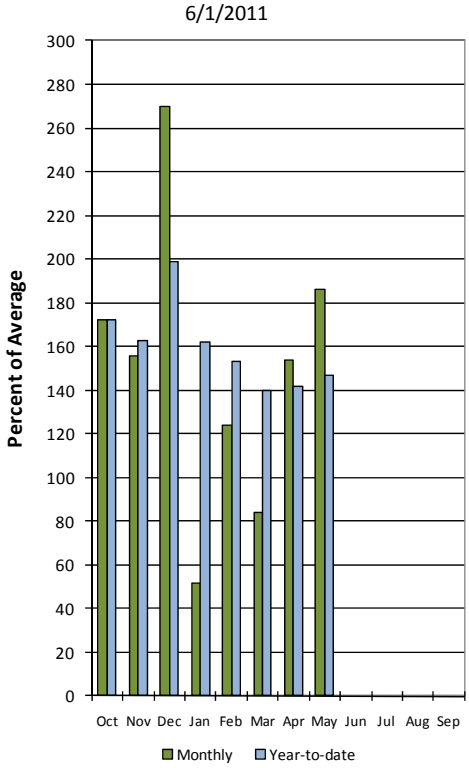


Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.

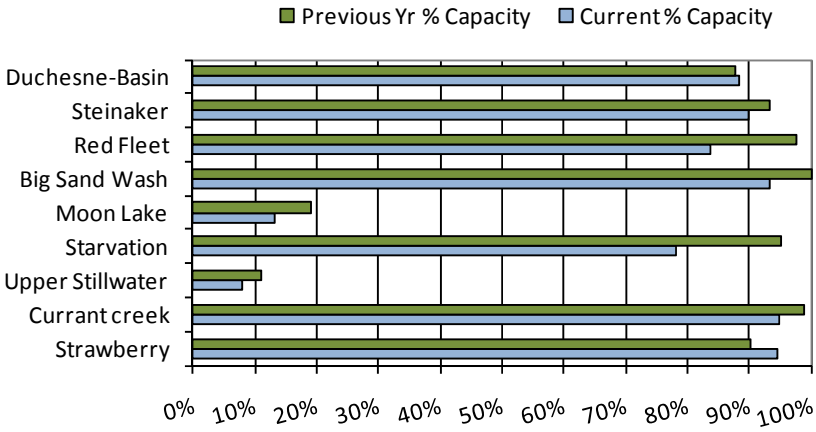
Uinta Snowpack



Uintah Precipitation



June Uintah Basin Reservoir Storage



Uintah Basin & Dagget SCD's

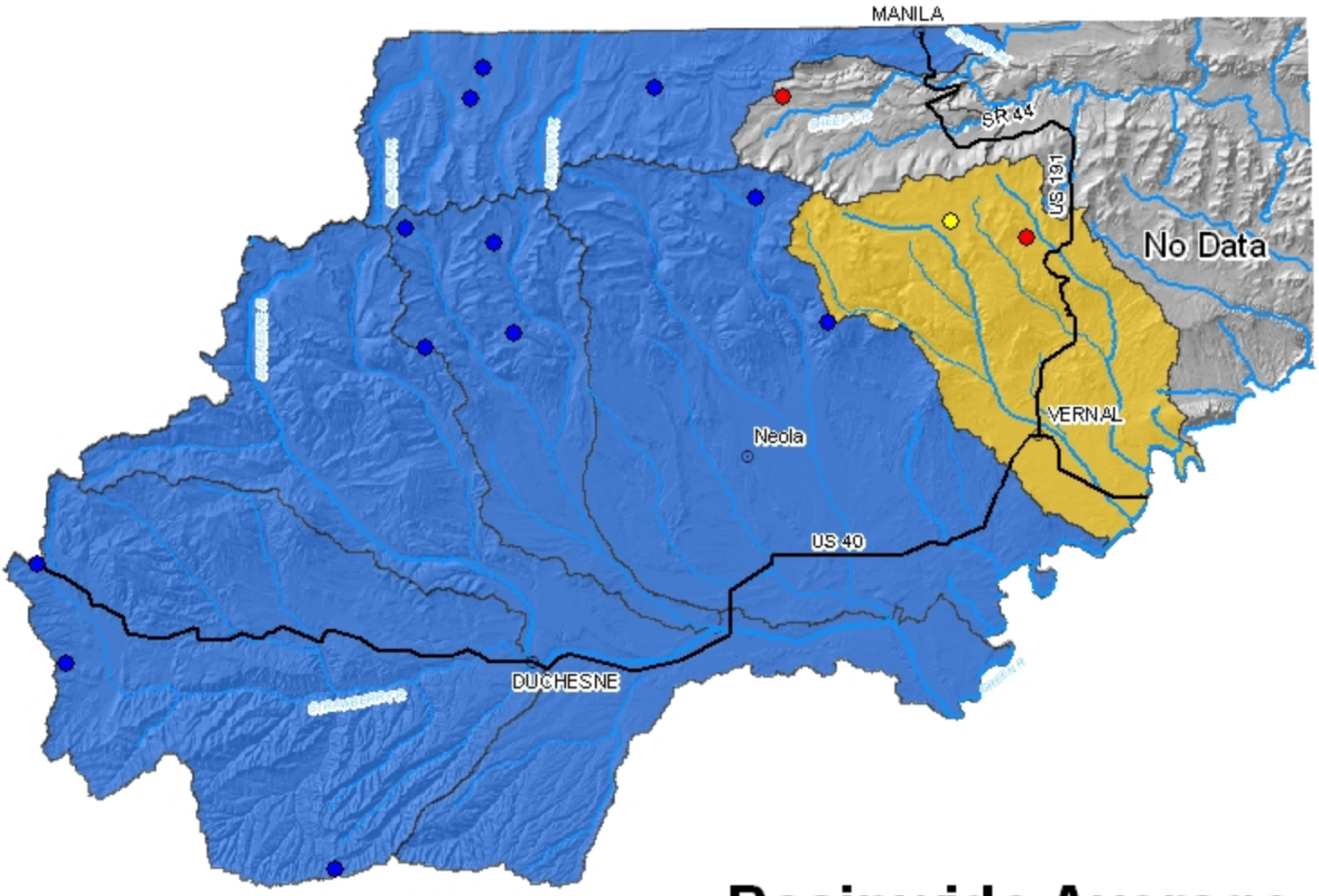
Watershed % of Average

- 0
- <50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- >150%

Snotel % of Average

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

N



Basinwide Average 376%

Provisional Data Subject to Revision

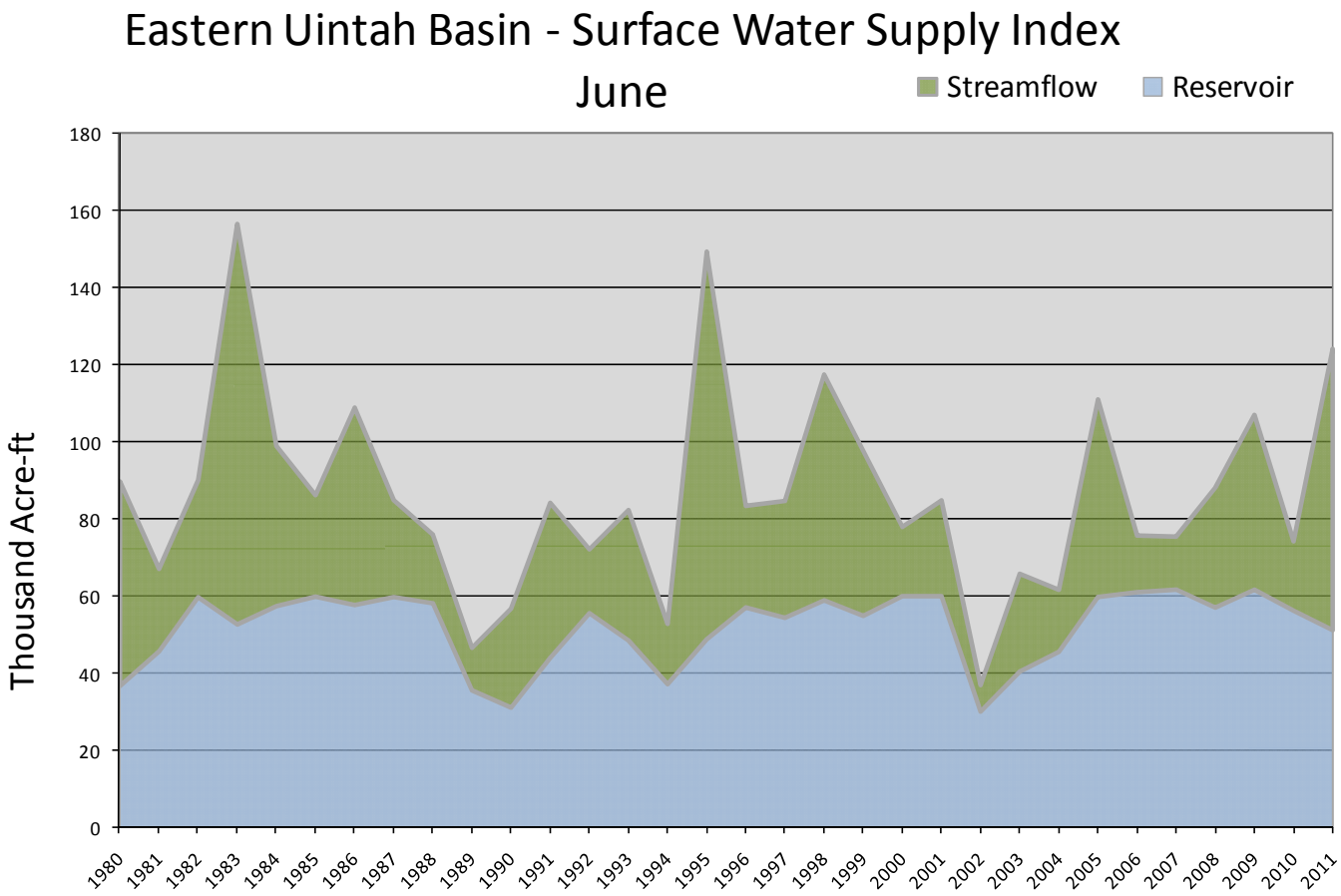
0 5 10 20 30 40 50 Miles

June 1, 2011

Surface Water Supply Index

Basin or Region	May EOM* Red Fleet & Steinaker	June-July Forecast Big Brush & Ashley Creek	Reservoir + Streamflow	SWSI#	Percentile	Years with similar SWSI
	*KAF^*	*KAF*	*KAF*		*%*	
Eastern Uintah	**51.5**	**73.0**	**125**	**3.41**	**91**	**05, 98, 95, 83**

**EOM, end of month; # SWSI, Surface Water Supply Index; ^KAF, thousand acre-feet.*

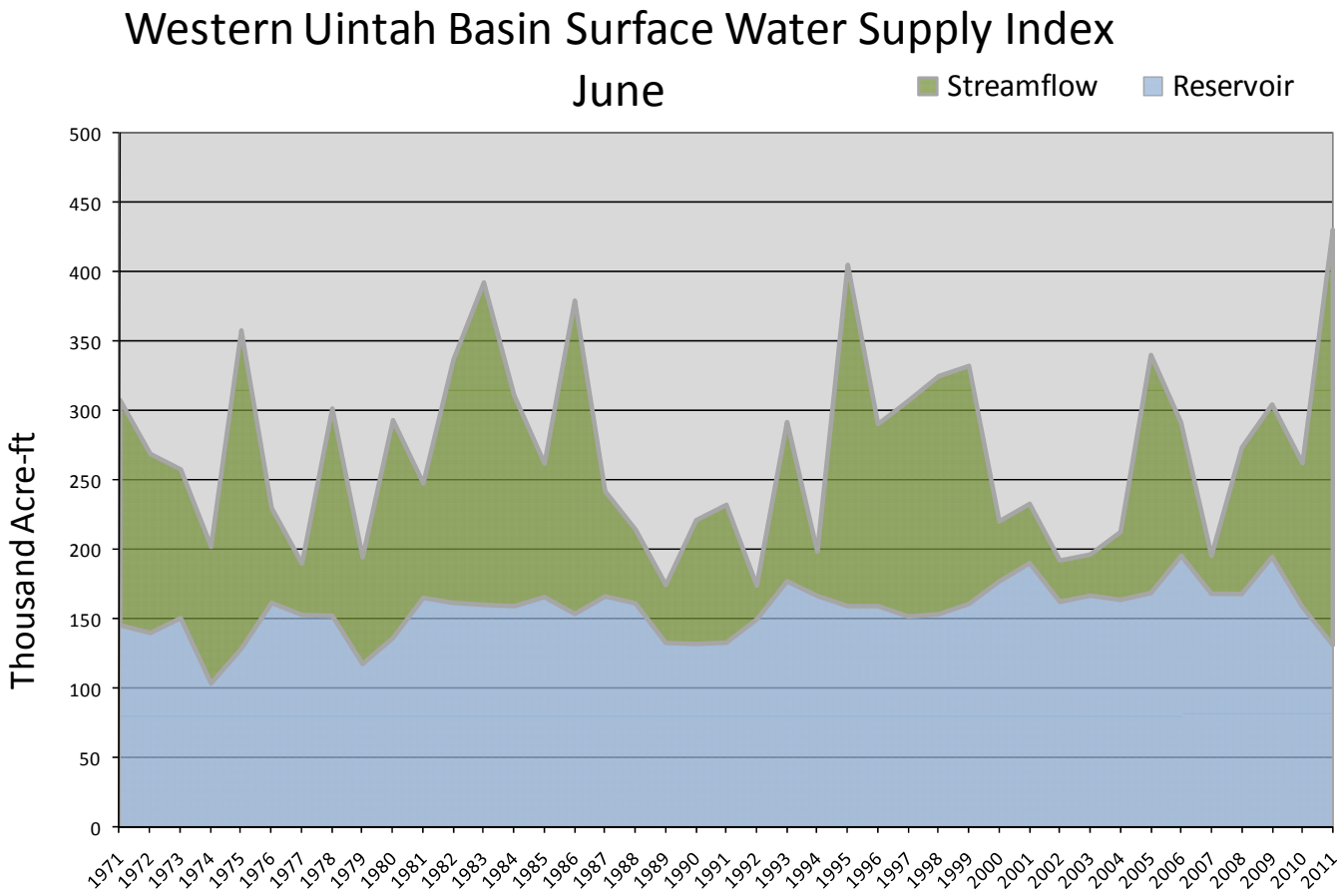


June 1, 2011

Surface Water Supply Index

Basin or Region	May EOM* Starvation & Upper Stillwater	June-July Forecast Rock Creek & Duchesne River	Reservoir + Streamflow	SWSI#	Percentile	Years with similar SWSI
	*KAF^*	*KAF*	*KAF*		*%*	
Western Uintah	**132**	**300**	**432**	**3.97**	**98**	**75, 86, 83, 95**

**EOM, end of month; # SWSI, Surface Water Supply Index; ^KAF, thousand acre-feet.*



UINTAH BASIN & DAGGET SCD'S
Streamflow Forecasts - June 1, 2011

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Blacks Fk nr Robertson	APR-JUL	131	144	153	161	163	177	95
	JUN-JUL	108	121	130	194	140	154	67
EF of Smiths Fork nr Robertson (2)	APR-JUL	40	46	50	172	54	61	29
	JUN-JUL	35	41	45	214	49	56	21
Flaming Gorge Reservoir Inflow (2)	APR-JUL	1620	1780	1890	159	2010	2180	1190
	JUN-JUL	1130	1290	1400	192	1520	1690	730
Big Brush Ck ab Red Fleet Reservoir	APR-JUL	18.6	21	22	105	24	27	21
	JUN-JUL	8.2	10.4	12.0	119	13.7	16.5	10.1
Ashley Ck nr Vernal	APR-JUL	44	52	58	112	64	75	52
	JUN-JUL	37	45	51	184	57	68	28
WF Duchesne R at VAT Diversion	APR-JUL	34	38	42	225	46	50	18.7
	JUN-JUL	26.00	31.00	34.00	343	37.99	42.99	9.90
Duchesne R nr Tabiona (2)	APR-JUL	168	191	205	195	225	235	105
	JUN-JUL	121	144	160	267	177	190	60
Upper Stillwater Reservoir Inflow (2	APR-JUL	119	132	142	173	152	167	82
	JUN-JUL	107	120	130	232	140	155	56
Rock Ck nr Mountain Home (2)	APR-JUL	132	147	157	176	168	185	89
	JUN-JUL	115	130	140	226	151	168	62
Duchesne R ab Knight Diversion (2)	APR-JUL	310	335	360	192	390	430	188
	JUN-JUL	250	275	300	256	330	370	117
Strawberry R nr Soldier Springs (2)	APR-JUL	122	132	139	236	147	159	59
	JUN-JUL	32	42	49	306	57	69	16.0
Currant Ck Reservoir Inflow (2)	APR-JUL	47	52	56	224	60	66	25
	JUN-JUL	21	26	30	254	34	40	11.8
Strawberry R nr Duchesne (2)	APR-JUL	255	275	295	244	310	335	121
	JUN-JUL	83	104	120	293	137	163	41
Lake Fork R ab Moon Lake Reservoir	APR-JUL	106	118	126	185	135	148	68
	JUN-JUL	90	102	110	234	119	132	47
Yellowstone R nr Altonah	APR-JUL	97	107	115	186	123	135	62
	JUN-JUL	82	92	100	222	108	120	45
Duchesne R at Myton (2)	APR-JUL	580	630	690	265	755	835	260
	JUN-JUL	365	415	475	335	540	620	142
Uinta R bl Powerplant Diversion nr N	APR-JUL	123	135	143	181	151	163	79
	JUN-JUL	110	122	130	228	138	150	57
Whiterocks R nr Whiterocks	APR-JUL	66	76	83	148	90	102	56
	JUN-JUL	53	63	70	184	77	89	38
Duchesne R nr Randlett (2)	APR-JUL	705	810	890	275	975	1110	324
	JUN-JUL	475	580	660	355	745	880	186

UINTAH BASIN & DAGGET SCD'S
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
FLAMING GORGE	3749.0	3130.0	3191.0	3040.0
MOON LAKE	49.5	4.7	6.8	29.9
RED FLEET	25.7	21.5	25.1	22.4
STEINAKER	33.4	30.0	31.2	27.6
STARVATION	165.3	128.9	157.1	147.6
STRAWBERRY-ENLARGED	1105.9	1045.5	997.0	702.5

UINTAH BASIN & DAGGET SCD'S
Watershed Snowpack Analysis - June 1, 2011

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
UPPER GREEN RIVER in UTAH	6	298	304
ASHLEY CREEK	2	0	62
BLACK'S FORK RIVER	2	221	324
SHEEP CREEK	1	925	0
DUCHESNE RIVER	11	437	399
LAKE FORK-YELLOWSTONE CRE	4	382	376
STRAWBERRY RIVER	4	0	843
UINTAH-WHITEROCKS RIVERS	2	803	482
UINTAH BASIN & DAGGET SCD	17	391	376

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

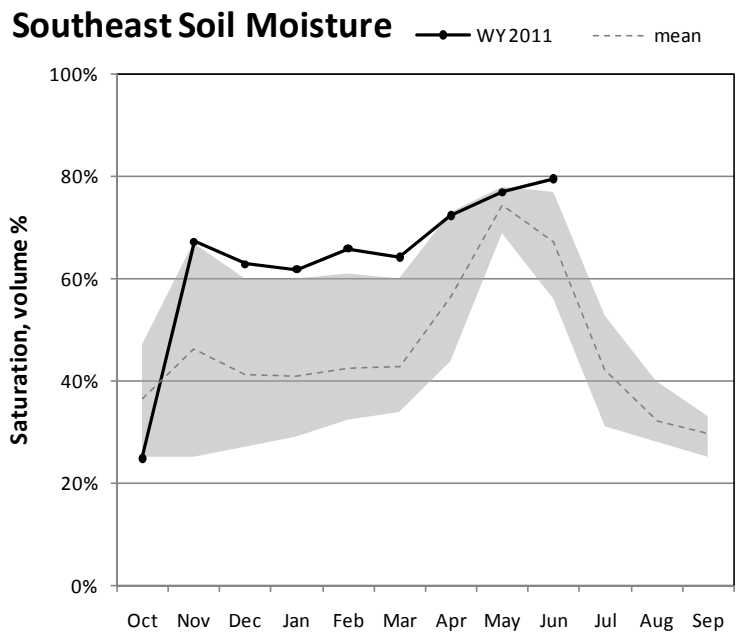
The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.
(3) - Median value used in place of average.

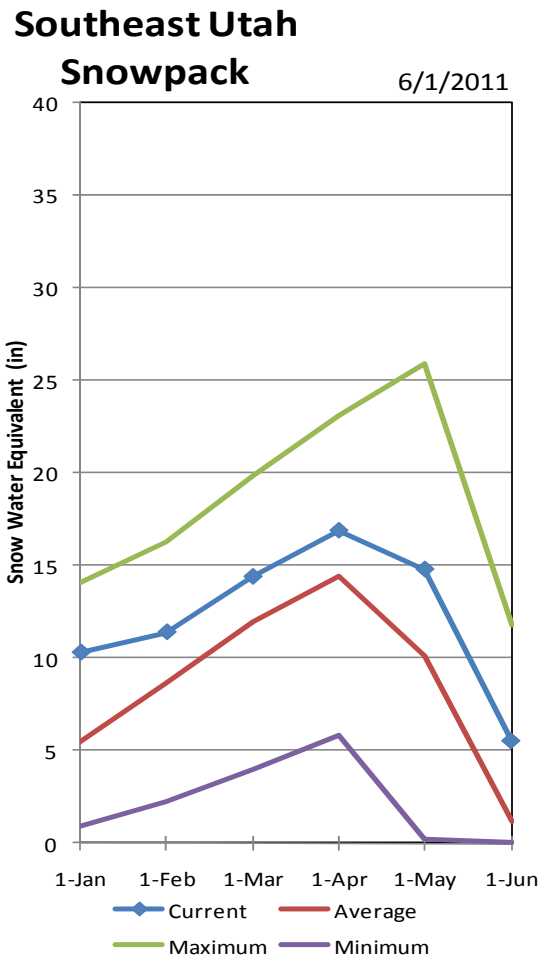
Southeast - Carbon, Emery, Wayne, Grand and San Juan Counties

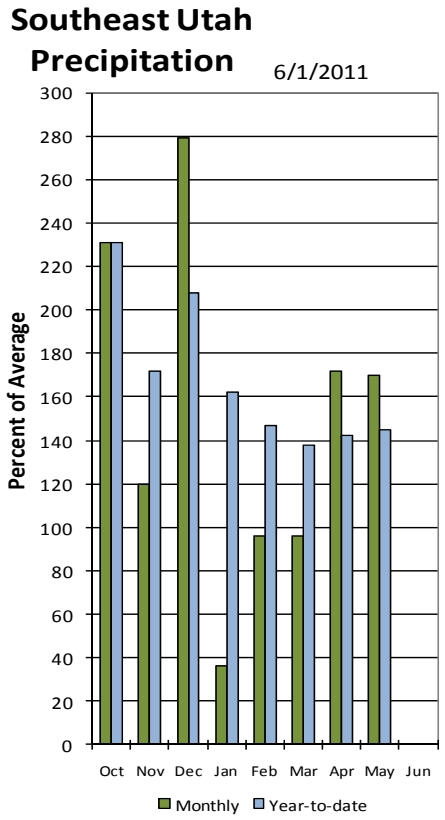
June 1, 2011

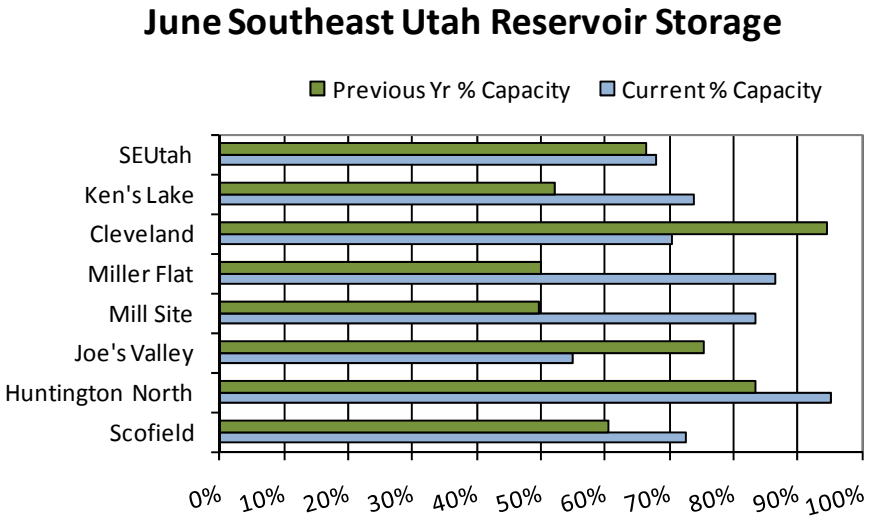
Snowpacks in this region are much above normal at 362% of average, about 677% of last year. Precipitation during May was much above average at 170%, bringing the seasonal accumulation (Oct-May) to 145% of normal. Soil moisture estimates in runoff producing areas are at 79% of saturation in the upper 2 feet of soil, compared to 72% last year at this time. Forecast streamflows (May-July) range from 33% to 348% of average. Reservoir storage is at 68% of capacity, 2% higher than last year at this time. Surface Water Supply Indices for the area are: Price 58%, Joe's Valley 92%, Ferron Creek 70%, and Moab 72%. General runoff and water supply conditions are much above average in Joe's Valley and Moab areas, above average in Ferron Creek, and average in the Price area.



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.







Carbon, Emery, Wayne Grand & San Juan Basins

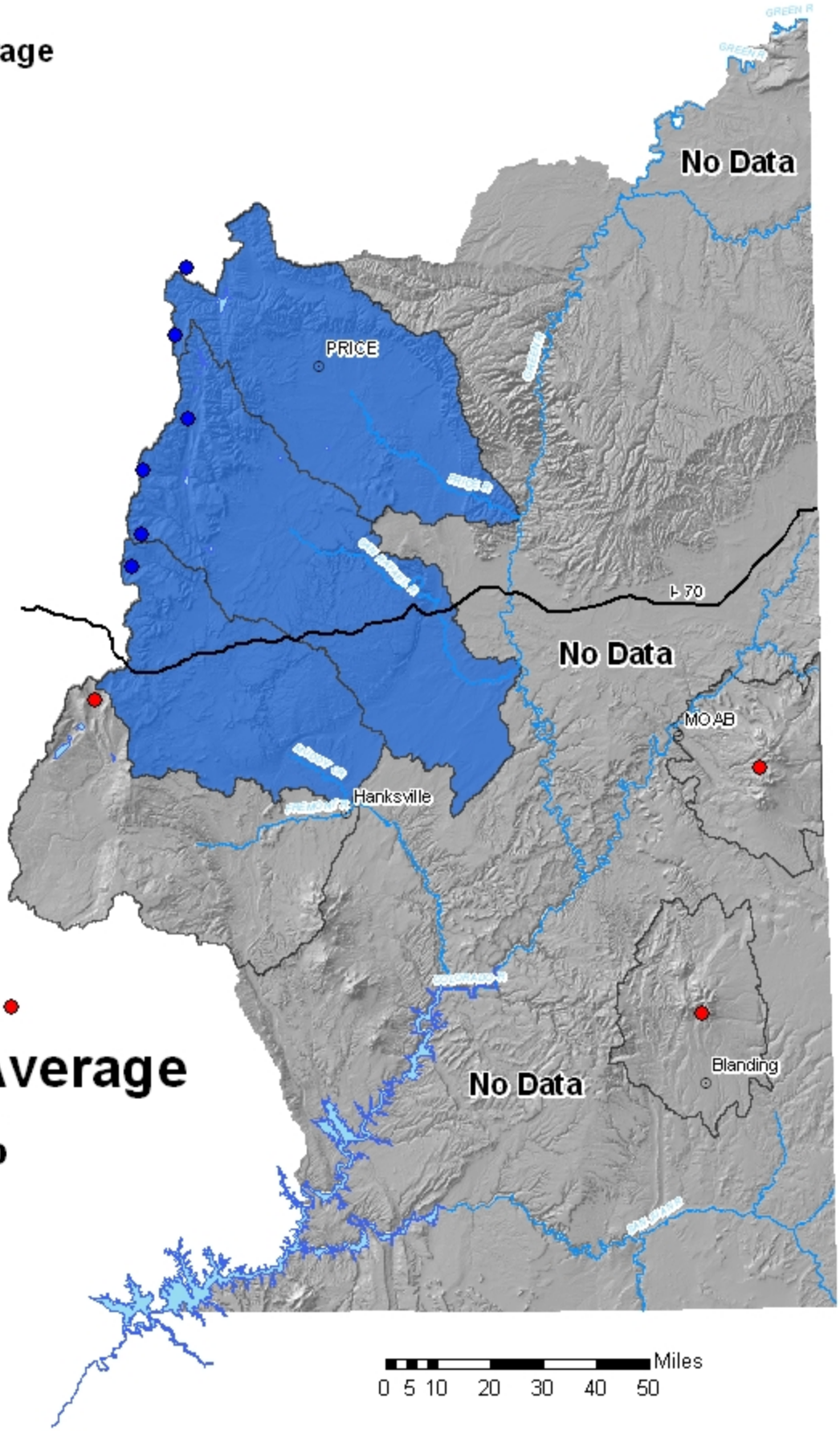
N

Watershed % of Average

- 0
- <50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- >150%

Snotel % of Average

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



Basinwide Average
442%

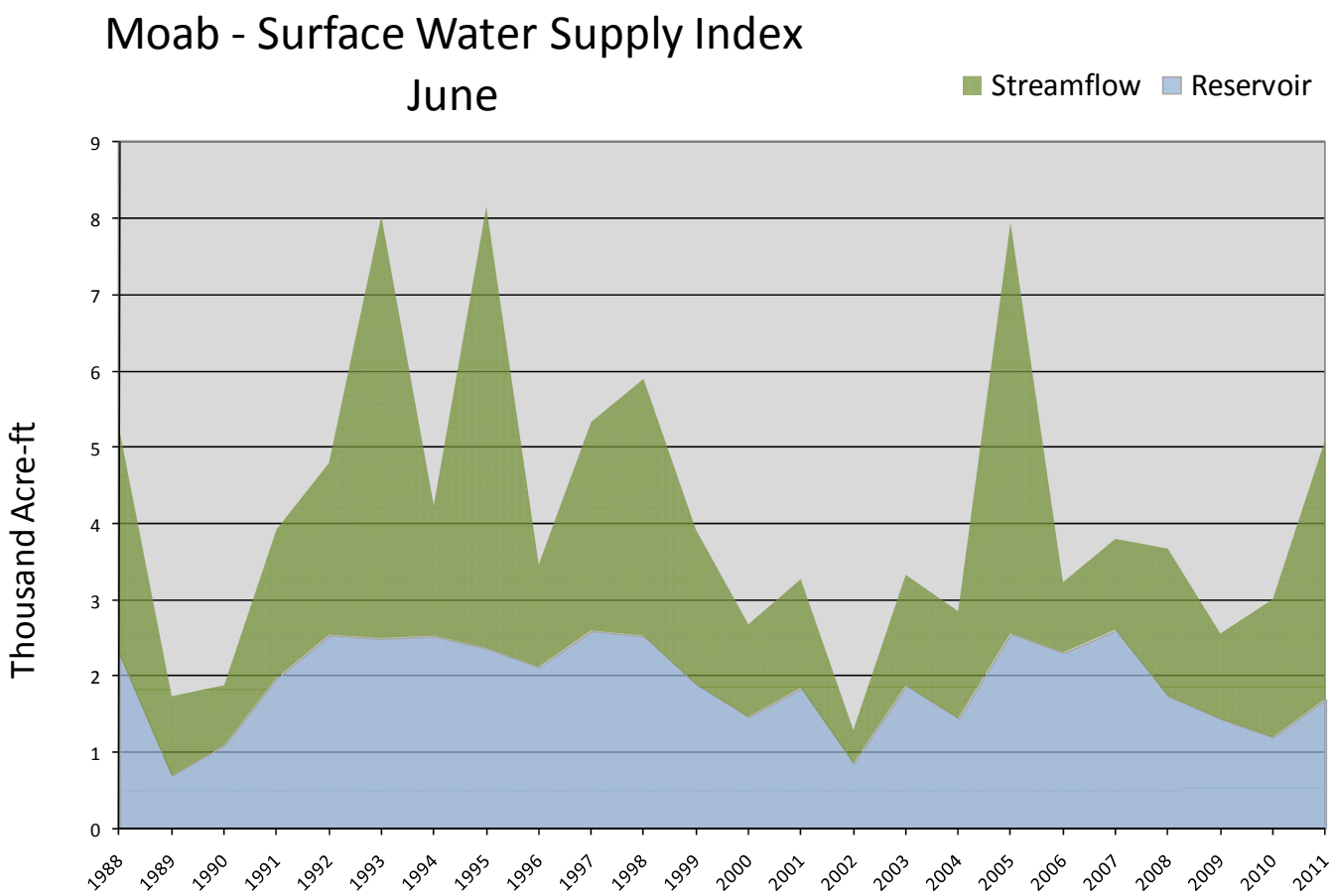
Provisional Data
Subject to Revision

June 1, 2011

Surface Water Supply Index

Basin or Region	May EOM* Ken's Lake Reservoir	June-July Forecast Mill Creek at Sheley	Reservoir + Streamflow	SWSI#	Percentile	Years with similar SWSI
	*KAF^*	*KAF*	*KAF*		*%*	
Moab	**1.7**	**3.4**	**5.1**	**1.83**	**72**	**94, 92, 88, 97**

**EOM, end of month; # SWSI, Surface Water Supply Index; ^KAF, thousand acre-feet.*

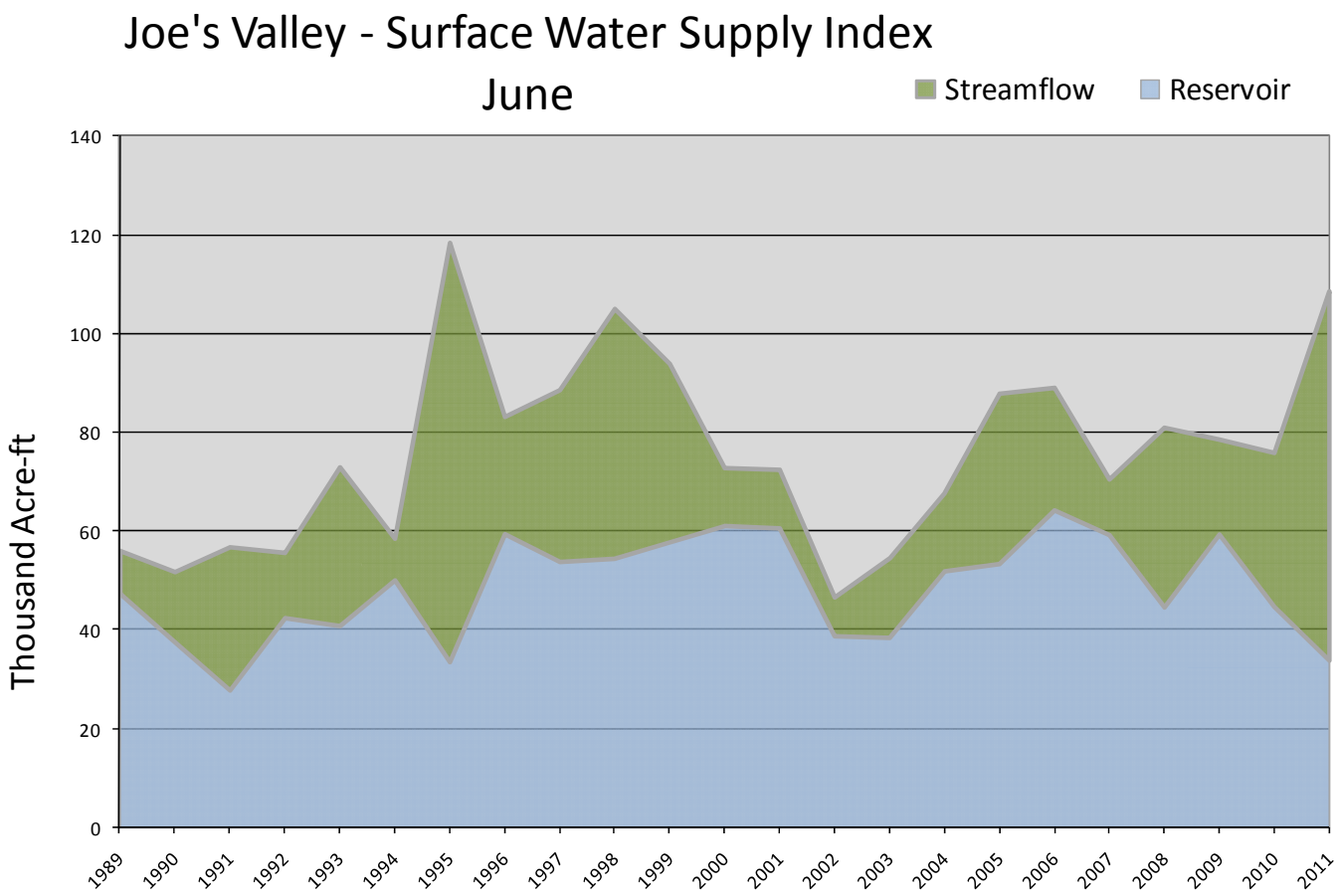


June 1, 2011

Surface Water Supply Index

Basin or Region	May EOM* Joe's Valley	June-July Forecast Inflow to Joe's Valley	Reservoir + Streamflow	SWSI#	Percentile	Years with similar SWSI
	*KAF^*	*KAF*	*KAF*		*%*	
Joe's Valley	**33.8**	**75.0**	**108.8**	**3.47**	**92**	**06, 99, 98, 95**

**EOM, end of month; # SWSI, Surface Water Supply Index; ^KAF, thousand acre-feet.*

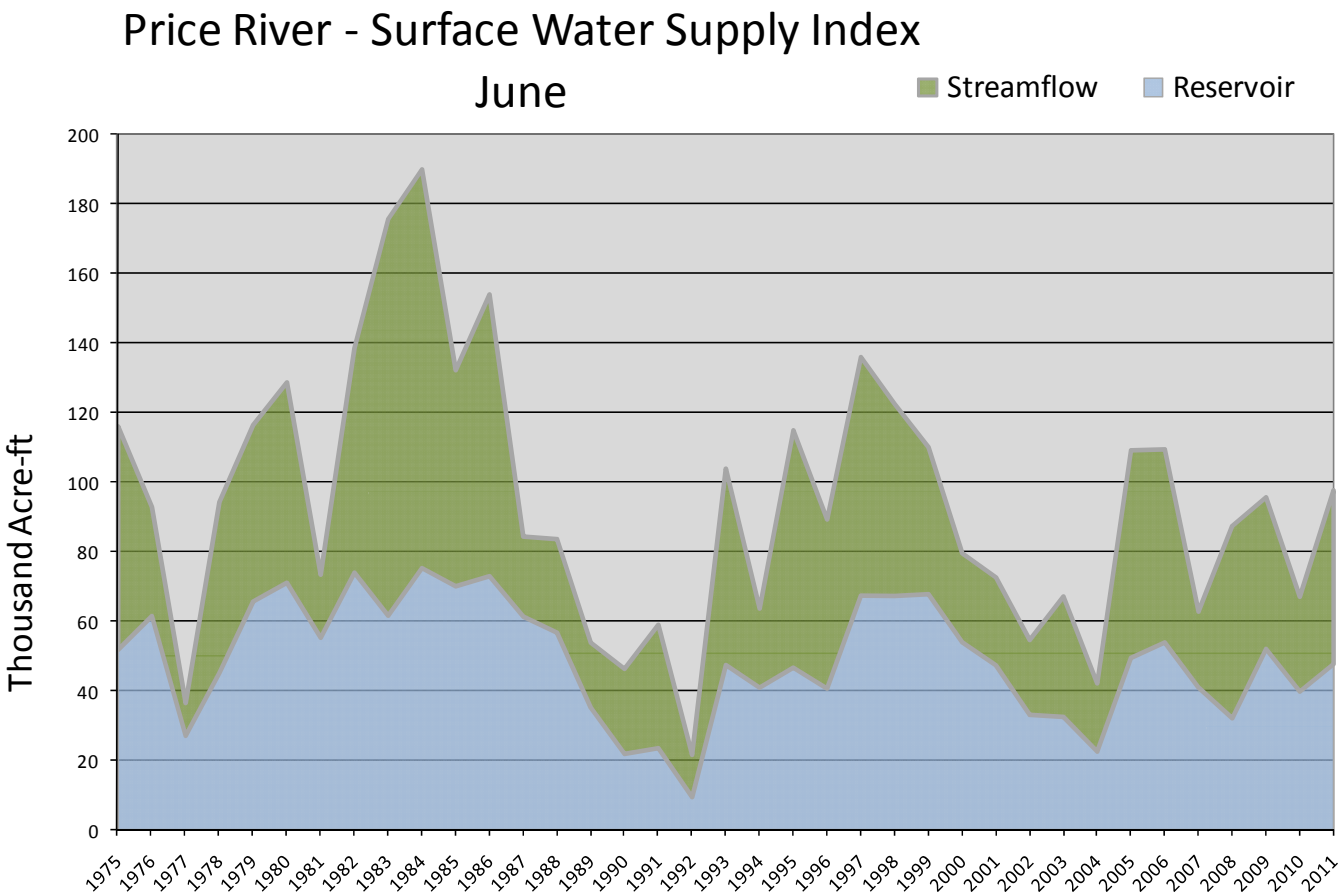


June 1, 2011

Surface Water Supply Index

Basin or Region	May EOM* Scofield Reservoir	June-July Forecast Scofield	Reservoir + Streamflow	SWSI#	Percentile	Years with similar SWSI
	*KAF^*	*KAF*	*KAF*		*%*	
Price River	**47.8**	**50.0**	**97.8**	**0.66**	**58**	**78, 09, 93, 05**

**EOM, end of month; # SWSI, Surface Water Supply Index; ^KAF, thousand acre-feet.*

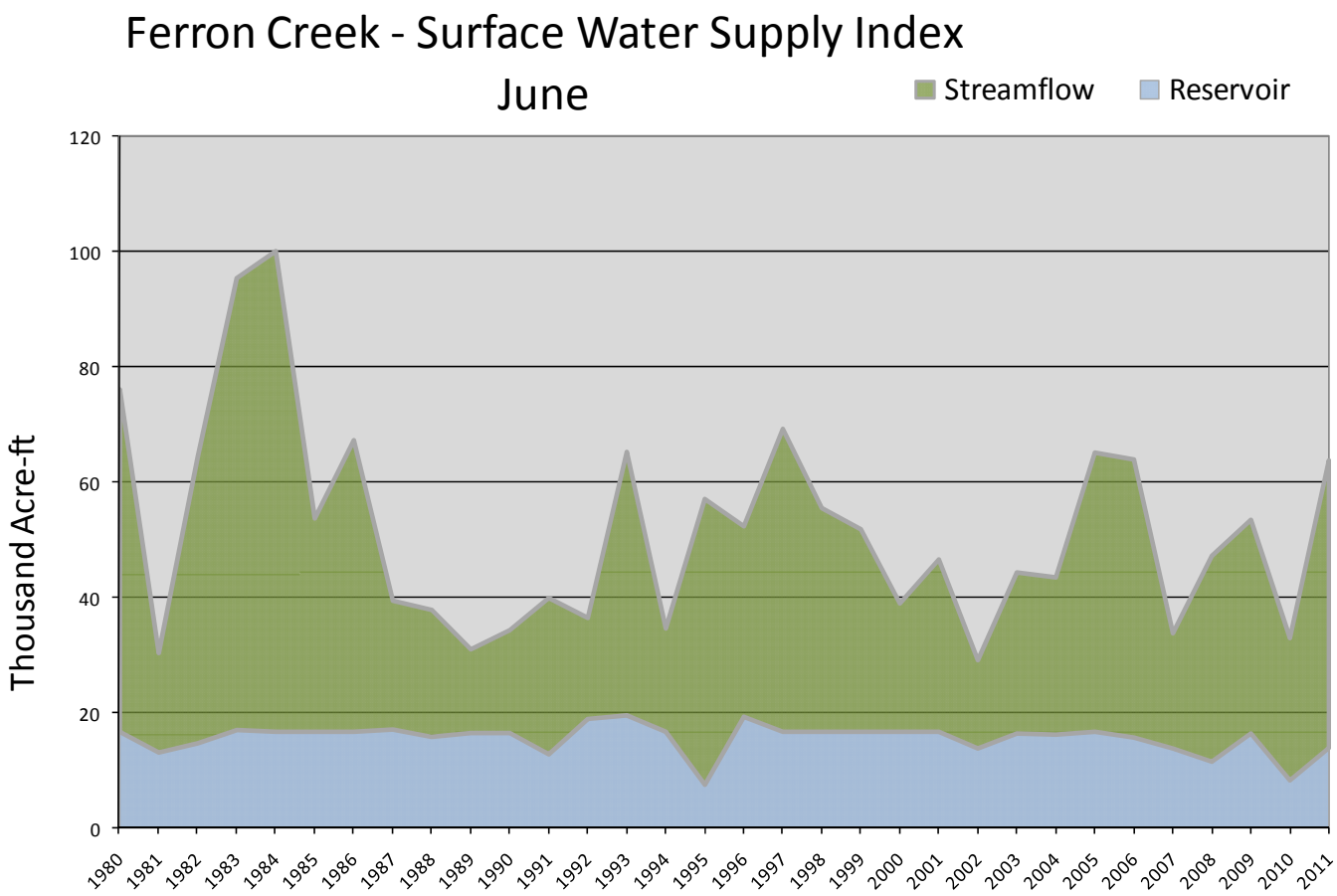


June 1, 2011

Surface Water Supply Index

Basin or Region	May EOM* Millsite Reservoir	June-July Forecast Ferron creek	Reservoir + Streamflow	SWSI#	Percentile	Years with similar SWSI
	*KAF^*	*KAF*	*KAF*		*%*	
Ferron Creek	**13.9**	**50.0**	**63.9**	**1.64**	**70**	**98, 95, 06, 82**

**EOM, end of month; # SWSI, Surface Water Supply Index; ^KAF, thousand acre-feet.*



CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co. as of June 1, 2011

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.
Streamflow Forecasts - June 1, 2011

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Fish Creek ab Reservoir nr Scofield	APR-JUL	62	66	68	212	70	74	32
	JUN-JUL	34	38	40	348	42	46	11.5
Price R nr Scofield Reservoir (2)	APR-JUL	73	82	88	196	95	107	45
	JUN-JUL	35	44	50	294	57	69	17.0
White R bl Tabbyune Ck	APR-JUL	33	34	36	208	37	39	17.3
	JUN-JUL	6.50	7.90	9.00	216	10.20	12.00	4.16
Green R at Green River, UT (2)	APR-JUL	5550	5980	6290	198	6610	7100	3170
	JUN-JUL	3660	4090	4400	257	4720	5210	1710
Electric Lake Inflow (2)	APR-JUL	25	27	29	185	31	33	15.7
	JUN-JUL	16.20	18.40	20.00	348	22.00	24.00	5.75
Huntington Ck nr Huntington (2)	APR-JUL	77	83	87	178	91	98	49
	JUN-JUL	55	61	65	250	69	76	26
Joe's Valley Reservoir Inflow (2)	APR-JUL	75	87	95	164	104	118	58
	JUN-JUL	55	67	75	214	84	98	35
Ferron Ck (Upper Station) nr Ferron	APR-JUL	55	60	64	164	68	73	39
	JUN-JUL	41	46	50	217	54	59	23
Seven Mile Ck nr Fish Lake	APR-JUL	9.00	10.30	11.20	160	12.10	13.40	7.00
	JUN-JUL	5.30	6.60	7.50	242	8.40	9.70	3.10
Colorado R nr Cisco	APR-JUL	5970	6340	6600	142	6870	7280	4650
	JUN-JUL	3900	4270	4530	178	4800	5210	2550
Mill Ck at Sheley Tunnel nr Moab	APR-JUL	4.40	4.90	5.30	106	5.70	6.40	5.00
	JUN-JUL	2.50	3.00	3.40	136	3.80	4.50	2.50
Muddy Ck nr Emery	APR-JUL	28	32	35	176	38	42	19.9
	JUN-JUL	19.9	23	26	219	29	33	11.9
Pine Ck nr Escalante	APR-JUL	2.90	3.20	3.40	142	3.60	4.00	2.40
	JUN-JUL	0.39	0.63	0.82	87	1.04	1.40	0.94
South Ck ab Lloyd's Reservoir nr Mon	MAR-JUL	0.37	0.41	0.44	32	0.48	0.56	1.38
	JUN-JUL	0.04	0.08	0.11	33	0.15	0.23	0.33
San Juan R nr Bluff (2)	APR-JUL	815	895	950	77	1010	1110	1230
	JUN-JUL	440	520	575	103	635	730	560

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HUNTINGTON NORTH	4.2	4.0	3.5	3.9
JOE'S VALLEY	61.6	33.8	46.5	51.4
KEN'S LAKE	2.3	1.7	1.2	2.0
MILL SITE	16.7	13.9	8.3	15.5
SCOFIELD	65.8	47.8	39.9	53.7

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.
Watershed Snowpack Analysis - June 1, 2011

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
PRICE RIVER	3	0	660
SAN RAFAEL RIVER	3	626	420
MUDDY CREEK	1	0	620
FREMONT RIVER	3	0	0
LASAL MOUNTAINS	1	0	0
BLUE MOUNTAINS	1	0	0
WILLOW CREEK	1	0	0
SOUTHEASTERN UTAH	13	1143	444

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

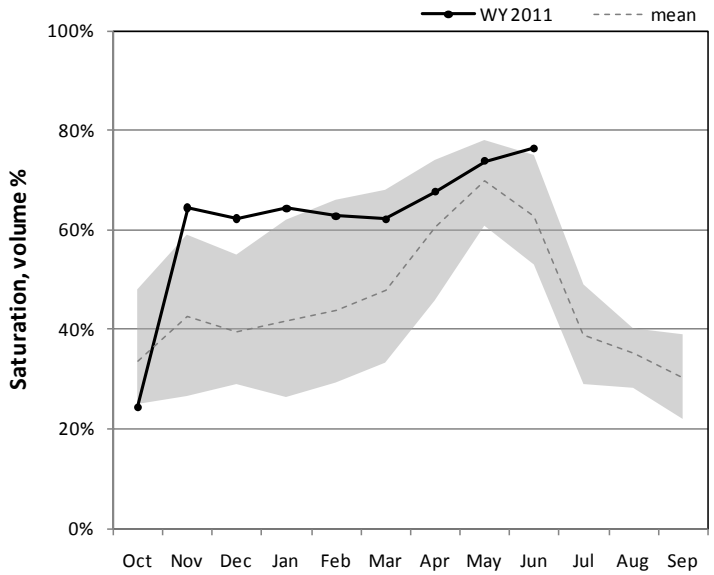
The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.
(3) - Median value used in place of average.

Sevier and Beaver River Basins
June 1, 2011

Snowpack on the Sevier River Basin is much above normal at 327% of average, 285% more than last year. Individual sites range from 0% at many sites to 836% of average at Box Creek. Precipitation during May was much above average at 194% of normal, bringing the seasonal accumulation (Oct-May) to 158% of average. Soil moisture estimates in runoff producing areas are at 76% of saturation in the upper 2 feet of soil compared to 71% last year. Streamflow forecasts range from 170% to 449% of average. Reservoir storage is at 90% of capacity, 37% more than last year. Surface Water Supply Indices are: Upper Sevier 95%, Lower Sevier 92% and Beaver 92%. Water supply conditions are much above average on the Sevier, and the Beaver River watersheds.

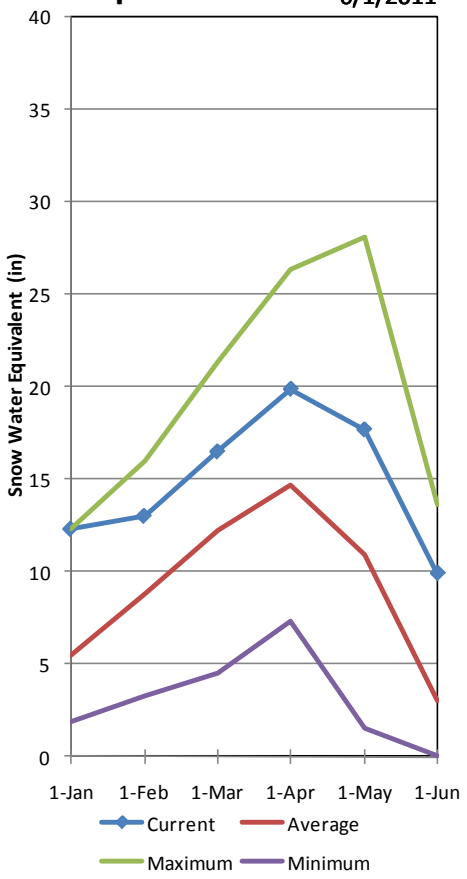
Sevier / Beaver River Soil Moisture



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.

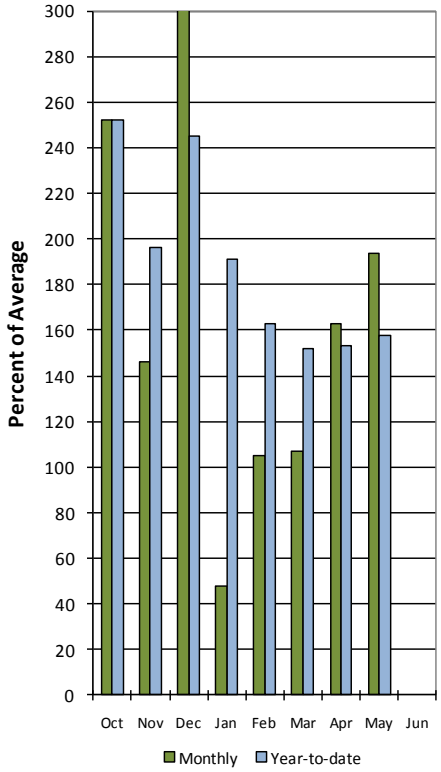
Sevier River Snowpack

6/1/2011

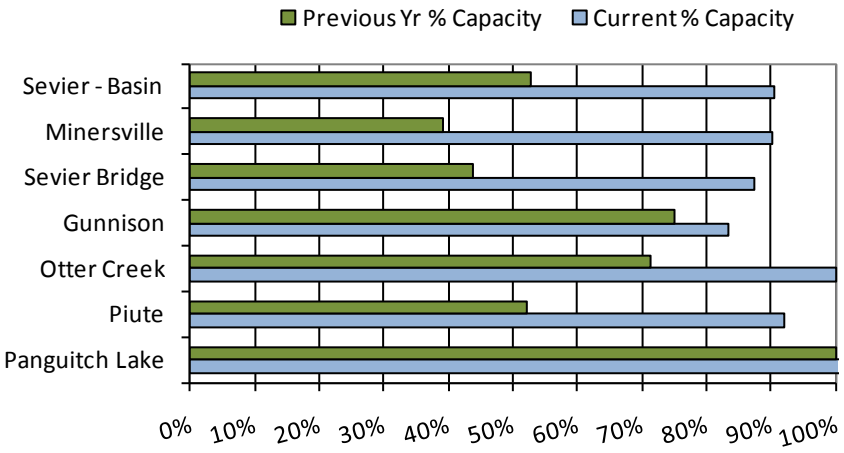


Sevier River Precipitation

6/1/2011

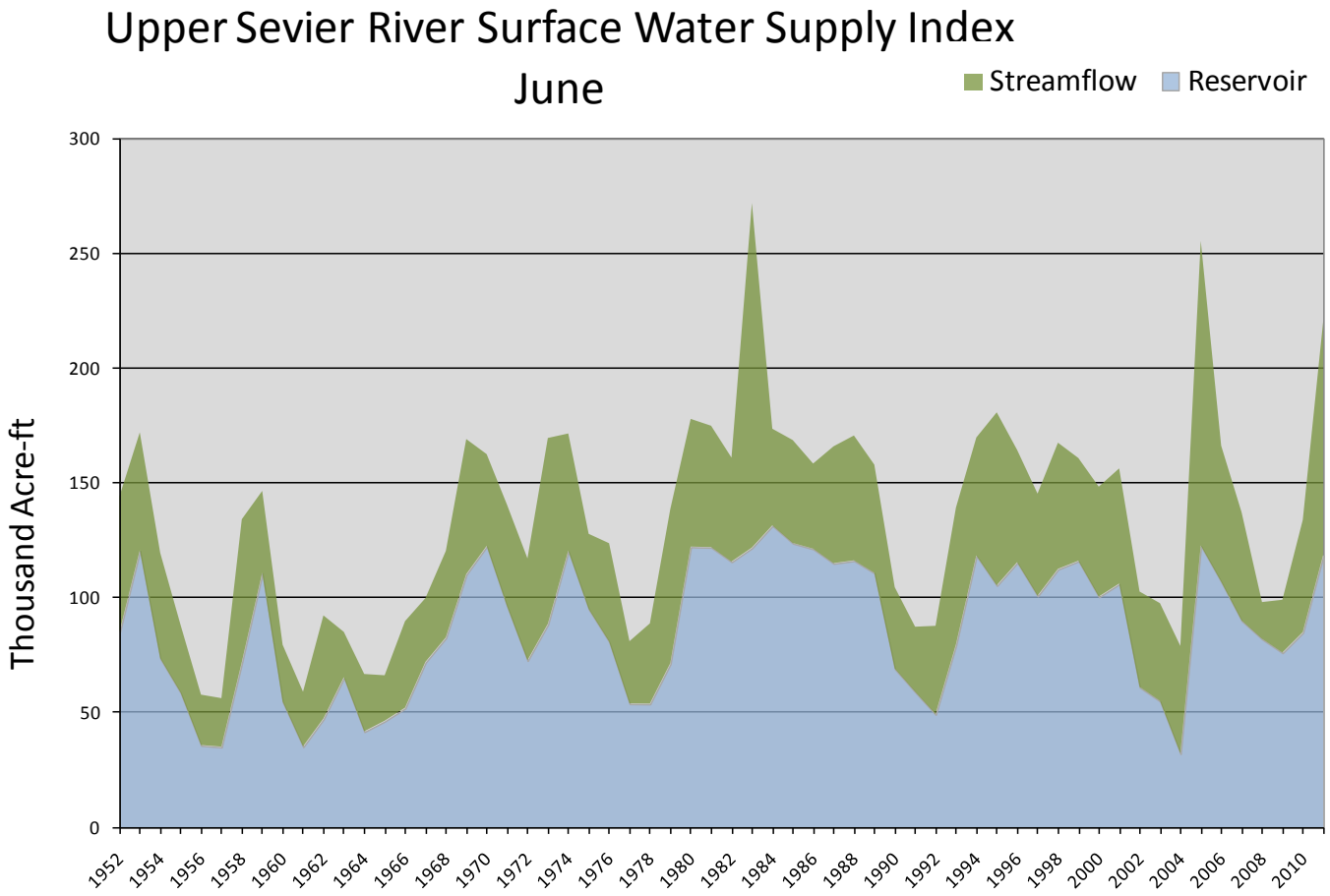


June Sevier River Reservoir Storage



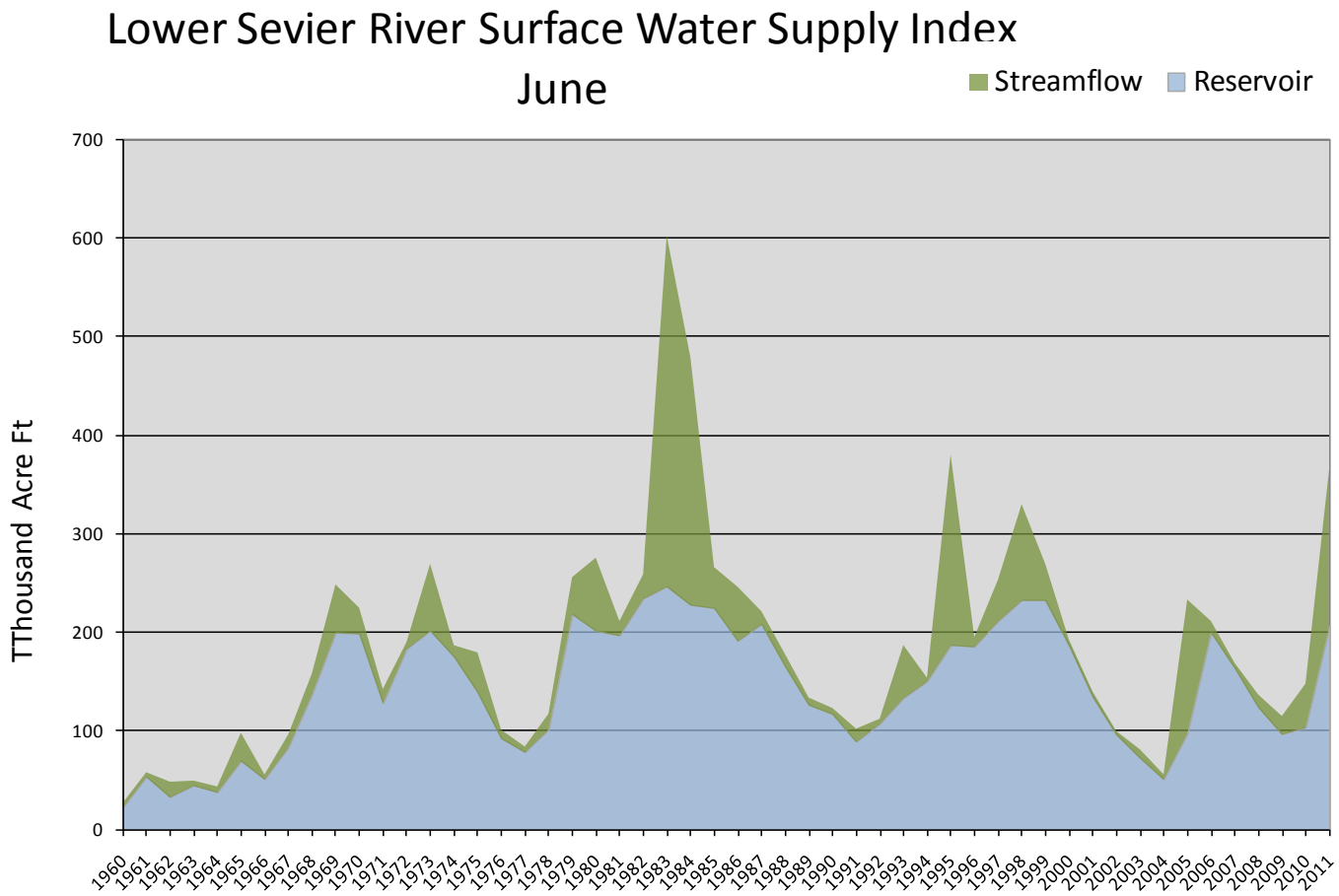
June 1, 2011	**Upper Sevier Surface Water Supply Index**					
Basin or Region	May EOM* Piute & Otter Creek Reservoir	June-July Forecast Inflow to Piute Reservoir	Reservoir + Streamflow	SWSI#	Percentile	Years with similar SWSI
	*KAF^*	*KAF*	*KAF*		*%*	
Upper Sevier	**118.6**	**102**	**221**	**3.76**	**95**	**70,88,87,95**

**EOM, end of month; # SWSI, Surface Water Supply Index; ^KAF, thousand acre-feet.*



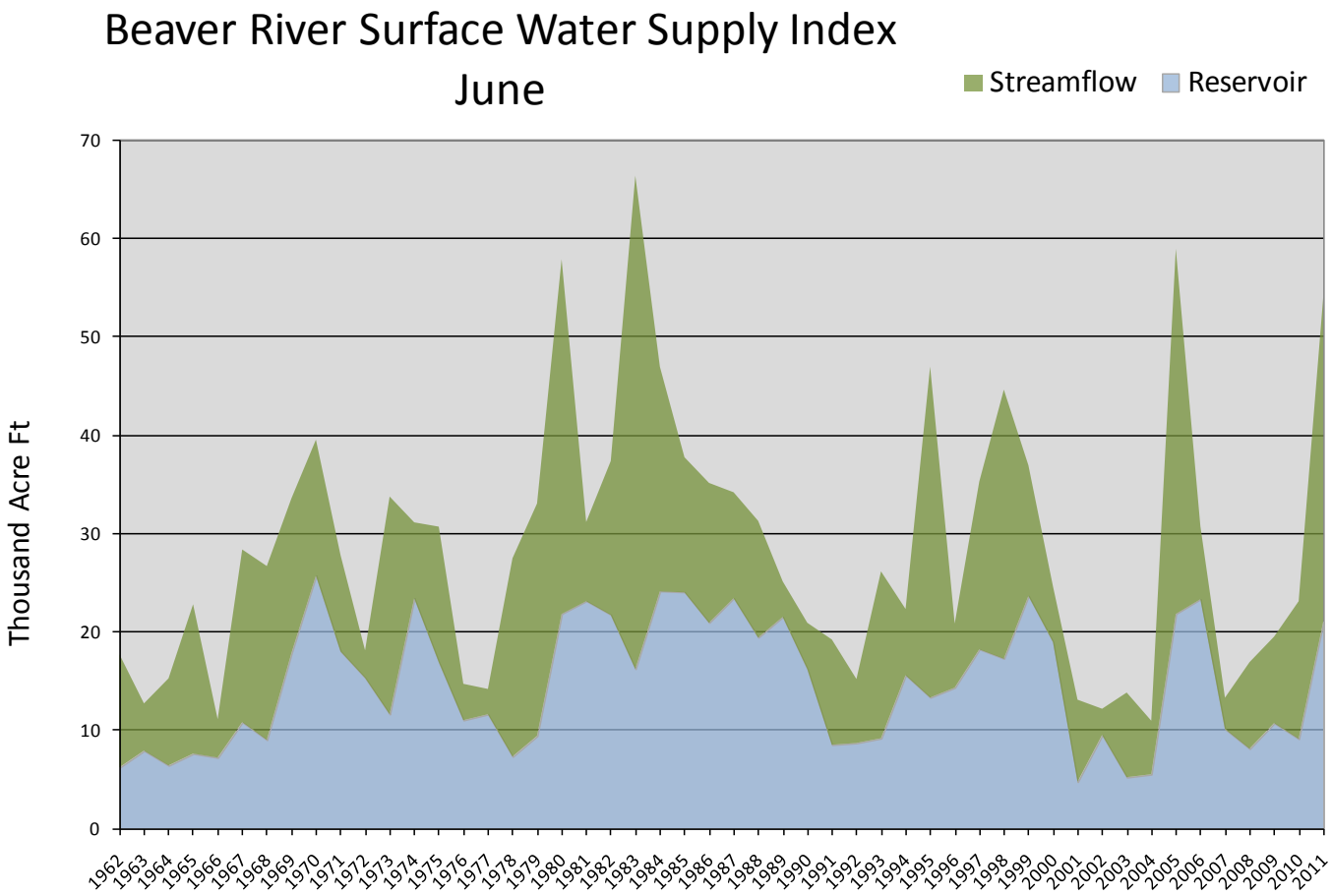
June 1, 2011	**Lower Sevier Surface Water Supply Index**					
Basin or Region	May EOM* Sevier Bridge Reservoir	June-July Forecast Inflow to Sevier Bridge Reservoir	Reservoir + Streamflow	SWSI#	Percentile	Years with similar SWSI
	*KAF^*	*KAF*	*KAF*		*%*	
Lower Sevier	**205.9**	**160**	**366**	**3.54**	**92**	**80,98,95,84**

**EOM, end of month; # SWSI, Surface Water Supply Index; ^KAF, thousand acre-feet.*



June 1, 2011		**Beaver Surface Water Supply Index**				
Basin or Region	May EOM* Minersville Reservoir	June-July forecast Beaver River at Beaver	Reservoir + Streamflow	SWSI#	Percentile	Years with similar SWSI
	*KAF^*	*KAF*	*KAF*		*%*	
Beaver	**21.0**	**33.0**	**54.0**	**3.51**	**92**	**84,95,80,05**

**EOM, end of month; # SWSI, Surface Water Supply Index; ^KAF, thousand acre-feet.*



SEVIER & BEAVER RIVER BASINS as of June 1, 2011

SEVIER & BEAVER RIVER BASINS
Streamflow Forecasts - June 1, 2011

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Mammoth Ck nr Hatch	APR-JUL	31	49	61	237	73	91	26
	JUN-JUL	10.1	26	37	272	48	64	13.6
Sevier R at Hatch	APR-JUL	129	138	144	262	150	159	55
	JUN-JUL	65	68	70	259	72	75	27
Sevier R nr Kingston	APR-JUL	120	132	140	424	148	160	33
	JUN-JUL	47	56	62	449	68	77	13.8
EF Sevier R nr Kingston	APR-JUL	60	70	77	220	84	94	35
	JUN-JUL	29	35	40	222	45	51	18.0
Sevier R bl Piute Dam	APR-JUL	25	150	225	341	300	405	66
	JUN-JUL	52	80	102	319	127	168	32
Clear Ck ab Diversions nr Sevier	APR-JUL	41	45	48	218	51	55	22
	JUN-JUL	16.50	19.70	22.00	239	24.00	28.00	9.20
Salina Ck nr Emery	APR-JUL	11.80	14.90	17.00	189	19.10	22.00	9.00
	JUN-JUL	10.50	11.20	11.60	305	12.00	12.70	3.80
Salina Ck at Salina	APR-JUL	26	35	42	213	50	62	19.7
	JUN-JUL	7.80	13.00	17.30	270	22.00	30.00	6.40
Manti Ck Blw Dugway Ck Nr Manti	APR-JUL	20	23	25	137	27	30	18.3
	JUN-JUL	12.8	16.0	18.4	170	21	25	10.8
Sevier R nr Gunnison	APR-JUL	285	305	315	297	325	345	106
	JUN-JUL	122	145	160	314	175	198	51
Chicken Ck nr Levan	APR-JUL	5.80	6.40	6.90	153	7.40	8.11	4.50
	JUN-JUL	1.48	2.10	2.50	202	3.00	3.80	1.24
Oak Creek nr Oak City	APR-JUL	1.75	2.00	2.20	133	2.40	2.70	1.66
	JUN-JUL	0.38	0.55	0.68	219	0.83	1.07	0.31
Beaver R nr Beaver	APR-JUL	38	45	50	185	55	62	27
	JUN-JUL	18.9	26	33	225	41	58	14.7
Minersville Res Inflow	APR-JUL	19.2	27	34	205	42	55	16.6
	JUN-JUL	15.40	21.00	26.00	277	31.00	39.00	9.40

SEVIER & BEAVER RIVER BASINS
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
GUNNISON	20.3	16.9	15.2	15.2
MINERSVILLE (RkyFd)	23.3	21.0	9.1	16.4
OTTER CREEK	52.5	52.5	37.4	46.2
PIUTE	71.8	66.1	37.5	52.6
SEVIER BRIDGE	236.0	205.9	103.6	170.7
PANGUITCH LAKE	22.3	22.8	22.3	183.5

SEVIER & BEAVER RIVER BASINS
Watershed Snowpack Analysis - June 1, 2011

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
UPPER SEVIER RIVER	8	359	414
EAST FORK SEVIER RIVER	3	0	557
SOUTH FORK SEVIER RIVER	5	254	388
LOWER SEVIER RIVER	6	407	360
BEAVER RIVER	2	162	214
SEVIER & BEAVER RIVER BAS	16	295	325

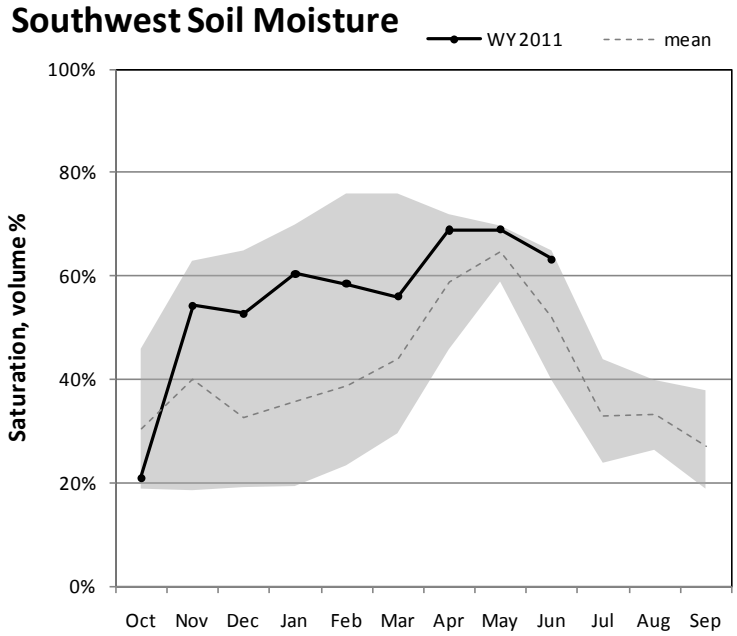
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

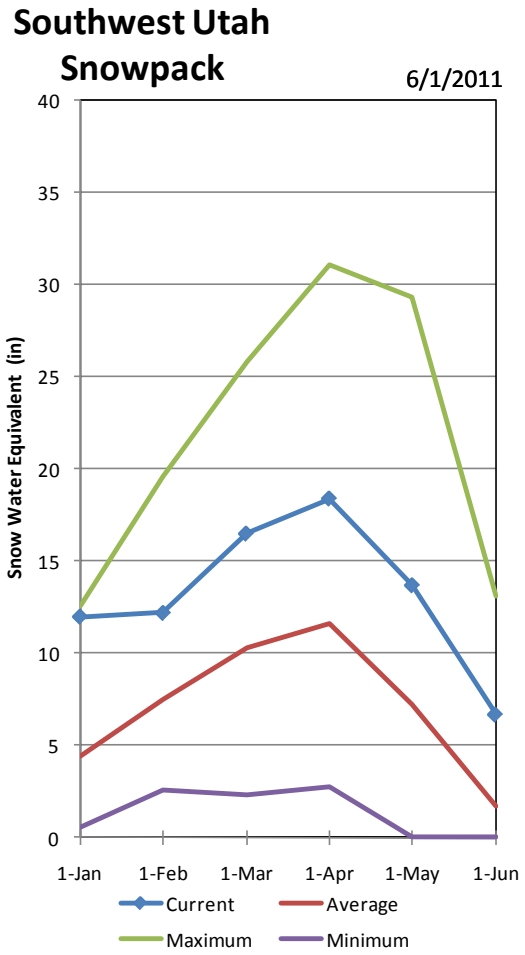
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.
(3) - Median value used in place of average.

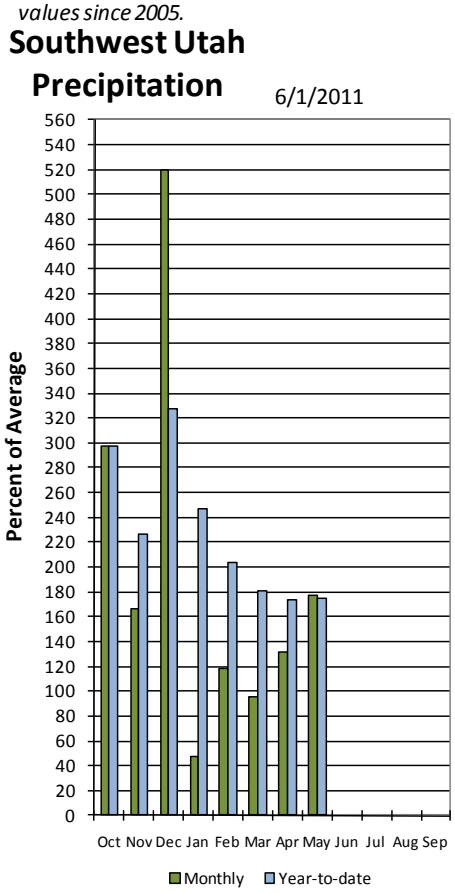
E. Garfield, Kane, Washington, & Iron Co.
June 1, 2011

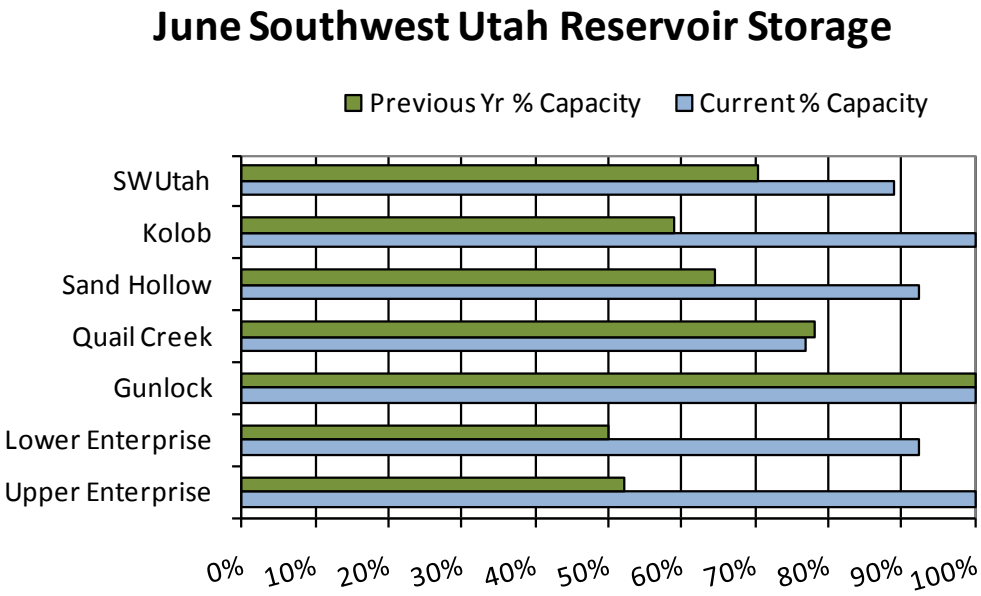
Snowpacks in this region are much above normal at 400% of average, which is 260% of last year. Although most sites have melted off, Kolob and Midway Valley Snotel sites are holding significant snow packs. May precipitation was much above average at 178%, bringing the seasonal accumulation (Oct-May) to 175% of average. The average soil moisture estimate in runoff producing areas is at 63% of saturation within the upper 2 feet of soil, compared to 60% last year. Forecast streamflows (June–July) range from 200% to 277% of average. Reservoir storage is at 89% of capacity, 19% higher than last year at this time. The Surface Water Supply Index is at 85%, indicating much above average water supply conditions.



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.







E. Garfield, Kane, Washington & Iron County

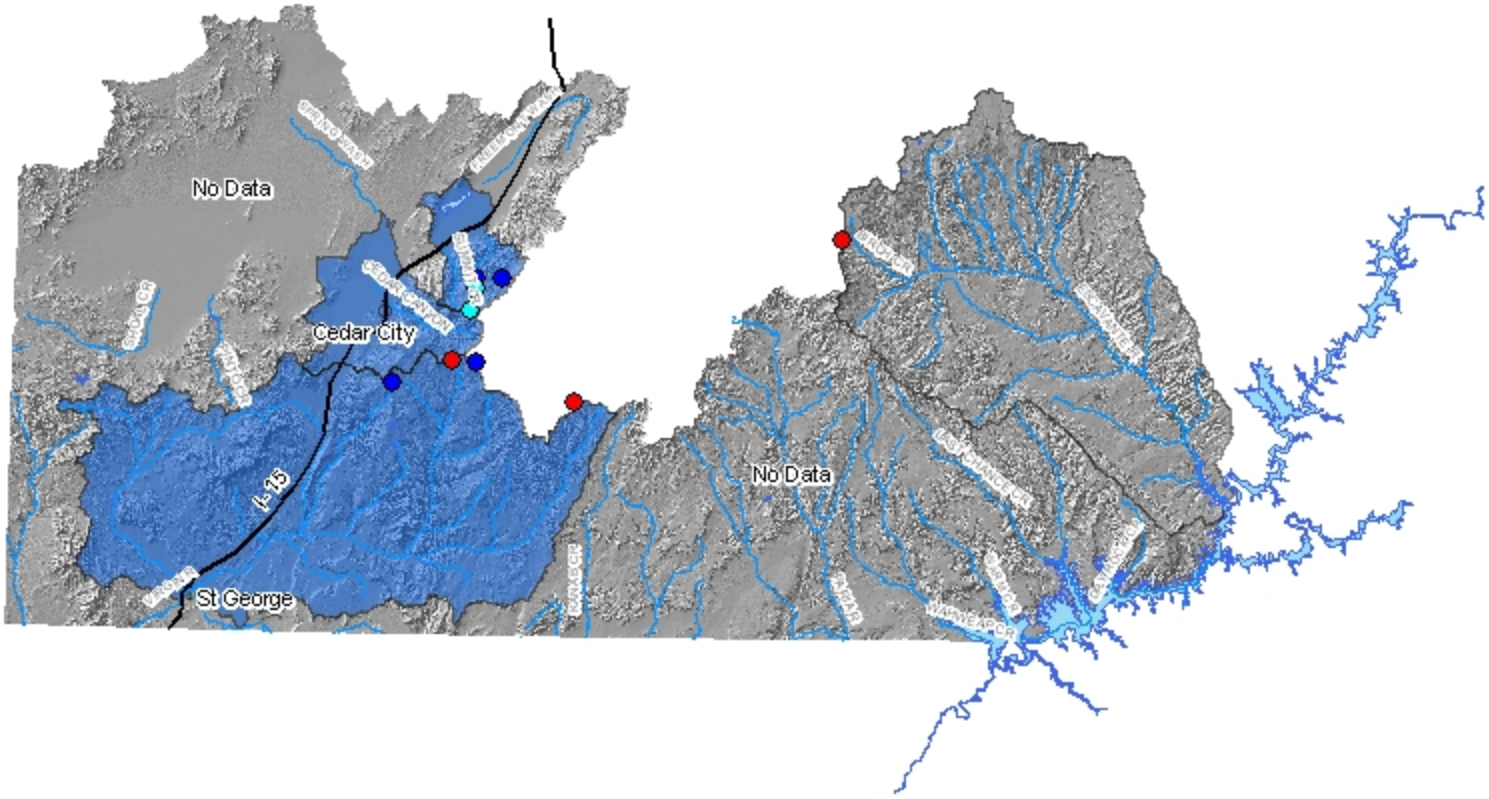
Watershed % of Average

- 0
- <50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- >150%

Snotel % of Average

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

N



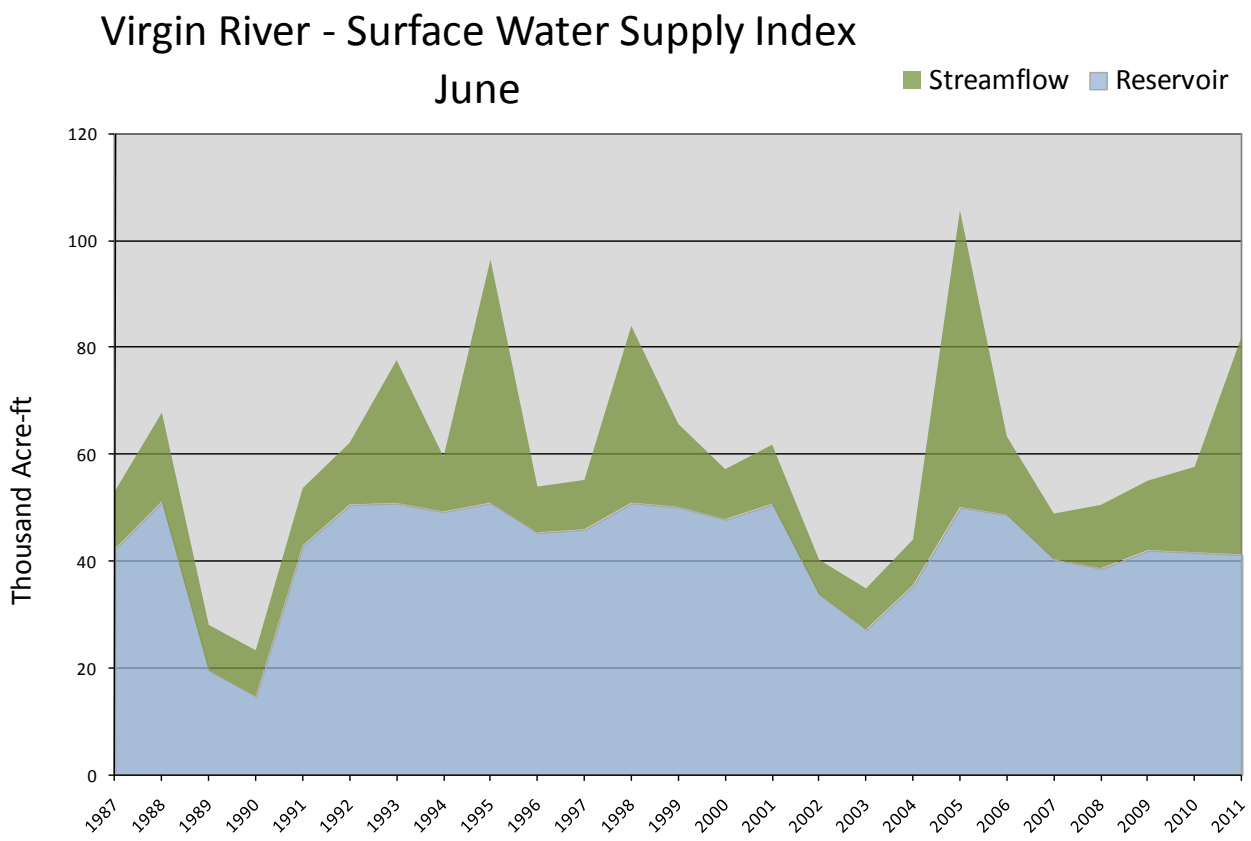
Basin Average
390%

Provisional Data
Subject to Revision

Miles
0 5 10 20 30 40 50

June 1, 2011	**Surface Water Supply Index**					
Basin or Region	May EOM* Quail Creek and Gunlock Reservoirs	June-July forecast Virgin and Santa Clara Rivers	Reservoir + Streamflow	SWSI#	Percentile	Years with similar SWSI
	*KAF^*	*KAF*	*KAF*		*%*	
Virgin River	**41.2**	**41**	**82**	**2.88**	**85**	**88,93,98,95**

**EOM, end of month; # SWSI, Surface Water Supply Index; ^KAF, thousand acre-feet.*



E. GARFIELD, KANE, WASHINGTON, & IRON Co.
Streamflow Forecasts - June 1, 2011

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Lake Powell Inflow (2)	APR-JUL	11000	11900	12600	159	13300	14400	7930
	JUN-JUL	7800	8730	9400	203	10100	11200	4640
Virgin R at Virgin	APR-JUL	148	151	153	239	155	159	64
	JUN-JUL	31	34	36	220	38	42	16.4
Virgin R nr Hurricane	APR-JUL	155	160	163	236	167	172	69
	JUN-JUL	33	38	41	227	45	50	18.1
Santa Clara R nr Pine Valley	APR-JUL	9.50	10.10	10.50	191	10.90	11.60	5.50
	JUN-JUL	3.80	4.40	4.80	200	5.20	5.90	2.40
Coal Ck nr Cedar City	APR-JUL	39	41	42	218	43	45	19.3
	JUN-JUL	13.60	16.20	18.00	277	19.80	22.00	6.50

E. GARFIELD, KANE, WASHINGTON, & IRON Co.
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
GUNLOCK	10.4	10.4	10.4	---
LAKE POWELL	24322.0	13958.0	14463.0	---
QUAIL CREEK	40.0	30.8	31.2	29.6
UPPER ENTERPRISE	10.0	10.0	5.2	---
LOWER ENTERPRISE	2.6	2.4	1.3	---

E. GARFIELD, KANE, WASHINGTON, & IRON Co.
Watershed Snowpack Analysis - June 1, 2011

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
VIRGIN RIVER	5	260	420
PAROWAN	2	217	382
ENTERPRISE TO NEW HARMONY	2	0	0
COAL CREEK	2	217	358
ESCALANTE RIVER	2	0	0
SOUTHWESTERN UTAH	9	260	400

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.
(3) - Median value used in place of average.

DATA CURRENT AS OF:06/03/11 14:34:31

S N O W C O U R S E D A T A

JUNE 2011

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
AGUA CANYON SNOTEL	8900	6/01	0	.0	.0	.0
ALTA CENTRAL	8800	5/26	131	65.1	31.4	14.4
BEAR RIVER RS SNOTEL	8780	6/01	5	.7	-	-
BEAVER DAMS SNOTEL	8000	6/01	0	.0	.0	.1
BEAVER DIVIDE SNOTEL	8280	6/01	13	5.5	.0	.0
BEN LOMOND PK SNOTEL	8000	6/01	81	46.2	6.8	13.0
BEN LOMOND TR SNOTEL	6000	6/01	1	.2	.0	.0
BEVAN'S CABIN	6450				-	-
BIG FLAT SNOTEL	10290	6/01	87	35.2	22.0	16.2
BIRCH CROSSING	8100				-	-
BLACK FLAT-U.M. CK S	9400	6/01	0	.0	.0	.1
BLACK'S FORK GS-EF	9340				-	-
BLACK'S FORK JUNCTN	8930				-	-
BLACKS FORK JCT SNT	8870	6/01	12	5.8	-	-
BOX CREEK SNOTEL	9800	6/01	28	11.7	.0	1.4
BRIAN HEAD	10000				-	-
BRIGHTON SNOTEL	8750	6/01	66	33.4	8.7	5.3
BRIGHTON CABIN	8700	5/26	78	35.7	14.8	6.7
BROWN DUCK SNOTEL	10600	6/01	87	40.3	6.6	13.2
BRYCE CANYON	8000				-	-
BUCK FLAT SNOTEL	9800	6/01	32	14.2	.0	2.8
BUCK PASTURE	9700				-	6.1
BUCKBOARD FLAT	9000				-	-
BUG LAKE SNOTEL	7950	6/01	55	30.3	4.0	2.6
BURT'S-MILLER RANCH	7900				-	-
BURTS-MILLER RANCH S	7860	6/01	0	.0	.0	-
CAMP JACKSON SNOTEL	8600	6/01	0	.0	.0	.2
CASCADE MOUNTAIN SNO	7770	6/01	11	3.2	.0	-
CASTLE VALLEY SNOTEL	9580	6/01	0	.0	.0	.3
CHALK CK #1 SNOTEL	9100	6/01	83	40.5	15.6	12.0
CHALK CK #2 SNOTEL	8200	6/01	47	16.4	.0	.8
CHALK CREEK #3	7500				-	-
CHEPETA SNOTEL	10300	6/01	48	20.0	3.9	3.8
CLAYTON SPRINGS SNTL	10000	6/01	0	.0	.0	-
CLEAR CK RIDG #1 SNT	9200	6/01	31	16.9	.0	2.2
CLEAR CK RIDG #2 SNT	8000	6/01	0	.0	.0	.0
CORRAL	8200				-	-
CURRANT CREEK SNOTEL	8000	6/01	0	.0	.0	.0
DANIELS-STRAWBERRY S	8000	6/01	4	1.7	.0	.1
DILL'S CAMP SNOTEL	9200	6/01	6	3.1	.0	.5
DONKEY RESERVOIR SNO	9800	6/01	0	.0	.0	.0

DRY BREAD POND SNTL	8350	6/01	58	26.6	.0	2.5
DRY FORK SNOTEL	7160	6/01	0	.0	.0	.0
EAST WILLOW CREEK SN	8250	6/01	0	.0	.0	.0

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
EF BLACKS FORK GS SN	9360	6/01	37	16.2	-	-
FARMINGTON U. SNOTEL	8000	6/01	119	62.1	14.7	10.6
FARMINGTON L. SNOTEL	6780	6/01	24	8.7	.0	-
FARNSWORTH LK SNOTEL	9600	6/01	57	24.7	10.6	10.0
FISH LAKE	8700				-	-
FISH LAKE UTAH SNT	8800	6/01	0	.0	-	-
FIVE POINTS LAKE SNO	10920	6/01	82	37.4	13.4	9.0
G.B.R.C. HEADQUARTER	8700				-	-
G.B.R.C. MEADOWS	10000				-	14.1
GARDEN CITY SUMMIT	7600				-	3.3
GARDEN CITY SUMMIT S	7700	6/01	31	13.7	.0	-
GARDNER PEAK SNOTEL	8350	6/01	0	.0	.0	-
GEORGE CREEK	8840				-	-
GEORGE CREEK SNOTEL	9010	6/01	65	30.2	-	-
GOOSEBERRY R.S.	8400				-	-
GOOSEBERRY R.S. SNTL	7900	6/01	0	.0	.0	.0
GUTZ PEAK SNOTEL	6820	6/01	0	.0	.0	-
HARDSCRABBLE SNOTEL	7250	6/01	18	8.4	.0	.0
HARRIS FLAT SNOTEL	7700	6/01	0	.0	.0	.3
HAYDEN FORK SNOTEL	9100	6/01	38	16.1	.0	1.4
HENRY'S FORK	10000				-	4.1
HEWINTA SNOTEL	9500	6/01	28	11.1	.0	.6
HICKERSON PARK SNTL	9100	6/01	0	.0	.0	.0
HIDDEN SPRINGS	5500	5/10	0	0.0	.0	-
HOBBLE CREEK SUMMIT	7420				-	-
HOLE-IN-ROCK SNOTEL	9150	6/01	1	.6	.0	.0
HORSE RIDGE SNOTEL	8260	6/01	55	25.2	.0	1.7
HUNTINGTON-HORSESHOE	9800				-	13.5
INDIAN CANYON SNOTEL	9100	6/01	5	1.6	.0	.5
JOHNSON VALLEY	8850				-	-
JONES CORRAL SNOTEL	9750	6/01	14	6.5	.0	-
KILFOIL CREEK	7300				-	-
KILFOIL CREEK SNOTEL	7400	6/01	0	.0	-	-
KILLYON CANYON	6300	5/12	0	0.0	.0	-
KIMBERLY MINE SNOTEL	9300	6/01	18	9.1	1.2	1.9
KING'S CABIN SNOTEL	8730	6/01	0	.0	.0	.4
KLONDIKE NARROWS	7400				-	1.4
KLONDIKE NARROWS SNO	7300	6/01	23	10.2	.0	-
KOLOB SNOTEL	9250	6/01	52	24.5	6.7	4.1
LAKEFORK #1 SNOTEL	10100	6/01	38	15.3	.0	3.2
LAKEFORK BASIN SNTL	10900	6/01	103	46.5	16.5	11.7
LAKEFORK #3 SNOTEL	8500	6/01	0	.0	.0	-
LAKEFORK MOUNTAIN #3	8400				-	-
LAMBS CANYON	7400	5/25	14	6.4	.0	-
LASAL MOUNTAIN LOWER	8800				-	-
LASAL MOUNTAIN SNTL	9850	6/01	0	.0	.0	.8

LIGHTNING RIDGE SNTL	8220	6/01	51	24.4	.0	-
LILY LAKE SNOTEL	9050	6/01	48	21.7	.0	1.4
LITTLE BEAR LOWER	6000				-	-
LITTLE BEAR SNOTEL	6550	6/01	0	.0	.0	.0

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
LITTLE GRASSY SNOTEL	6100	6/01	0	.0	.0	.0
LONG FLAT SNOTEL	8000	6/01	0	.0	.0	.0
LONG VALLEY JCT. SNT	7500	6/01	0	.0	.0	.0
LOOKOUT PEAK SNOTEL	8200	6/01	90	49.0	11.4	3.8
LOST CREEK RESERVOIR	6130				-	-
LOST CREEK RESV SNT	6080	6/01	0	.0	-	-
LOUIS MEADOW SNOTEL	6700	6/01	5	4.2	.0	-
MAMMOTH-COTTONWD SNT	8800	6/01	25	11.5	.0	2.1
MERCHANT VALLEY SNTL	8750	6/01	2	.4	.0	.4
MIDDLE CANYON	7000				-	-
MIDWAY VALLEY SNOTEL	9800	6/01	70	35.1	16.2	8.9
MILL CREEK	6950	5/25	53	23.1	15.0	4.3
MILL-D NORTH SNOTEL	8960	6/01	74	38.9	7.8	4.9
MILL-D SOUTH FORK	7400	5/26	23	10.1	.0	-
MINING FORK SNOTEL	8000	6/01	56	28.5	1.4	2.9
MONTE CRISTO SNOTEL	8960	6/01	105	49.6	15.5	12.5
MOSBY MTN. SNOTEL	9500	6/01	30	11.3	.0	2.7
MT.BALDY R.S.	9500				-	15.2
MUD CREEK #2	8600				-	-
OAK CREEK	7760				-	-
OAK CREEK SNOTEL	7850	6/01	0	.0	-	-
PANGUITCH LAKE R.S.	8200				-	-
PARLEY'S CANYON SNTL	7500	6/01	12	5.3	.0	.4
PARRISH CREEK SNOTEL	7740	6/01	75	35.9	8.2	-
PAYSON R.S. SNOTEL	8050	6/01	0	.0	.0	.9
PICKLE KEG SNOTEL	9600	6/01	23	9.0	.0	2.3
PINE CREEK SNOTEL	8800	6/01	36	20.3	5.5	3.7
RED PINE RIDGE SNTL	9200	6/01	15	5.8	.0	1.6
REDDEN MINE LOWER	8500				-	3.1
REES'S FLAT	7300				-	-
ROCK CREEK SNOTEL	7900	6/01	0	.0	.0	.0
ROCKY BN-SETTLEMT SN	8900	6/01	76	40.1	13.6	9.6
SEELEY CREEK SNOTEL	10000	6/01	42	18.2	6.1	4.7
SMITH MOREHOUSE SNTL	7600	6/01	13	6.2	.0	.0
SNOWBIRD SNOTEL	9700	6/01	140	75.1	36.4	18.2
SPIRIT LAKE	10300				-	6.9
SPIRIT LK SNOTEL	10200	6/01	42	18.5	2.0	-
SQUAW SPRINGS	9300				-	-
SQUAW SPRINGS SNOTEL	9110	6/01	0	.0	-	-
STEEL CREEK PARK SNO	10100	6/01	75	29.1	18.2	11.8
STILLWATER CAMP	8550				-	-
STRAWBERRY DIVIDE SN	8400	6/01	7	2.6	.0	.1
SUSC RANCH	8200				-	-
TALL POLES	8800				-	-
TEMPLE FORK SNOTEL	7410	6/01	-	7.6	.0	-

THAYNES CANYON SNTL	9200	6/01	78	38.8	9.2	6.6
THISTLE FLAT	8500				-	-
TIMBERLINE	9100				-	-
TIMBERLINE SNOTEL	8680	6/01	0	.0	.0	-
TIMPANOGOS DIVIDE SN	8140	6/01	43	21.7	.0	2.4

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
TONY GROVE LK SNOTEL	8400	6/01	107	57.8	15.6	14.0
TONY GROVE R.S.	6250				-	-
TONY GROVE RS SNOTEL	6400	6/01	0	.0	.0	-
TRIAL LAKE	9960				-	16.8
TRIAL LAKE SNOTEL	9960	6/01	89	51.6	12.5	14.5
TROUT CREEK SNOTEL	9400	6/01	3	.8	.0	.9
UPPER JOES VALLEY	8900				-	-
USU DOC DANIEL SNTL	8270	6/01	107	51.2	24.0	-
VERNON CREEK SNOTEL	7500	6/01	0	.0	.0	.1
VIPONT	7670				-	-
WEBSTER FLAT SNOTEL	9200	6/01	0	.0	.0	.9
WHITE RIVER #1 SNTL	8550	6/01	0	.0	.0	.0
WHITE RIVER #3	7400				-	-
WIDTSOE #3 SNOTEL	9500	6/01	0	.0	.0	.7
WRIGLEY CREEK	9000				-	-
YANKEE RESERVOIR	8700				-	-

(d) Denotes discontinued site.

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Utah Water Supply Outlook Report

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