

# Utah Water Supply Outlook Report

April, 2009



Ray Wilson at Mt Baldy snow course, March 28, 2009. Photo by Mike Bricco.

# **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.

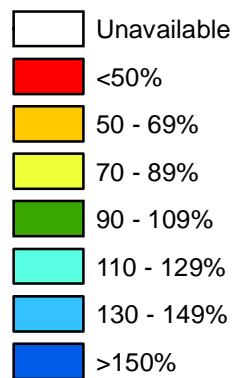
The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. 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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# Utah SNOTEL Water Year (Oct 1) to Date Precipitation % of Normal

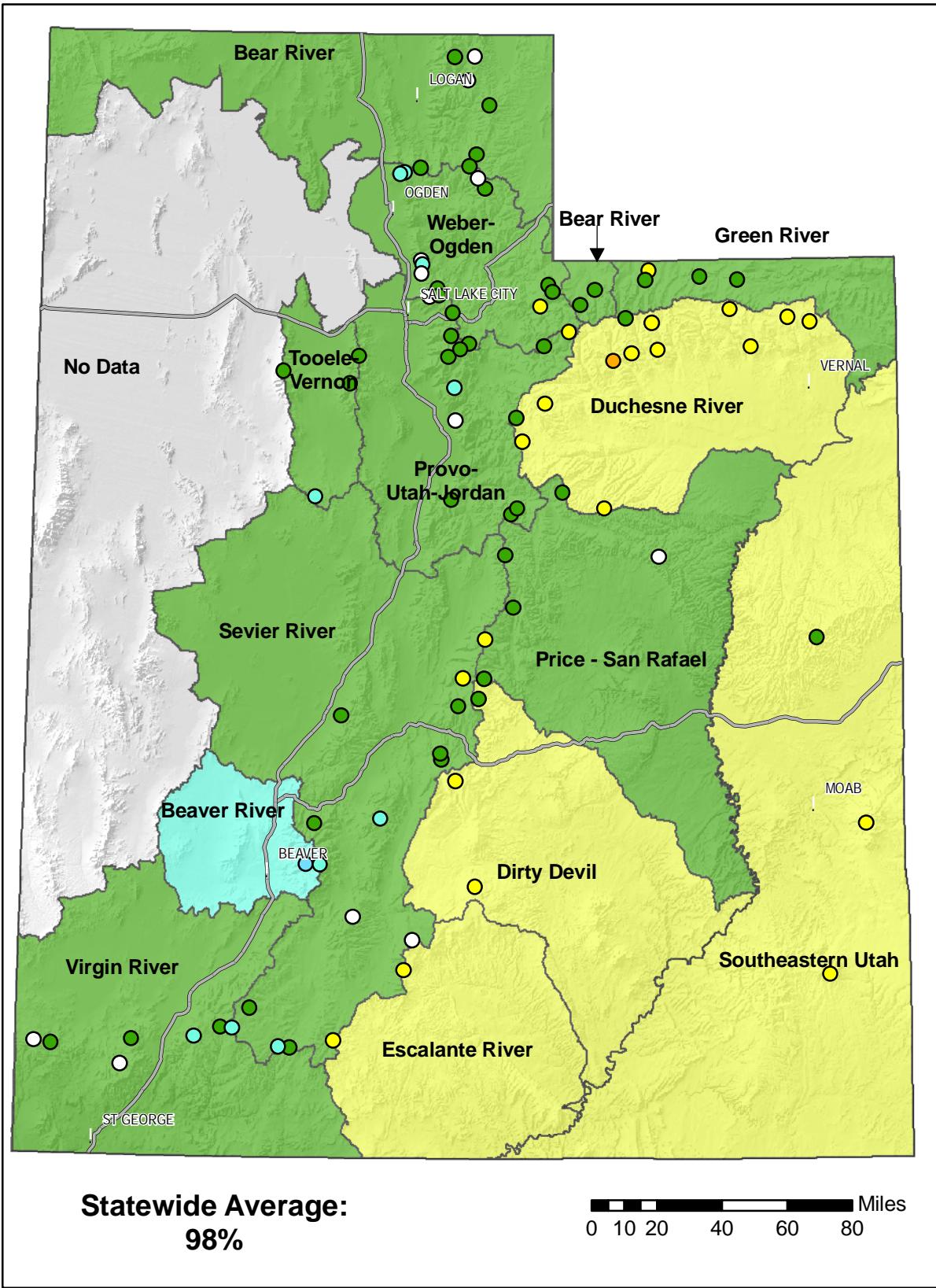
April 1, 2009

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



\* 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).

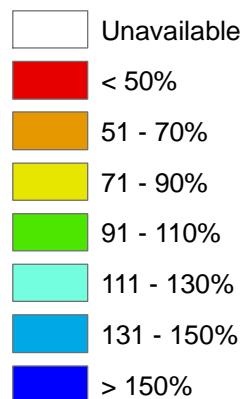
Prepared by the USDA/NRCS Utah DCO  
Salt Lake City, Utah <http://www.ut.nrcs.usda.gov/snow/>  
Based on data from <http://www.wcc.nrcs.usda.gov/reports/>  
Science contact: Mike Bricco [michael.bricco@ut.usda.gov](mailto:michael.bricco@ut.usda.gov)



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

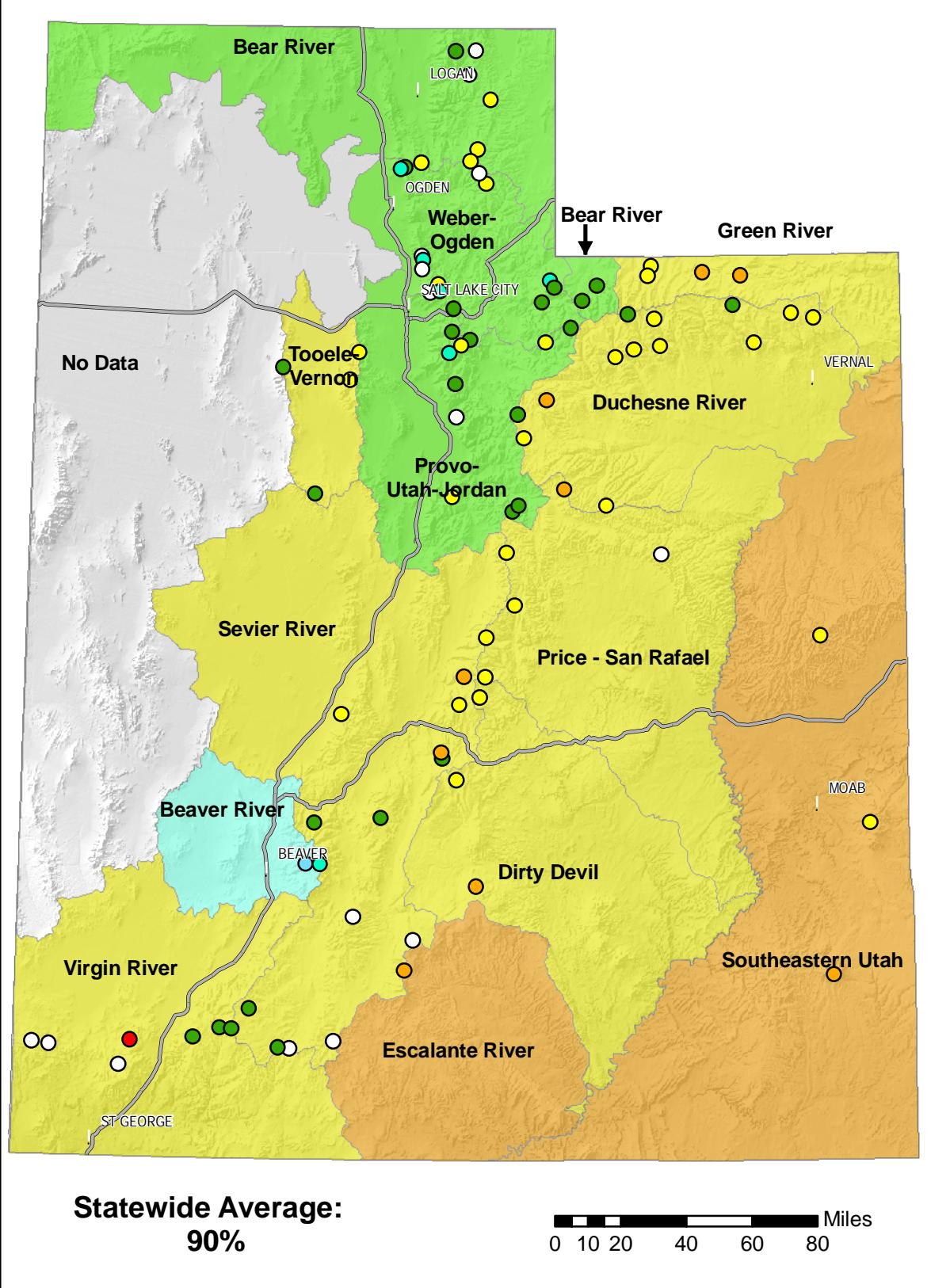
April 1, 2009

## Snow Water Equivalent (swe) Basin-Wide % of 1971-2000 Normal



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

**Provisional Data  
Subject to Revision**



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

Prepared by the USDA/NRCS Utah DCO  
Salt Lake City, Utah: <http://www.ut.nrcs.usda.gov/snow/>  
Based on data from <http://www.wcc.nrcs.usda.gov/reports/>  
Science contact: Mike Bricco [michael.bricco@ut.usda.gov](mailto:michael.bricco@ut.usda.gov)



## **Ferron Creek Watershed 2009 Hydrology**

In the summer of 2007, the upper Ferron Creek Watershed had a fire that extended from just east of Ferron Reservoir to Wrigley Hill. Much of the north aspect of the watershed was burned from the creek bottom to the top of the watershed at 10,000 ft elevation. This fire has the potential to significantly alter the snowmelt runoff in 2008 as well as future years. This was the assessment last year.

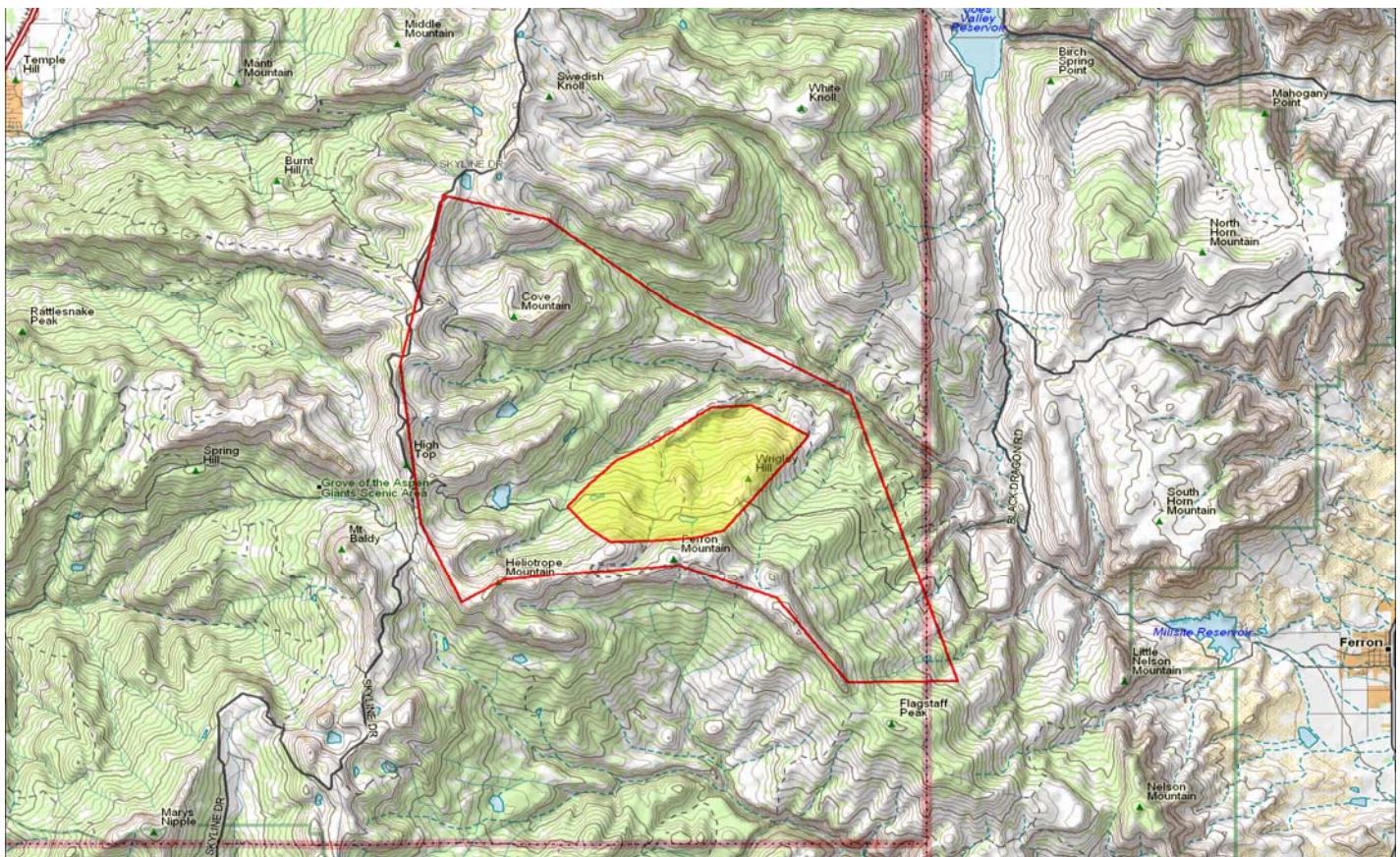
An onsite inspection by Snow Survey crews on March 24, 2009 revealed that much of the interior of the fire had dramatically reduced snowpacks similar to last year. There was a significant storm on March 23<sup>rd</sup> so there wasn't a lot of bare ground but there were substantial areas where the previous day's snow made up the entire pack. Snowpacks near and adjacent to the fire were also substantially reduced. This has been caused by carbon deposition on the snowpack and subsequent solar radiation being absorbed at a much higher rate and earlier in the season. The consequence of these accelerated processes is that snowmelt that would have occurred much later in the season, late May and June has already occurred on a substantial portion of the upper watershed. Thus flow normally occurring at that time may not be there this year. We anticipate that Ferron Creek will respond in a normal fashion in areas not impacted by the fire, namely lower elevations and much of the northern half of the watershed. However, much of the upper elevation impacted by the fire will not generate significant streamflow. We anticipate that the hydrograph will rise early on, responding to lower elevation snowmelt but will likely be of short duration with lower peak flows because the upper elevation snowpack to sustain later flow has been compromised.



These March 24, 2009 photos show layers of carbon deposition in each storm event and the shallow nature of the existing snowpack inside the fire. Areas adjacent to this had 4 to 7 feet of snowpack.



These photos, also taken March 24<sup>th</sup>, 2009 contrast snowpack conditions inside to snowpack conditions just outside the fire complex.



A map of the Ferron Creek Watershed and approximate boundary of the Fire in yellow.

The actual impact of the fire extends well beyond the fire perimeter to the east due to wind distributed carbon deposition.

# **STATE OF UTAH GENERAL OUTLOOK**

**April 1, 2009**

## **SUMMARY**

March was a roller coaster ride. The month started with a few good storms that heightened some anticipation of a good wet spring and abundant snow. The middle of the month was pretty much the middle of no-where because snow and precipitation were no-where to be found. Warm temperatures brought low and mid elevation snowpacks to isothermal conditions and melting began. Snowpacks across the state started a steep decline with many areas showing declines of 5 to 15%. Then in the final week, a series of storms hit the state and which brought snow levels in northern Utah back to near average conditions. Southern and eastern Utah improved but not as much as the north. Snowpacks across the state now range from 77% over southeastern Utah to 100% on the Weber. March precipitation was below to above normal (77%-118%) in northern Utah and much below to below normal (35%-83%) in the south which brings the year to date precipitation to near normal in across the state. Current soil moisture saturation levels in runoff producing areas are: Bear – 65%, Weber – 64%, Provo – 54%, Uintah Basin – 46%, SE Utah – 54%, Sevier – 58% and SW Utah – 60%, up 10 to 20% from last month. Dryer soils typically mean less runoff from snowmelt. Reservoir storage is currently at 66% of capacity statewide compared to 60% last year. General water supply conditions are near average in northern Utah, and the Virgin and near to much below average in central and southeastern Utah. Streamflow forecasts range from 53% for the Bear River at Stewart Dam to 115% of average on the Beaver River nr beaver. Surface Water Supply Indices range from 12% on the Bear River to 57% for the Virgin. The extremely low value for the Bear River is a reflection of Bear Lake storage which continues to be well below normal.

## **SNOWPACK**

April first snowpacks as measured by the NRCS SNOTEL system are as follows: Bear - 94%, Weber - 100%, Provo - 96%, Uintahs - 80%, southeast Utah - 77%, Sevier - 87%, southwest Utah - 83% and the statewide figure is 91% of average. April is the typical peak of snowpack and the beginning of runoff season. Future climate can still impact snow and runoff with dry conditions diminishing runoff and wet conditions enhancing it. The area with lowest snowpack average is the east fork of the Sevier at 63%.

## **PRECIPITATION**

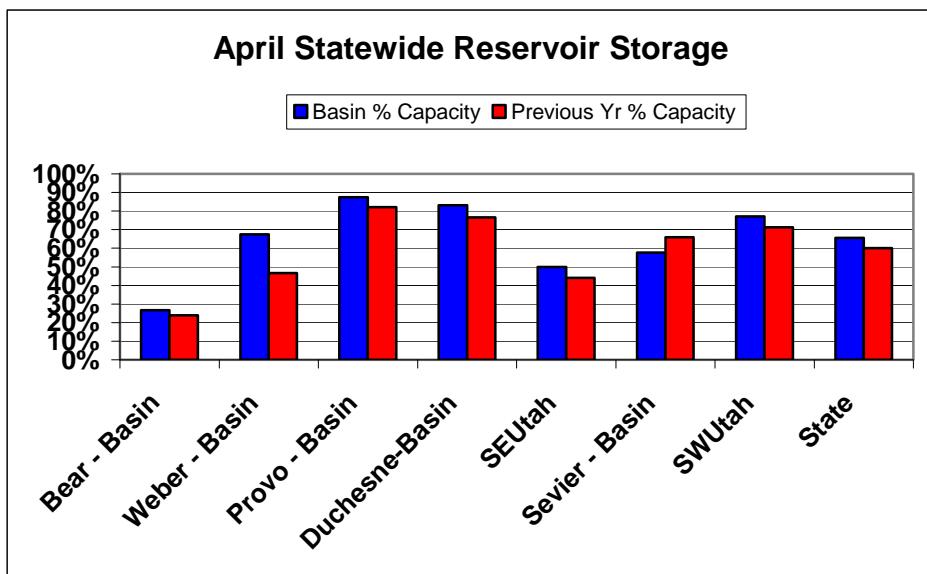
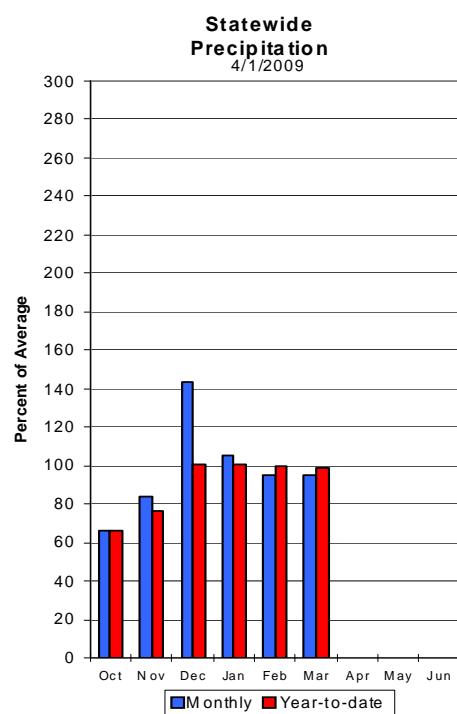
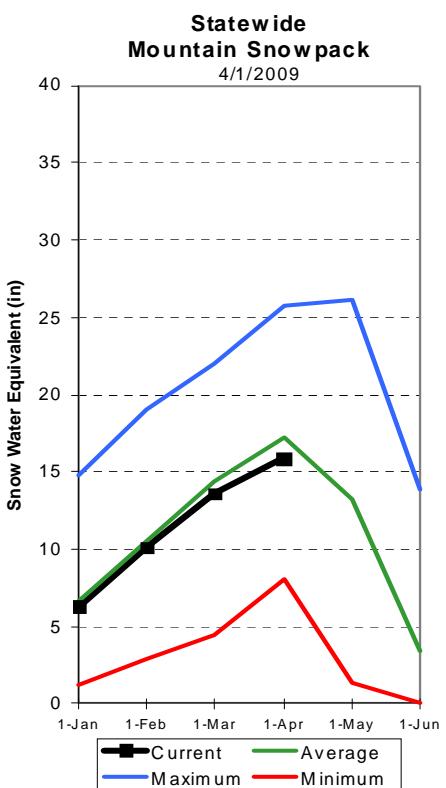
Mountain precipitation during March was: Bear – 118%, Weber – 114%, Provo – 100%, Uintahs – 77%, SE Utah – 78%, Sevier – 83%, SW Utah – 35% and the statewide figure is 95% of average. This brings the seasonal accumulation (Oct-Mar) to 99% of average statewide.

## **RESERVOIRS**

Storage in 41 of Utah's key irrigation reservoirs is at 66% of capacity up 6% compared to April of last year year. Most reservoirs in Utah should easily fill this runoff season. A notable exception is Bear Lake. All reservoirs with previous fill restrictions are now able to store, including Willard Bay.

## **STREAMFLOW**

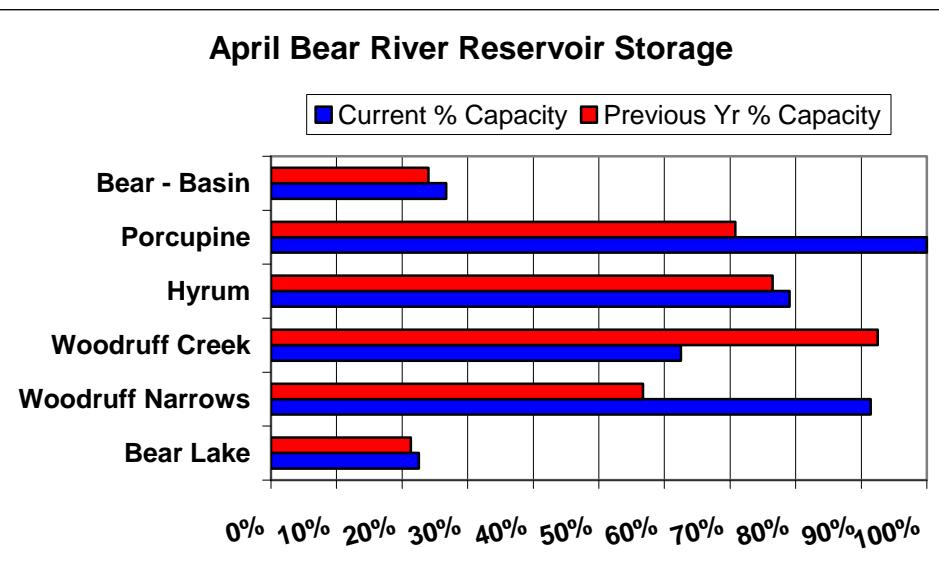
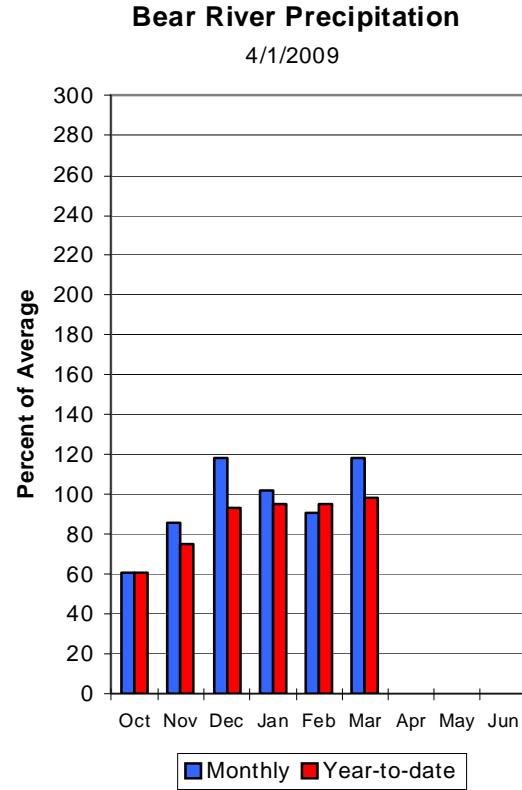
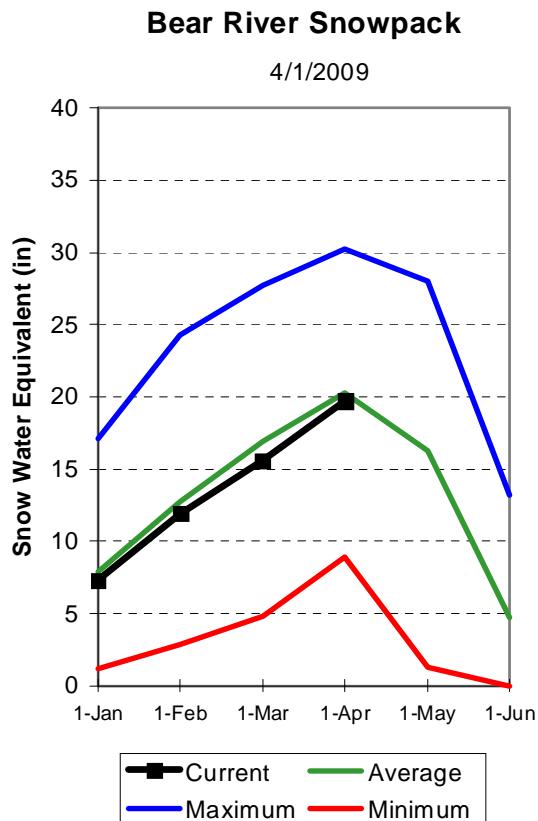
Snowmelt streamflows are expected to have a wide range from much below average to above average across the state of Utah this year. Forecast streamflows range from 32% on South Creek nr Monticello to 115% on the Beaver River nr Beaver. Most flows are forecast to be in the 80% to 105% range.



## Bear River Basin

### April 1, 2009

Snowpacks on the Bear River Basin are average at 94% of normal, about 94% of last year. Individual sites range from 47% of normal at Burt's Miller Ranch to 117% at Little Bear Lower snow course. March precipitation was above average at 118%, which brings the seasonal accumulation (Oct-Mar) to 98% of average. Soil moisture levels in runoff producing areas are at 65% of saturation in the upper 2 feet of soil compared to 57% last year. Forecast streamflows (April-July) range from much below to near average (53%-96%) volumes for this spring and summer. Reservoir storage is low at 27% of capacity, which is up 3% from this time last year. The Surface Water Supply Index is at 12% for the Bear River, in other words, 88% of years have had more total water available. Water supply conditions are much below normal due to low reservoir storage in Bear Lake.



BEAR RIVER BASIN									
Streamflow Forecasts - April 1, 2009									
Forecast Point	Forecast Period	<===== Drier ===== Future Conditions ===== Wetter =====>						30-Yr Avg. (1000AF)	
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding *	50% (1000AF)	% AVG.	30% (1000AF)	10% (1000AF)	
				(1000AF)			(1000AF)	(1000AF)	
Bear R nr UT-WY State Line	APR-JUL	76	93		105	93	117	134	113
Bear River ab Reservoir nr Woodruff	APR-JUL	77	102		120	88	136	161	136
Big Creek nr Randolph	APR-JUL	2.40	3.40		4.00	82	4.60	5.60	4.90
Smiths Fork nr Border	APR-JUL	75	86		94	91	102	113	103
Bear River at Stewart Dam	APR-JUL	81	106		125	53	146	179	234
Little Bear at Paradise, UT	APR-JUL	24	35		43	94	51	62	46
Logan nr Logan, UT	APR-JUL	87	104		115	91	126	143	126
Blacksmith Fk nr Hyrum, UT	APR-JUL	12.5	28		44	92	49	65	48

BEAR RIVER BASIN				BEAR RIVER BASIN						
Reservoir Storage (1000 AF) - End of March				Watershed Snowpack Analysis - April 1, 2009						
Usable Capacity				*** Usable Storage ***				Number of Data Sites		
Reservoir				This Year	Last Year	Avg	Watershed	Last Yr	Average	
BEAR LAKE	1302.0	293.5	277.6	---			BEAR RIVER, UPPER	8	97	94
HYRUM	15.3	12.1	11.7	12.2			BEAR RIVER, LOWER	9	94	93
PORCUPINE	11.3	11.3	8.0	6.7			LOGAN RIVER	4	99	97
WOODRUFF NARROWS	57.3	52.4	32.5	32.7			RAFT RIVER	1	84	102
WOODRUFF CREEK	4.0	2.5	3.7	---			BEAR RIVER BASIN	17	94	94

\* 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.

Bear Lake SWSI

April 1

# of years

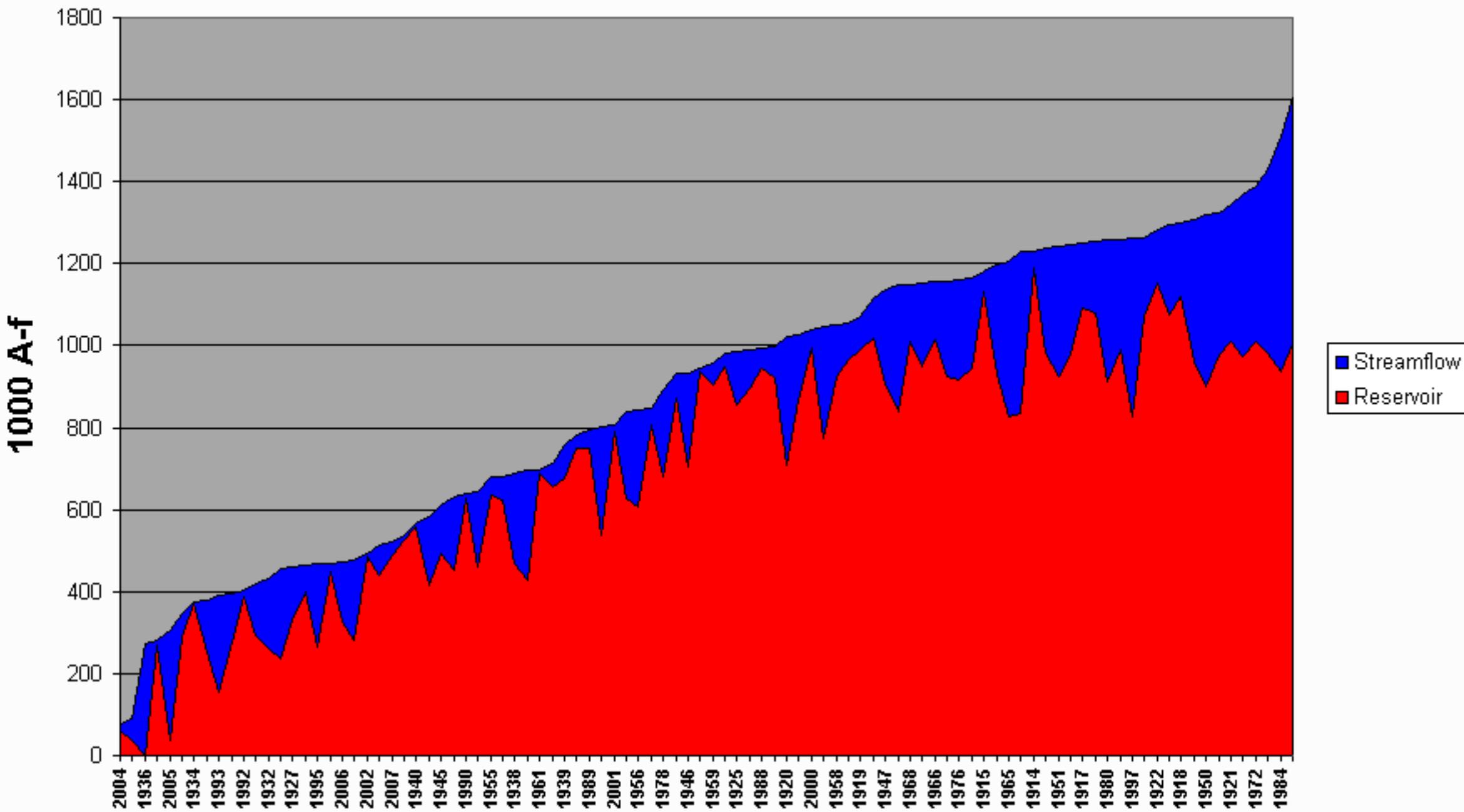
96

#	Year	EOM March Reservoir	Apr-Jul Streamflow	Reservoir + Streamflow	Probability	SWSI
		KAF	KAF	KAF		
1	2004	62	15	77	1	-4.08
2	1935	38	52	90	2	-3.99
3	1936	0	272	272	3	-3.91
4	2003	270	10	280	4	-3.82
5	2005	37	270	307	5	-3.74
6	1941	289	57	346	6	-3.65
7	1934	371	3	373	7	-3.57
8	1942	251	126	377	8	-3.48
9	1993	153	240	393	9	-3.39
10	2008	278	119	396	10	-3.31
11	1992	387	16	403	11	-3.22
12	<b>2009</b>	<b>294</b>	<b>125</b>	<b>419</b>	<b>12</b>	<b>-3.14</b>
13	1932	261	170	431	13	-3.05
14	1943	237	219	456	14	-2.96
15	1927	328	133	461	15	-2.88
16	1991	399	64	463	16	-2.79
17	1995	266	200	466	18	-2.71
18	1994	447	21	468	19	-2.62
19	2006	325	147	472	20	-2.53
20	1937	281	194	474	21	-2.45
21	2002	486	8	494	22	-2.36
22	1933	440	72	512	23	-2.28
23	2007	490	31	522	24	-2.19
24	1931	526	11	538	25	-2.10
25	1940	559	5	564	26	-2.02
26	1944	414	167	581	27	-1.93
27	1945	491	119	610	28	-1.85
28	1928	454	177	631	29	-1.76
29	1990	628	13	640	30	-1.68
30	1929	460	183	643	31	-1.59
31	1955	634	45	679	32	-1.50
32	1930	624	58	682	33	-1.42
33	1938	469	219	688	34	-1.33
34	1962	429	265	695	35	-1.25
35	1961	690	7	697	36	-1.16
36	1963	658	57	715	37	-1.07
37	1939	675	82	757	38	-0.99
38	1926	749	31	780	39	-0.90
39	1989	750	43	793	40	-0.82
40	1996	539	262	801	41	-0.73
41	2001	792	16	808	42	-0.64
42	1964	626	213	839	43	-0.56
43	1956	605	237	842	44	-0.47

44	1954	806	40	847	45	-0.39
45	1978	682	212	893	46	-0.30
46	1960	873	59	932	47	-0.21
47	1946	703	229	932	48	-0.13
48	1977	939	5	943	49	-0.04
49	1959	906	50	956	51	0.04
50	1981	948	36	983	52	0.13
51	1925	856	128	984	53	0.21
52	1953	896	93	989	54	0.30
53	1988	946	47	993	55	0.39
54	1979	919	79	998	56	0.47
55	1920	709	313	1021	57	0.56
56	1949	869	159	1028	58	0.64
57	2000	992	47	1039	59	0.73
58	1957	776	270	1046	60	0.82
59	1958	925	126	1051	61	0.90
60	1987	967	89	1057	62	0.99
61	1919	989	81	1070	63	1.07
62	1970	1020	97	1117	64	1.16
63	1947	907	230	1137	65	1.25
64	1982	839	309	1148	66	1.33
65	1968	1010	139	1149	67	1.42
66	1973	948	203	1151	68	1.50
67	1966	1012	144	1157	69	1.59
68	1969	925	232	1157	70	1.68
69	1976	916	245	1160	71	1.76
70	1948	946	221	1166	72	1.85
71	1915	1133	47	1179	73	1.93
72	1985	927	272	1199	74	2.02
73	1965	828	376	1204	75	2.10
74	1952	836	393	1229	76	2.19
75	1914	1189	41	1230	77	2.28
76	1967	980	256	1237	78	2.36
77	1951	924	317	1241	79	2.45
78	1974	976	270	1247	80	2.53
79	1917	1091	161	1252	81	2.62
80	1923	1081	175	1256	82	2.71
81	1980	914	344	1258	84	2.79
82	1975	991	268	1259	85	2.88
83	1997	826	434	1260	86	2.96
84	1924	1072	192	1264	87	3.05
85	1922	1152	129	1281	88	3.14
86	1916	1077	219	1296	89	3.22
87	1918	1119	181	1300	90	3.31
88	1998	960	347	1307	91	3.39
89	1950	901	419	1320	92	3.48
90	1999	976	346	1323	93	3.57
91	1921	1010	335	1345	94	3.65
92	1971	972	397	1369	95	3.74
93	1972	1008	379	1387	96	3.82
94	1983	982	445	1427	97	3.91
95	1984	937	573	1511	98	3.99
96	1986	1005	598	1603	99	4.08

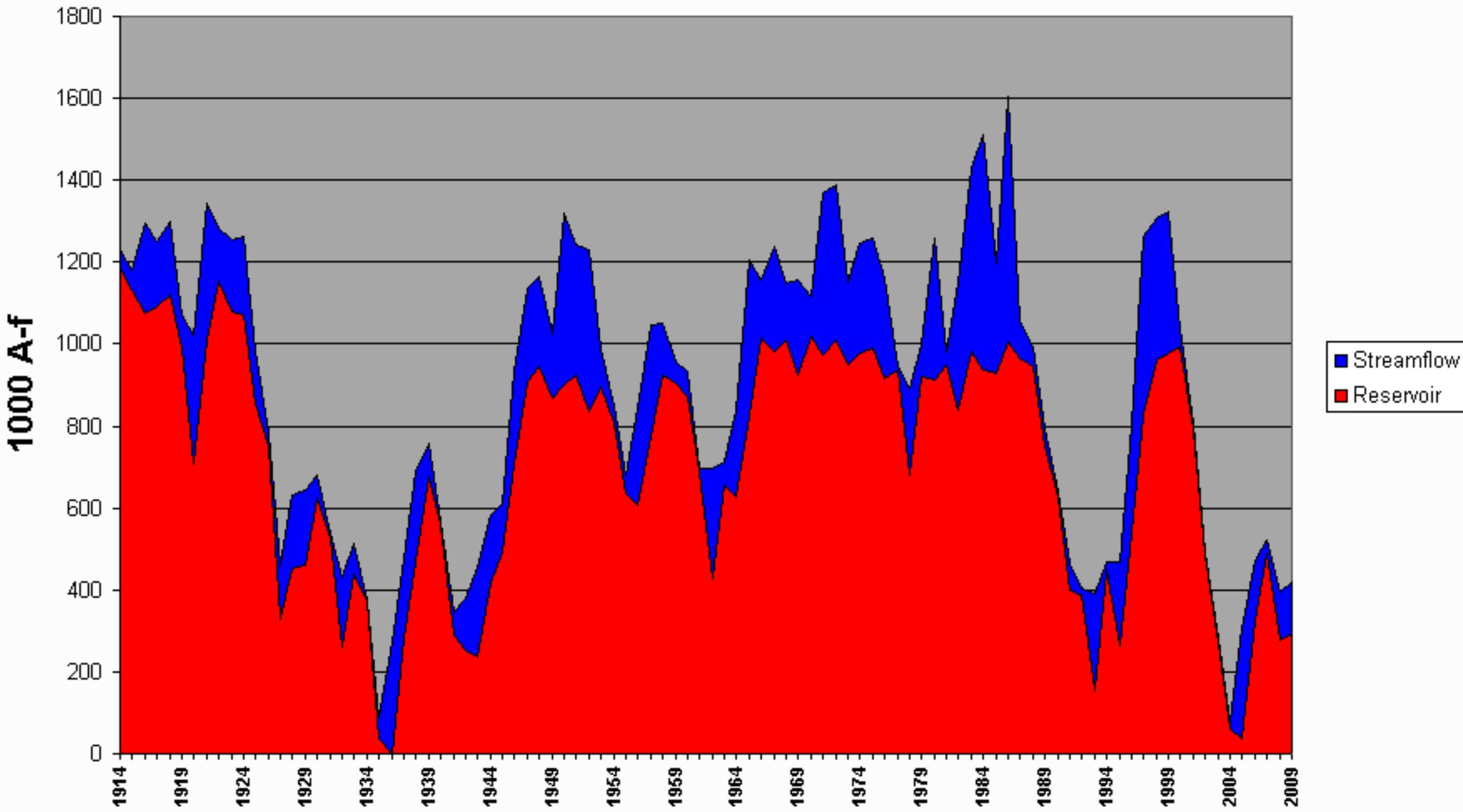
# Bear Lake Surface Water Supply Index

## April



# Bear Lake Surface Water Supply Index

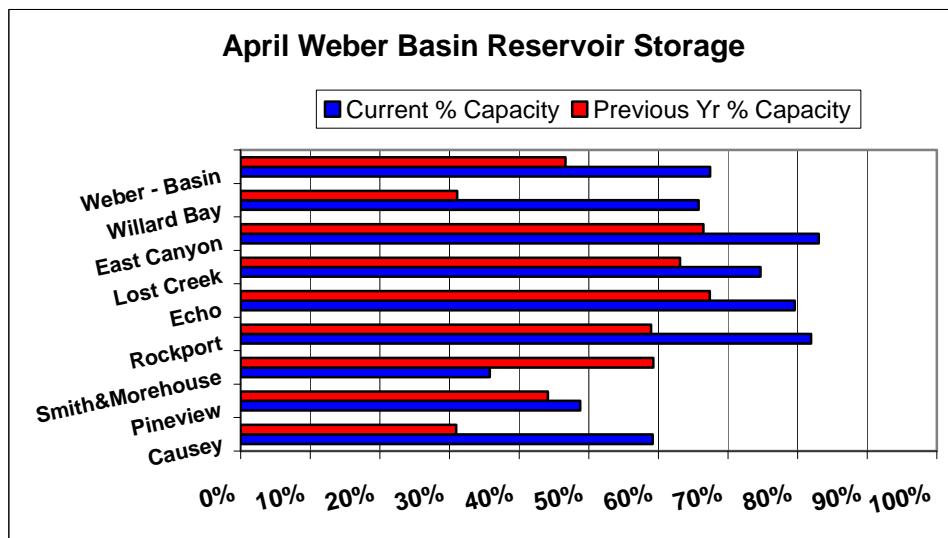
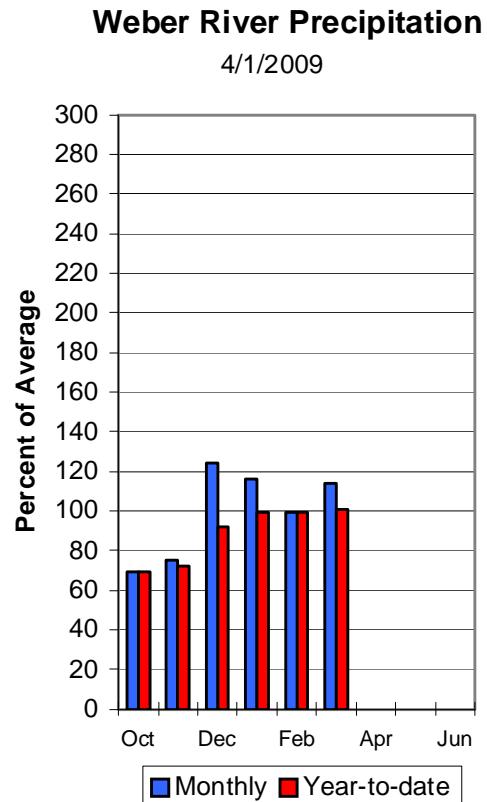
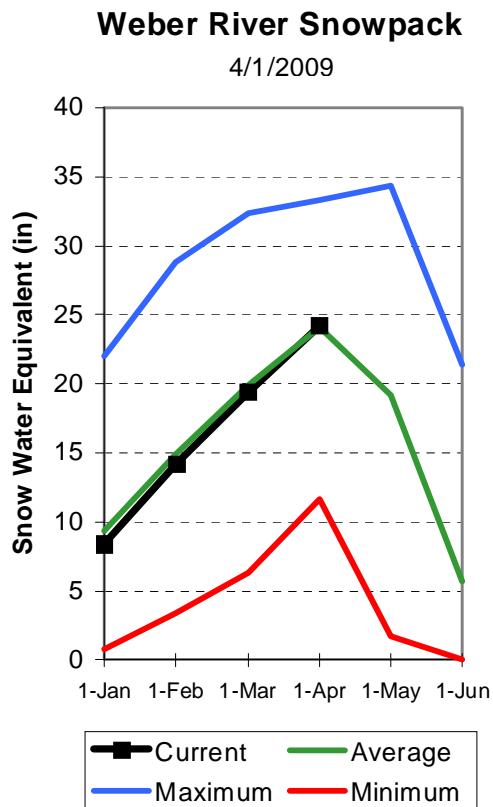
## April



## Weber and Ogden River Basins

### April 1, 2009

Snowpacks on the Weber and Ogden Watersheds are average at 100%, about 91% of last year. Individual sites range from 40% to 128% of average. March precipitation was above average at 114% bringing the seasonal accumulation (Oct-Mar) to 101% of average. Soil moisture levels in runoff producing areas are at 64% of saturation in the upper 2 feet of soil compared to 59% last year. Streamflow forecasts (April-July) range from 85% to 102% of average. Reservoir storage is at 67% of capacity, 12% higher than last year. The Surface Water Supply Index is at 37% for the Weber River and 55% for the Ogden River indicating that overall water supply conditions are below to near average.



=====  
 WEBER & OGDEN WATERSHEDS in Utah  
 Streamflow Forecasts - April 1, 2009

Forecast Point	Forecast Period	<===== Drier ===== Future Conditions ===== Wetter =====>						30-Yr Avg. (1000AF)	
		Chance Of Exceeding *		50% (1000AF) (% AVG.)		30% (1000AF) (1000AF)			
		90% (1000AF)	70% (1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)		
Smith & Morehouse Res inflow	APR-JUL	23	27	30	88	33	37	34	
Weber R nr Oakley, UT	APR-JUL	80	98	110	89	122	140	123	
Rockport Reservoir	APR-JUL	80	103	118	88	133	156	134	
Weber R nr Coalville, UT	APR-JUL	84	108	124	91	140	164	137	
Chalk Ck at Coalville, UT	APR-JUL	19.3	32	40	89	48	61	45	
Echo Resv at Echo, UT	APR-JUL	79	122	152	85	182	225	179	
Lost Ck Resv Inflow	APR-JUL	6.2	11.4	15.0	85	18.6	24	17.6	
East Canyon Ck nr Morgan, UT	APR-JUL	13.5	23	30	97	37	47	31	
Weber R at Gateway, UT	APR-JUL	142	245	315	89	385	488	355	
SF Ogden R nr Huntsville, UT	APR-JUL	44	55	63	98	71	82	64	
Pineview Resv Inflow	APR-JUL	80	110	130	98	150	180	133	
Wheeler Ck nr Huntsville, UT	APR-JUL	3.70	5.30	6.40	102	7.50	9.10	6.30	

WEBER & OGDEN WATERSHEDS in Utah Reservoir Storage (1000 AF) - End of March				WEBER & OGDEN WATERSHEDS in Utah Watershed Snowpack Analysis - April 1, 2009			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of Last Yr Average
		This Year	Last Year	Avg			
CAUSEY	7.1	4.2	2.2	2.6	OGDEN RIVER	4	88 99
EAST CANYON	49.5	41.1	32.9	36.5	WEBER RIVER	9	94 101
ECHO	73.9	58.8	49.8	51.5	WEBER & OGDEN WATERSHEDS	13	92 100
LOST CREEK	22.5	16.8	14.2	14.1			
PINEVIEW	110.1	53.7	48.6	61.7			
ROCKPORT	60.9	49.9	35.9	35.1			
WILLARD BAY	215.0	141.4	66.9	160.9			

\* 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.

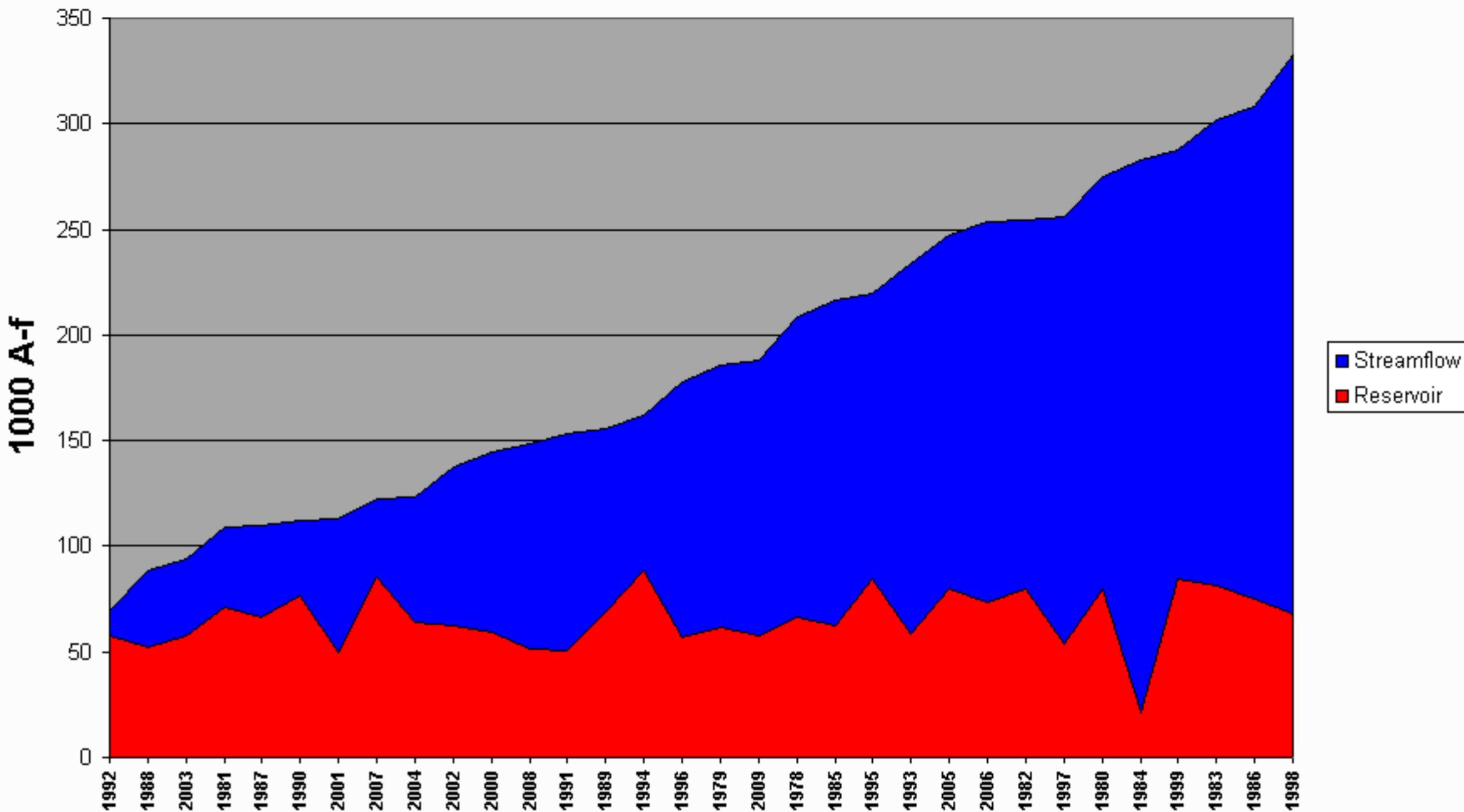
### Ogden SWSI

April 1 # of years 32

		EOM March Reservoir	Apr-Jul Streamflow	Reservoir + Streamflow	Probability	SWSI
#	Year	KAF	KAF	KAF		
1	1992	58	12	70	3	-3.91
2	1988	52	37	89	6	-3.66
3	2003	58	36	94	9	-3.41
4	1981	71	38	109	12	-3.16
5	1987	67	43	110	15	-2.90
6	1990	77	36	112	18	-2.65
7	2001	50	63	113	21	-2.40
8	2007	86	37	123	24	-2.15
9	2004	64	59	123	27	-1.89
10	2002	62	75	137	30	-1.64
11	2000	59	85	145	33	-1.39
12	2008	51	97	148	36	-1.14
13	1991	50	103	153	39	-0.88
14	1989	69	87	155	42	-0.63
15	1994	89	73	162	45	-0.38
16	1996	57	121	178	48	-0.13
17	1979	61	124	185	52	0.13
18	<b>2009</b>	<b>58</b>	<b>130.0</b>	<b>188</b>	<b>55</b>	<b>0.38</b>
19	1978	66	142	209	58	0.63
20	1985	62	154	217	61	0.88
21	1995	84	135	220	64	1.14
22	1993	59	175	234	67	1.39
23	2005	80	167	247	70	1.64
24	2006	73	180	253	73	1.89
25	1982	80	174	254	76	2.15
26	1997	54	202	256	79	2.40
27	1980	80	195	275	82	2.65
28	1984	21	261	283	85	2.90
29	1999	85	203	288	88	3.16
30	1983	81	221	302	91	3.41
31	1986	75	233	308	94	3.66
32	1998	68	264	332	97	3.91

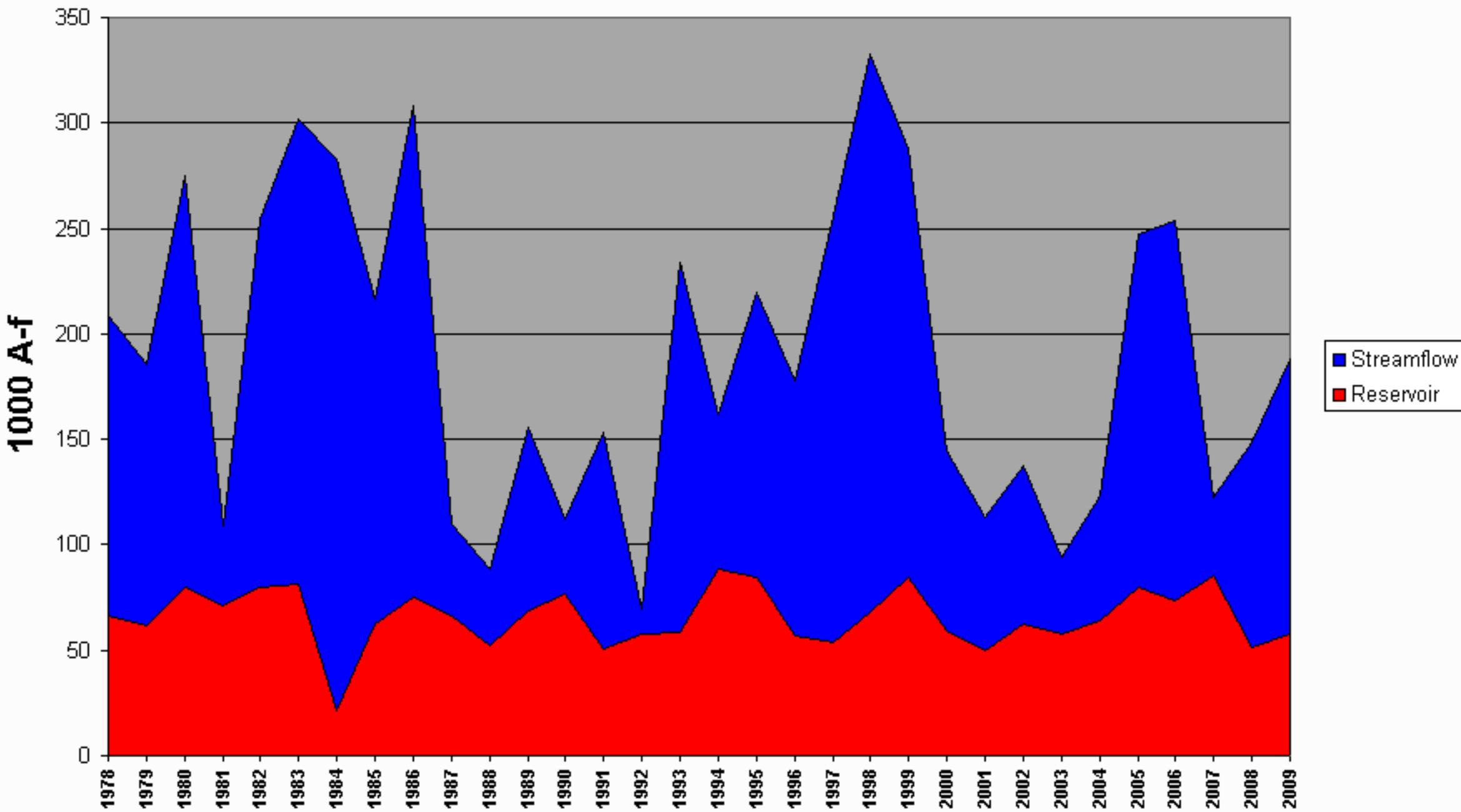
# Ogden Surface Water Supply Index

## April



# Ogden Surface Water Supply Index

## April



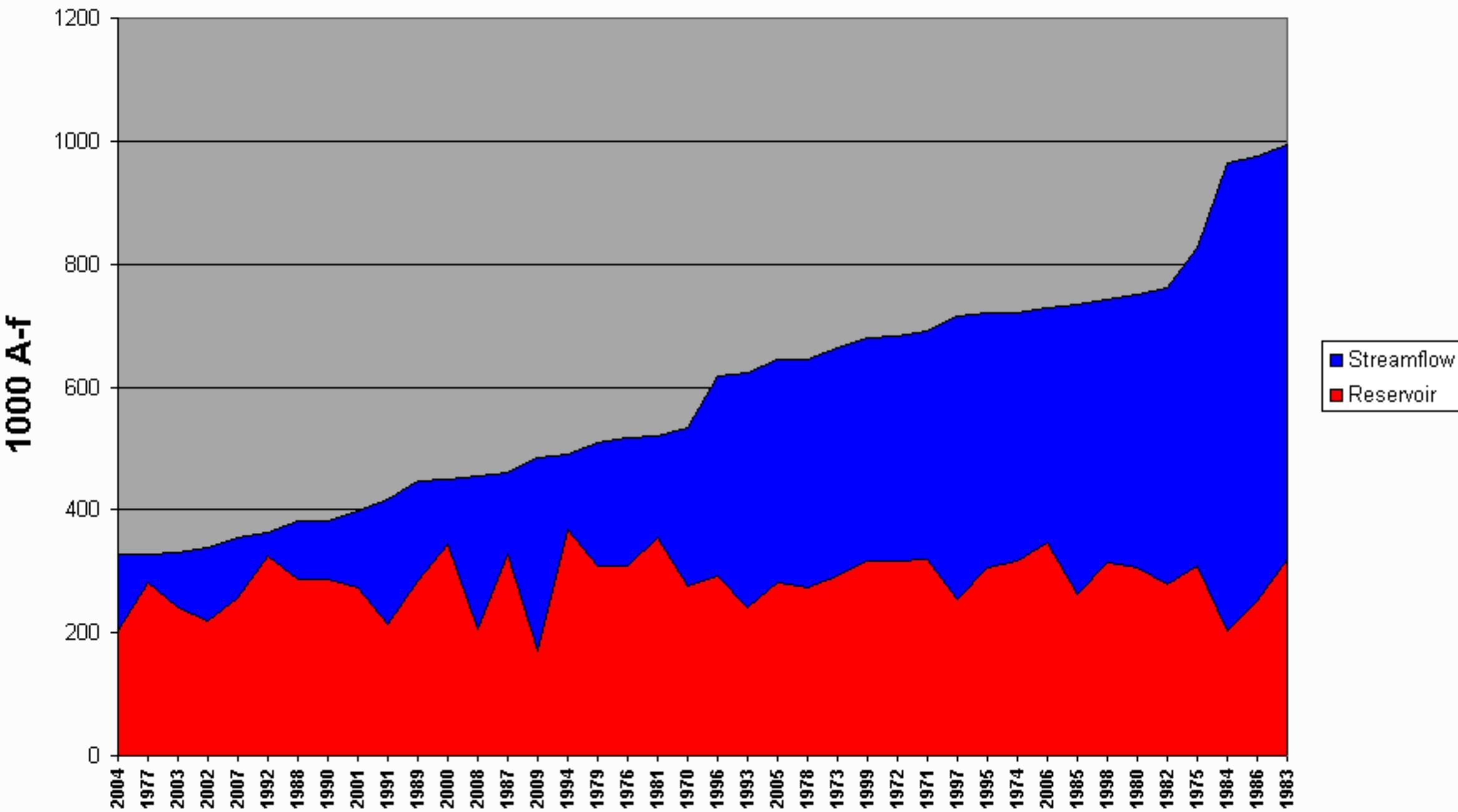
**Weber SWSI**

**April 1** # of years 40

#	Year	EOM March Reservoir	Apr-Jul Streamflow	Reservoir + Streamflow	Probability	SWSI
		KAF	KAF	KAF		
1	2004	204	122	327	2	-3.96
2	1977	281	47	329	5	-3.76
3	2003	242	89	331	7	-3.56
4	2002	218	121	340	10	-3.35
5	2007	257	99	356	12	-3.15
6	1992	326	38	364	15	-2.95
7	1988	287	95	382	17	-2.74
8	1990	288	94	382	20	-2.54
9	2001	273	125	398	22	-2.34
10	1991	214	204	418	24	-2.13
11	1989	285	163	448	27	-1.93
12	2000	344	107	451	29	-1.73
13	2008	205	250	455	32	-1.52
14	1987	328	131	459	34	-1.32
15	<b>2009</b>	<b>170</b>	<b>315</b>	<b>485</b>	<b>37</b>	<b>-1.12</b>
16	1994	369	122	491	39	-0.91
17	1979	310	199	509	41	-0.71
18	1976	308	209	517	44	-0.51
19	1981	355	166	521	46	-0.30
20	1970	276	257	533	49	-0.10
21	1996	291	325	616	51	0.10
22	1993	240	383	623	54	0.30
23	2005	283	362	645	56	0.51
24	1978	275	370	645	59	0.71
25	1973	291	372	664	61	0.91
26	1999	316	362	679	63	1.12
27	1972	316	366	682	66	1.32
28	1971	320	370	691	68	1.52
29	1997	254	460	714	71	1.73
30	1995	307	413	720	73	1.93
31	1974	318	403	721	76	2.13
32	2006	346	382	728	78	2.34
33	1985	263	471	733	80	2.54
34	1998	315	428	743	83	2.74
35	1980	305	446	752	85	2.95
36	1982	280	481	761	88	3.15
37	1975	308	519	827	90	3.35
38	1984	202	764	966	93	3.56
39	1986	252	723	974	95	3.76
40	1983	320	674	994	98	3.96

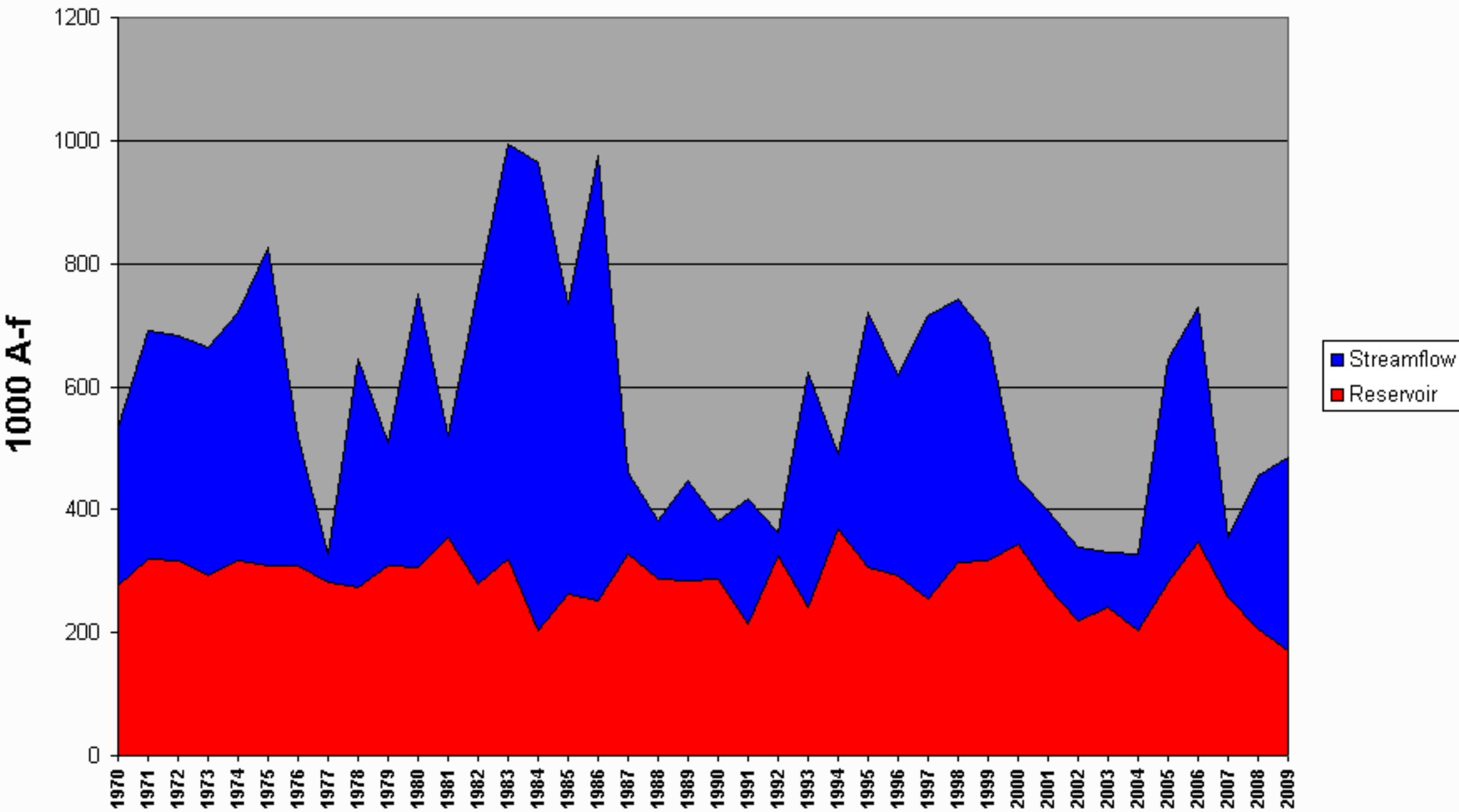
# Weber River Surface Water Supply Index

## April



# Weber River Surface Water Supply Index

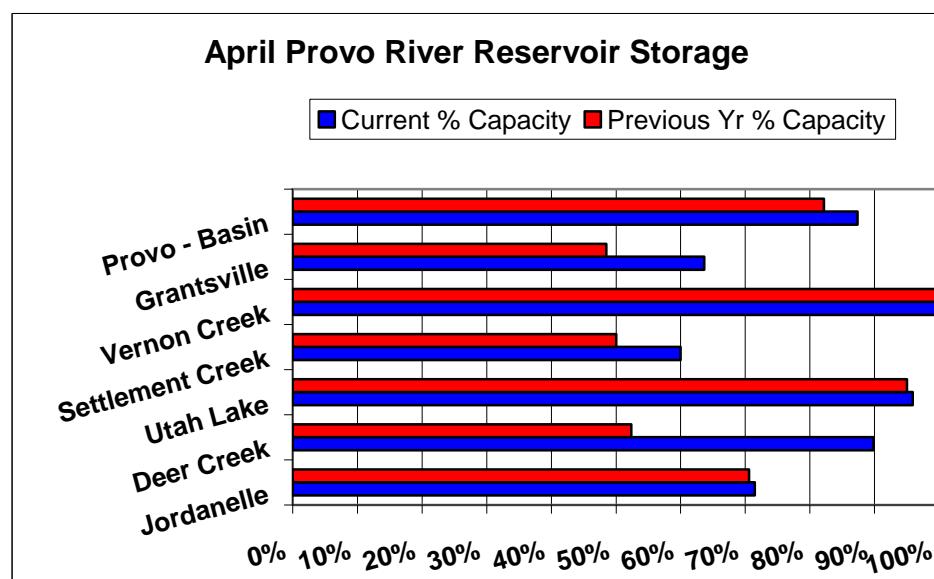
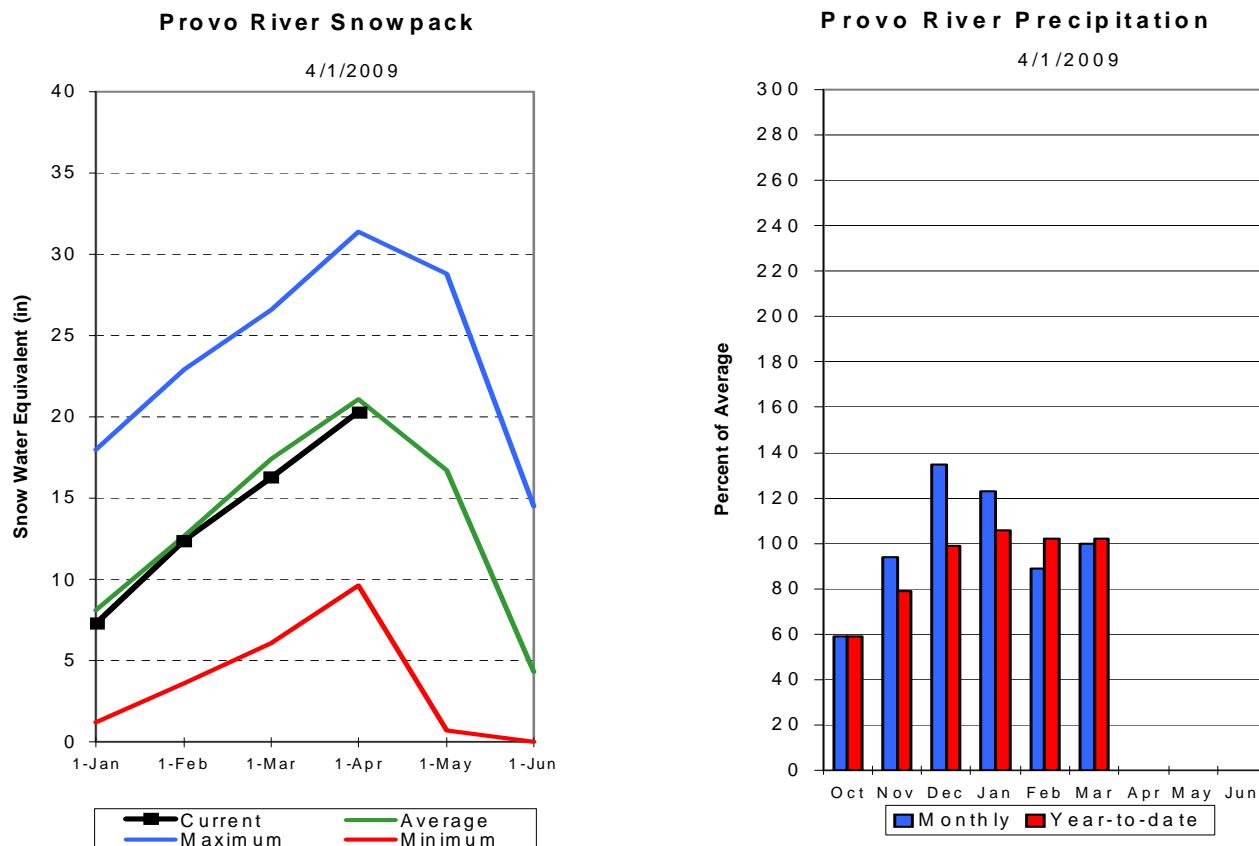
## April



## Utah Lake, Jordan River & Tooele Valley Basins

### April 1, 2009

Snowpack over these basins are near average at 96%, which is 86% of last year at this time. Individual sites range from 46% at Killyon Canyon, to 133% of average at the Hidden Springs Snow Course. March precipitation was average at 100%, bringing the seasonal accumulation (Oct-Mar) to 102% of average. Average soil moisture in runoff producing areas is estimated at 54% of saturation in the upper 2 feet of soil compared to 49% at this time last year. Reservoir storage is at 87% of capacity, 5% higher than last year. Streamflow forecasts (Apr-July) range from 83% to 105% of average. The Surface Water Supply Index below Deer Creek reservoir is 52%, indicating general water supply conditions are near normal.



=====  
 UTAH LAKE, JORDAN RIVER & TOOKELE VALLEY  
 Streamflow Forecasts - April 1, 2009

Forecast Point	Forecast Period	<===== Drier ===== Future Conditions ===== Wetter =====>						30-Yr Avg. (1000AF)	
		Chance Of Exceeding *		50% (1000AF) (% AVG.)		30% (1000AF) (1000AF)			
		90% (1000AF)	70% (1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)		
Spanish Fk at Castilla, UT	APR-JUL	5.4	39	70	91	101	146	77	
Provo River nr Woodland	APR-JUL	60	77	90	87	104	126	103	
Provo River nr Hailstone	APR-JUL	58	79	96	88	114	144	109	
Provo R blw Deer Ck Dam, UT	APR-JUL	72	96	112	89	128	152	126	
American Fk abv Upper Powerplant	APR-JUL	16.2	24	29	91	34	42	32	
Utah Lake inflow	APR-JUL	153	232	285	88	338	417	325	
W Canyon Ck nr Cedar Fort, UT	APR-JUL	1.14	1.65	2.00	83	2.40	2.90	2.40	
Little Cottonwood Ck nr SLC	APR-JUL	29	34	38	95	42	48	40	
Big Cottonwood Ck nr SLC, UT	APR-JUL	27	33	37	97	41	47	38	
Mill Ck nr SLC, UT	APR-JUL	3.10	5.10	6.50	93	7.90	9.90	7.00	
Parleys Ck nr SLC, UT	APR-JUL	7.8	12.6	15.8	95	19.0	24	16.7	
Dell Fork nr SLC, UT	APR-JUL	-0.52	3.50	6.30	93	9.10	13.10	6.80	
Emigration Ck nr SLC, UT	APR-JUL	1.09	2.90	4.20	93	5.50	7.30	4.50	
City Ck nr SLC, UT	APR-JUL	4.90	7.40	9.10	105	10.80	13.30	8.70	
Vernon Ck nr Vernon, UT	APR-JUL	0.40	0.99	1.40	95	1.81	2.40	1.48	
Settlement Ck nr Tooele, UT	APR-JUL	0.32	1.20	1.80	86	2.40	3.30	2.10	
South Willow Ck nr Grantsville, UT	APR-JUL	2.10	2.80	3.20	99	3.60	4.30	3.23	

=====  
 UTAH LAKE, JORDAN RIVER & TOOKELE VALLEY  
 Reservoir Storage (1000 AF) - End of March

=====  
 UTAH LAKE, JORDAN RIVER & TOOKELE VALLEY  
 Watershed Snowpack Analysis - April 1, 2009

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of Last Yr Average	
		This Year	Last Year	Avg			Last Yr	Average
DEER CREEK	149.7	134.5	78.4	113.0	PROVO RIVER & UTAH LAKE	7	85	92
GRANTSVILLE	3.3	2.1	1.6	2.7	PROVO RIVER	4	88	94
SETTLEMENT CREEK	1.0	0.6	0.5	0.7	JORDAN RIVER & GSL	6	88	104
STRAWBERRY-ENLARGED	1105.9	940.2	879.9	648.8	TOOELE & RUSH VALLEY WATE	3	88	89
UTAH LAKE	870.9	835.0	827.5	855.8	UTAH LAKE/JORDAN R./TOEEL	16	87	96
VERNON CREEK	0.6	0.6	0.6	---				

\* 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.

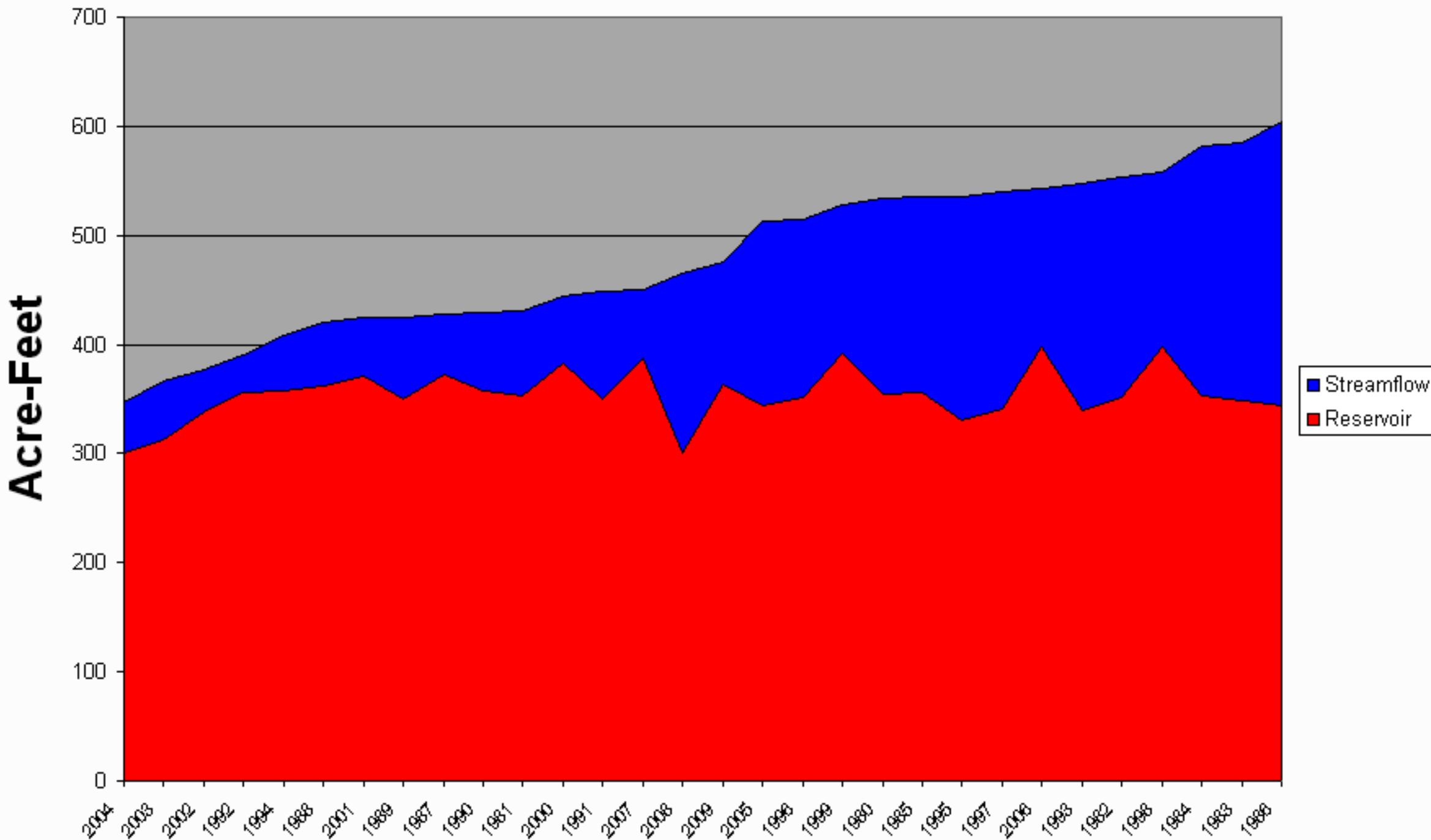
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.

## April

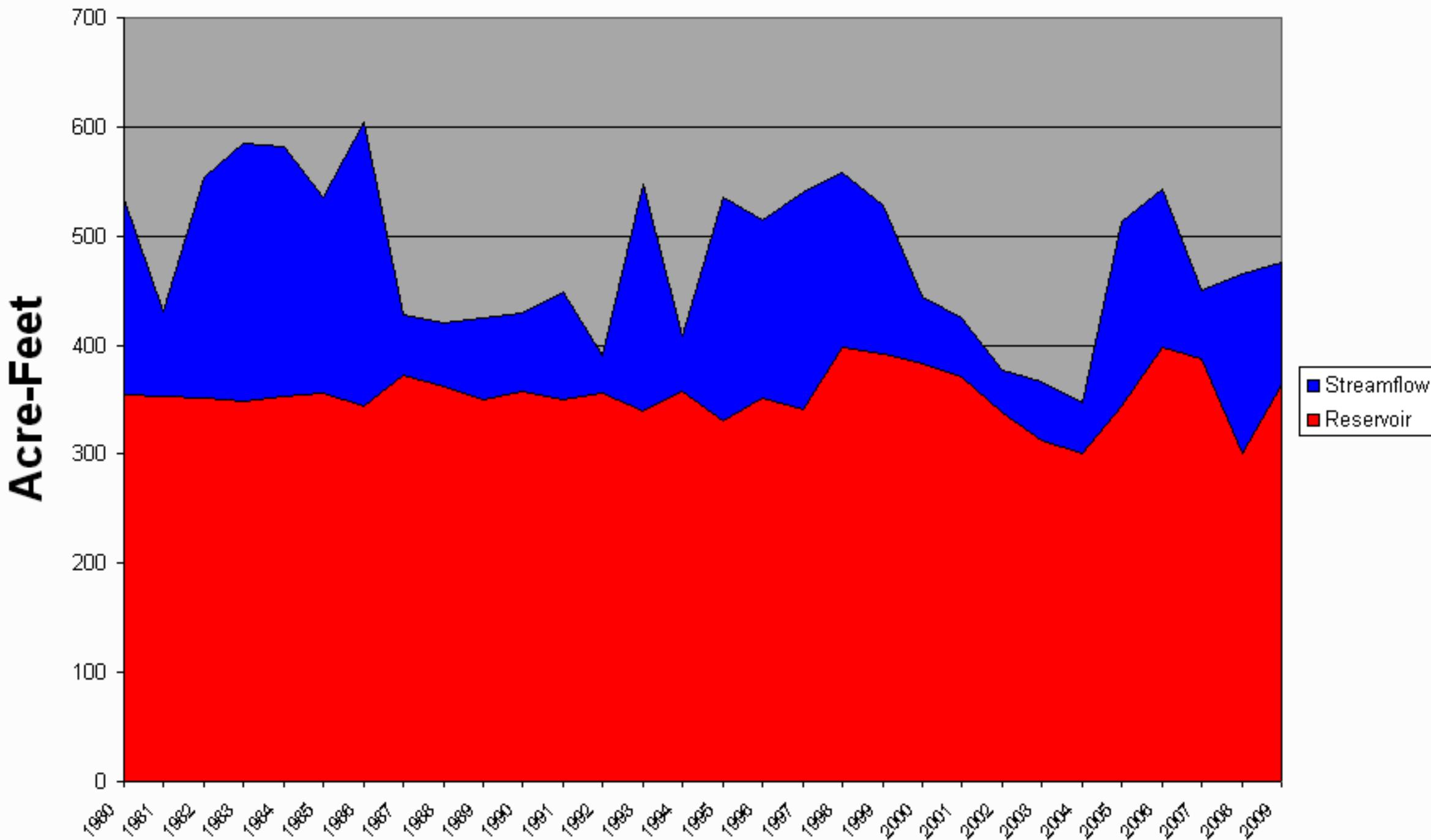
Provo River SWSI @ inflow of Deer Creek - BOR data

Rank	WY	March EOM Reservior Storage	April - July Predicted Streamflow	# of years Streamflow + EOM Storage	<b>30</b>	
					Non- Exceedance Probability	April SWSI
30	2004	300	47	347	0.03	-3.90
29	2003	312	55	367	0.06	-3.63
28	2002	338	39	377	0.10	-3.36
27	1992	355	35	390	0.13	-3.09
26	1994	358	51	409	0.16	-2.82
25	1988	362	59	421	0.19	-2.55
24	2001	372	52	424	0.23	-2.28
23	1989	350	76	425	0.26	-2.02
22	1987	372	56	428	0.29	-1.75
21	1990	358	72	430	0.32	-1.48
20	1981	353	77	430	0.35	-1.21
19	2000	384	60	444	0.39	-0.94
18	1991	350	99	449	0.42	-0.67
17	2007	387	63	450	0.45	-0.40
16	2008	301	164	465	0.48	-0.13
<b>15</b>	<b>2009</b>	<b>363</b>	<b>112</b>	<b>475</b>	<b>0.52</b>	<b>0.13</b>
14	2005	344	169	514	0.55	0.40
13	1996	351	163	514	0.58	0.67
12	1999	391	136	527	0.61	0.94
11	1980	354	180	534	0.65	1.21
10	1985	356	180	535	0.68	1.48
9	1995	330	206	536	0.71	1.75
8	1997	341	199	540	0.74	2.02
7	2006	398	145	543	0.77	2.28
6	1993	340	208	548	0.81	2.55
5	1982	351	203	554	0.84	2.82
4	1998	398	160	558	0.87	3.09
3	1984	354	229	582	0.90	3.36
2	1983	348	237	585	0.94	3.63
1	1986	344	260	604	0.97	3.90

# Provo River SWSI @ Deer Creek Inflow



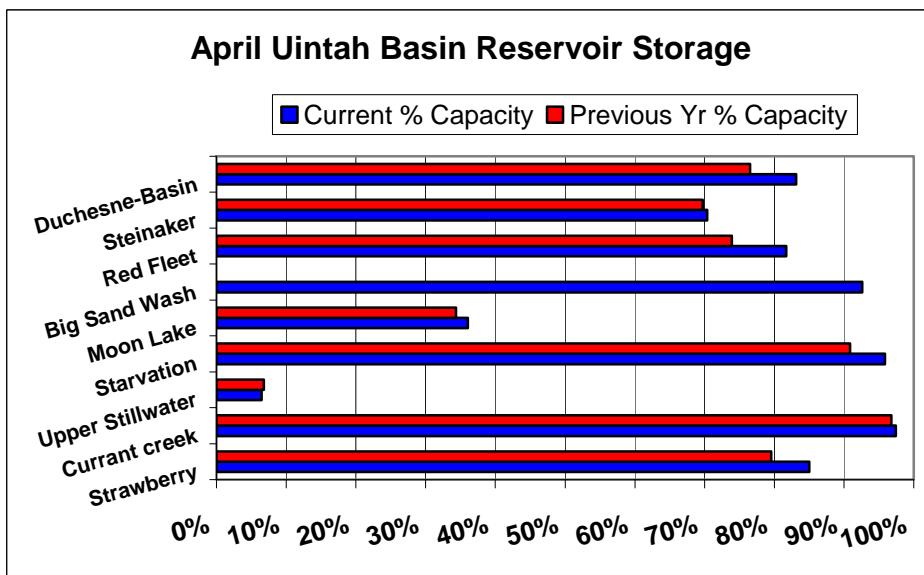
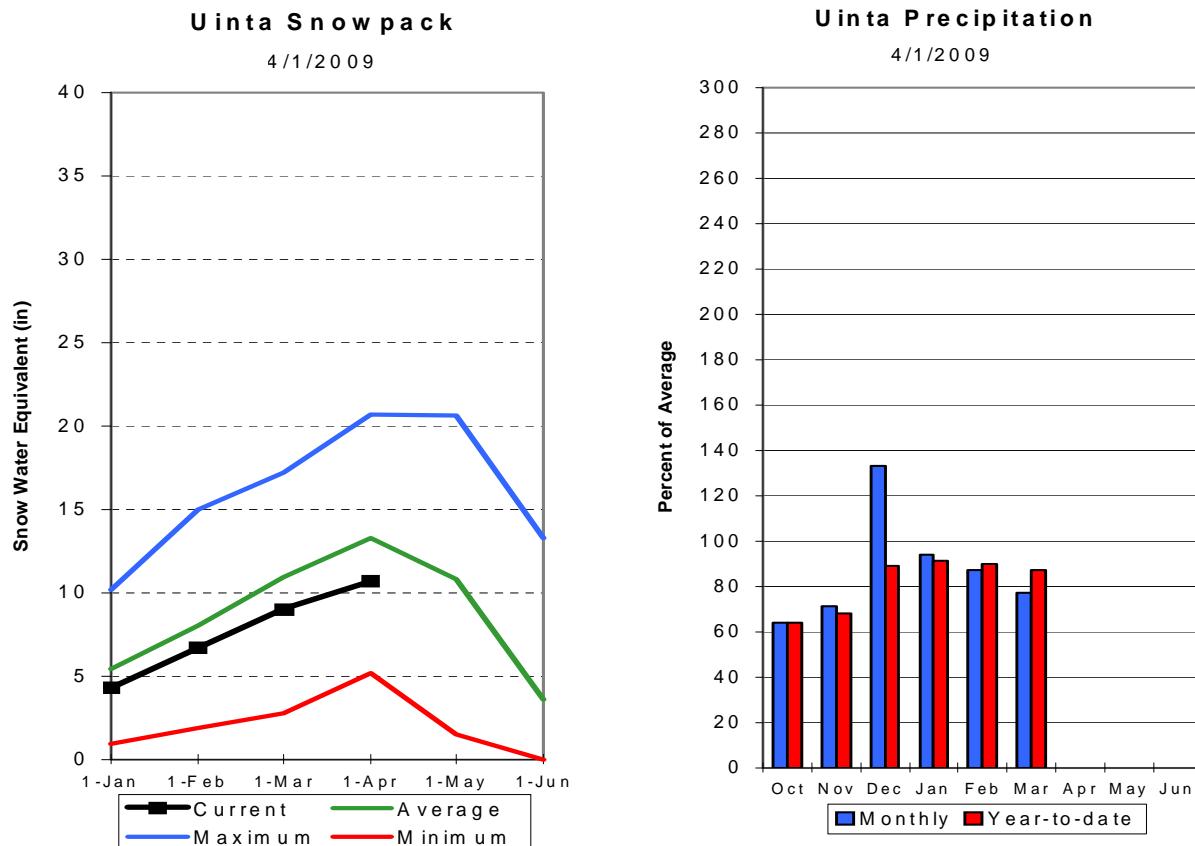
# Provo River SWSI @ Deer Creek Inflow



## Uintah Basin and Dagget SCD's

### April 1, 2009

Snowpack across the Uintas is below average at 80%, which is 72% of last year. Individual sites on the North Slope range from 55% to 78% and on the South Slope range from 37% to 95% of average. Precipitation during March was below average at 77% bringing the seasonal accumulation (Oct-Mar) to 87%. Soil moisture values in runoff producing areas are at 46% of saturation in the upper 2 feet of soil compared to 37% last year. Reservoir storage is at 83% of capacity, 6% more than last year. Streamflow forecasts (Apr-July) range from 57% to 83% of average. The Surface Water Supply Index for the western area is 48% and for the eastern area it is 26% indicating near normal conditions on the west side and below normal for the eastern area. General water supply conditions range from near to below average.



UINTAH BASIN & DAGGET SCD'S Streamflow Forecasts - April 1, 2009									
Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions =====>>							
		Chance Of Exceeding *				30-Yr Avg.			
		90% (1000AF)	70% (1000AF)	50% (1000AF)	% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)	
Blacks Fork nr Robertson	APR-JUL	48	61	70	74	80	96	95	
EF of Smiths Fork nr Robertson	APR-JUL	12.7	17.4	21	72	25	31	29	
Flaming Gorge Reservoir Inflow (2)	APR-JUL	465	660	810	68	975	1250	1190	
Big Brush Ck abv Red Fleet Resv	APR-JUL	8.2	11.4	14.0	67	16.8	21	21	
Ashley Creek nr Vernal	APR-JUL	20	29	36	69	44	56	52	
WF Duchesne River nr Hanna (2)	APR-JUL	12.8	16.9	20	83	23	29	24	
Duchesne R nr Tabiona (2)	APR-JUL	54	69	80	76	92	111	105	
Upper Stillwater Reservoir Inflow	APR-JUL	52	60	65	79	71	79	82	
Rock Ck nr Mountain Home (2)	APR-JUL	54	63	70	79	77	87	89	
Duchesne R abv Knight Diversion (2)	APR-JUL	111	136	155	82	175	205	188	
Strawberry R nr Soldier Springs (2)	APR-JUL	20	31	40	68	50	66	59	
Currant Creek Reservoir Inflow (2)	APR-JUL	9.7	14.9	19.0	76	24	31	25	
Strawberry R nr Duchesne (2)	APR-JUL	39	60	76	63	94	125	121	
Lake Fork River Moon Lake Inflow	APR-JUL	43	50	55	81	60	69	68	
Yellowstone River nr Altonah	APR-JUL	36	44	50	81	56	66	62	
Duchesne R at Myton (2)	APR-JUL	66	112	150	58	194	270	260	
Whiterocks nr Whiterocks	APR-JUL	28	38	45	80	53	66	56	
Duchesne R nr Randlett (2)	APR-JUL	77	136	185	57	240	340	324	

UINTAH BASIN & DAGGET SCD'S Reservoir Storage (1000 AF) - End of March				UINTAH BASIN & DAGGET SCD'S Watershed Snowpack Analysis - April 1, 2009				
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of Last Yr Average	
	This Year	Last Year	Avg					
FLAMING GORGE	3749.0	2986.0	3035.0	2920.0	UPPER GREEN RIVER in UTAH	6	65	71
MOON LAKE	49.5	12.9	12.3	30.8	ASHLEY CREEK	2	63	72
RED FLEET	25.7	21.0	19.0	18.8	BLACK'S FORK RIVER	2	68	77
STEINAKER	33.4	23.5	23.3	24.2	SHEEP CREEK	1	54	55
STARVATION	165.3	158.5	150.2	138.6	DUCHESNE RIVER	11	75	84
STRAWBERRY-ENLARGED	1105.9	940.2	879.9	648.8	LAKE FORK-YELLOWSTONE CRE	4	85	88
					STRAWBERRY RIVER	4	64	79
					UINTAH-WHITEROCKS RIVERS	2	81	86
					UINTAH BASIN & DAGGET SCD	17	72	80

\* 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.

**WESTERN UNTA BASIN SWSI**

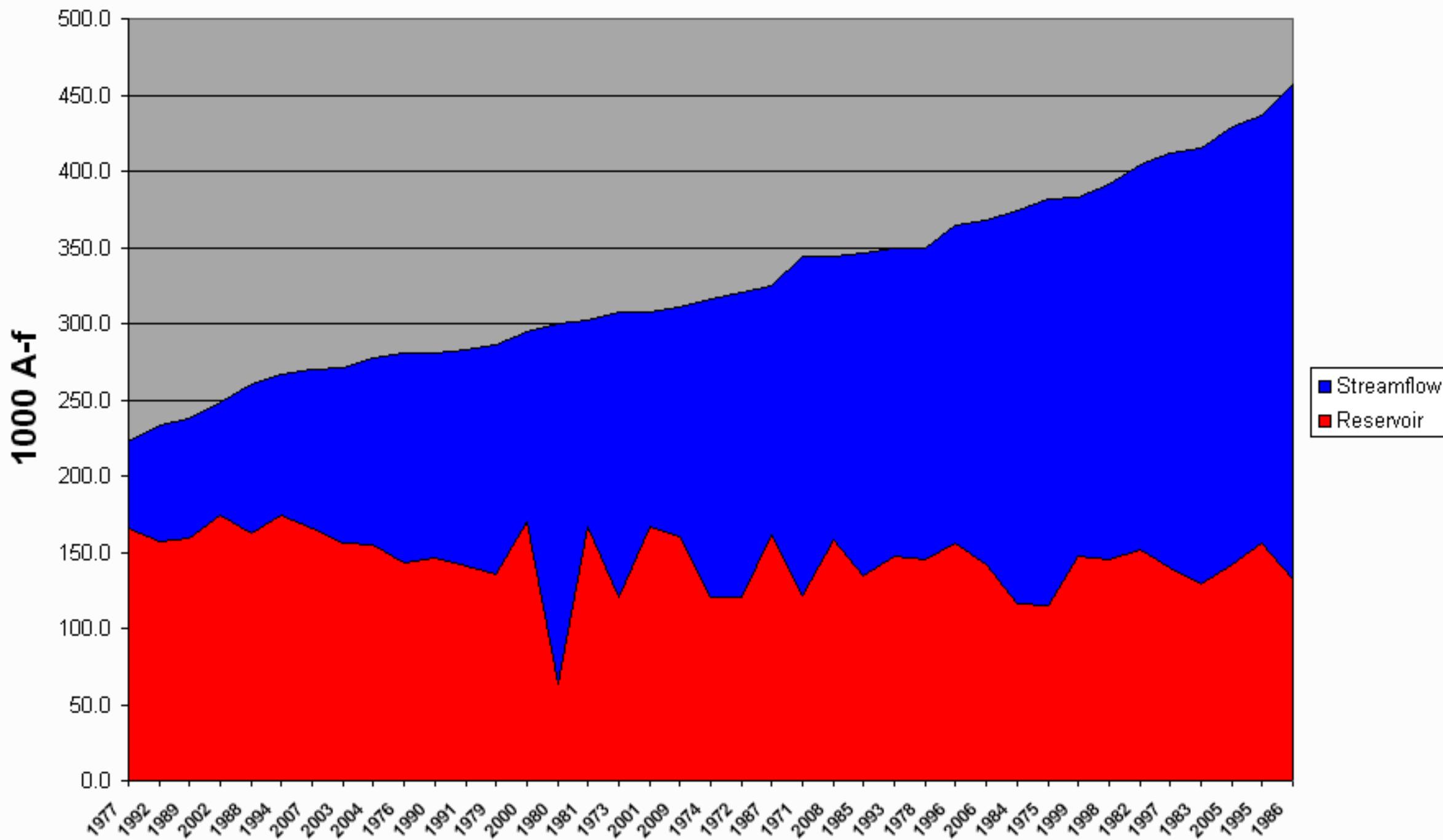
April 1, 2009

# of years      39

#	Year	EOM March Reservoir	Apr-Jul Streamflow	Reservoir + Streamflow	Probability	SWSI
		KAF	KAF	KAF		
1	1977	166.0	57.0	223.0	3	-3.96
2	1992	157.2	76.3	233.5	5	-3.75
3	1989	159.0	78.7	237.7	8	-3.54
4	2002	174.3	73.7	248.0	10	-3.33
5	1988	162.5	98.1	260.7	13	-3.13
6	1994	174.3	92.4	266.7	15	-2.92
7	2007	165.5	103.9	269.4	18	-2.71
8	2003	156.0	115.3	271.3	20	-2.50
9	2004	155.3	122.3	277.6	23	-2.29
10	1976	143.1	137.6	280.7	25	-2.08
11	1990	145.9	134.8	280.7	28	-1.88
12	1991	140.8	142.2	283.0	30	-1.67
13	1979	135.8	150.0	285.8	33	-1.46
14	2000	169.5	125.4	295.0	35	-1.25
15	1980	63.0	236.8	299.8	38	-1.04
16	1981	166.2	135.8	301.9	40	-0.83
17	1973	120.6	186.8	307.4	43	-0.63
18	2001	166.9	141.1	308.0	45	-0.42
19	<b>2009</b>	<b>160.6</b>	<b>150.0</b>	<b>310.6</b>	<b>48</b>	<b>-0.21</b>
20	1974	120.3	195.5	315.8	50	0.00
21	1972	120.4	200.3	320.7	53	0.21
22	1987	161.3	162.9	324.2	55	0.42
23	1971	121.3	222.7	344.0	58	0.62
24	2008	158.2	186.0	344.2	60	0.83
25	1985	134.2	212.1	346.3	63	1.04
26	1993	147.8	201.7	349.5	65	1.25
27	1978	144.9	204.8	349.7	68	1.46
28	1996	155.7	208.2	364.0	70	1.67
29	2006	142.3	225.8	368.1	73	1.88
30	1984	115.6	258.2	373.8	75	2.08
31	1975	114.8	266.6	381.4	78	2.29
32	1999	147.0	235.5	382.5	80	2.50
33	1998	145.6	246.0	391.6	83	2.71
34	1982	151.8	252.7	404.6	85	2.92
35	1997	139.5	272.4	411.8	88	3.13
36	1983	129.4	285.2	414.6	90	3.33
37	2005	142.2	286.7	428.9	93	3.54
38	1995	155.5	280.7	436.1	95	3.75
39	1986	132.0	324.7	456.7	98	3.96

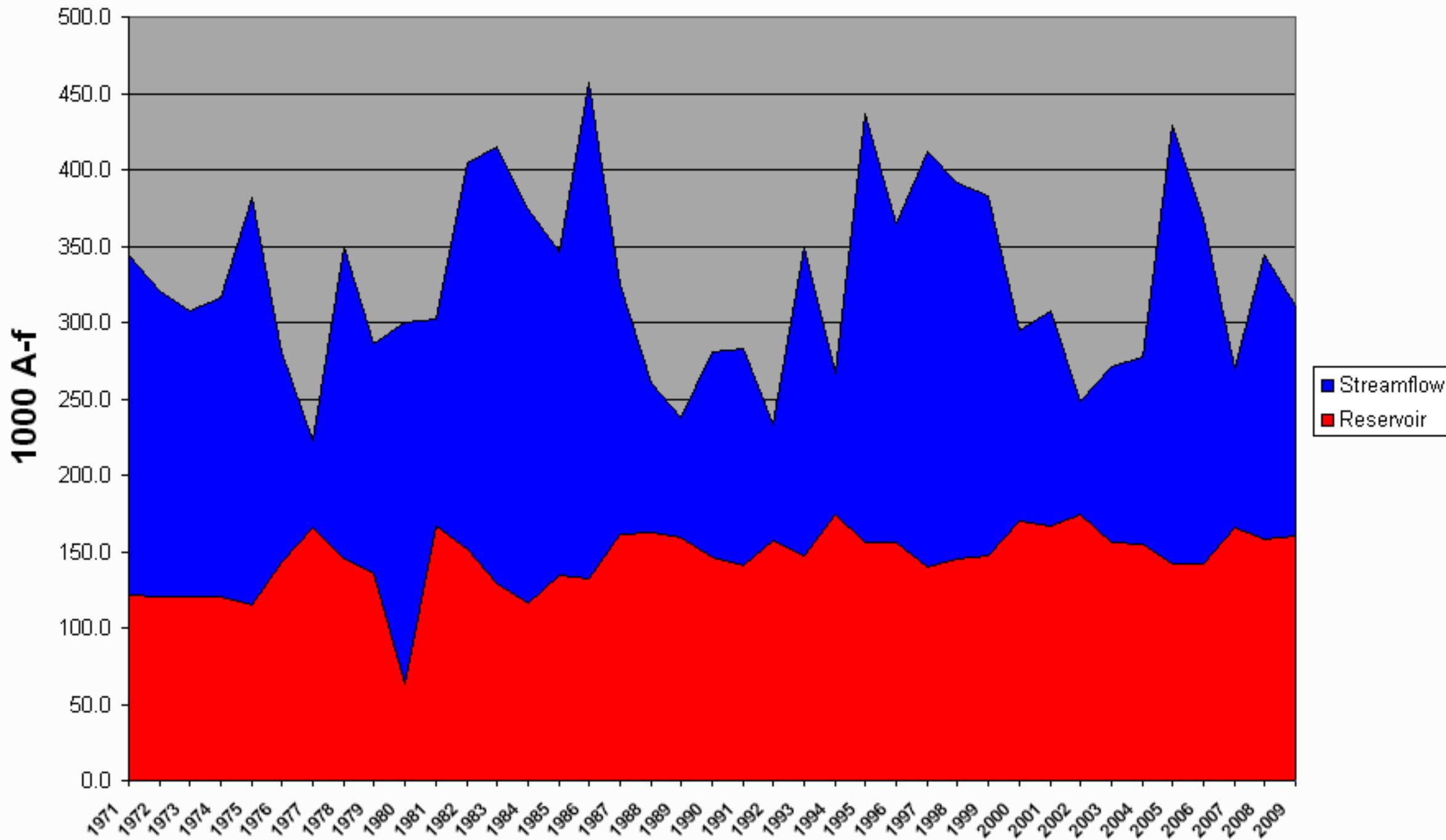
## Western Uintah Basin Surface Water Supply Index

April



## Western Uintah Basin Surface Water Supply Index

April



### EASTERN UNTA BASIN SWSI

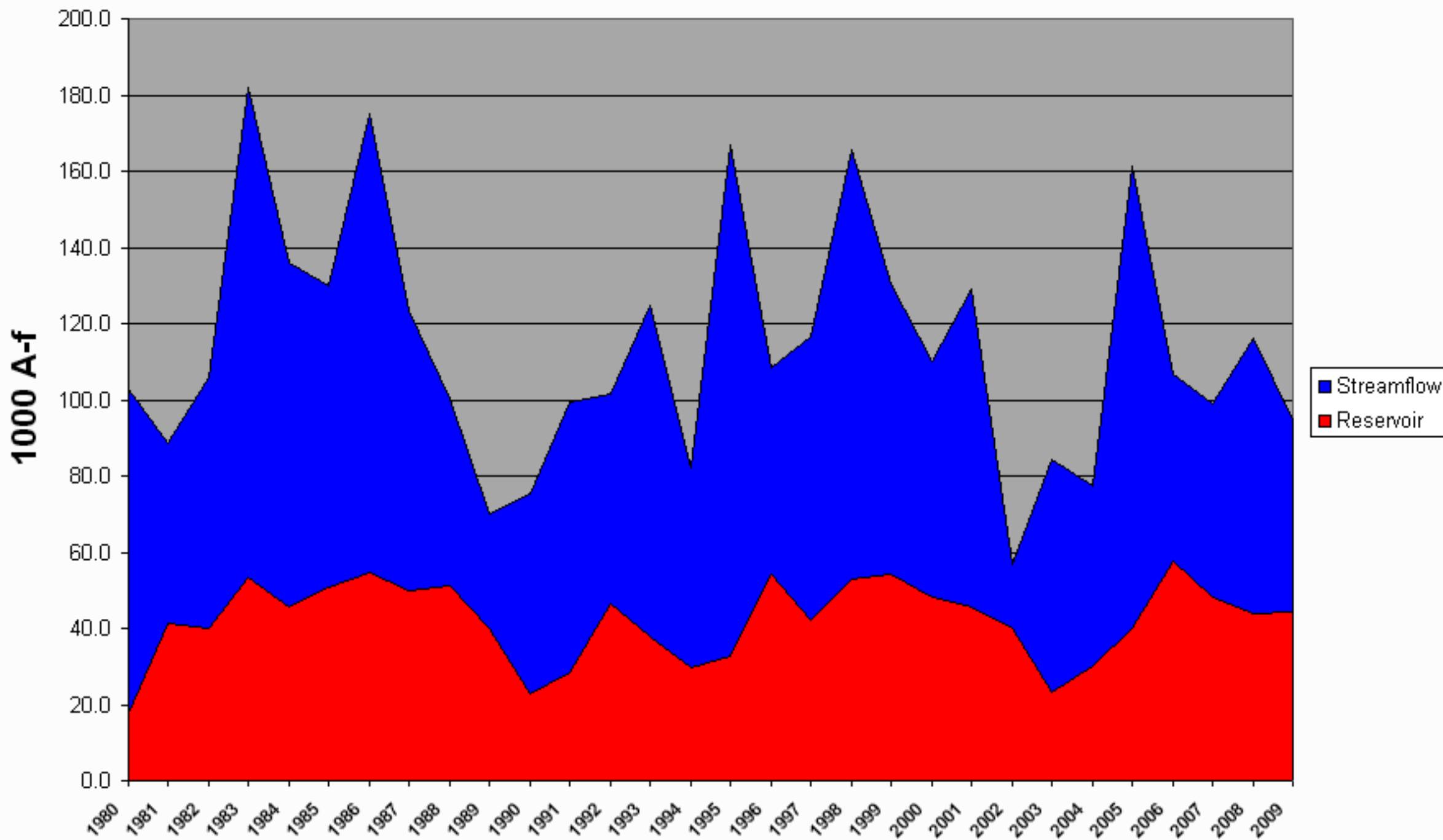
April 1, 2009

# of years      30

#	Year	EOM March Reservoir	Apr-Jul Streamflow	Reservoir + Streamflow	Probability	SWSI
		KAF	KAF	KAF		
1	2002	40.1	16.7	56.8	3	-3.90
2	1989	40.1	30.1	70.2	6	-3.63
3	1990	22.8	52.4	75.2	10	-3.36
4	2004	30.3	47.0	77.3	13	-3.09
5	1994	29.8	52.3	82.1	16	-2.82
6	2003	23.3	61.2	84.5	19	-2.55
7	1981	41.5	47.1	88.6	23	-2.28
8	<b>2009</b>	<b>44.5</b>	<b>50.0</b>	<b>94.5</b>	<b>26</b>	<b>-2.02</b>
9	2007	48.1	50.6	98.8	29	-1.75
10	1991	28.5	71.1	99.5	32	-1.48
11	1988	51.1	49.0	100.1	35	-1.21
12	1992	46.5	55.0	101.5	39	-0.94
13	1980	17.8	85.0	102.8	42	-0.67
14	1982	39.9	65.7	105.6	45	-0.40
15	2006	57.5	49.0	106.6	48	-0.13
16	1996	54.3	54.1	108.3	52	0.13
17	2000	48.3	61.7	110.0	55	0.40
18	2008	44.0	72.0	116.0	58	0.67
19	1997	42.0	74.6	116.7	61	0.94
20	1987	50.1	73.4	123.4	65	1.21
21	1993	37.8	87.1	124.9	68	1.48
22	2001	45.4	83.6	129.0	71	1.75
23	1985	50.9	79.1	130.1	74	2.02
24	1999	54.3	76.2	130.4	77	2.28
25	1984	45.5	90.4	135.9	81	2.55
26	2005	40.2	121.1	161.2	84	2.82
27	1998	53.0	112.6	165.6	87	3.09
28	1995	32.8	134.2	166.9	90	3.36
29	1986	54.6	120.3	174.9	94	3.63
30	1983	53.5	128.4	181.9	97	3.898

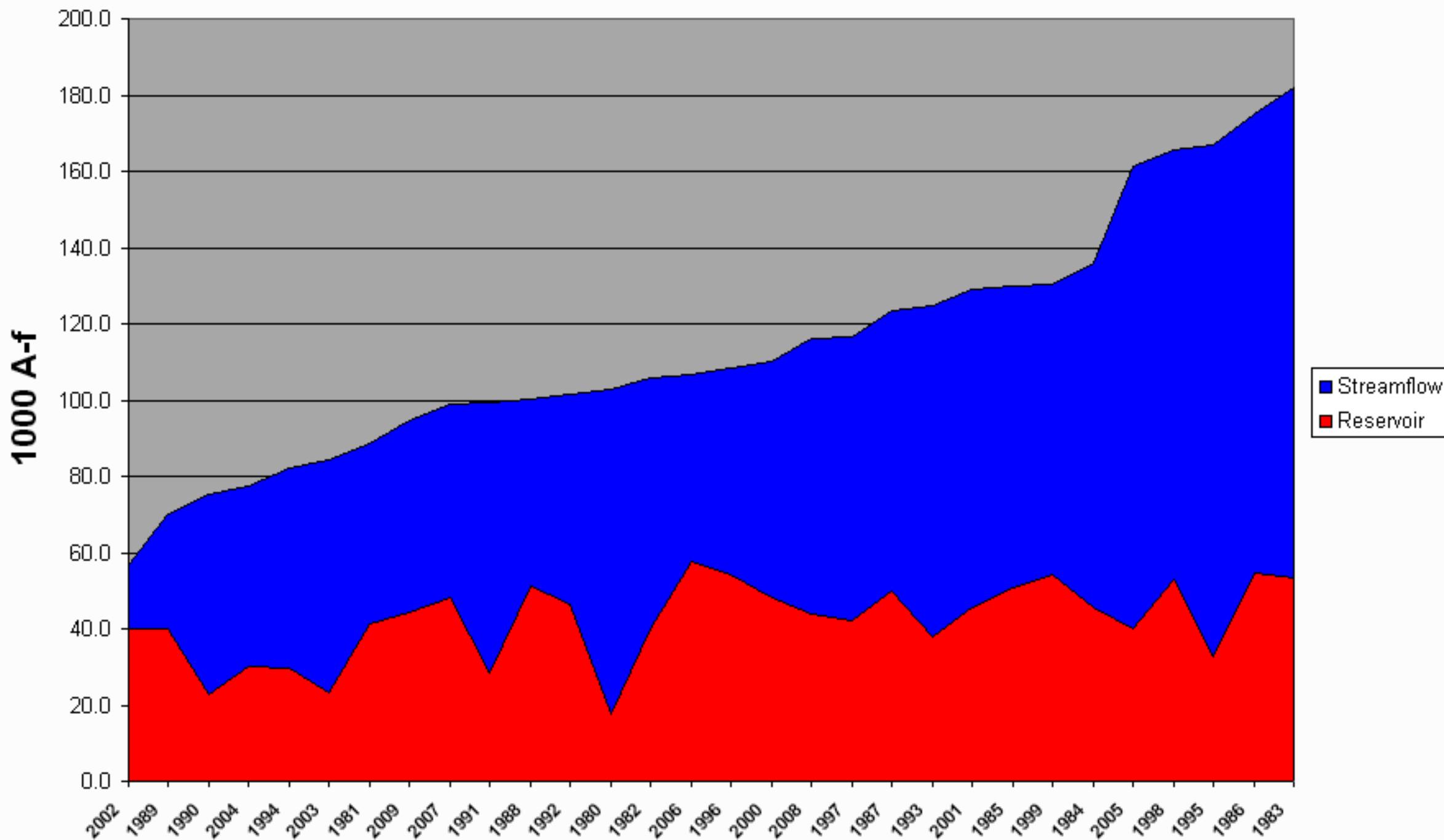
## Eastern Uintah Basin Surface Water Supply Index

April



## Eastern Uintah Basin Surface Water Supply Index

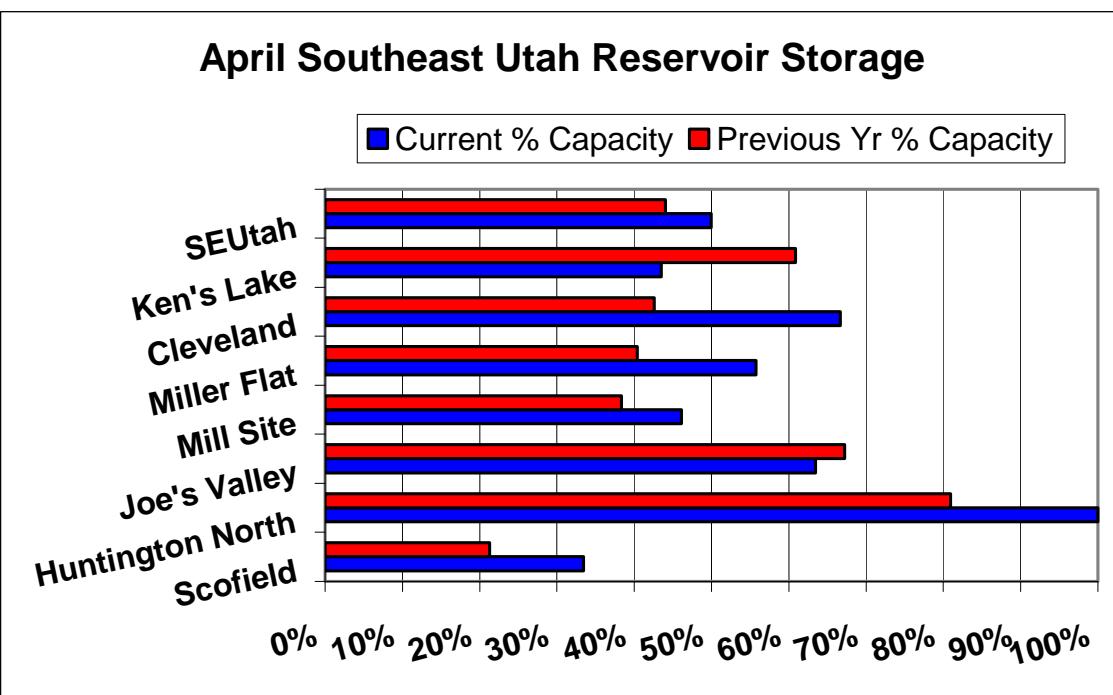
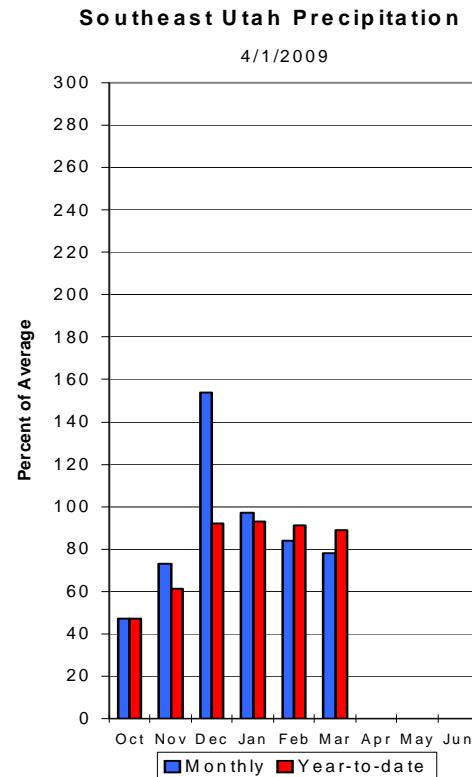
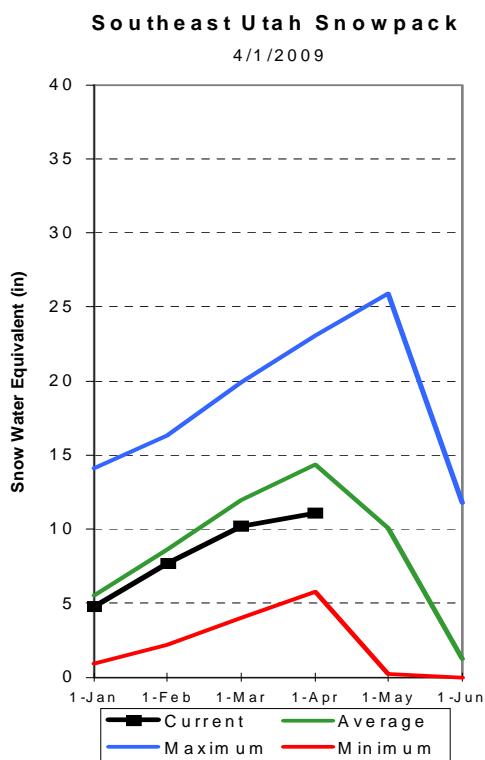
April



## Carbon, Emery, Wayne, Grand and San Juan Co.

April 1, 2009

Snowpacks in this region are below normal at 77% of average, about 70% of last year. Individual sites range from 16% to 111% of average. Precipitation during March was below average at 78%, bringing the seasonal accumulation (Oct-Mar) to 89% of normal. Soil moisture estimates in runoff producing areas are at 54% of saturation in the upper 2 feet of soil, the same as last year at this time. Forecast streamflows (Apr – July) range from 32% to 102% of average. Reservoir storage is at 50% of capacity, up 6% from last year at this time. Surface Water Supply Indices for the area are: Price 32%, Joe's Valley 45%, Ferron Creek 16%, and Moab 35%. General runoff and water supply conditions are below average for Moab and the Price, much below average for Ferron Creek, and near average for Joe's Valley.



CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Streamflow Forecasts - April 1, 2009

Forecast Point	Forecast Period	<===== Drier ===== Future Conditions ===== Wetter =====>						30-Yr Avg. (1000AF)	
		Chance Of Exceeding *		50% (1000AF) (% AVG.)		30% (1000AF) 10% (1000AF)			
		90% (1000AF)	70% (1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)		
Gooseberry Creek nr Scofield	APR-JUL	6.9	8.7	10.0	84	11.4	13.7	11.9	
Price River nr Scofield Reservoir	APR-JUL	24	31	36	80	42	51	45	
White River blw Tabbyune Creek	APR-JUL	9.3	11.7	13.5	78	15.4	18.5	17.3	
Green River at Green River, UT (2)	APR-JUL	1640	2300	2750	87	3200	3860	3170	
Huntington Ck Inflow to Electric Lk	APR-JUL	8.4	10.5	12.0	76	13.6	16.2	15.7	
Huntington Ck nr Huntington (2)	APR-JUL	23	30	36	74	42	52	49	
Joe's Valley Reservoir Inflow	APR-JUL	27	35	42	72	49	61	58	
Ferron Ck (Upper Station) nr Ferron	APR-JUL	14.8	18.9	22	56	25	31	39	
Colorado River nr Cisco (2)	APR-JUL	3500	4150	4750	102	5350	6100	4650	
Mill Creek at Sheley Tunnel nr Moab	APR-JUL	2.20	2.90	3.50	70	4.20	5.30	5.00	
Muddy Creek nr Emery	APR-JUL	9.4	12.6	15.0	75	17.7	22	19.9	
South Ck ab Lloyd's Res nr Monticell	MAR-JUL	0.16	0.33	0.50	36	0.71	1.13	1.38	
	APR-JUL	0.13	0.28	0.43	32	0.62	1.00	1.34	
San Juan River near Bluff (2)	APR-JUL	640	810	1010	82	1210	1410	1230	

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

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Watershed Snowpack Analysis - April 1, 2009

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of Last Yr Average	
		This Year	Last Year	Avg				
HUNTINGTON NORTH	4.2	4.2	3.4	3.9	PRICE RIVER	3	67	83
JOE'S VALLEY	61.6	39.1	42.1	41.4	SAN RAFAEL RIVER	3	85	80
KEN'S LAKE	2.3	1.0	1.4	1.4	MUDY CREEK	1	67	74
MILL SITE	16.7	7.7	6.4	86.2	FREMONT RIVER	3	80	70
SCOFIELD	65.8	22.0	14.0	34.7	LASAL MOUNTAINS	1	88	73
					BLUE MOUNTAINS	1	37	62
					WILLOW CREEK	1	52	77
					SOUTHEASTERN UTAH	13	70	77

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

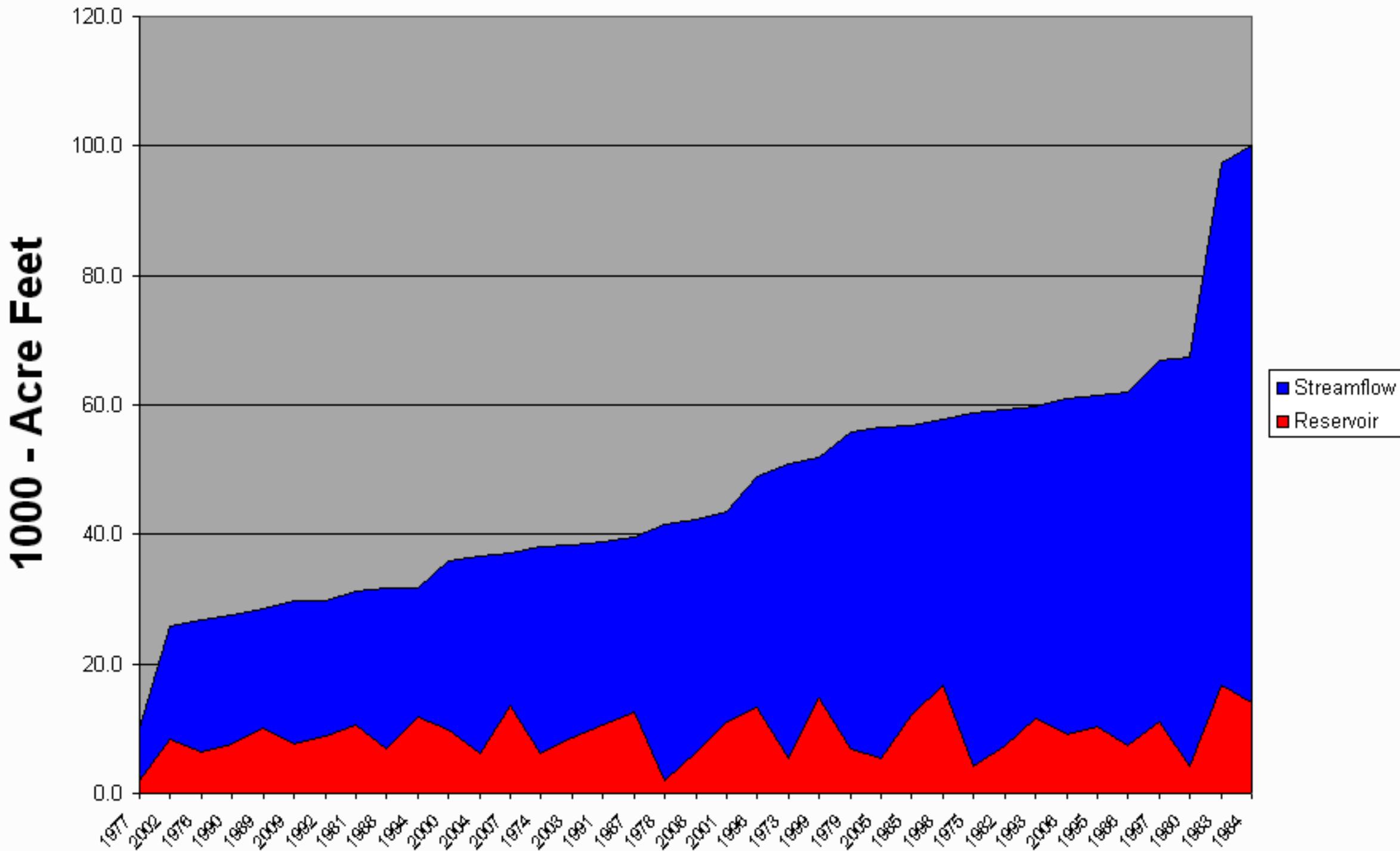
The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

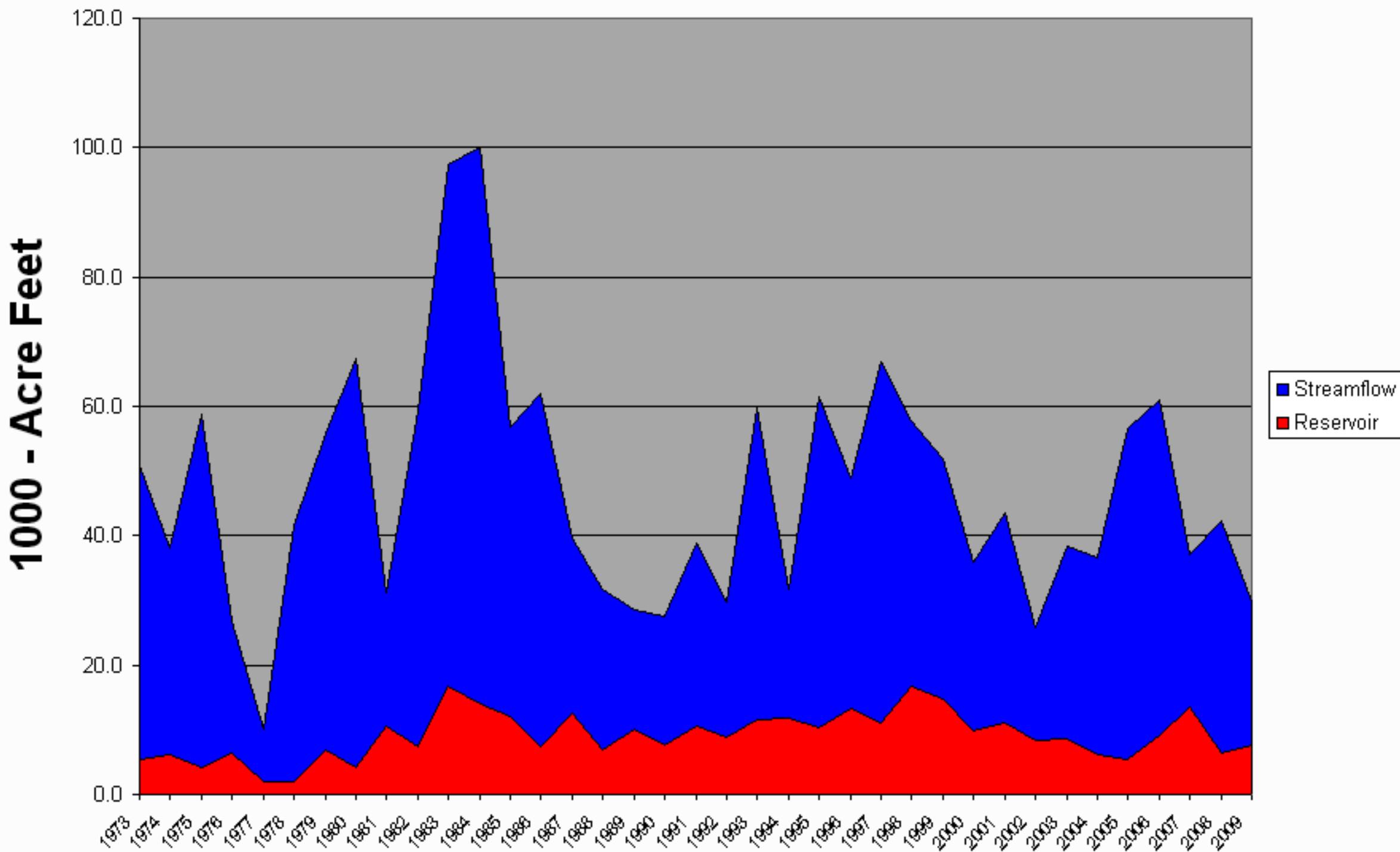
(2) - The value is natural volume - actual volume may be affected by upstream water management.

<b>Ferron Creek SWSI</b>						
<b>April</b>						
#	Year	EOM March Millsite Reservoir Storage	April-July Forecast Streamflow - Ferron Creek Upper	Reservoir + Streamflow 1000AF	Probability	SWSI
1	1977	2.0	8.0	10.0	3	-3.95
2	2002	8.4	17.4	25.8	5	-3.73
3	1976	6.4	20.4	26.8	8	-3.51
4	1990	7.6	19.9	27.5	11	-3.29
5	1989	10.2	18.3	28.5	13	-3.07
6	<b>2009</b>	<b>7.7</b>	<b>22.0</b>	<b>29.7</b>	<b>16</b>	<b>-2.85</b>
7	1992	8.9	20.9	29.8	18	-2.63
8	1981	10.6	20.6	31.2	21	-2.41
9	1988	7.0	24.7	31.7	24	-2.19
10	1994	11.9	19.9	31.8	26	-1.97
11	2000	9.9	26.1	36.0	29	-1.75
12	2004	6.1	30.6	36.7	32	-1.54
13	2007	13.5	23.7	37.2	34	-1.32
14	1974	6.1	32.1	38.2	37	-1.10
15	2003	8.7	29.7	38.4	39	-0.88
16	1991	10.6	28.3	38.9	42	-0.66
17	1987	12.5	27.1	39.6	45	-0.44
18	1978	2.0	39.5	41.5	47	-0.22
19	2008	6.4	36.0	42.4	50	0.00
20	2001	11.1	32.5	43.6	53	0.22
21	1996	13.4	35.6	49.0	55	0.44
22	1973	5.3	45.6	50.9	58	0.66
23	1999	14.7	37.3	52.0	61	0.88
24	1979	6.8	49.1	55.9	63	1.10
25	2005	5.4	51.1	56.5	66	1.32
26	1985	12.0	44.7	56.7	68	1.54
27	1998	16.7	41.2	57.9	71	1.75
28	1975	4.3	54.5	58.8	74	1.97
29	1982	7.4	52.0	59.4	76	2.19
30	1993	11.6	48.3	59.9	79	2.41
31	2006	9.2	51.9	61.1	82	2.63
32	1995	10.3	51.2	61.5	84	2.85
33	1986	7.4	54.5	61.9	87	3.07
34	1997	11.0	55.9	66.9	89	3.29
35	1980	4.2	63.2	67.4	92	3.51
36	1983	16.7	80.7	97.4	95	3.73
37	1984	13.9	86.3	100.2	97	3.95

## Ferron Creek SWSI

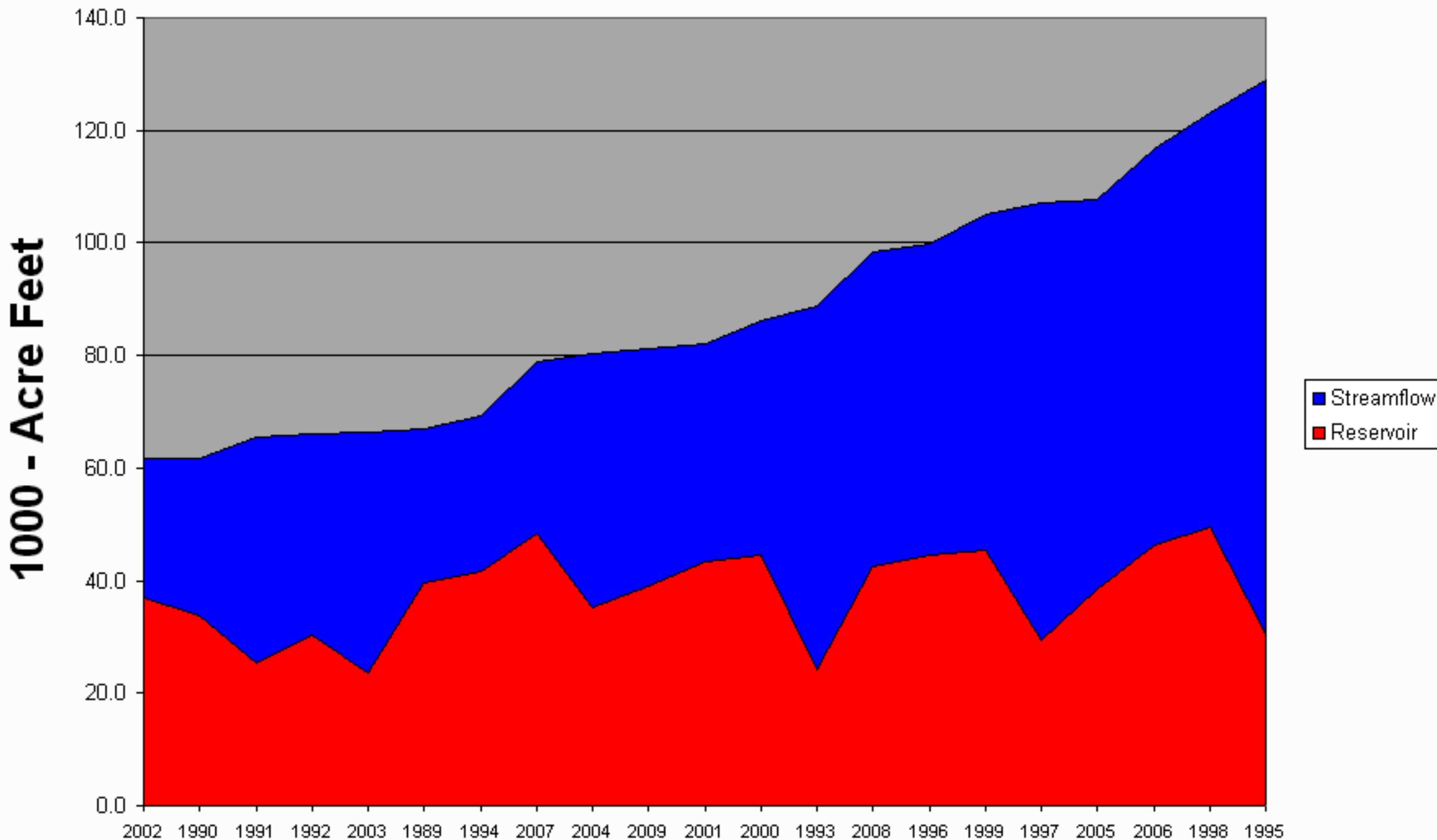


## Ferron Creek SWSI

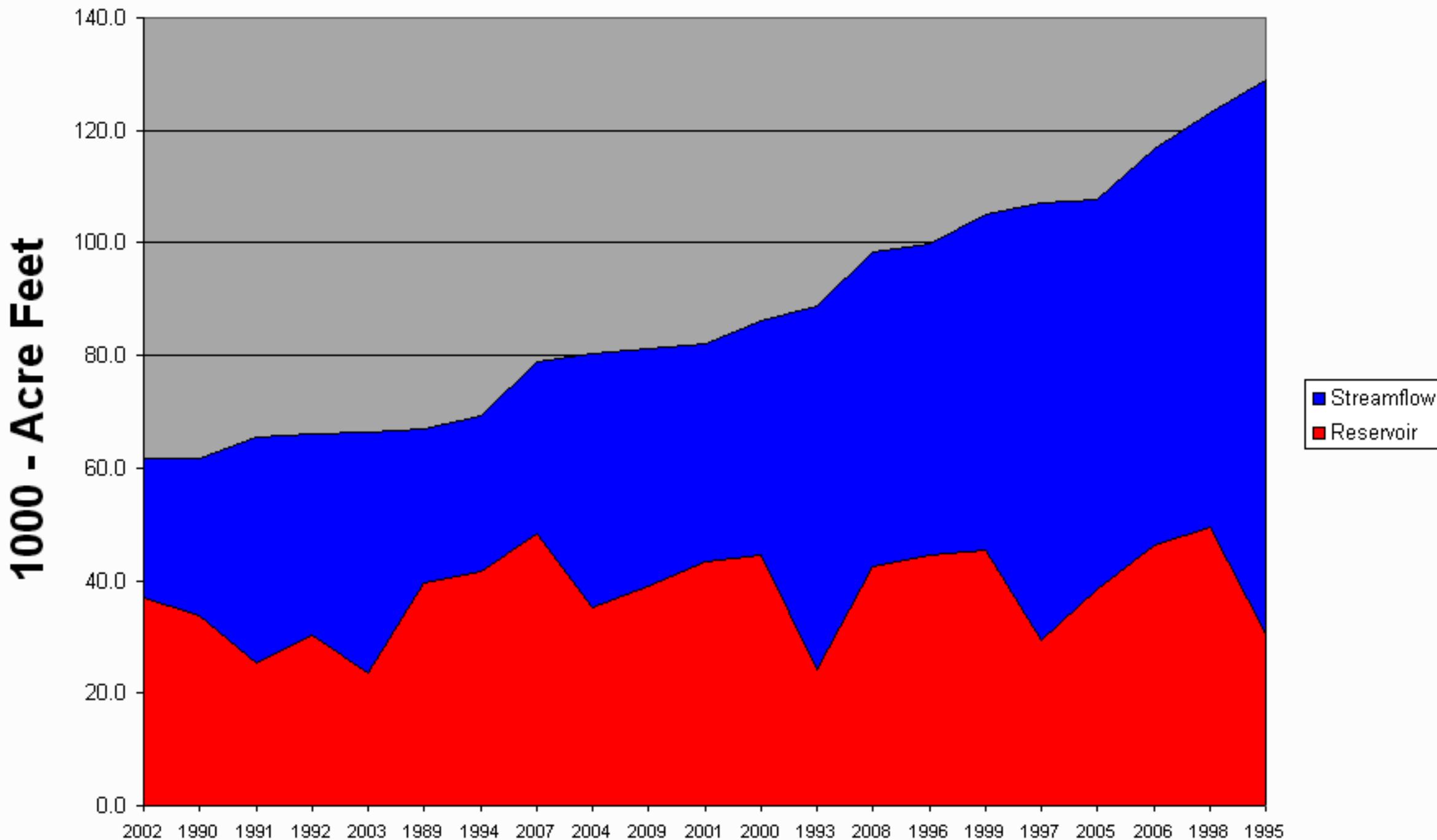


		<b>Joe's</b>	<b>Valley</b>	<b>SWSI</b>		
		<b>April</b>				
		EOM March Joe's Valley Storage	April-July Forecast Streamflow - Joe's Valley Inflow	Reservoir + Streamflow		
#	Year	1000-AF	1000-AF	1000-AF	Probability	SWSI
1	2002	37.1	24.6	61.6	5	-3.79
2	1990	33.6	28.2	61.8	9	-3.41
3	1991	25.3	40.2	65.5	14	-3.03
4	1992	30.4	35.6	66.0	18	-2.65
5	2003	23.6	42.8	66.4	23	-2.27
6	1989	39.6	27.2	66.8	27	-1.89
7	1994	41.7	27.6	69.3	32	-1.52
8	2007	48.3	30.4	78.8	36	-1.14
9	2004	35.2	45.1	80.3	41	-0.76
10	<b>2009</b>	<b>39.1</b>	<b>42.0</b>	<b>81.1</b>	<b>45</b>	<b>-0.38</b>
11	2001	43.4	38.7	82.1	50	0.00
12	2000	44.6	41.5	86.1	55	0.38
13	1993	24.2	64.5	88.6	59	0.76
14	2008	42.4	56.1	98.5	64	1.14
15	1996	44.4	55.4	99.9	68	1.52
16	1999	45.4	59.6	105.0	73	1.89
17	1997	29.4	77.7	107.1	77	2.27
18	2005	38.4	69.3	107.7	82	2.65
19	2006	46.3	70.5	116.8	86	3.03
20	1998	49.4	73.8	123.2	91	3.41
21	1995	30.5	98.3	128.8	95	3.79

## Joe's Valley SWSI

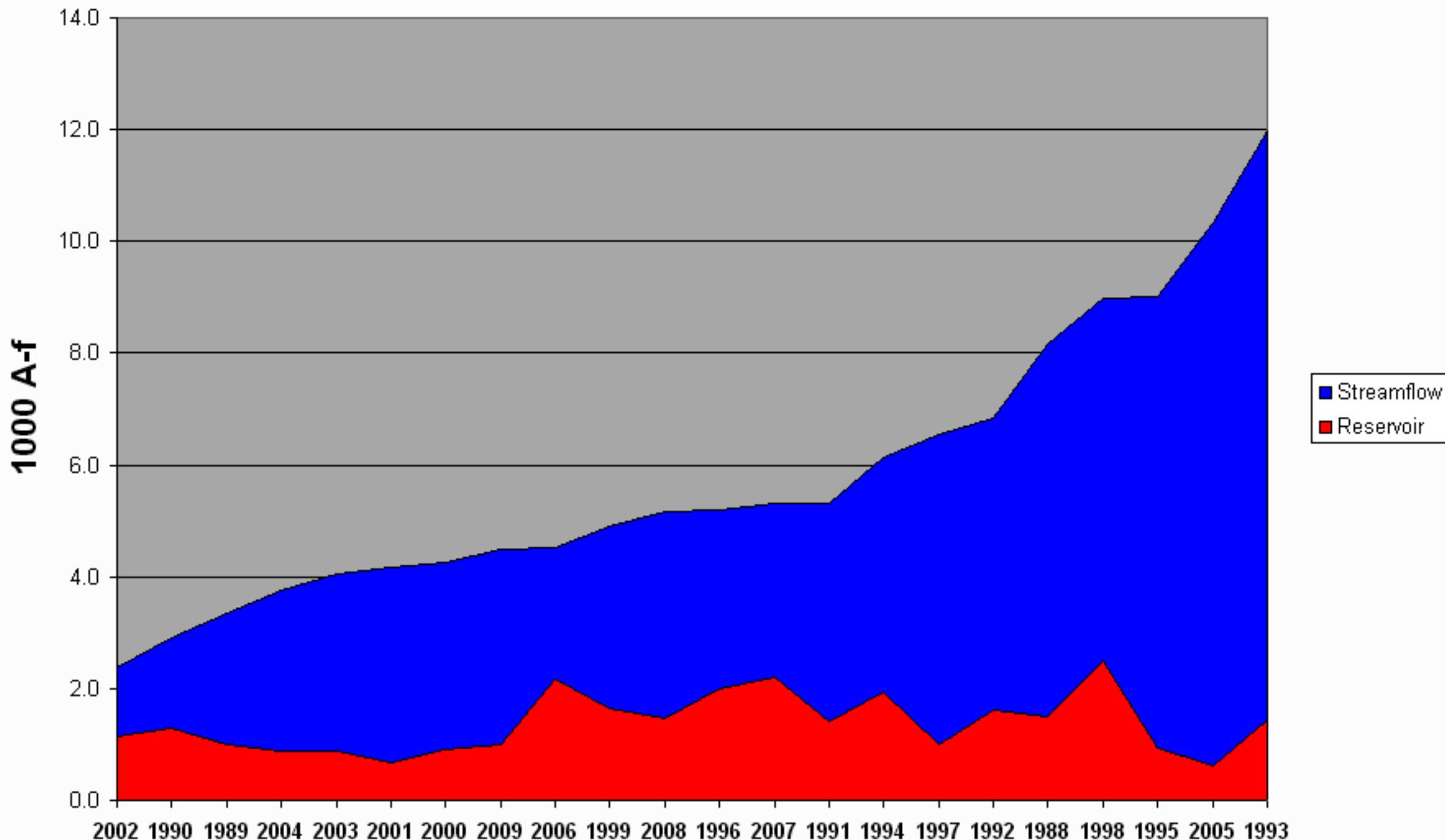


## Joe's Valley SWSI

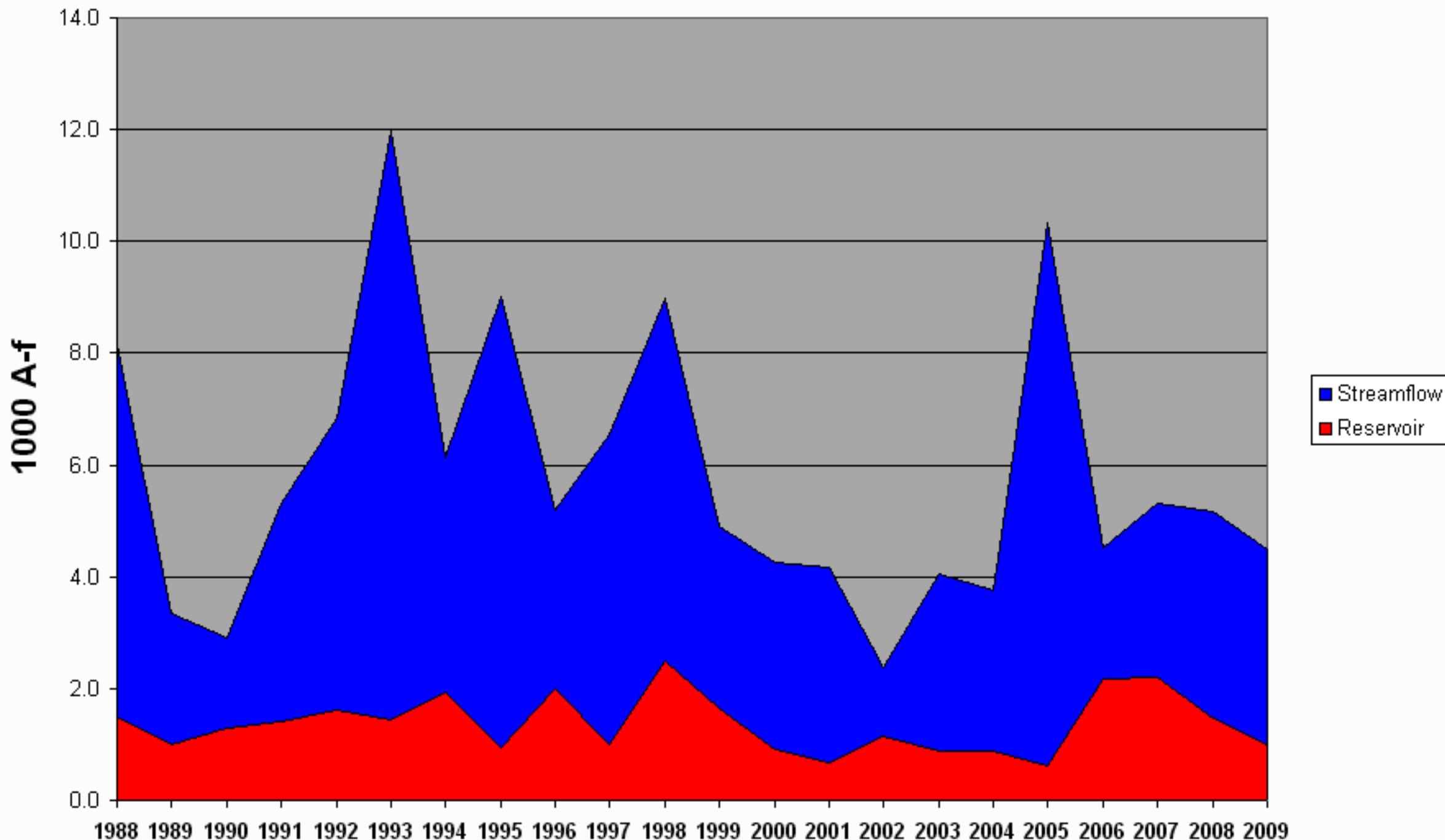


<b>Moab SWSI</b>						
<b>April</b>						
#	Year	EOM March Ken's Lake Reservoir Storage	April-July Forecast Streamflow - Mill Creek @ Sheley	Reservoir + Streamflow	Probability	SWSI
1	2002	1.1	1.2	2.4	4	-3.80
2	1990	1.3	1.6	2.9	9	-3.44
3	1989	1.0	2.3	3.3	13	-3.08
4	2004	0.9	2.9	3.8	17	-2.72
5	2003	0.9	3.2	4.1	22	-2.36
6	2001	0.7	3.5	4.2	26	-1.99
7	2000	0.9	3.4	4.3	30	-1.63
8	<b>2009</b>	<b>1.0</b>	<b>3.5</b>	<b>4.5</b>	<b>35</b>	<b>-1.27</b>
9	2006	2.2	2.4	4.5	39	-0.91
10	1999	1.6	3.3	4.9	43	-0.54
11	2008	1.5	3.7	5.2	48	-0.18
12	1996	2.0	3.2	5.2	52	0.18
13	2007	2.2	3.1	5.3	57	0.54
14	1991	1.4	3.9	5.3	61	0.91
15	1994	1.9	4.2	6.1	65	1.27
16	1997	1.0	5.5	6.5	70	1.63
17	1992	1.6	5.2	6.8	74	1.99
18	1988	1.5	6.6	8.2	78	2.36
19	1998	2.5	6.5	9.0	83	2.72
20	1995	0.9	8.1	9.0	87	3.08
21	2005	0.6	9.7	10.3	91	3.44
22	1993	1.5	10.5	12.0	96	3.80

# Moab SWSI



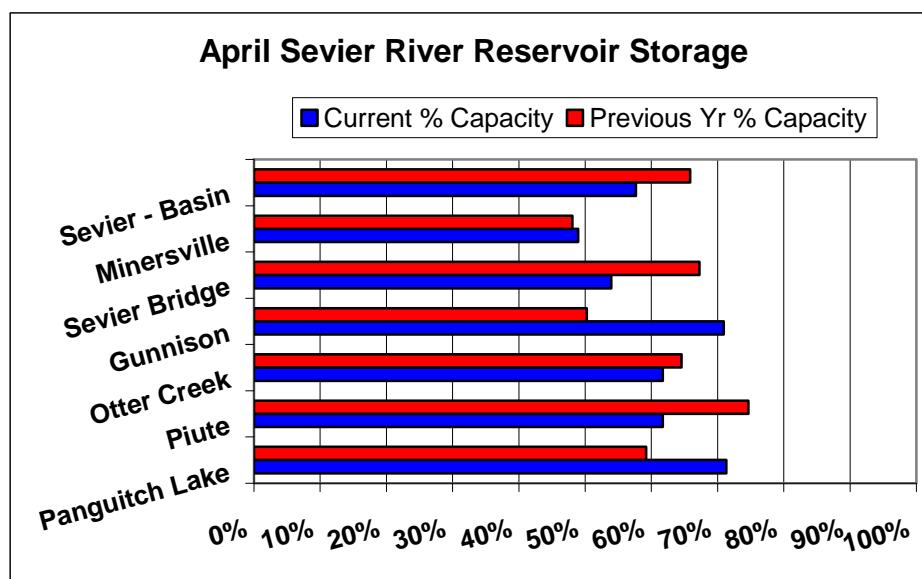
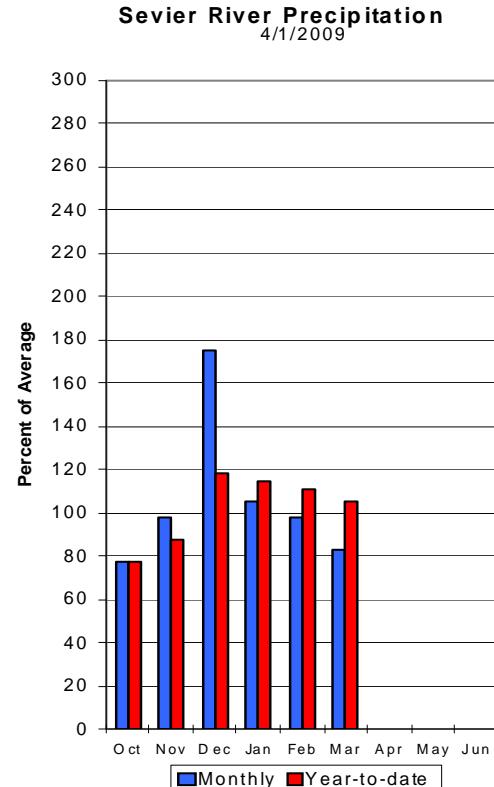
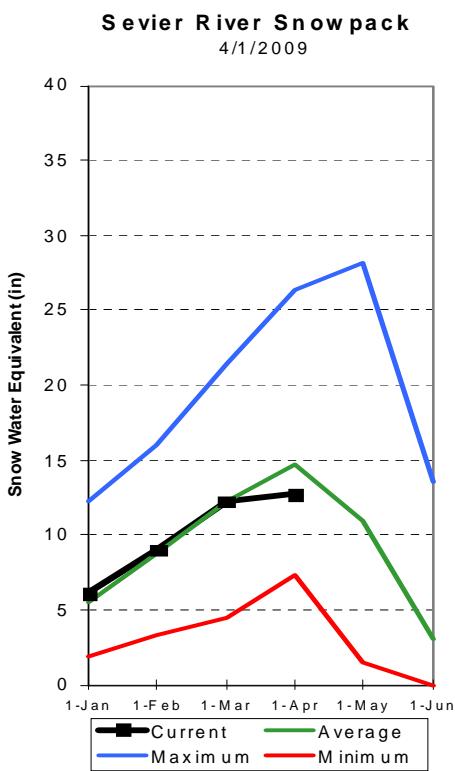
# Moab SWSI



## Sevier and Beaver River Basins

### April 1, 2009

Snowpacks on the Sevier River Basin are below normal at 87% of average, a 13% decline relative to last month and 82% of last year. Individual sites range from 0% at Agua Canyon and Long valley Junction to 131% of average at Merchant Valley. Precipitation during March was below average at 83% of normal, bringing the seasonal accumulation (Oct-Mar) to 105% of average. Soil moisture estimates in runoff producing areas are at 58% of saturation in the upper 2 feet of soil compared to 58% last year. Streamflow forecasts range from 71% to 115% of average. Reservoir storage is at 58% of capacity, 8% less than last year. Surface Water Supply Indices are: Upper Sevier 32%, Lower Sevier 47% and Beaver 57%. Water supply conditions are below average on the upper Sevier and near average on the lower Sevier and the Beaver River watersheds.



SEVIER & BEAVER RIVER BASINS  
Streamflow Forecasts - April 1, 2009

Forecast Point	Forecast Period	<===== Drier ===== Future Conditions ===== Wetter =====>						30-Yr Avg. (1000AF)	
		Chance Of Exceeding *		50%		30% 10%			
		90% (1000AF)	70% (1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)	(1000AF)		
Sevier R at Hatch, UT	APR-JUL	29	40	48	87	56	67	55	
Sevier R nr Kingston, UT	APR-JUL	6.2	18.6	27	82	36	50	33	
EF Sevier R nr Kingston, UT	APR-JUL	10.2	25	33	94	41	56	35	
Sevier R blw Piute Dam nr Marysvale, APR-JUL	APR-JUL	17.3	55	75	82	95	133	91	
Clear Creek Abv Diversions nr Sevier	APR-JUL	15.8	21	24	109	27	32	22	
Salina Ck at Salina, UT	APR-JUL	4.8	11.2	17.0	86	24	37	19.7	
Manti Ck Blw Dugway Ck Nr Manti	APR-JUL	9.2	11.9	14.0	77	16.2	19.9	18.3	
Sevier R nr Gunnison, UT	APR-JUL	1.0	35	88	83	120	166	106	
Chicken Creek nr Levan	APR-JUL	1.71	2.50	3.20	71	4.00	5.40	4.50	
Oak Creek nr Oak City	APR-JUL	0.87	1.17	1.40	84	1.65	2.00	1.66	
Beaver R nr Beaver, UT	APR-JUL	18.0	26	31	115	36	44	27	
Minersville Reservoir	APR-JUL	8.2	13.4	18.0	108	24	34	16.6	

SEVIER & BEAVER RIVER BASINS				SEVIER & BEAVER RIVER BASINS			
Reservoir Storage (1000 AF) - End of March				Watershed Snowpack Analysis - April 1, 2009			

Reservoir	Capacity	Usable   *** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of Last Yr	Average
		This Year	Last Year	Avg				
GUNNISON	20.3	14.4	10.2	16.3	UPPER SEVIER RIVER	8	83	84
MINERSVILLE (RkyFd)	23.3	11.4	11.2	17.9	EAST FORK SEVIER RIVER	3	80	67
OTTER CREEK	52.5	32.4	33.9	43.5	SOUTH FORK SEVIER RIVER	5	86	93
PIUTE	71.8	44.3	53.6	58.5	LOWER SEVIER RIVER	6	70	79
SEVIER BRIDGE	236.0	127.3	158.7	189.7	BEAVER RIVER	2	118	119
PANGUITCH LAKE	22.3	15.9	13.2	152.9	SEVIER & BEAVER RIVER BAS	16	82	87

\* 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.

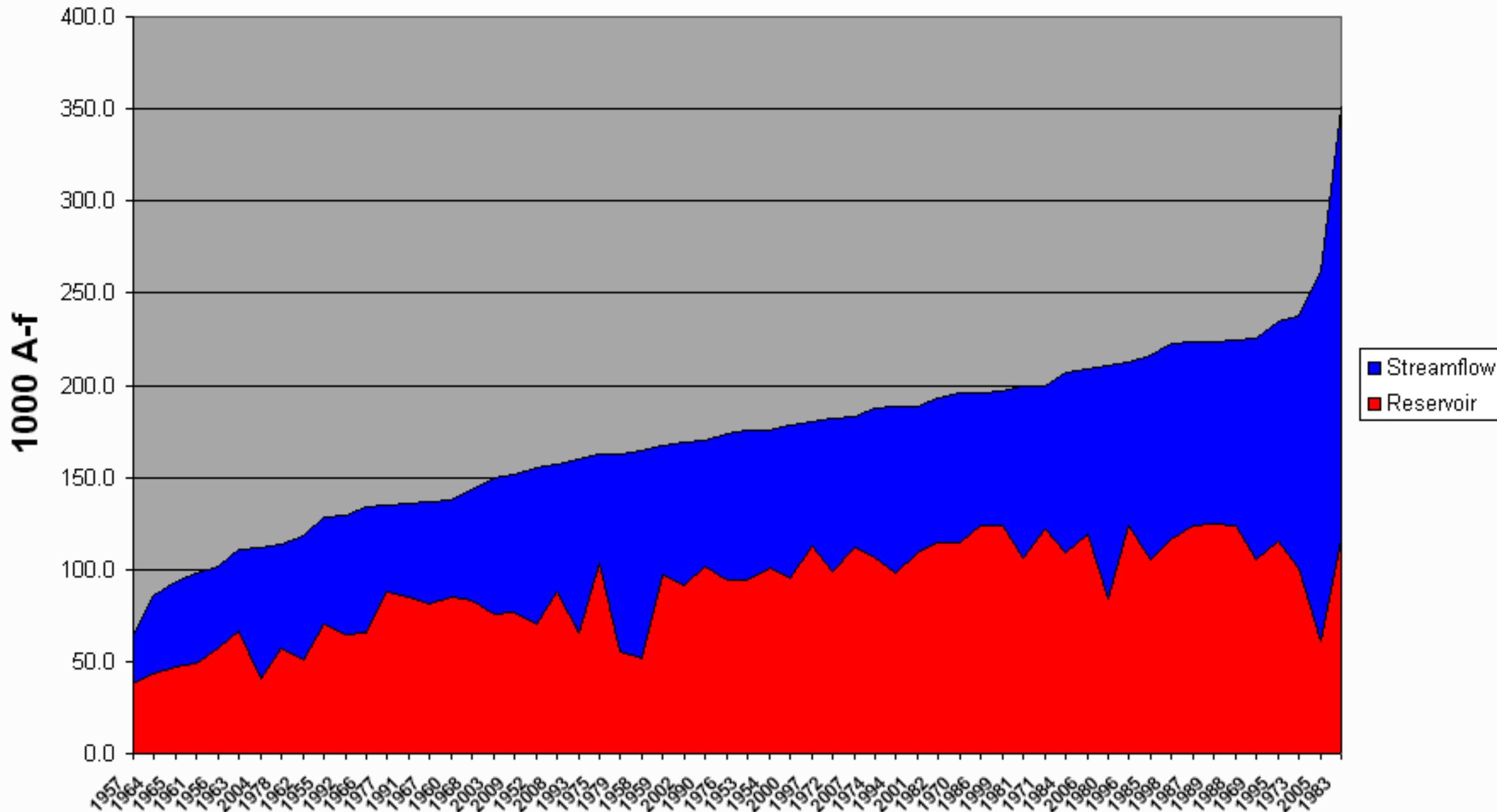
**Upper Sevier River SWSI**  
**April**

#	Year	EOM March Piute+Otter		April-July Forecast			<b>SWSI</b>
		Creek	Reservoir	Streamflow -	Sevier	Reservoir +	
		Storage	inflow	Piute	Streamflow		
1000-AF	1000-AF	1000-AF	1000-AF	Probability			
1	1957	38.2	25.8	64.0	2	-4.03	
2	1964	43.1	42.9	86.0	3	-3.88	
3	1965	46.7	46.9	93.6	5	-3.74	
4	1961	49.1	49.1	98.2	7	-3.60	
5	1956	57.4	44.5	101.9	8	-3.46	
6	1963	66.7	44.5	111.2	10	-3.32	
7	2004	41.0	70.8	111.8	12	-3.18	
8	1978	57.0	56.9	113.9	14	-3.04	
9	1962	50.5	68.0	118.5	15	-2.90	
10	1955	69.8	58.5	128.3	17	-2.75	
11	1992	64.8	64.9	129.7	19	-2.61	
12	1966	65.6	68.4	134.0	20	-2.47	
13	1977	87.7	47.0	134.7	22	-2.33	
14	1991	84.5	51.0	135.5	24	-2.19	
15	1967	81.7	55.2	136.9	25	-2.05	
16	1960	85.3	52.5	137.8	27	-1.91	
17	1968	83.6	59.9	143.5	29	-1.77	
18	2003	75.4	73.9	149.3	31	-1.62	
19	<b>2009</b>	<b>76.7</b>	<b>75</b>	<b>151.7</b>	<b>32</b>	<b>-1.48</b>	
20	1952	70.1	85.2	155.3	34	-1.34	
21	2008	87.5	70	157.5	36	-1.20	
22	1993	65.9	93.6	159.5	37	-1.06	
23	1975	103.8	58.5	162.3	39	-0.92	
24	1979	55.5	106.9	162.4	41	-0.78	
25	1958	52.1	112.3	164.4	42	-0.64	
26	1959	96.6	70.8	167.4	44	-0.49	
27	2002	91.9	77.2	169.1	46	-0.35	
28	1990	101.3	68.3	169.6	47	-0.21	
29	1976	93.8	79.6	173.4	49	-0.07	
30	1953	93.9	81.2	175.1	51	0.07	
31	1954	100.6	74.8	175.4	53	0.21	
32	2000	95.6	82.5	178.1	54	0.35	
33	1997	112.5	67.4	179.9	56	0.49	
34	1972	98.5	83.5	182.0	58	0.64	
35	2007	111.8	71.3	183.1	59	0.78	
36	1974	106.2	81.1	187.3	61	0.92	
37	1994	98.2	89.9	188.1	63	1.06	
38	2001	109.3	79.5	188.8	64	1.20	
39	1982	114.4	78.4	192.8	66	1.34	
40	1970	114.3	81.2	195.5	68	1.48	

41	1986	124.1	71.5	195.6	69	1.62
42	1999	124.2	72.5	196.7	71	1.77
43	1981	106.4	93.0	199.4	73	1.91
44	1971	122.2	77.3	199.5	75	2.05
45	1984	108.6	98.2	206.8	76	2.19
46	2006	118.8	89.7	208.5	78	2.33
47	1980	84.5	125.8	210.3	80	2.47
48	1996	124.0	88.4	212.4	81	2.61
49	1985	105.5	110.2	215.7	83	2.75
50	1998	116.3	106.8	223.1	85	2.90
51	1987	124.0	99.1	223.1	86	3.04
52	1989	124.5	98.7	223.2	88	3.18
53	1988	123.9	100.4	224.3	90	3.32
54	1969	105.3	119.9	225.2	92	3.46
55	1995	115.1	120.0	235.0	93	3.60
56	1973	100.6	136.4	237.0	95	3.74
57	2005	60.9	200.8	261.7	97	3.88
58	1983	116.1	234.9	351.0	98	4.03

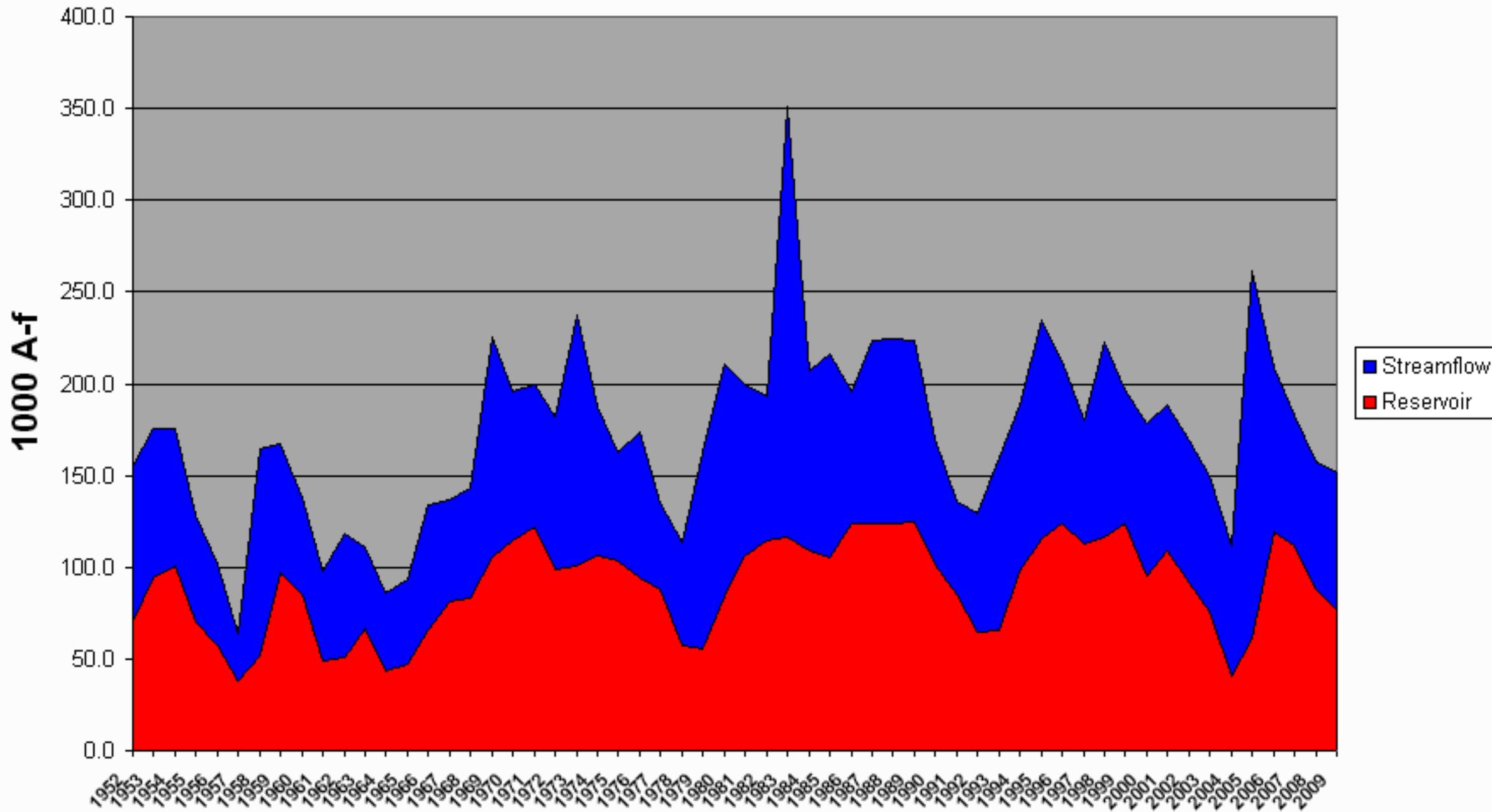
# Upper Sevier River Surface Water Supply Index

## April



# Upper Sevier River Surface Water Supply Index

## April



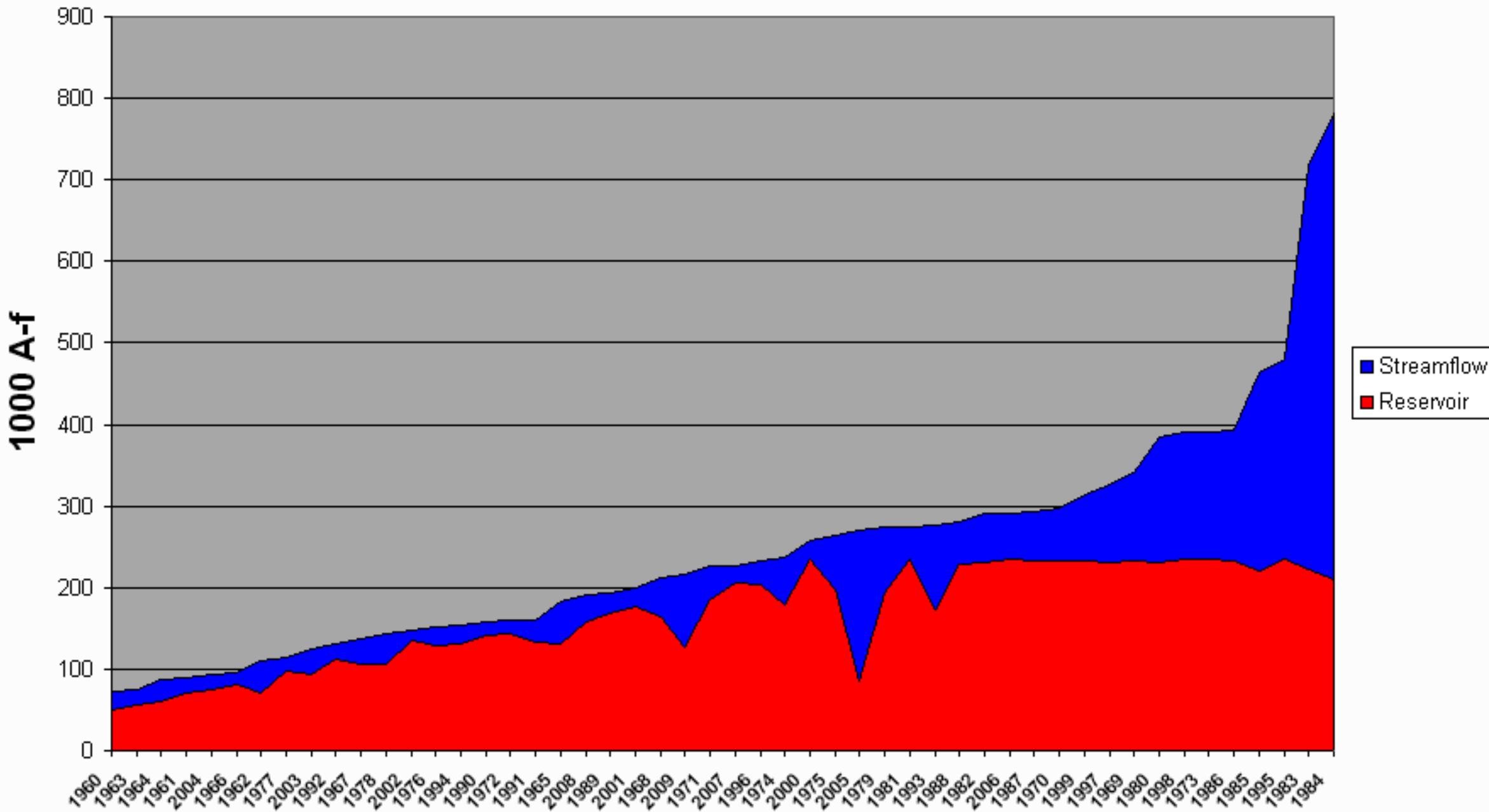
**Lower Sevier River SWSI**  
**April**

#	Year	EOM		Reservoir + Streamflow	Probability	SWSI
		March	April-July			
		Sevier	Forecast			
		Bridge	Streamflow -			
		Reservoir Storage	Sevier at Gunnison	1000-AF	Probability	SWSI
		1000-AF	1000-AF	1000-AF		
1	1960	49.4	22.7	72.1	2	-4.00
2	1963	55.7	18.4	74.1	4	-3.84
3	1964	60	27.6	87.6	6	-3.68
4	1961	71.7	18.3	90.0	8	-3.51
5	2004	74.9	19.5	94.4	10	-3.35
6	1966	81.7	14.8	96.5	12	-3.19
7	1962	70.3	38.9	109.2	14	-3.02
8	1977	97.8	15.8	113.6	16	-2.86
9	2003	93.5	30.9	124.4	18	-2.70
10	1992	112.2	19.2	131.4	20	-2.53
11	1967	107	30.1	137.1	22	-2.37
12	1978	106	37.7	143.7	24	-2.21
13	2002	134.9	12.6	147.5	25	-2.04
14	1976	128.2	24.3	152.5	27	-1.88
15	1994	131.9	21.3	153.2	29	-1.72
16	1990	140.6	17.2	157.8	31	-1.55
17	1972	142.7	16.8	159.5	33	-1.39
18	1991	133.2	27.8	161.0	35	-1.23
19	1965	130.1	53.4	183.5	37	-1.06
20	2008	158.7	31.9	190.6	39	-0.90
21	1989	168.6	25.4	194.0	41	-0.74
22	2001	175.7	23.6	199.3	43	-0.57
23	1968	164.6	46.8	211.4	45	-0.41
24	<b>2009</b>	<b>127.3</b>	<b>88</b>	<b>215.3</b>	<b>47</b>	<b>-0.25</b>
25	1971	185.7	39.9	225.6	49	-0.08
26	2007	205.3	22.29	227.6	51	0.08
27	1996	204.6	28.1	232.7	53	0.25
28	1974	178.7	58.3	237.0	55	0.41
29	2000	235.2	23.6	258.8	57	0.57
30	1975	197.6	66.4	264.0	59	0.74
31	2005	85.7	184.6	270.3	61	0.90
32	1979	193.8	79.7	273.5	63	1.06
33	1981	234	40.6	274.6	65	1.23
34	1993	171.9	104.1	276.0	67	1.39
35	1988	227.6	52.7	280.3	69	1.55
36	1982	230.8	60.4	291.2	71	1.72
37	2006	234.9	56.8	291.7	73	1.88
38	1987	231.9	60.9	292.8	75	2.04
39	1970	232.9	64.8	297.7	76	2.21
40	1999	231.9	81.1	313.0	78	2.37

41	1997	230.4	95.4	325.8	80	2.53
42	1969	232.9	108.3	341.2	82	2.70
43	1980	230.8	154.7	385.5	84	2.86
44	1998	235.6	155.0	390.7	86	3.02
45	1973	234	156.8	390.8	88	3.19
46	1986	232.9	160.5	393.4	90	3.35
47	1985	221.3	242.4	463.7	92	3.51
48	1995	234	245.2	479.2	94	3.68
49	1983	222.3	494.5	716.8	96	3.84
50	1984	209.1	572.7	781.8	98	4.00

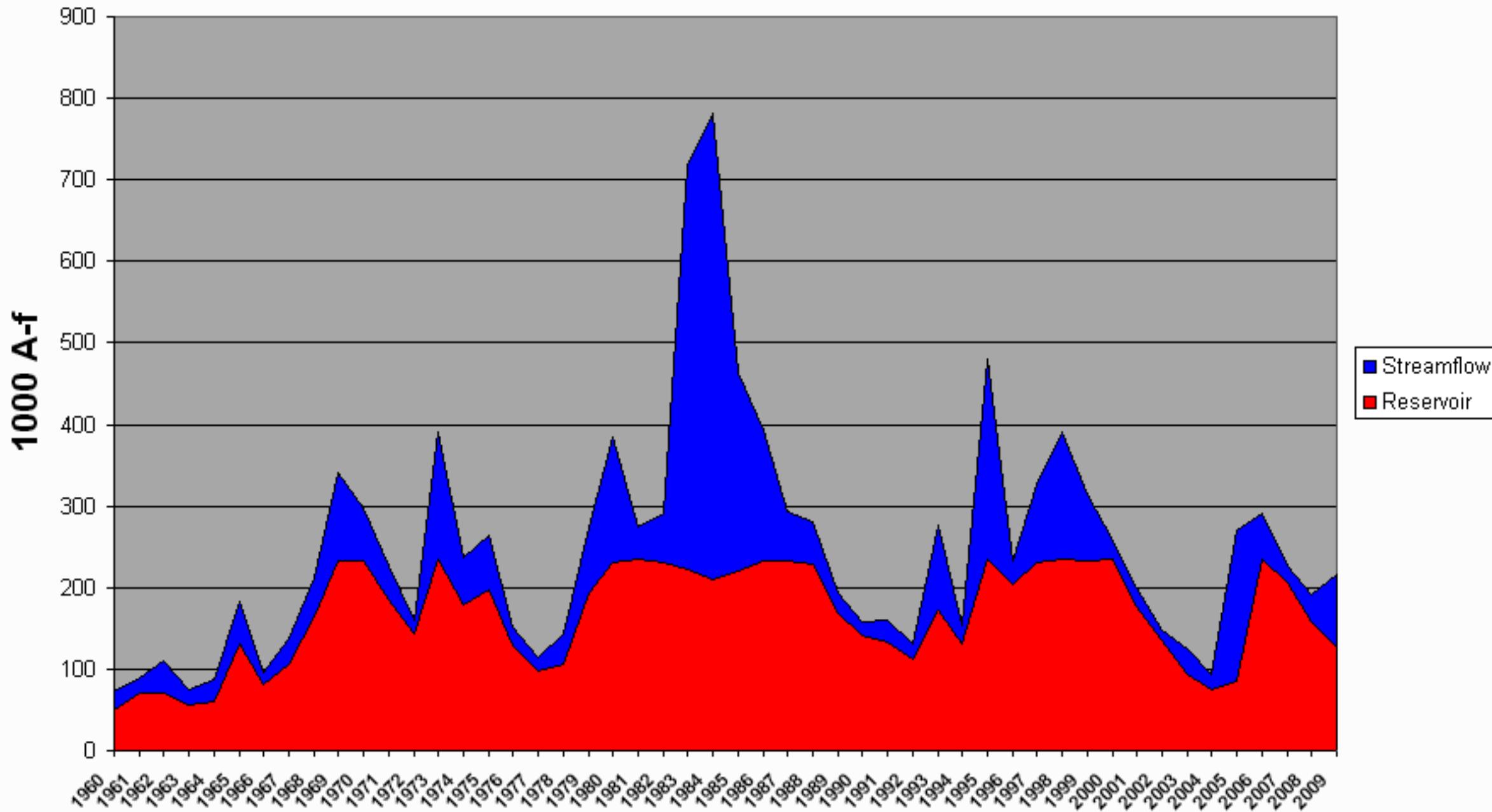
# Lower Sevier River Surface Water Supply Index

## April



# Lower Sevier River Surface Water Supply Index

## April



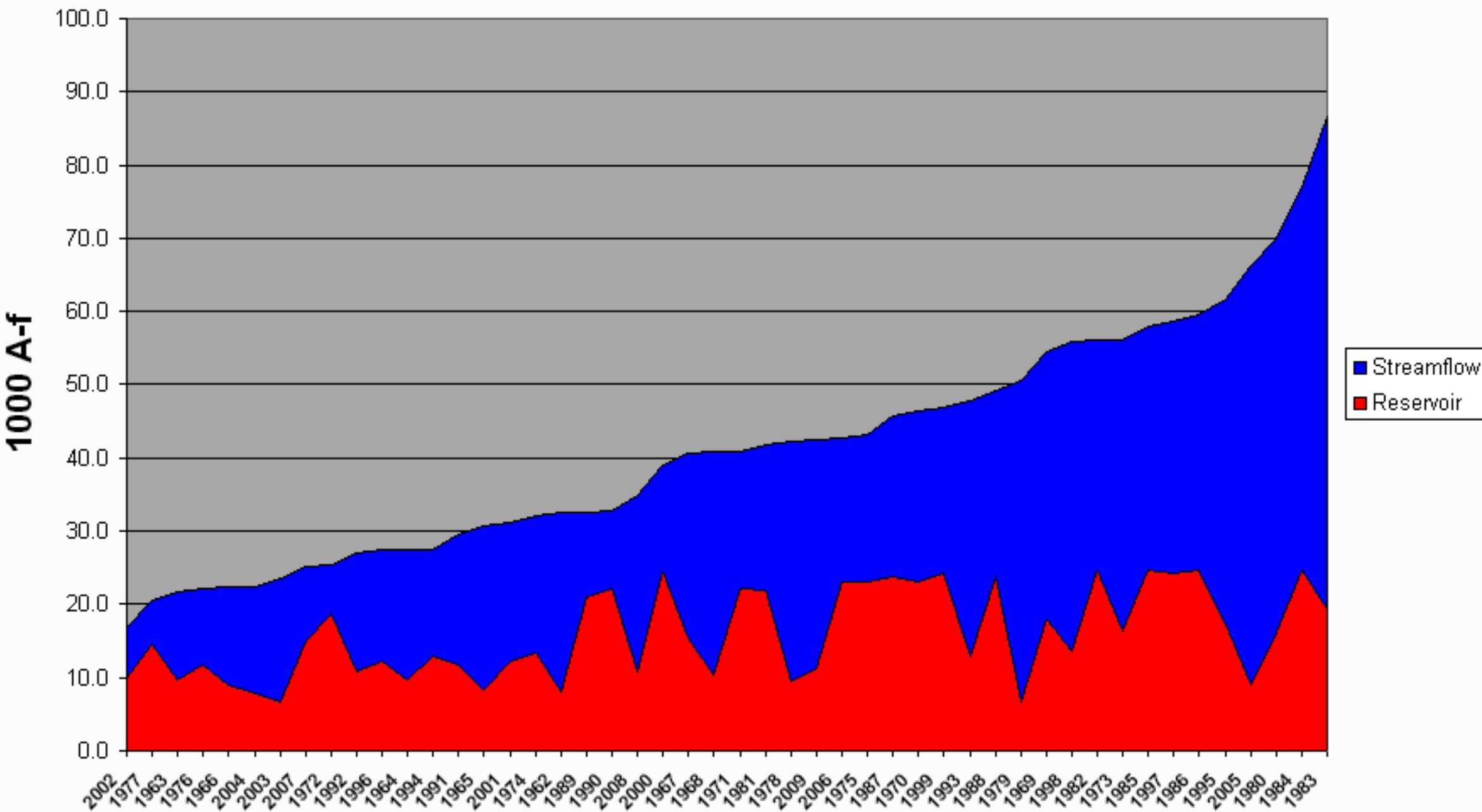
**Beaver River SWSI**  
**April**

#	Year	1000-AF	EOM March		April-July Forecast		Probability	SWSI		
			Minerville Reservoir		Streamflow - Reservoir					
			Storage	Beaver at Beaver	+ Streamflow					
1	2002	10.0	7.0	17.0	2	-4.00				
2	1977	14.5	6.1	20.6	4	-3.83				
3	1963	9.7	11.9	21.6	6	-3.66				
4	1976	11.7	10.5	22.2	8	-3.49				
5	1966	9.1	13.2	22.3	10	-3.32				
6	2004	7.9	14.5	22.4	12	-3.15				
7	2003	6.8	16.7	23.5	14	-2.98				
8	2007	15.1	10.1	25.2	16	-2.81				
9	1972	18.7	6.7	25.4	18	-2.64				
10	1992	10.9	16.1	27.0	20	-2.47				
11	1996	12.2	15.2	27.4	22	-2.30				
12	1964	9.7	17.9	27.6	24	-2.13				
13	1994	12.9	14.7	27.6	27	-1.96				
14	1991	11.8	17.7	29.5	29	-1.79				
15	1965	8.3	22.5	30.8	31	-1.62				
16	2001	12.2	19.1	31.3	33	-1.45				
17	1974	13.4	18.8	32.2	35	-1.28				
18	1962	8.1	24.5	32.6	37	-1.11				
19	1989	21.0	11.6	32.6	39	-0.94				
20	1990	22.1	10.6	32.7	41	-0.77				
21	2008	10.8	24	34.8	43	-0.60				
22	2000	24.5	14.5	39.0	45	-0.43				
23	1967	15.5	25.2	40.7	47	-0.26				
24	1968	10.5	30.3	40.8	49	-0.09				
25	1971	22.2	18.7	40.9	51	0.09				
26	1981	21.9	20.0	41.9	53	0.26				
27	1978	9.4	32.8	42.2	55	0.43				
28	<b>2009</b>	<b>11.4</b>	<b>31</b>	<b>42.4</b>	<b>57</b>	<b>0.60</b>				
29	2006	23.0	19.6	42.6	59	0.77				
30	1975	23.2	20.1	43.3	61	0.94				
31	1987	23.9	21.8	45.7	63	1.11				
32	1970	23.2	23.2	46.4	65	1.28				
33	1999	24.3	22.6	46.9	67	1.45				
34	1993	12.9	34.9	47.7	69	1.62				
35	1988	23.7	25.6	49.3	71	1.79				
36	1979	6.8	43.8	50.6	73	1.96				
37	1969	18.1	36.3	54.4	76	2.13				
38	1998	13.7	42.2	55.9	78	2.30				
39	1982	24.6	31.5	56.1	80	2.47				
40	1973	16.5	39.7	56.2	82	2.64				
41	1985	24.6	33.3	57.9	84	2.81				

42	1997	24.2	34.6	58.7	86	2.98
43	1986	24.8	34.8	59.6	88	3.15
44	1995	17.2	44.4	61.6	90	3.32
45	2005	9.1	57.1	66.2	92	3.49
46	1980	16.1	53.9	70.0	94	3.66
47	1984	24.6	52.3	76.9	96	3.83
48	1983	19.5	67.2	86.7	98	4.00

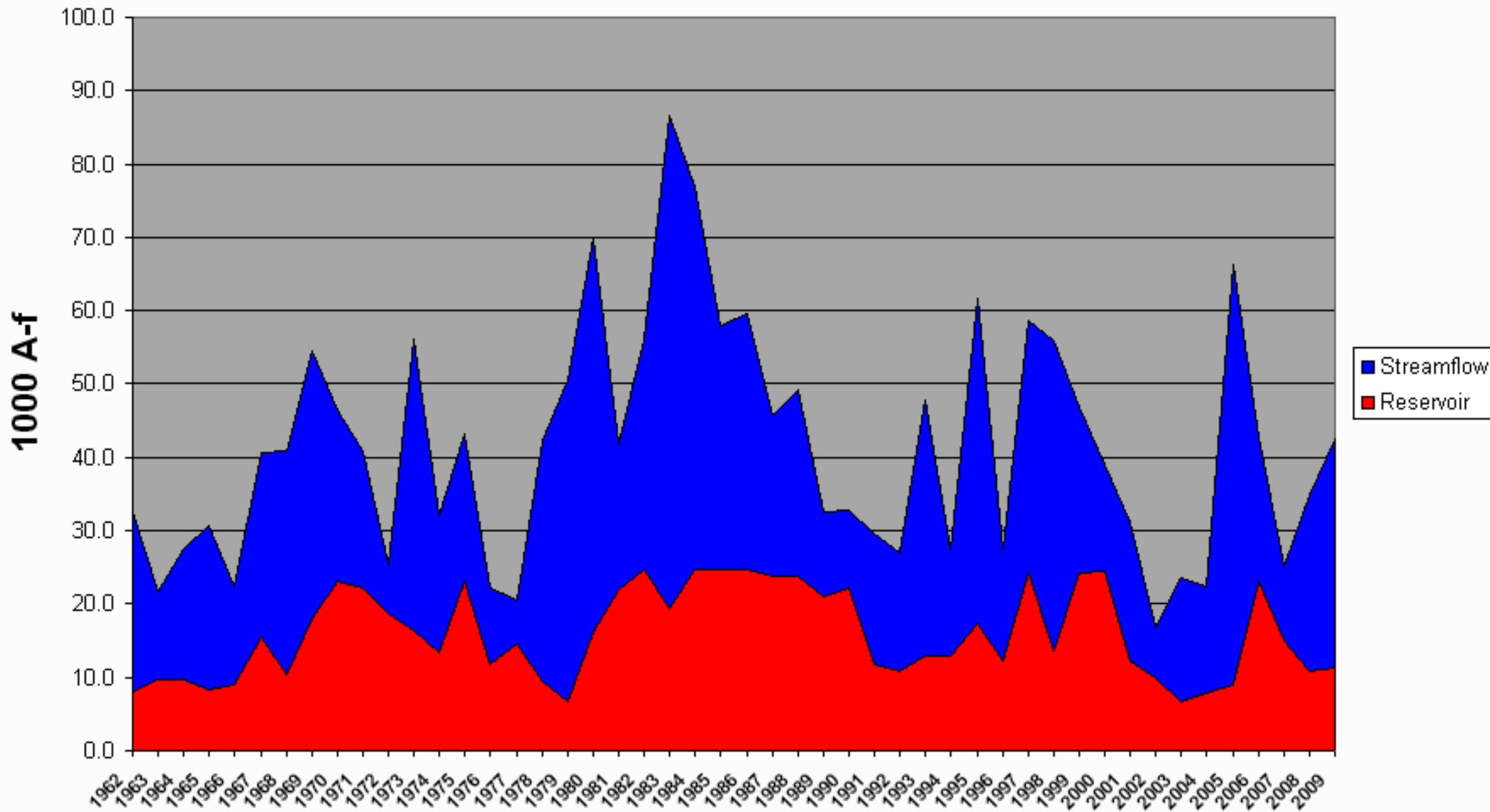
# Beaver River Surface Water Supply Index

## April



# Beaver River Surface Water Supply Index

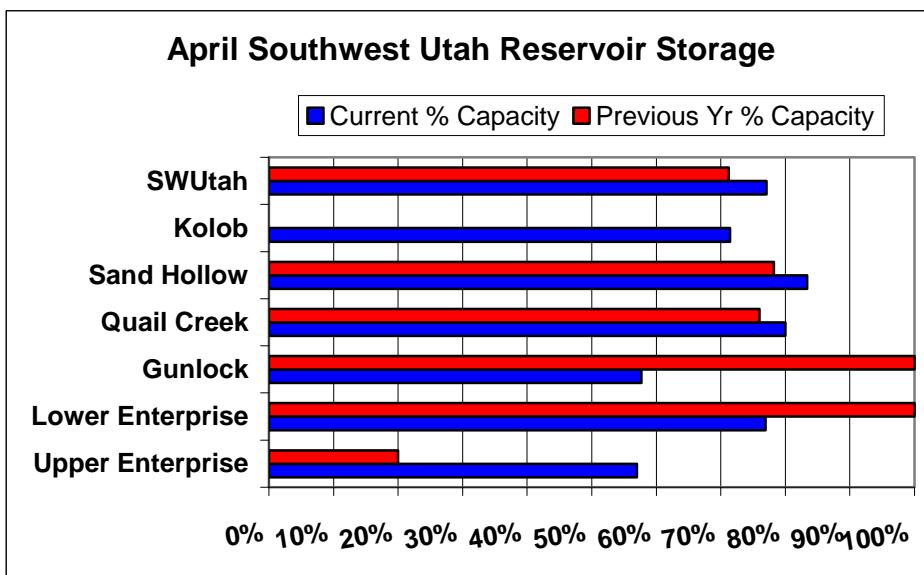
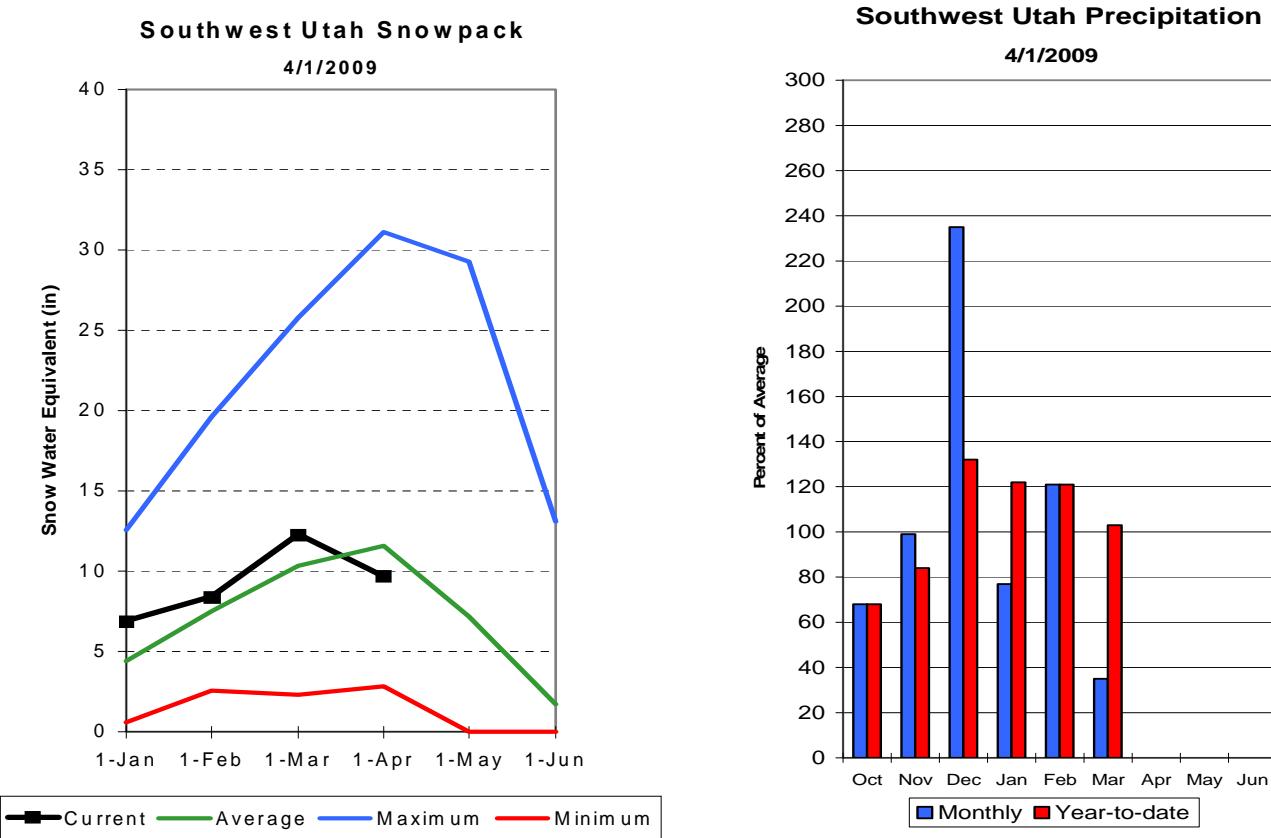
## April



## E. Garfield, Kane, Washington, & Iron Co.

April 1, 2009

Snowpacks in this region are near average at 83% of average, which is 89% of last year. Individual sites range from bare ground at both Little Grassy and Long Valley Junction Snotels, to 106% of average at Kolob Snotel. Precipitation during the month of March was much below average at 35%, bringing the seasonal accumulation (Oct-Mar) to 103% of average. The average soil moisture estimate in runoff producing areas is at 60% of saturation within the upper 2 feet of soil, compared to 59% last year. Forecast streamflows (Apr–July) range from 55% to 93% of average. Reservoir storage is at 77% of capacity, 6% more than last year. The Surface Water Supply Index for the Virgin River at Virgin, UT is 57%, indicating average water supply conditions.



E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Streamflow Forecasts - April 1, 2009

Forecast Point	Forecast Period	<===== Drier ===== Future Conditions ===== Wetter =====>						30-Yr Avg. (1000AF)	
		Chance Of Exceeding *		50%		30% 10%			
		90% (1000AF)	70% (1000AF)	(1000AF) % AVG.	(1000AF)	(1000AF)	(1000AF)		
Lake Powell Inflow (2)	APR-JUL	5000	6110	7200	91	8290	9500	7930	
Virgin River at Virgin	APR-JUL	36	44	49	77	55	64	64	
Virgin River nr Hurricane	APR-JUL	30	40	47	68	55	68	69	
Santa Clara River nr Pine Valley	APR-JUL	1.80	2.50	3.00	55	3.60	4.60	5.50	
Coal Ck nr Cedar City, UT	APR-JUL	11.2	15.2	18.0	93	21	25	19.3	

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

E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Watershed Snowpack Analysis - April 1, 2009

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of Last Yr Average	
		This Year	Last Year	Avg				
GUNLOCK	10.4	6.0	10.4	4.5	VIRGIN RIVER	5	93	95
LAKE POWELL	24322.0	12783.0	10784.0	---	PAROWAN	2	88	94
QUAIL CREEK	40.0	32.0	30.4	31.0	ENTERPRISE TO NEW HARMONY	2	45	22
UPPER ENTERPRISE	10.0	5.7	2.0	---	COAL CREEK	2	92	94
LOWER ENTERPRISE	2.6	2.0	2.6	137.1	ESCALANTE RIVER	2	95	67
					SOUTHWESTERN UTAH	9	92	83

\* 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.

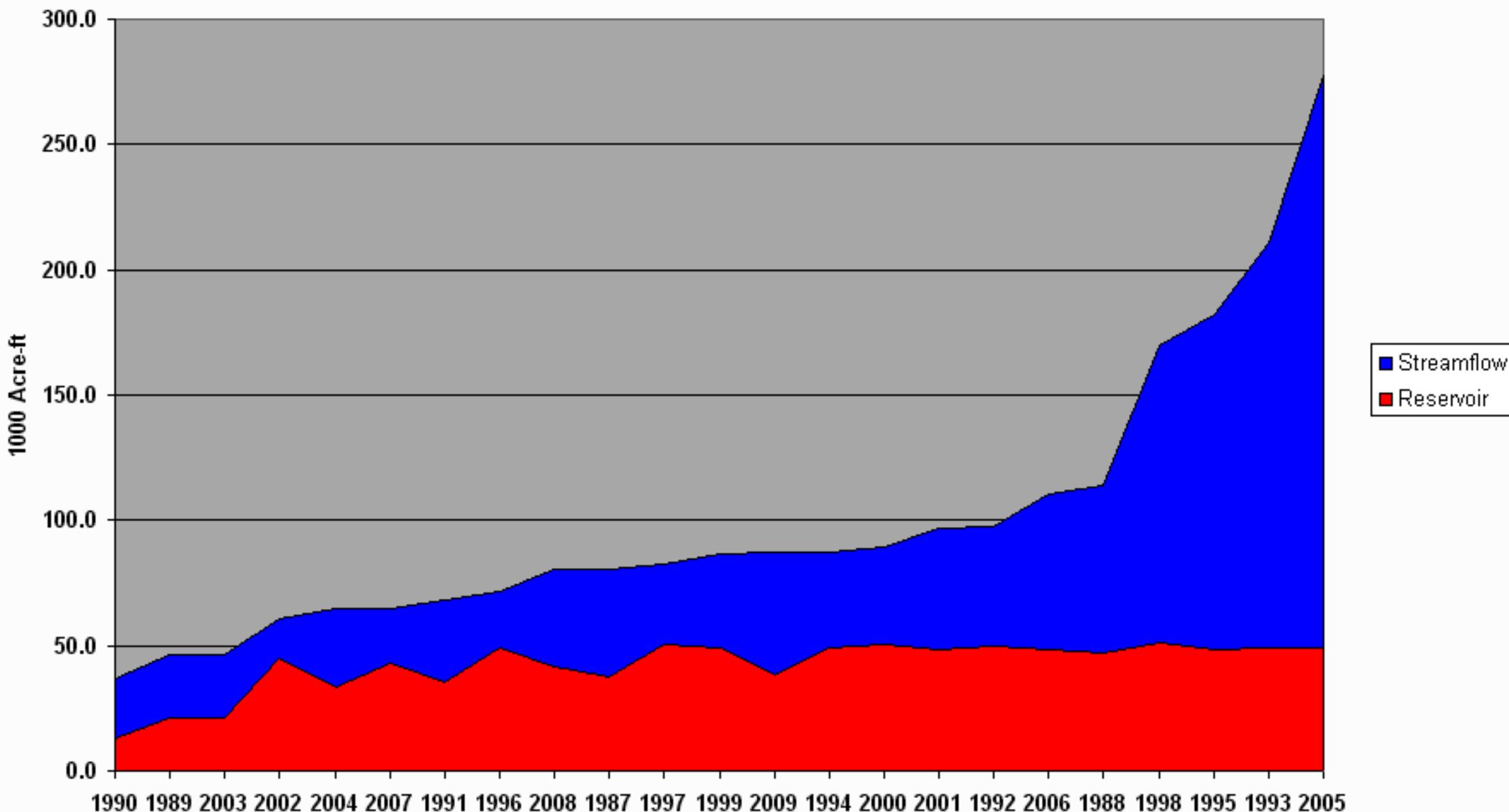
**VIRGIN RIVER BASIN SWSI**

**April 1**

#	Year	EOM March Reservoir	Apr-Jul Streamflow	Reservoir + Streamflow	Probability	SWSI
		KAF	KAF	KAF		
1	1990	13.2	23.6	36.8	4	-3.80
2	1989	20.9	25.2	46.1	9	-3.44
3	2003	21.0	25.2	46.1	13	-3.08
4	2002	44.9	15.7	60.6	17	-2.72
5	2004	33.2	31.8	65.0	22	-2.36
6	2007	43.2	21.9	65.1	26	-1.99
7	1991	35.8	32.4	68.2	30	-1.63
8	1996	49.0	22.7	71.7	35	-1.27
9	2008	41.6	38.9	80.5	39	-0.91
10	1987	37.8	42.8	80.6	43	-0.54
11	1997	50.6	32.1	82.7	48	-0.18
12	1999	49.1	37.8	86.9	52	0.18
<b>13</b>	<b>2009</b>	<b>38.0</b>	<b>49.0</b>	<b>87.0</b>	<b>57</b>	<b>0.54</b>
14	1994	49.2	38.2	87.4	61	0.91
15	2000	50.3	38.7	89.0	65	1.27
16	2001	48.1	48.4	96.5	70	1.63
17	1992	49.8	47.4	97.2	74	1.99
18	2006	48.6	61.8	110.4	78	2.36
19	1988	46.9	67.1	114.1	83	2.72
20	1998	50.9	119.0	169.9	87	3.08
21	1995	48.6	133.4	182.1	91	3.44
22	1993	48.8	161.8	210.6	96	3.80
23	2005	49.1	228.2	277.3	100	4.17

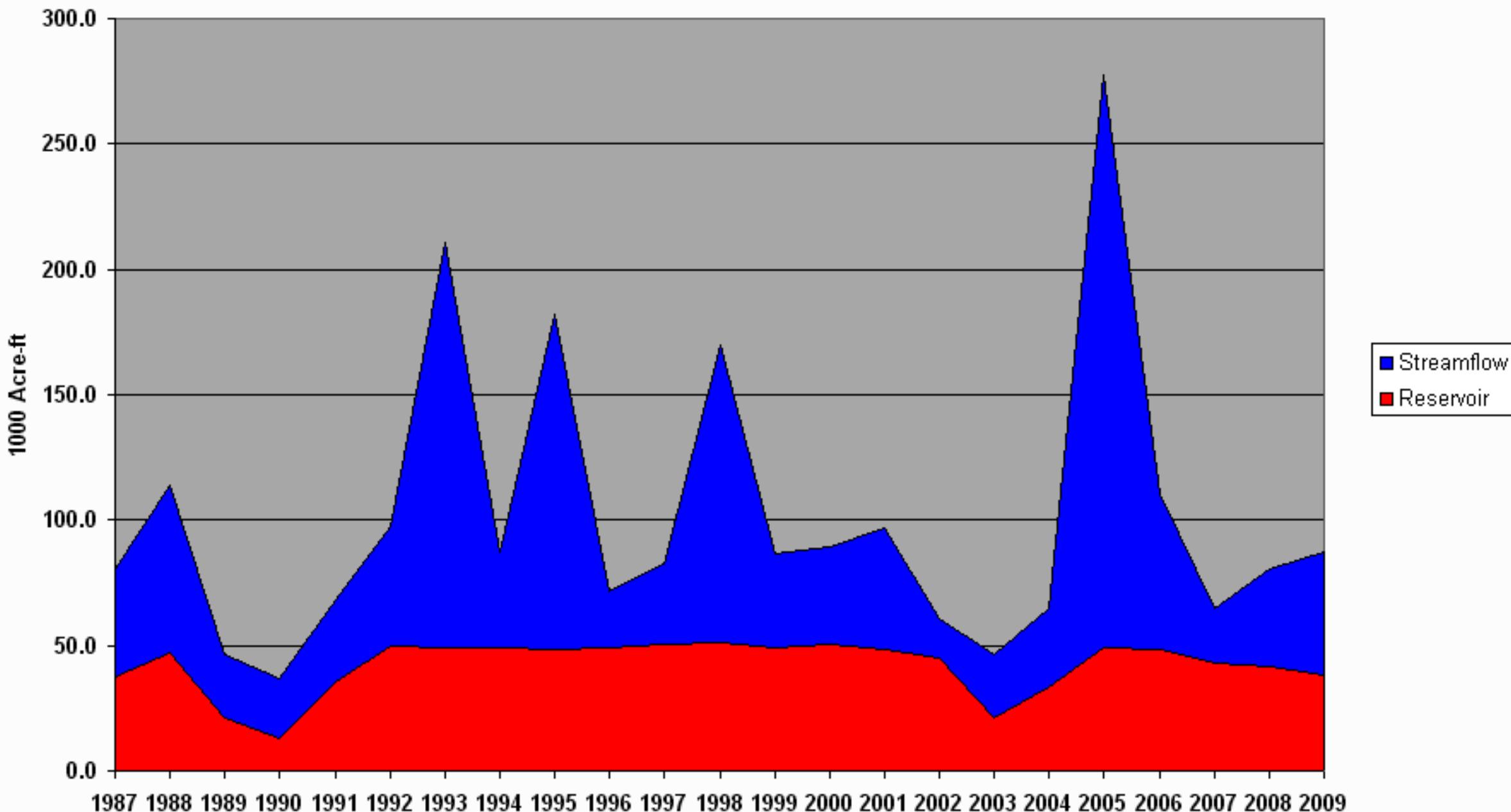
# Virgin River Surface Water Supply Index

## April



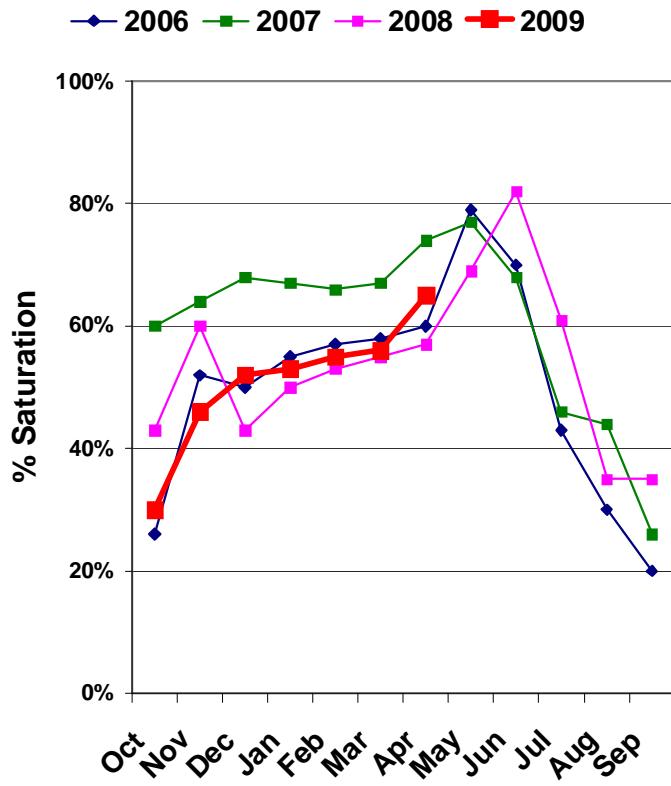
# Virgin River Surface Water Supply Index

## April

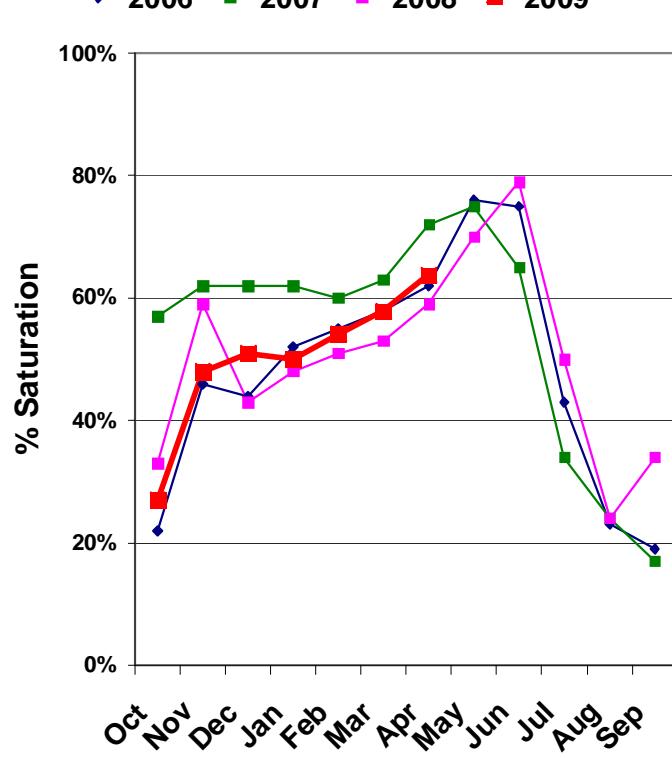


# Watershed Soil Moisture Charts for Utah Water Supply

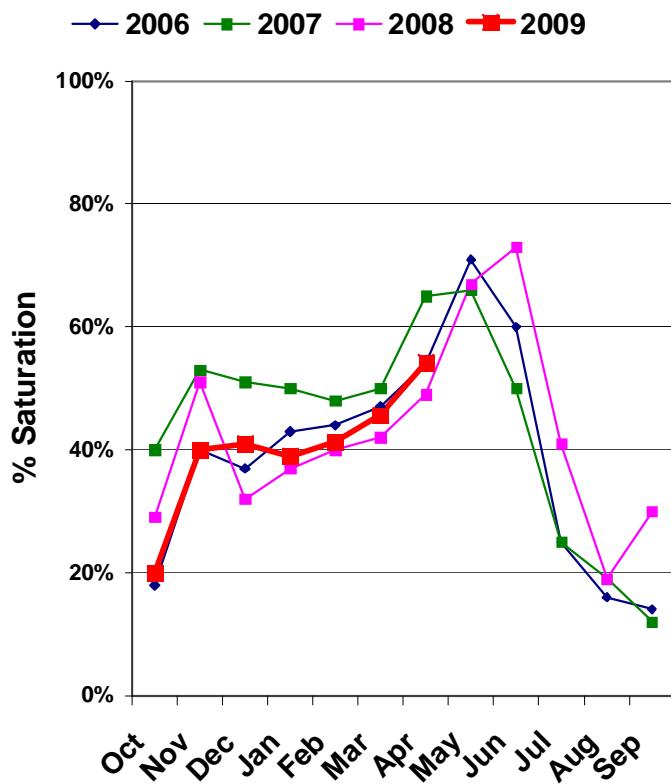
## Bear River Soil Moisture



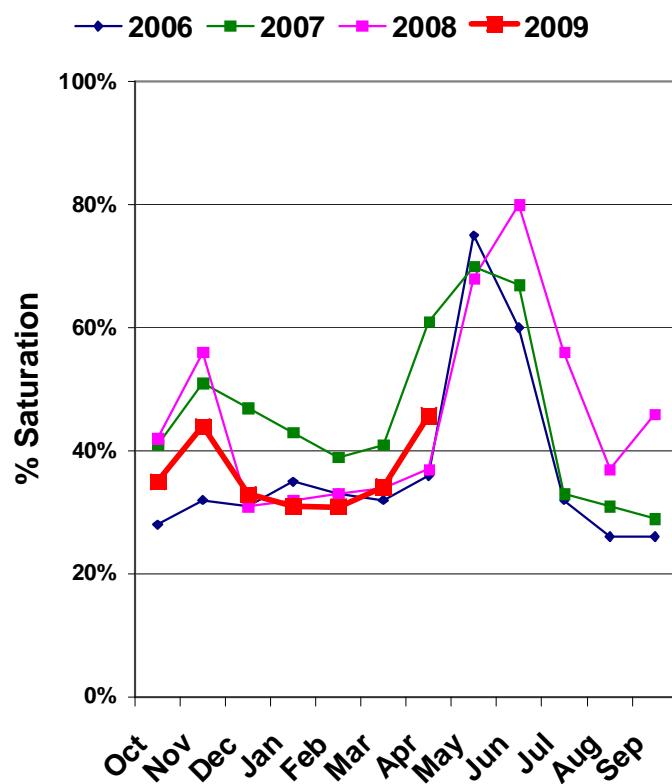
## Weber River Soil Moisture



## Jordan/Provo River Soil Moisture



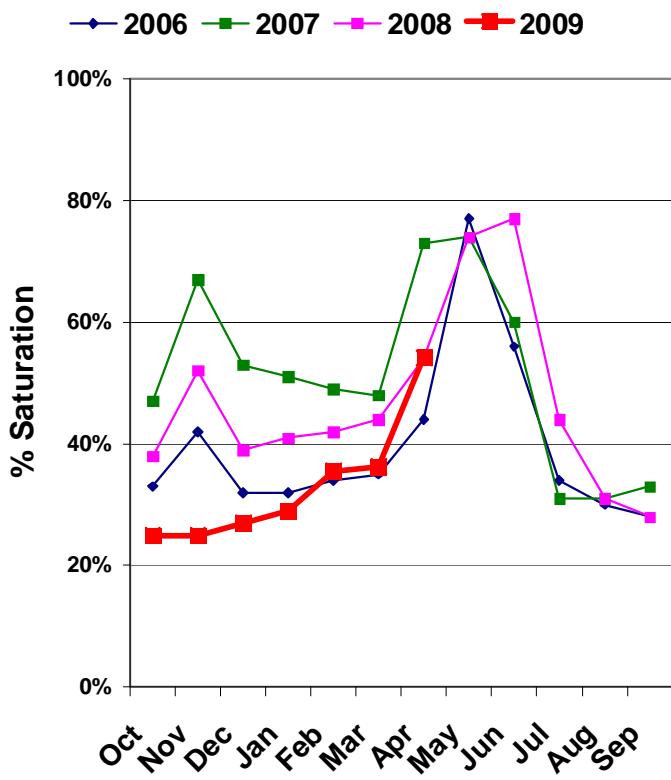
## Uintah Basin Soil Moisture



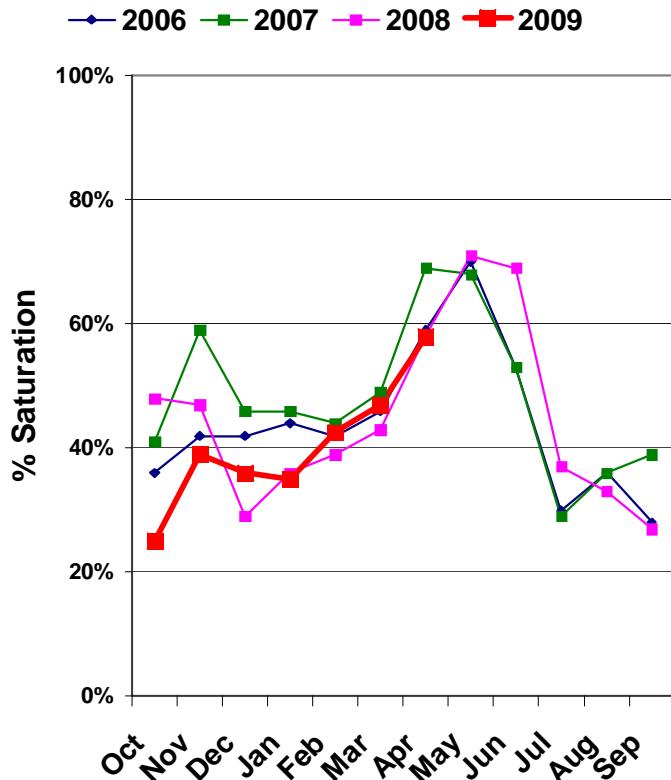
Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths.  
Saturation is estimated as 40% volumetric water content.

# Watershed Soil Moisture Charts for Utah Water Supply

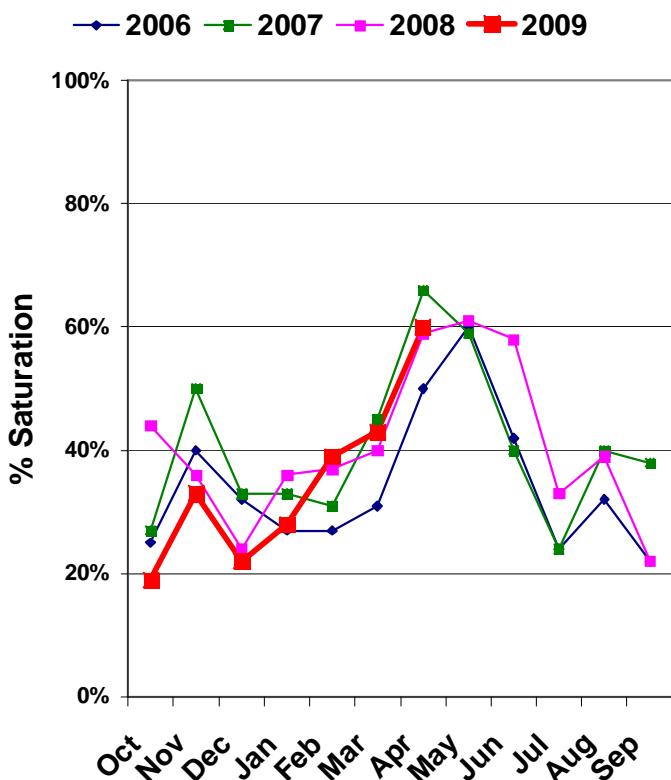
## South East Utah Soil Moisture



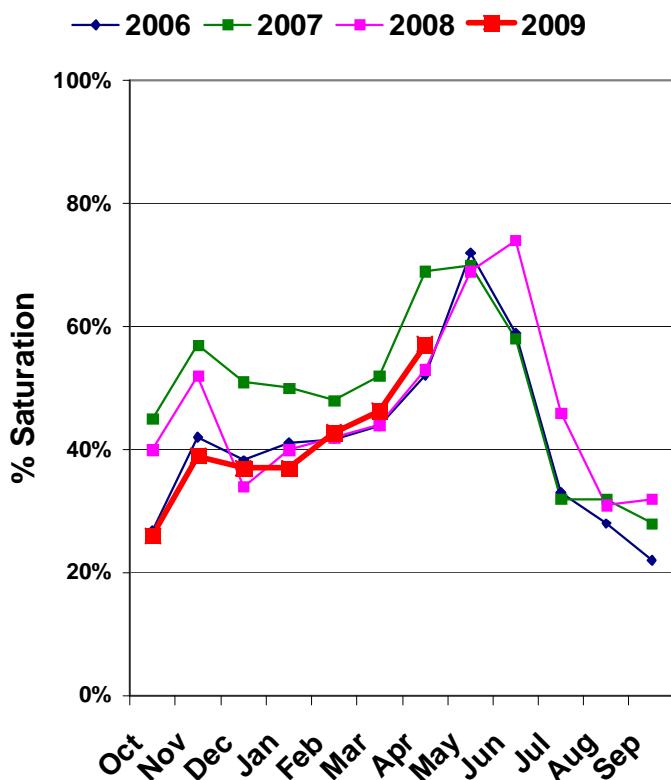
## Sevier/Beaver River Soil Moisture



## Southwest Utah Soil Moisture



## Statewide 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.

# Surface Water Supply Index

Basin or Region	SWSI	Percentile	Years with Similar SWSI
			March 1, 2009
Bear River	-3.14	12%	32,43,92,08
Ogden River	0.38	55%	78,79,85,96
Weber River	-1.12	37%	79,87,94,08
Provo	0.13	52%	07,08,05,96
West Uintah Basin	-0.21	48%	73,01,74,72
East Uintah Basin	-2.02	26%	03,81,07,91
Price River	-1.54	32%	94,07,93,08
Joe's Valley	-0.38	45%	07,04,01,00
Ferron Creek	-2.85	16%	90,89,92,81
Moab	-1.27	35%	01,00,06,99
Upper Sevier River	-1.48	32%	68,03,52,08
Lower Sevier River	-0.25	47%	01,68,71,07
Beaver River	0.60	57%	81,78,06,75
Virgin River	0.54	57%	97,99,94,00

SWSI Scale: -4 to 4 | Percentile: 0 - 100%

## What is a Surface Water Supply Index?

The Surface Water Supply Index (SWSI) is a predictive indicator of total surface water availability within a watershed for the spring and summer water use seasons. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow which are based on current snowpack and other hydrologic variables. SWSI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry) with a value of zero (0) indicating median water supply as compared to historical analysis. SWSI's are calculated in this fashion to be consistent with other hydroclimatic indicators such as the Palmer Drought Index and the Precipitation index.

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

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

## S N O W   C O U R S E   D A T A

APRIL 2009

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
AGUA CANYON SNOTEL	8900	4/01	0	.0	10.2	7.1
ALTA CENTRAL	8800	3/31	117	37.7	39.5	37.3
BEAVER DAMS SNOTEL	8000	4/01	17	5.4	10.7	10.5
BEAVER DIVIDE SNOTEL	8280	4/01	34	9.3	13.9	10.6
BEN LOMOND PK SNOTEL	8000	4/01	110	46.6	43.2	41.5
BEN LOMOND TR SNOTEL	6000	4/01	56	18.9	29.1	19.5
BEVAN'S CABIN	6450	3/30	33	8.2	14.3	11.6
BIG FLAT SNOTEL	10290	4/01	69	21.2	18.3	19.0
BIRCH CROSSING	8100	3/27	16	4.9	7.8	5.4
BLACK FLAT-U.M. CK S	9400	4/01	25	7.9	11.6	10.3
BLACK'S FORK GS-EF	9340	3/28	25	6.6	10.9	9.7
BLACK'S FORK JUNCTN	8930	3/28	25	6.3	11.0	9.3
BOX CREEK SNOTEL	9800	4/01	45	13.8	14.8	13.7
BRIAN HEAD	10000	3/27	51	17.7	20.3	21.1
BRIGHTON SNOTEL	8750	4/01	60	21.5	31.2	25.4
BRIGHTON CABIN	8700	3/27	73	23.5	31.6	27.8
BROWN DUCK SNOTEL	10600	4/01	62	15.4	19.5	18.2
BRYCE CANYON	8000	3/30	2	.4e	2.1	3.8
BUCK FLAT SNOTEL	9800	4/01	54	16.4	18.4	18.7
BUCK PASTURE	9700	3/28	63	13.1	15.6	16.9
BUCKBOARD FLAT	9000	3/30	25	8.6	16.5	12.4
BUG LAKE SNOTEL	7950	4/01	63	19.0	18.3	21.2
BURT'S-MILLER RANCH	7900	3/28	11	2.3	6.8	4.9
CAMP JACKSON SNOTEL	8600	4/01	18	8.5	22.8	13.6
CASCADE MOUNTAIN SNO	7770	4/01	64	21.0	20.6	-
CASTLE VALLEY SNOTEL	9580	4/01	40	13.6	16.6	14.6
CHALK CK #1 SNOTEL	9100	4/01	75	24.0	26.8	24.9
CHALK CK #2 SNOTEL	8200	4/01	55	18.0	19.1	16.2
CHALK CREEK #3	7500	3/28	22	5.3	9.9	6.9
CHEPETA SNOTEL	10300	4/01	43	12.9	14.6	14.2
CLAYTON SPRINGS SNTL	10000	4/01	30	10.6	10.1	-
CLEAR CK RIDG #1 SNT	9200	4/01	50	18.3	22.5	19.7
CLEAR CK RIDG #2 SNT	8000	4/01	44	14.1	16.6	14.7
CORRAL	8200	3/28	12	3.7	15.1	9.0
CURRENT CREEK SNOTEL	8000	4/01	19	6.4	13.6	10.2
DANIELS-STRAWBERRY S	8000	4/01	42	15.6	21.7	16.7
DILL'S CAMP SNOTEL	9200	4/01	38	11.0	16.4	14.9
DONKEY RESERVOIR SNO	9800	4/01	23	5.7	7.4	8.7
DRY BREAD POND SNTL	8350	4/01	63	20.0	24.4	22.6
DRY FORK SNOTEL	7160	4/01	57	15.5	15.3	18.2
EAST WILLOW CREEK SN	8250	4/01	20	6.4	12.2	8.3
FARMINGTON U. SNOTEL	8000	4/01	112	43.8	37.7	34.3
FARMINGTON L. SNOTEL	6780	4/01	67	24.2	25.9	-
FARNSWORTH LK SNOTEL	9600	4/01	71	18.1	24.1	19.6
FISH LAKE	8700	3/27	8	1.4	11.0	8.8
FIVE POINTS LAKE SNO	10920	4/01	54	15.1	19.2	17.7
G.B.R.C. HEADQUARTER	8700	3/28	39	12.6	16.5	16.6
G.B.R.C. MEADOWS	10000	3/28	69	21.2	25.9	24.0
GARDEN CITY SUMMIT	7600	3/27	42	11.3	15.5	16.2
GARDNER PEAK SNOTEL	8350	4/01	35	14.6	13.8	-
GEORGE CREEK	8840	3/27	77	22.2	19.6	22.3
GOOSEBERRY R.S.	8400	3/27	29	9.1	14.2	12.0
GOOSEBERRY R.S. SNTL	7900	4/01	16	6.1	11.1	8.7
GUTZ PEAK SNOTEL	6820	4/01	19	9.4	10.8	-
HARDSCRABBLE SNOTEL	7250	4/01	54	17.7	22.7	20.2
HARRIS FLAT SNOTEL	7700	4/01	12	6.9	8.8	6.7
HAYDEN FORK SNOTEL	9100	4/01	53	15.8	20.5	16.6
HENRY'S FORK	10000	3/28	43	8.3	12.8	14.0
HEWINTA SNOTEL	9500	4/01	39	9.3	16.2	12.1
HICKERSON PARK SNTL	9100	4/01	20	4.2	7.8	7.7
HIDDEN SPRINGS	5500	3/26	20	3.2	6.0	2.4
HOBBLE CREEK SUMMIT	7420	3/28	35	12.4	17.1	13.9
HOLE-IN-ROCK SNOTEL	9150	4/01	22	4.7	6.9	7.2
HORSE RIDGE SNOTEL	8260	4/01	63	21.1	24.3	23.9
HUNTINGTON-HORSESHOE	9800	3/28	61	21.5	23.2	24.0
INDIAN CANYON SNOTEL	9100	4/01	30	9.1	16.1	11.9
JOHNSON VALLEY	8850	3/27	12	2.2	9.7	7.1
JONES CORRAL SNOTEL	9750	4/01	40	10.9	11.0	-
KILFOIL CREEK	7300	3/27	46	13.6	19.6	14.4
KILLYON CANYON	6300	3/26	19	2.6	7.6	5.6

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
KIMBERLY MINE SNOTEL	9300	4/01	48	17.3	19.1	16.7
KING'S CABIN SNOTEL	8730	4/01	26	8.3	13.0	11.3
KLONDIKE NARROWS	7400	3/27	53	16.2	22.6	19.2
KOLOB SNOTEL	9250	4/01	59	25.4	25.5	23.9
LAKEFORK #1 SNOTEL	10100	4/01	34	10.7	12.6	12.7
LAKEFORK BASIN SNTL	10900	4/01	66	19.7	20.5	20.7
LAKEFORK MOUNTAIN #3	8400	3/28	7	2.2	9.0	6.0
LAMBS CANYON	7400	3/27	48	13.8	18.7	16.1
LASAL MOUNTAIN LOWER	8800	3/31	12	3.2	8.8	9.8
LASAL MOUNTAIN SNTL	9850	4/01	24	9.8	11.2	13.5
LIGHTNING RIDGE SNTL	8220	4/01	60	19.1	23.3	-
LILY LAKE SNOTEL	9050	4/01	47	13.9	15.5	13.5
LITTLE BEAR LOWER	6000	3/27	38	11.1	17.0	9.5
LITTLE BEAR SNOTEL	6550	4/01	33	10.4	15.4	12.3
LITTLE GRASSY SNOTEL	6100	4/01	0	.0	0.0	.7
LONG FLAT SNOTEL	8000	4/01	4	1.8	4.0	7.5
LONG VALLEY JCT. SNT	7500	4/01	0	.0	1.1	3.2
LOOKOUT PEAK SNOTEL	8200	4/01	88	30.3	29.5	24.3
LOST CREEK RESERVOIR	6130	3/27	5	.8	11.4	2.0
LOUIS MEADOW SNOTEL	6700	4/01	59	21.3	23.0	-
MAMMOTH-COTTONWD SNT	8800	4/01	48	17.2	22.1	21.0
MERCHANT VALLEY SNTL	8750	4/01	54	17.5	14.5	13.4
MIDDLE CANYON	7000	3/30	48	12.5	16.5	14.0
MIDWAY VALLEY SNOTEL	9800	4/01	68	23.8	25.9	25.3
MILL CREEK	6950	3/27	65	19.3	22.6	20.6
MILL-D NORTH SNOTEL	8960	4/01	70	26.1	28.4	25.5
MILL-D SOUTH FORK	7400	3/27	54	13.5	23.1	19.1
MINING FORK SNOTEL	8000	4/01	61	19.3	21.6	21.0
MONTE CRISTO SNOTEL	8960	4/01	85	26.7	29.4	30.1
MOSBY MTN. SNOTEL	9500	4/01	31	9.6	13.1	12.1
MT.BALDY R.S.	9500	3/28	63	19.6	23.1	24.1
MUD CREEK #2	8600	3/28	39	11.4	18.7	13.5
OAK CREEK	7760	3/27	37	11.4	12.4	12.0
PANGUITCH LAKE R.S.	8200	3/28	8	3.2	6.5	4.0
PARLEY'S CANYON SNTL	7500	4/01	52	15.7	19.4	17.1
PARRISH CREEK SNOTEL	7740	4/01	90	29.8	28.4	-
PAYSON R.S. SNOTEL	8050	4/01	48	16.6	22.2	20.6
PICKLE KEG SNOTEL	9600	4/01	45	14.5	18.5	17.9
PINE CREEK SNOTEL	8800	4/01	55	19.3	28.1	24.8
RED PINE RIDGE SNTL	9200	4/01	44	13.6	18.8	17.3
REDDEN MINE LOWER	8500	3/28	52	17.4	22.2	17.8
REES'S FLAT	7300	3/27	25	8.3	14.0	12.6
ROCK CREEK SNOTEL	7900	4/01	21	6.2	11.0	8.1
ROCKY BN-SETTLEMENT SN	8900	4/01	60	21.5	24.1	26.5
SEELEY CREEK SNOTEL	10000	4/01	31	10.9	11.0	15.3
SMITH MOREHOUSE SNTL	7600	4/01	47	15.2	15.9	14.0
SNOWBIRD SNOTEL	9700	4/01	114	42.5	49.9	35.8
SPIRIT LAKE	10300	3/28	30	7.6	11.2	13.8
SQUAW SPRINGS	9300	3/27	23	6.1	8.9	7.1
STEEL CREEK PARK SNO	10100	4/01	58	12.3	15.8	15.9
STILLWATER CAMP	8550	3/28	27	7.6	13.0	10.5
STRAWBERRY DIVIDE SN	8400	4/01	48	14.1	19.0	18.7
SUSC RANCH	8200	3/31	12	4.2	9.7	7.0
TALL POLES	8800	3/27	39	12.8	15.8	14.7
TEMPLE FORK SNOTEL	7410	4/01	64	19.5	19.2	-
THAYNES CANYON SNTL	9200	4/01	65	23.0	30.8	24.9
THISTLE FLAT	8500	3/28	42	13.6	18.3	16.9
TIMBERLINE	9100	3/28	20	7.5	17.4	14.7
TIMBERLINE SNOTEL	8680	4/01	14	6.1	15.8	-
TIMPANOGOS DIVIDE SN	8140	4/01	60	23.6	26.7	24.0
TONY GROVE LK SNOTEL	8400	4/01	115	39.2	39.9	37.7
TONY GROVE R.S.	6250	3/27	36	10.3	15.6	11.1
TRIAL LAKE	9960	3/28	66	21.1	25.6	24.2
TRIAL LAKE SNOTEL	9960	4/01	75	23.5	22.4	25.3
TROUT CREEK SNOTEL	9400	4/01	27	7.9	12.6	11.2
UPPER JOES VALLEY	8900	3/28	24	6.2	12.4	9.9
USU DOC DANIEL SNTL	8270	4/01	107	31.3	29.6	-
VERNON CREEK SNOTEL	7500	4/01	32	11.7	14.2	11.7
VIPONT	7670	3/27	39	12.6	19.6	15.4
WEBSTER FLAT SNOTEL	9200	4/01	31	15.1	16.2	15.9
WHITE RIVER #1 SNTL	8550	4/01	31	9.5	15.6	13.5
WHITE RIVER #3	7400	3/28	22	6.8	11.3	6.1
WIDTSOE #3 SNOTEL	9500	4/01	20	8.6	8.8	12.8
WRIGLEY CREEK	9000	3/28	30	8.8	13.5	11.3
YANKEE RESERVOIR	8700	3/27	33	9.8	10.3	10.0

*Issued by*

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YOU MAY OBTAIN THIS PRODUCT AS WELL AS CURRENT SNOW, PRECIPITATION, TEMPERATURE AND SOIL MOISTURE, RESERVOIR, SURFACE WATER SUPPLY INDEX, AND OTHER DATA BY VISITING OUR WEB SITE @:  
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# **Utah Water Supply Outlook Report**

**Natural Resources Conservation Service  
Salt Lake City, UT**

