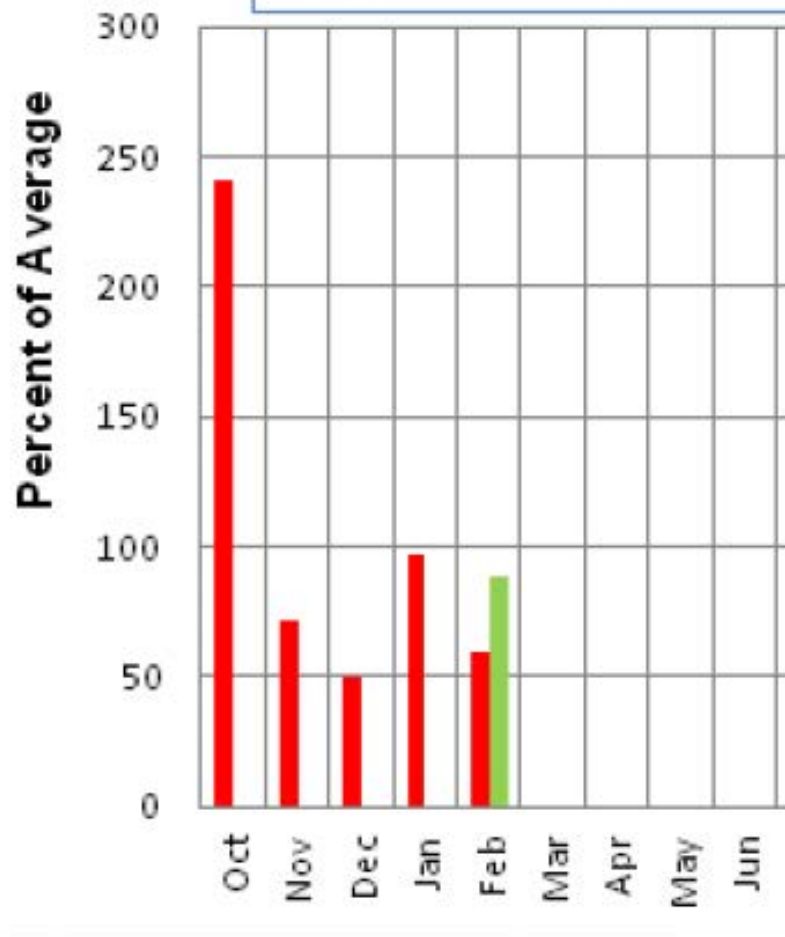


IDWR State Water Supply Meeting March 8, 2012

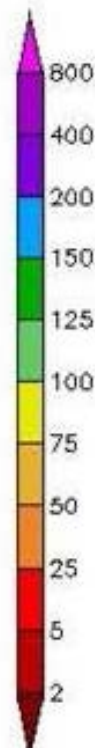
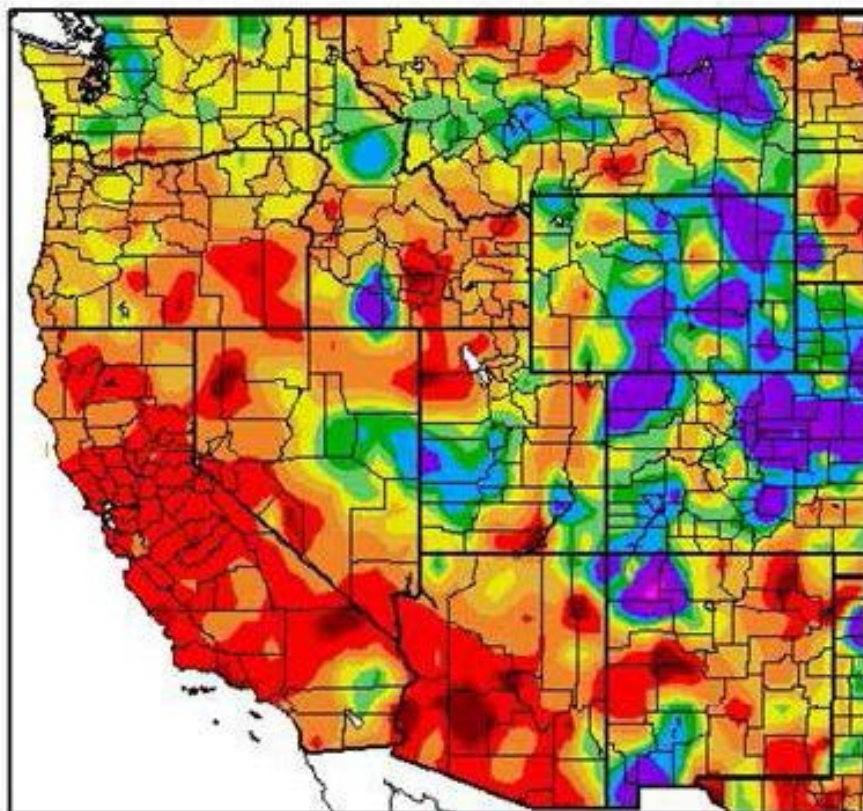
Hoodoo Basin SNOTEL Clearwater River Feb 12, 2012

2012 Mountain Precipitation WOOD AND LOST RIVER BASINS

Monthly Year-to-date

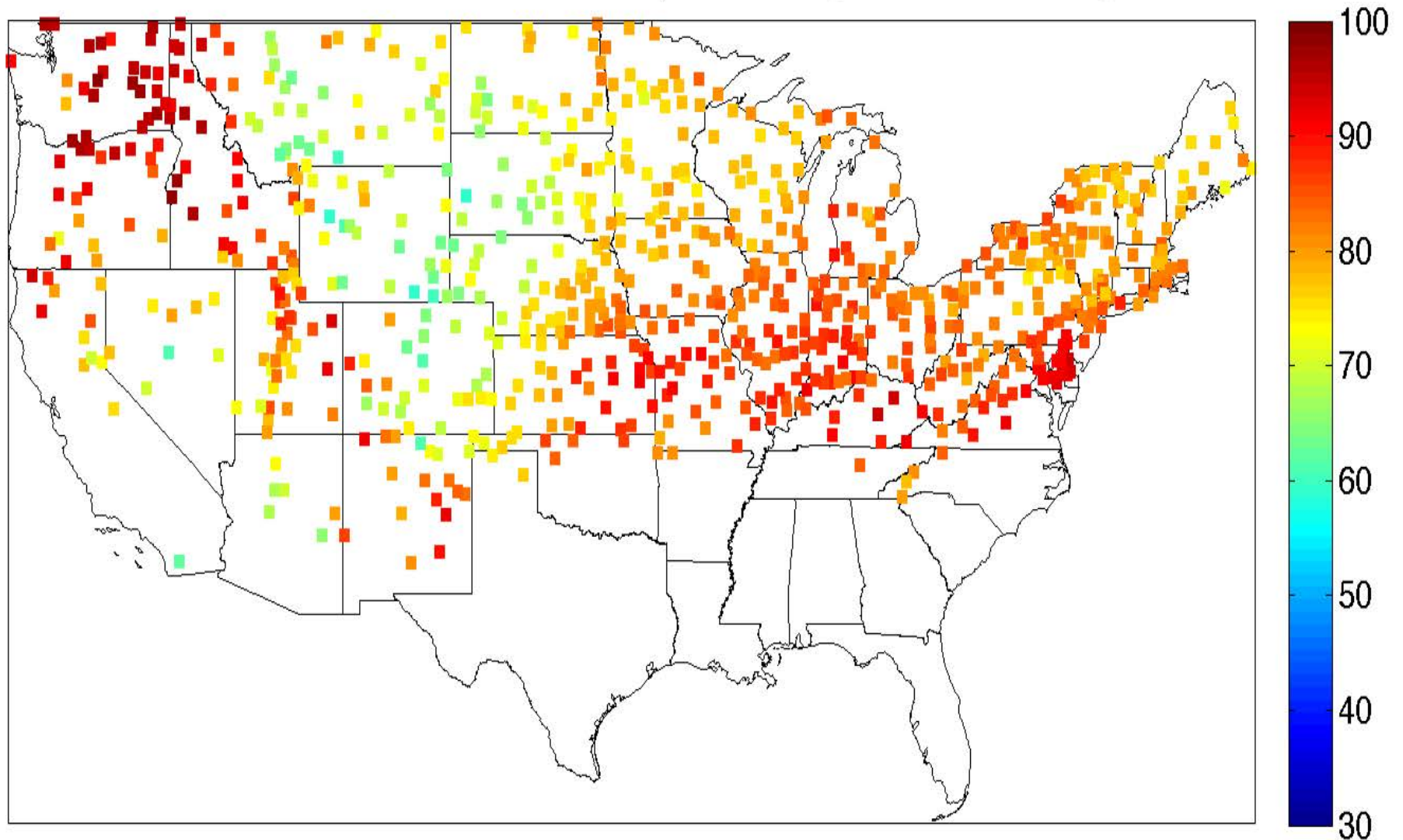


Percent of Normal Precipitation (%)
2/1/2012 - 2/28/2012



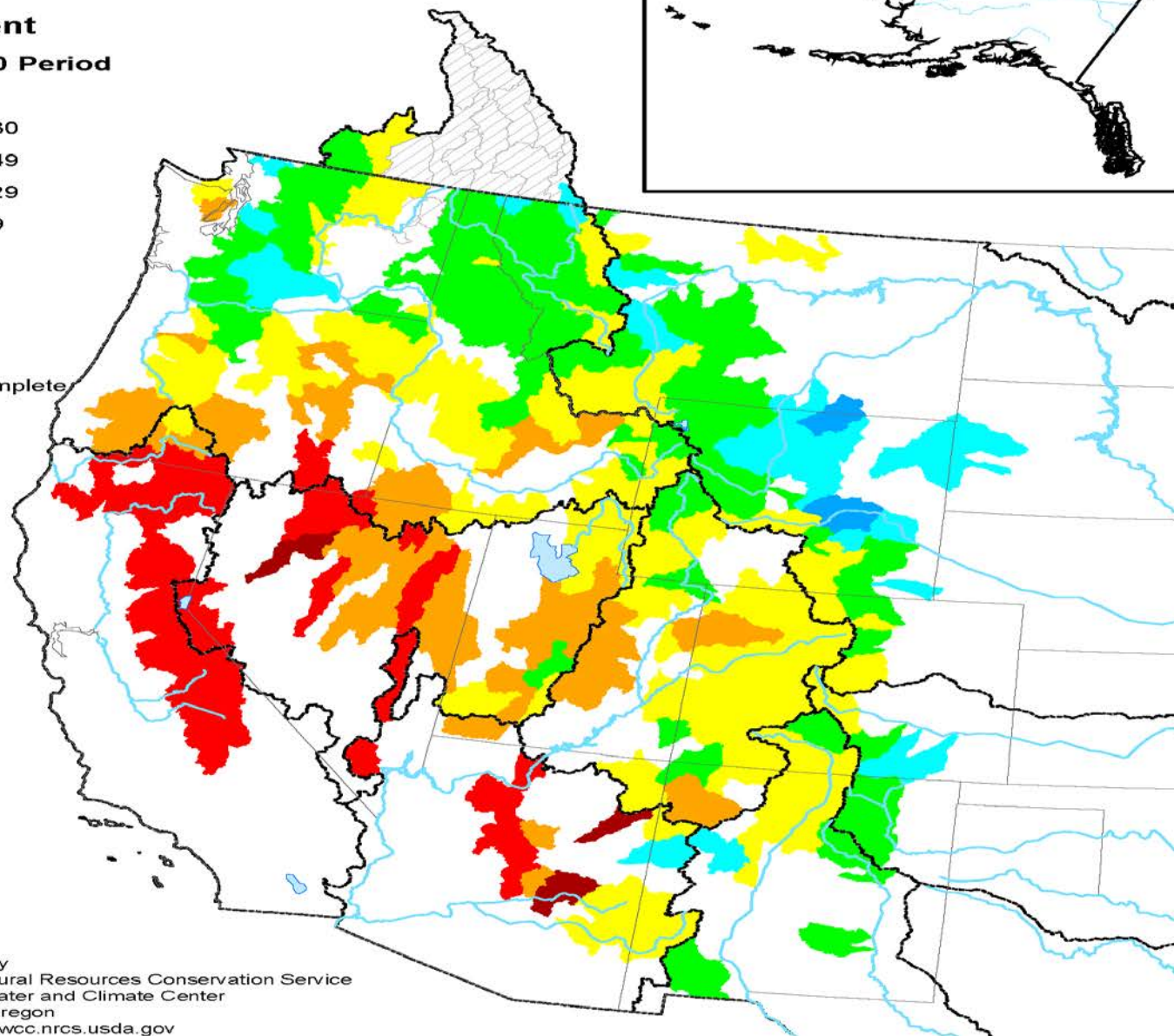
Time is running out.....

% Water Year Snowfall by 1 Mar [1949-2011]



Mountain Snowpack as of March 1, 2012

Percent
1971 to 2000 Period



Prepared by
USDA, Natural Resources Conservation Service
National Water and Climate Center
Portland, Oregon
<http://www.wcc.nrcs.usda.gov>

March 1, 2012 Idaho Snowpack

State Boundary

Major Basins

Percent of Average

> 180

150 - 179

130 - 149

110 - 129

90 - 109

70 - 89

50 - 69

25 - 49

< 25

Not Surveyed

As of March 7
Snowpacks Range from :

Lowest : Big Lost

Today

% of Peak

58%

47%

Highest:

N Panhandle & Clearwater

Today

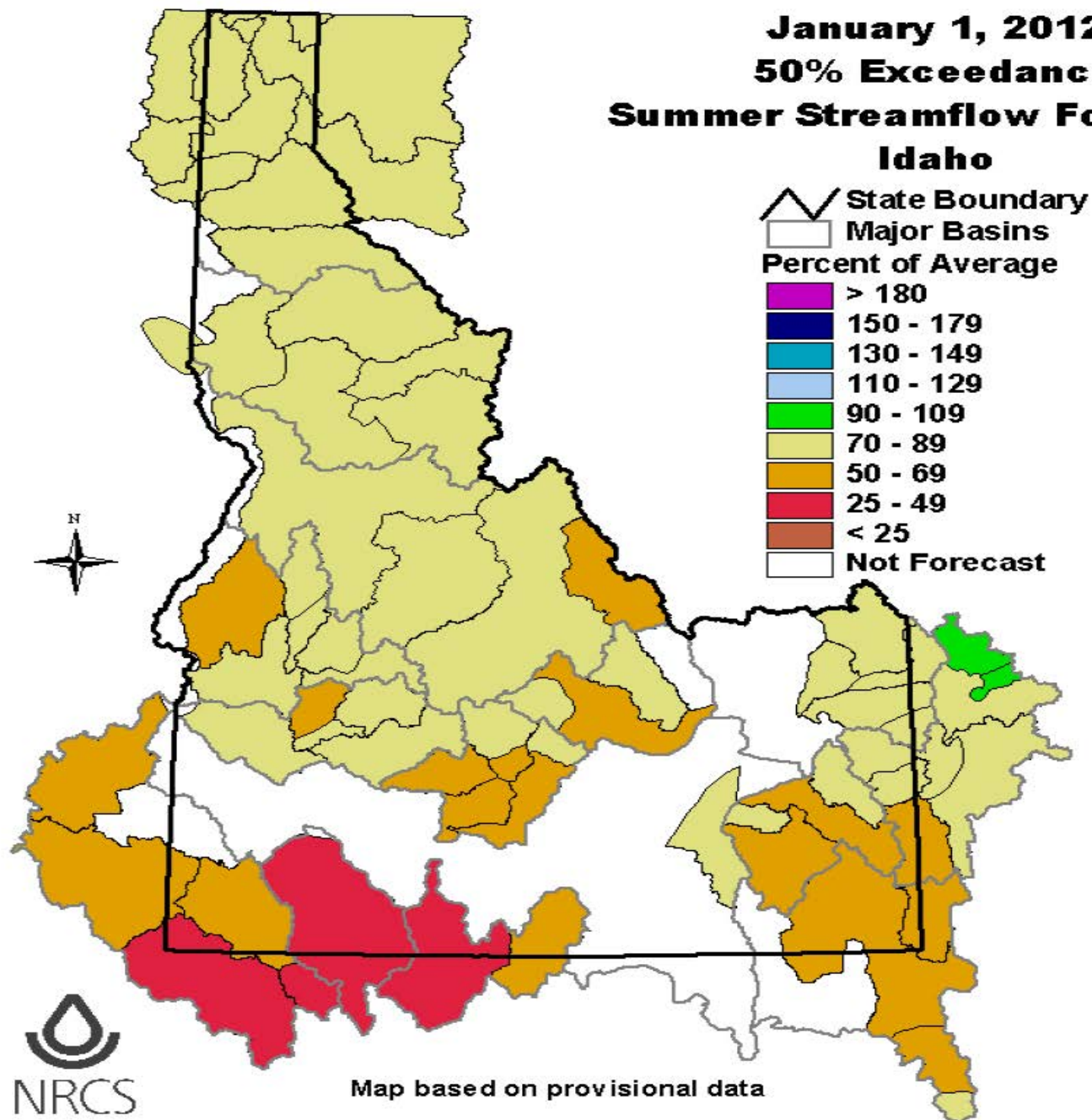
% of Peak

100%

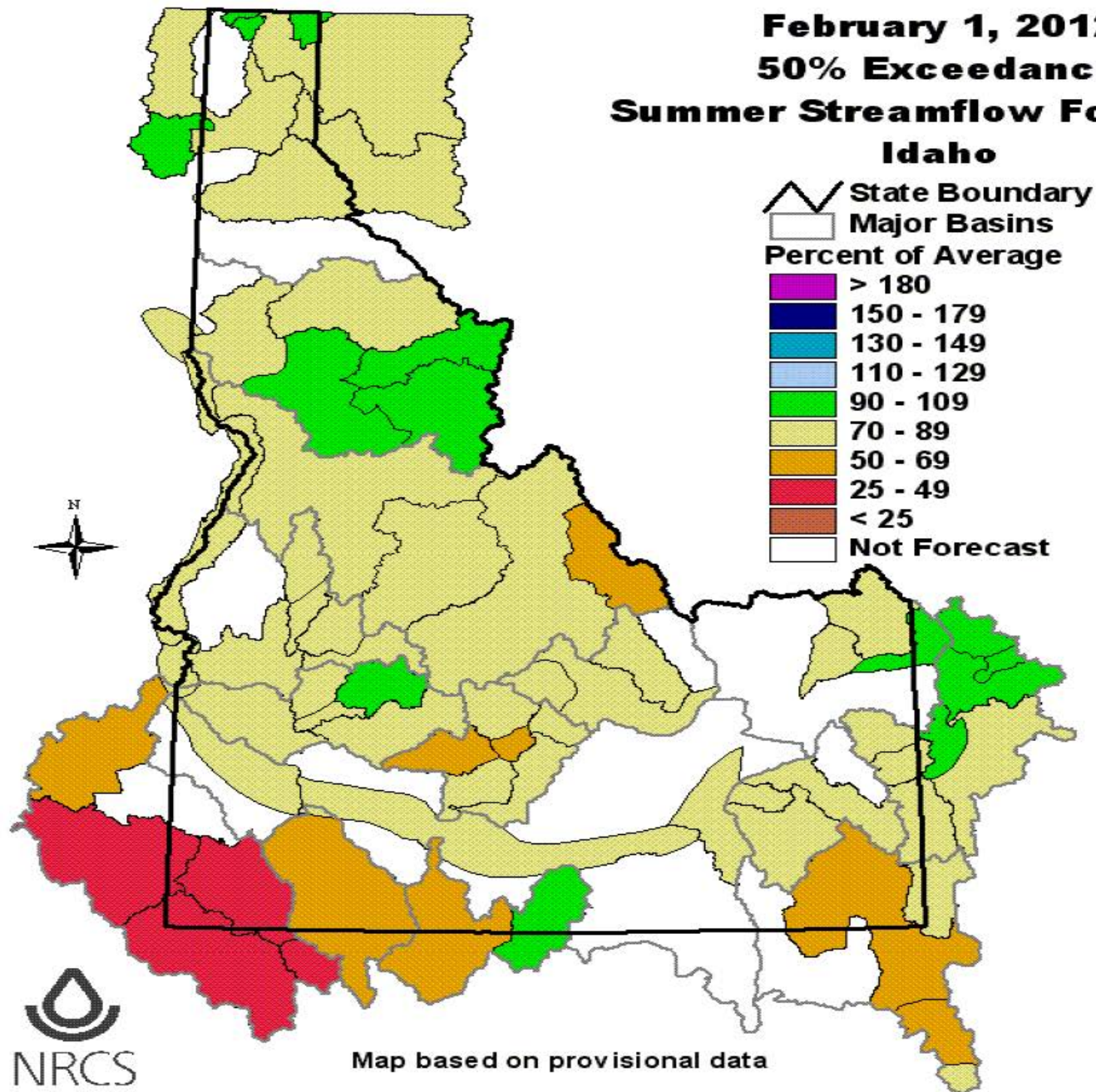
87%



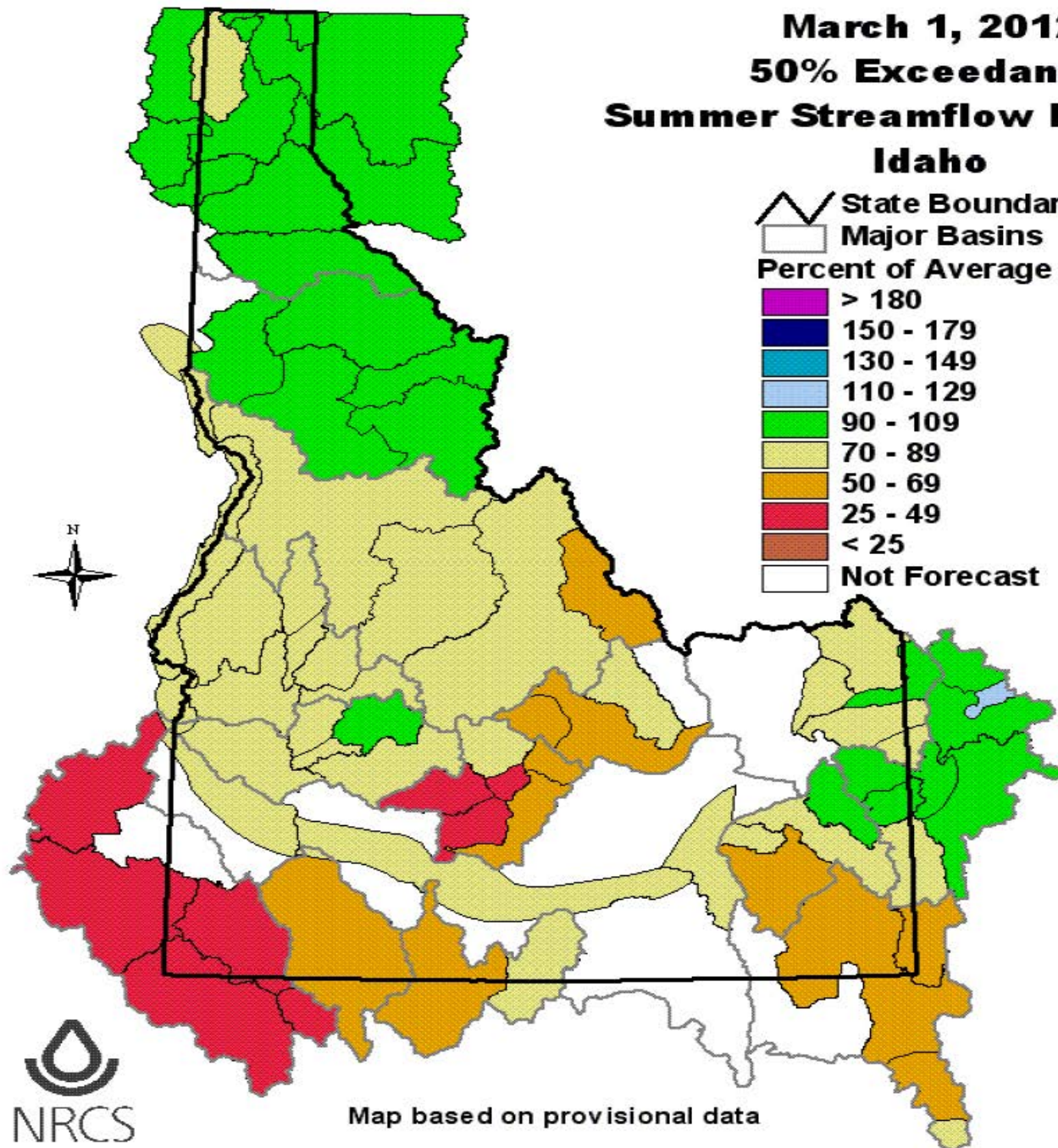
**January 1, 2012
50% Exceedance
Summer Streamflow Forecasts
Idaho**



February 1, 2012
50% Exceedance
Summer Streamflow Forecasts
Idaho



March 1, 2012
50% Exceedance
Summer Streamflow Forecasts
Idaho



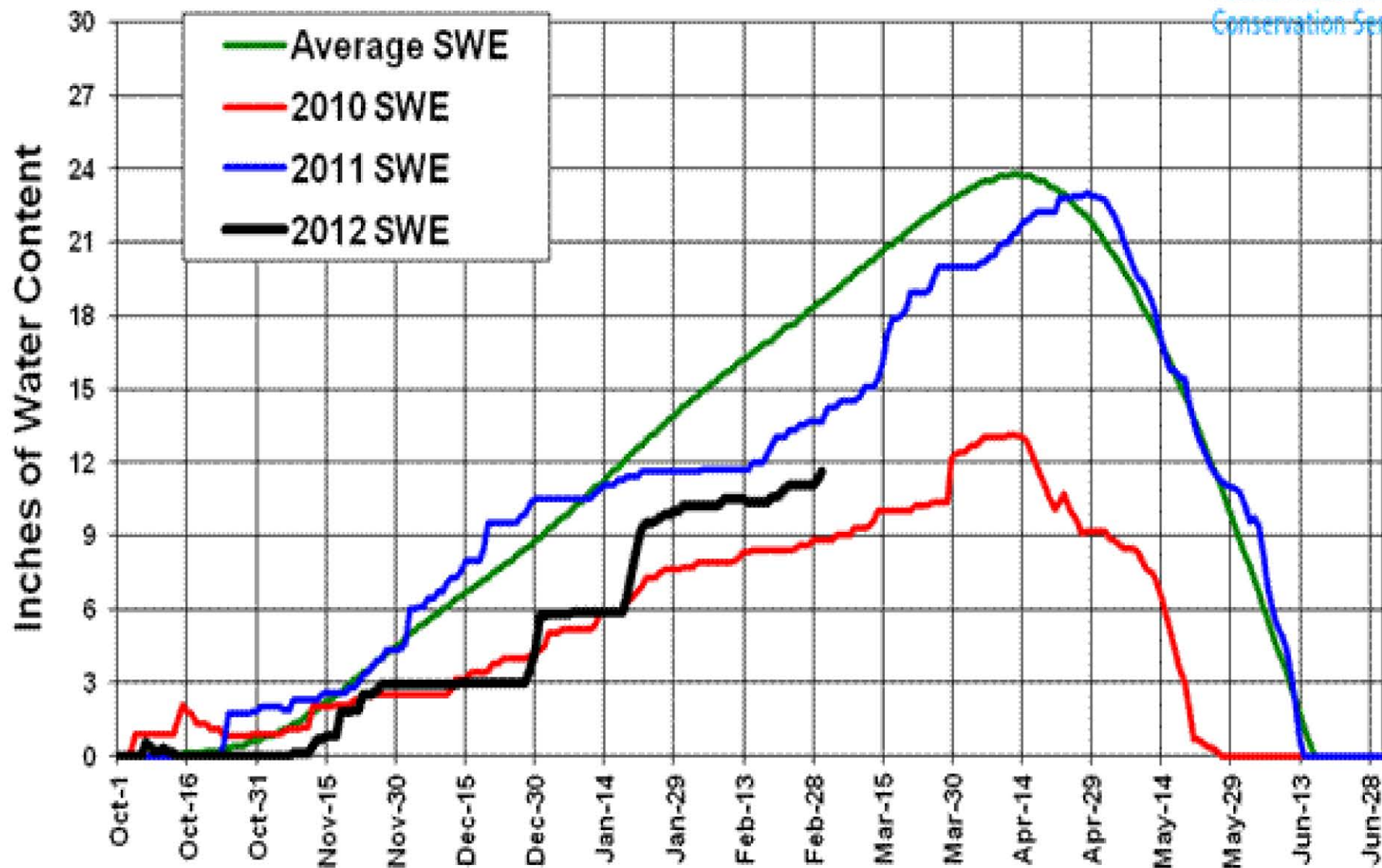
March 1, 2012 Idaho Surface Water Supply Index (SWSI)

Basin or Region	SWSI Value	Similar Year	Surface Agricultural Water Supply Shortages Occur when SWSI is Less Than
Northern Panhandle	0.1	2008	NA
Spokane	0.1	2006	NA
Clearwater	1.7	2009	NA
Salmon	-0.4	2003	NA
Weiser	-1.7	2009	NA
Payette	-0.9	2002	NA
Boise	1.2	2000	-1.3 to -1.6
Big Wood	0.1	2010	0.6 to 0.0
Little Wood	0.1	2009	-1.6 to -2.6
Big Lost	-0.4	2010	0.5 to -0.2
Little Lost	0.0	2010	1.5 to 0.7
Teton	0.3	2010	-3.7 to -3.9
Henrys Fork	0.0	2010	-3.4 to -3.6
Snake (Heise)	1.4	2009	-1.3 to -1.6
Oakley	1.7	2011	0.3 to -0.5
Salmon Falls	1.4	1996	-0.8 to -1.3
Bruneau	-0.7	2008	NA
Owyhee	-0.7	2007	-3.0 to -3.5
Bear River	2.0	2011	-3.0 to -3.4

SWSI period is based on the 1981 - 2011 period

Lost - Wood Divide SNOTEL El. 7900

Snow Water Equivalent

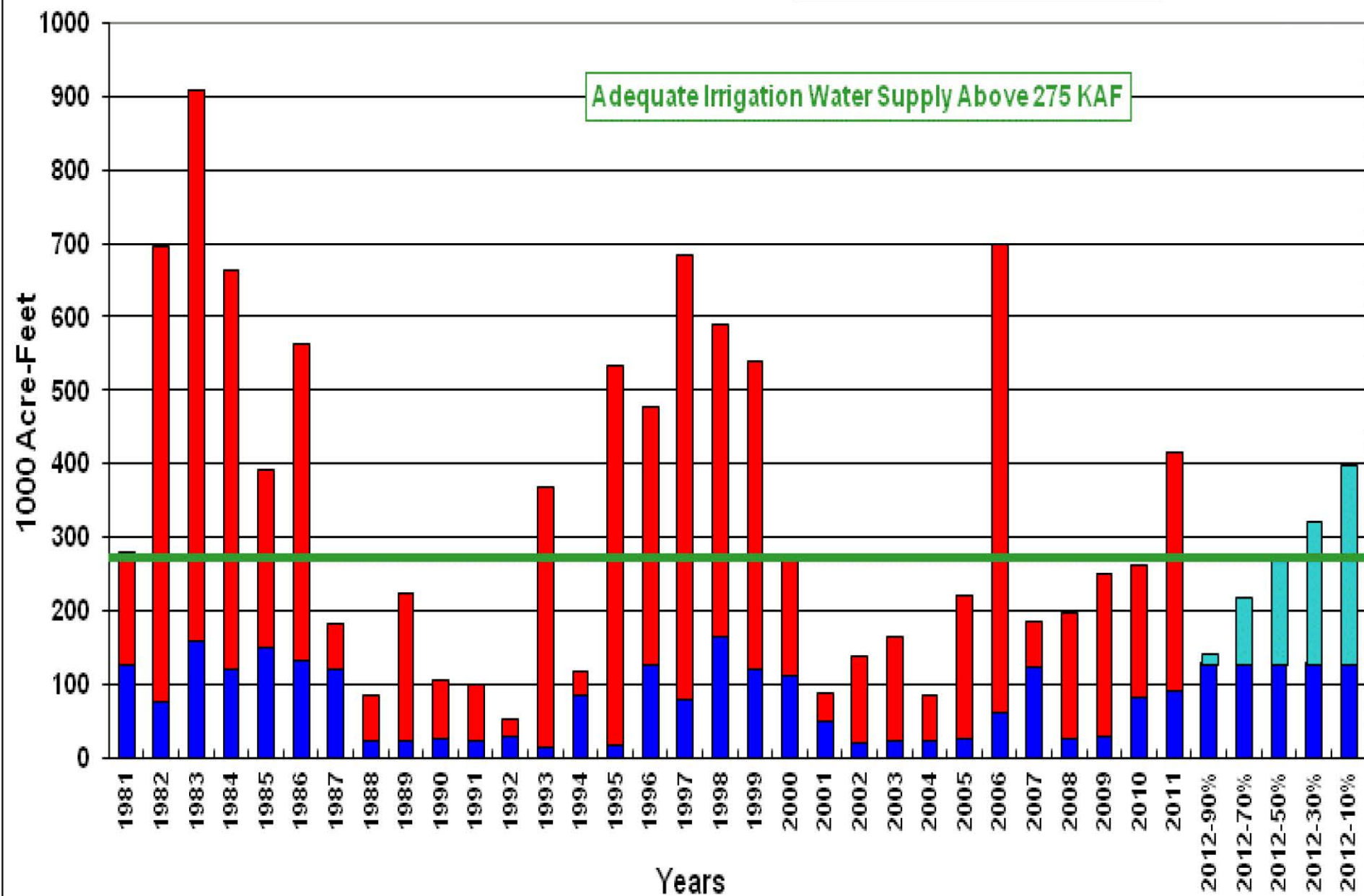


March 1 Big Wood Surface Water Supply Index (SWSI) Big Wood River below Magic & Magic Reservoir

Streamflow Apr-Sep
Reservoir 28-Feb



Adequate Irrigation Water Supply Above 275 KAF

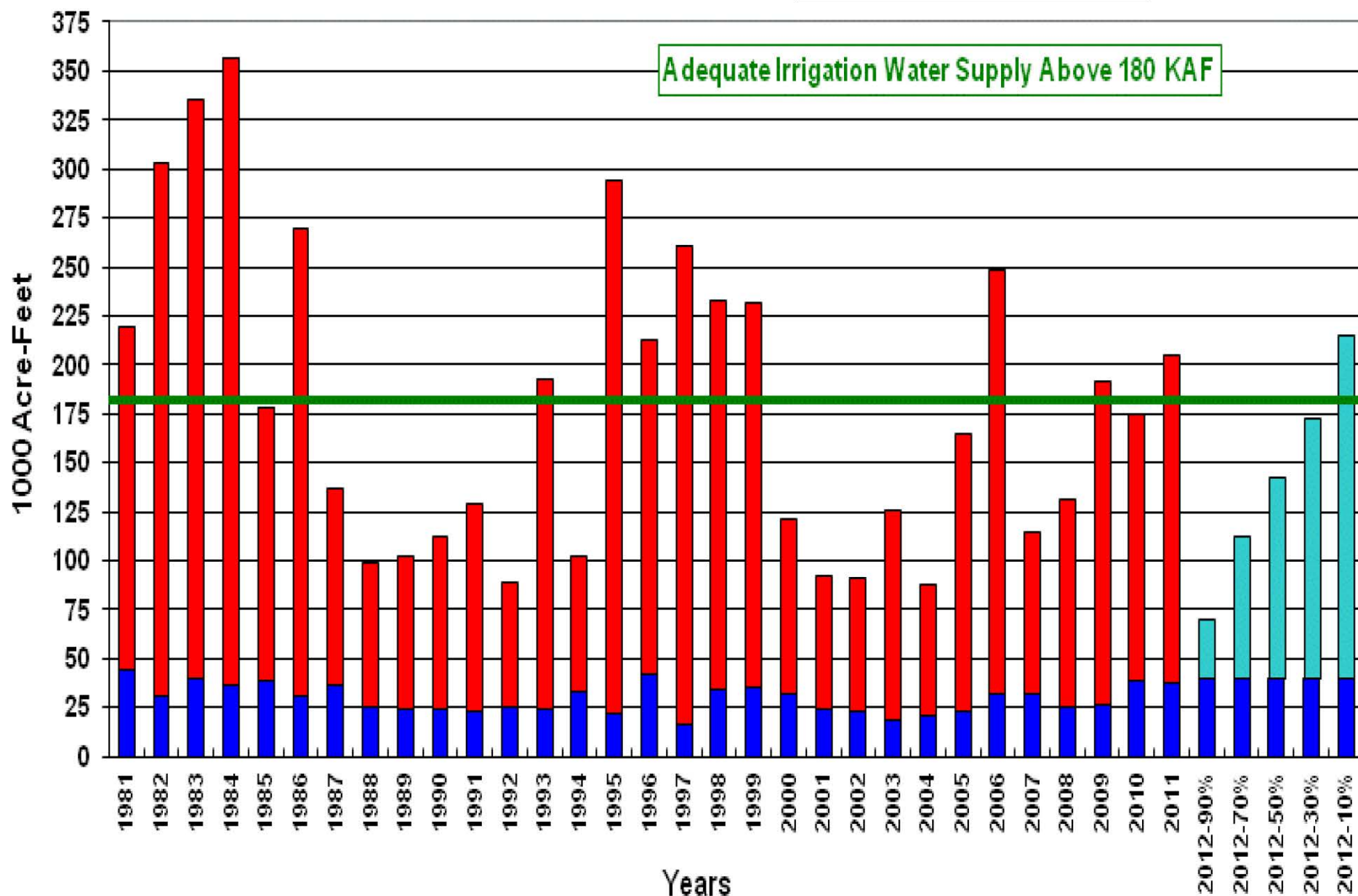


March 1 Big Lost Surface Water Supply Index (SWSI)
Big Lost River below Reservoir & Mackay Reservoir

■ Streamflow Apr-Sep

■ Reservoir 28-Feb

Adequate Irrigation Water Supply Above 180 KAF



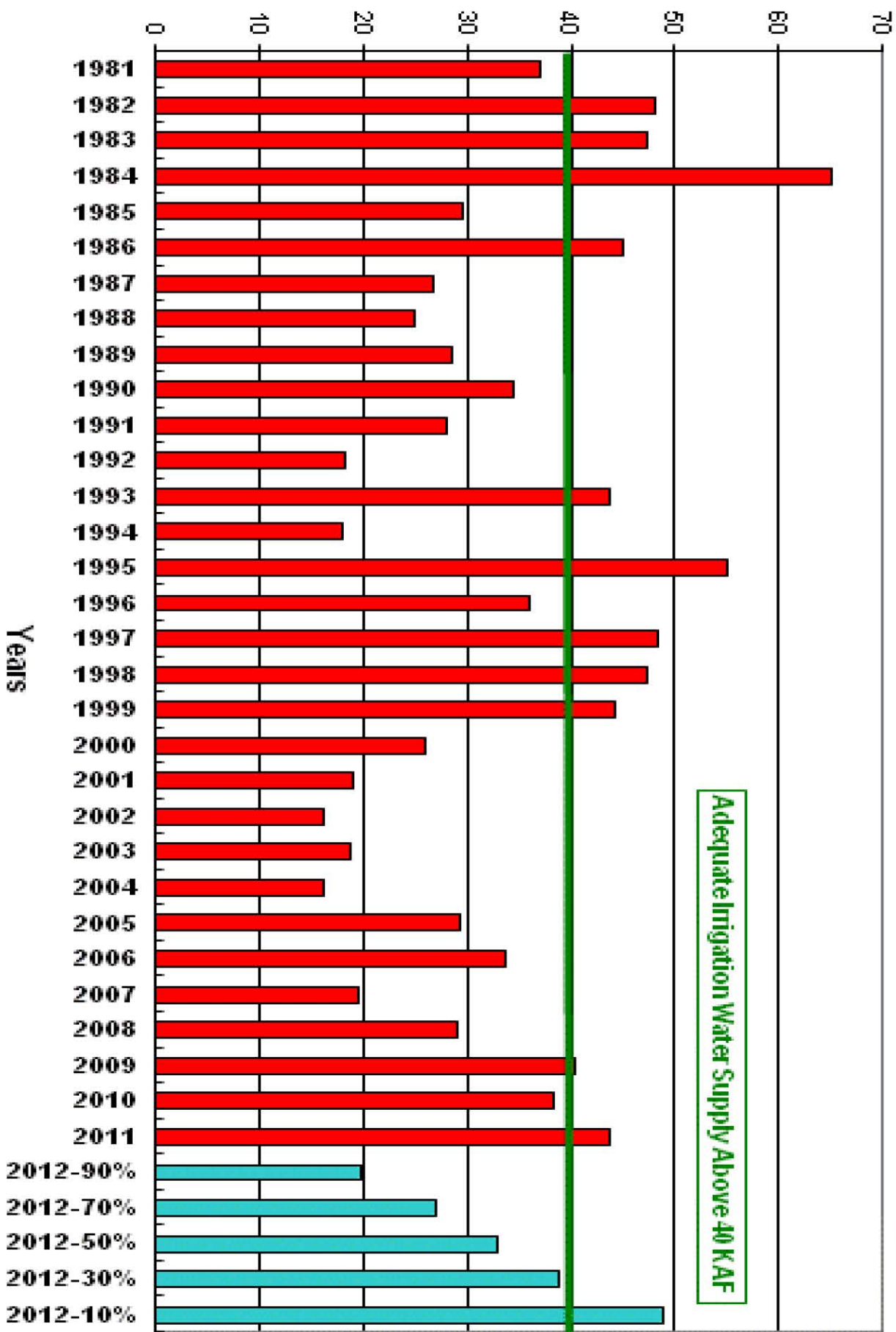
March 1 Surface Water Supply Index (SWSI) **Little Lost River below Wet Creek**

■ Streamflow Apr-Sep

1000 Acre-Feet

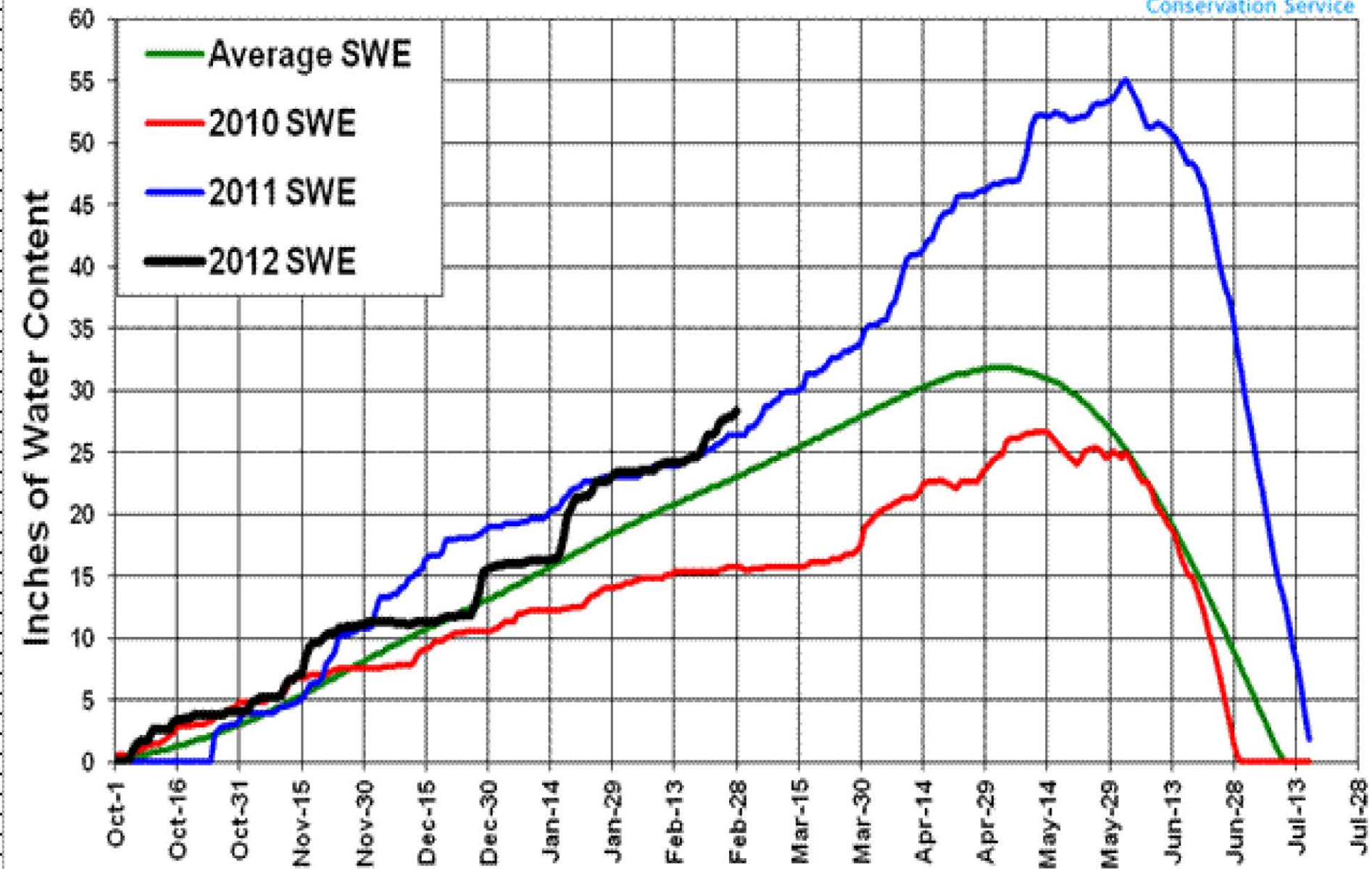
Adequate Irrigation Water Supply Above 40 KAF

Years



Two Ocean Plateau SNOTEL EI. 9240

Snow Water Equivalent

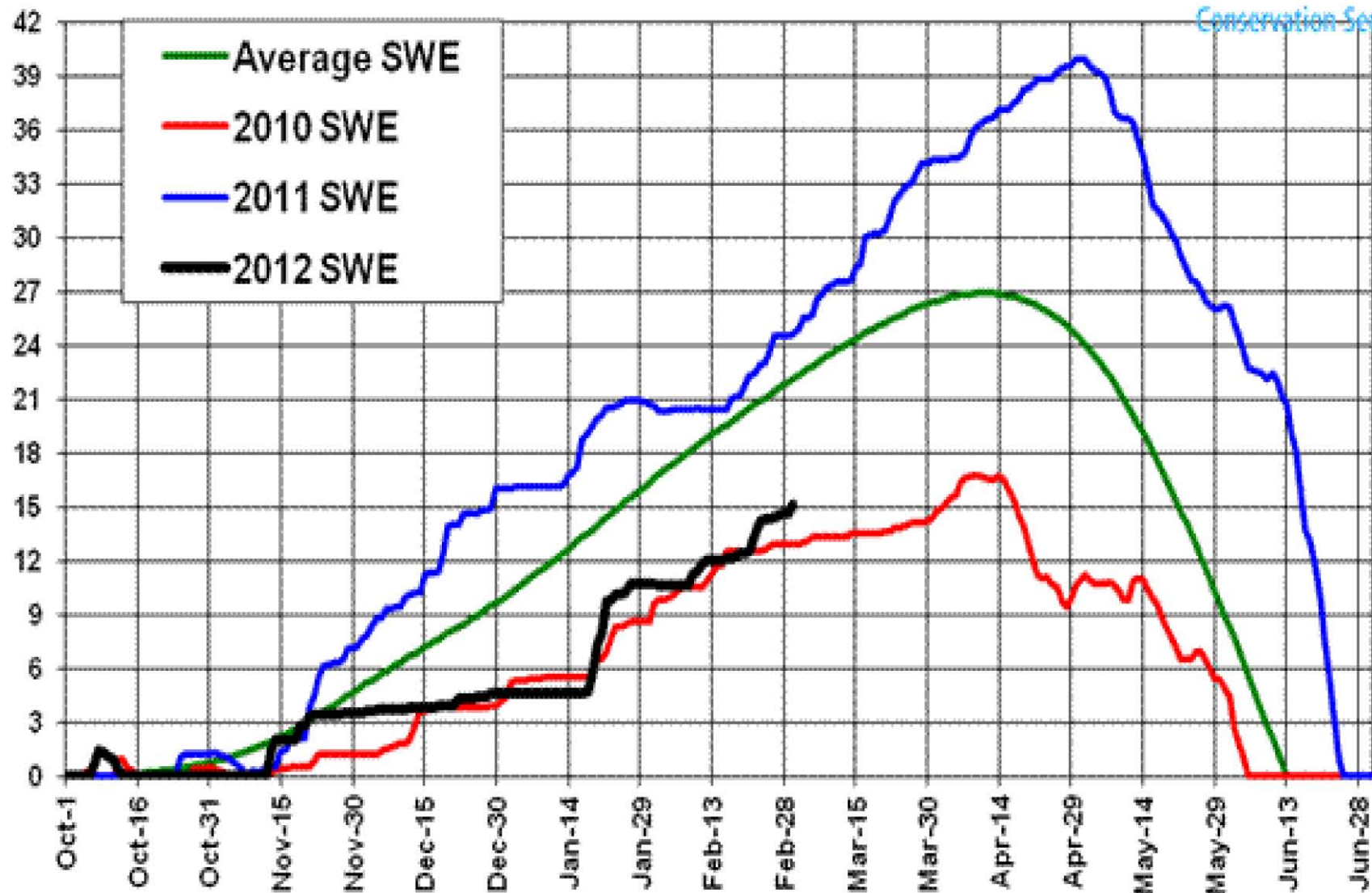


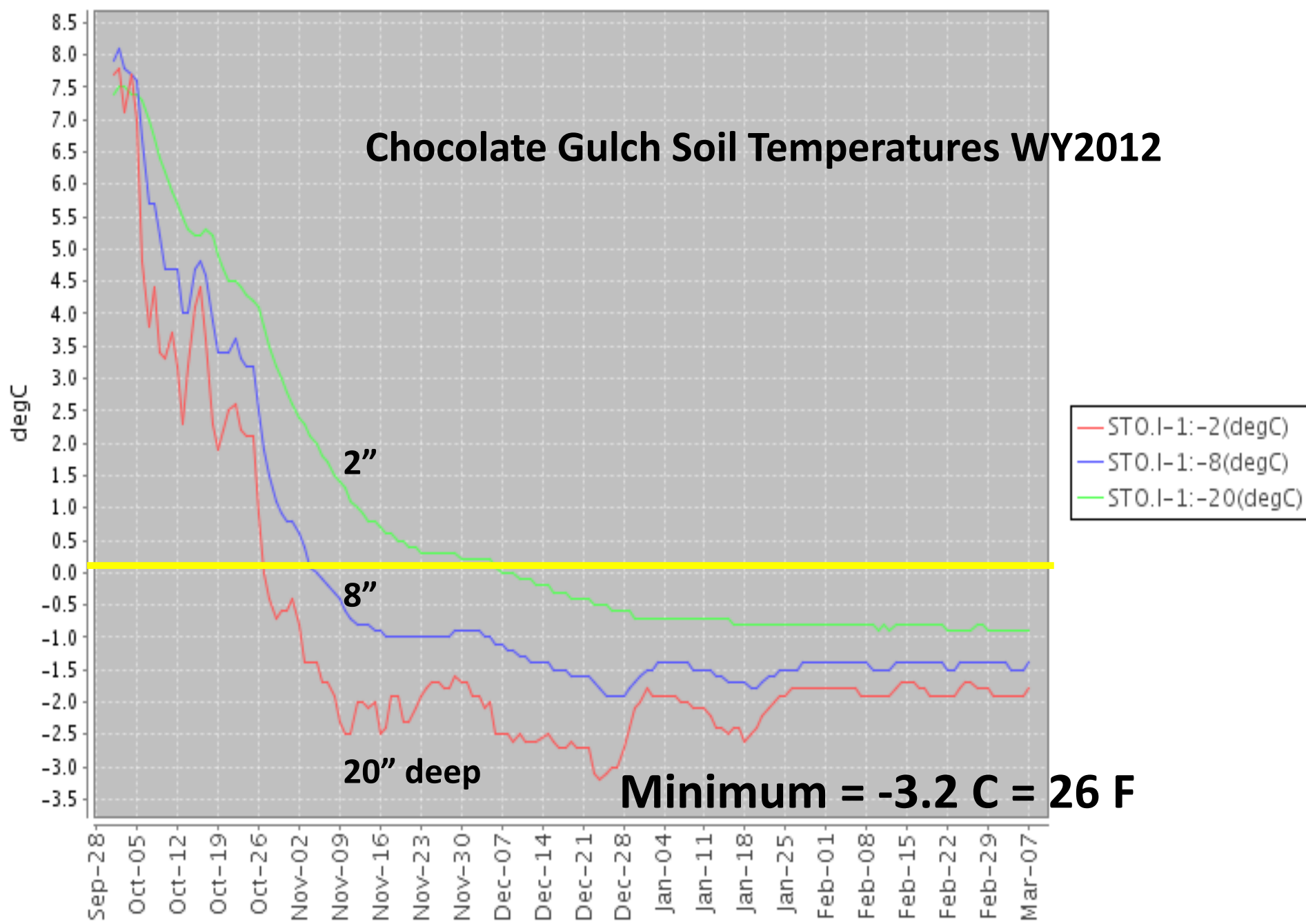
Emigrant Summit SNOTEL EI. 7390

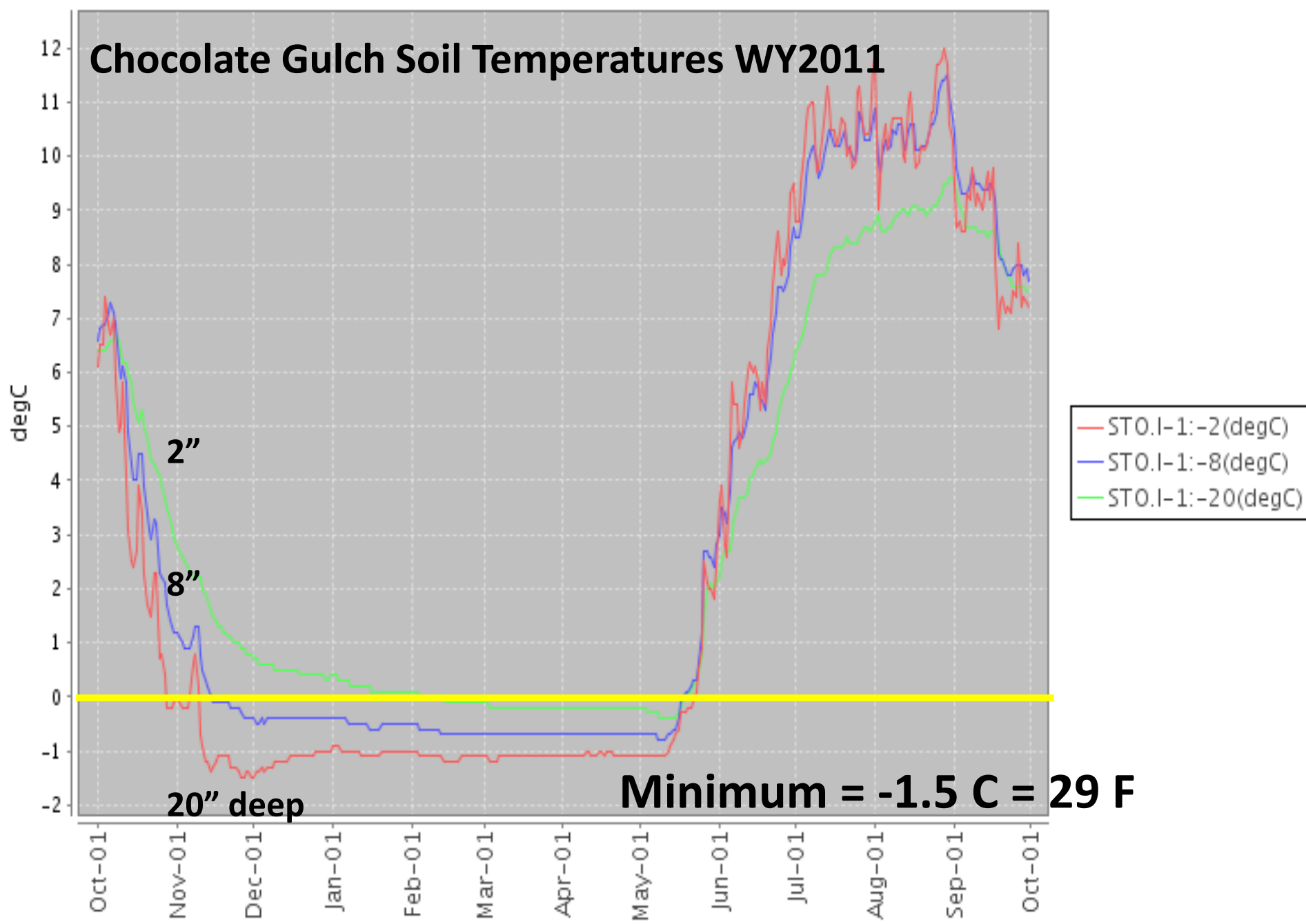
Snow Water Equivalent

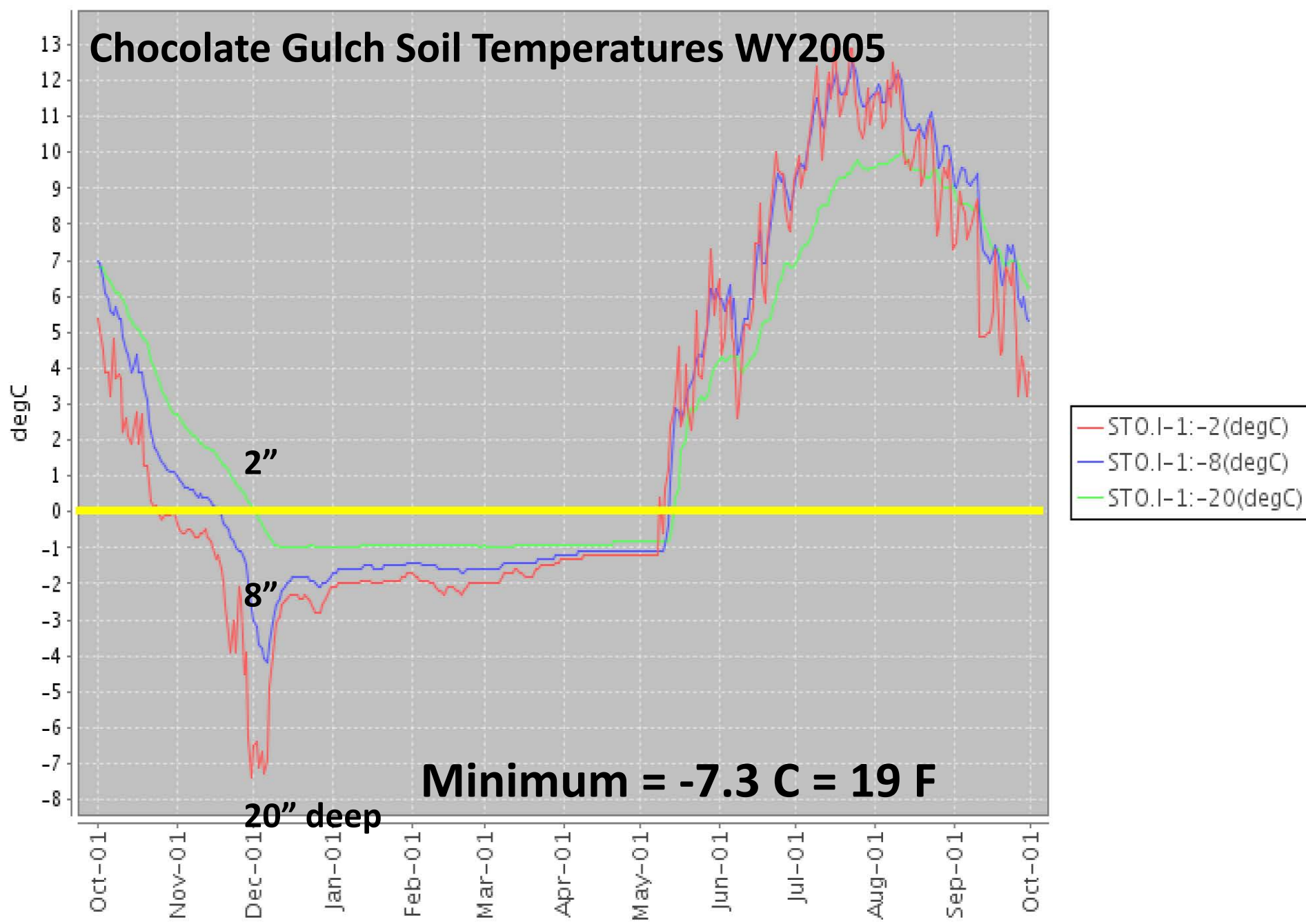


Inches of Water Content



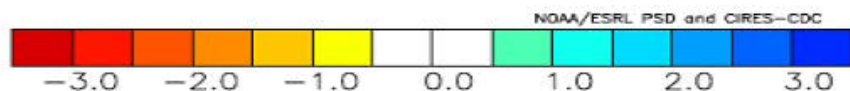
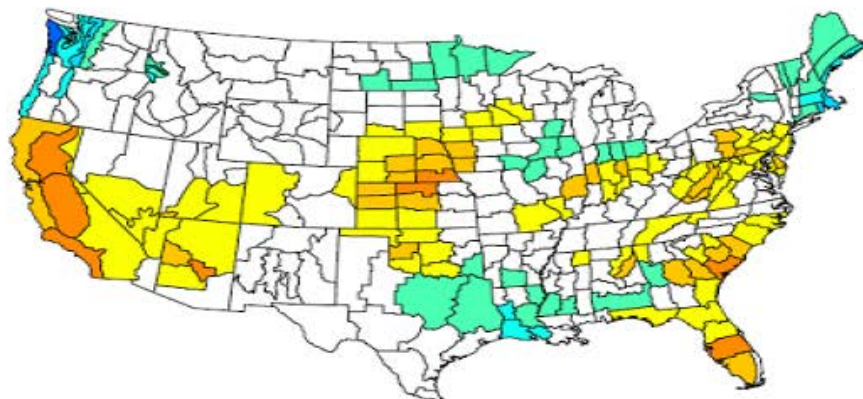




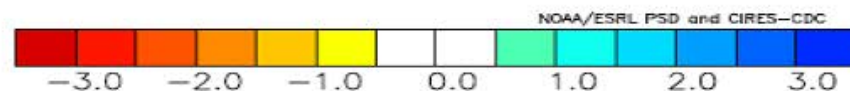
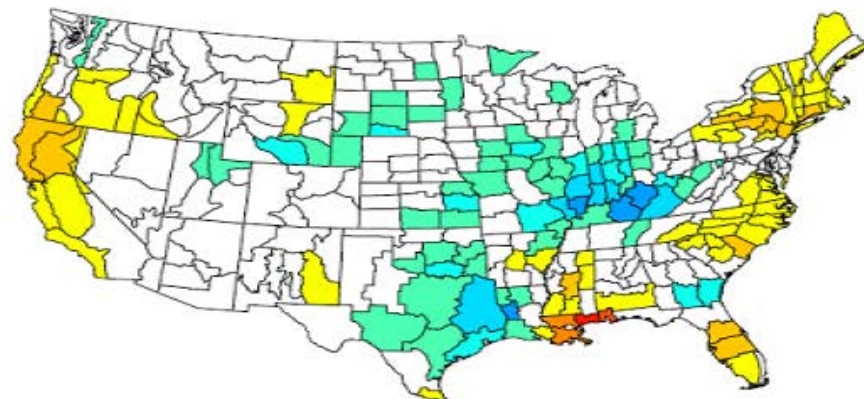


The [best analogs](#) years from Pete Parson's are now: 2009, 1972, and 1968. Here's what they reveal: Contact: ODF Meteorologist Pete Parsons at 503-945-7448 pparsons@odf.state.or.us
http://oregon.gov/ODA/NRD/weather.shtml#Weather_forecasts

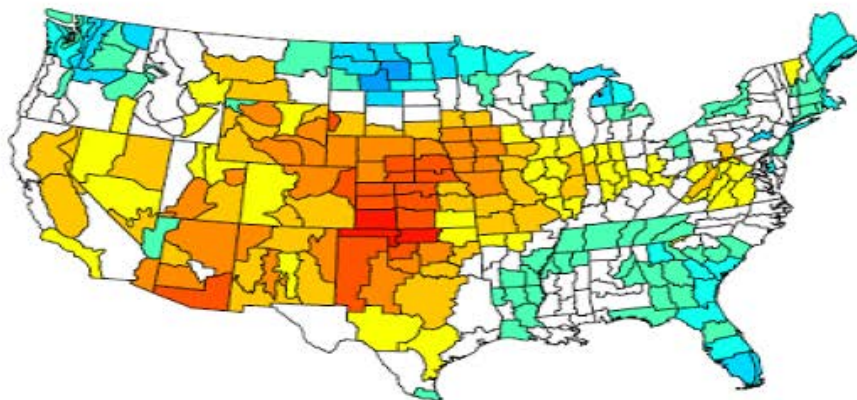
Composite Precipitation Anomalies (inches)
Mar 2009,1972,1968
Versus 1950–1995 Longterm Average



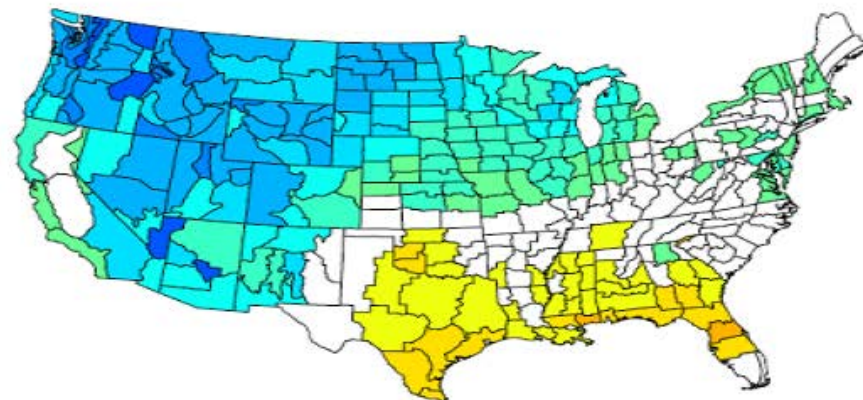
Composite Precipitation Anomalies (inches)
Apr 2009,1972,1968
Versus 1981–2010 Longterm Average



Composite Temperature Anomalies (F)
Mar 2009,1972,1968
Versus 1981–2010 Longterm Average

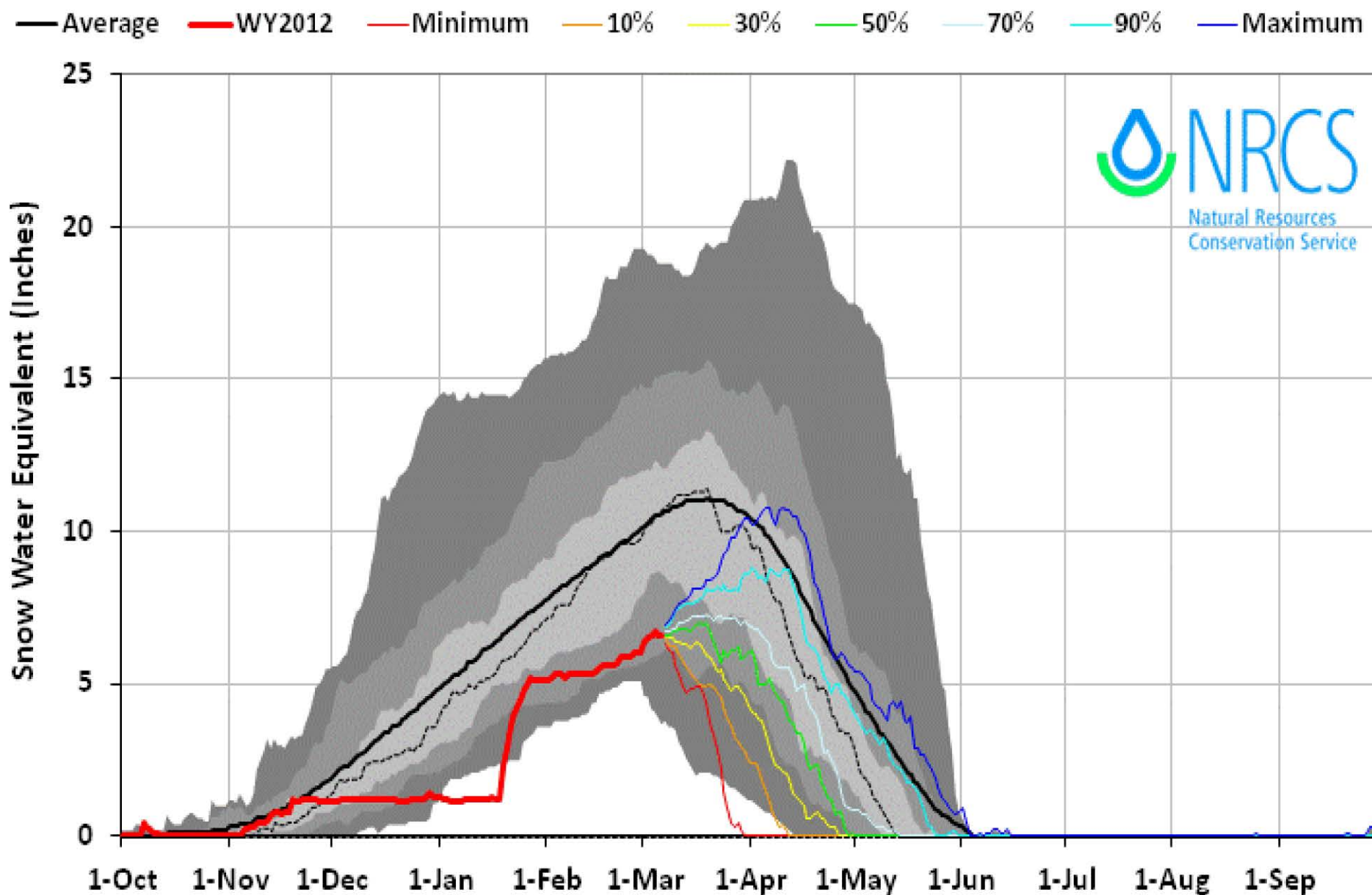


Composite Temperature Anomalies (F)
Apr 2009,1972,1968
Versus 1981–2010 Longterm Average



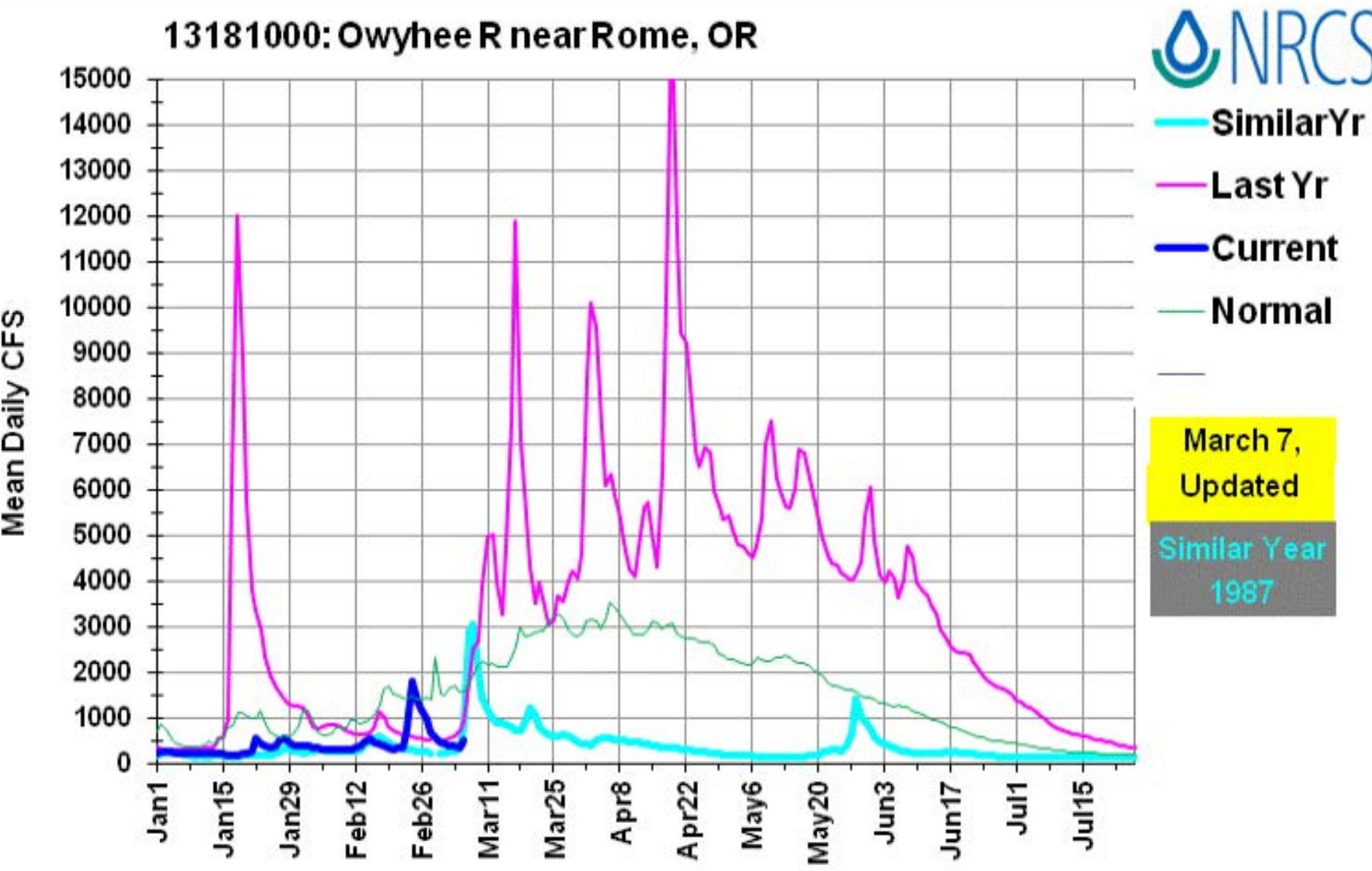
Owyhee Basin 2012 Snow Water with Non-Exceedence Projections (7 sites)

Based on Provisional SNOTEL data as of Mar 06, 2012



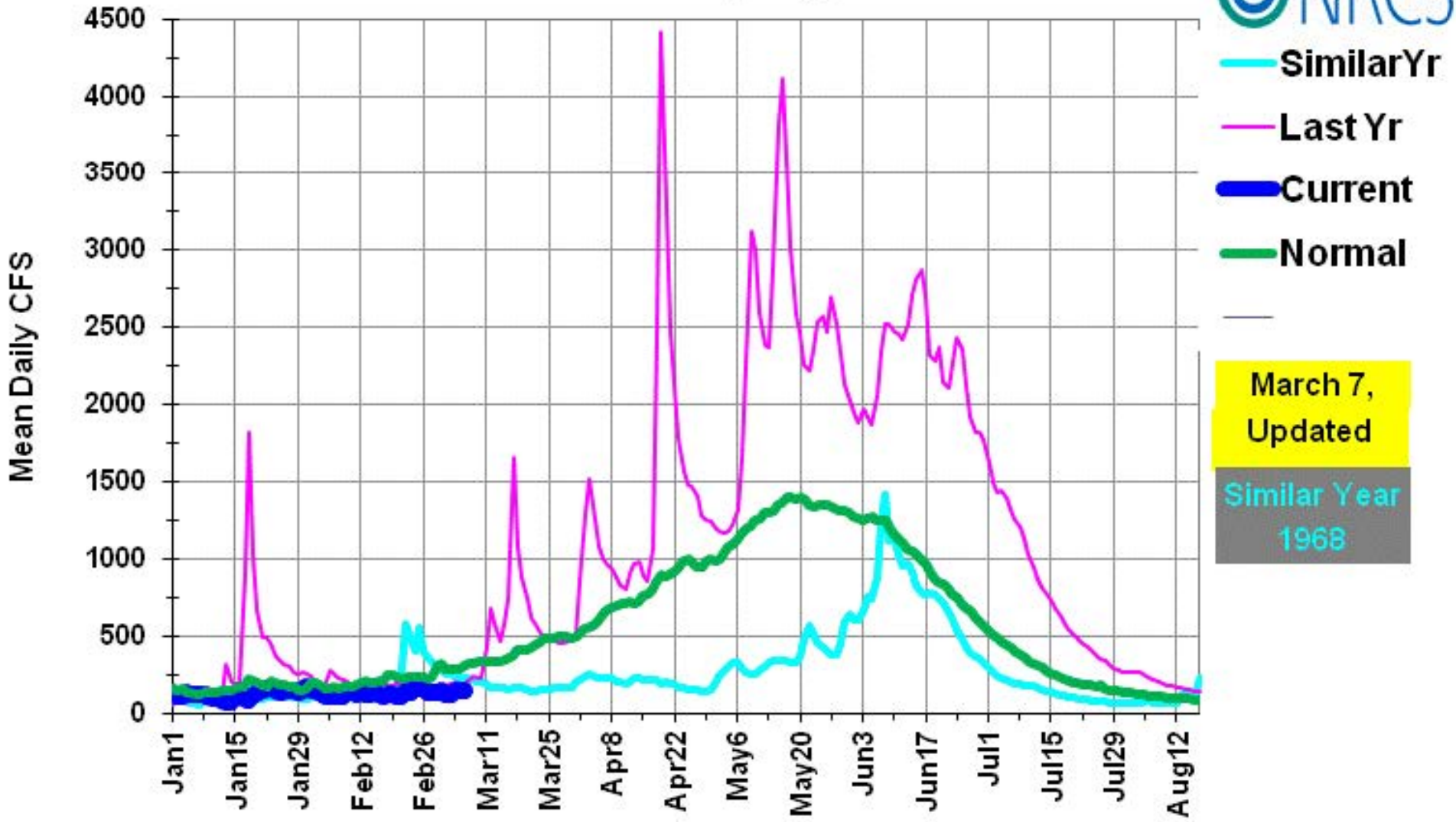
Owyhee River, March –July Runoff: 2012 Forecast 25% of Average

2011 Runoff 191% 1987 23%



Bruneau River March –July Runoff: 2012 Forecast 62% of Average
3 months with flow above 1000 cfs **2011 Runoff 191%** **1968 44%**

13168500: BruneauR near Hot Spring, ID



Measuring Creator Meadows SNOTEL Site NF Clearwater River Basin Feb 12, 2012

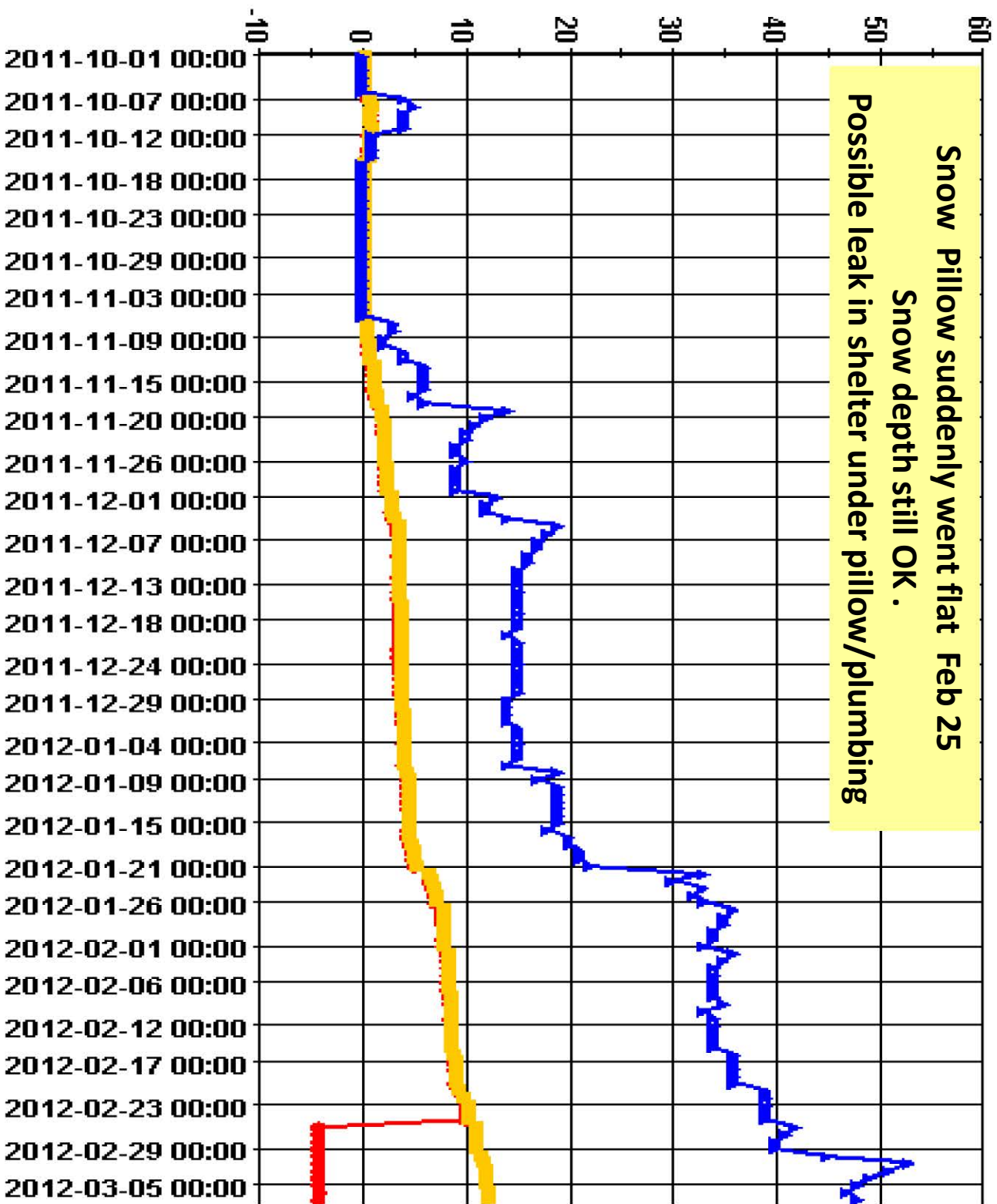


2012 Problems at SNOTEL Sites

Mountain Meadows – Clearwater- Salmon basin divide: tree fell on top of 5 feet of snow covering snow pillow. Used winterized chainsaws to remove trees before snow melts that may puncture pillow.

698-POLE CREEK R.S.

Snow Pillow suddenly went flat Feb 25
Snow depth still OK .
Possible leak in shelter under pillow/plumbing



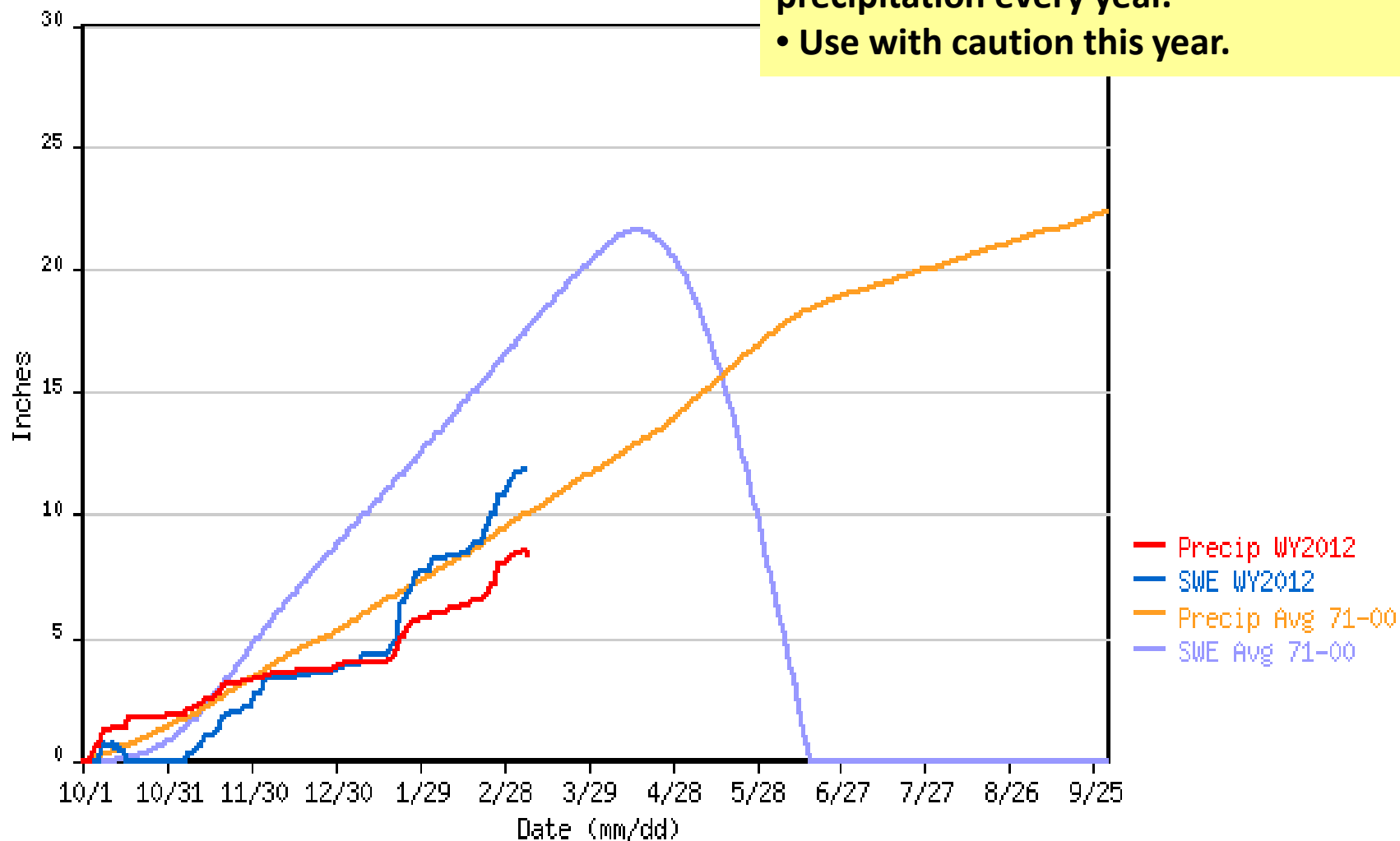
Non-Editable Data
● 698-WTEQ.1.1
■ Editable Data
■ 698-WTEQ.1.1
▲ 698-SNWD.1.1

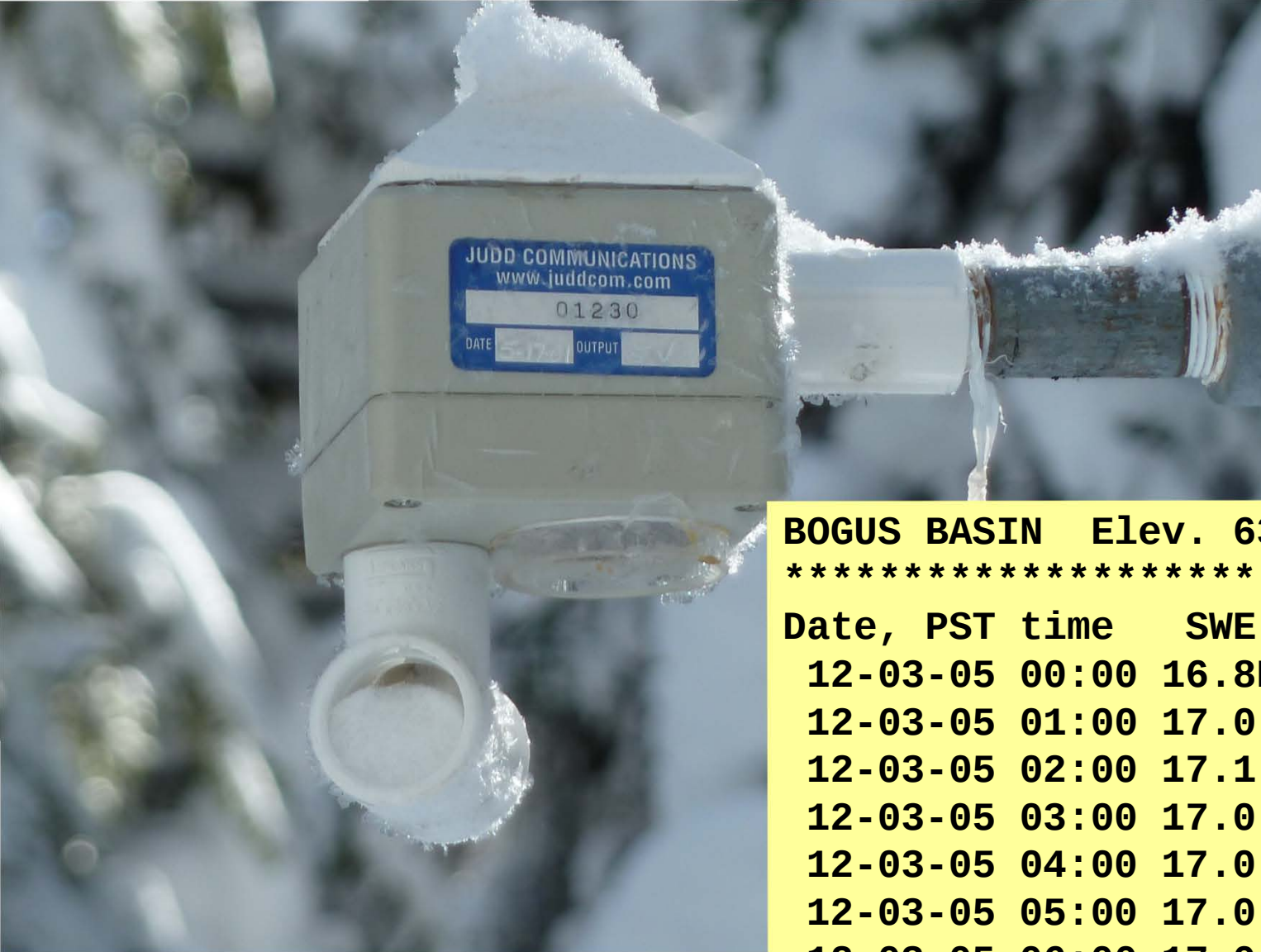
Pole Creek R.S. SNOTEL, Nevada

*** Provisional Data, Subject to 1

This site at 8,330 feet is a challenge to:

- Access and measure.
- Edit due to wind allowing and snow water values to exceed year to date precipitation every year.
- Use with caution this year.



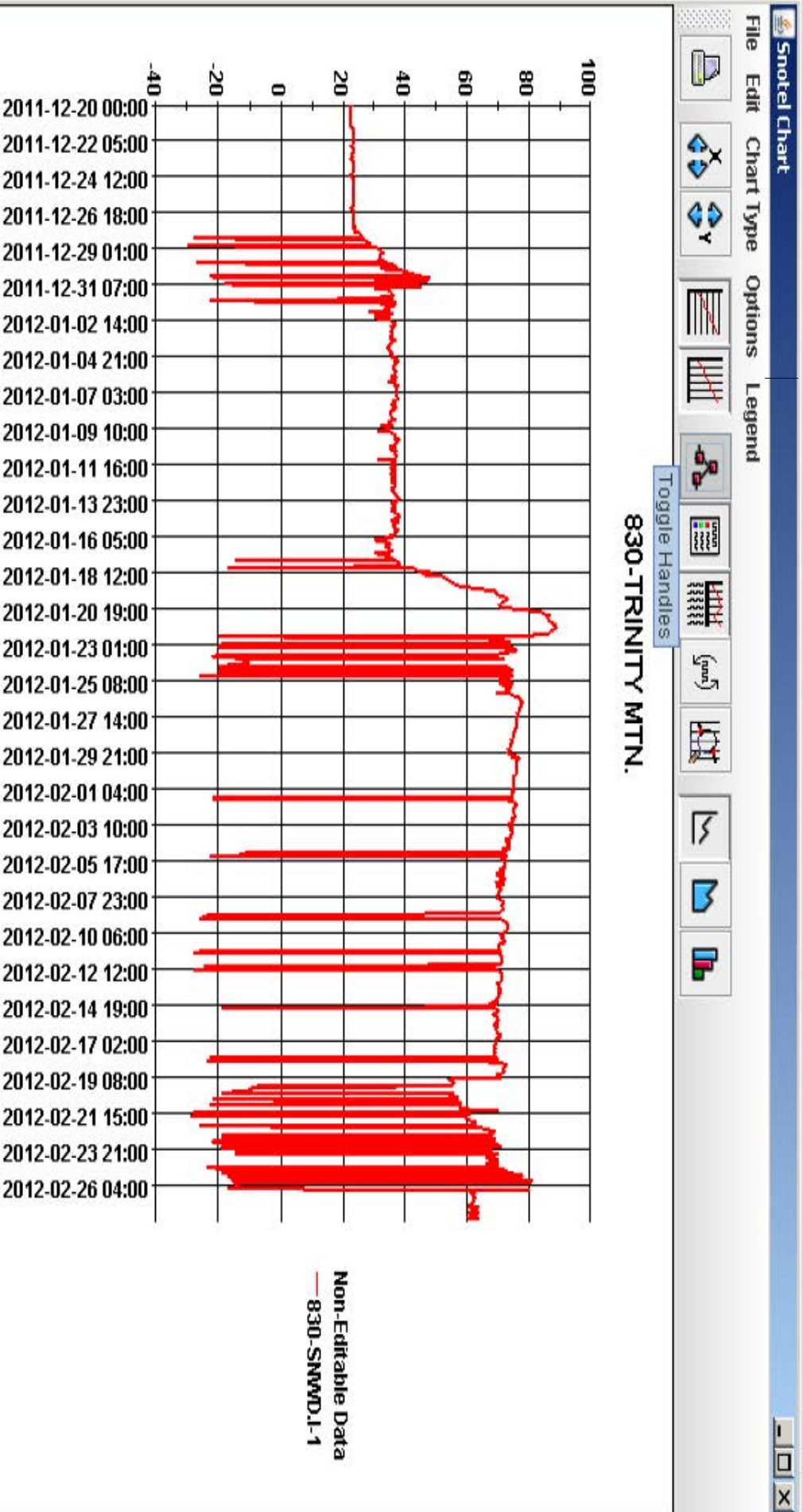


BOGUS BASIN Elev. 6340

Date, PST time	SWE	AIR	Depth
12-03-05 00:00	16.8E	2.9	51.0
12-03-05 01:00	17.0	2.3	52.0
12-03-05 02:00	17.1	1.5	122.0S
12-03-05 03:00	17.0	1.5	122.0S
12-03-05 04:00	17.0	2.0	122.0S
12-03-05 05:00	17.0	1.8	122.0S
12-03-05 06:00	17.0	0.9	121.0S
12-03-05 07:00	17.0	1.1	51.0
12-03-05 08:00	17.0	1.9	51.0
12-03-05 09:00	16.9	8.0	-144.0S
12-03-05 10:00	17.0	6.3	1.0

Snow Depth Sensors

- Four “shifts” downward. They occurred on 12/31, 1/22, 2/19, 2/26.
- Each time the depth decreased ~10”. Looking at date/time of each shift, shows a pattern, with each occurring on Sundays around lunch, the weekend after a good snowfall.
- Theory is snowmobilers are riding across the area under the depth sensor and packing the snow down.
- On 2/19, removed 0.7 of SWE by possibly sliding/spinning their sleds/tracks on pillow.





830-TRINITY MTN.



Non-Editable Data
— 830-WTEQ.1-1

An aerial photograph showing a river winding through a mountainous landscape. The river is dark and contrasts with the surrounding terrain. The mountains are covered in dense evergreen forests, with patches of snow visible on the upper slopes and ridges. The lighting suggests a bright day, with shadows cast across the forested valleys.

Lochsa River
Looking west-southwest
towards Selway confluence
Feb 12, 2012

Questions - Comments