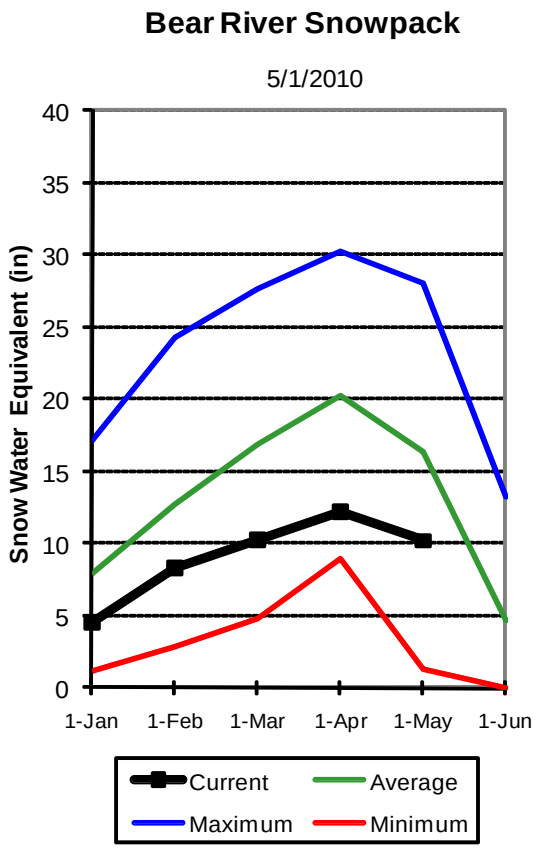
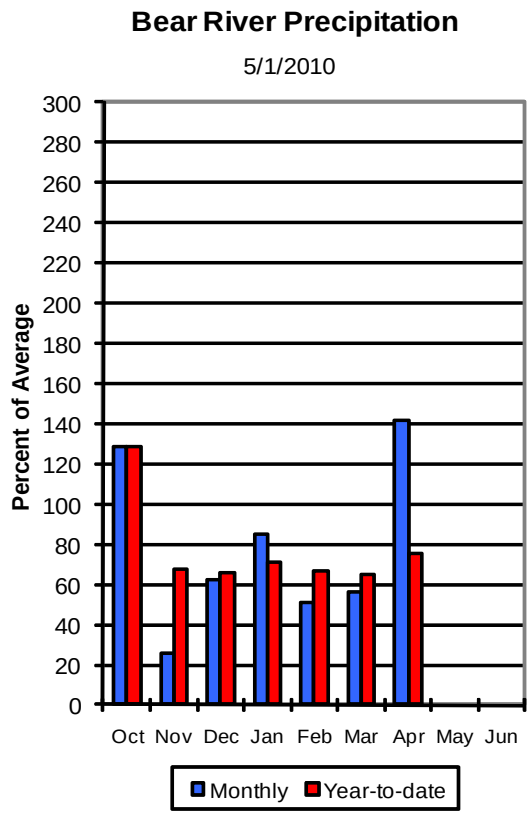
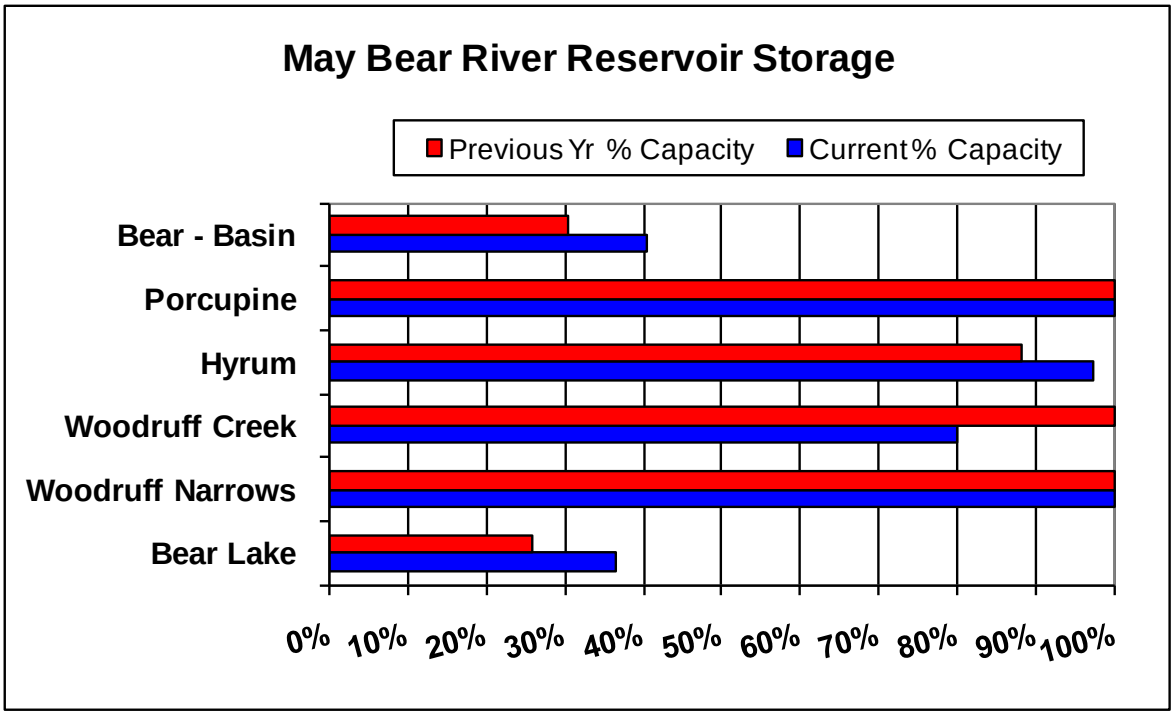
Bear River Basin
May 1, 2010

Snowpacks on the Bear River Basin are much below average at 59% of normal, about 60% of last year. Individual sites range from no snow at low elevation sites to 100% of normal at Howell Canyon Snotel. April precipitation was much above average at 142%, which brings the seasonal accumulation (Oct-April) to 75% of average. Soil moisture levels in runoff producing areas are at 71% of saturation in the upper 2 feet of soil compared to 74% last year. Forecast streamflows (May-July) range from much below to below average (27%-79%) volumes for this spring and summer. Reservoir storage is low at 41% of capacity, which is up 11% from this time last year. The Surface Water Supply Index is at 22% for the Bear River, in other words, 78% 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 as of May 1, 2010

BEAR RIVER BASIN
Streamflow Forecasts - May 1, 2010

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	66	80	89	79	98	112	113
	MAY-JUL	63	76	84	79	92	105	107
Bear R abv Resv. nr Woodruff	APR-JUL	57	75	88	65	101	119	136
	MAY-JUL	44	61	73	63	85	102	116
Big Creek nr Randolph	APR-JUL	1.96	2.50	2.80	57	3.10	3.60	4.90
	MAY-JUL	0.81	1.70	2.50	58	3.40	5.10	4.30
Smiths Fk nr Border, WY	APR-JUL	40	51	58	56	65	76	103
	MAY-JUL	32	43	51	54	59	70	95
Bear R blw Stewart Dam	APR-JUL	5.0	40	60	26	95	147	234
	MAY-JUL	4.0	22	50	27	78	119	186
Little Bear at Paradise, UT	APR-JUL	2.1	11.3	17.6	38	24	33	46
	MAY-JUL	0.6	5.1	11.0	34	16.9	26	32
Logan R nr Logan, UT	APR-JUL	47	61	70	56	79	93	126
	MAY-JUL	37	51	60	56	69	83	108
Blacksmith Fk nr Hyrum, UT	APR-JUL	2.0	14.8	24	50	32	45	48
	MAY-JUL	1.2	10.1	18.0	45	26	38	40
Dunn Ck nr Park Valley	APR-JUL	0.20	1.00	1.50	48	2.80	3.90	3.10
	MAY-JUL	0.10	0.80	1.30	46	2.00	3.60	2.80

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BEAR LAKE	1302.0	476.7	337.4	---
HYRUM	15.3	14.9	13.5	13.2
PORCUPINE	11.3	11.3	11.3	9.5
WOODRUFF NARROWS	57.3	57.3	57.3	38.5
WOODRUFF CREEK	4.0	3.2	4.0	---

BEAR RIVER BASIN
Watershed Snowpack Analysis - May 1, 2010

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
BEAR RIVER, UPPER	8	66	66
BEAR RIVER, LOWER	9	58	54
LOGAN RIVER	4	61	61
RAFT RIVER	1	84	100
BEAR RIVER BASIN	17	60	59

* 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.

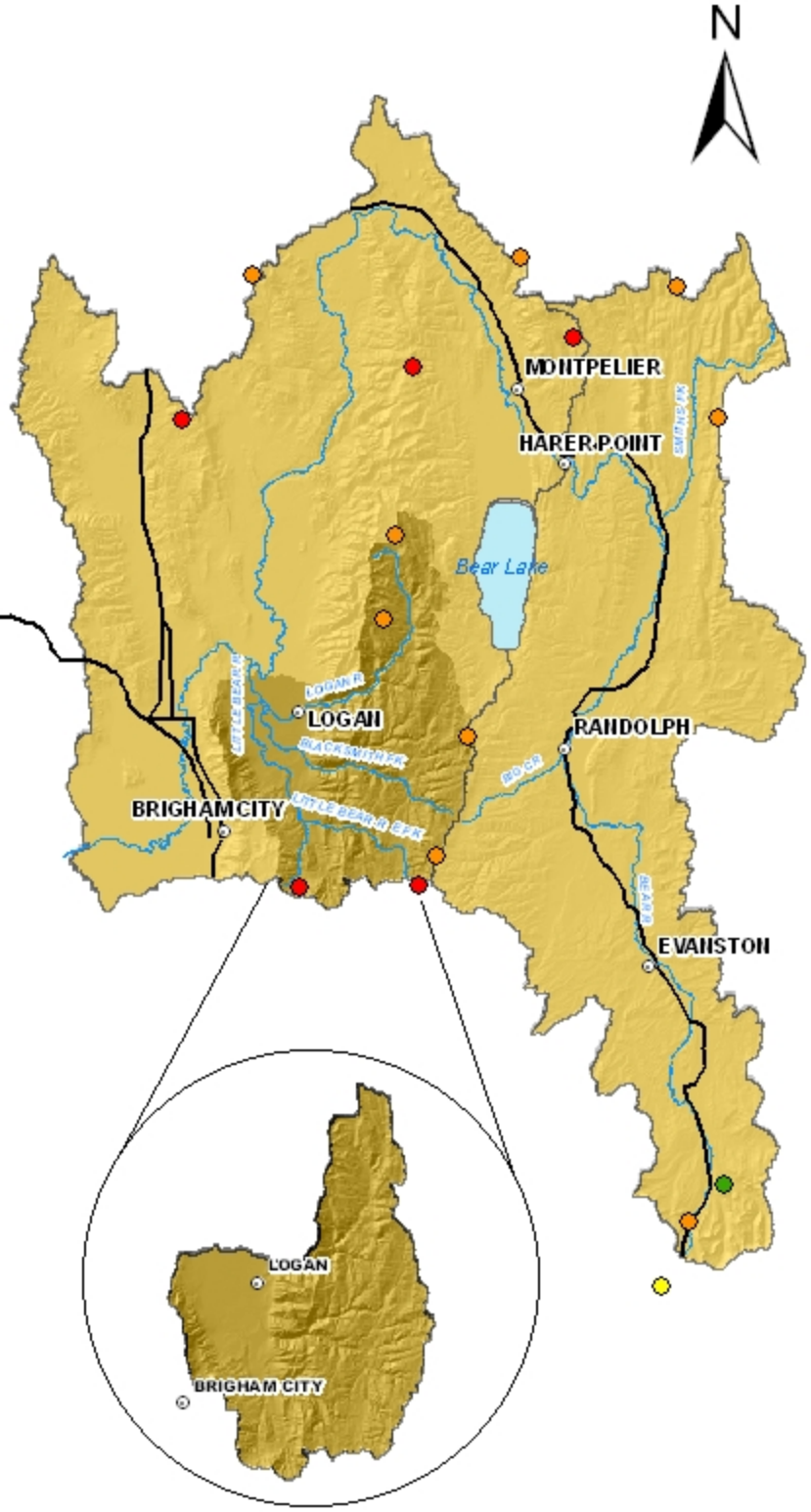
Bear River & Raft River Basins

Basinwide Average

59 %

Snotel % of Average

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

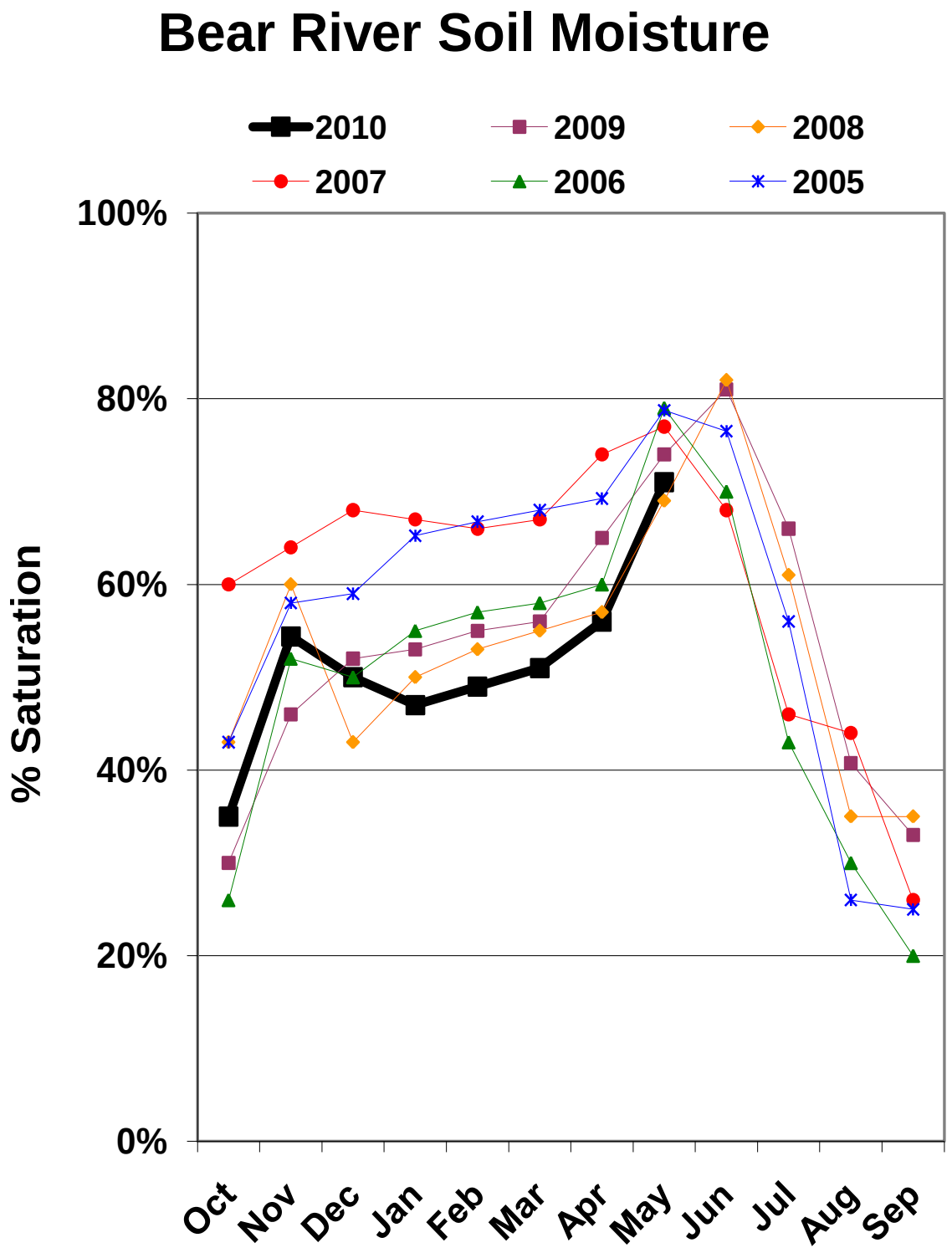


Watershed % of Average

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

Provisional Data Subject to Revision

Miles
0 5 10 20 30 40 50

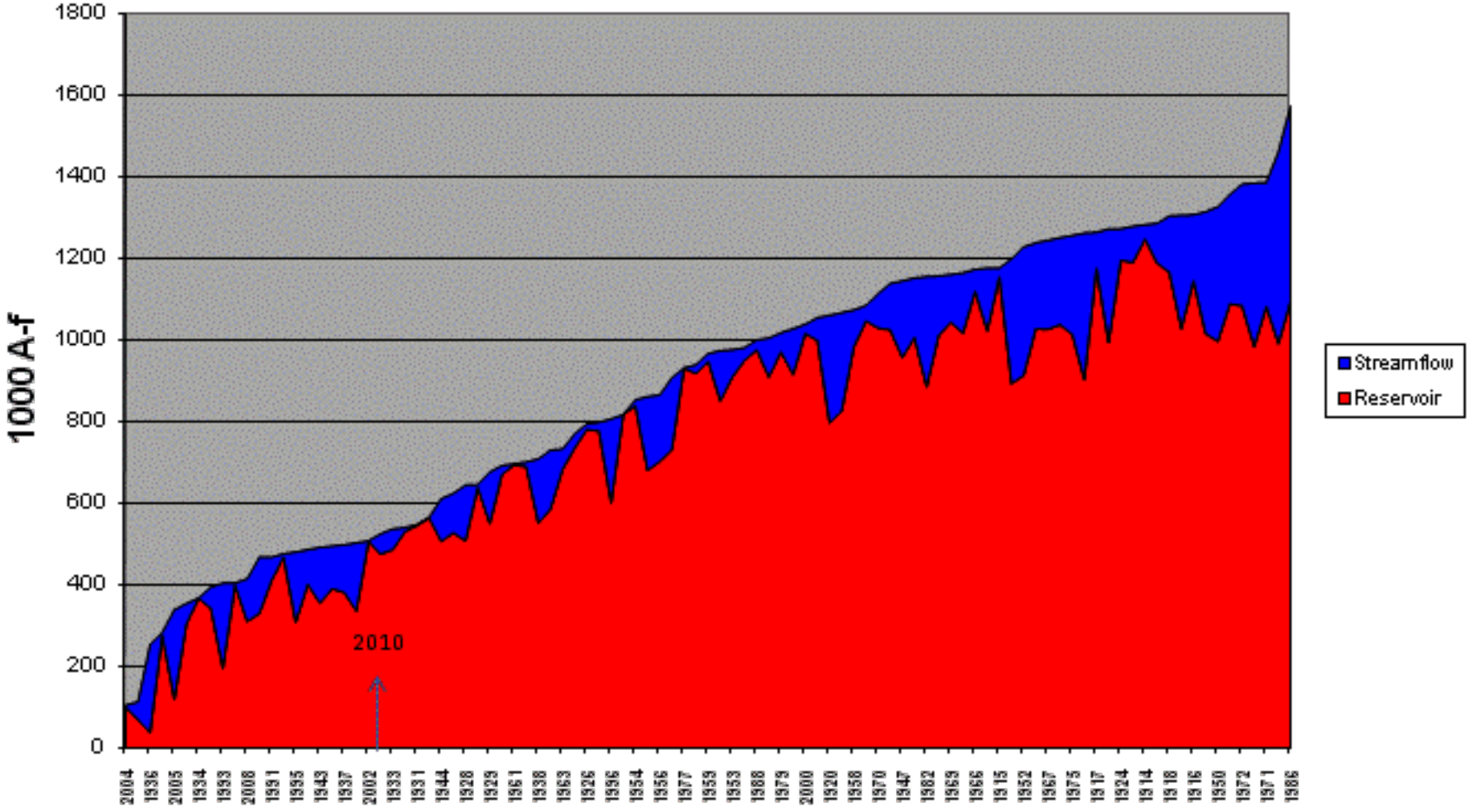
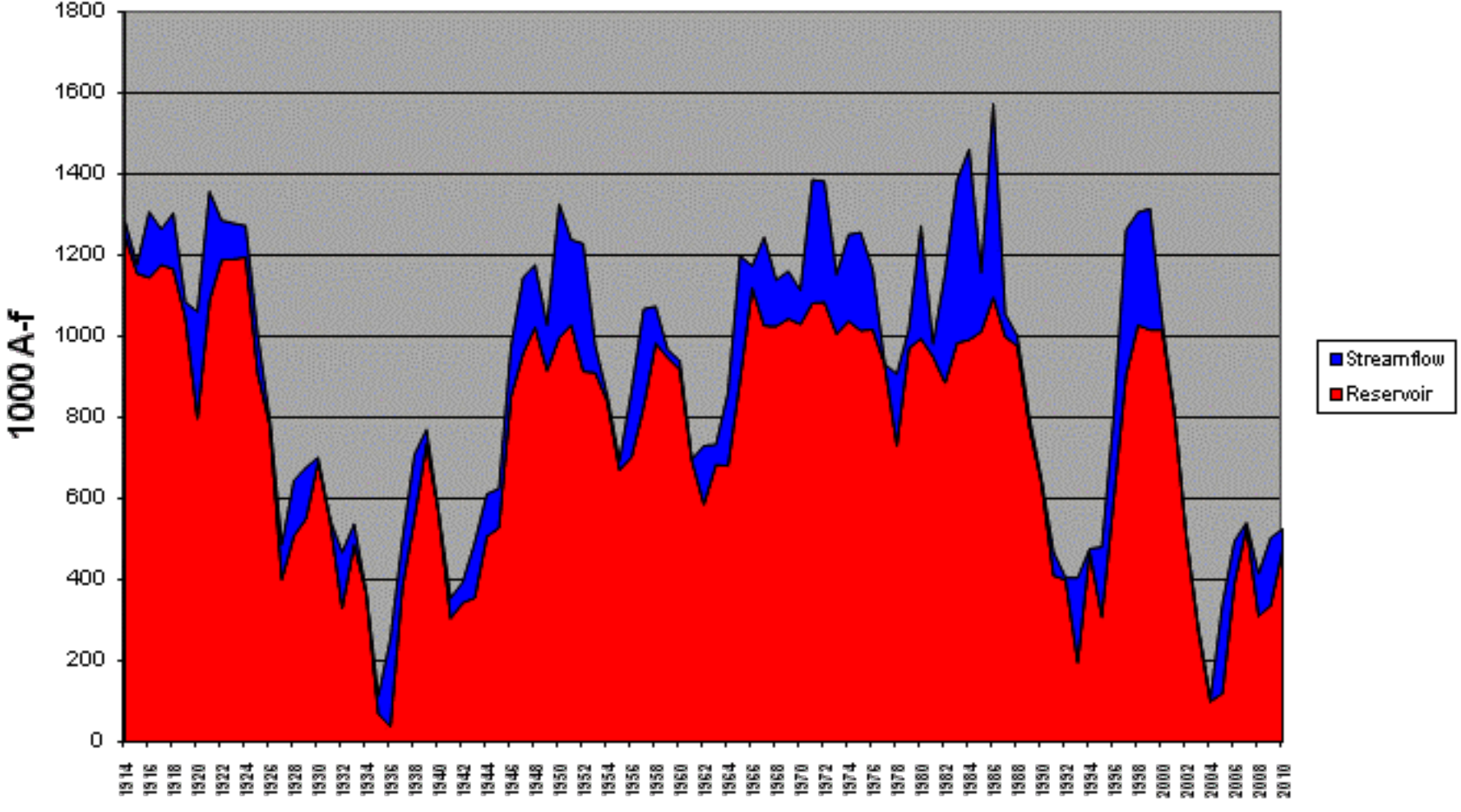


Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content.

Bear Lake SWSI						
May 1						
#	Year	EOM April Reservoir KAF	May-Jul Streamflow KAF	Reservoir + Streamflow KAF	Probability	SWSI
1	2004	101	6	107	1	-4.08
2	1935	71	44	115	2	-4.00
3	1936	39	216	255	3	-3.91
4	2003	278	7	285	4	-3.83
5	2005	122	219	341	5	-3.74
6	1941	306	50	356	6	-3.66
7	1934	368	1	369	7	-3.57
8	1942	344	51	396	8	-3.49
9	1993	198	208	406	9	-3.40
10	1992	401	5	406	10	-3.32
11	2008	312	104	416	11	-3.23
12	1932	331	138	469	12	-3.15
13	1991	411	58	469	13	-3.06
14	1994	469	8	478	14	-2.98
15	1995	310	172	482	15	-2.89
16	1927	402	85	488	16	-2.81
17	1943	357	136	493	17	-2.72
18	2006	392	105	497	18	-2.64
19	1937	383	117	500	19	-2.55
20	2009	337	167	504	20	-2.47
21	2002	508	1	509	21	-2.38
22	**2010**	**477**	**50**	**527**	**22**	**-2.30**
23	1933	488	51	538	23	-2.21
24	2007	532	10	542	24	-2.13
25	1931	547	3	549	26	-2.04
26	1940	565	2	567	27	-1.96
27	1944	508	105	613	28	-1.87
28	1945	529	96	625	29	-1.79
29	1928	509	137	646	30	-1.70
30	1990	640	8	647	31	-1.62
31	1929	551	126	678	32	-1.53
32	1955	672	22	694	33	-1.45
33	1961	695	2	698	34	-1.36
34	1930	691	12	703	35	-1.28
35	1938	553	157	710	36	-1.19
36	1962	587	144	731	37	-1.11
37	1963	684	50	734	38	-1.02
38	1939	737	34	771	39	-0.94
39	1926	782	13	796	40	-0.85
40	1989	778	22	800	41	-0.77
41	1996	603	205	808	42	-0.68
42	2001	818	1	819	43	-0.60
43	1954	840	14	854	44	-0.51
44	1964	682	181	862	45	-0.43
45	1956	703	163	866	46	-0.34
46	1978	732	176	908	47	-0.26
47	1977	931	1	933	48	-0.17
48	1960	919	21	941	49	-0.09
49	1959	948	20	968	50	0.00
50	1946	852	123	975	51	0.09

51	1953	911	66	977	52	0.17
52	1981	951	31	982	53	0.26
53	1988	977	25	1002	54	0.34
54	1925	910	95	1006	55	0.43
55	1979	972	47	1019	56	0.51
56	1949	916	112	1029	57	0.60
57	2000	1017	23	1040	58	0.68
58	1987	1000	56	1056	59	0.77
59	1920	798	263	1062	60	0.85
60	1957	827	241	1068	61	0.94
61	1958	984	91	1075	62	1.02
62	1919	1047	38	1086	63	1.11
63	1970	1031	84	1115	64	1.19
64	1968	1026	114	1140	65	1.28
65	1947	958	188	1146	66	1.36
66	1973	1007	146	1153	67	1.45
67	1982	886	270	1156	68	1.53
68	1985	1012	145	1158	69	1.62
69	1969	1045	117	1162	70	1.70
70	1976	1018	147	1165	71	1.79
71	1966	1120	54	1174	72	1.87
72	1948	1024	154	1177	73	1.96
73	1915	1156	22	1178	74	2.04
74	1965	894	306	1200	76	2.13
75	1952	914	315	1229	77	2.21
76	1951	1028	211	1239	78	2.30
77	1967	1027	218	1245	79	2.38
78	1974	1038	214	1252	80	2.47
79	1975	1015	242	1257	81	2.55
80	1997	904	359	1263	82	2.64
81	1917	1177	88	1265	83	2.72
82	1980	995	278	1273	84	2.81
83	1924	1196	78	1274	85	2.89
84	1923	1191	88	1279	86	2.98
85	1914	1248	36	1283	87	3.06
86	1922	1190	97	1287	88	3.15
87	1918	1167	138	1305	89	3.23
88	1998	1028	278	1307	90	3.32
89	1916	1146	162	1308	91	3.40
90	1999	1017	299	1315	92	3.49
91	1950	998	330	1327	93	3.57
92	1921	1089	268	1358	94	3.66
93	1972	1085	298	1383	95	3.74
94	1983	985	401	1385	96	3.83
95	1971	1083	304	1387	97	3.91
96	1984	992	470	1462	98	4.00
97	1986	1097	476	1573	99	4.08

Bear River Surface Water Supply Index
May



Bear River Surface Water Supply Index
May