Topics of Interest

- **Amount of Snow & Streamflow needed in Upper Snake (Heise)**
- **Snow Courses – Aerial Markers**
- **Webpage**
- **Dollarhide Summit SNOTEL (Big Wood/SF Boise)**

	Snake River near Heise SWSI		Adequate Water Supply Greater than -1.3 SWSI or 4,500 KAF				
			Period	Data Type	Years	# of Years	
1.3E+07	Snake River near Heise	Units KAF	Apr-Sep	strm	1981-2012	32	Units KAF
1.3E+07	Jackson Lake	Units KAF	31-Mar	resv	1981-2012	32	Units KAF
1.3E+07	Palisades Reservoir	Units KAF	31-Mar	resv	1981-2012	32	Units KAF

ENSO Classification

SE Strong El Nino - EN Mild El Nino - N Neutral - LN Mild La Nina - SL Strong La Nina

2010, 2011 & 2012 Provisional Data

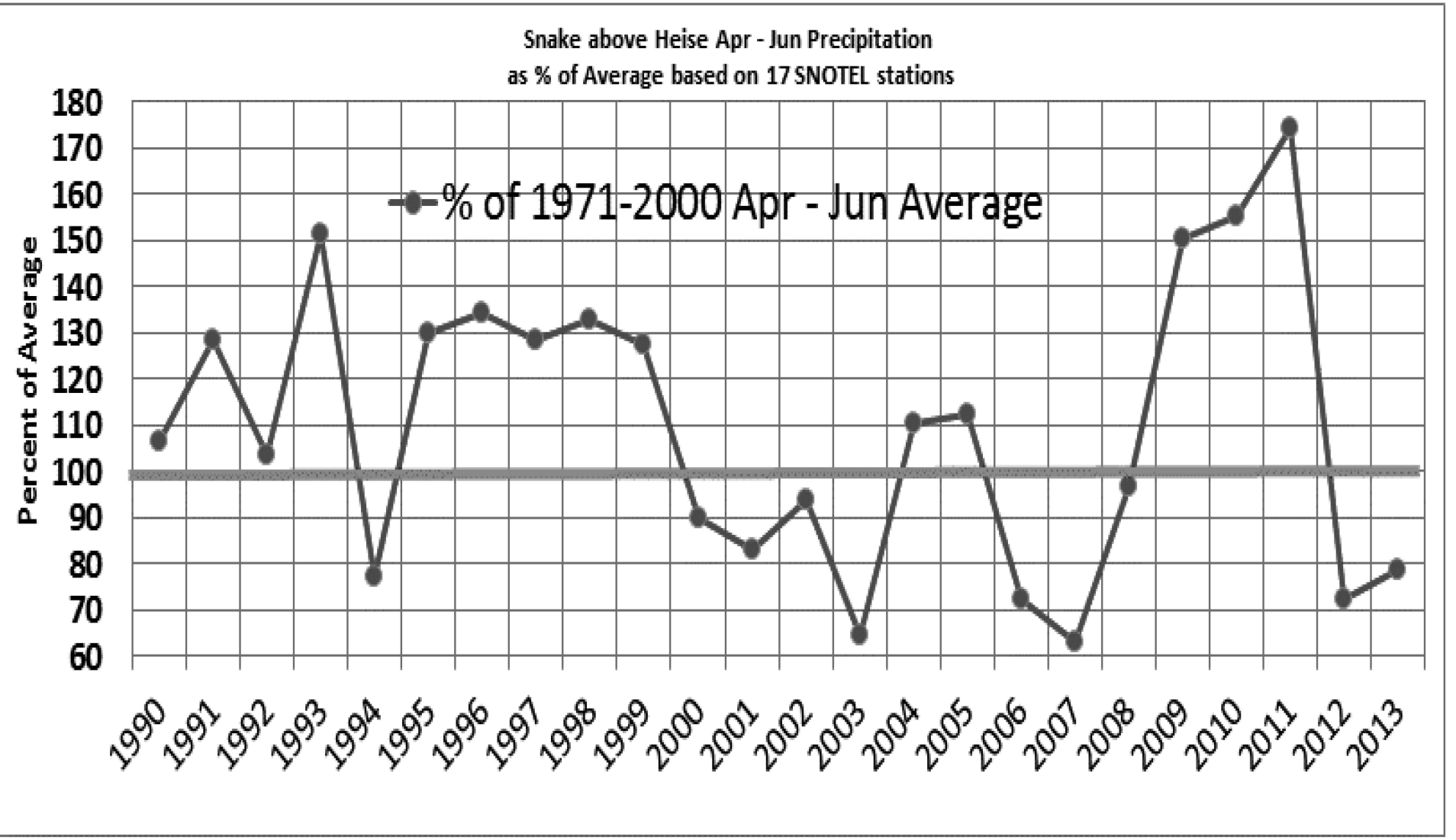
Historic Rank	Year	ENSO	Streamflow Apr-Sep	Summed Reservoirs 31-Mar	Streamflow + Reservoir Sum	Non-Exceedance Probability	SWSI	Rank
1	1997	N	7009	949	7958	0.97	3.9	
2	**2011**	SL	6284	1493	7777	0.94	3.7	
3	1986	N	6053	962	7015	0.91	3.4	
4	1996	N	5583	1314	6897	0.88	3.2	
5	1982	N	5773	1064	6837	0.85	2.9	
6	1983	SE	5008	1740	6748	0.82	2.7	
7	1984	N	5046	1654	6700	0.79	2.4	
8	**2009**	N	4602	1759	6360	0.76	2.1	
9	1999	SL	4948	1311	6259	0.73	1.9	
10	1998	SE	4495	1632	6127	0.70	1.6	
11	1995	SE	4444	1041	5485	0.67	1.4	
12	2006	N	4076	1264	5340	0.64	1.1	
13	**2008**	N	4286	989	5275	0.61	0.9	
14	**2012**	LA	3420	1780	5200	0.58	0.6	
15	**2010**	EN	3104	1880	4984	0.55	0.4	
16	2000	N	3057	1846	4903	0.52	0.1	
17	1981	N	2911	1955	4866	0.48	-0.1	
18	1993	EN	4113	735	4848	0.45	-0.4	
19	1985	N	3490	1335	4825	0.42	-0.6	
20	1989	SL	3866	889	4755	0.39	-0.9	
21	1990	N	2806	1755	4561	0.36	-1.1	
	2014 Amount Needed	**N**	**3750**	**750**	**4500**	**0.35**	**-1.3**	**22**
22	1991	N	3355	1131	4486	0.33	-1.4	
23	1994	SE	2316	2023	4339	0.30	-1.6	
24	2005	EN	3193	865	4057	0.27	-1.9	
25	**2013**	**N**	**2722**	**1327**	**4049**	**0.24**	**-2.1**	
26	1987	N	2546	1482	4028	0.21	-2.4	
27	2007	EN	2316	1609	3925	0.18	-2.7	
28	2003	EN	2924	923	3847	0.15	-2.9	
29	1988	SE	2647	1060	3707	0.12	-3.2	
30	1992	EN	1997	1684	3681	0.09	-3.4	
31	**2002**	N	2775	**743**	3518	0.06	-3.7	
32	**2004**	N	2723	**793**	3516	0.03	-3.9	
33	2001	LN	1964	1414	3378	0.00	-4.2	

	Snake River near Heise SWSI		Adequate Water Supply Greater than -1.3 SWSI or 4,500 KAF						
			Period	Data Type	Years	# of Years			
1.3E+07	Snake River near Heise	Units KAF	Apr-Sep	strm	1981-2012	32	Units KAF		
1.3E+07	Jackson Lake	Units KAF	31-Mar	resv	1981-2012	32	Units KAF		
1.3E+07	Palisades Reservoir	Units KAF	31-Mar	resv	1981-2012	32	Units KAF		
	ENSO Classification								
	SE Strong El Nino - EN Mild El Nino - N Neutral - LN Mild La Nina - SL Strong La Nina								
	2010, 2011 & 2012 Provisional Data								
Historic Rank	Year	ENSO	Streamflow Apr-Sep	Summed Reservoirs 31-Mar	Streamflow + Reservoir Sum	Non-Exceedance Probability	SWSI	Rank	
20	1989	SL	3866	889	4755	0.39	-0.9		
21	1990	N	2806	1755	4561	0.36	-1.1		
	2014 Amount Needed	N	3750	750	4500	0.35	-1.3	22	
22	1991	N	3355	1131	4486	0.33	-1.4		
23	1994	SE	2316	2023	4339	0.30	-1.6		
24	2005	EN	3193	865	4057	0.27	-1.9		
25	**2013**	**N**	**2722**	**1327**	**4049**	**0.24**	**-2.1**		
26	1987	N	2546	1482	4028	0.21	-2.4		
27	2007	EN	2316	1609	3925	0.18	-2.7		
28	2003	EN	2924	923	3847	0.15	-2.9		
29	1988	SE	2647	1060	3707	0.12	-3.2		
30	1992	EN	1997	1684	3681	0.09	-3.4		
31	2002	N	2775	743	3518	0.06	-3.7		
32	2004	N	2723	793	3516	0.03	-3.9		
33	2001	LN	1964	1414	3378	0.00	-4.2		

o estimate amount needed for next year	KAF	
rrent Year Sep 30 end of month storage	434	
ected Storage Change Sep 30 to Mar 31	316	Estimate based on change from 2005-2010 ranging from 325-700 KAF
Projected Mar 31 storage	750	
reservoir and streamflow total of 4500 KAF	3750	
1981-2010 Apr-Sep average streamflow	3780	99 % of the 1981-2010 average Apr-Sep volume needed for adequate supplies
1971-2000 Apr-Sep average streamflow	4160	90 % of the 1971-2000 average
Adequate Irrigation Needs	4500	

	A	B	C	D	E	F
1	Snake above Heise Snow Inde	Station: 10F02S, BASE CAMP PILLOW				
2	17 stations 1981-2010 averag	Station: 10G02S, BLIND BULL SUMMIT				
3		Station: 10G25S, COTTONWOOD CREEK PILLOW				
4		Station: 10F17S, EAST RIM DIVIDE				
5		Station: 10F29S, GRANITE CREEK PILLOW				
6		Station: 10E15S, GRASSY LAKE PILLOW				
7		Station: 10F19S, GROS VENTRE SUMMIT				
8		Station: 10E09S, LEWIS LAKE DIVIDE				
9		Station: 10F16S, LOOMIS PARK PILLOW				
10		Station: 10F23S, PHILLIPS BENCH PILLOW				
11		Station: 10G08S, SALT RIVER SUMMIT				
12		Station: 10E12S, SNAKE RIVER STATION				
13		Station: 10G20S, SPRING CREEK DIVIDE				
14		Station: 10E07S, THUMB DIVIDE SNOTEL				
15		Station: 10F09S, TOGWOTEE PASS PILLOW				
16		Station: 10E17S, TWO OCEAN PLATEAU				
17		Station: 10G23S, WILLOW CREEK PILLOW				
18	Year	Apr 1 SWE inches	Apr 1 SWE % of Avg	Apr-Sep Strm KAF	Apr-Sep Strm % of Avg	
19	1977	167.2	47	1485	39	
20	2001	229.0	64	1964	52	
21	1992	222.2	62	1997	53	
22	1994	268.4	75	2316	61	
23	2007	258.9	72	2367	63	
24	1987	244.6	68	2546	67	
25	1961	299.5	84	2546	67	
26	1988	306.3	85	2647	70	
27	2013	294.0	82	2722	72	
28	2002	314.3	88	2775	73	
29	1990	302.1	84	2806	74	
30	2005	299.5	84	2847	75	
31	1981	222.3	62	2911	77	
32	2003	367.6	103	2924	77	
33	1966	311.0	87	2952	78	
34	1973	305.6	85	3005	79	
35	2000	348.2	97	3057	81	
36	2010	220.9	62	3102	82	
37	2004	314.0	88	3130	83	
38	1963	277.8	77	3352	89	
39	1991	315.1	88	3355	89	
40	1979	410.5	115	3391	90	
41	2012	338.8	95	3420	90	
42	1985	336.1	94	3490	92	
43	1969	425.5	119	3678	97	
44	1968	351.0	98	3708	98	

	A	B	C	D	E	F
	Snake above Heise Snow Inde	Station: 10F02S, BASE CAMP PILLOW				
	17 stations 1981-2010 averag	Station: 10G02S, BLIND BULL SUMMIT				
	Year	Apr 1 SWE inches	Apr 1 SWE % of Avg	Apr-Sep Strm KAF	Apr-Sep Strm % of Avg	
1	1977	167.2	47	1485	39	
0	2001	229.0	64	1964	52	
1	1992	222.2	62	1997	53	
2	1994	268.4	75	2316	61	
3	2007	258.9	72	2367	63	
4	1987	244.6	68	2546	67	
5	1961	299.5	84	2546	67	
6	1988	306.3	85	2647	70	
7	2013	294.0	82	2722	72	
8	2002	314.3	88	2775	73	
9	1990	302.1	84	2806	74	
0	2005	299.5	84	2847	75	
1	1981	222.3	62	2911	77	
2	2003	367.6	103	2924	77	
3	1966	311.0	87	2952	78	
4	1973	305.6	85	3005	79	
5	2000	348.2	97	3057	81	
6	2010	220.9	62	3102	82	
7	2004	314.0	88	3130	83	
8	1963	277.8	77	3352	89	
9	1991	315.1	88	3355	89	
0	1979	410.5	115	3391	90	
1	2012	338.8	95	3420	90	
2	1985	336.1	94	3490	92	
3	1969	425.5	119	3678	97	
4	1968	351.0	98	3708	98	
5	1989	444.4	124	3866	102	
6	1980	406.3	113	3921	104	
7	1970	411.6	115	4011	106	
8	1993	350.6	98	4113	109	
9	1967	440.5	123	4119	109	
0	1964	381.3	106	4141	110	
1	2006	440.8	123	4155	110	
2	1962	483.3	135	4260	113	
3	2008	417.9	117	4286	113	
4	1995	399.7	111	4444	118	
5	1975	424.8	118	4493	119	
6	1998	358.5	100	4495	119	
7	2009	394.7	110	4610	122	
8	1999	455.9	127	4948	131	
9	1976	543.5	152	4951	131	


Snake above Heise Apr - Jun Precipitation
as % of Average based on 17 SNOTEL stations
% of 1971-2000 Apr - Jun Average
Percent of Average
180
170
160
150
140
130
120
110
100
90
80
70
60
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
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2008
2009
2010
2011
2012
2013

Topics of Interest

- **Snow Courses – Aerial Markers**
- **Webpage**
- **Dollarhide Summit SNOTEL Burned (Big Wood/SF Boise)**