

Welcome to the IWA

River Predictions and Safety Skills Night

Mar, 2nd :: 7:00 PM :: @ Cascade Outfitters

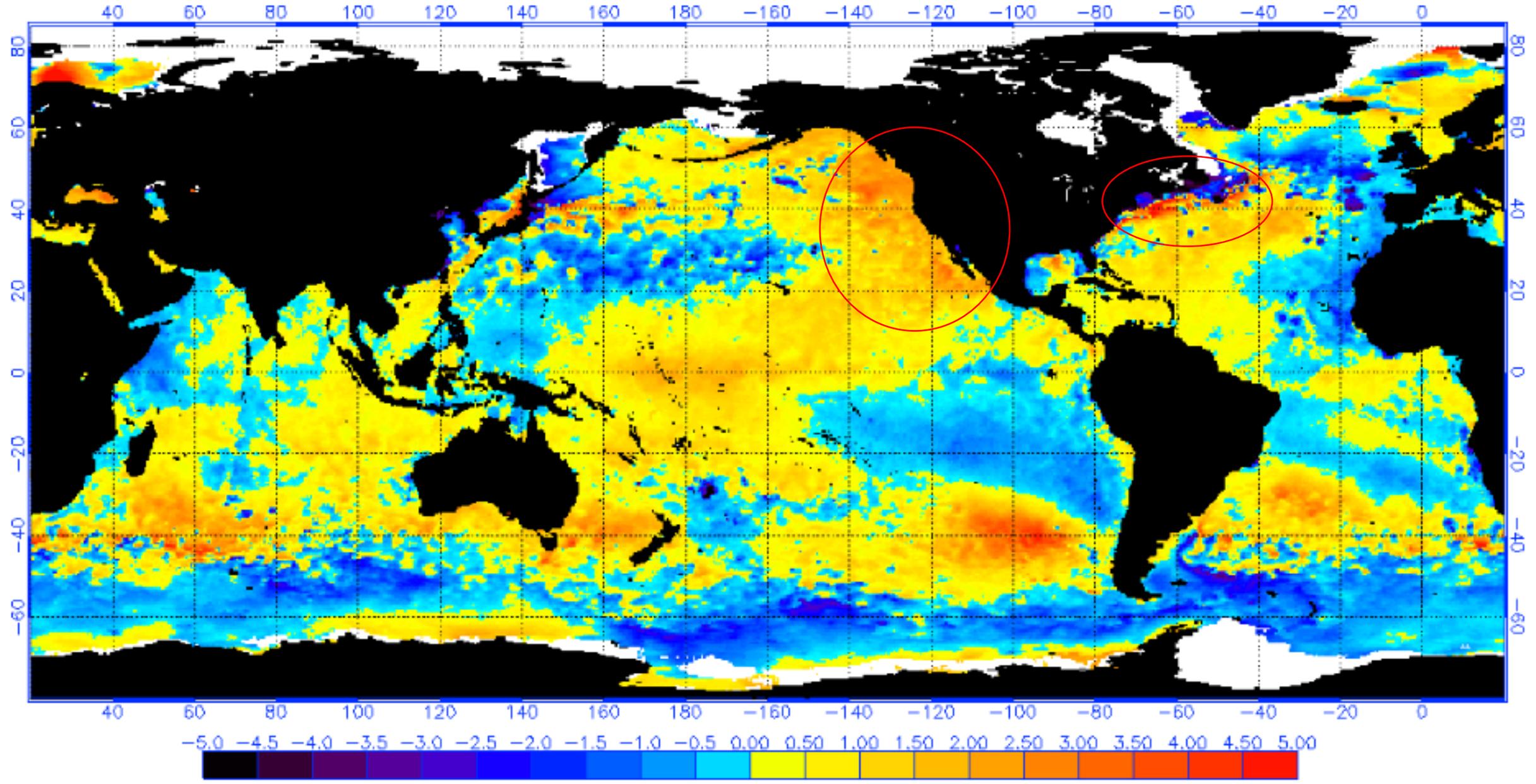
[Details](#) :: [Map](#) :: [More Events](#)

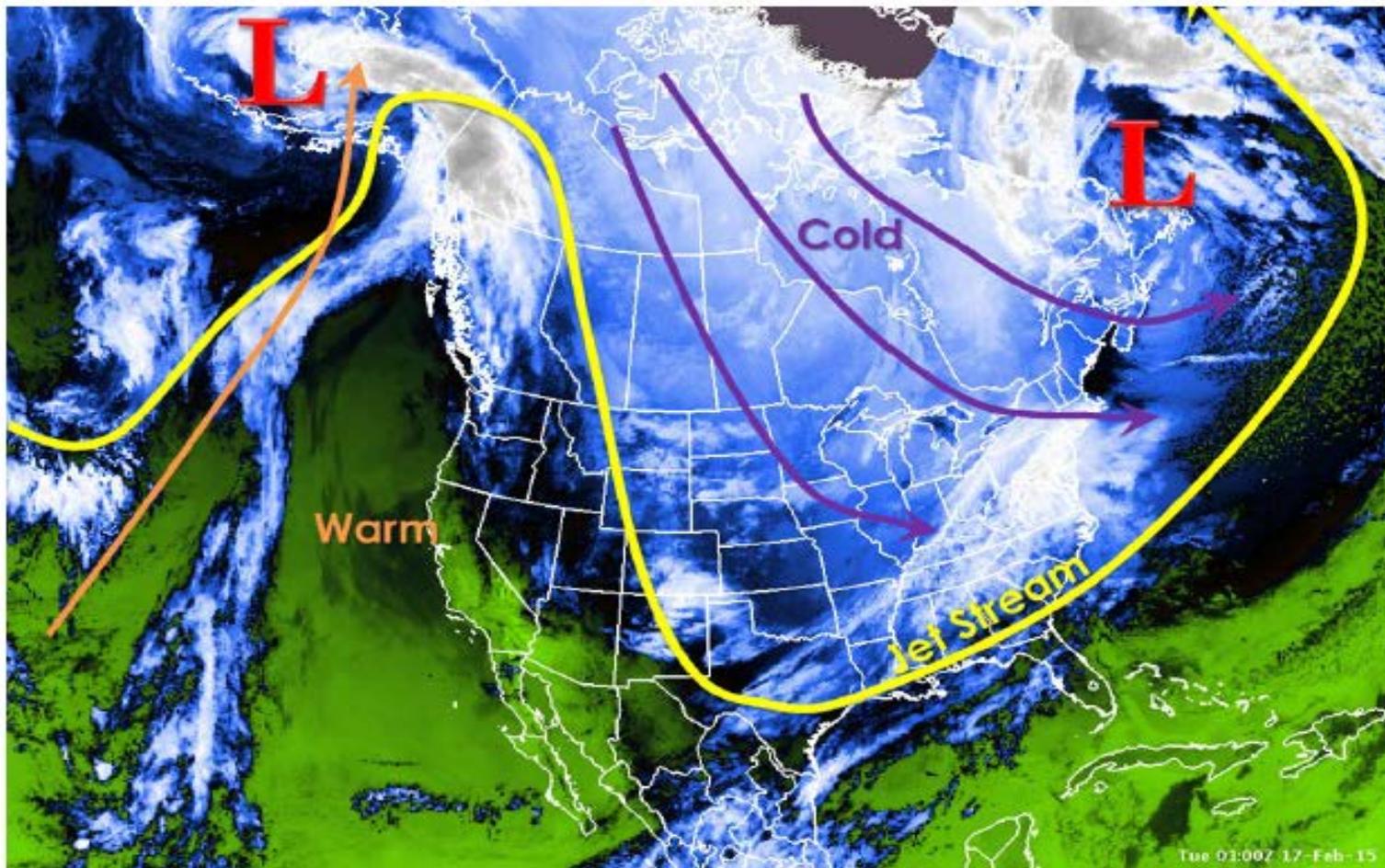
Mar

02



(white regions indicate sea-ice)





NWS Example of weather pattern for 2015 & most of 2014

The ridge has kept our area unseasonably warm and relatively dry through early March. A few Pacific weather systems were able to punch through, but precipitation totals for January through the first part of March were less than 50% of normal across most of southwest Idaho and southeast Oregon, and less than 25% of normal in a few areas.

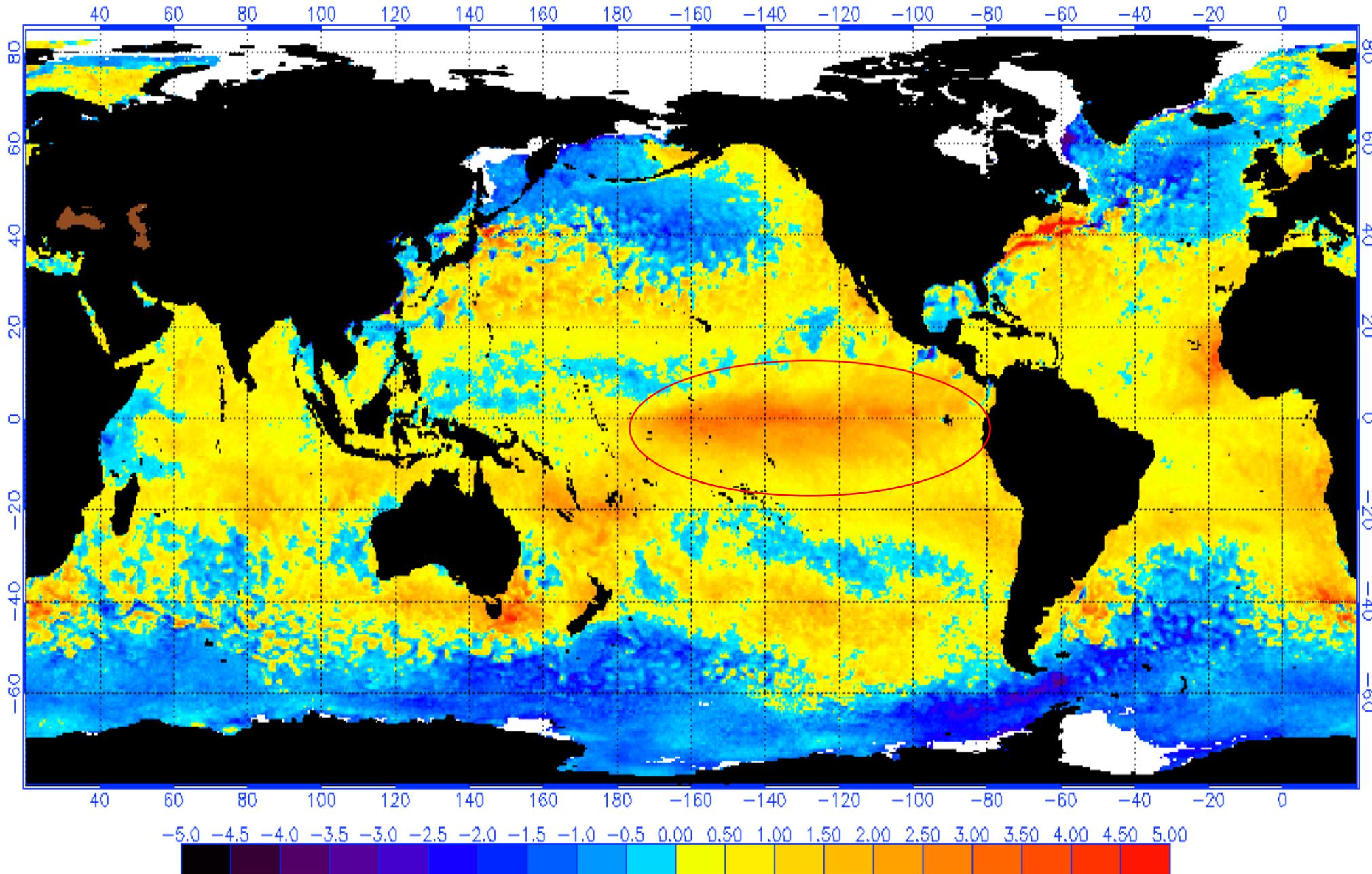
NOAA/NESDIS 50 KM GLOBAL ANALYSIS: SST Anomaly (degrees C), 2/11/2016

(white regions indicate sea-ice)

February 11, 2016

Winter 2015-16

ENSO Ocean
Conditions:
– Strong El Nino
Neutral



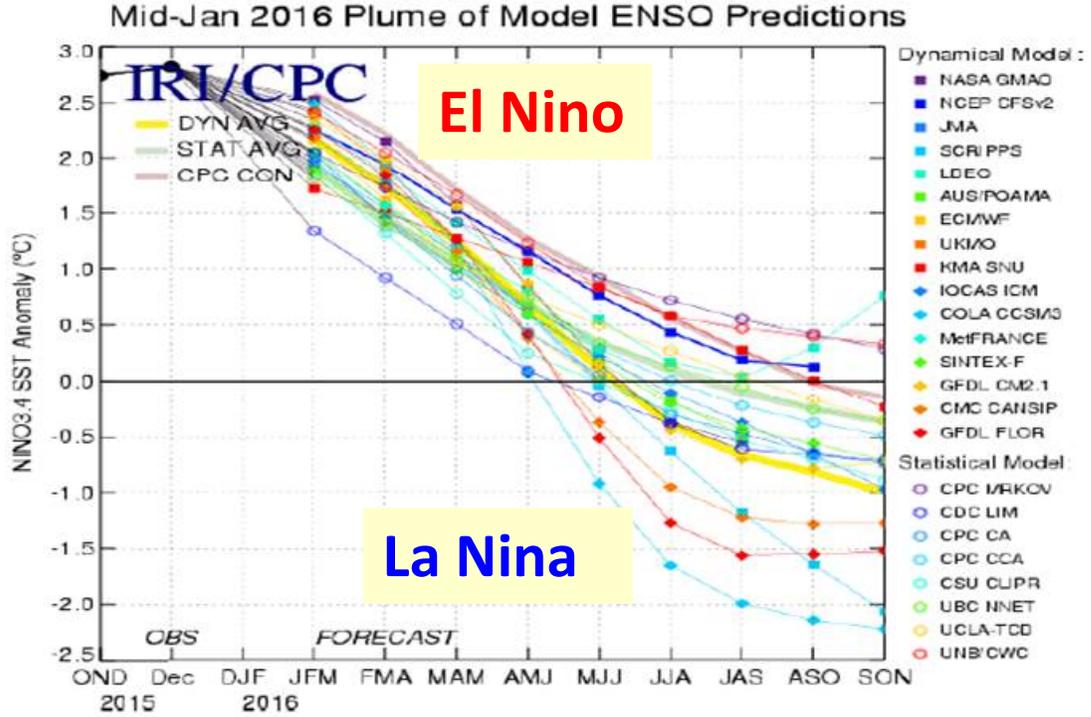
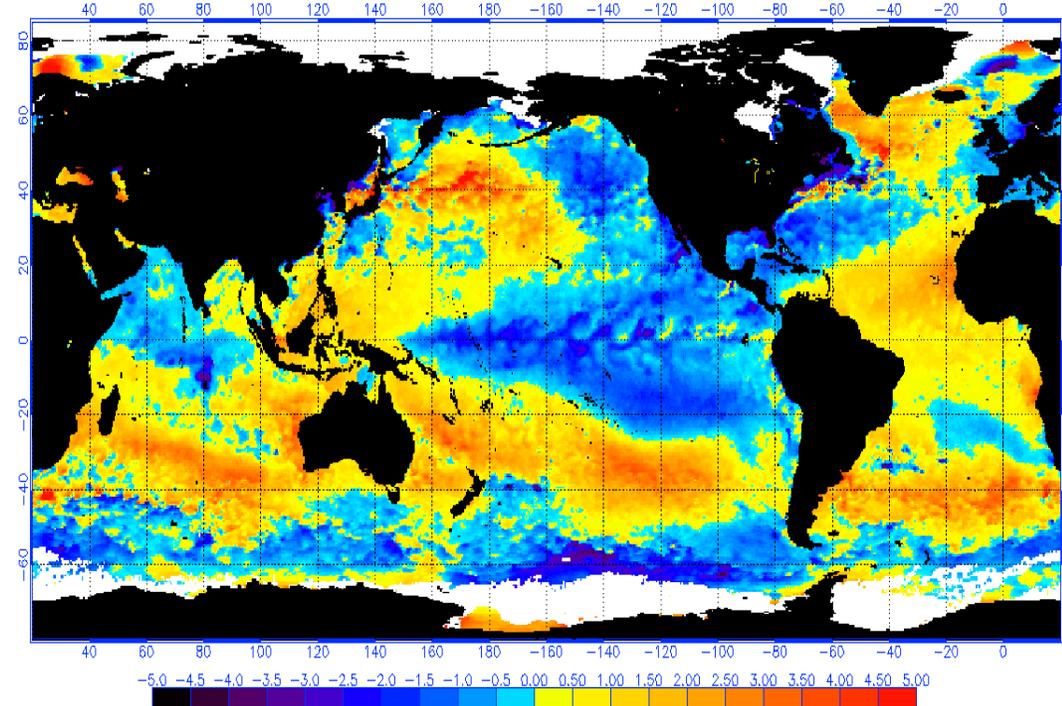


Figure 6. Forecasts of sea surface temperature (SST) anomalies for the Niño 3.4 region (5°N-5°S, 120°W-170°W). Figure updated 19 January 2016.

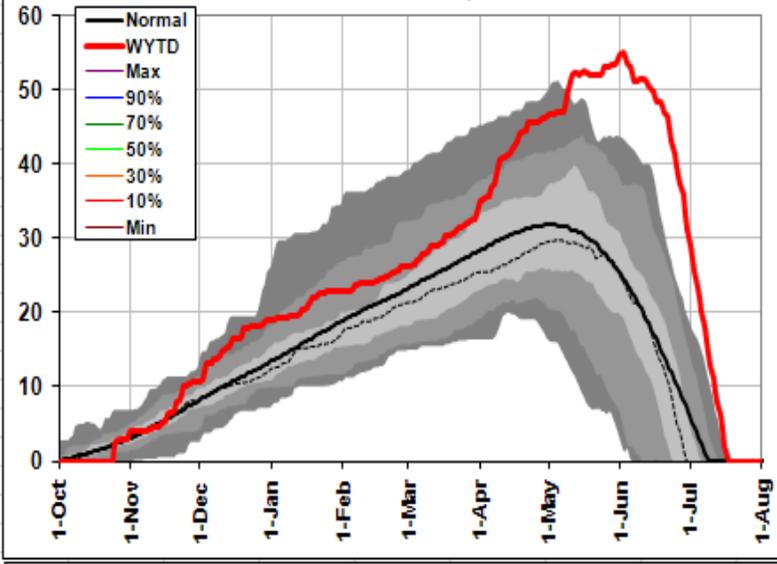
Winter 2010 - 2011

Sea Surface Temperatures Cool PDO & Strongest La Nina since 1974

NOAA/NESDIS 50 KM GLOBAL ANALYSIS: SST Anomaly (degrees C), 1/3/2011
(white regions indicate sea-ice)



Snow Water Equivalent



2011: Snow Water Equivalent at Two Ocean Plateau SNOTEL Site Yellowstone N.P. 9,240 feet

Check the weather before you go...



MF Salmon River basically froze overnight

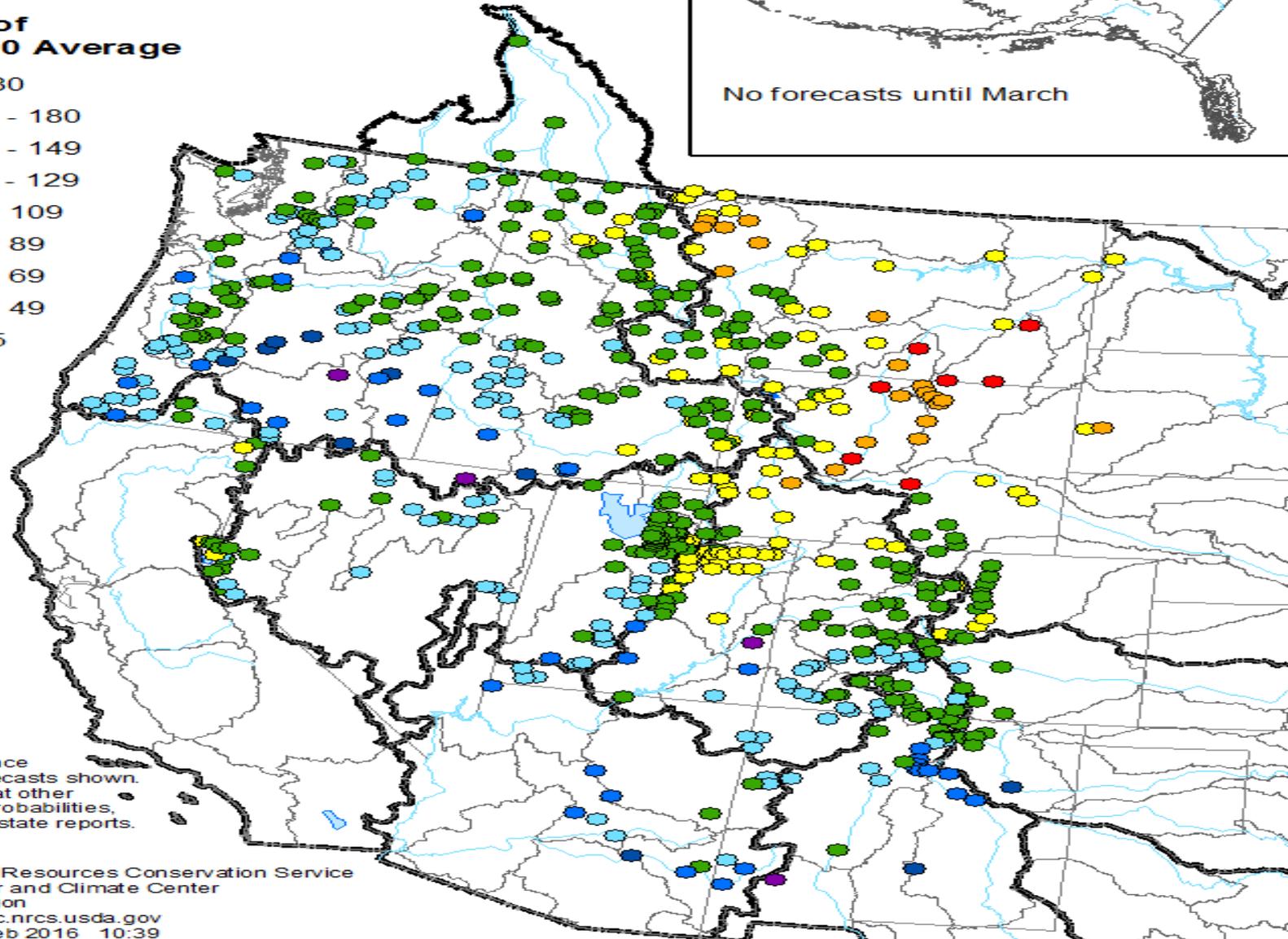
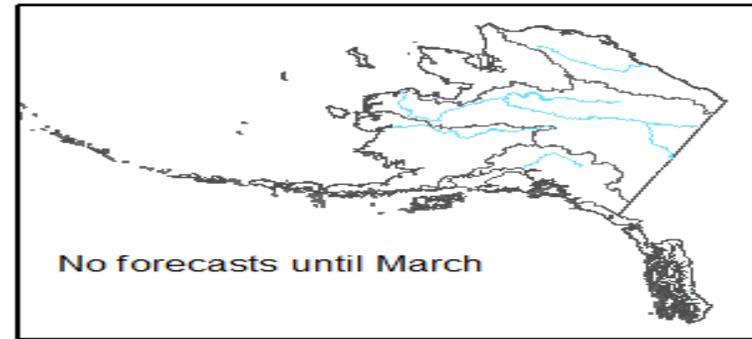
- **Nov 2014 Arctic Cold Spell suddenly spilled into Idaho from Montana**
- **Boise went from 50s F to single digits in a few days**



Spring and Summer Streamflow Forecasts as of February 1, 2016

Percent of
1981-2010 Average

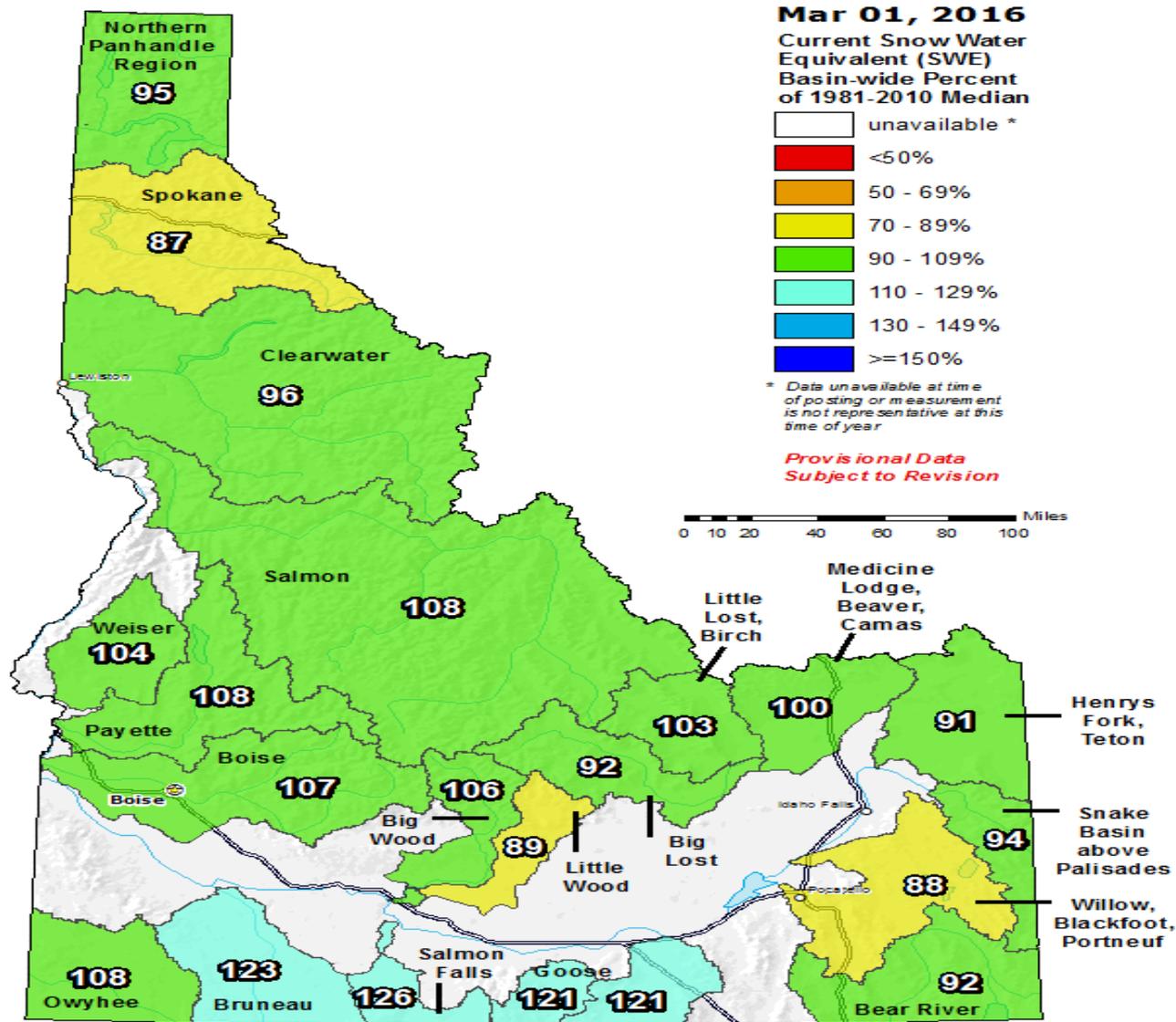
- > 180
- 150 - 180
- 130 - 149
- 110 - 129
- 90 - 109
- 70 - 89
- 50 - 69
- 25 - 49
- < 25



50% exceedance
probability forecasts shown.
For forecasts at other
exceedance probabilities,
see individual state reports.

Prepared by:
USDA Natural Resources Conservation Service
National Water and Climate Center
Portland, Oregon
<http://www.wcc.nrcs.usda.gov>
Created: 4 Feb 2016 10:39

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

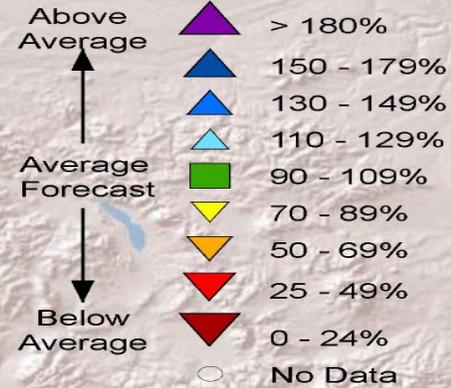


The snow water equivalent percent of normal represents the current snow water equivalent found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

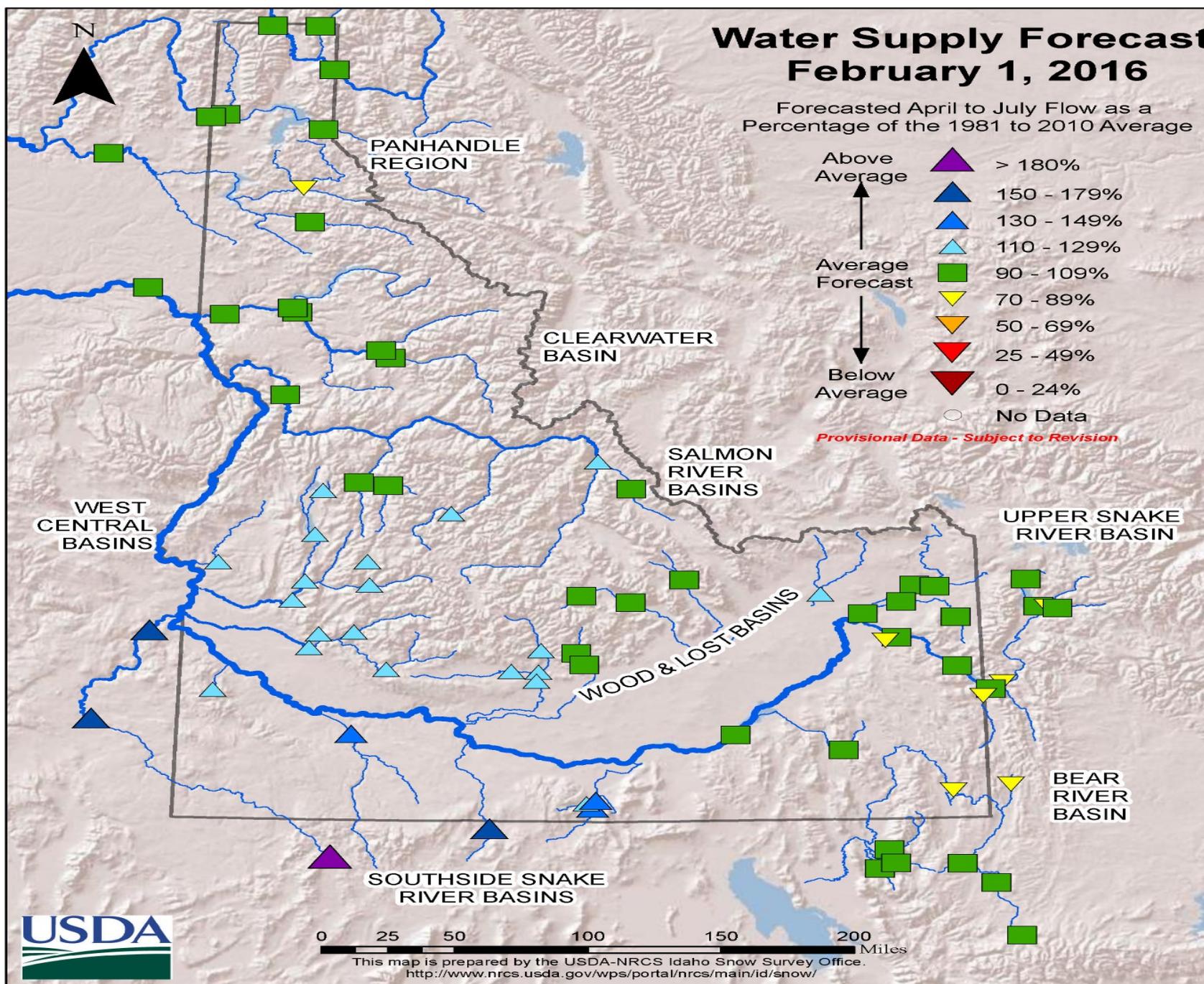
Prepared by:
 USDA/NRCS National Water and Climate Center
 Portland, Oregon
<http://www.wcc.nrcs.usda.gov>

Water Supply Forecast February 1, 2016

Forecasted April to July Flow as a Percentage of the 1981 to 2010 Average



Provisional Data - Subject to Revision

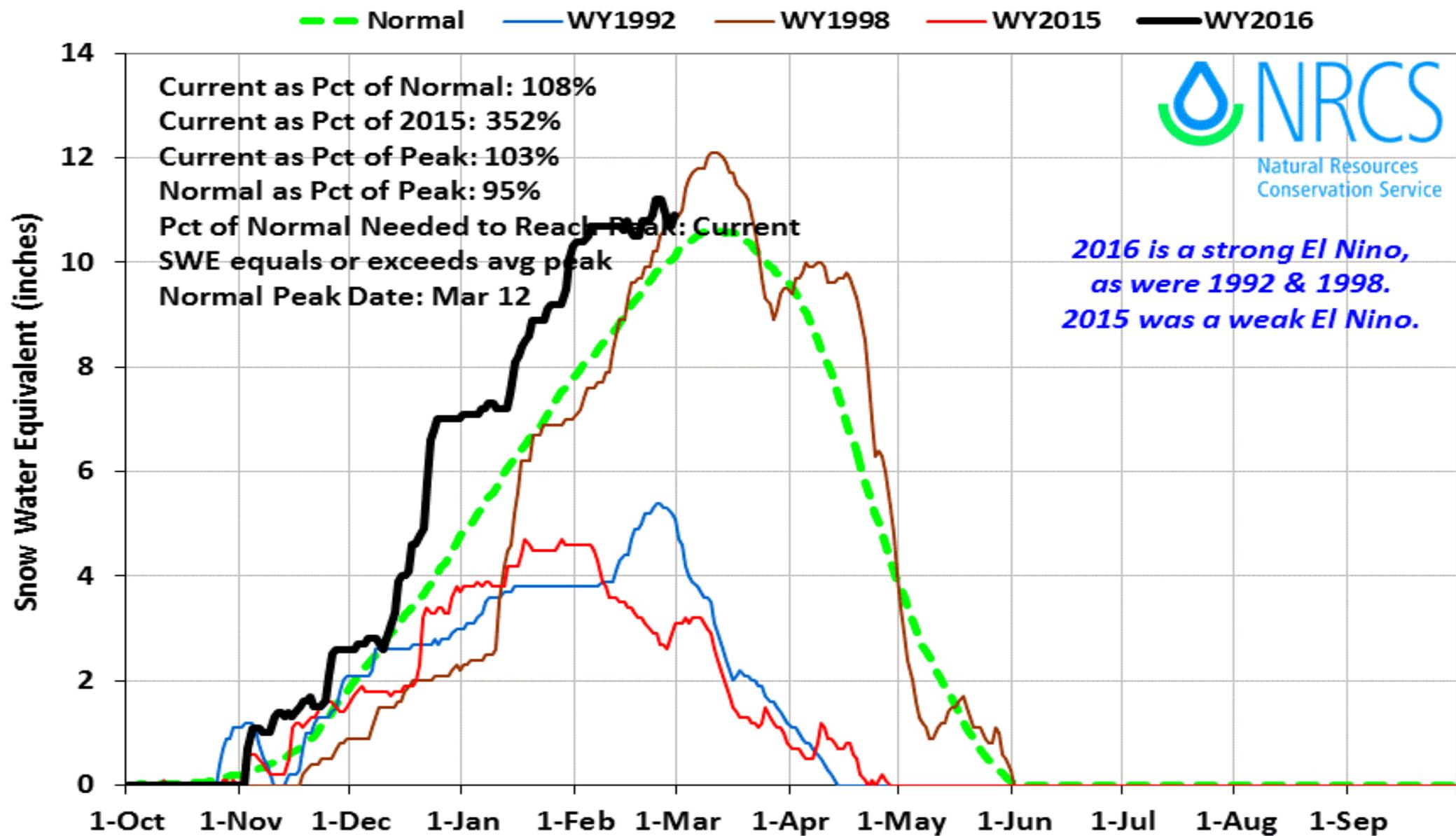


0 25 50 100 150 200 Miles

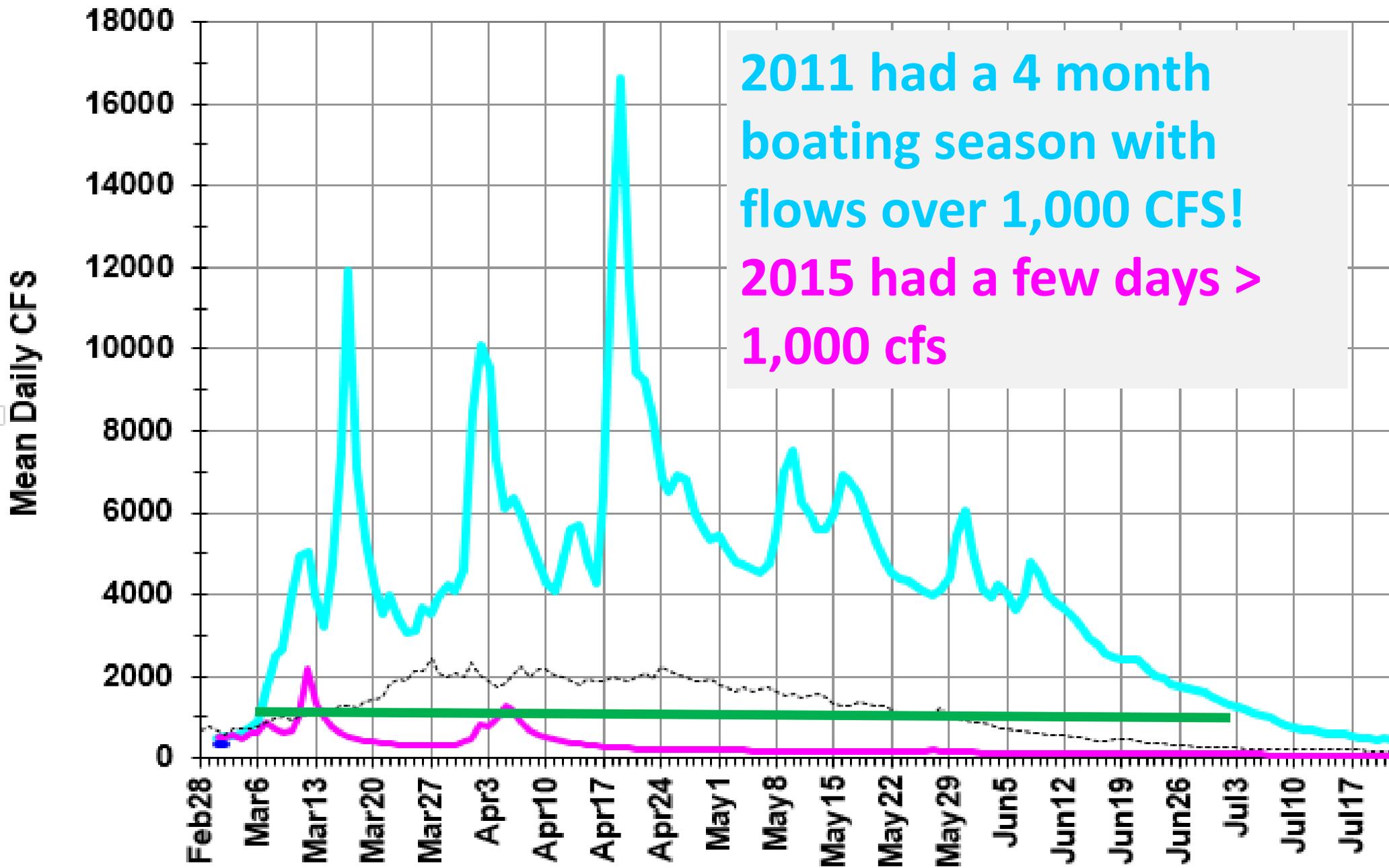
This map is prepared by the USDA-NRCS Idaho Snow Survey Office.
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/id/snow/>

Owyhee Basin 2016 Snowpack Comparison Graph (7 sites)

Based on Provisional SNOTEL data as of Feb 28, 2016



13181000: Owyhee R near Rome, OR



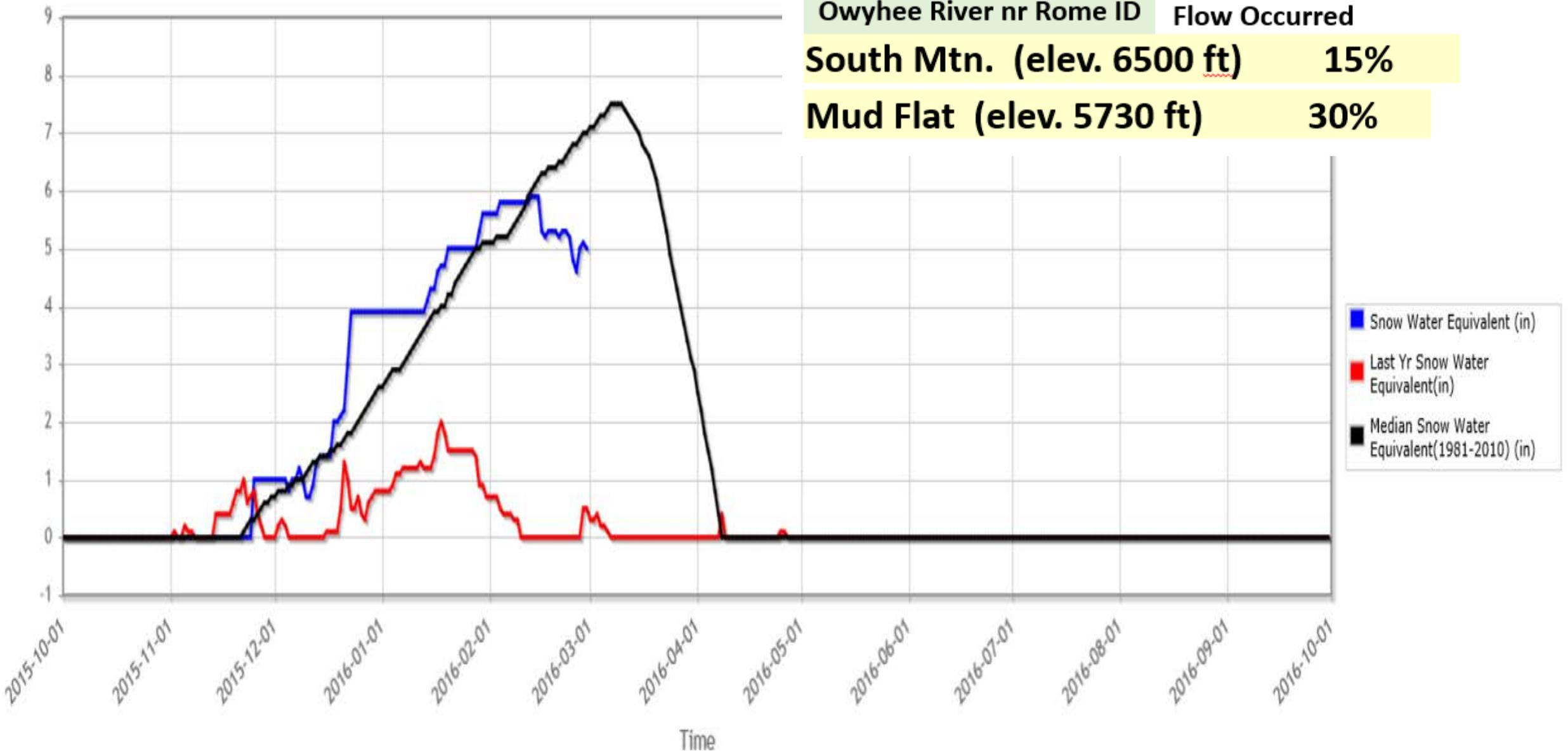
- 10-25-75-90
- Norm75
- Norm25
- Norm10
- Estimated
- SimilarYr
- Last Yr
- Projected
- Current
- Median
- Normal
- Max-Min

3-Mar-15
Updated
Similar Year
2011

Mud Flat (654) Idaho SNOTEL Site - 5730 ft

Average Percent of Snow Water Melted at the SNOTEL Site When Peak Flow Occurred

Owyhee River nr Rome ID	
South Mtn. (elev. 6500 ft)	15%
Mud Flat (elev. 5730 ft)	30%



- Snow Water Equivalent (in)
- Last Yr Snow Water Equivalent (in)
- Median Snow Water Equivalent (1981-2010) (in)

South Mtn. (774) Idaho SNOTEL Site - 6500 ft

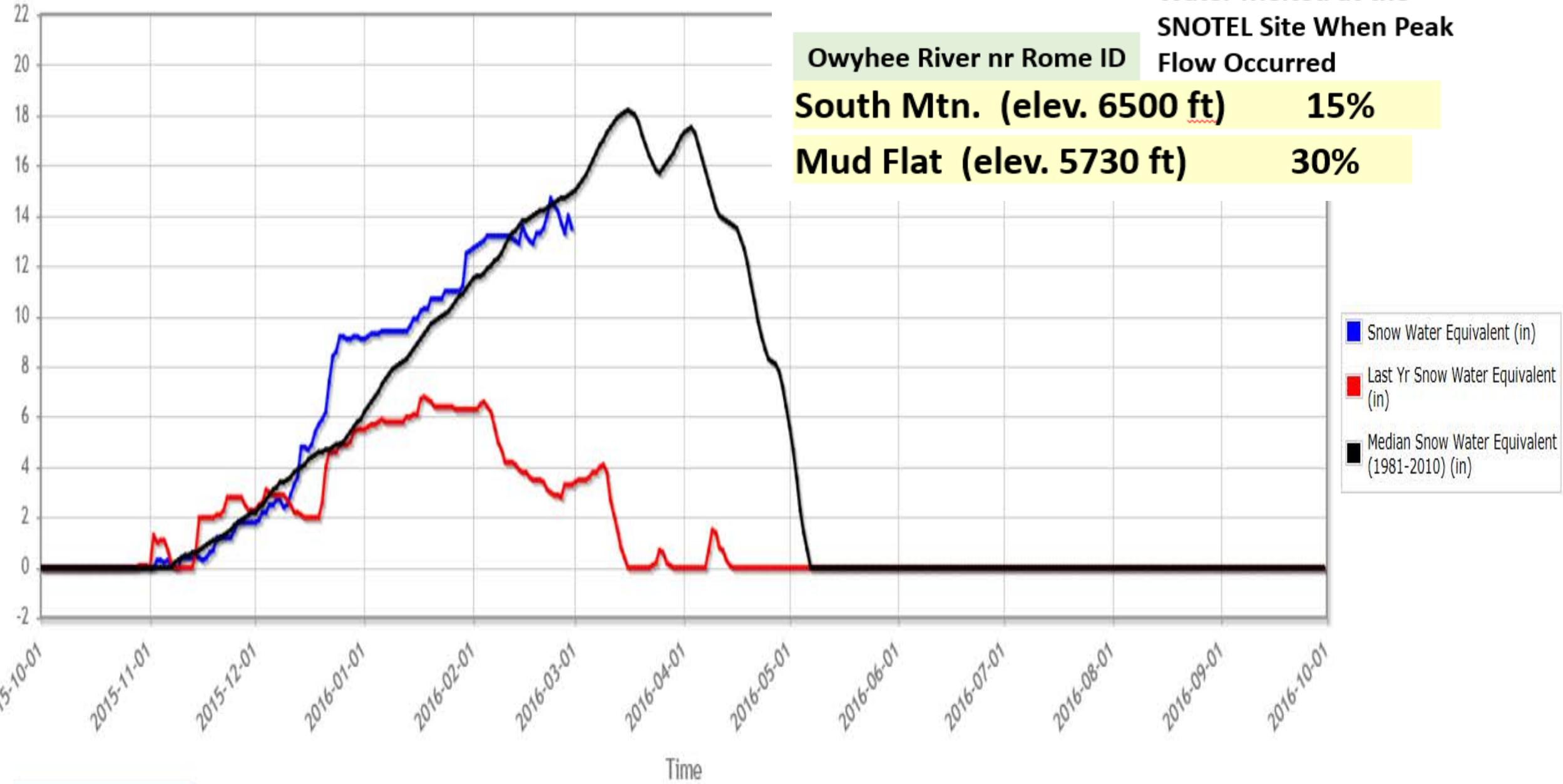
Chart Help

Average Percent of Snow Water Melted at the SNOTEL Site When Peak Flow Occurred

Owyhee River nr Rome ID

South Mtn. (elev. 6500 ft) 15%

Mud Flat (elev. 5730 ft) 30%

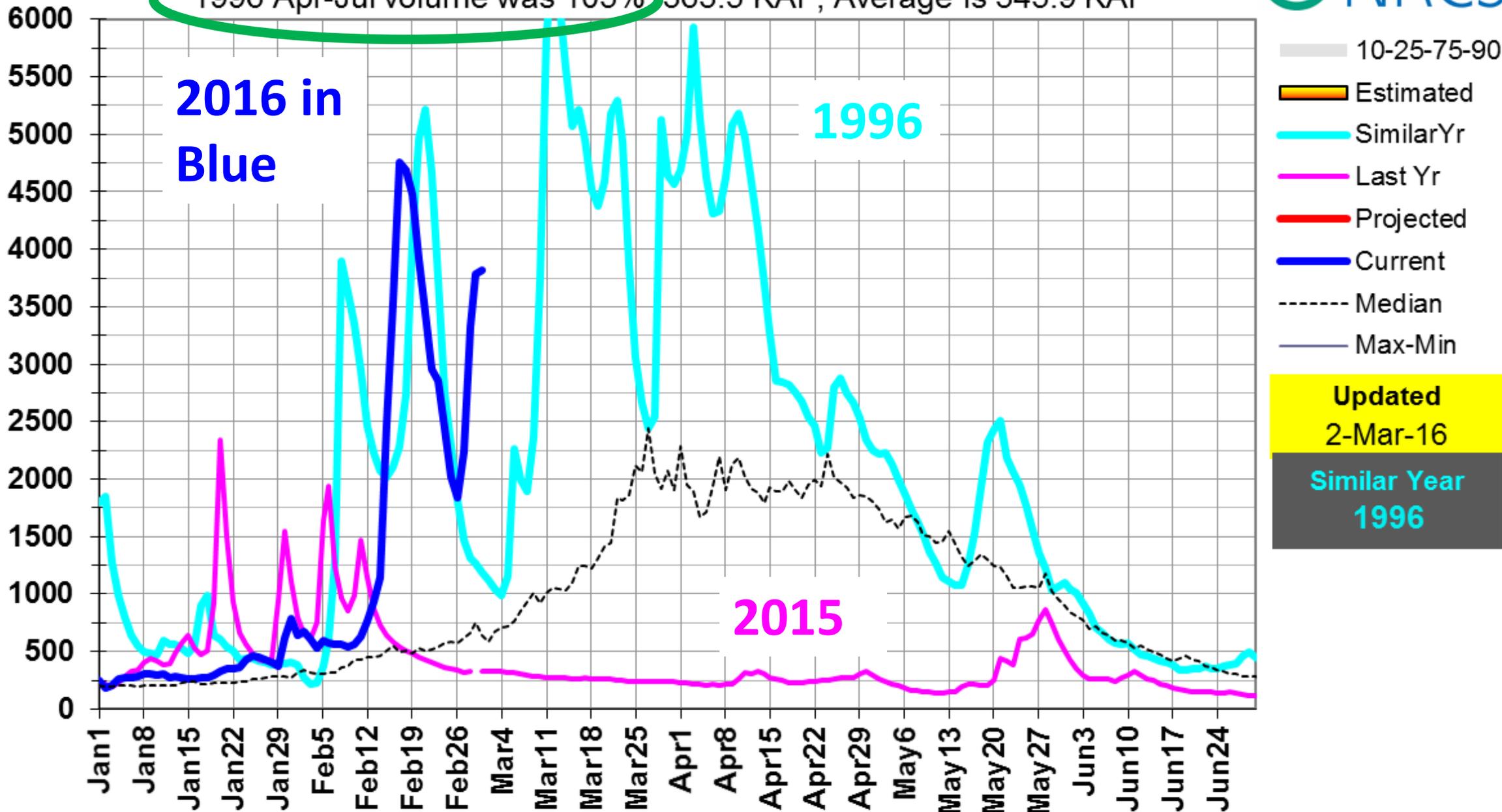


13181000: Owyhee R near Rome, OR

1996 Apr-Jul volume was 105% 363.5 KAF, Average is 345.9 KAF



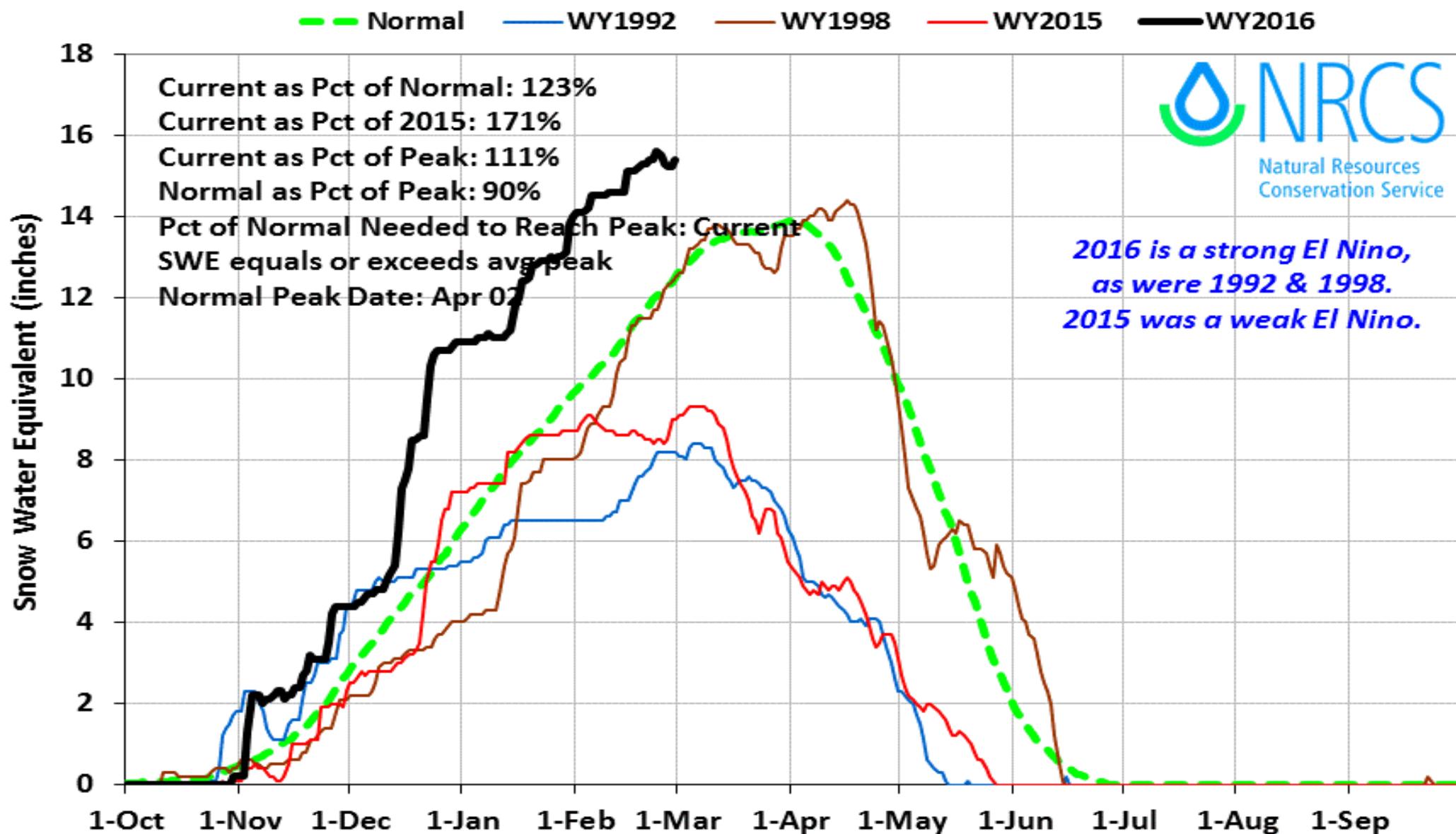
Mean Daily CFS





Bruneau Basin 2016 Snowpack Comparison Graph (5 sites)

Based on Provisional SNOTEL data as of Feb 28, 2016

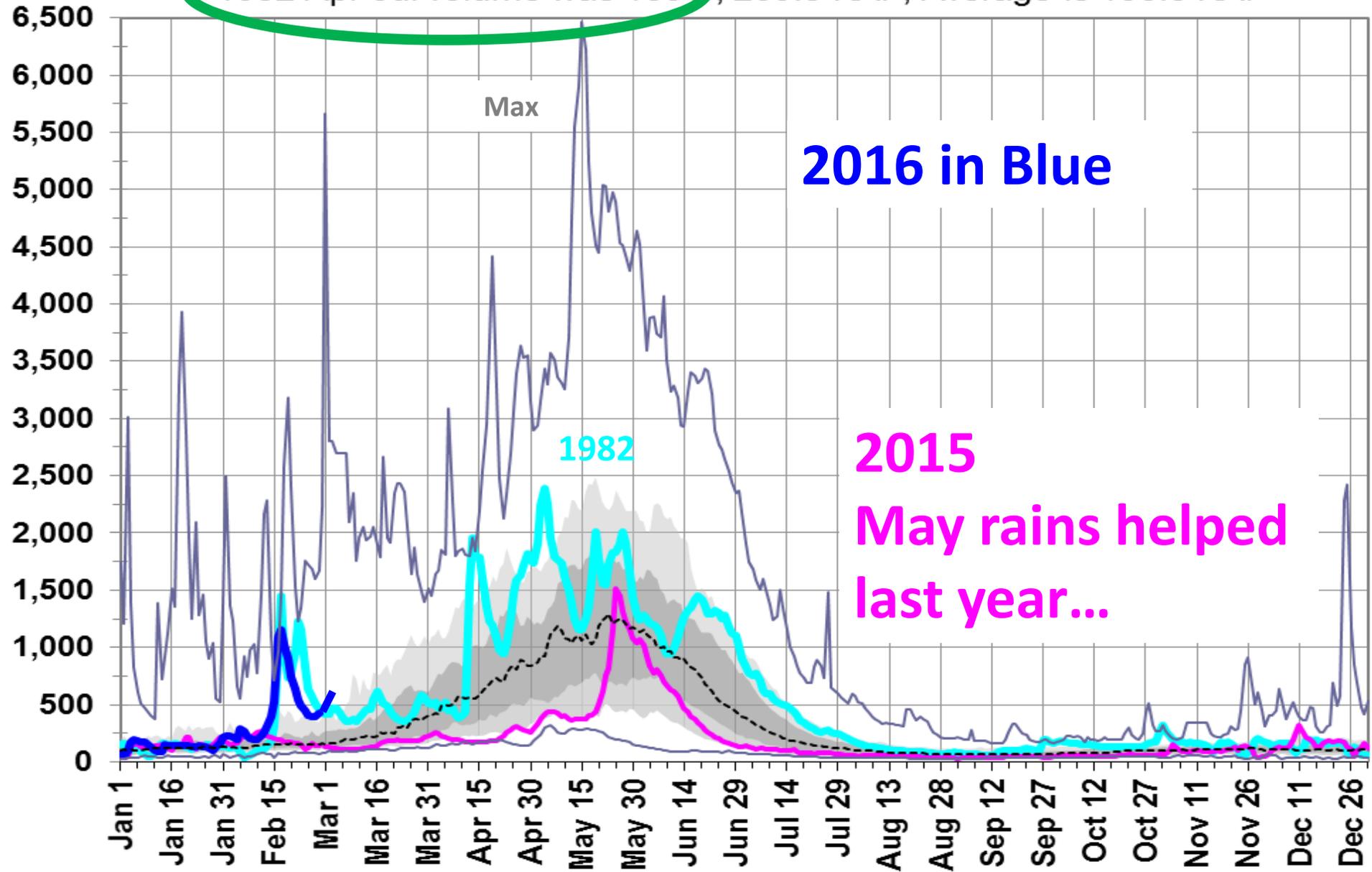


13168500: BrunEAU P near Hot Spring, ID



1982 Apr-Jul volume was 139%, 269.8 KAF, Average is 193.5 KAF

Mean Daily CFS



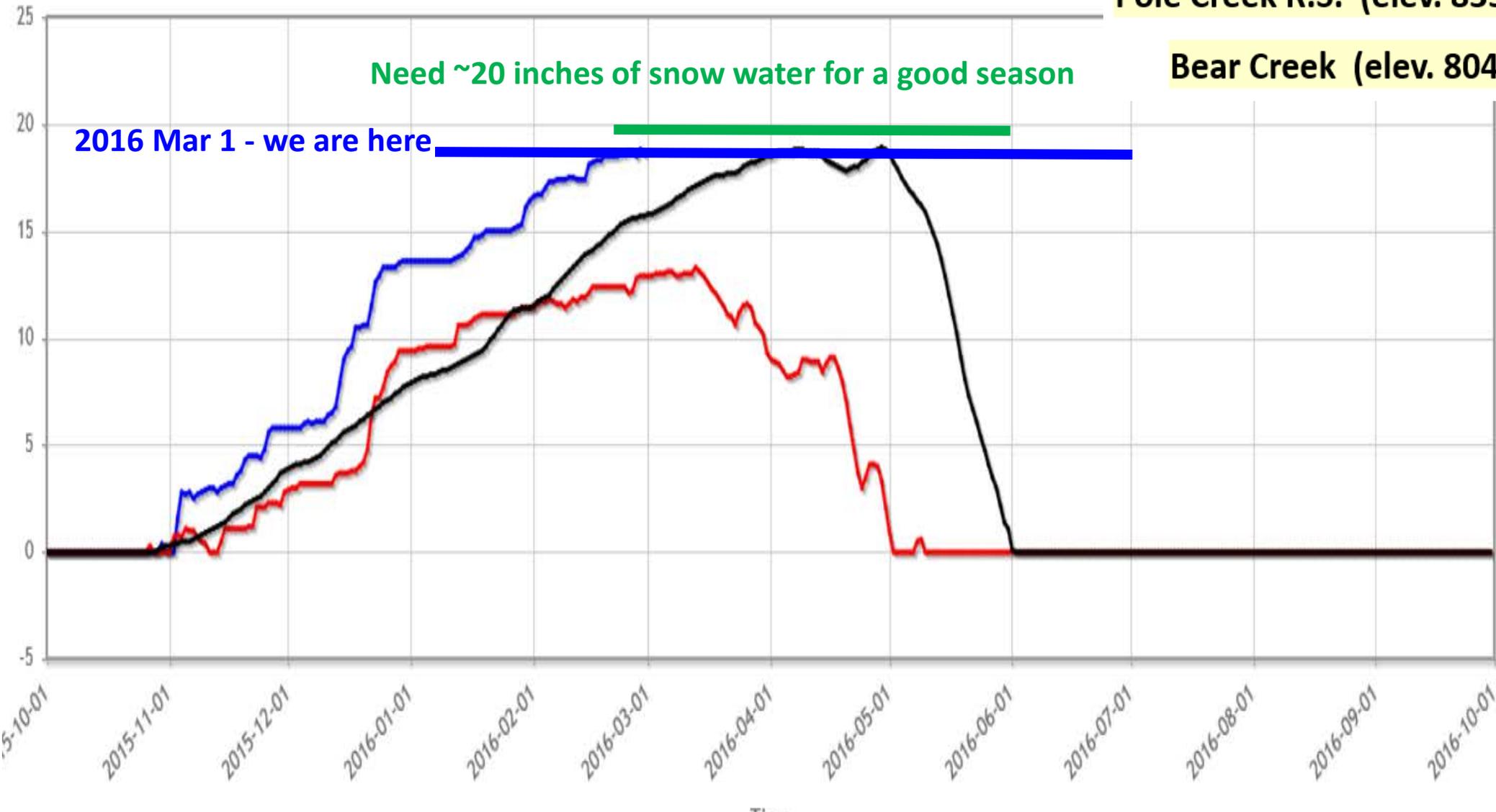
- 10-25-75-90
- Estimated
- SimilarYr
- Last Yr
- Current
- Median
- Max-Min

Updated
29-Feb-16
Similar Year
1982

Bear Creek needs about 20 inches of SWE to have adequate boating season or good spring rains

Bear Creek (321) Nevada SNOTEL Site - 8040 ft

Average Percent of Snow Water Melted at the SNOTEL Site When Peak Flow Occurred	
Bruneau River nr Hot Springs ID	
Pole Creek R.S. (elev. 8330 ft)	48%
Bear Creek (elev. 8040 ft)	63%



Bruneau River nr Hot Springs ID

Pole Creek R.S. (elev. 8330 ft) 48%

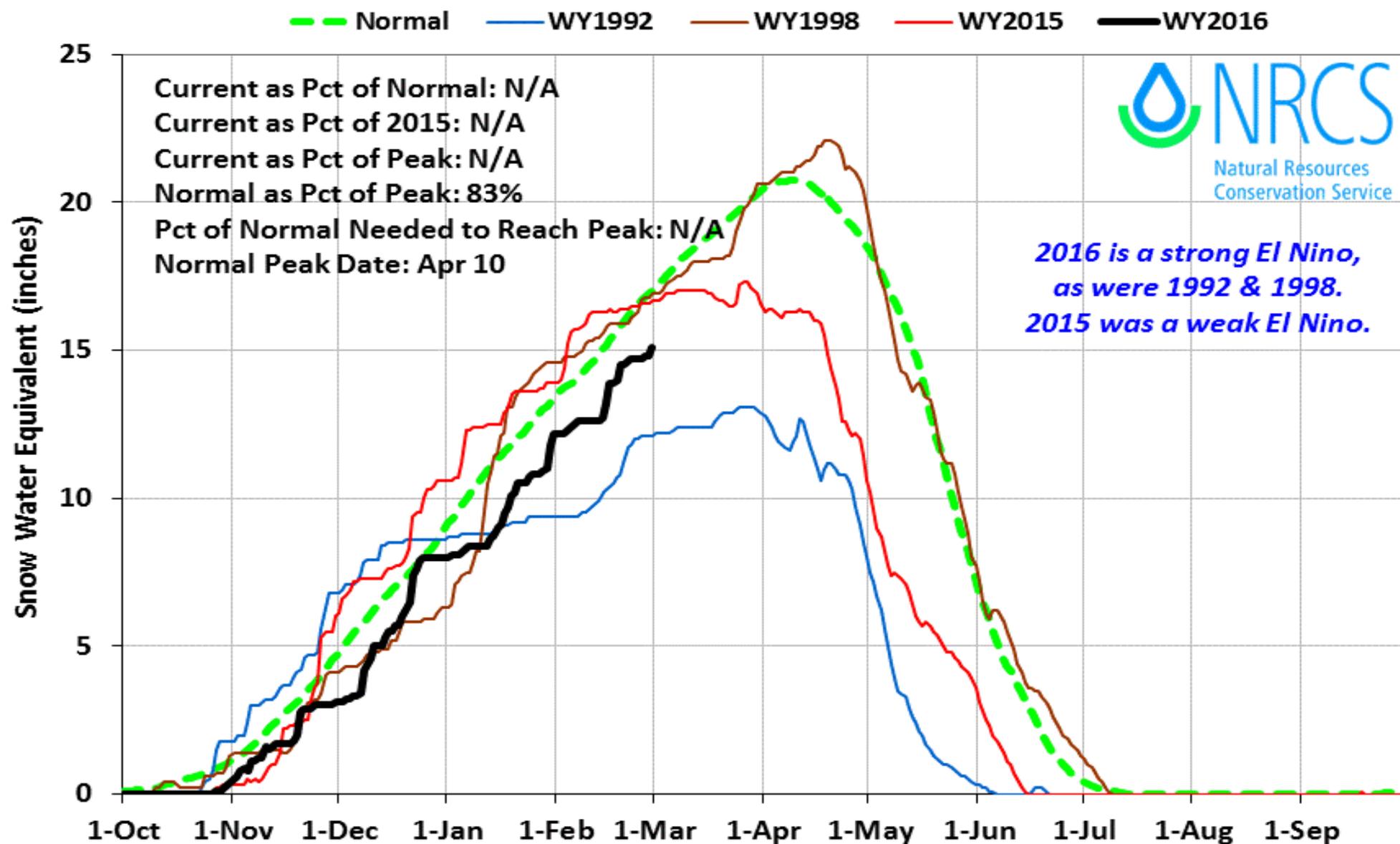
Bear Creek (elev. 8040 ft) 63%

- Snow Water Equivalent (in)
- Last Yr Snow Water Equivalent (in)
- Median Snow Water Equivalent (1981-2010) (in)



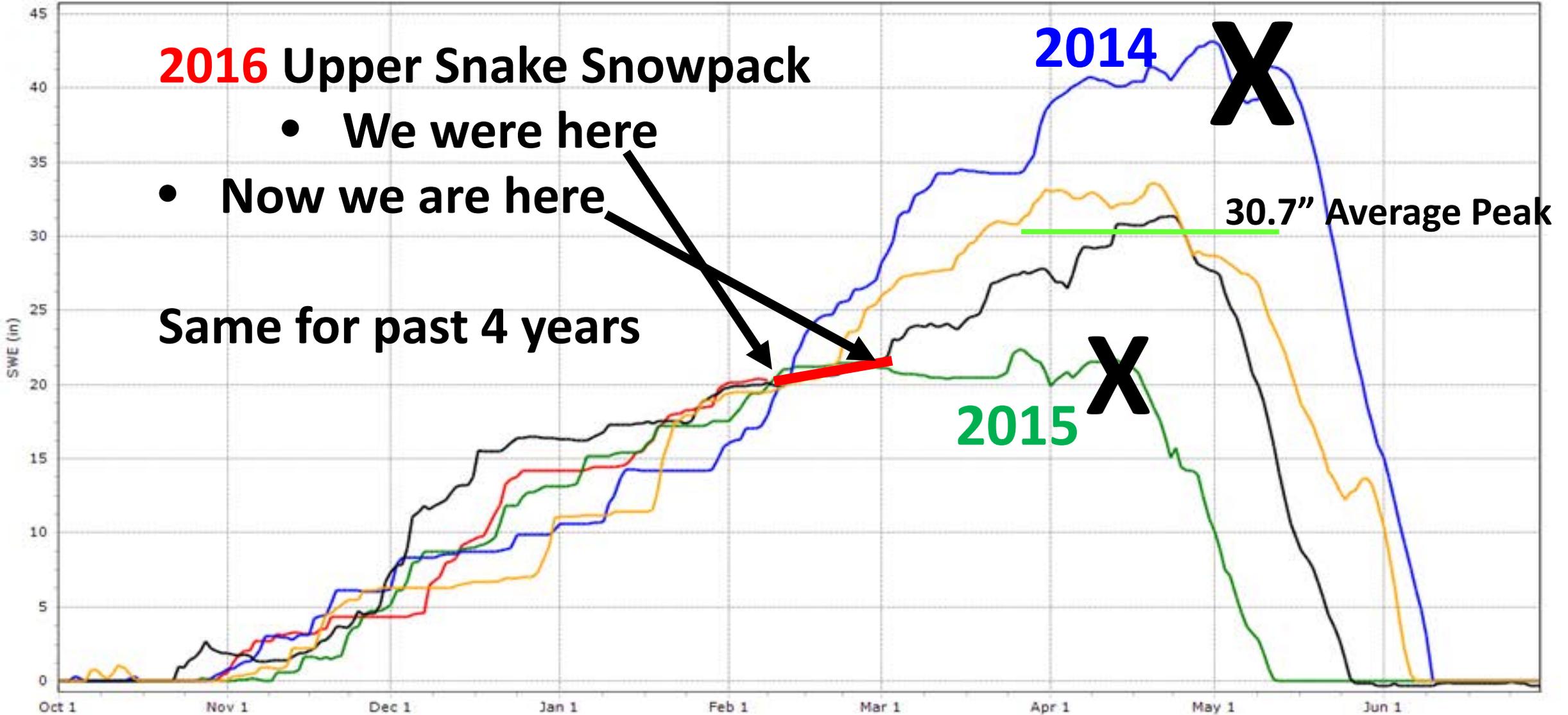
Snake Basin abv Palisades 2016 Snowpack Comparison Graph (18 sites)

Based on Provisional SNOTEL data as of Feb 29, 2016



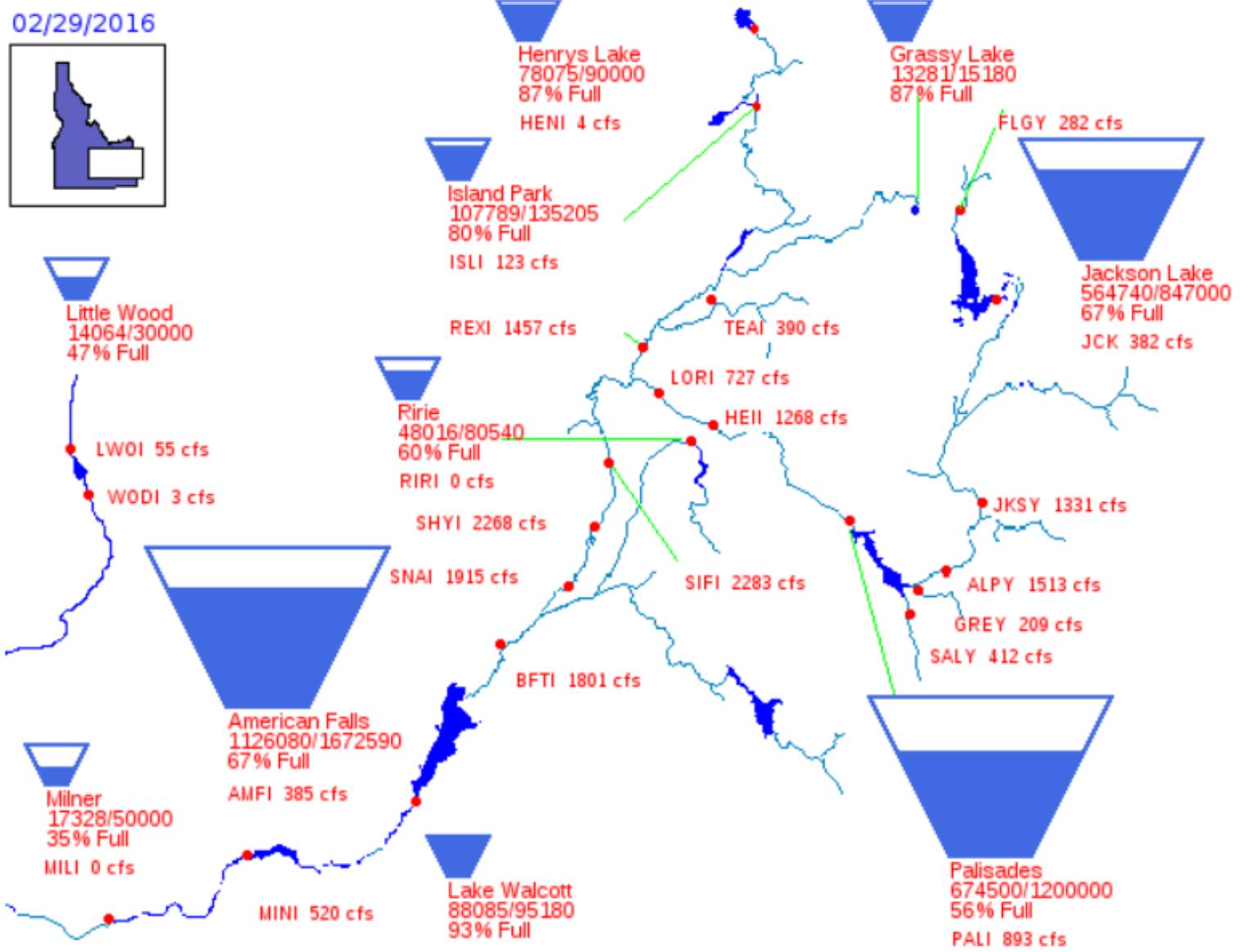
LEWIS LAKE DIVIDE

(Elevation: 7,850 ft)



Bureau of Reclamation, Pacific Northwest Region

Major Storage Reservoirs in the Upper Snake River Basin



With March 1 snowpack 90-95% of normal in Snake headwaters in Wyoming

Streams are forecast 80-90% of average

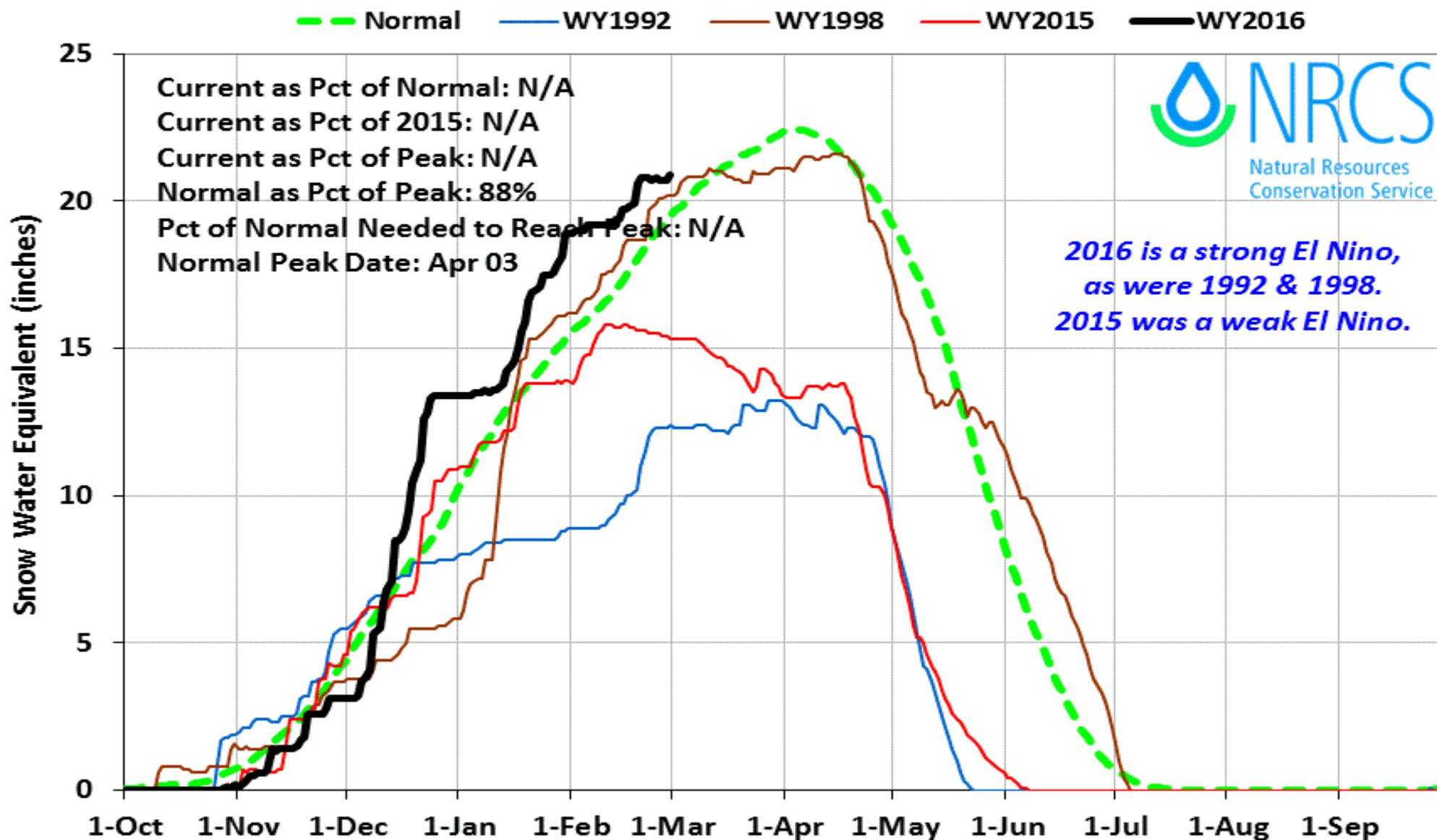


**Flows on the Boise &
Payette will be
better than last year!**



Boise Basin 2016 Snowpack Comparison Graph (10 sites)

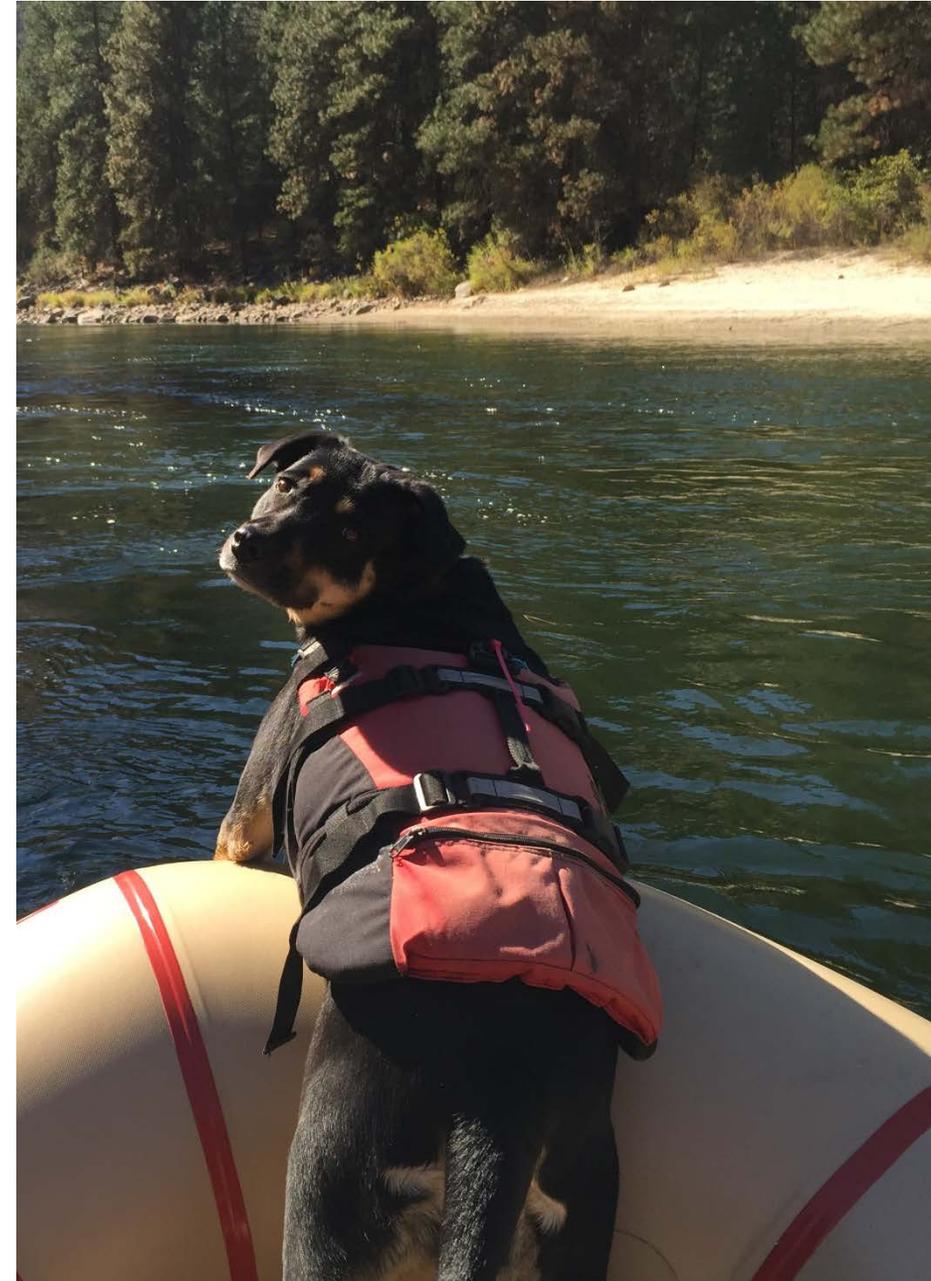
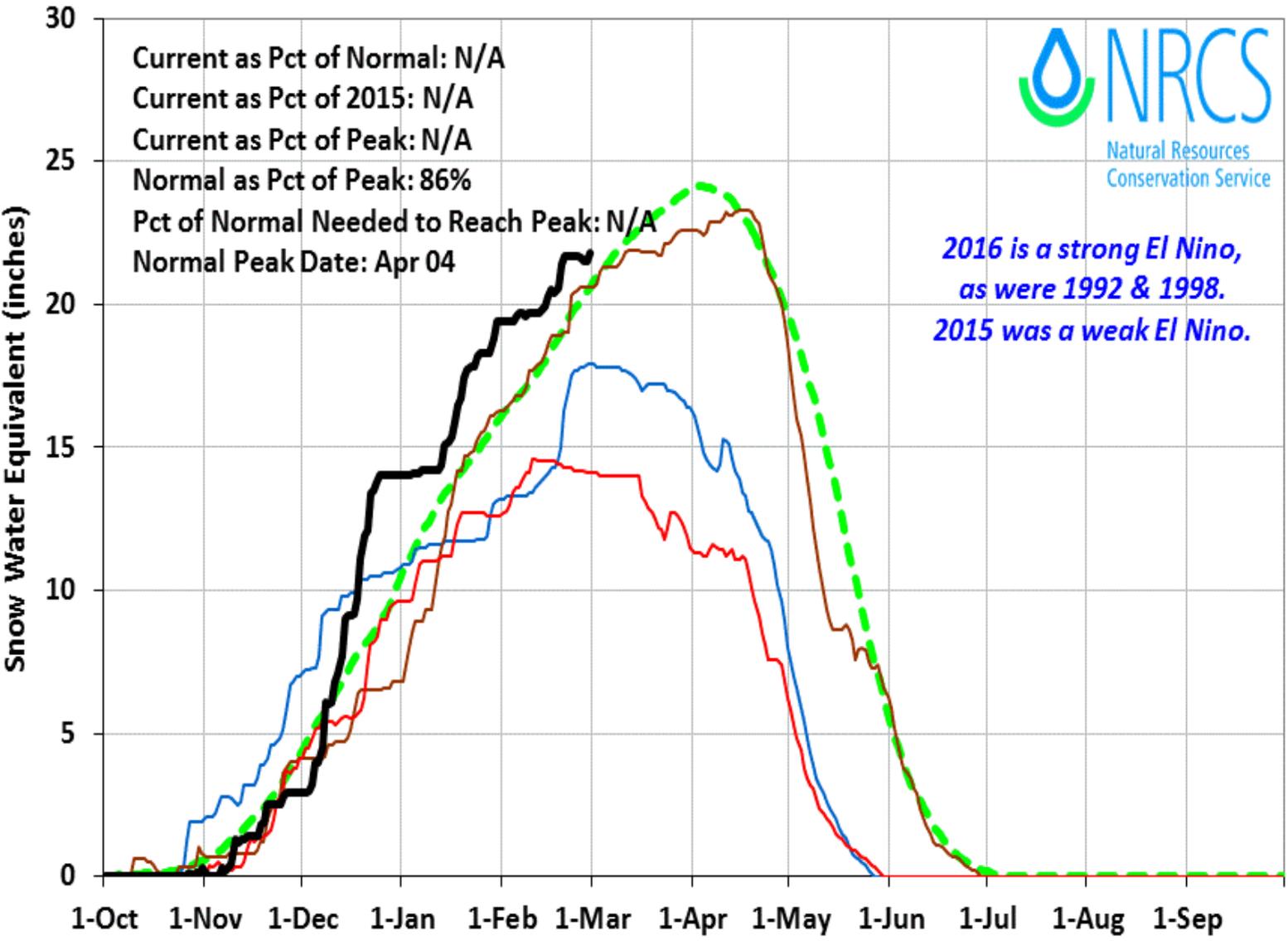
Based on Provisional SNOTEL data as of Feb 29, 2016



Payette Basin 2016 Snowpack Comparison Graph (11 sites)

Based on Provisional SNOTEL data as of Feb 29, 2016

Normal WY1992 WY1998 WY2015 WY2016

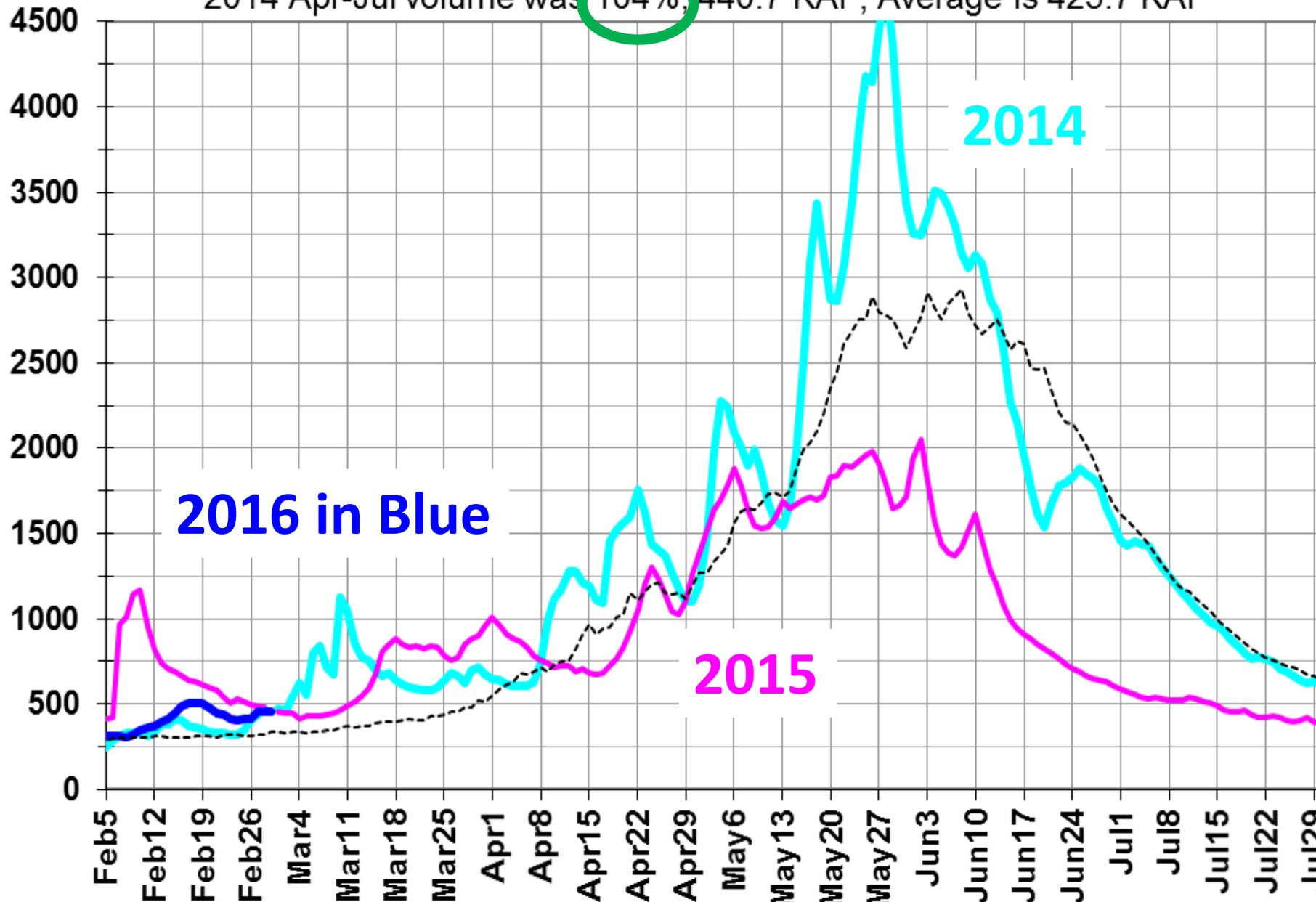


13235000: SF Payette R at Lowman, ID

2014 Apr-Jul volume was 104%, 440.7 KAF, Average is 425.7 KAF



Mean Daily CFS

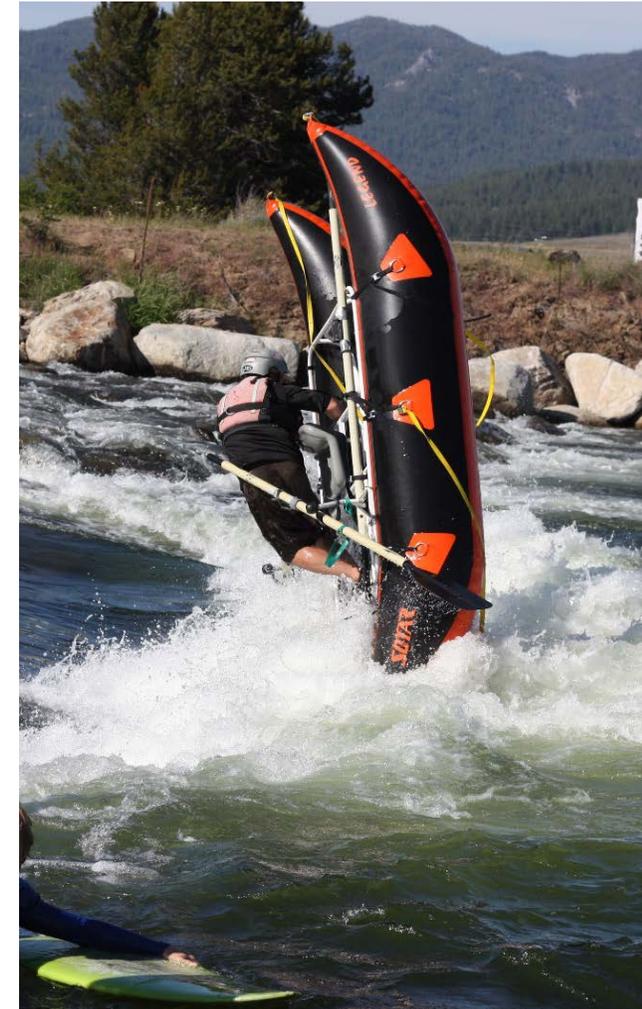
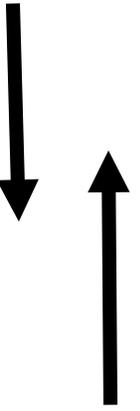


- 10-25-75-90
- Estimated
- SimilarYr
- Last Yr
- Projected
- Current
- Median
- Max-Min

Updated
1-Mar-16
Similar Year
2014

**Mar 1 Preliminary
Payette & Boise
Streamflow
Forecasts
are
90 - 110% of
average**

**After dry Feb, forecasts went down some
After next week, forecasts may go up**



HELLS CANYON RECREATION AREA



Hells Canyon will be better than last year



Any questions?

Lochsa & Selway



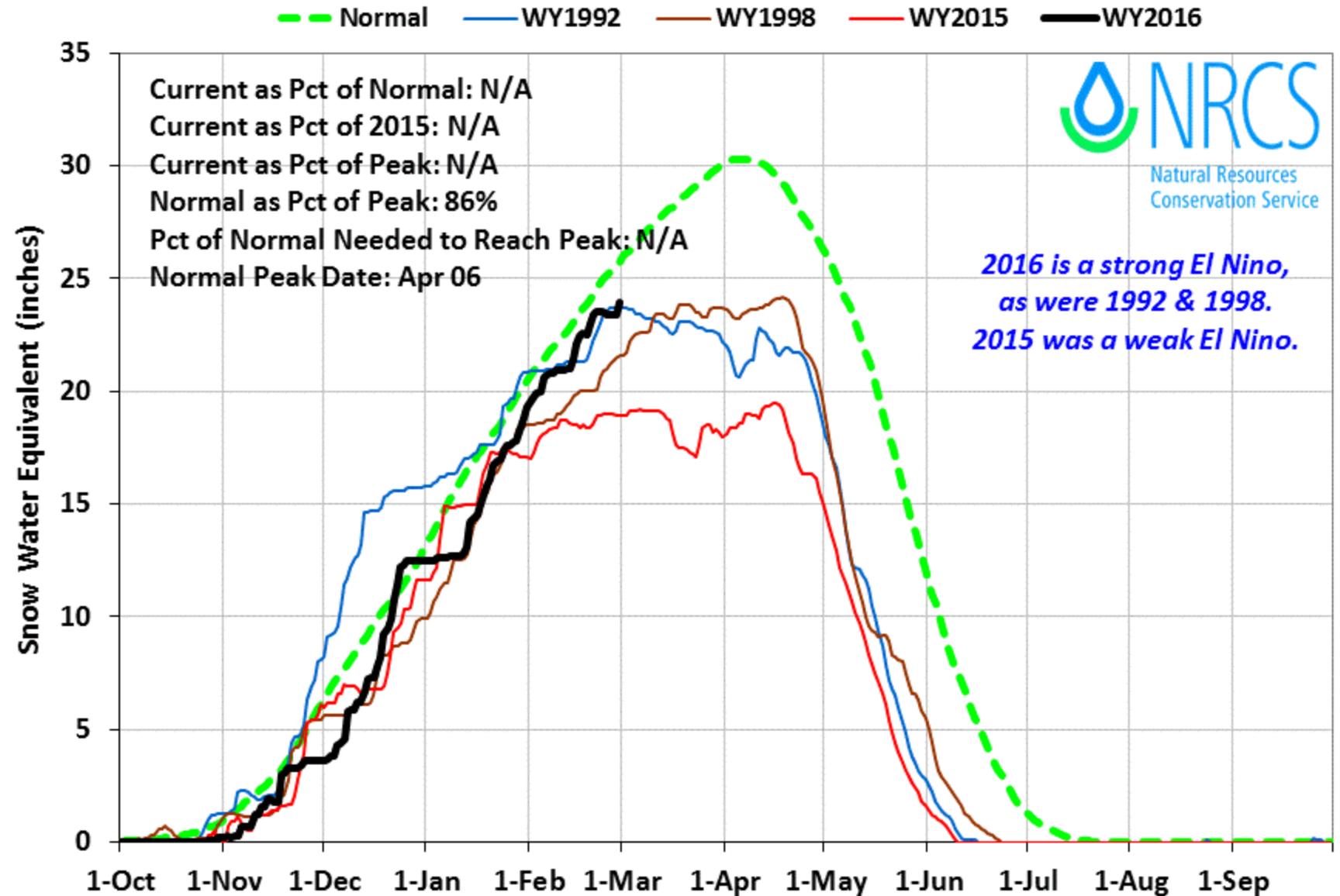
Lochsa snow is
91%

Selway is
95%

Coeur d'Alene is
lowest in the
state at 77% of
average

Clearwater Basin 2016 Snowpack Comparison Graph (15 sites)

Based on Provisional SNOTEL data as of Feb 29, 2016

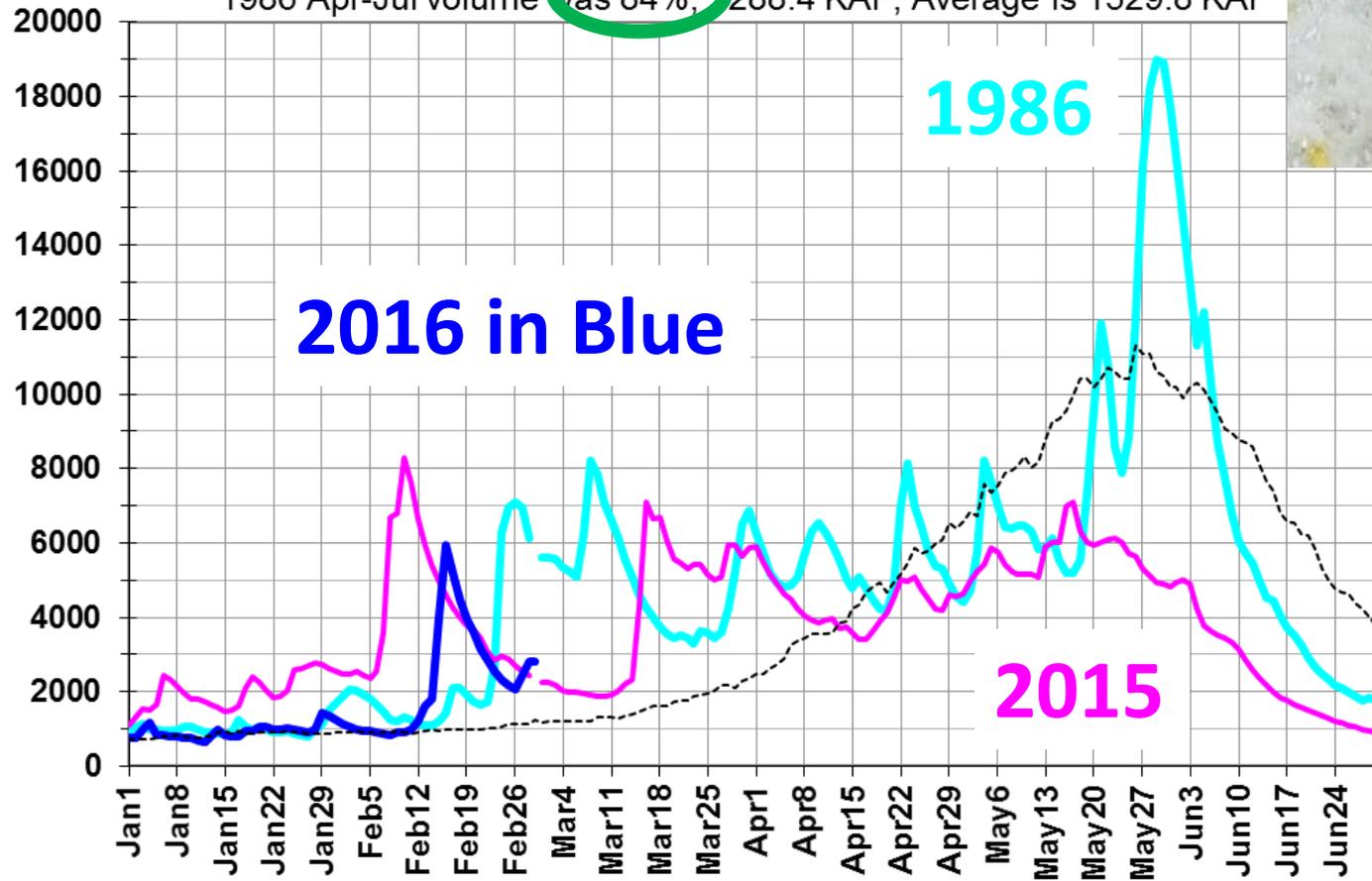


Lochsa & Selway rivers are forecast at about 100%



13337000: Lochsa R near Lowell, ID

1986 Apr-Jul volume was 84%, 1288.4 KAF, Average is 1529.8 KAF



Mean Daily CFS

- Last Yr
 - Projected
 - Current
 - - - - Median
 - Max-Min
- Updated
1-Mar-16
- Similar Year
1986



Double Drop Rapid



Ham Rapid

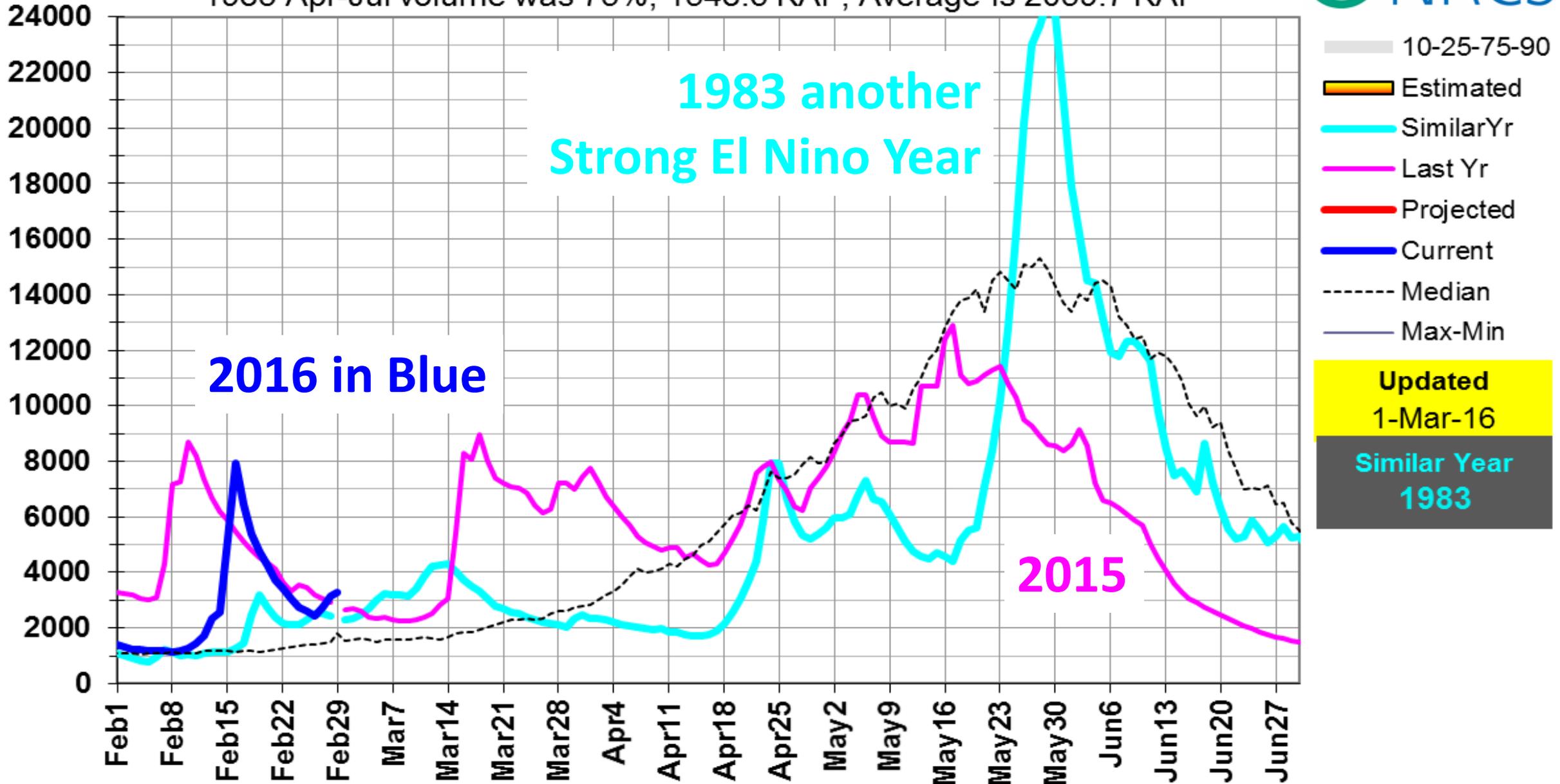


13336500: Selway R near Lowell, ID

1983 Apr-Jul volume was 75%, 1548.6 KAF, Average is 2059.7 KAF



Mean Daily CFS



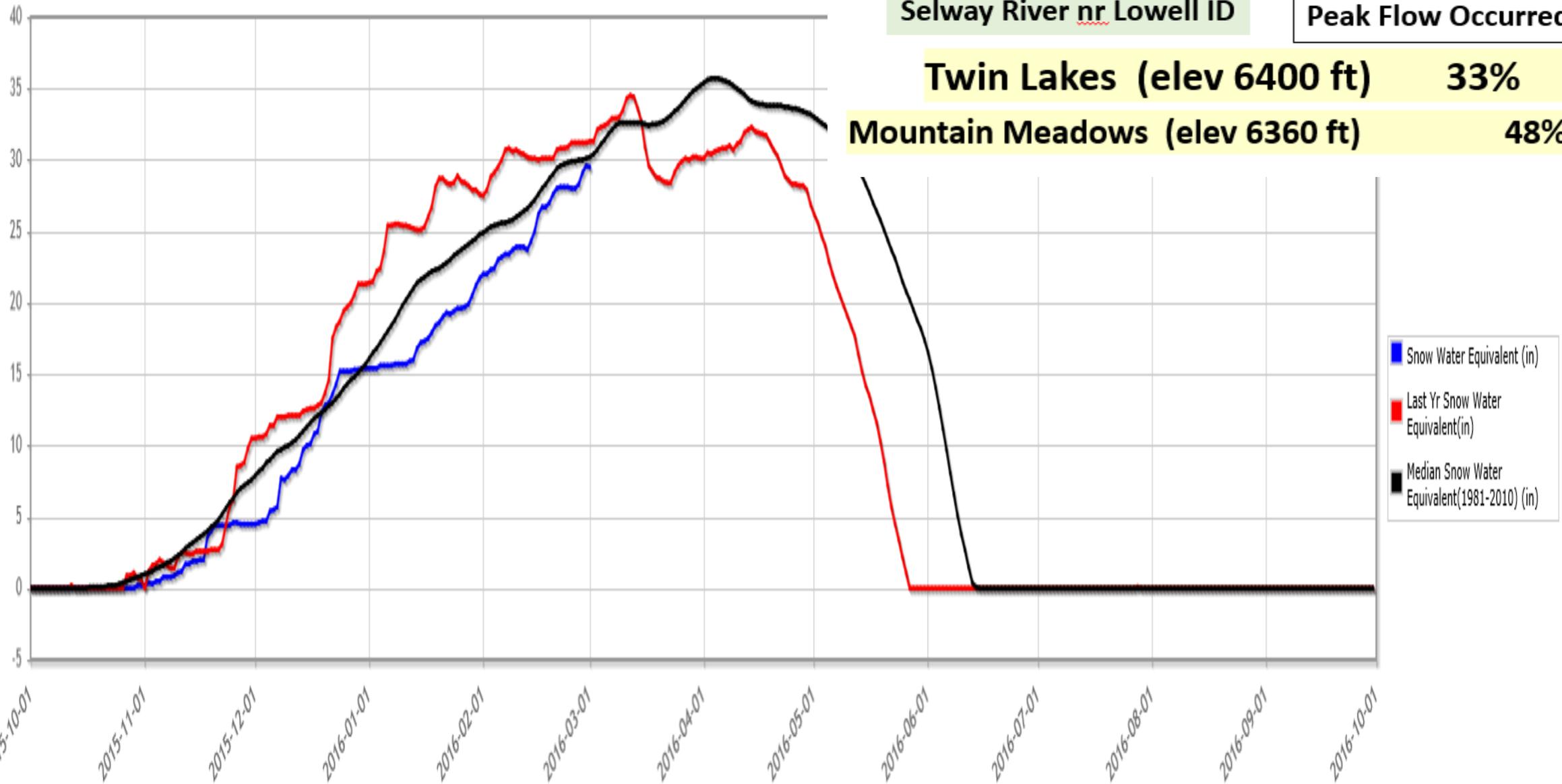
Twin Lakes (836) Montana SNOTEL Site - 6400 ft

Average Percent of Snow Water Melted at the SNOTEL Site When Peak Flow Occurred

Selway River nr Lowell ID

Twin Lakes (elev 6400 ft) 33%

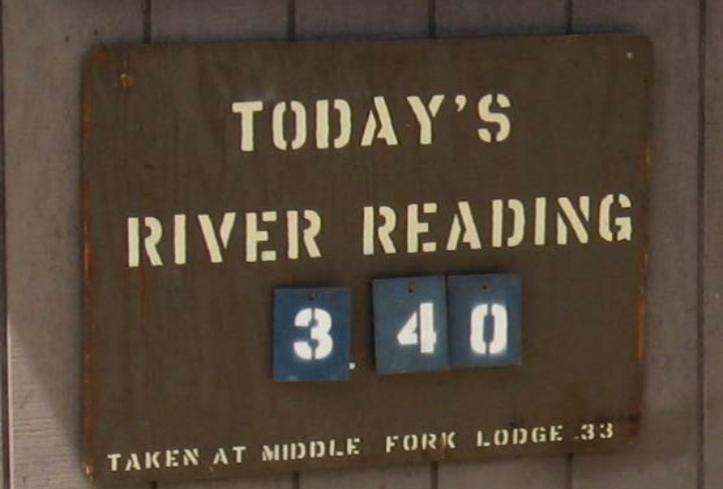
Mountain Meadows (elev 6360 ft) 48%



■ Snow Water Equivalent (in)
■ Last Yr Snow Water Equivalent (in)
■ Median Snow Water Equivalent (1981-2010) (in)

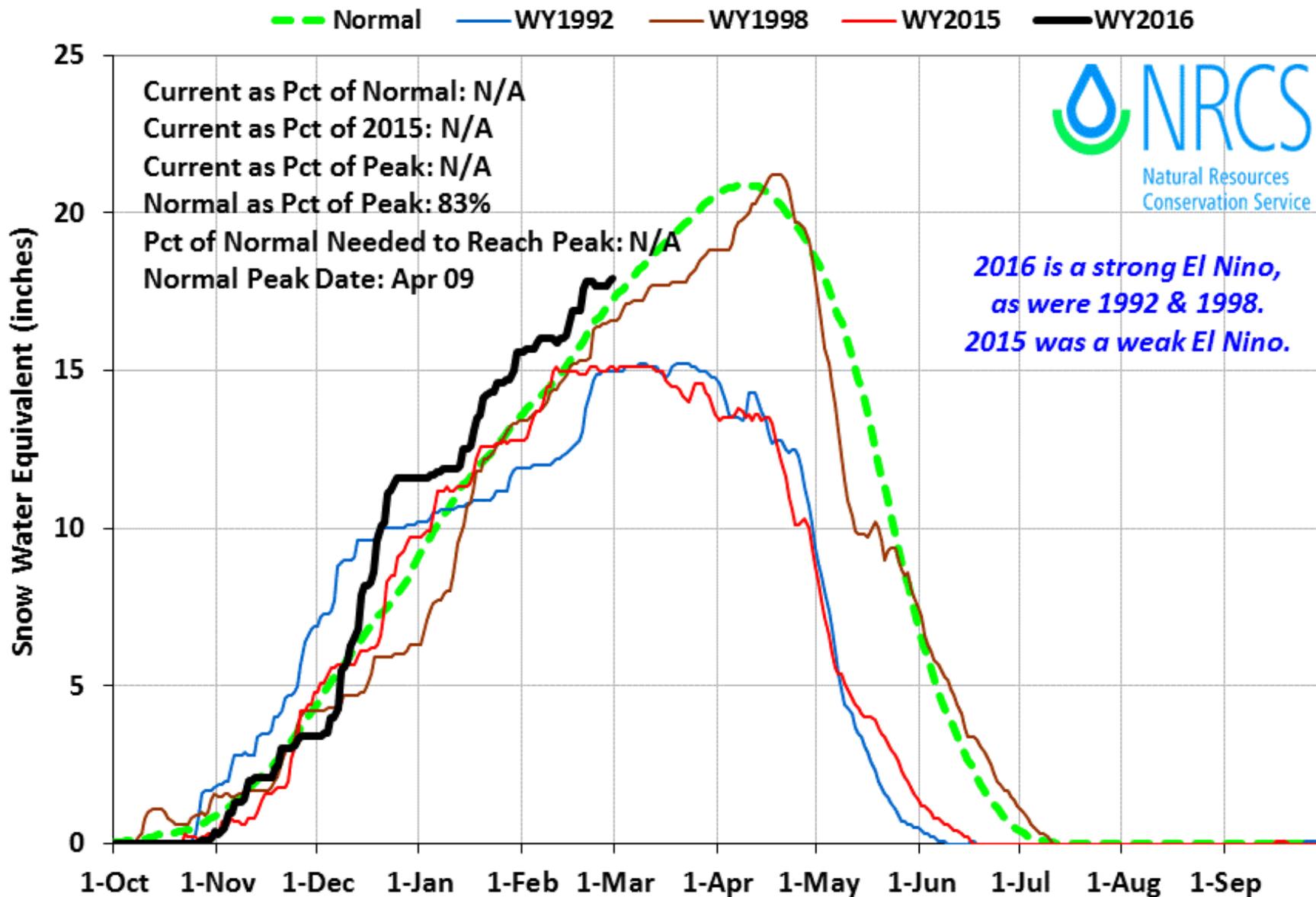
Ladle Rapid





Salmon Basin 2016 Snowpack Comparison Graph (22 sites)

Based on Provisional SNOTEL data as of Feb 29, 2016



March 1 Snowpack

MF Salmon

2016 104% 107%

2015 79% 90%

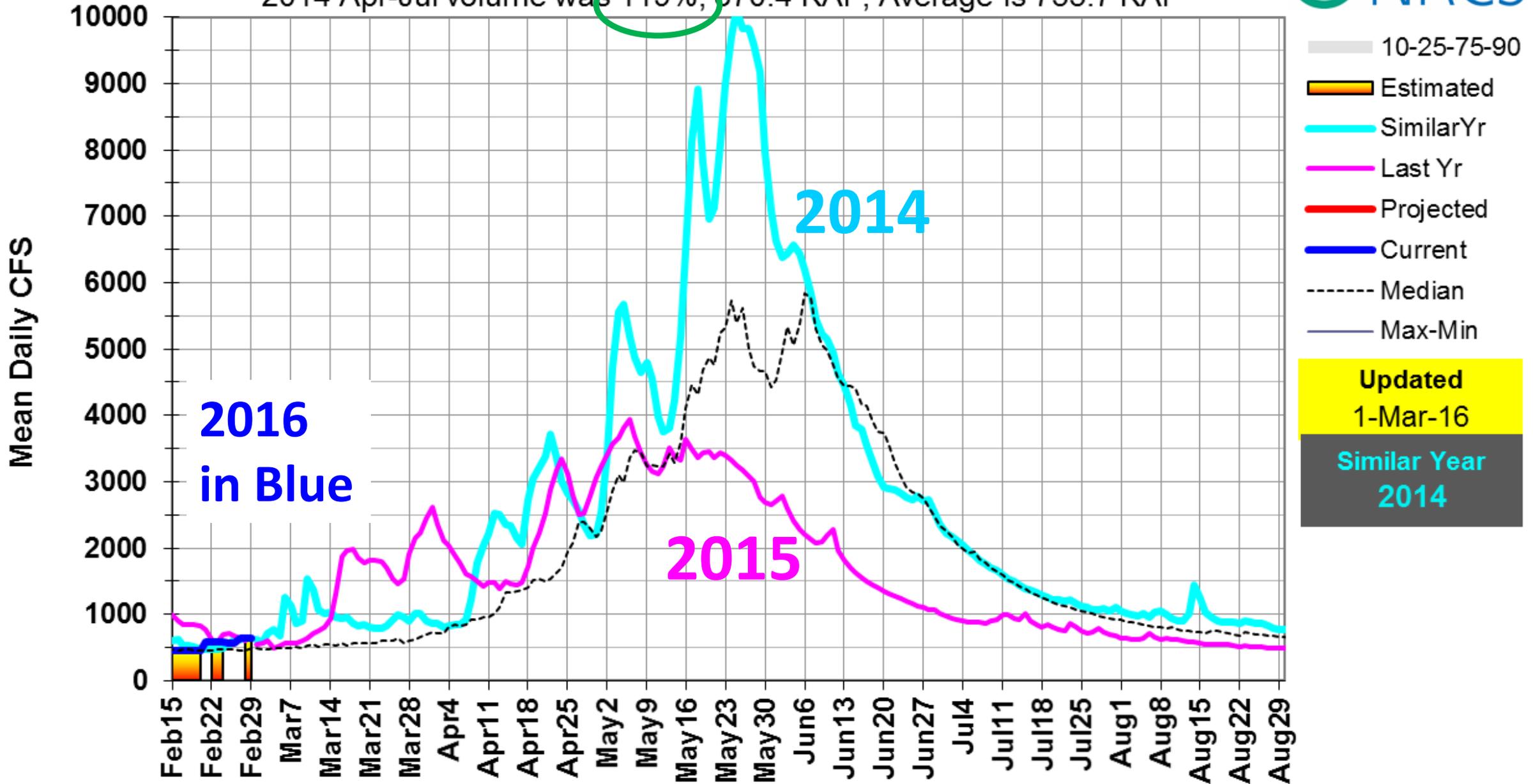
2014 90% 107%

2013 103% 91%

Snowpack across Salmon Basin ranges from 107-114%

13309220: MF Salmon R at MF Lodge near Yellow Pine, ID

2014 Apr-Jul volume was 119%, 870.4 KAF, Average is 733.7 KAF

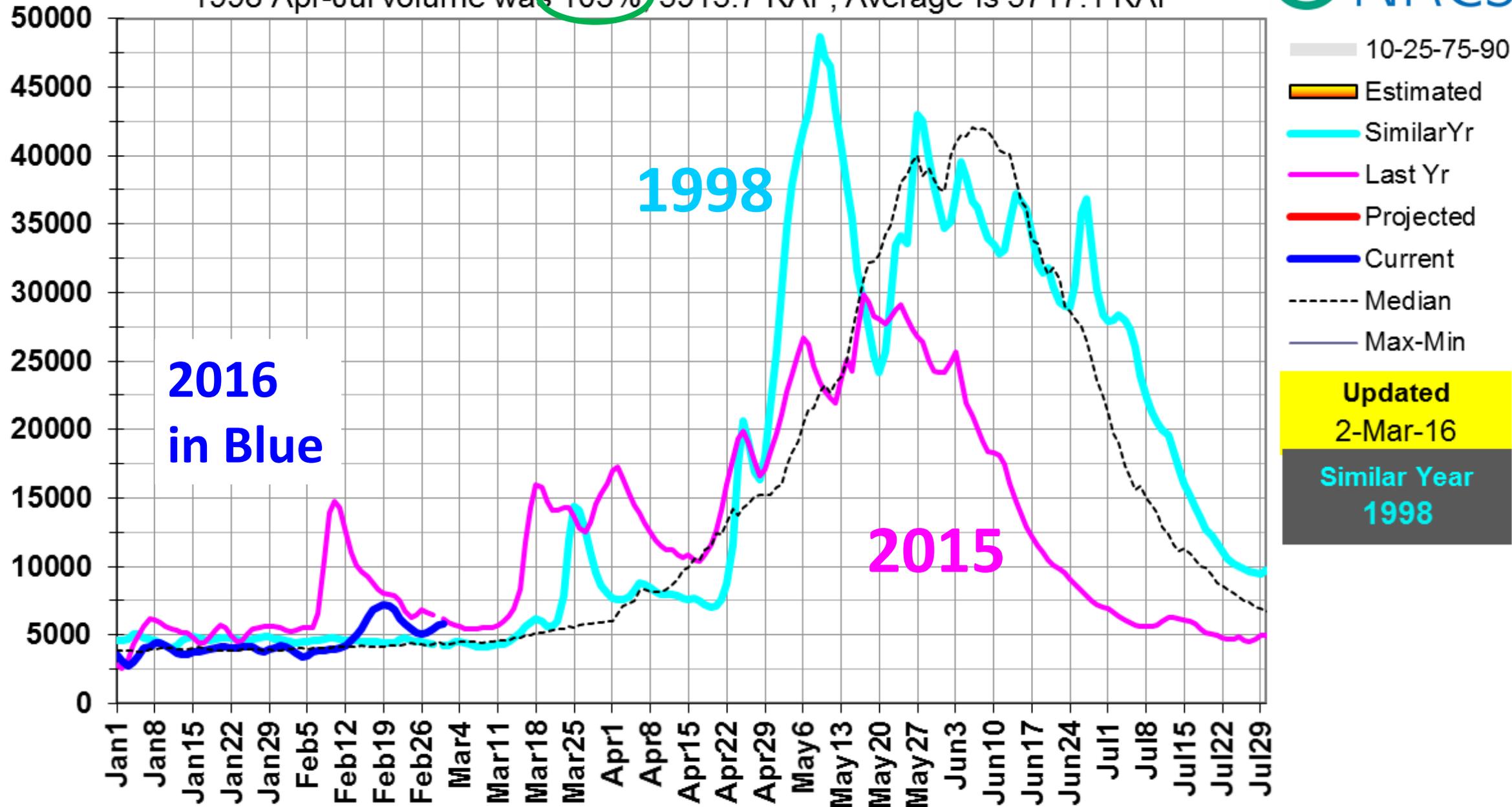


13317000: Salmon R at White Bird, ID

1998 Apr-Jul volume was 103% 5913.7 KAF, Average is 5717.1 KAF



Mean Daily CFS







Think
Snow!!

Keep Thinking Snow,
Watch that Weather
& Enjoy!

