



IDWR Water Supply Meeting May 12, 2011

NRCS Snow Survey

**Measuring Lost Lake SNOTEL
Site, elevation 6,110 feet,
along the NF Clearwater and
St Joe Divide**

May 1, 2011

201" snow depth (16.7')

75.8" snow water

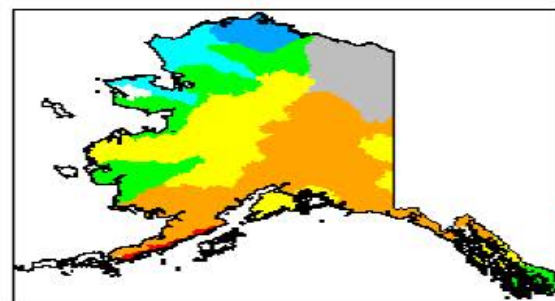
59.7 " average

May 1 , 2010

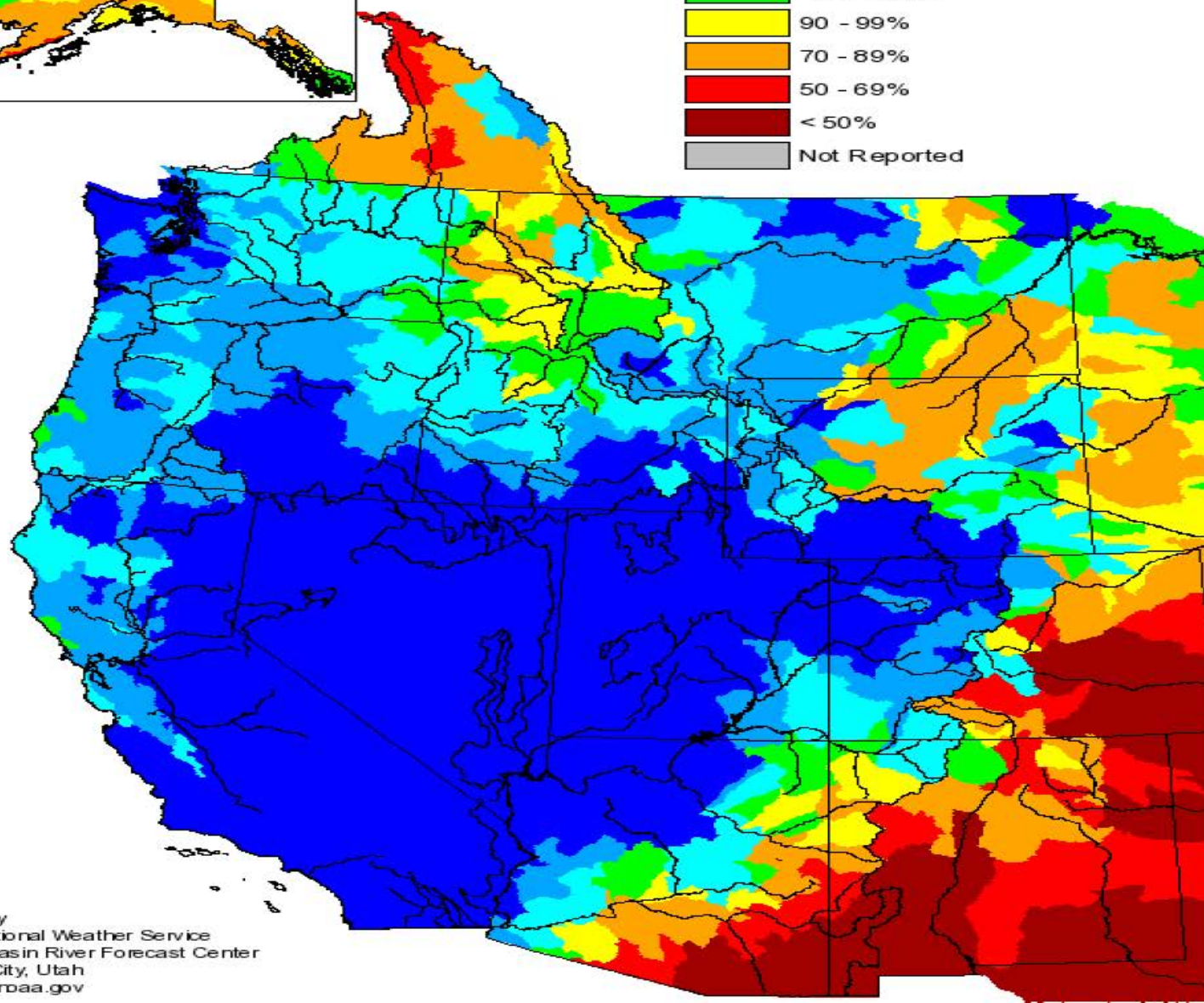
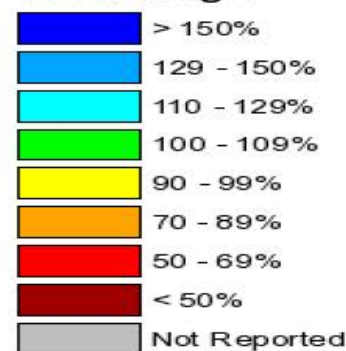
32.9" snow water

Seasonal Precipitation, October 2010 - December 2010

(Averaged by Hydrologic Unit)



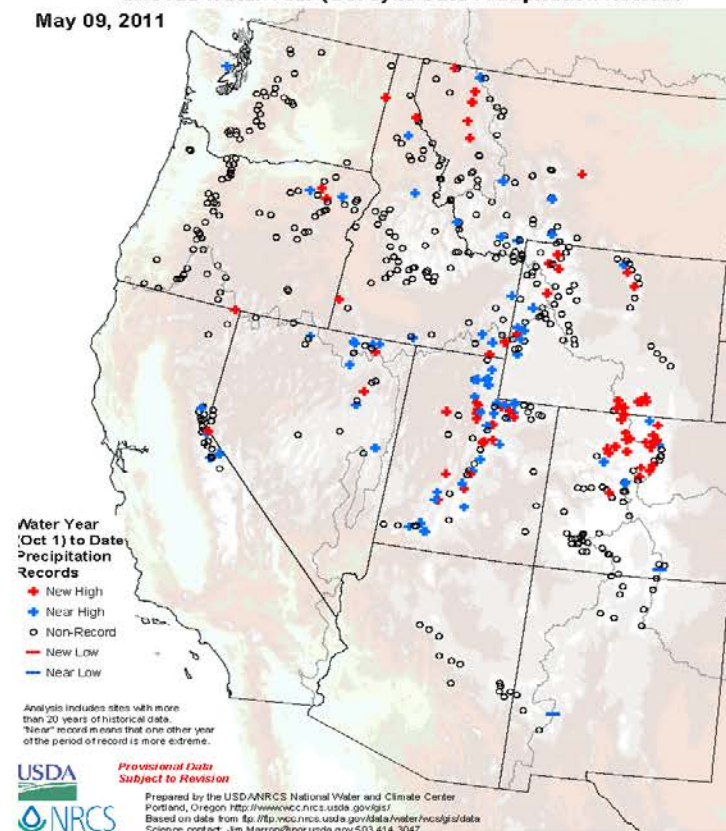
% Average



SNOTEL Precipitation Summary Report as of May 10, 2011

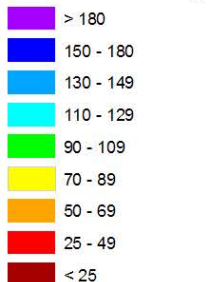
REGION or BASIN	May 1 st - 10 th Precipitation	Water Year-to-Date	Water Year-to-Date
	Compared to Normal May Monthly Precipitation Amount in %	Precipitation as % of Average	Compared to Annual Amount Precipitation as % of Average
NORTHERN PANHANDLE	29	125	99
SPOKANE	49	131	105
CLEARWATER BASIN	49	127	100
SALMON BASIN	36	109	84
WEISER BASIN	31	117	95
PAYETTE BASIN	36	109	90
BOISE BASIN	55	118	98
BIG WOOD BASIN	34	106	83
LITTLE WOOD BASIN	20	113	79
BIG LOST BASIN	15	108	76
LITTLE LOST, BIRCH BASINS	28	118	77
MEDICINE LODGE, BEAVER, CAMAS	28	117	74
HENRYS FORK, TETON BASINS	70	127	98
SNAKE BASIN ABOVE PALISADES	71	131	99
WILLOW, BLACKFOOT, PORTNEUF	55	134	101
SNAKE BASIN ABOVE AMERICAN FALLS	65	131	99
GOOSE CREEK BASIN	47	134	104
SALMON FALLS BASIN	45	140	107
BRUNEAU BASIN	37	139	105
OWYHEE BASIN	38	138	111
BEAR RIVER BASIN	27	141	107

SNOTEL Water Year (Oct 1) to Date Precipitation Records
May 09, 2011

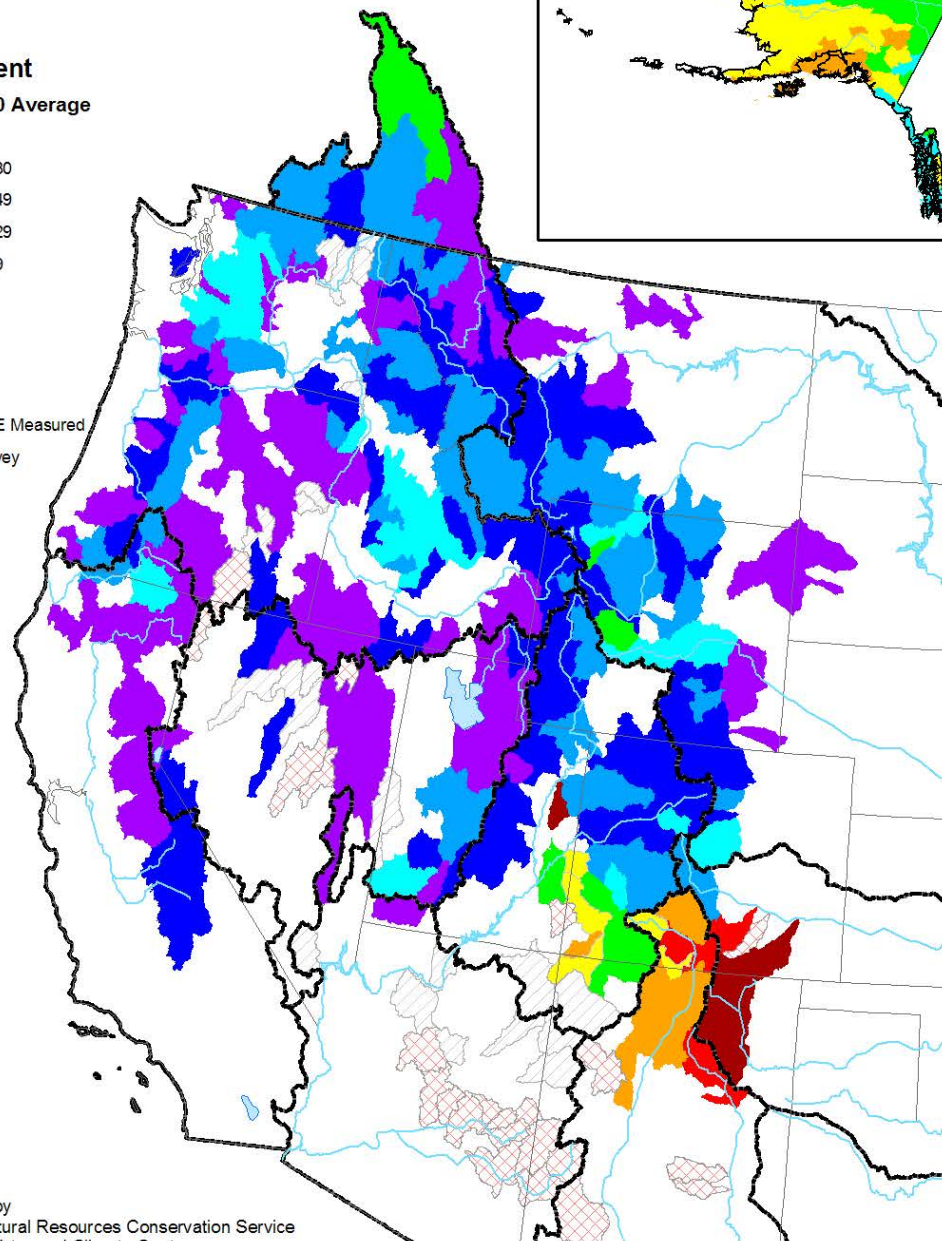


Mountain Snowpack as of May 1, 2011

Percent
1971 to 2000 Average



 "0" SWE Measured
 No Survey



Prepared by
USDA, Natural Resources Conservation Service

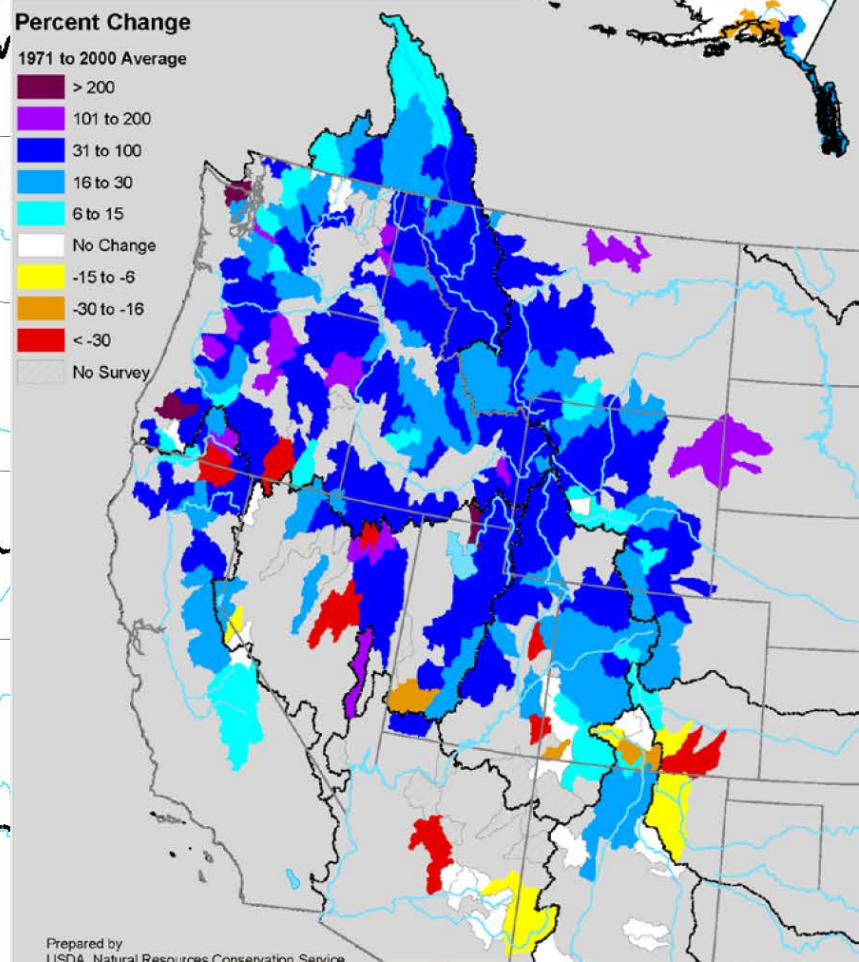
Mountain Snowpack Change between April 1 and May 1

Percent Change

1971 to 2000 Average



No Survey



Prepared by
USDA, Natural Resources Conservation Service

SNOTEL Current Snow Water Equivalent (SWE) Records

Apr 06, 2011

Current Snow Water (SWE) Equivalent Records

- ✚ New High
- ✚ Near High
- Non-Record
- New Low
- Near Low
- snow free

Analysis includes sites with more than 20 years of historical data.
"Near" record means that one other year of the period of record is more extreme.



**Provisional Data
Subject to Revision**

Prepared by the USDA/NRCS National Water and Climate Center
Portland, Oregon <http://www.wcc.nrcs.usda.gov/gis/>
Based on data from <ftp://ftp.wcc.nrcs.usda.gov/data/water/wcs/gis/data>
Science contact: Tom.Pagano@por.usda.gov 503 414 3010

SNOTEL Current Snow Water Equivalent (SWE) Records

May 09, 2011

Current Snow Water (SWE) Equivalent Records

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Based on data from <ftp://ftp.wcc.nrcs.usda.gov/data/water/wcs/gis/data>
Science contact: Jim.Marron@por.usda.gov 503 414 3047

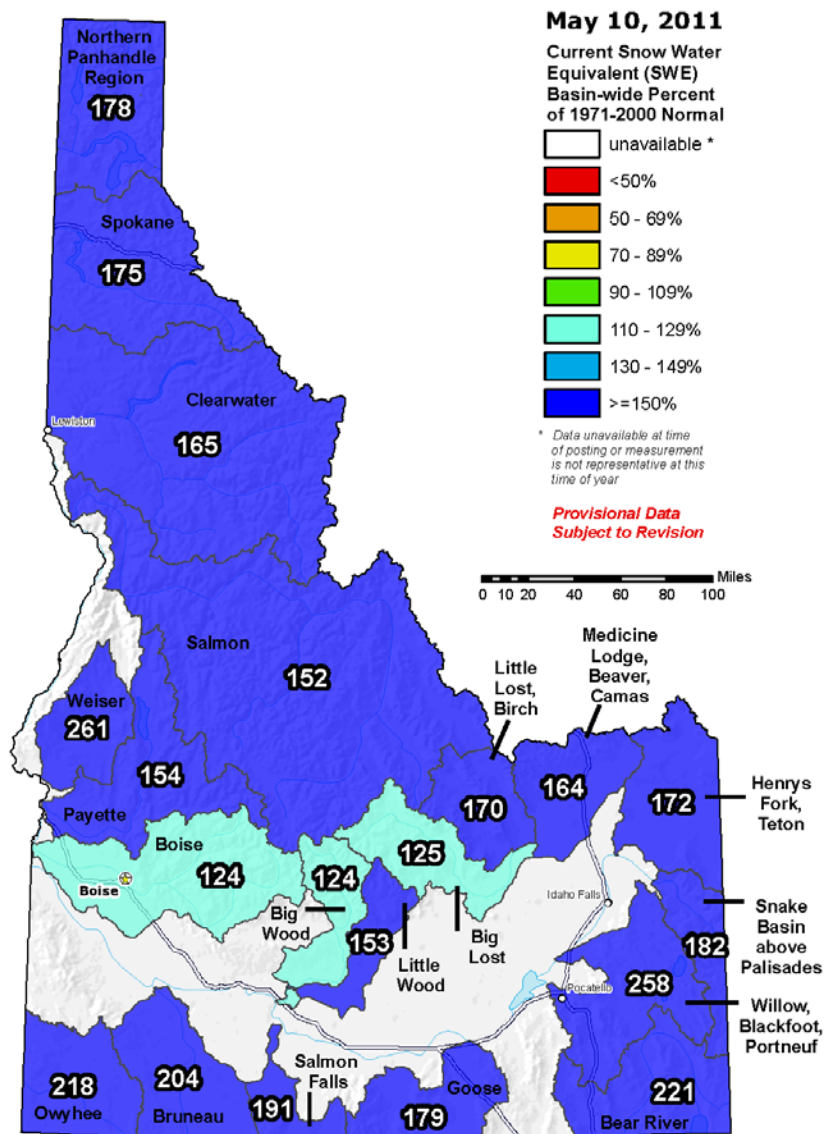
May 1 snow index rankings based on May 1st, 2011 SNOTEL data

<http://www.id.nrcs.usda.gov/snow/data/historic.html#snoindex>

May 1 snow index rankings based on May 1st, 2011 SNOTEL data

Basin	Highest Since	Current Rank For Period of	Record Starts	Record High Year	Number of Sites in Index
panhandle region	1999	3	1982	1997	8
coeur d'Alene	1999	2	1982	1997	2
st joe	1999	10	1961	1972	3
nf clearwater	1997	6	1961	1997	8
boise	2006	22	1961	1974	7
big wood	2006	16	1961	1974	7
little wood	2006	5	1981	1983	4
big lost	1997	7	1980	1983	4
little lost	1983	3	1982	1982	2
teton	1982	2	1973	1982	2
henrys fork abv rexburg	1997	3	1973	1997	9
snake abv heise	record	1	1990	2011	17
blackfoot	1984	2	1981	1982	2
willow	1983	3	1982	1982	2
portneuf	record	1	1989	2011	3
oakley	1984	6	1961	1984	3
salmon falls	1983	4	1961	1984	4
bruneau	1984	3	1974	1984	4
owyhee	1982	3	1981	1984	6
malad	1983	2	1981	1984	1
upper bear river	record	1	1961	2011	10

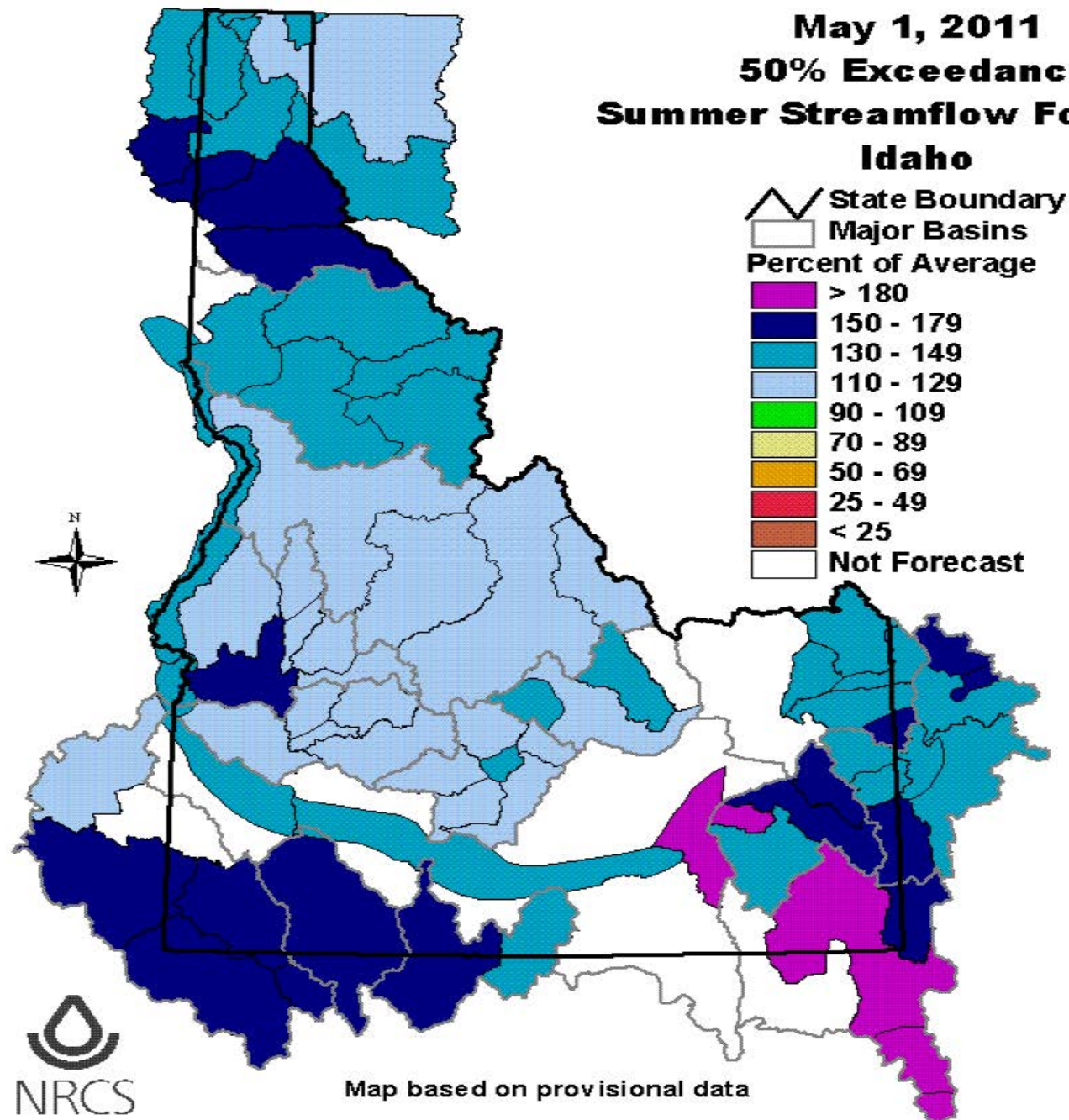
Idaho SNOTEL Current Snow Water Equivalent (SWE) % of Normal



**May 10, 2011
SWE range is
125-260% of
average**

**May 10, 1997
SWE range
was 60-195%
of average**

May 1, 2011
50% Exceedance
Summer Streamflow Forecasts
Idaho

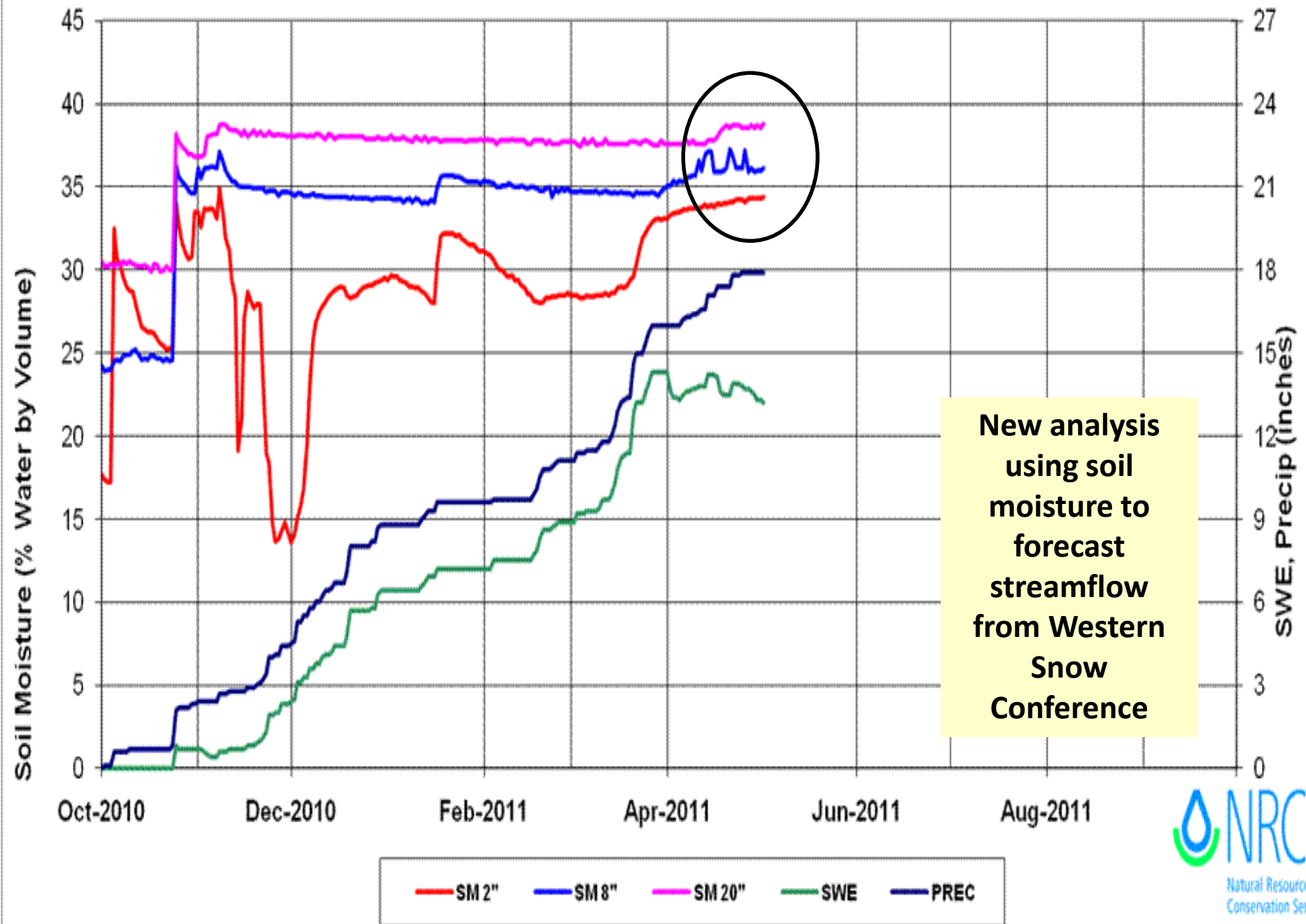


RESERVOIR STORAGE Usable Contents as of April 30, 2011				May 1 Streamflow Forecast
Reservoir	Percent of Capacity %	Current Storage KAF	Capacity Storage KAF	30% Chance Exceedance May-July Forecast KAF
Magic	92	176.8	191.5	305
Mackay	70	31.3	44.4	174
Blackfoot	73	255.6	348.7	113
Bear Lake	50	708.7	1421.0	510
Montpelier (5/11)	38	1.5	4.0	15.7 (includes Upper Home Creek)
Salmon Falls (5/11)	56	102.1	182.6	136
Oakley	46	34.8	75.6	37

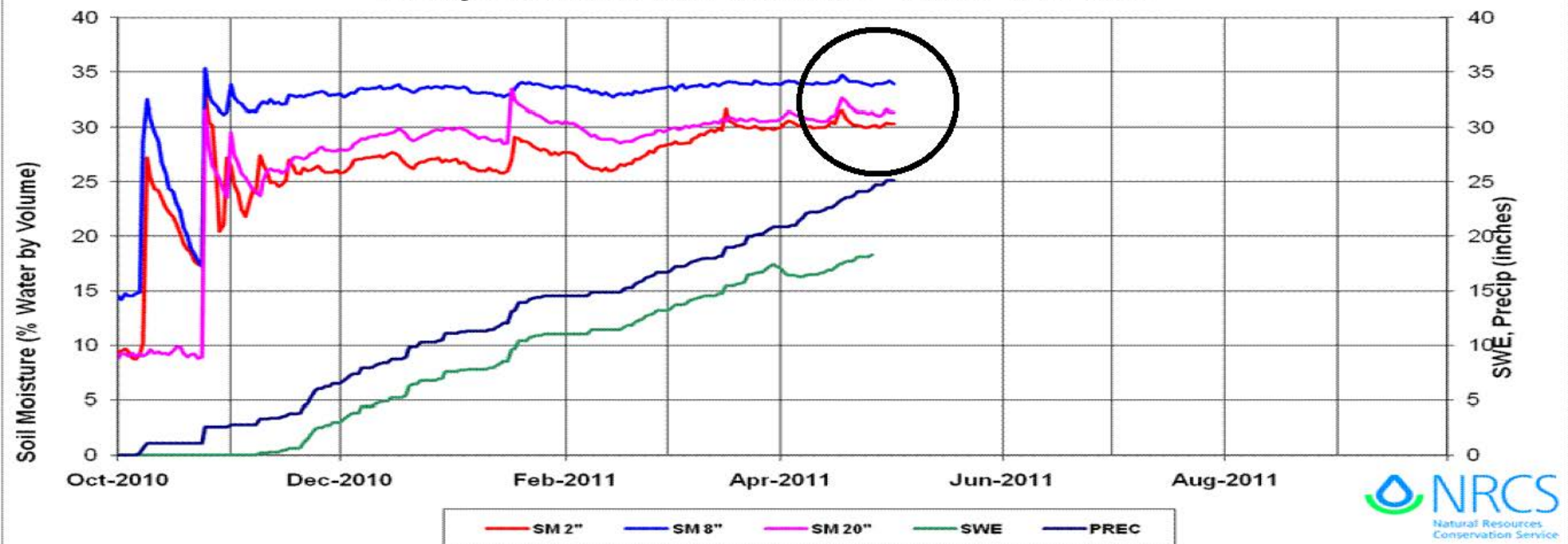
**2011 Idaho Surface Water Supply Index (SWSI)
For May 1, 2011**

BASIN or/ REGION	May SWSI Value	30% Exceedance Forecast SWSI Value	Agricultural Surface Water Supply Shortage May Occur When SWSI is Less Than
NORTHERN PANHANDLE	3.0	3.5	NA
PANHANDLE	3.0	3.5	NA
CLEARWATER	2.4	2.8	NA
SALMON	2.0	2.2	NA
WEISER	2.4	3.7	NA
PAYETTE	2.4	2.5	NA
BOISE	1.4	2.0	-2.4
BIG WOOD	1.7	2.0	-0.7
LITTLE WOOD	0.9	1.8	-2.1
BIG LOST	2.2	2.3	-0.3
LITTLE LOST	3.2	3.7	0.5
TETON	4.0	4.0	NA
HENRYS FORK	3.8	3.9	-3.4
SNAKE – HEISE	3.9	3.9	-1.7
OAKLEY	1.0	1.4	-1.0
SALMON FALLS	3.5	3.8	-1.2
BRUNEAU	3.5	3.5	NA
OWYHEE	3.3	3.5	-3.5
BEAR RIVER	1.0	1.1	-3.6

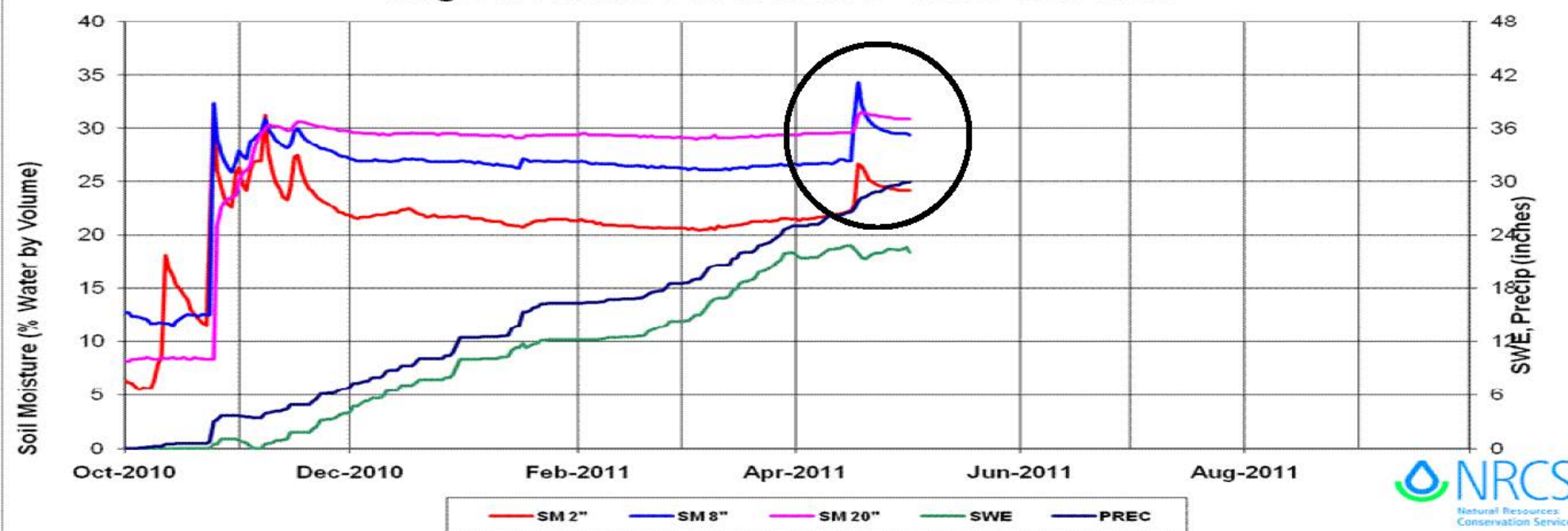
Chocolate Gulch Soil Moisture - Water Year 2011



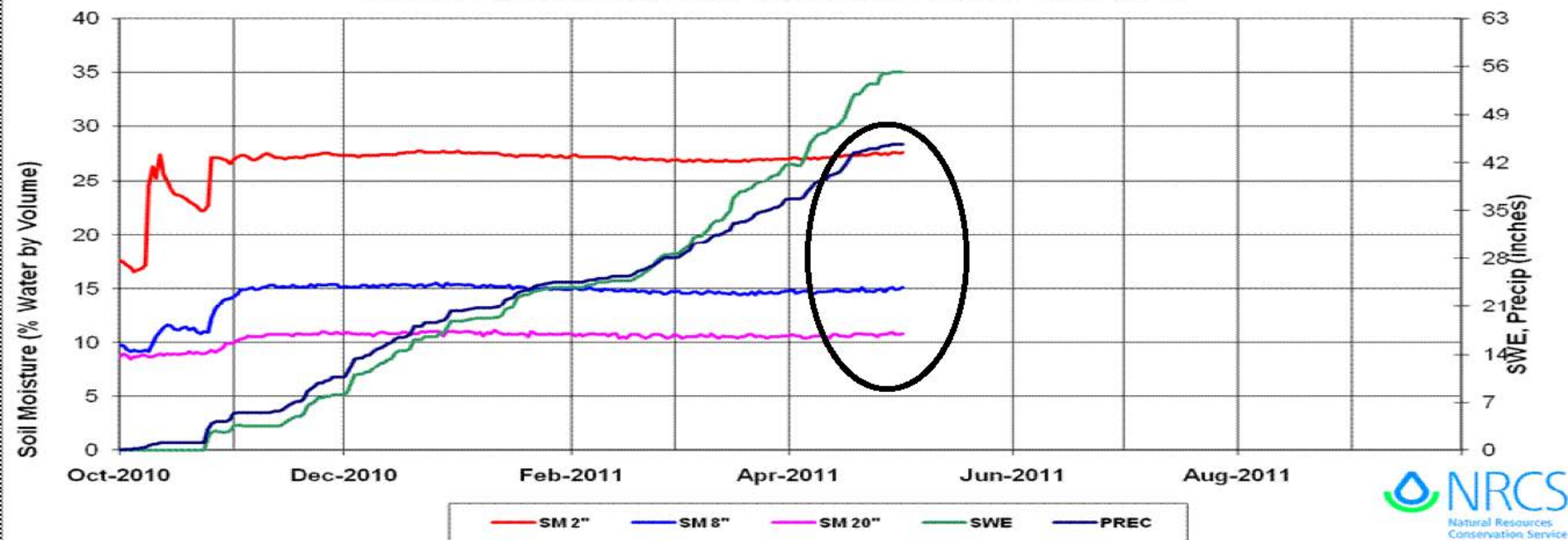
Sheep Mountain Soil Moisture - Water Year 2011



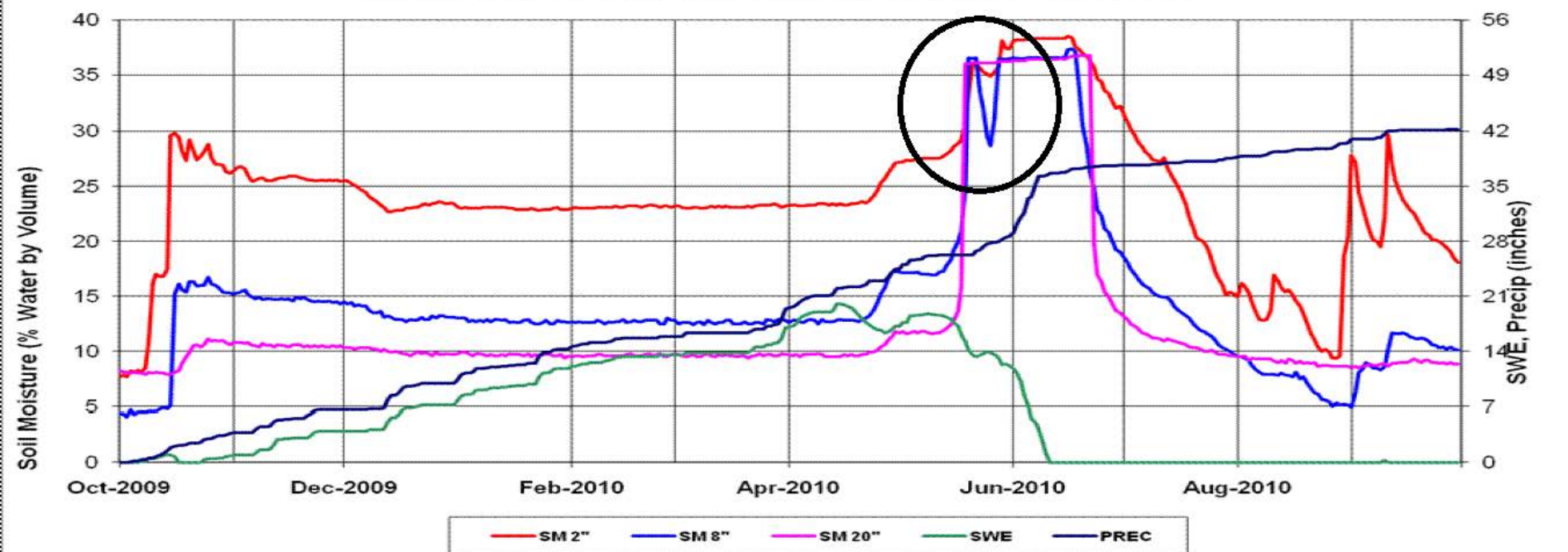
Magic Mountain Soil Moisture - Water Year 2011



Lewis Lake Divide Soil Moisture - Water Year 2011

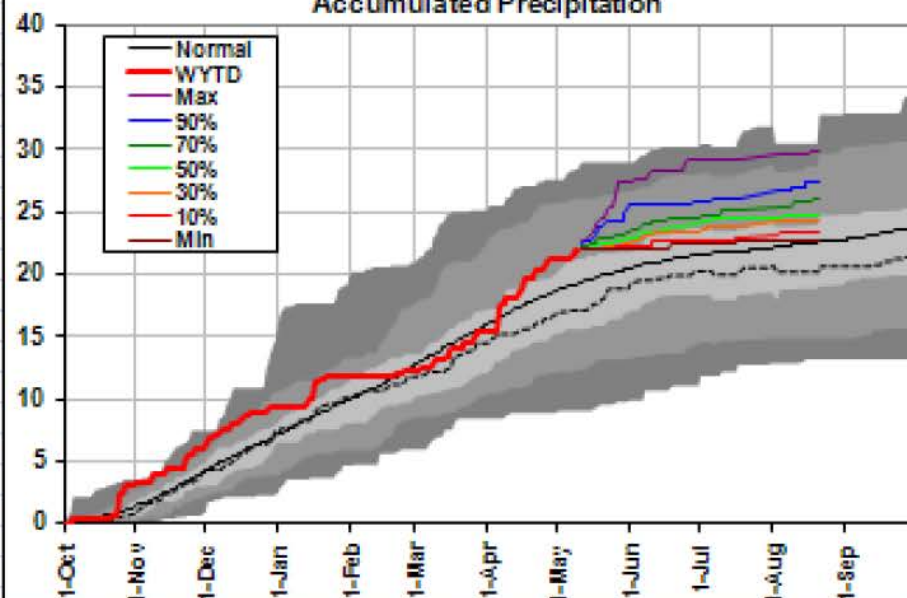


Lewis Lake Divide Soil Moisture - Water Year 2010

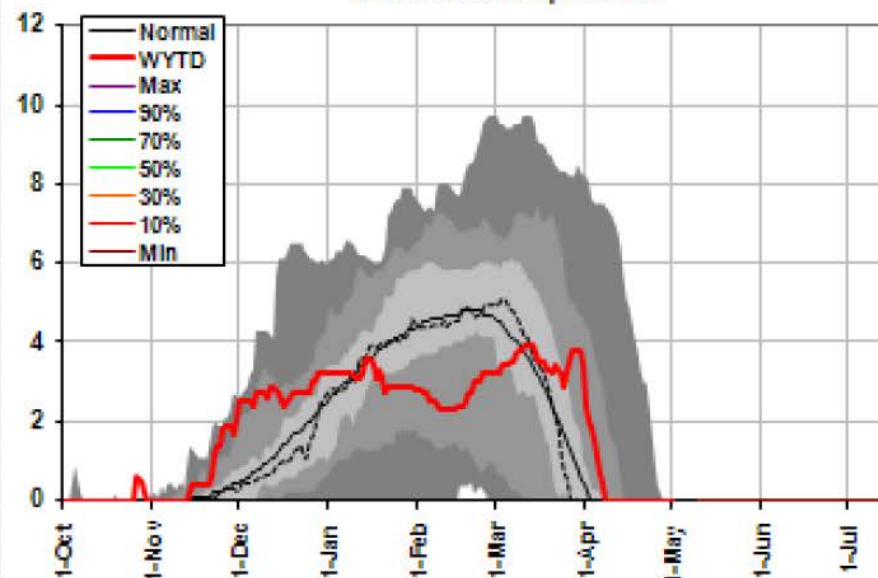


Prairie (15f06s)

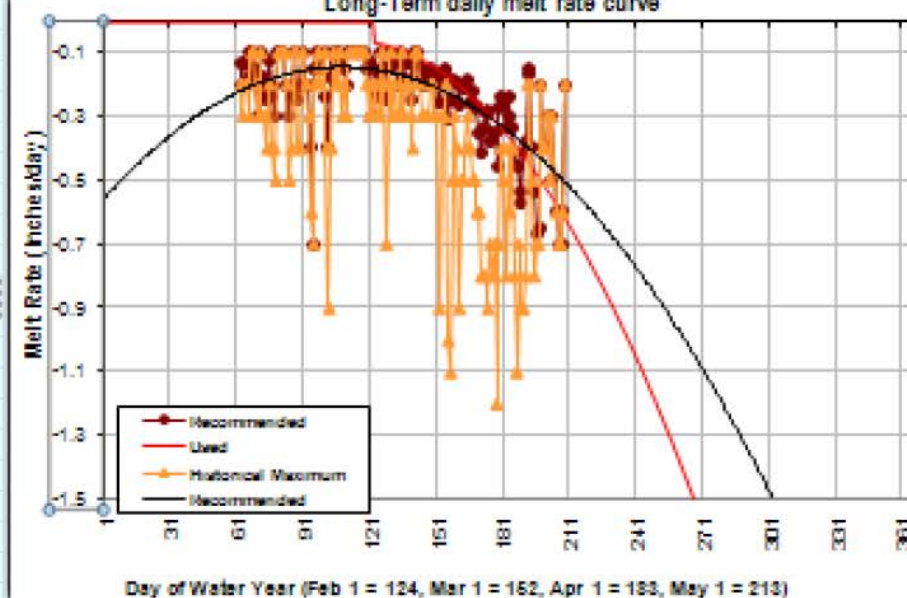
Accumulated Precipitation



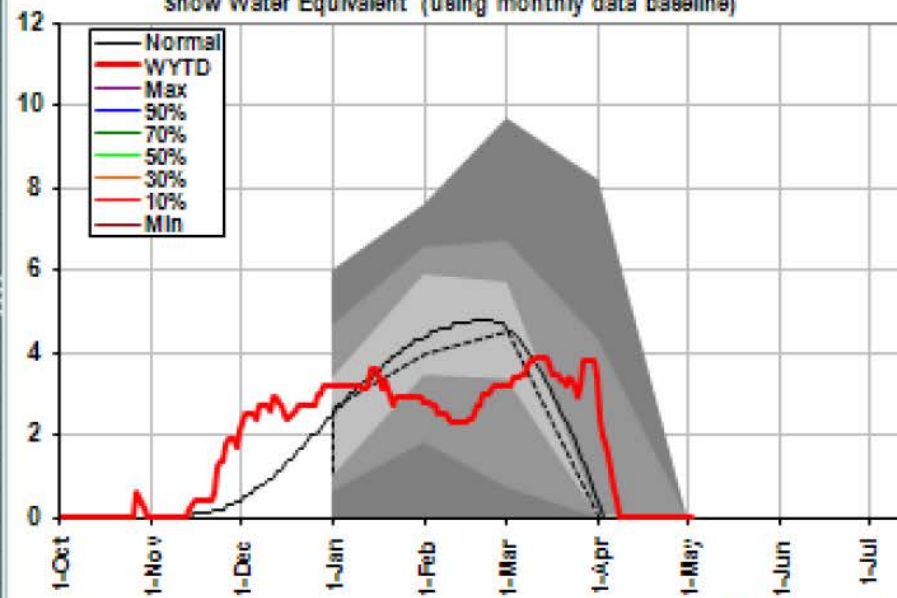
Snow Water Equivalent



Long-Term daily melt rate curve

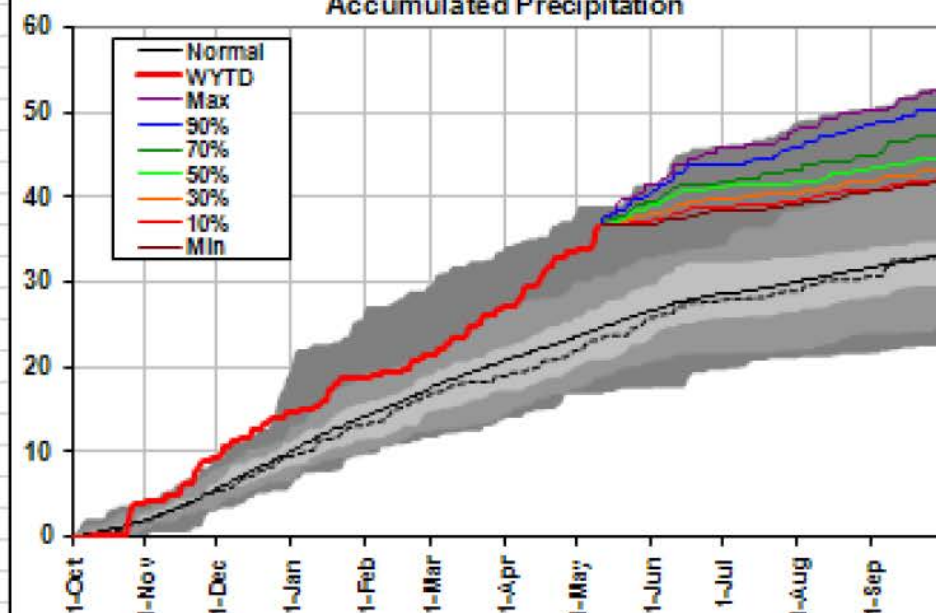


Snow Water Equivalent (using monthly data baseline)

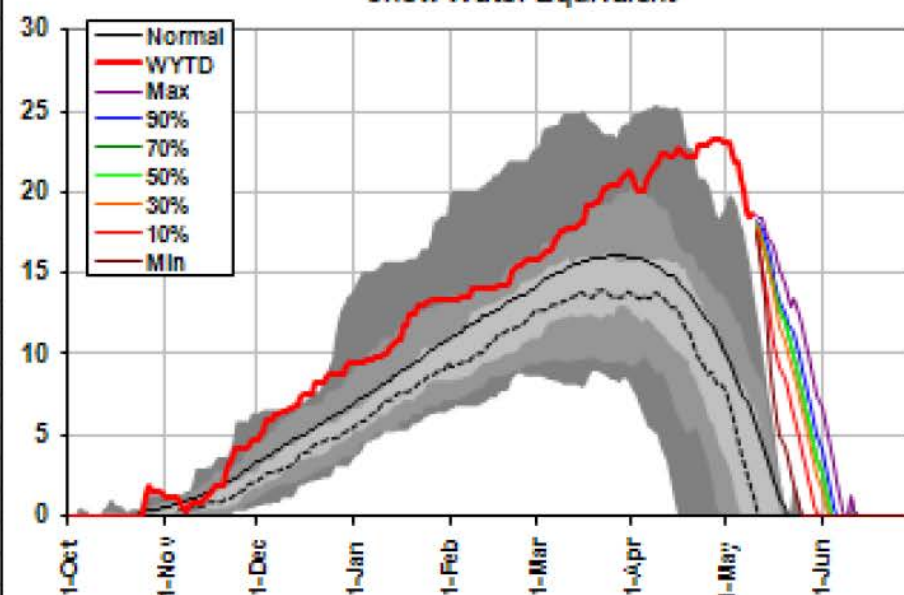


Pine Creek Pass (11f02s)

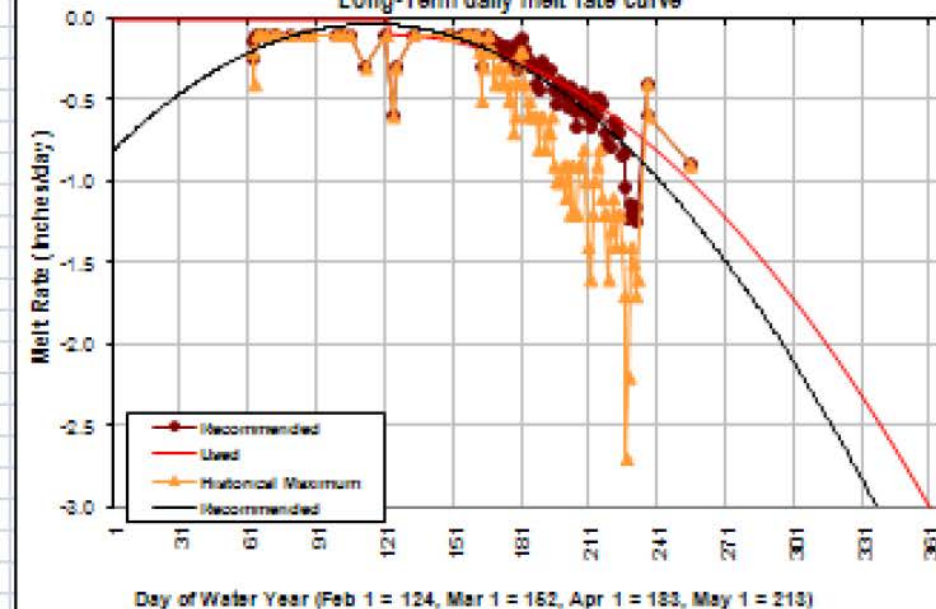
Accumulated Precipitation



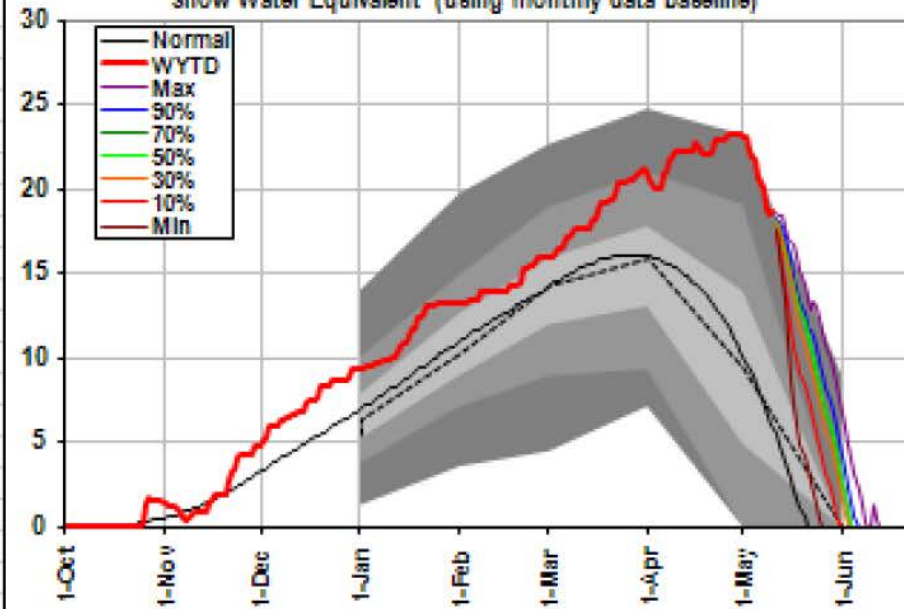
Snow Water Equivalent



Long-Term daily melt rate curve

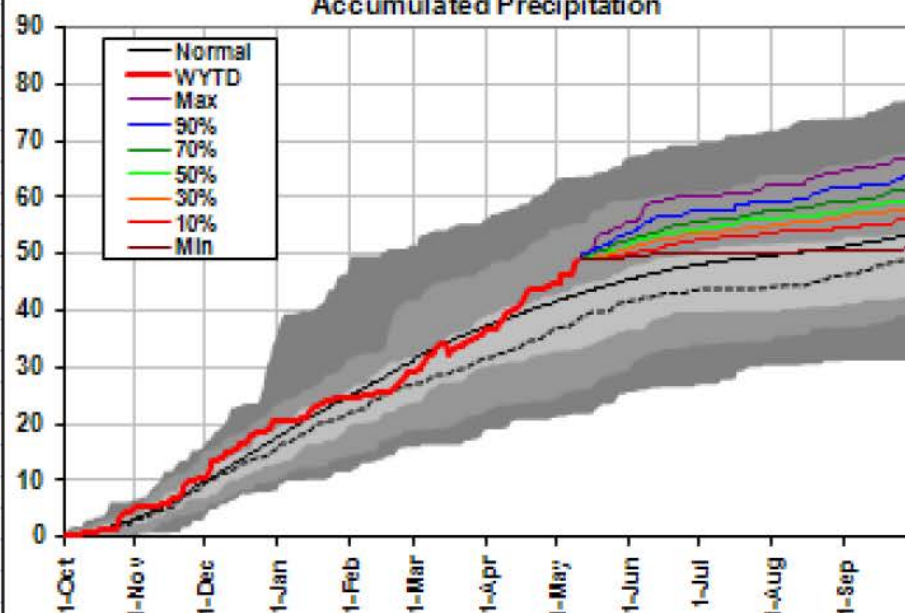


Snow Water Equivalent (using monthly data baseline)

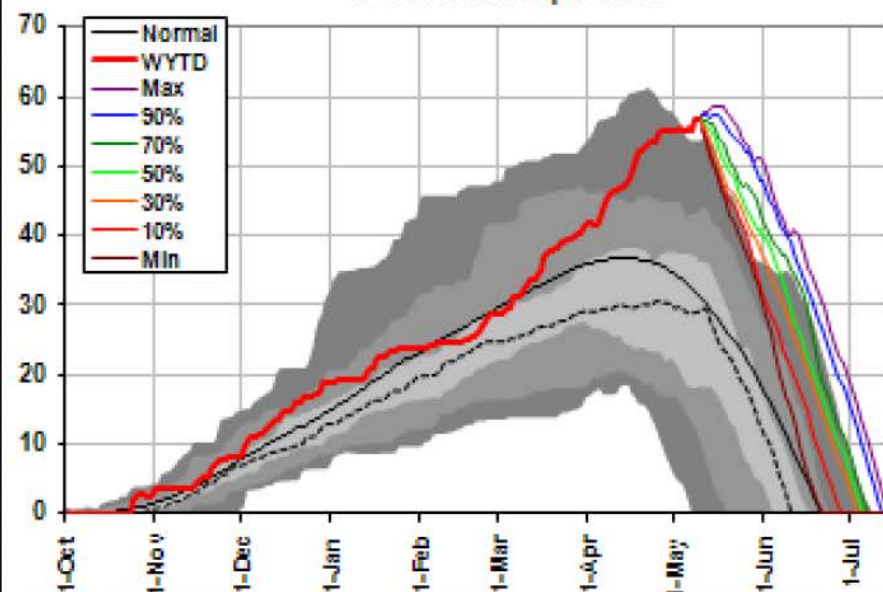


Lewis Lake Divide (10e09s)

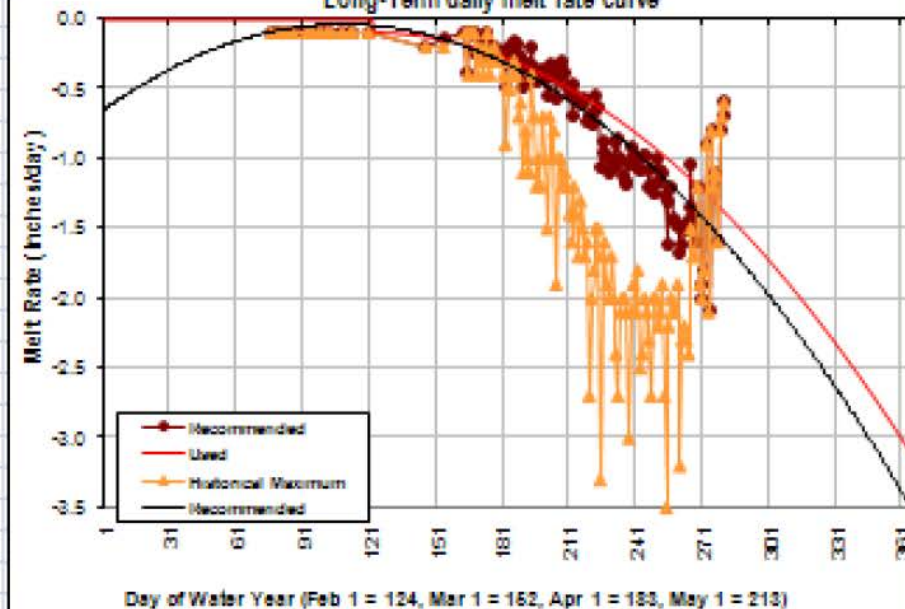
Accumulated Precipitation



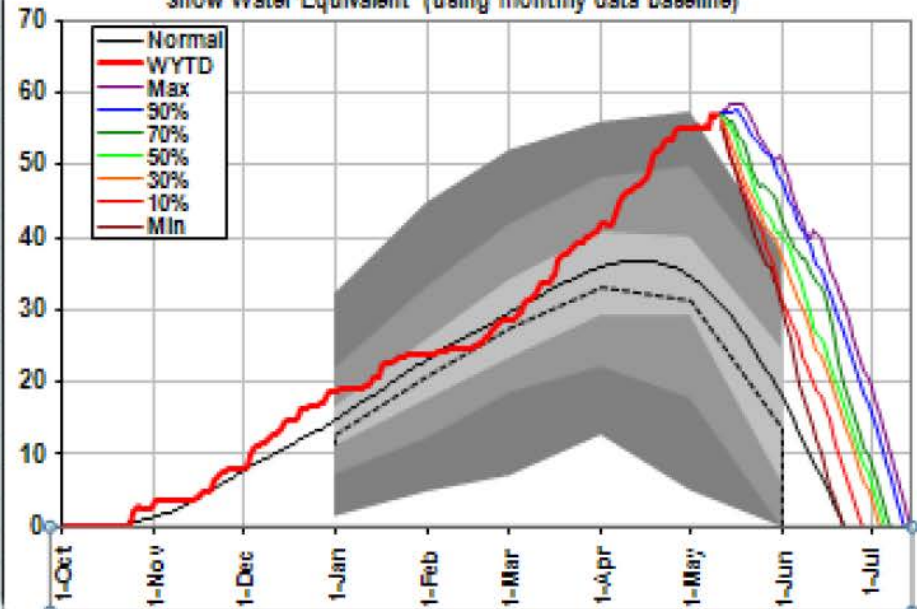
Snow Water Equivalent



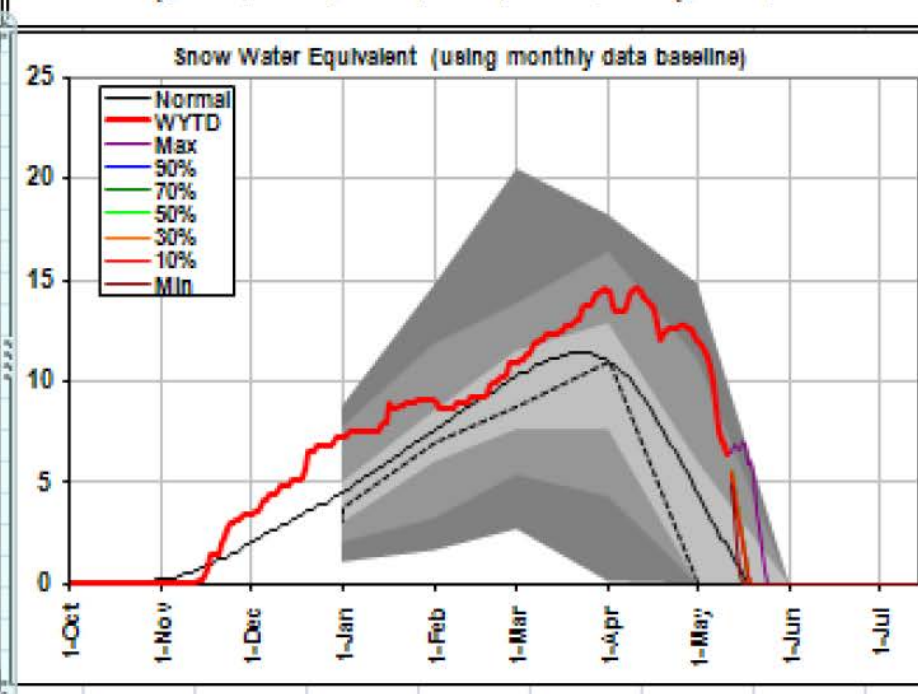
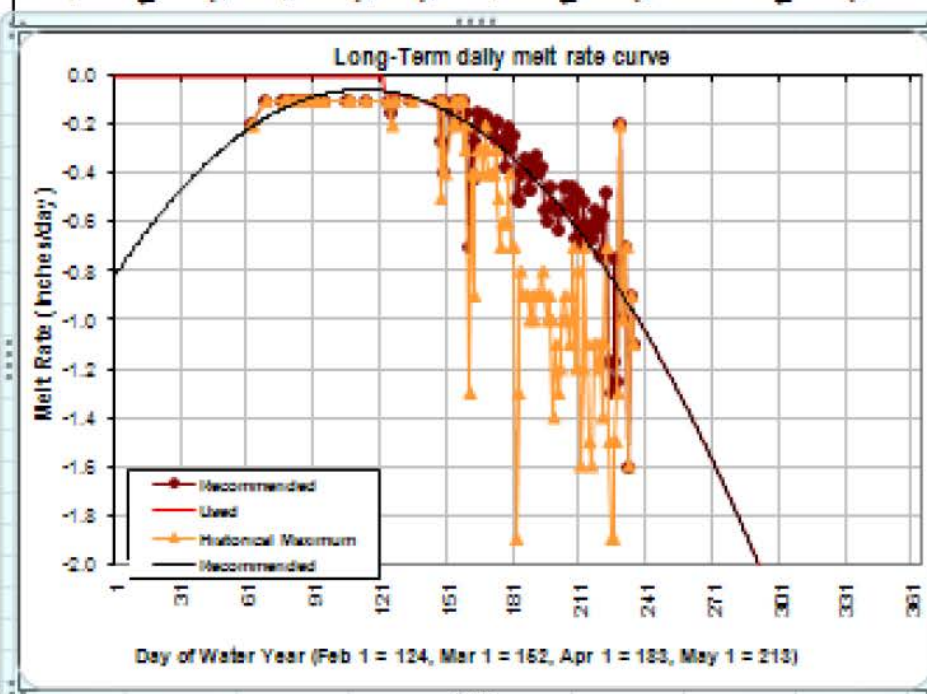
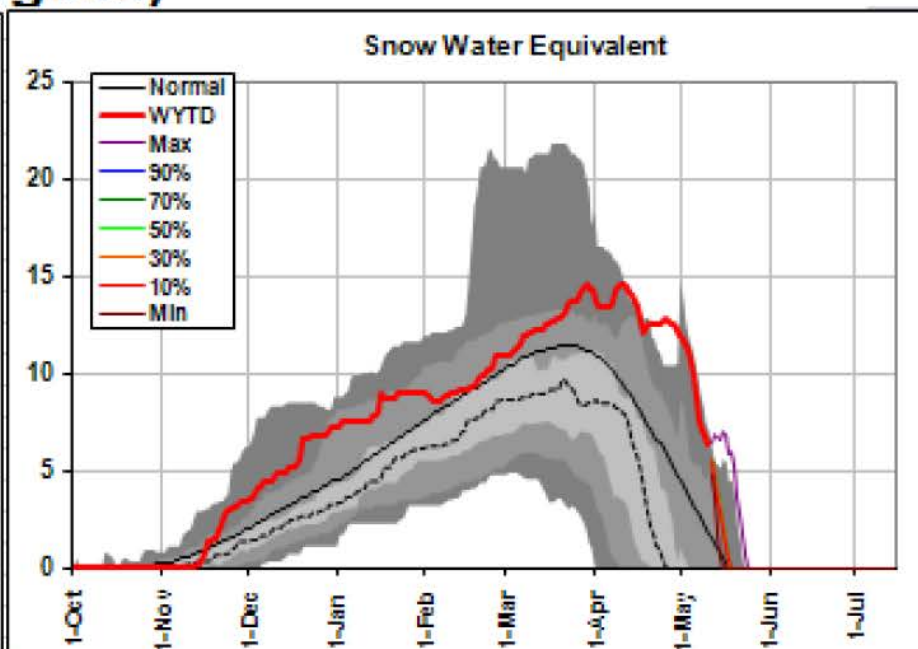
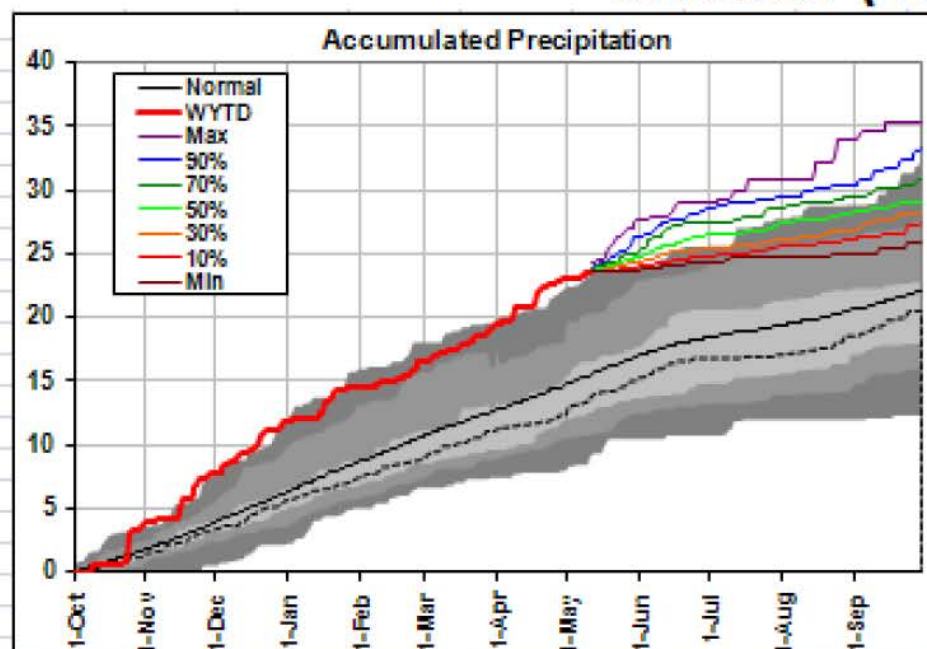
Long-Term daily melt rate curve

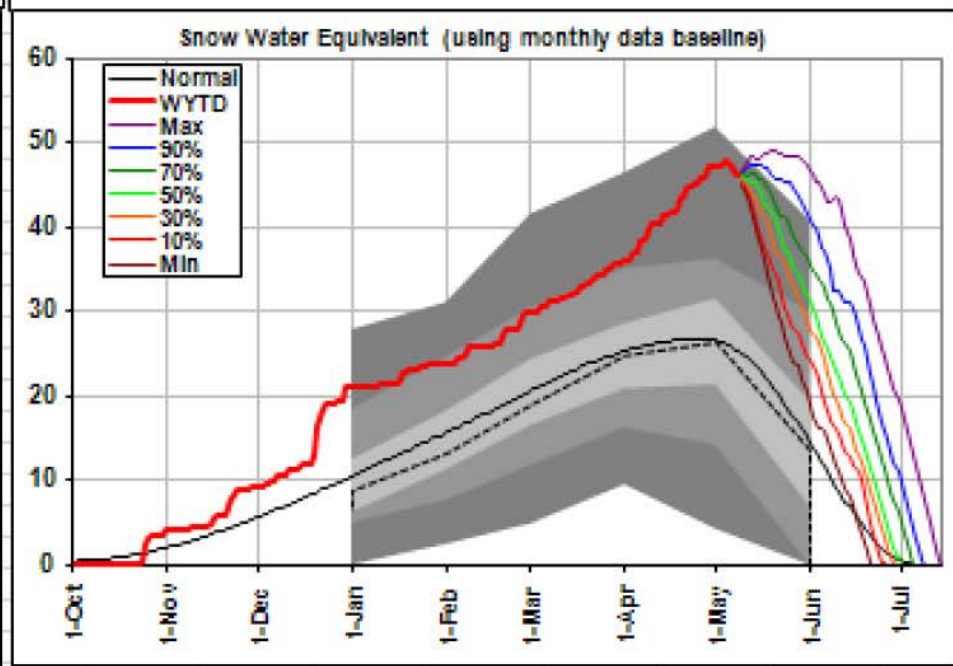
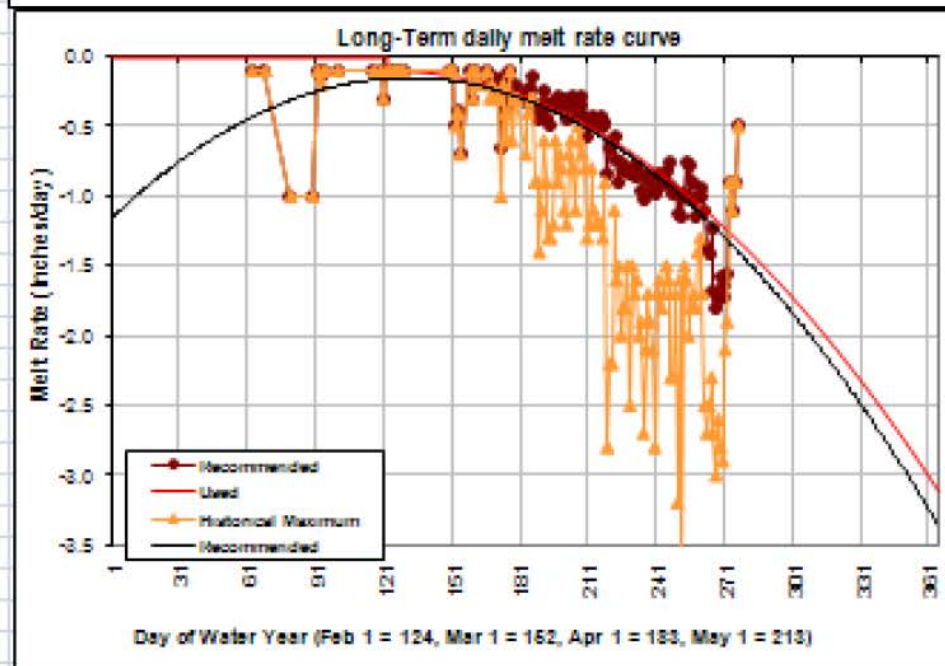
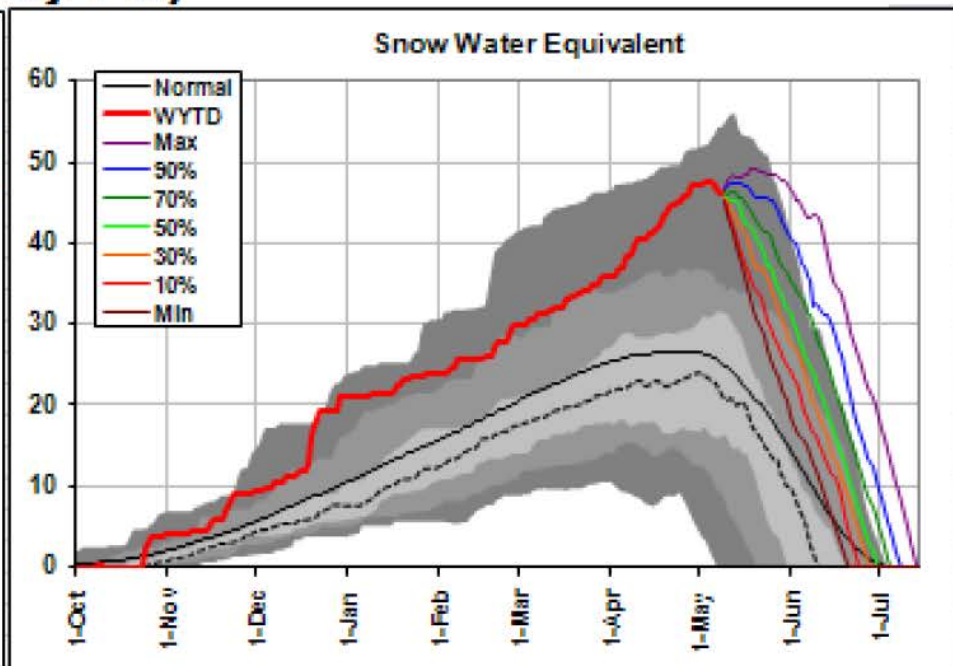
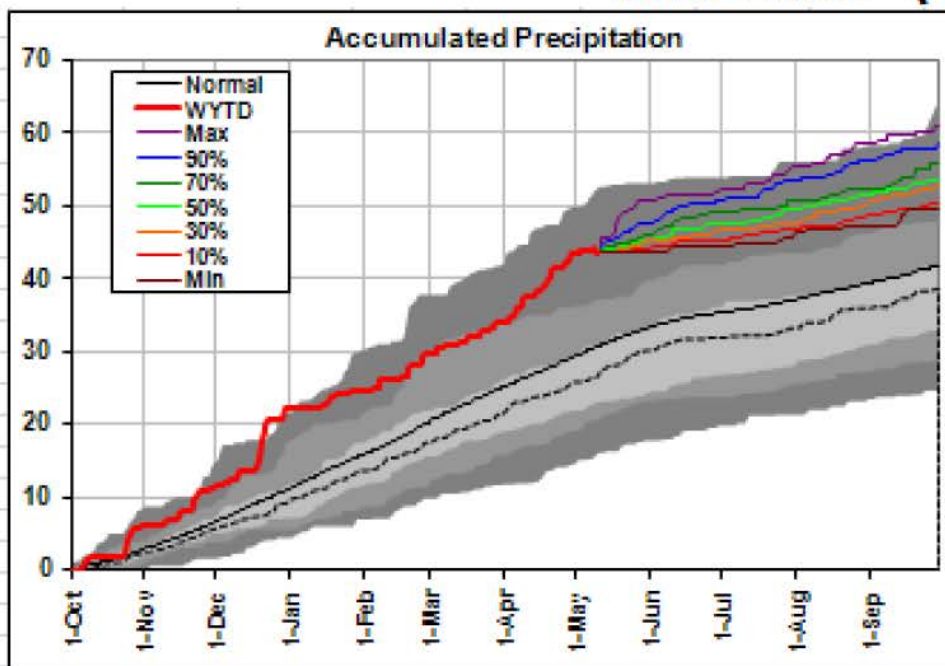


Snow Water Equivalent (using monthly data baseline)



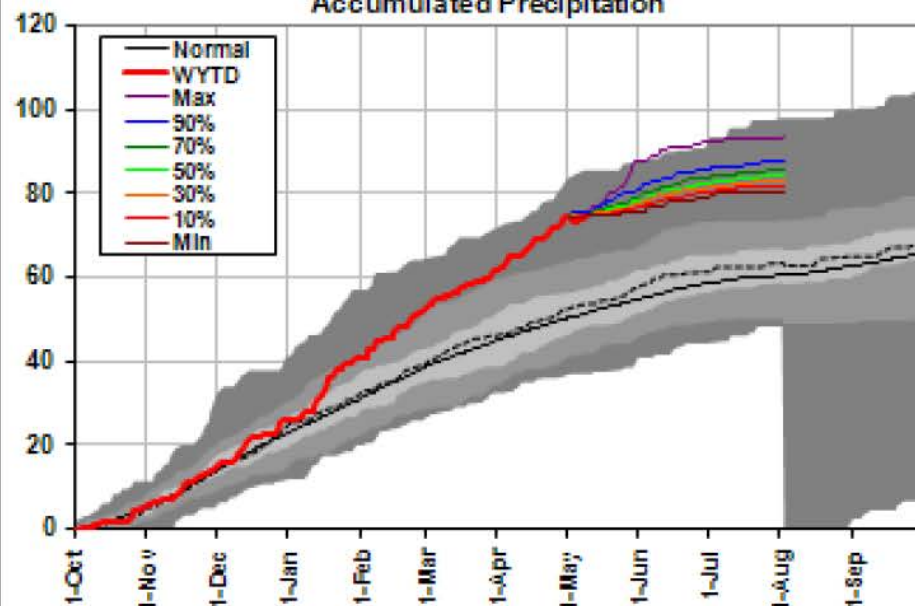
Giveout (11g33s)



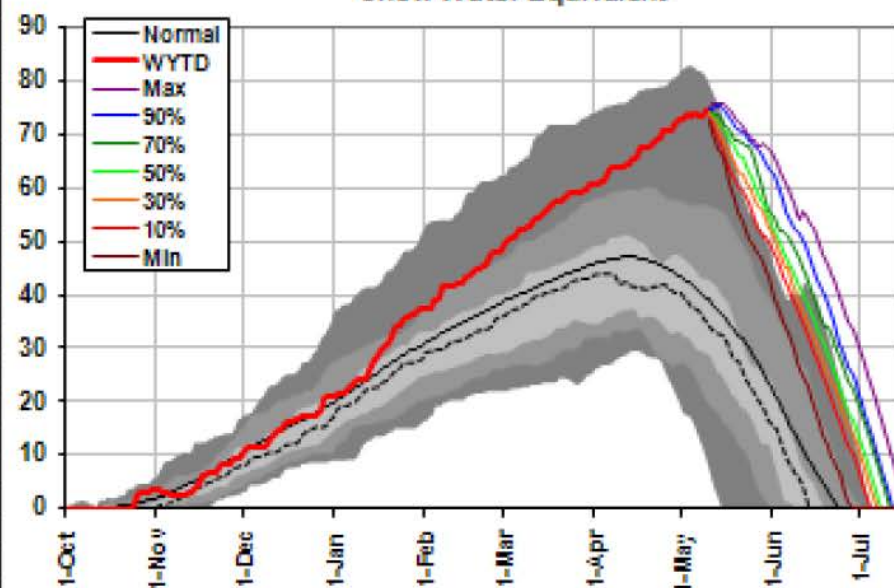


Crater Meadows (15c09s)

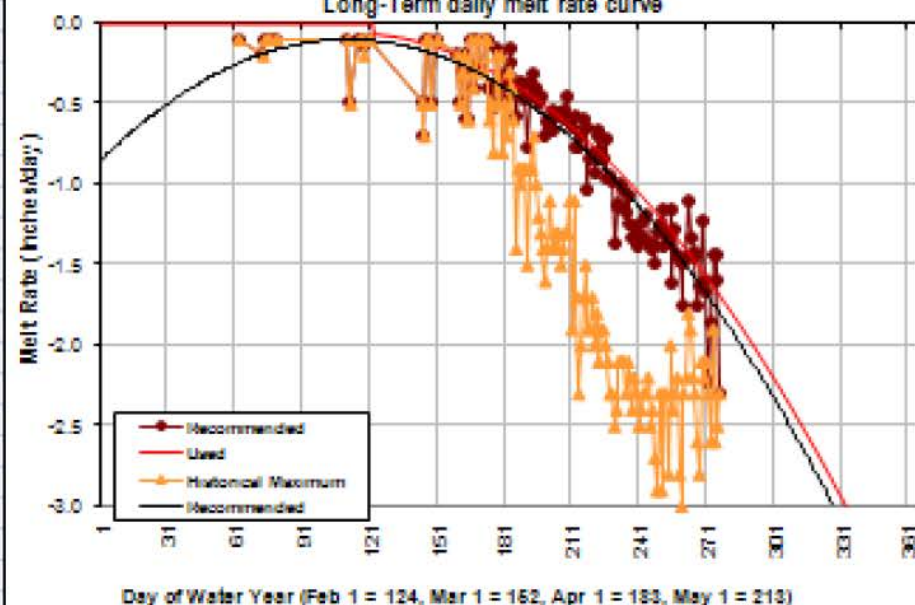
Accumulated Precipitation



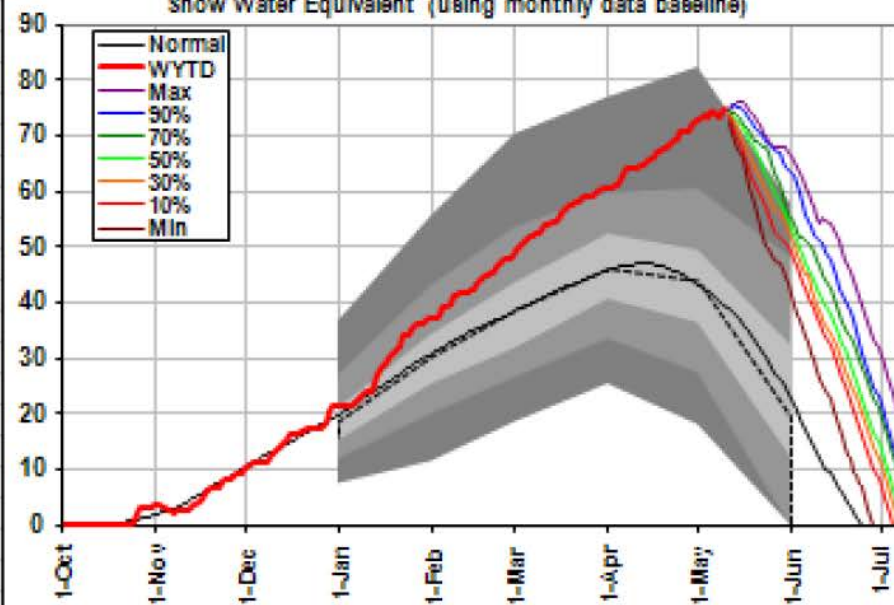
Snow Water Equivalent

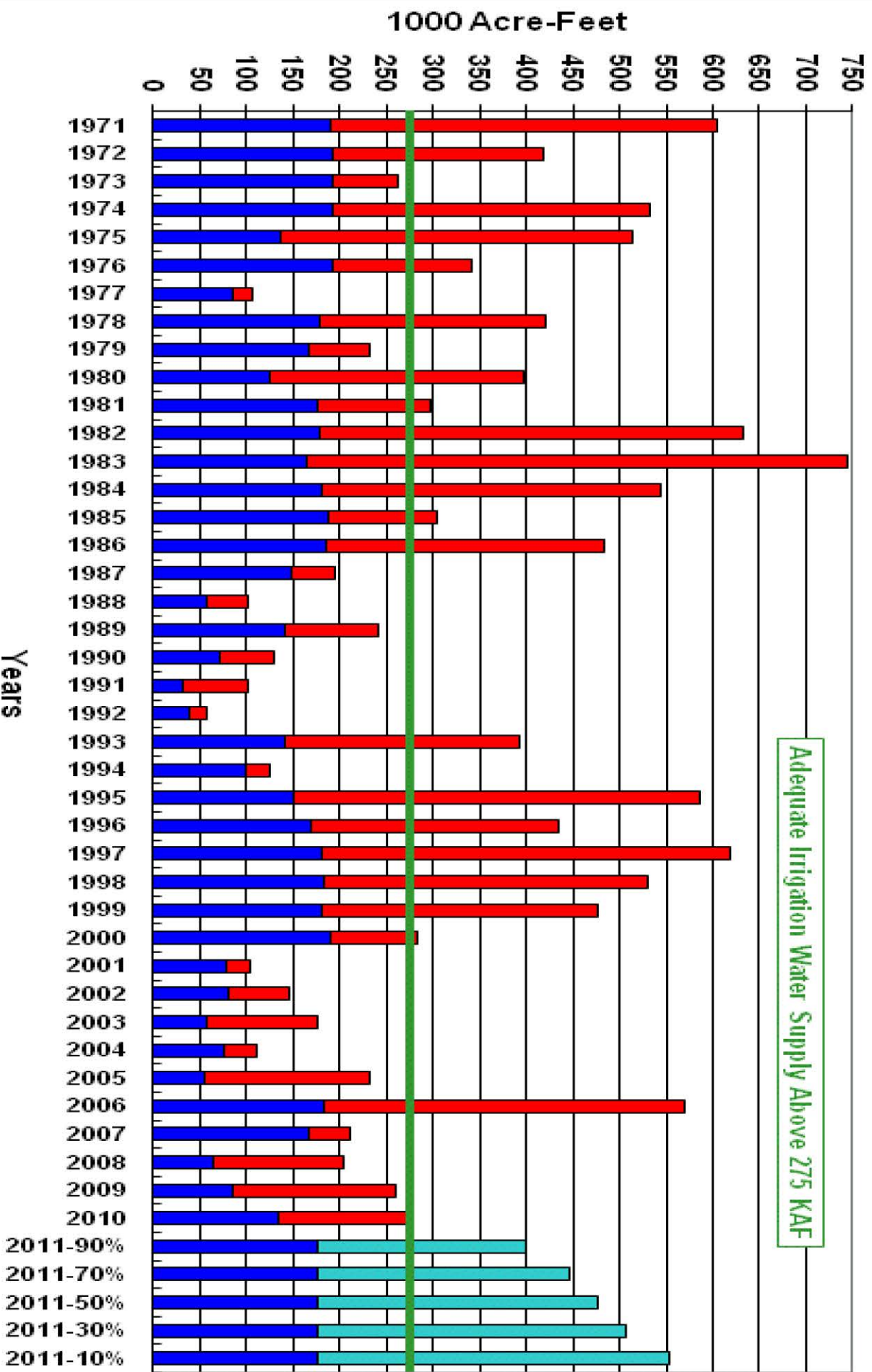


Long-Term daily melt rate curve

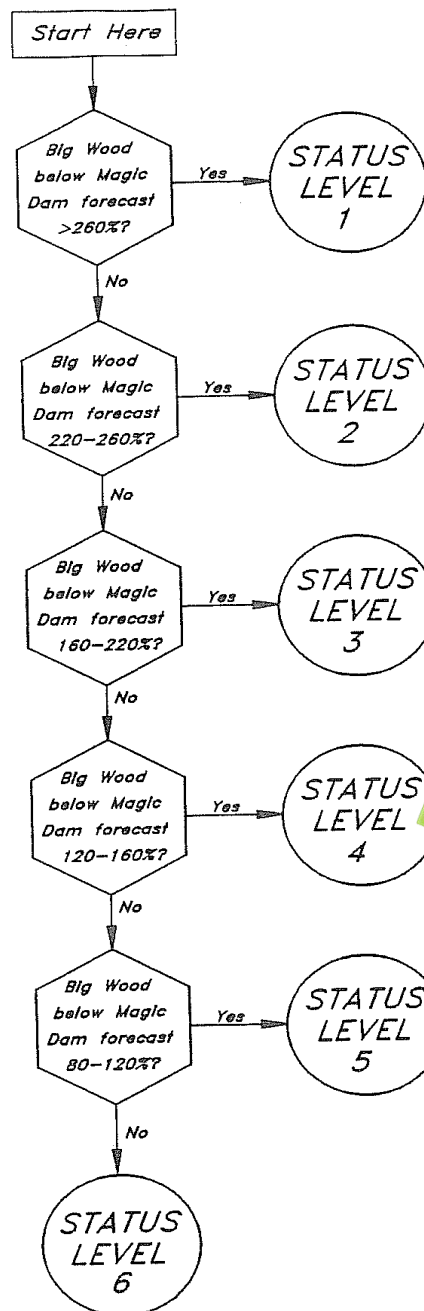


Snow Water Equivalent (using monthly data baseline)





**From:
Magic
Reservoir
Operation
Guide 1996**



*Table 2B. May-July or June-July
Forecast Status Level Determination*

This flow chart shows the relationship between the forecast percent of average and forecast status level. Use this chart with the Big Wood River below Magic Dam (May-July or June-July) streamflow forecasts.

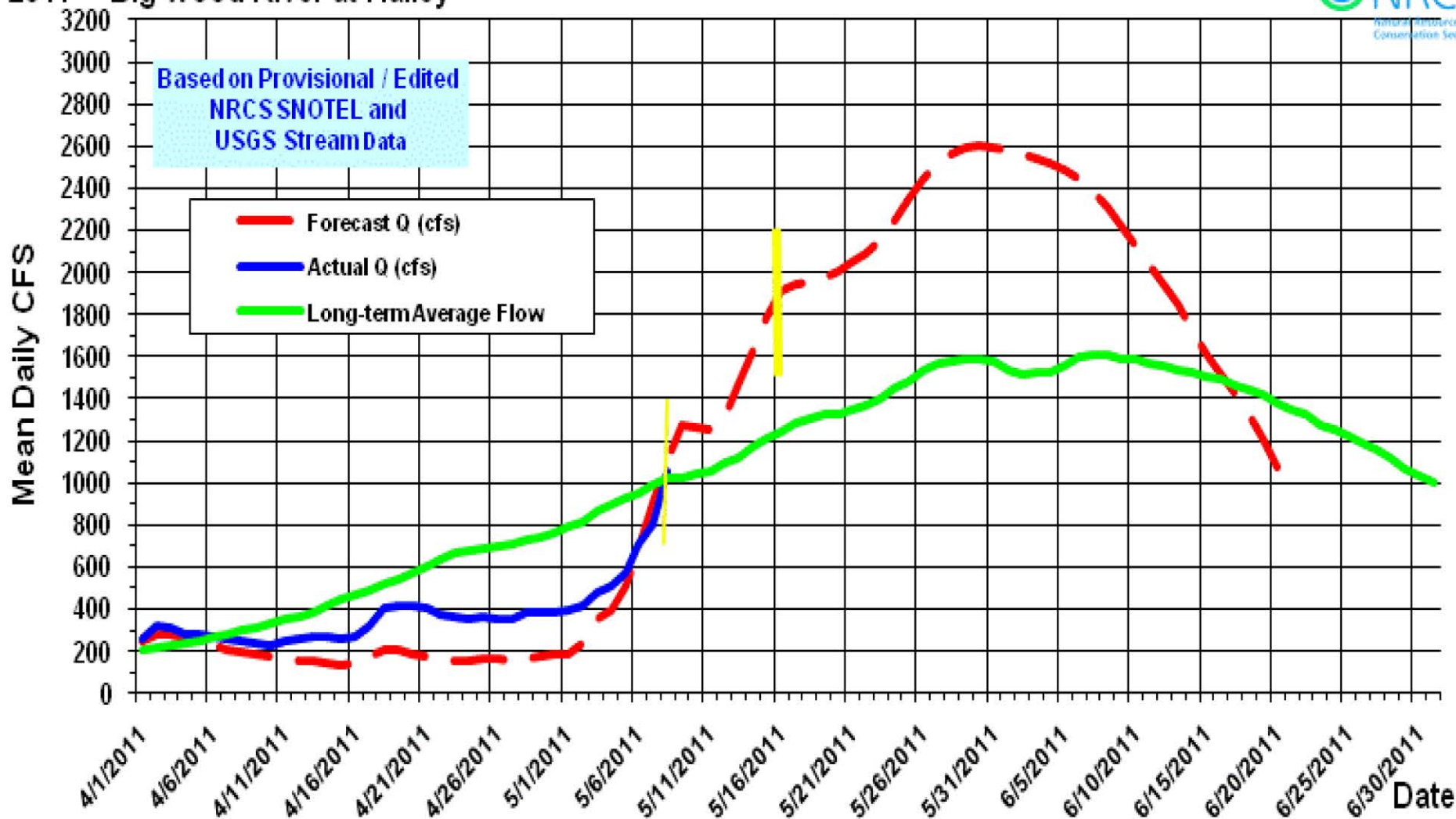
May 1 May-Jul Forecast
50% Chance 134%
30% Chance 148%

**Status Level 4 Table shows
storage can be 180,000 AF
on May 10**

May 1 was 176,800 AF



2011 Big Wood River at Hailey

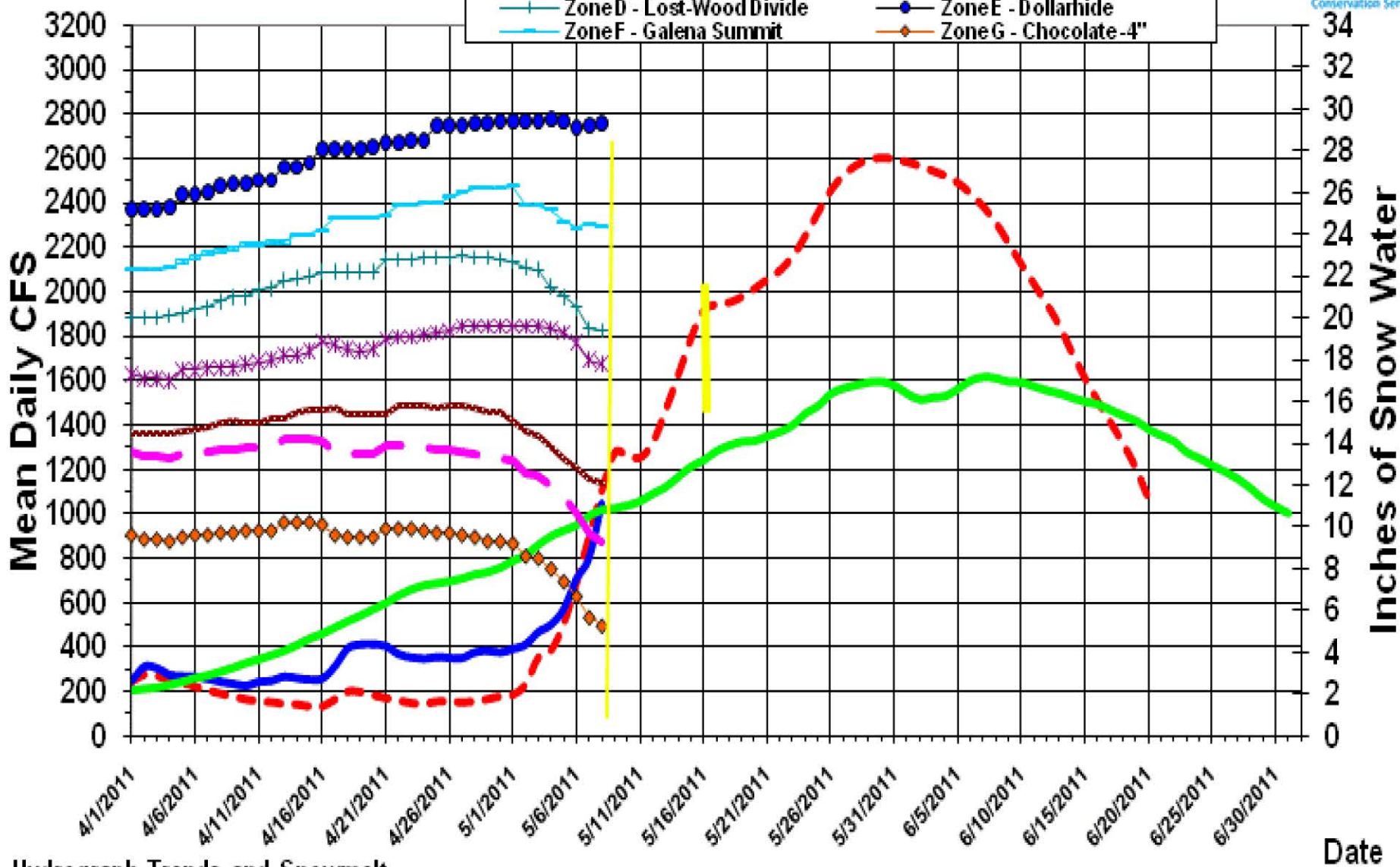


Snowmelt Operational Spreadsheet Hydrograph Using SNOTEL (SNOSHUS)

May 9, 2011 - Current data is used through May 8. Melt rates decreased with cooler temperatures and are gradually increased later this week and return to normal melt rates between May 11-16 .

2011 Big Wood River at Hailey

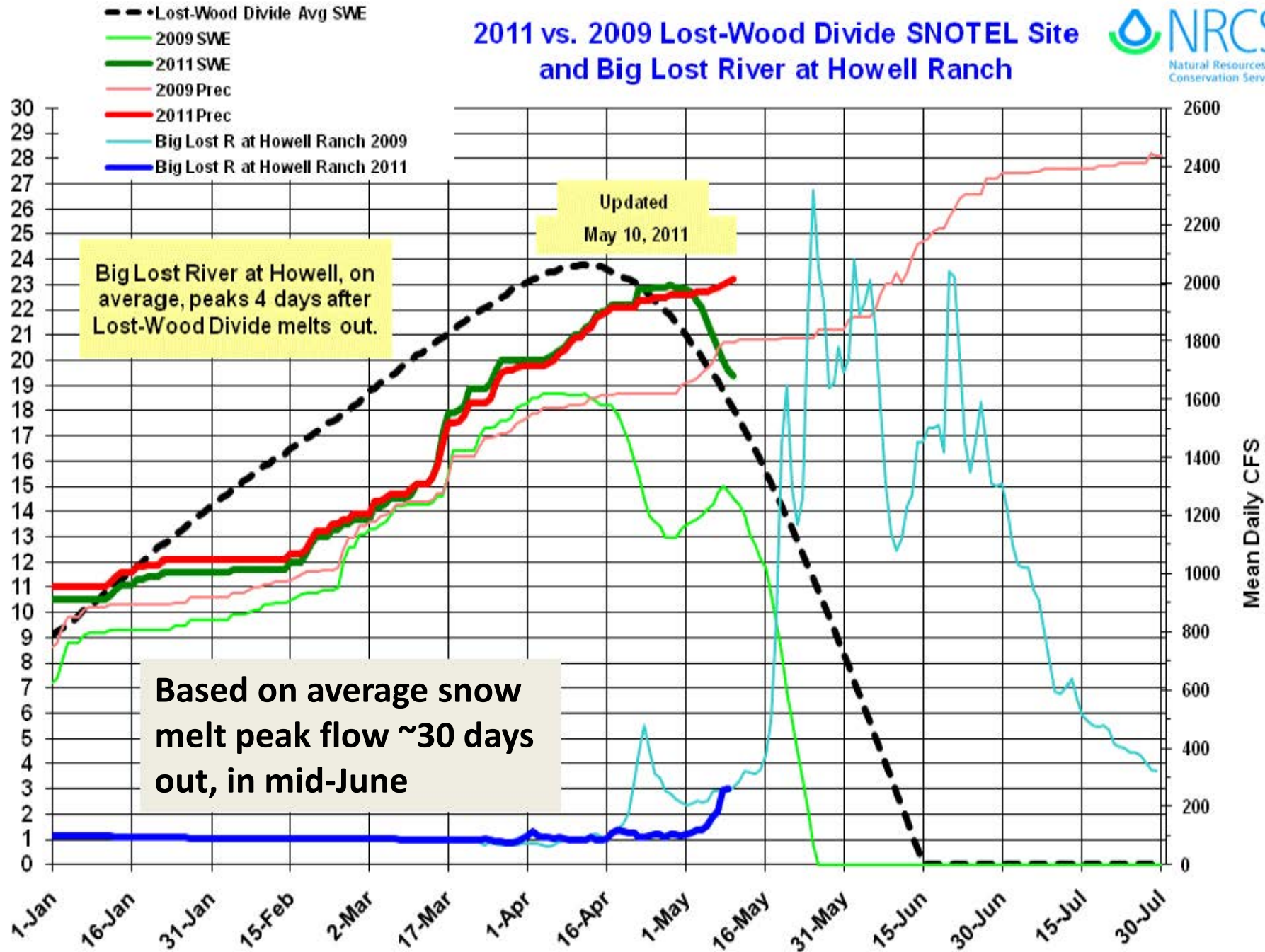
- | | |
|-----------------------------|----------------------------|
| ---•--- Forecast Q (cfs) | — Actual Q (cfs) |
| — Long-term Average Flow | — Zone A - Chocolate Gulch |
| * Zone B - Galena | --- Zone C - Hyndman |
| + Zone D - Lost-Wood Divide | —• Zone E - Dollarhide |
| — Zone F - Galena Summit | —◇ Zone G - Chocolate-4" |



Hydrograph Trends and Snowmelt

May 9, 2011 - Snowmelt rates gradually increase after cool spell at the beginning of this week and return to normal melt rates by May 18. Higher elevation site like Dollarhide Summit is not melting yet.

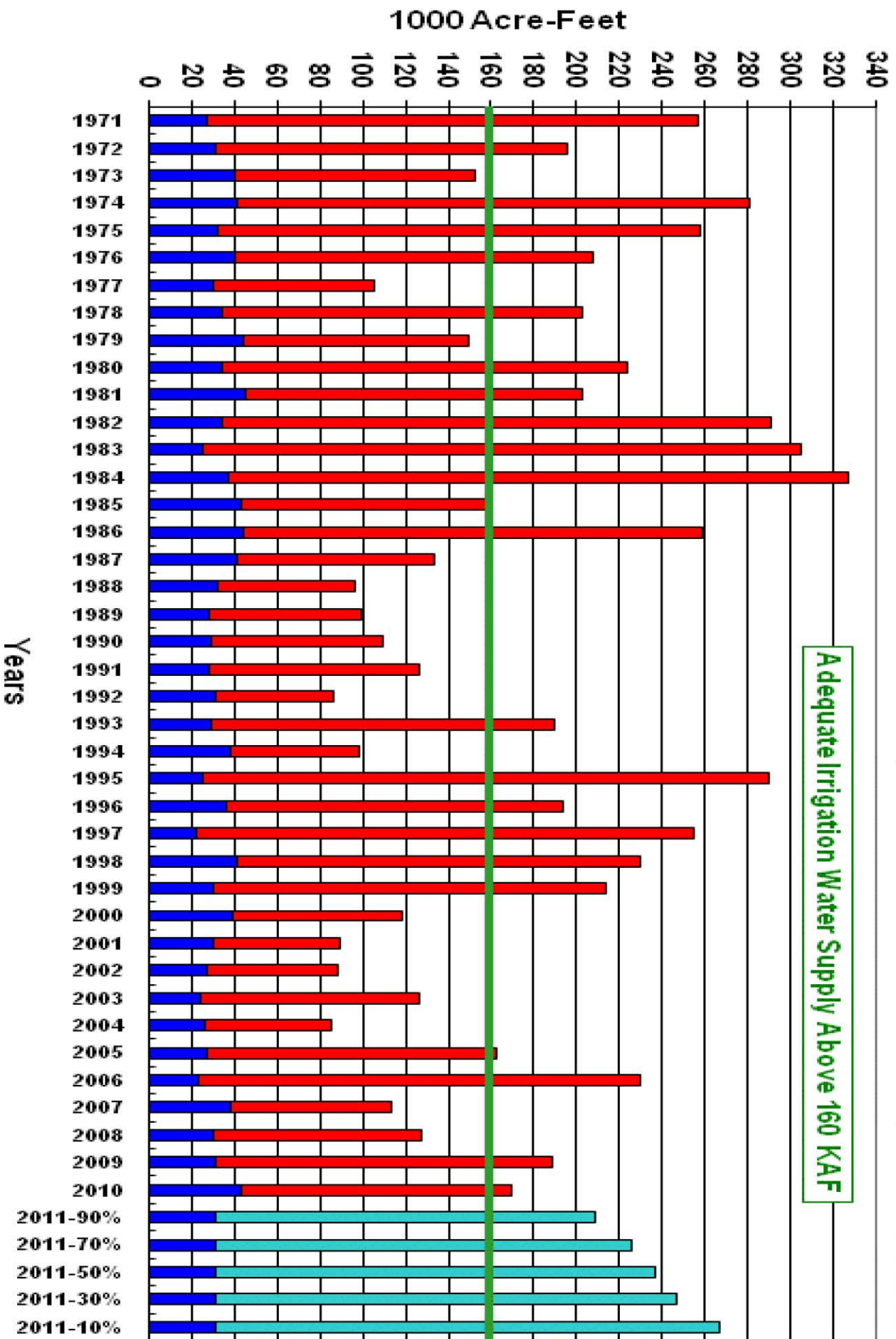
2011 vs. 2009 Lost-Wood Divide SNOTEL Site and Big Lost River at Howell Ranch



May 1 Big Lost Surface Water Supply Index (SWSI)

Big Lost River below Reservoir & Mackay Reservoir

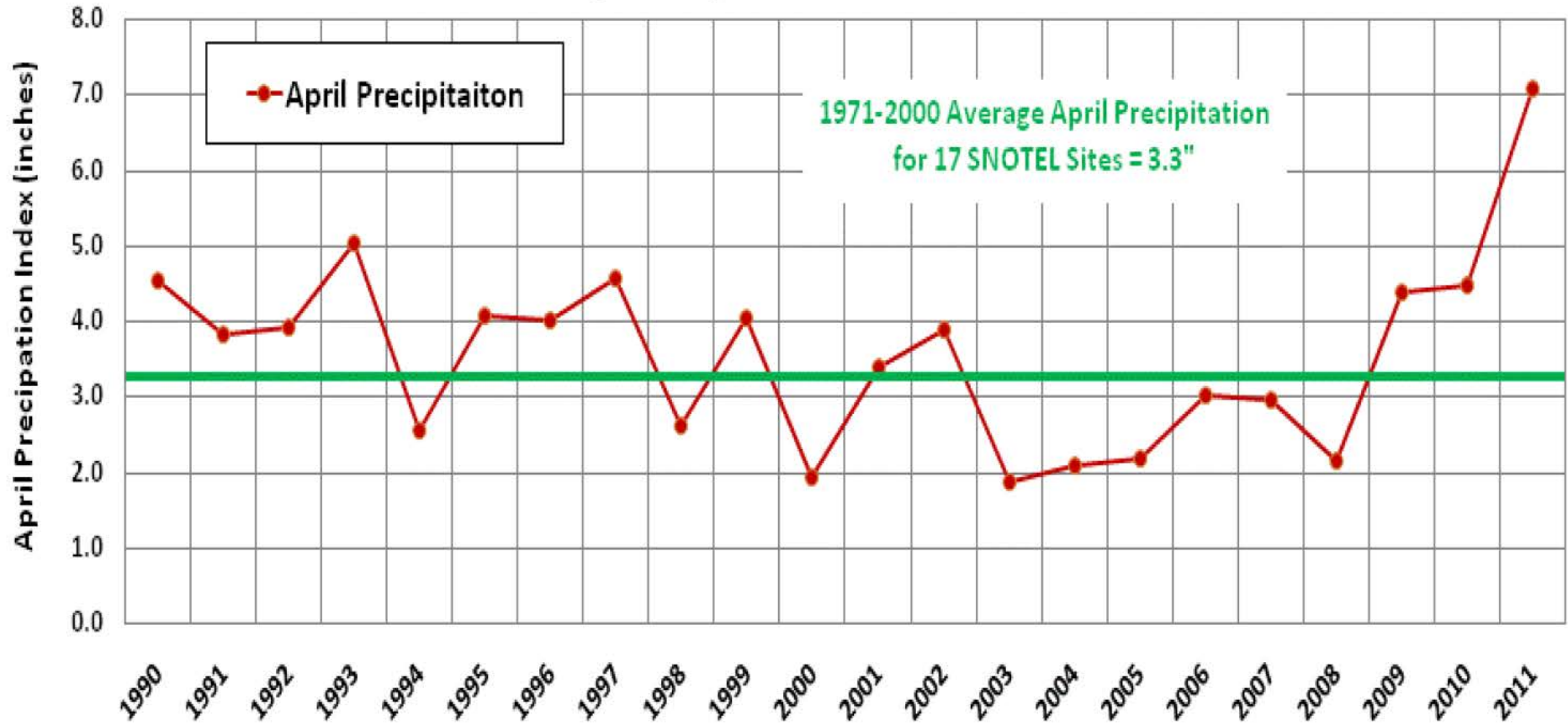
■ Streamflow May-Sep
■ Reservoir 30-Apr



Fly Over -- Two Ocean Plateau SNOTEL April 26, 2011
Thanks to USBR for providing helicopter funding to fix site.
We are 'on call' from National Park Service.
Scheduled to fly Friday May 13 pending and weather



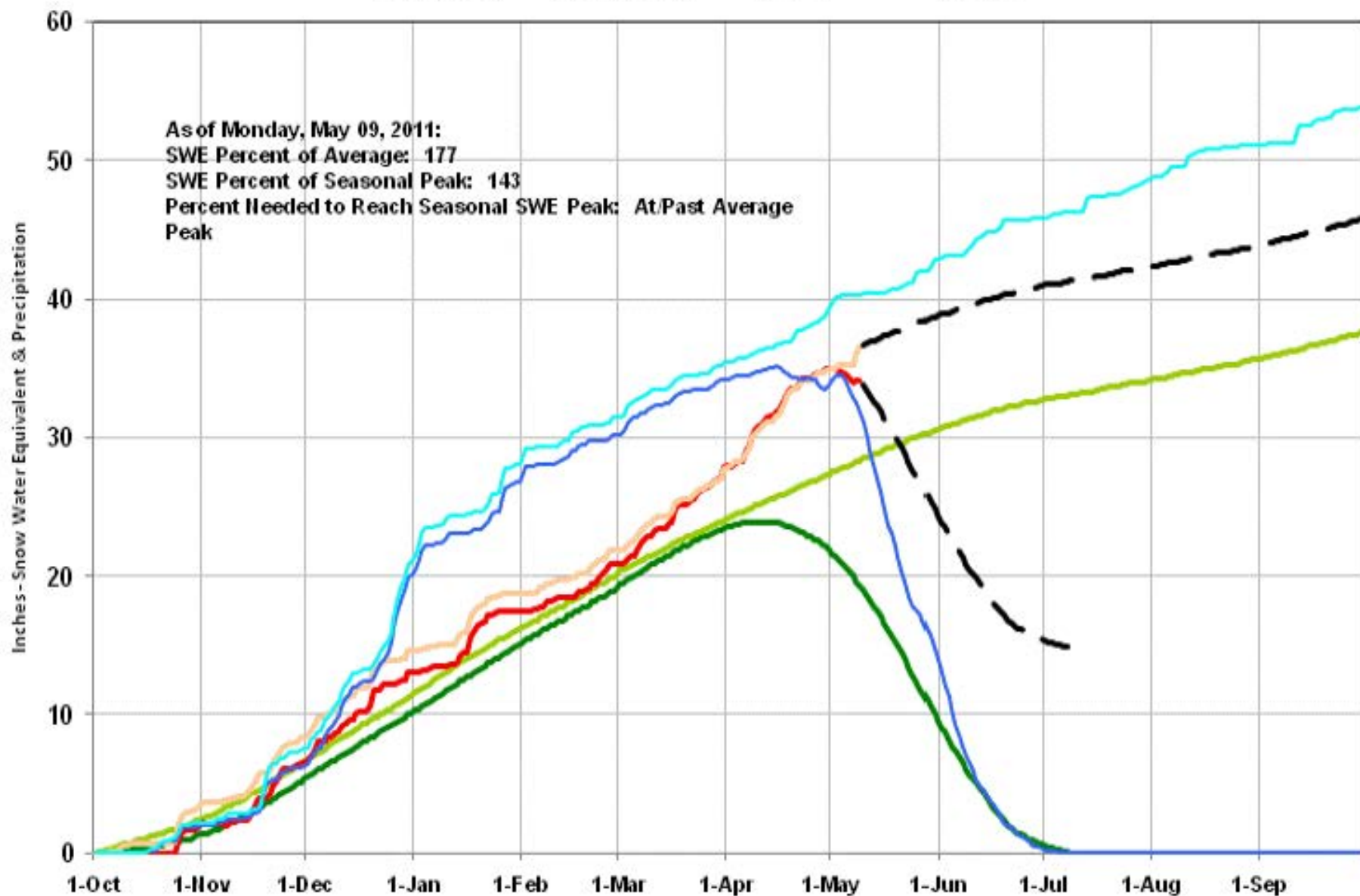
Snake above Heise April Precipitation Index for 17 SNOTEL Sites



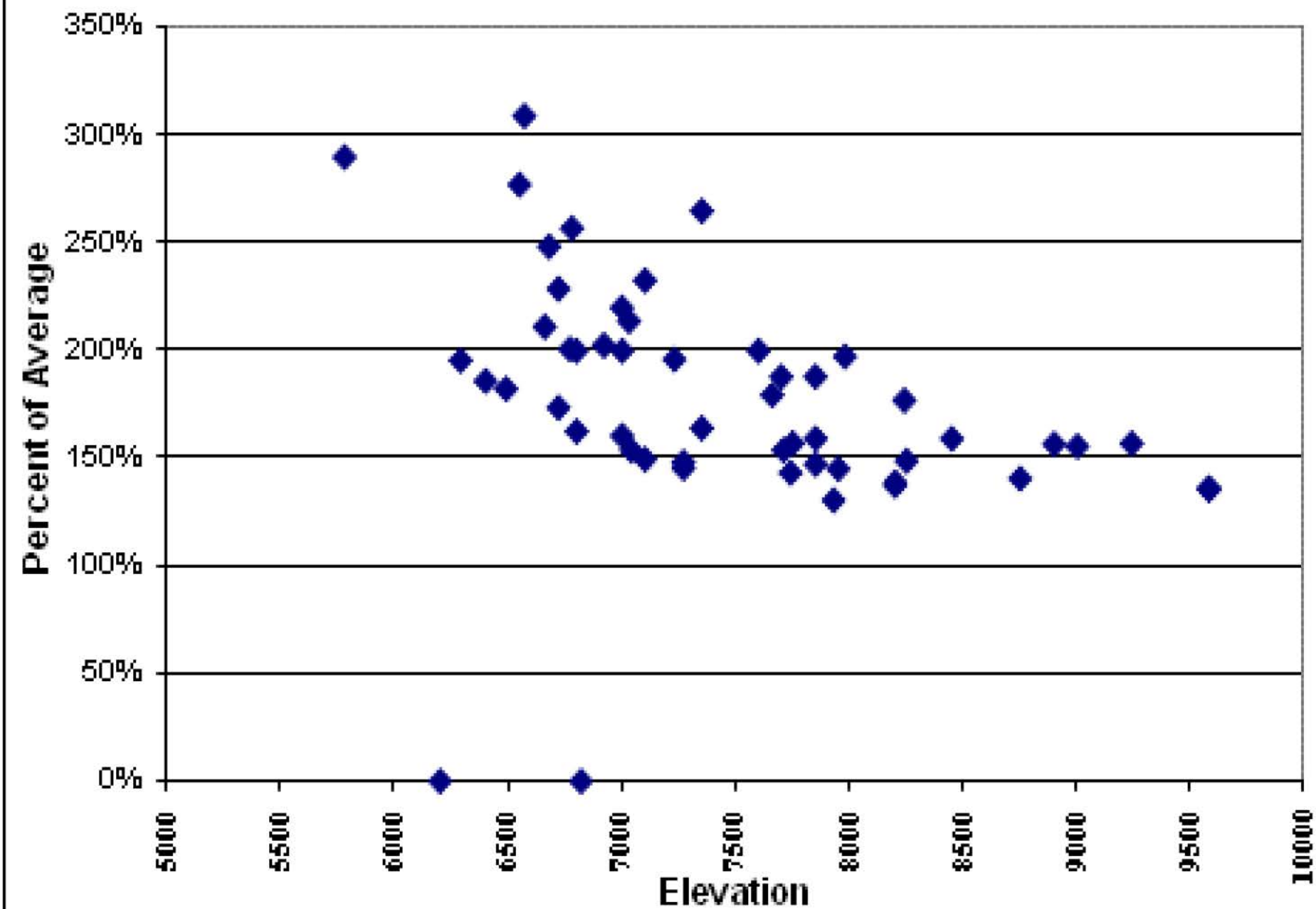
Snake Basin above Palisades 2011 Snowpack Graph (17 Sites)



— SWE Average — Prec Average — SWE 2011 — Prec 2011
- - - SWE Projected - - - Prec Projected — SWE 1997 — Prec 1997



Upper Snake Basins Snowpack May 1, 2011



Teton River near Driggs SWSI

13052200 Teton River near Driggs

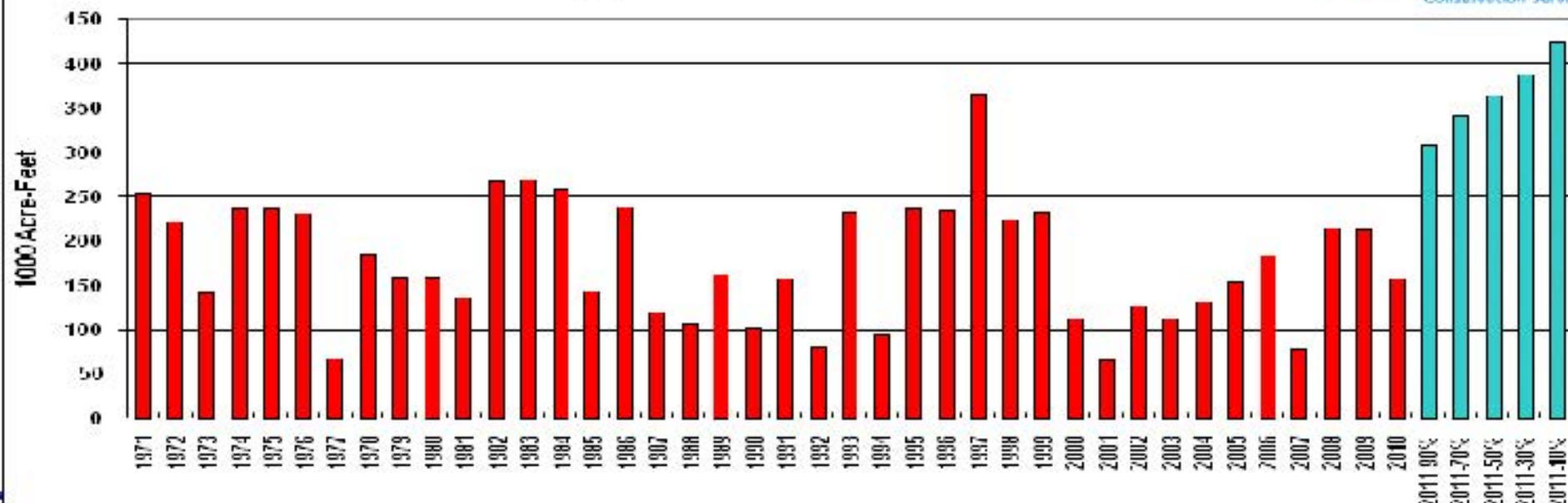
Period	Data Type	Years	# of Years	Units KAF
May-Sep	strm	1971-2010	40	

ENSO Classification				
SE Strong El Nino - EN Mild El Nino - N Neutral - LN Mild La Nina - SL Strong La Nina				
2010 Provisional Data				

Historic Rank	Year	ENSO	Streamflow May-Sep	Non-Exceedance Probability	SWSI	Current Year Rank
	2011 10% Chance Exceedance Forecast	SL	425.0	0.99	4.1	0
	2011 30% Chance Exceedance Forecast	SL	389.0	0.99	4.0	1
	2011 50% Chance Exceedance Forecast	SL	365.0	0.98	4.0	1
1	1997	N	364.3	0.98	4.0	
	2011 70% Chance Exceedance Forecast	SL	342.0	0.97	3.9	1
	2011 90% Chance Exceedance Forecast	SL	310.0	0.96	3.8	2
2	1983	SE	267.8	0.95	3.8	
3	1982	N	267.5	0.93	3.6	
4	1984	N	256.7	0.90	3.4	
5	1971	LN	252.5	0.88	3.2	
6	1986	N	237.8	0.85	2.9	
7	1975	LN	236.4	0.83	2.7	
8	1974	SL	235.3	0.80	2.5	

May 1 Surface Water Supply Index (SWSI)
Teton River near Driggs

■ Streamflow May Sep

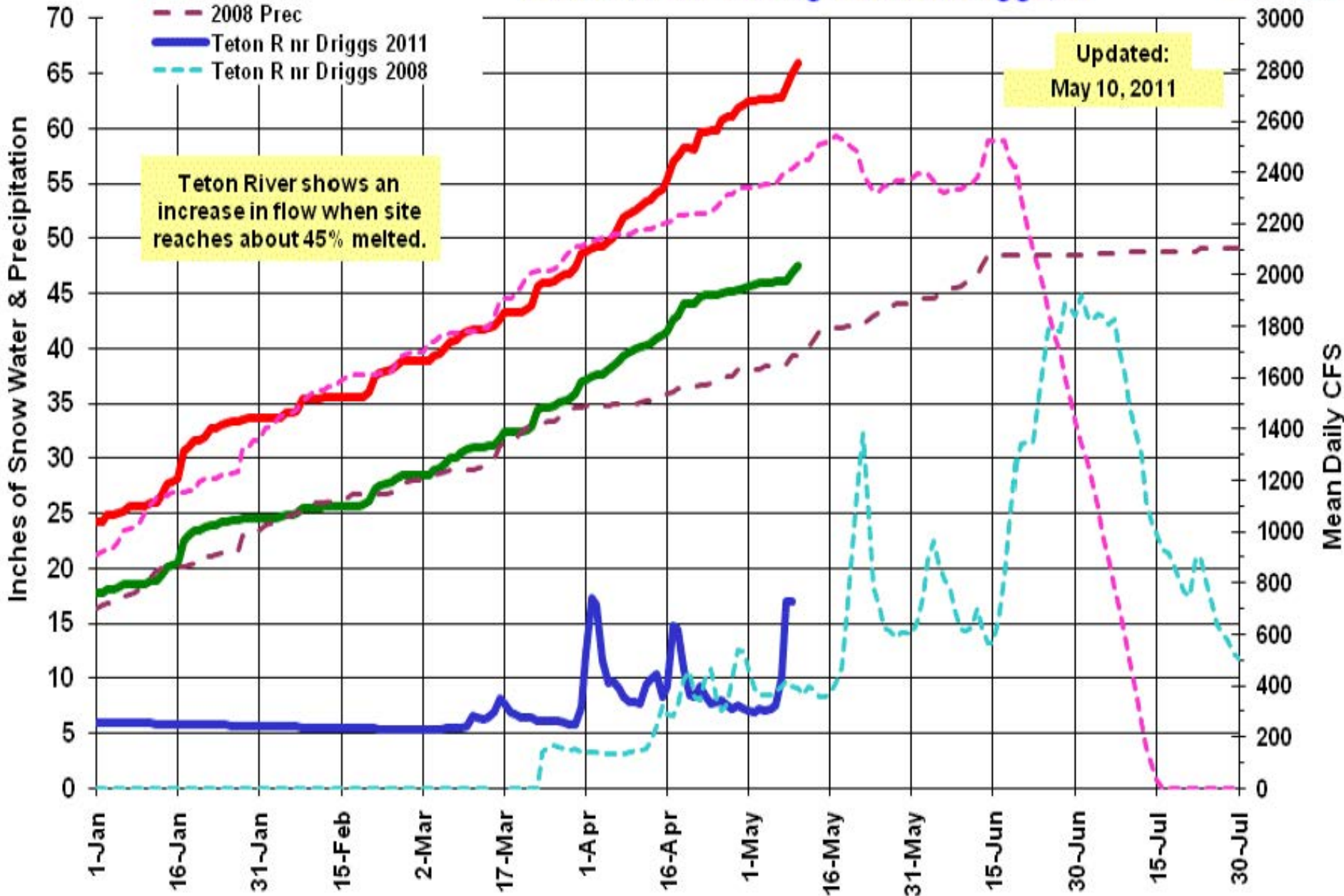


2011 vs. 2008 Grand Targhee SNOTEL Site and Teton River above Leigh Ck near Driggs, ID

- 2011 SWE
- 2011 Prec
- 2008 SWE
- 2008 Prec
- Teton R nr Driggs 2011
- Teton R nr Driggs 2008

Updated:
May 10, 2011

Teton River shows an increase in flow when site reaches about 45% melted.



Henrys Fork SWSI

Adequate Water Supply Greater than -3.4 SWSI or 1,100 KAF



	Period	Data Type	Years	# of Years	Units KAF
13046000 Henrys Fork near Ashton	May-Sep	strm	1971-2010	39	Units KAF
13047600 Falls River near Ashton	May-Sep	strm	1971-2010	39	Units KAF
13055000 Teton River near St. Anthony	May-Sep	strm	1971-2010	39	Units KAF
13093900 Henrys Lake	30-Apr	resv	1971-2010	39	Units KAF
13042000 Island Park Reservoir	30-Apr	resv	1971-2010	39	Units KAF
13046500 Grassy Lake, Wyoming	30-Apr	resv	1971-2010	39	Units KAF

Units KAF

ENSO Classification

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

2010 Not Included

Historic Rank	2010 Not Included		Streamflow May-Sep	Summed Reservoirs 30-Apr	Streamflow + Reservoir Sum	Non-Exceedance Probability	SWSI	Current Year Rank	
	2011 10% Chance Exceedance Forecast		SL	2561.0	213.6	2774.6	0.99	4.1	1
1	1997	N	2349.8	204.8	2554.2	0.98	4.0		
	2011 30% Chance Exceedance Forecast		SL	2339.0	213.6	2552.6	0.97	3.9	1
	2011 50% Chance Exceedance Forecast		SL	2190.0	213.6	2403.6	0.96	3.8	2
2	1984	N	2188.0	220.8	2388.8	0.95	3.8		
	2011 70% Chance Exceedance Forecast		SL	2049.0	213.6	2262.6	0.94	3.6	3
3	1971	LN	1965.6	230.6	2196.2	0.93	3.5		
4	1976	SL	1934.1	190.0	2124.1	0.90	3.3		
5	1982	N	1860.8	215.8	2076.6	0.88	3.1		
6	1983	SE	1850.1	221.0	2071.1	0.85	2.9		
	2011 90% Chance Exceedance Forecast		SL	1845.0	213.6	2058.6	0.84	2.8	7
7	1974	SL	1842.9	205.4	2048.3	0.83	2.7		
8	1975	LN	1795.7	206.0	2001.7	0.80	2.5		
9	1998	SE	1767.9	231.6	1999.5	0.78	2.3		
10	1986	N	1737.9	236.4	1974.3	0.75	2.1		
11	1995	SE	1741.2	218.4	1959.6	0.73	1.9		
12	1999	SL	1742.1	212.1	1954.2	0.70	1.7		
13	1972	LN	1682.3	235.0	1917.3	0.68	1.5		
14	1996	N	1680.3	224.1	1904.4	0.65	1.3		
15	1993	EN	1682.4	183.5	1865.9	0.63	1.0		
16	2006	N	1600.0	213.0	1813.0	0.60	0.8		
17	2008	N	1553.9	211.3	1765.2	0.58	0.6		
18	2009	N	1417.3	229.2	1646.5	0.55	0.4		
19	1978	SE	1443.7	199.1	1642.8	0.53	0.2		
20	1985	N	1365.9	224.8	1590.7	0.50	0.0		
21	1989	SL	1388.7	194.6	1583.3	0.48	-0.2		
22	1980	N	1306.4	241.4	1547.8	0.45	-0.4		
23	1973	SE	1301.2	229.1	1530.3	0.43	-0.6		
24	1979	N	1243.2	197.0	1440.2	0.40	-0.8		
25	1981	N	1181.8	239.5	1421.3	0.38	-1.0		
26	2005	EN	1186.0	195.0	1381.0	0.35	-1.3		

Snake River near Heise SWSI

Adequate Water Supply Greater than -1.7 SWSI or 4,300 KAF



13037500 Snake River near Heise
13010500 Jackson Lake
13032450 Palisades Reservoir

Period	Data Type	Years	# of Years	Units KAF
May-Sep	stm	1971-2010	40	Units KAF
30-Apr	resv	1971-2010	40	Units KAF
30-Apr	resv	1971-2010	40	Units KAF

ENSO Classification

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

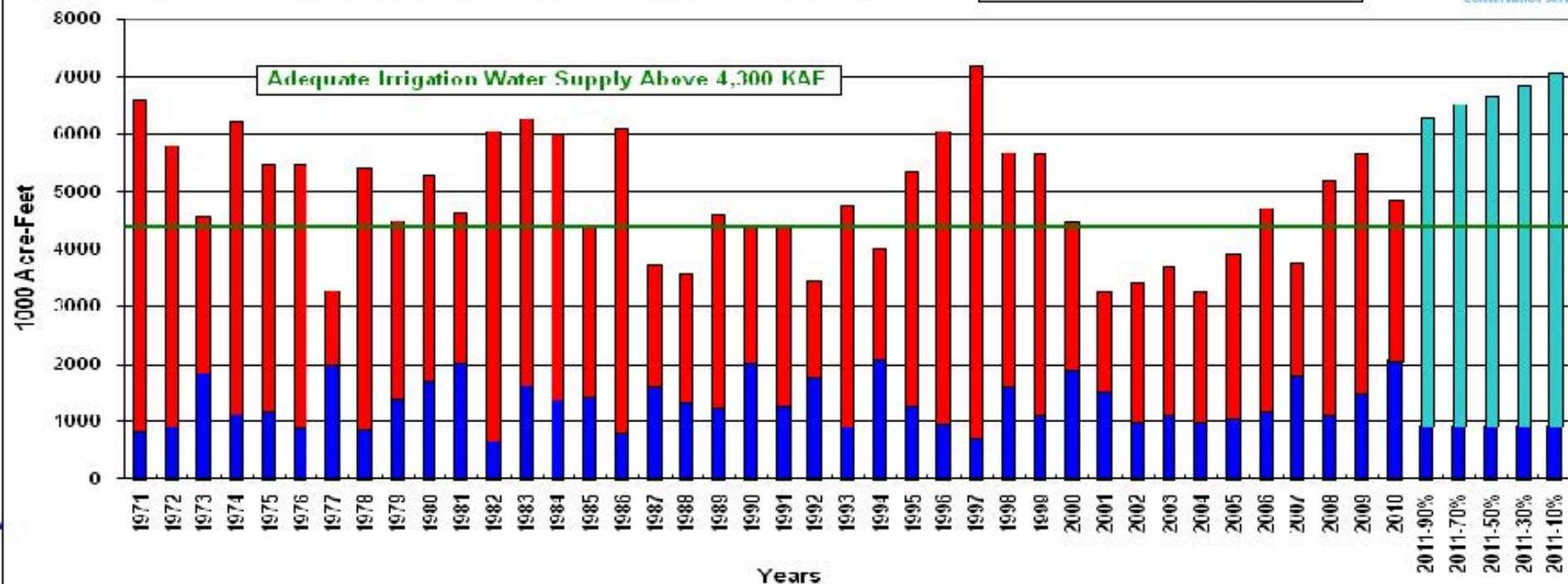
2010 Provisional Data

Historic Rank	Year	ENSO	Streamflow May-Sep	Summed Reservoirs 30-Apr	Streamflow + Reservoir Sum	Non-Exceedance Probability	SWSI	Current Year Rank
1	1997	N	6472	892	7164	0.98	4.0	
	2011 10% Chance Exceedance Forecast	SL	6150	920	7070	0.97	3.9	1
	2011 30% Chance Exceedance Forecast	SL	5920	920	6840	0.97	3.9	1
	2011 50% Chance Exceedance Forecast	SL	5760	920	6680	0.96	3.9	2
2	1971	LN	5766	823	6589	0.95	3.8	
	2011 70% Chance Exceedance Forecast	SL	5600	920	6520	0.94	3.7	2
	2011 90% Chance Exceedance Forecast	SL	5370	920	6290	0.93	3.6	3
3	1983	SE	4659	1606	6265	0.93	3.6	
4	1974	SL	5084	1126	6210	0.90	3.4	
5	1986	N	5298	789	6087	0.88	3.2	
6	1982	N	5399	648	6047	0.85	2.9	

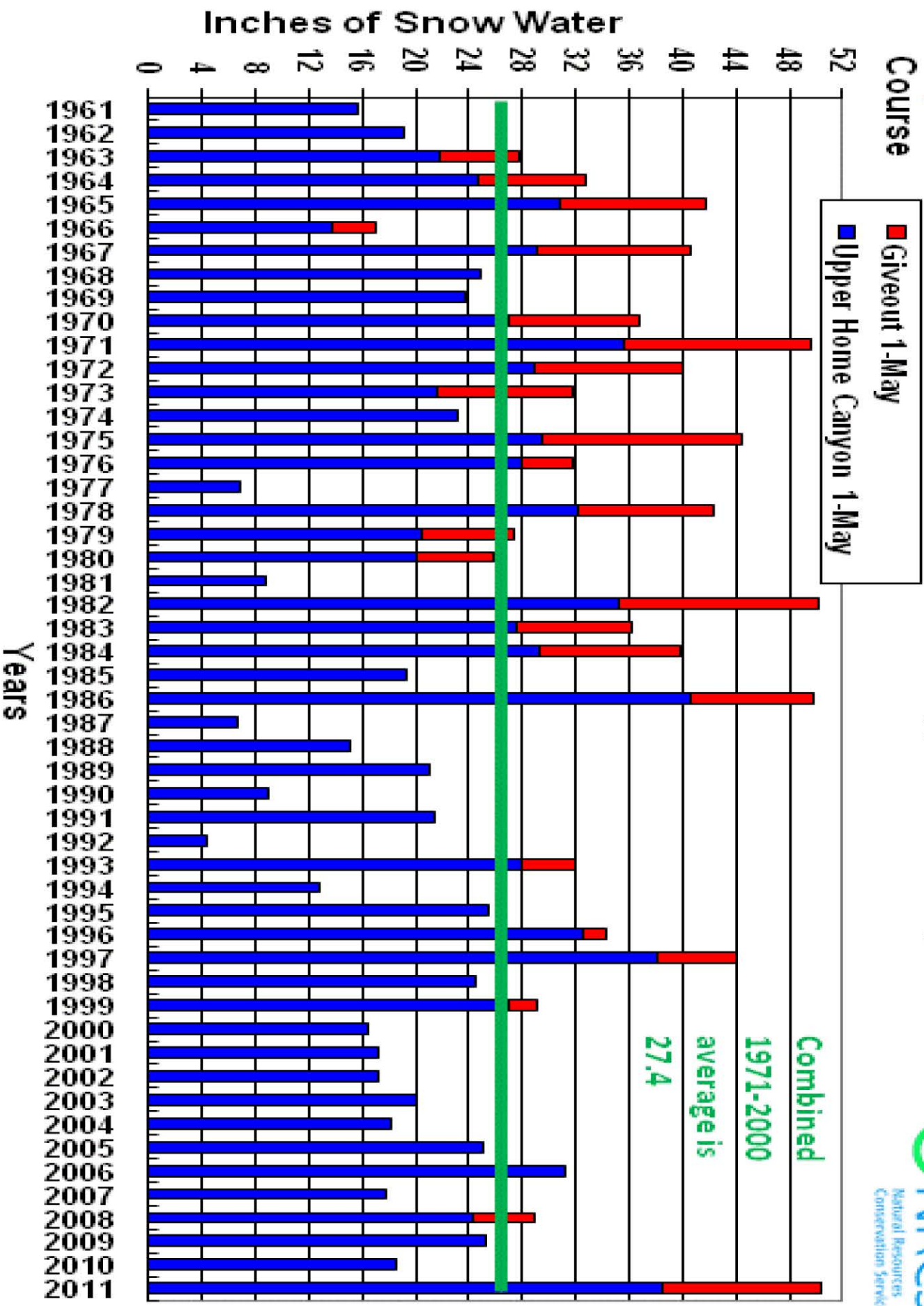
May 1 Surface Water Supply Index (SWSI)

Snake River near Heise & Jackson and Palisades Reservoirs

■ Reservoir 30-Apr
■ Streamflow May Sep

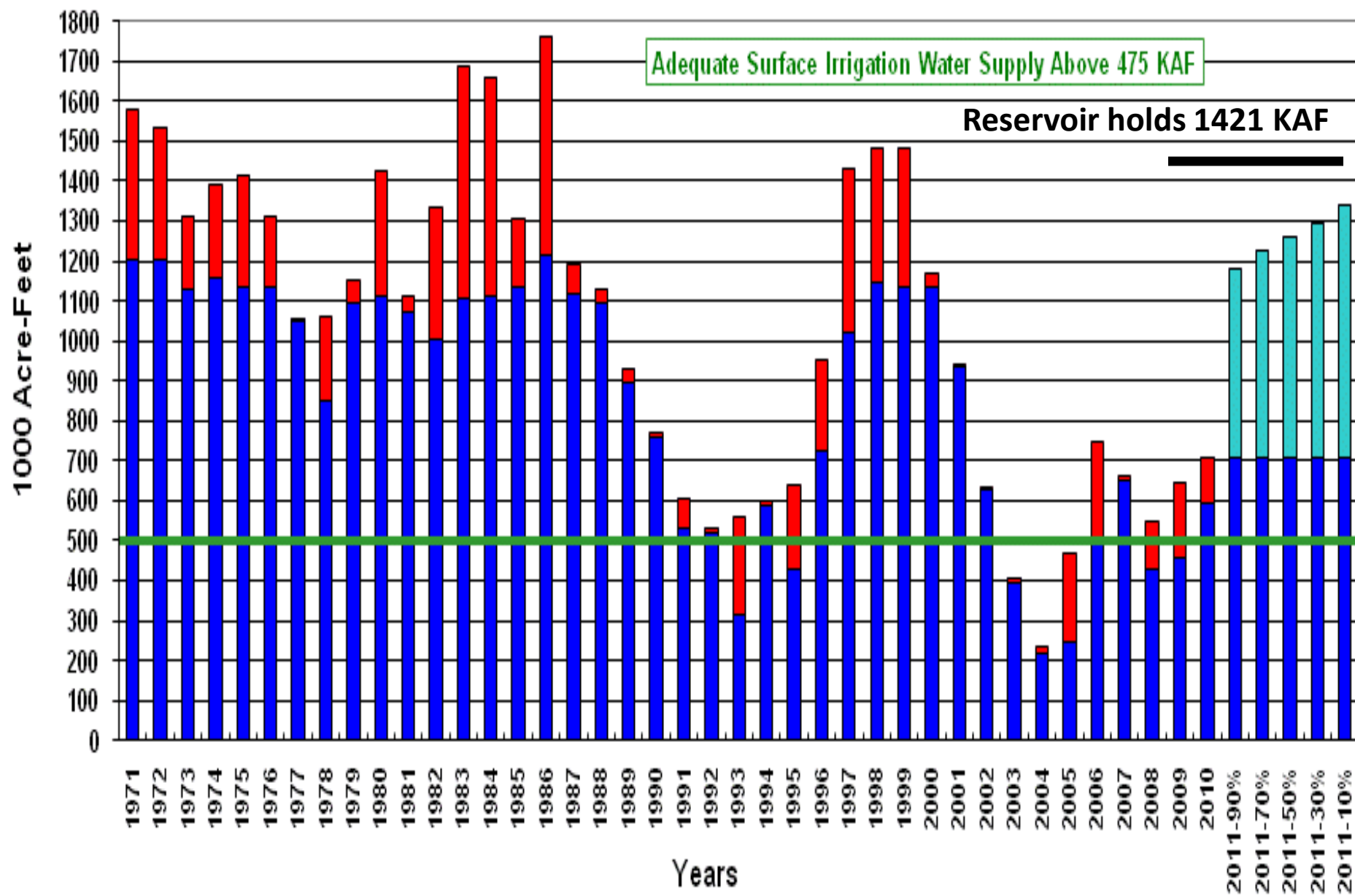


May 1 Snow Index for Giveout SNOTEL Site & Upper Home Canyon Snow



May 1 Bear River Surface Water Supply Index (SWSI)
 Bear River at Stewart Dam & Bear Lake

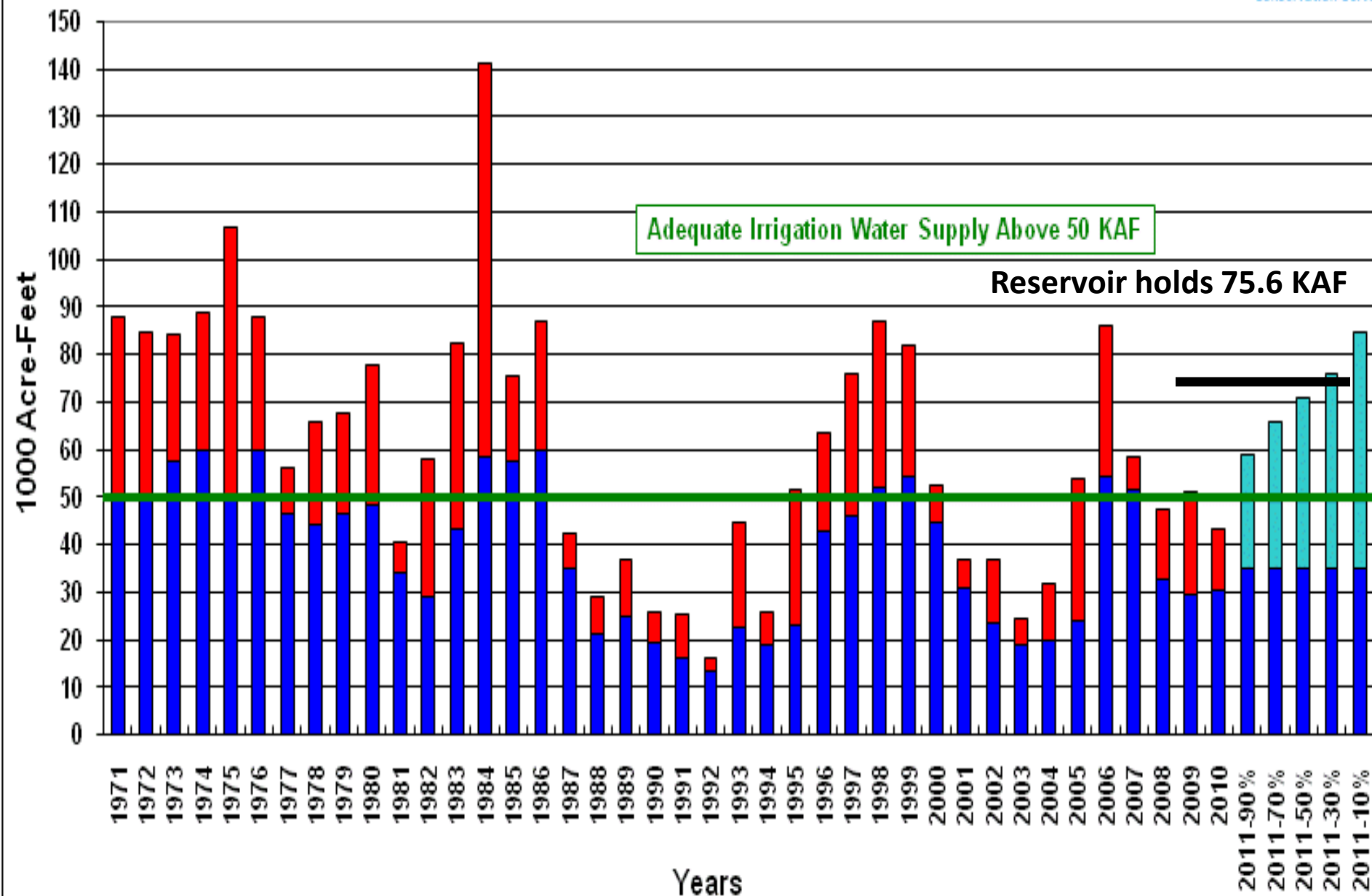
■ Reservoir 30-Apr
 ■ Streamflow May-Sep



May 1 Oakley Surface Water Supply Index (SWSI) Oakley Inflow & Reservoir

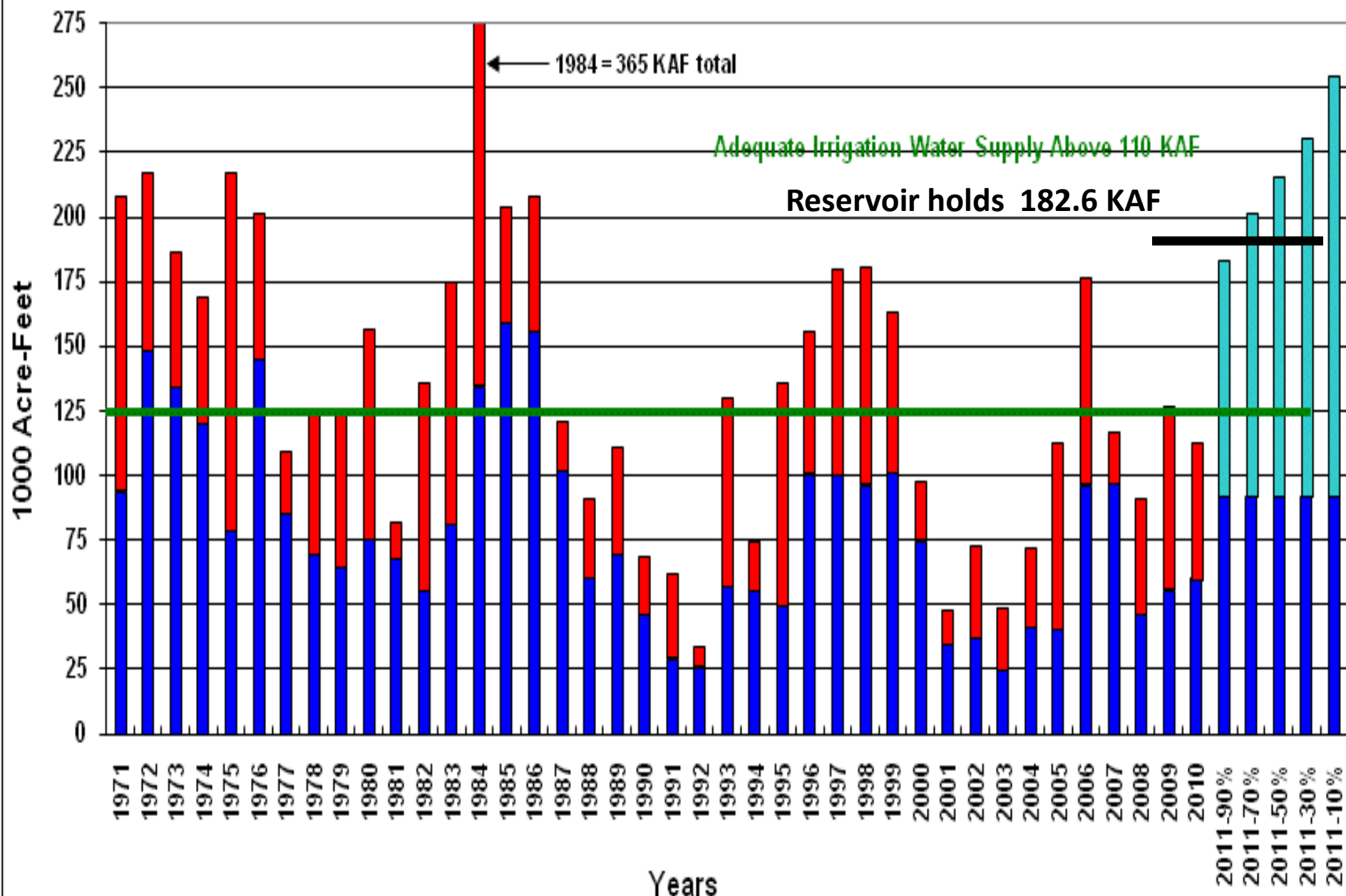
■ Streamflow May-Sep

■ Reservoir 30-Apr



May 1 Surface Water Supply Index (SWSI) Salmon Falls Creek near San Jacinto & Salmon Falls Reservoir

■ Reservoir 30-Apr
■ Streamflow May-Sep



From Salmon Falls Creek Reservoir Operating Guide 1997

May 1, 2011 Conditions

Reservoir Storage
92.1 KAF , ~50 feet

May-July Streamflow Forecast

Max = 160 KAF (281%)

30% = 136 KAF (136%)

50% = 121 KAF (121%)

70% = 107 KAF (107%)

Min = 88 KAF (88%)

May-July Avg = 57 KAF

Salmon Falls Creek Streamflow

May 1 Inflow = 564 cfs

May 11 inflow = 1130 cfs ↑

Operational Guidance for Salmon Falls Creek Reservoir

The Decision Levels for operating Salmon Falls Creek Reservoir are in Figure 6. All three conditions (gauge height, streamflow forecasts, and inflow greater than 1,500 cfs) must be met in order for the operation to be advised. The outflow release of 1,500 cfs is a conservative release rate from the reservoir which safely allows for higher releases before the maximum release rate of 3,360 cfs is reached.

Decision Levels for Salmon Falls Creek Reservoir

Decision Level 1: Reservoir storage gauge height is greater than 67 feet, (142,000 acre-feet).



Conditions: March-July or April-July streamflow forecasts are greater than 250 percent of average.

Based on maximum forecast only

Operation: Maintain minimum outflow of 1,500 cfs when reservoir level is above gauge height of 67 feet *and* inflow is greater than 1,500 cfs until the streamflow peak has passed. After the peak has passed, reservoir may be filled with minimal chance of spilling flows in excess of 1,500 cfs.

Decision Level 2: Reservoir storage gauge height is greater than 77 feet, (174,000 acre-feet).

Conditions: March-July or April-July streamflow forecasts are 150 to 250 percent of average.

Operation: Maintain minimum outflow of 1,500 cfs when reservoir level is above gauge height of 77 feet *and* inflow is greater than 1,500 cfs until the streamflow peak has passed. After the peak has passed, reservoir may be filled with minimal chance of spilling flows in excess of 1,500 cfs.

Decision Level 3: Reservoir storage gauge height is 80 feet (full pool). **Full Reservoir**

Conditions: March-July or April-July streamflow forecasts are less than 150 percent of average.

Operation: Store up to full pool. No danger of streamflow peak being greater than 3,360 cfs (maximum controlled outflow with full reservoir).

**Mid-April near
Tammany, Idaho
southeast of Lewiston
where they normally
receive 14 inches of
precipitation a year
on the prairie**

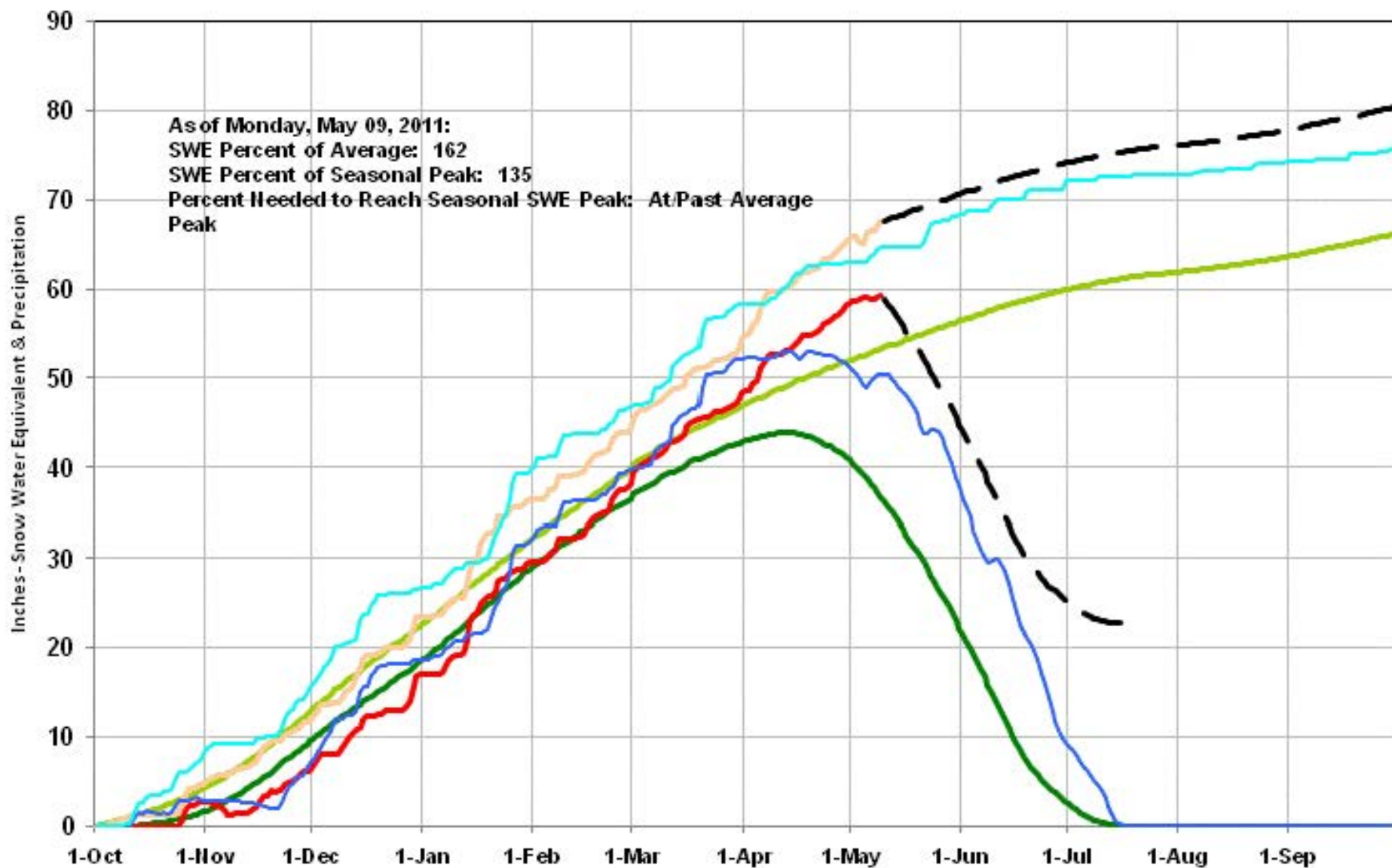


N F Clearwater Basin 2011 Snowpack Graph (8 Sites)



SWE Average Prec Average SWE 2011 Prec 2011
 SWE Projected Prec Projected SWE 2002 Prec 2002

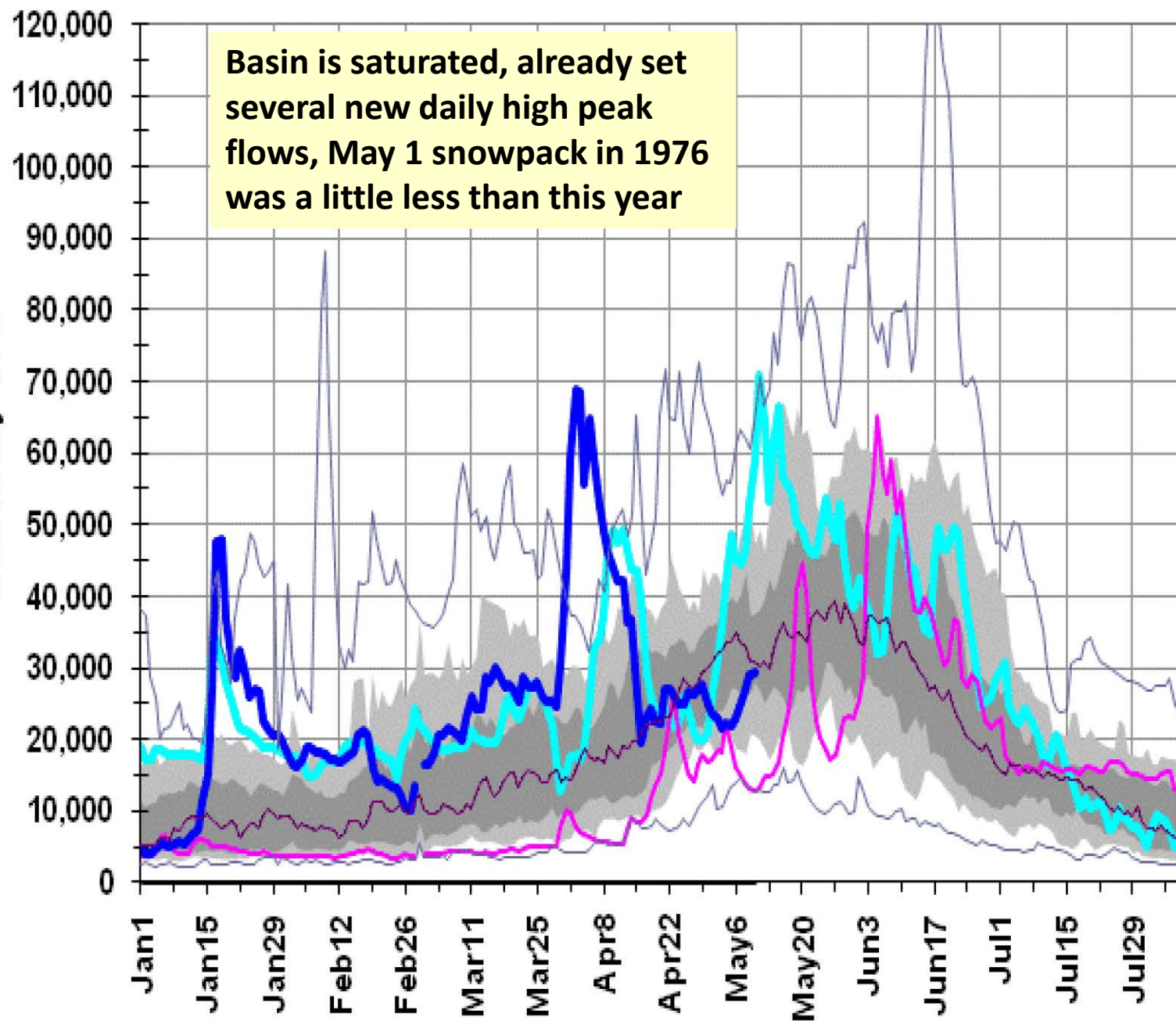
As of Monday, May 09, 2011:
 SWE Percent of Average: 162
 SWE Percent of Seasonal Peak: 135
 Percent Needed to Reach Seasonal SWE Peak: At/Past Average Peak



13342500id: clearwater river at spalding id



Mean Daily CFS

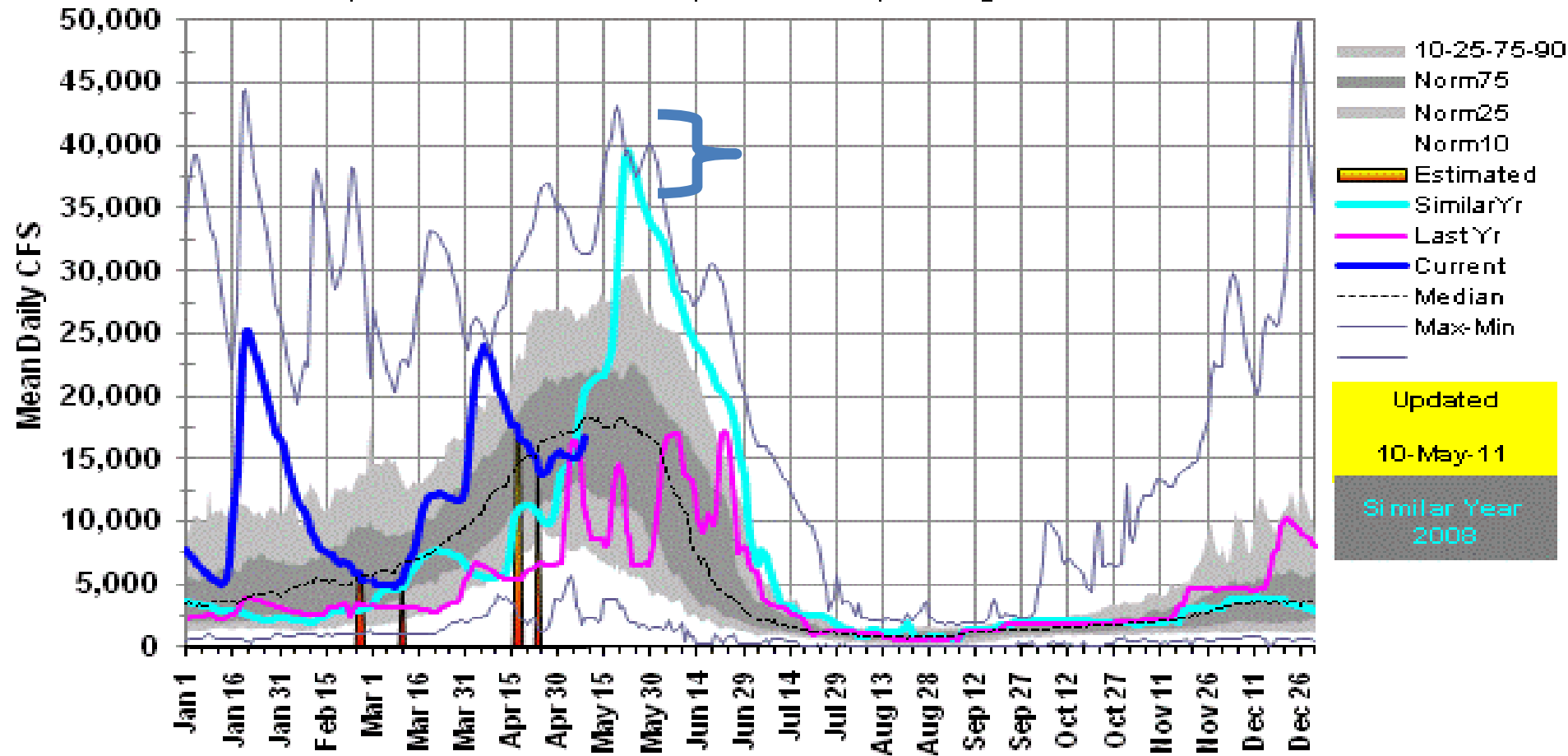


2008 & 1997 were recent high snow years. Coeur d'Alene Lake went 6 $\frac{3}{4}$ feet above summer level in 2008 and 8.1 feet in 1997. We (Avista) are projecting that CDA lake will reach between 6-8 feet above summer level (2134 - 2136) sometime in May or early June. Flood stage is 2133. Resulting peak flows in the Spokane river will be 36,000-43,000 cfs. Of course it all depends upon the weather and how fast the snow melts...

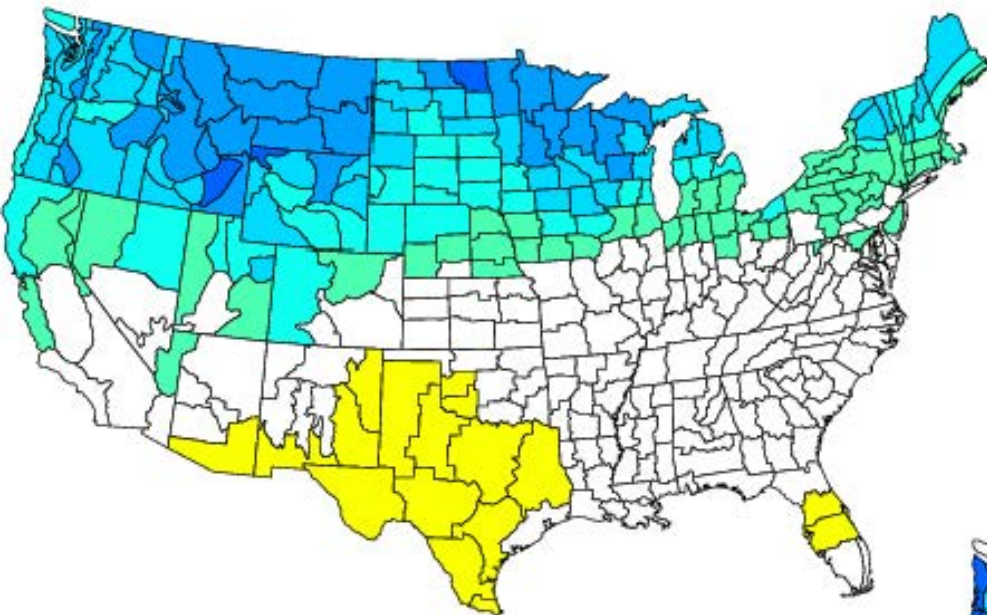
Other concerns of near record high mid-elevation snow in CDA basin

12419000: Spokane R near Post Falls, ID

2008 May-Jul volume was 185%, 3253.1 KAF, Average is 1758.5 KAF



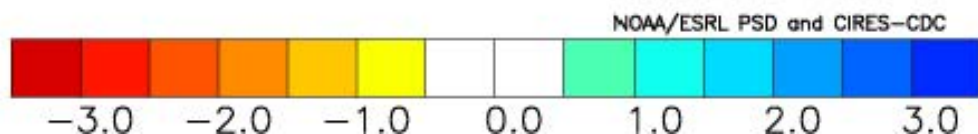
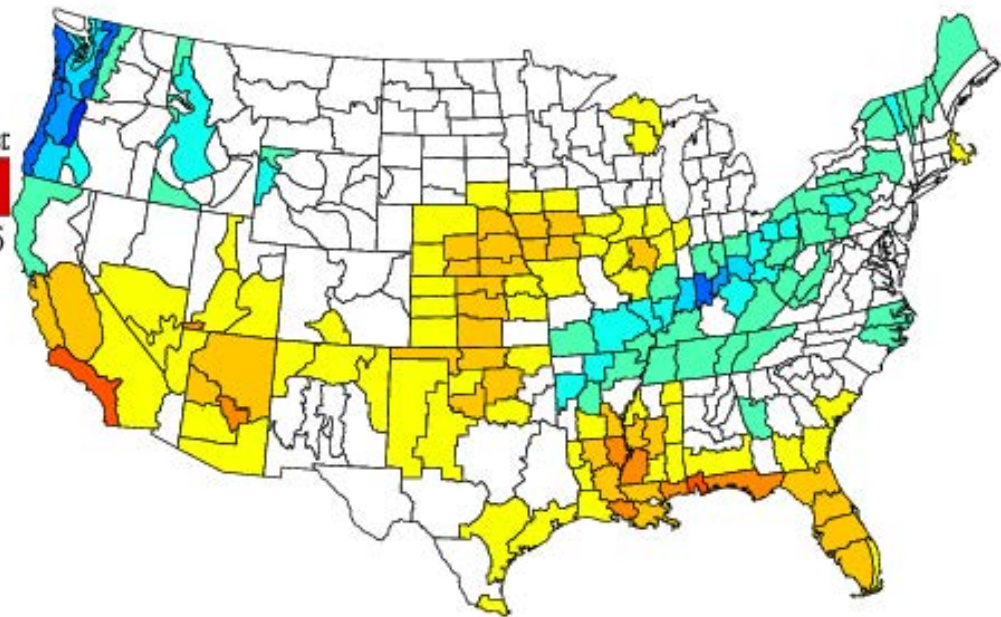
Composite Temperature Anomalies (F)
Mar 1917, 1971, 1974, 1989, 2008
Versus 1971–2000 Longterm Average



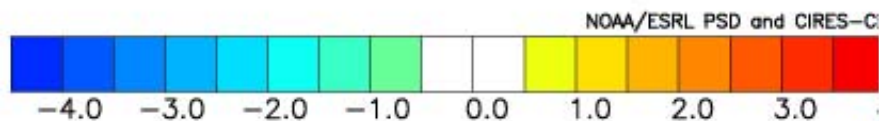
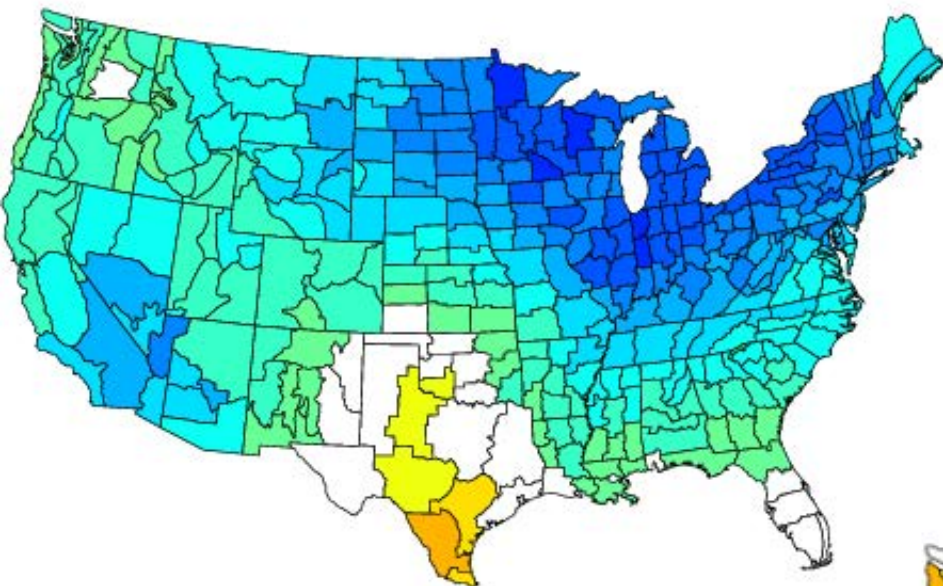
March

Valley Temperature & Precipitation for Analog Years 1917, 71, 74, 89, 08

Composite Precipitation Anomalies (inches)
Mar 1917, 1971, 1974, 1989, 2008
Versus 1971–2000 Longterm Average



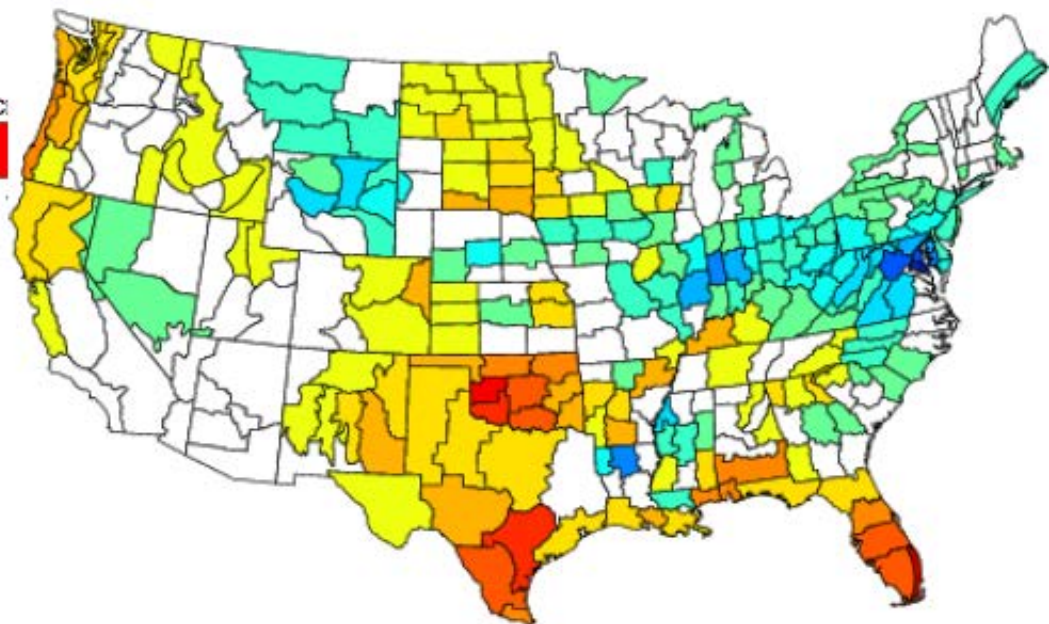
Composite Temperature Anomalies (F)
May 1917, 1971, 1974, 1989, 2008
Versus 1971–2000 Longterm Average



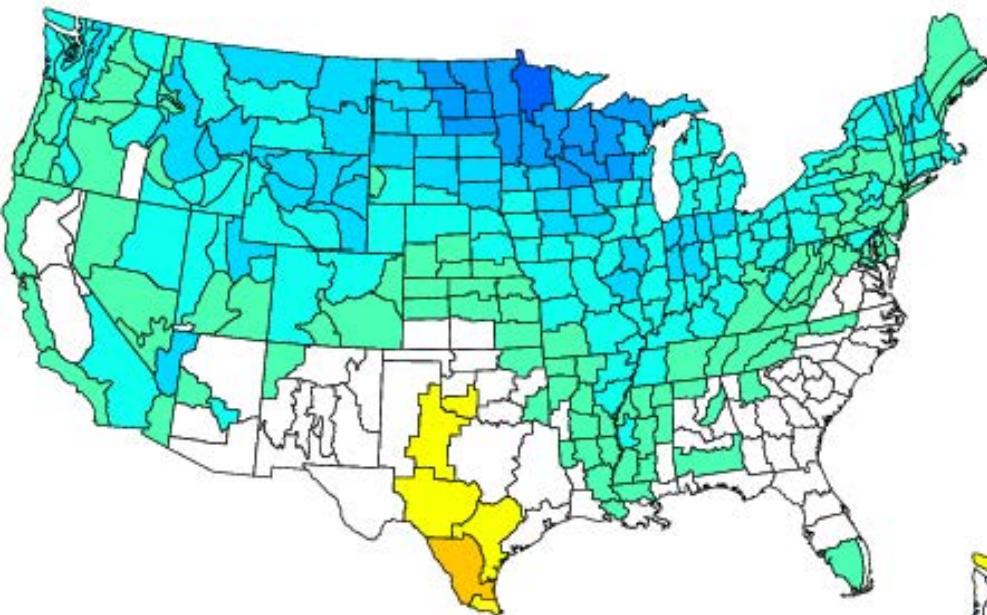
May

Valley Temperature & Precipitation for Analog Years 1917, 71, 74, 89, 08

Composite Precipitation Anomalies (inches)
May 1917, 1971, 1974, 1989, 2008
Versus 1971–2000 Longterm Average

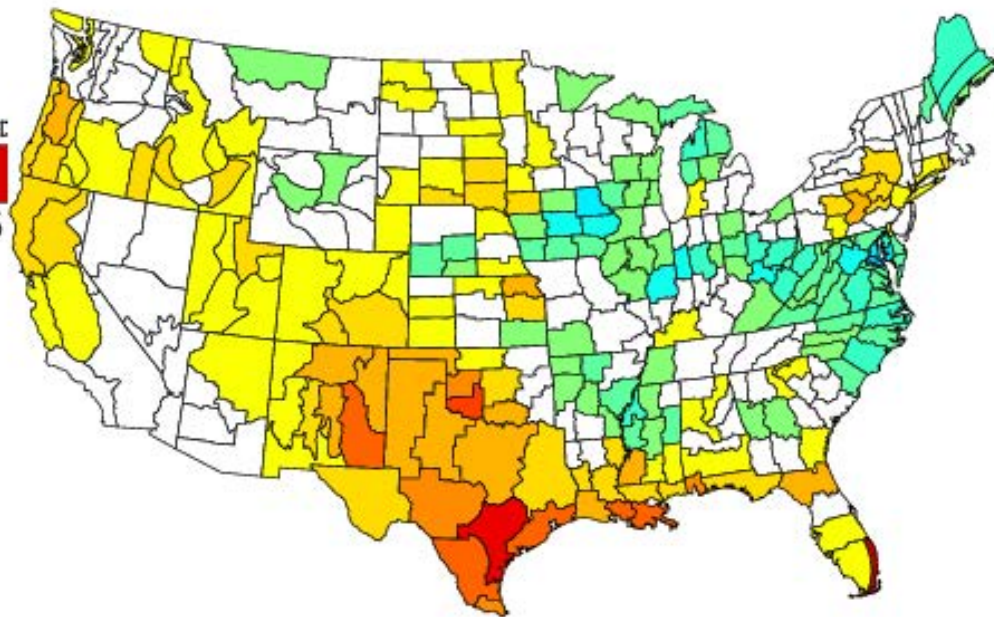


Composite Temperature Anomalies (F)
Apr to Jun 1917,1971,1974,1989,2008
Versus 1971–2000 Longterm Average

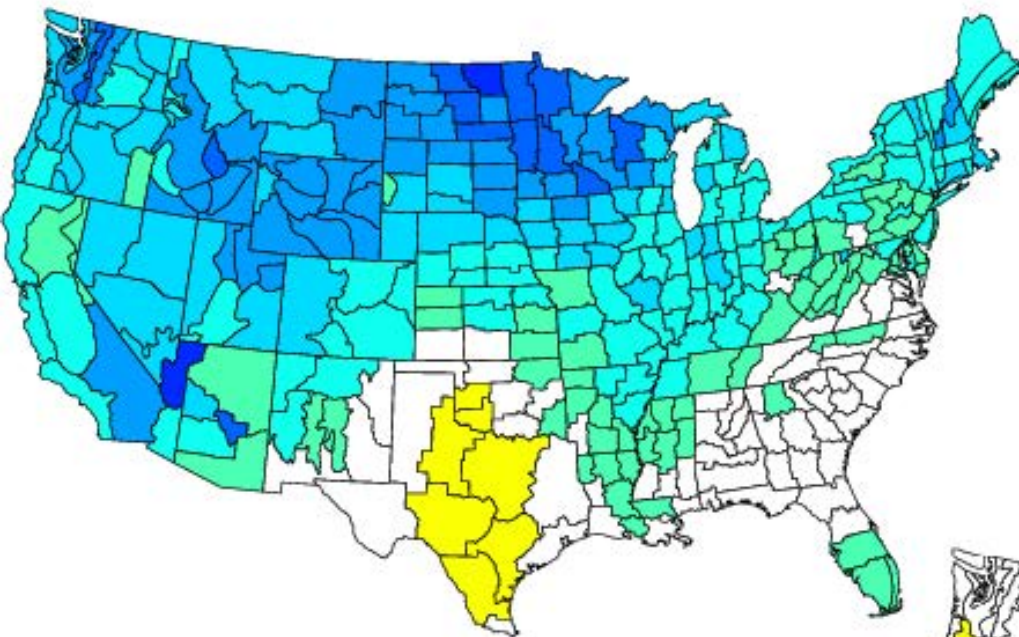


April to June Valley Temperature & Precipitation for Analog Years 1917, 71, 74, 89, 08

Composite Precipitation Anomalies (inches)
Apr to Jun 1917,1971,1974,1989,2008
Versus 1971–2000 Longterm Average



Composite Temperature Anomalies (F)
Apr to Jun 1917,1971,1974,2008
Versus 1971–2000 Longterm Average



April to June

Valley Temperature & Precipitation for Analog Years 1917, 71, 74, 08 (NOT 1989)

Composite Precipitation Anomalies (inches)
Apr to Jun 1917,1971,1974,2008
Versus 1971–2000 Longterm Average

