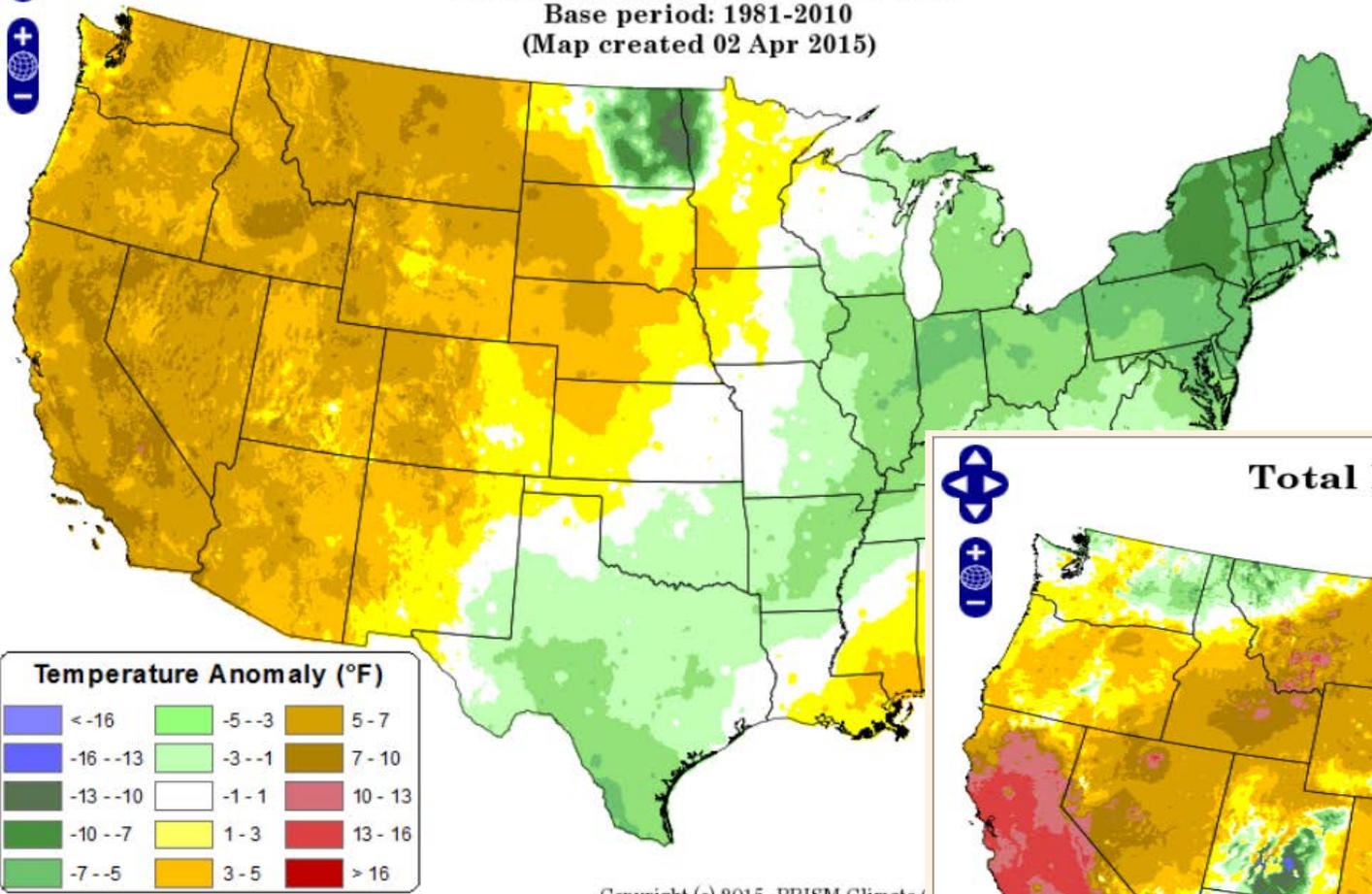


Daily Mean Temperature Anomaly: March 2015

Period ending 7 AM EST 31 Mar 2015

Base period: 1981-2010

(Map created 02 Apr 2015)



Copyright (c) 2015, PRISM Climate Group

TFSCD 60th Annual Water Supply Forecast Meeting for Salmon Falls Tract

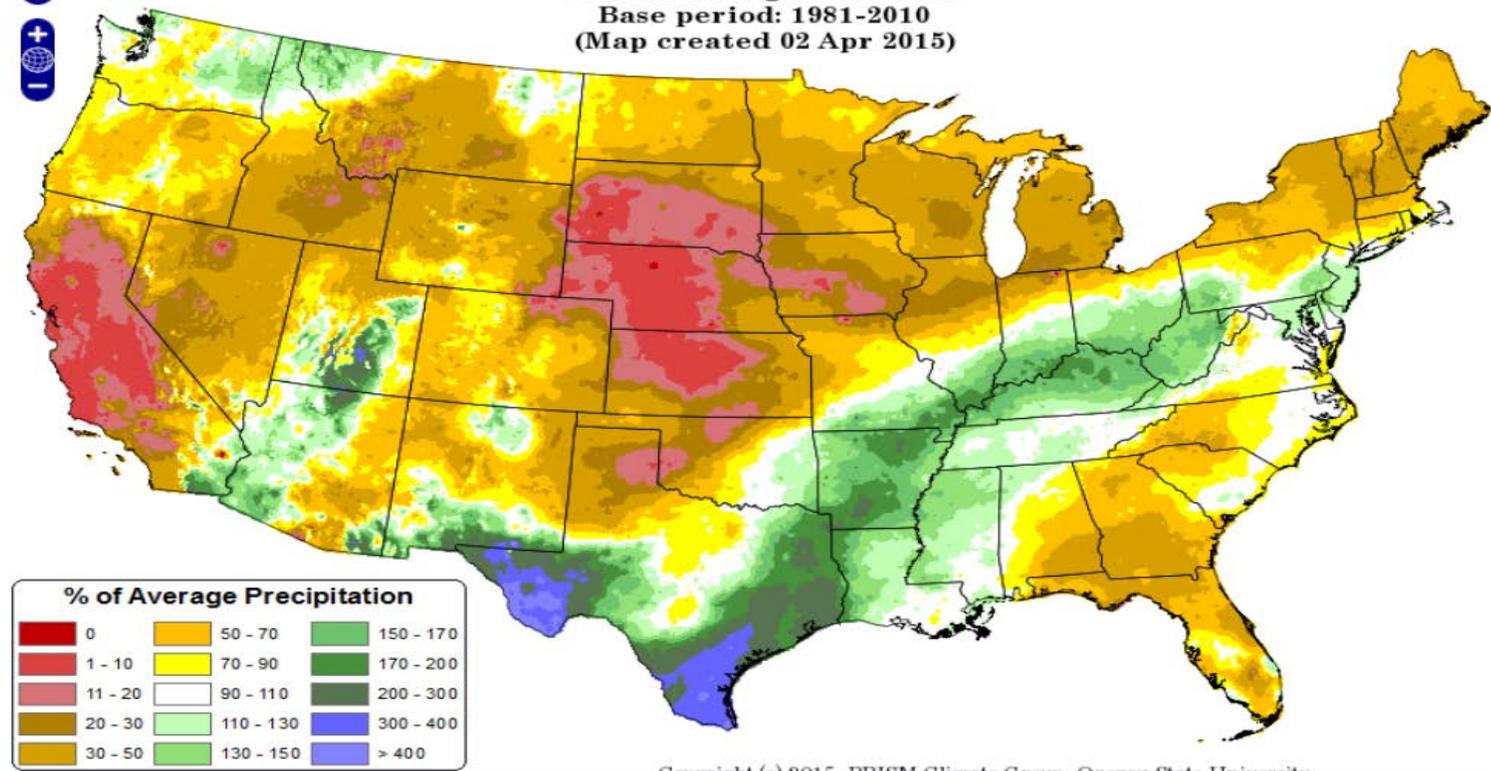
April 8, 2015

Total Precipitation Anomaly: March 2015

Period ending 31 Mar 2015

Base period: 1981-2010

(Map created 02 Apr 2015)

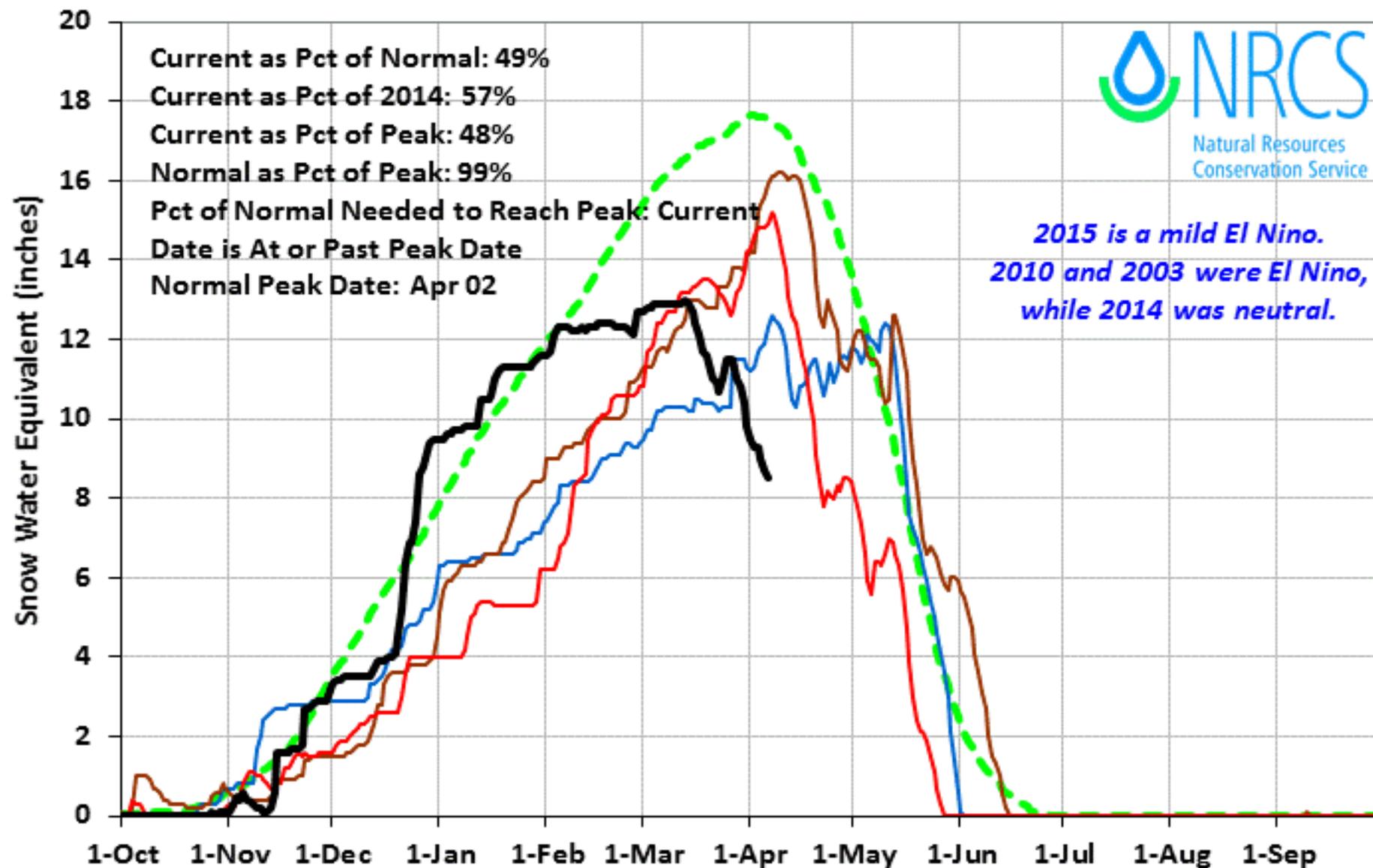


Copyright (c) 2015, PRISM Climate Group, Oregon State University

Salmon Falls Basin 2015 Snowpack Comparison Graph (5 sites)

Based on Provisional SNOTEL data as of Apr 06, 2015

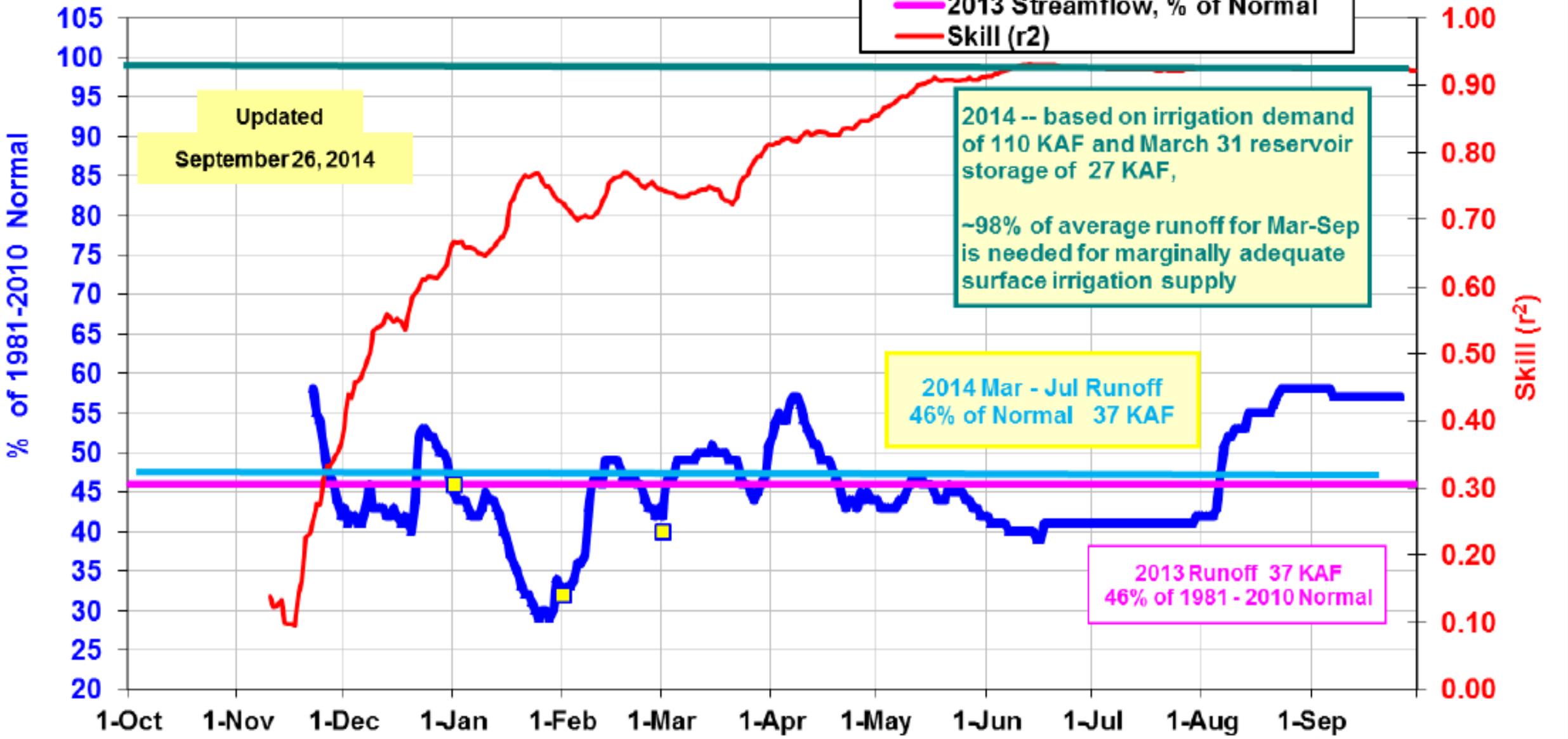
Normal WY2003 WY2010 WY2014 WY2015



2014 Salmon Falls Creek: Mar - Jul Volume
 NRCS Monthly are Yellow Squares



- Daily Guidance Forecast
- Monthly Forecasts
- 2013 Streamflow, % of Normal
- Skill (r²)



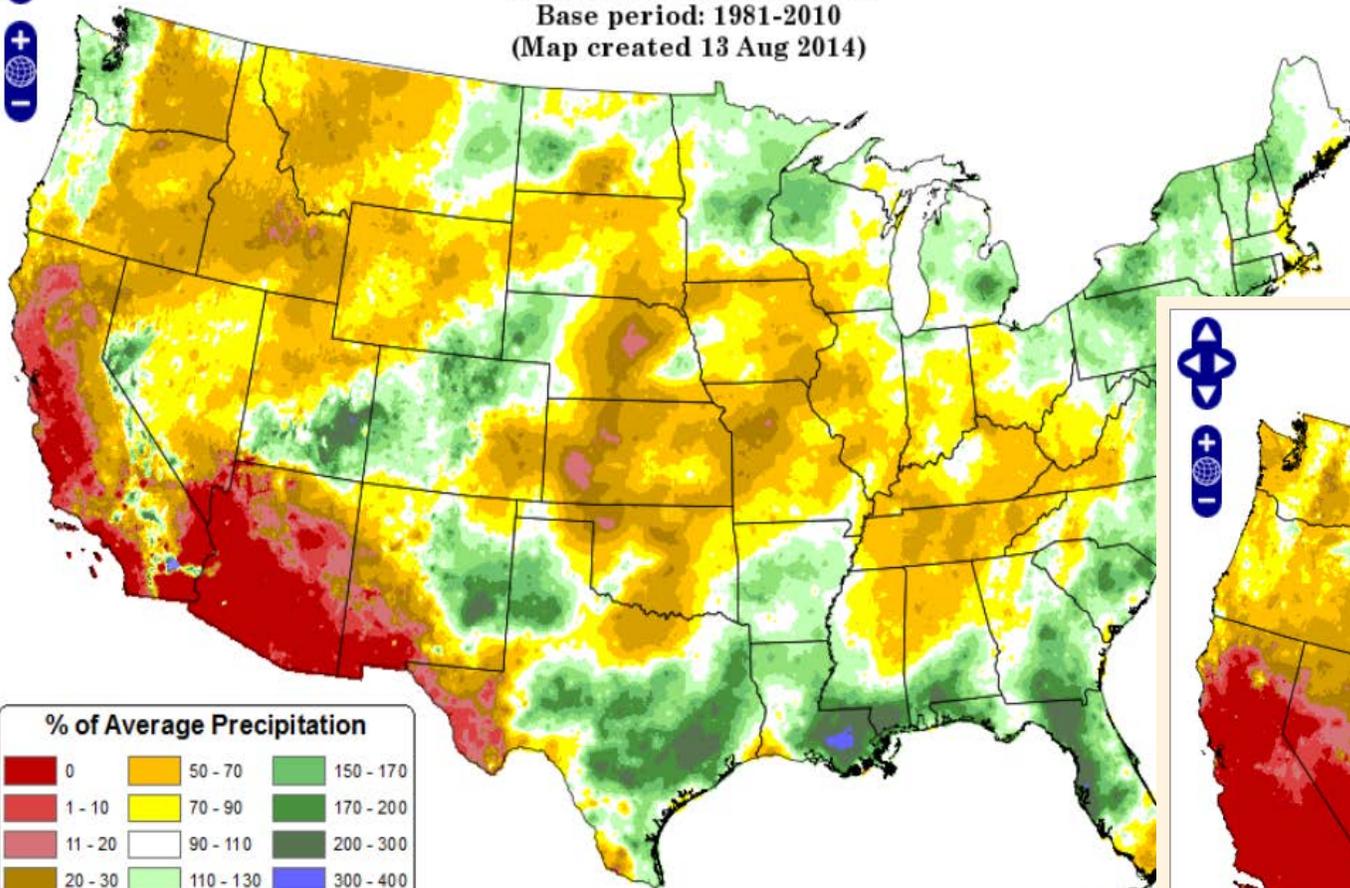
SNOTEL Sites used: Bear Creek, Seventy-Six Creek, Pole Creek, Wilson Creek and Draw Creek.

Total Precipitation Anomaly: May 2014

Period ending 31 May 2014

Base period: 1981-2010

(Map created 13 Aug 2014)



% of Average Precipitation

0	50 - 70	150 - 170
1 - 10	70 - 90	170 - 200
11 - 20	90 - 110	200 - 300
20 - 30	110 - 130	300 - 400
30 - 50	130 - 150	> 400

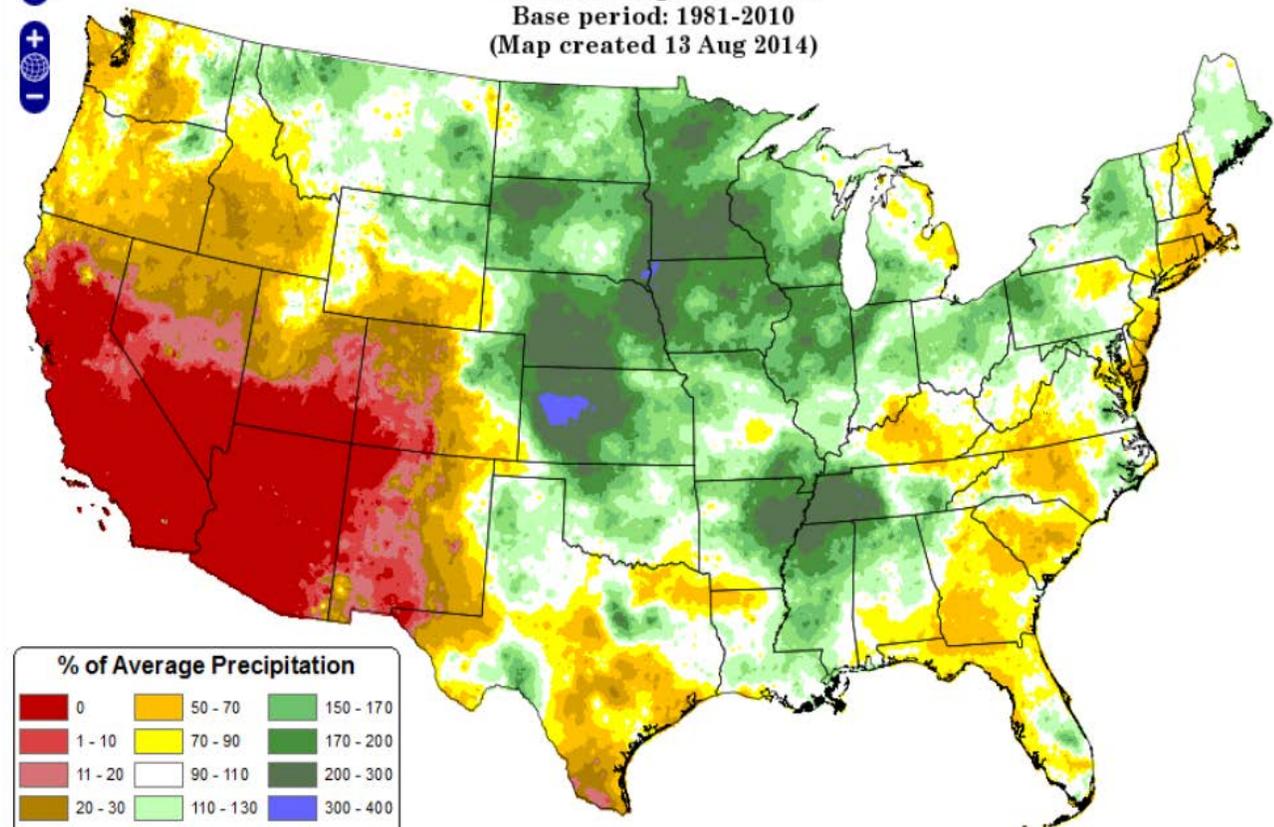
Copyright (c) 2014, PRISM Climate Group, Oregon State University

Total Precipitation Anomaly: June 2014

Period ending 30 Jun 2014

Base period: 1981-2010

(Map created 13 Aug 2014)



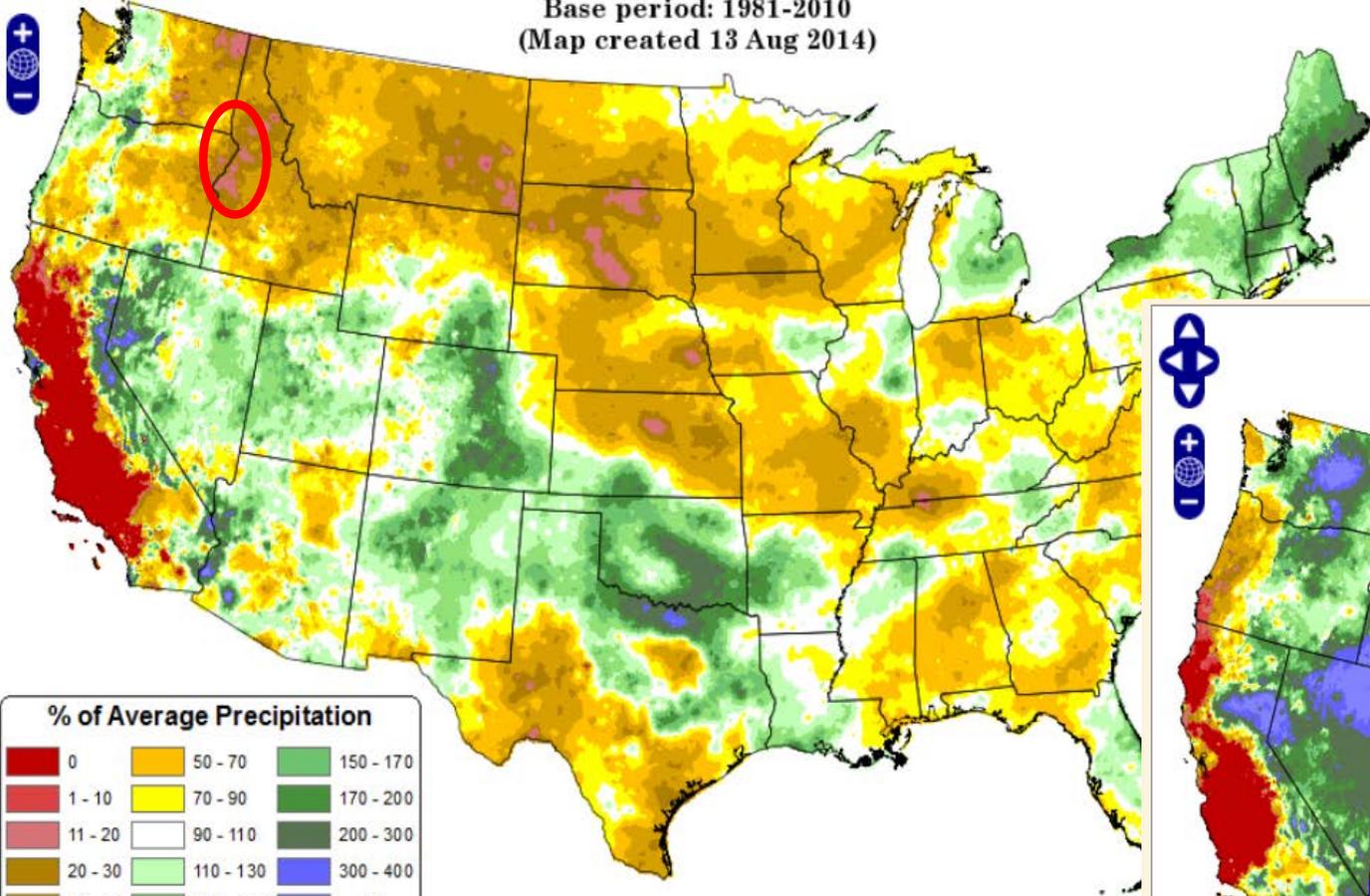
% of Average Precipitation

0	50 - 70	150 - 170
1 - 10	70 - 90	170 - 200
11 - 20	90 - 110	200 - 300
20 - 30	110 - 130	300 - 400
30 - 50	130 - 150	> 400

Copyright (c) 2014, PRISM Climate Group, Oregon State University

Total Precipitation Anomaly: July 2014

Period ending 31 Jul 2014
Base period: 1981-2010
(Map created 13 Aug 2014)



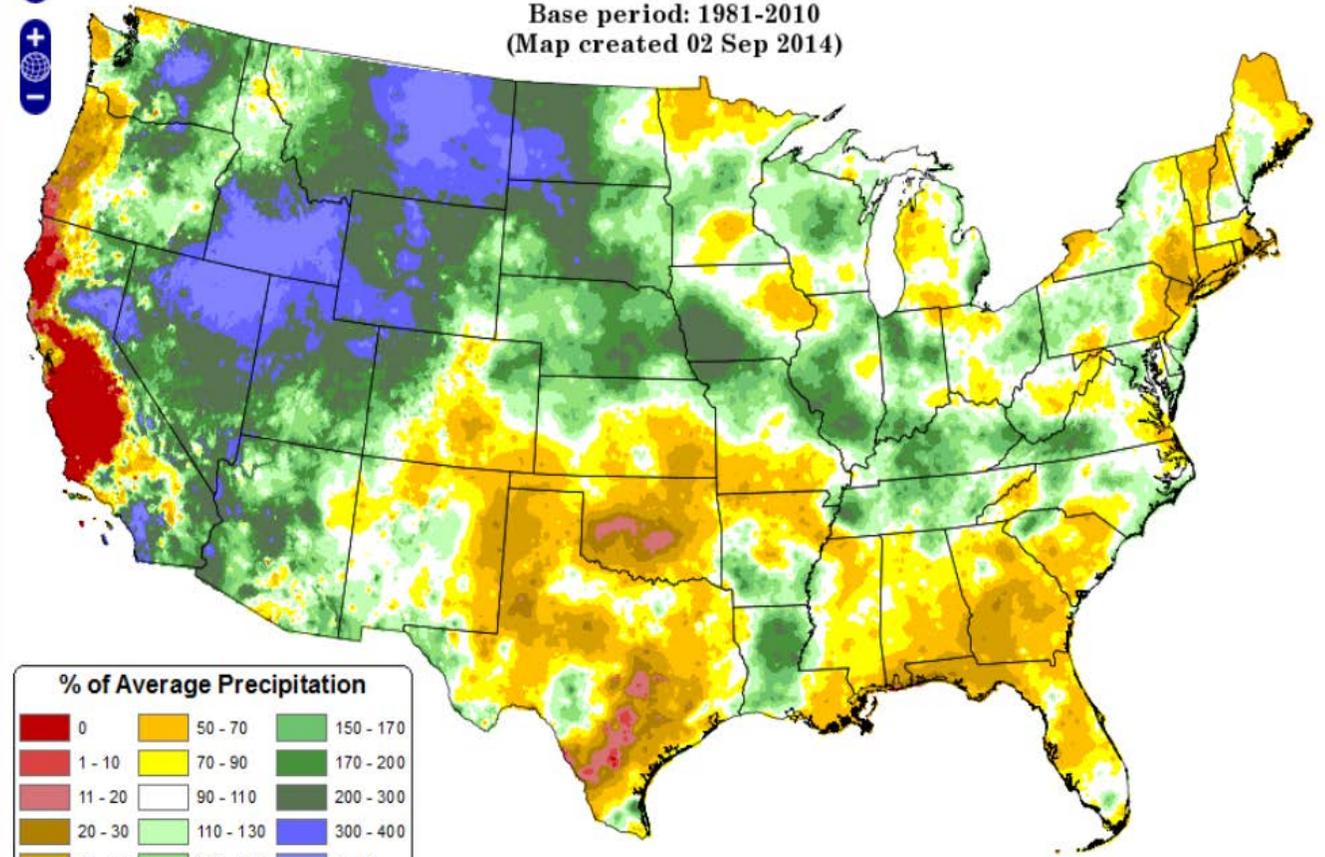
% of Average Precipitation

0	50 - 70	150 - 170
1 - 10	70 - 90	170 - 200
11 - 20	90 - 110	200 - 300
20 - 30	110 - 130	300 - 400
30 - 50	130 - 150	> 400

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Total Precipitation Anomaly: August 2014

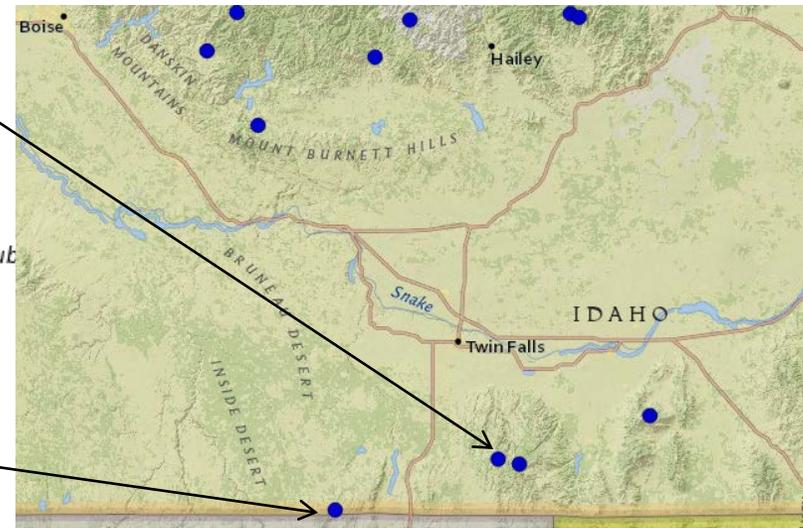
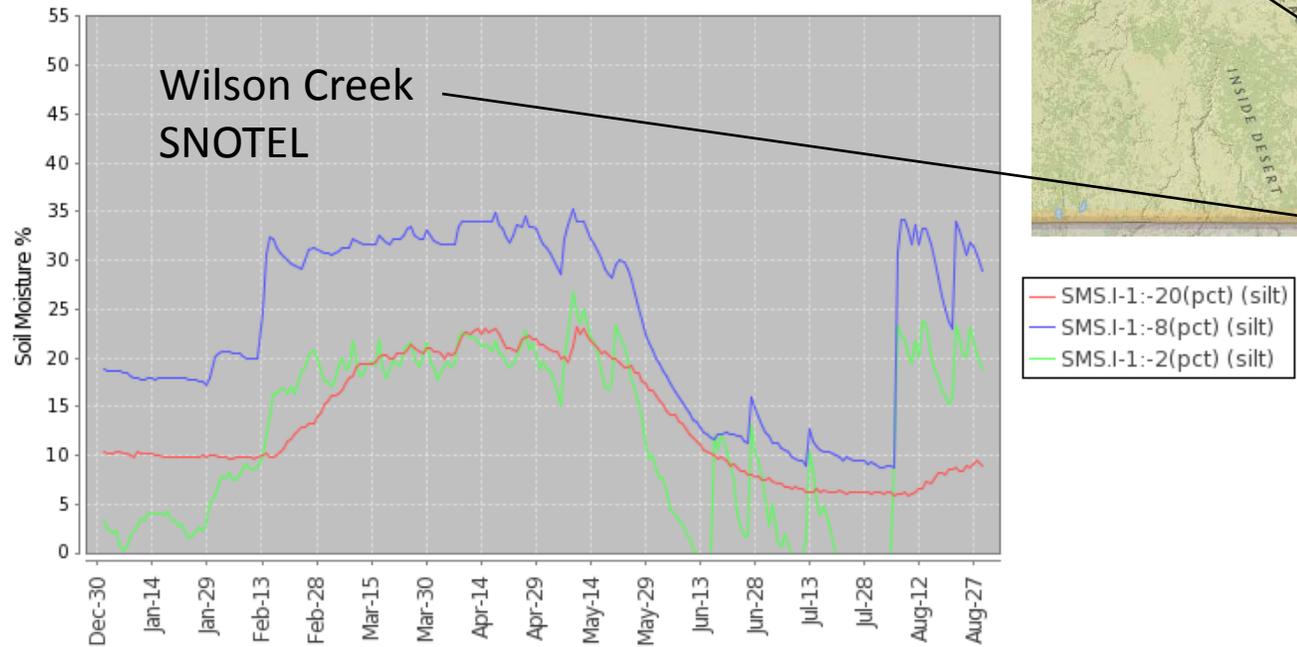
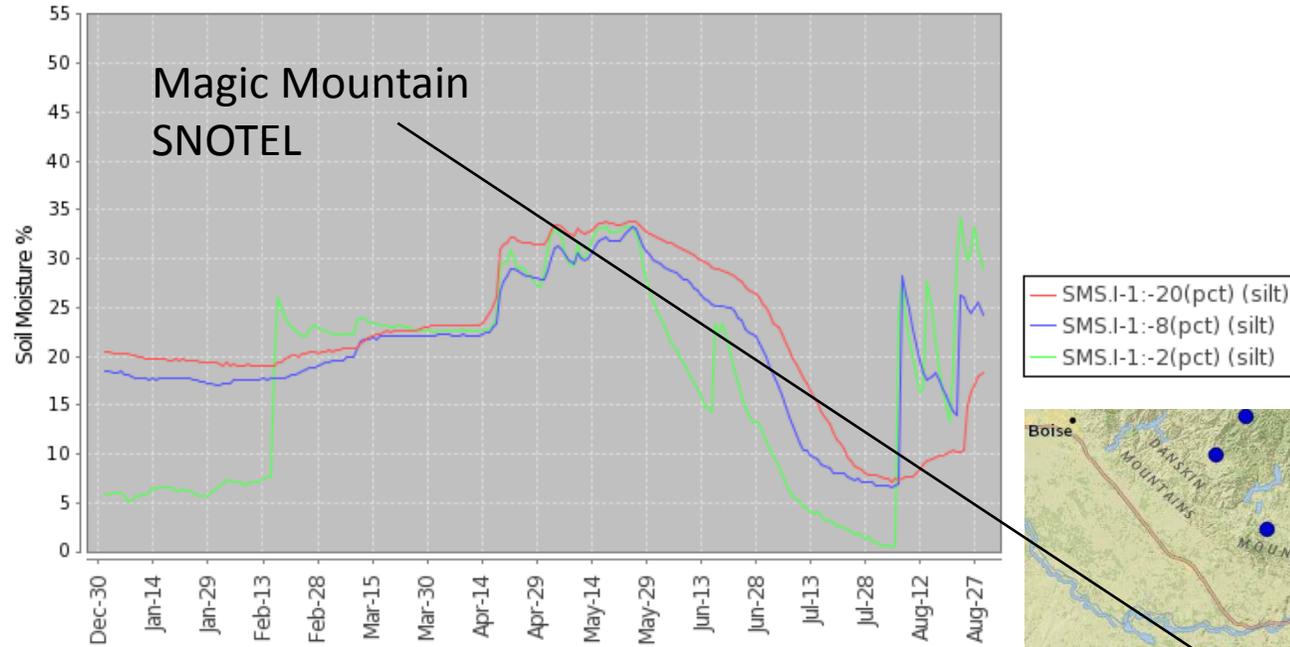
Period ending 31 Aug 2014
Base period: 1981-2010
(Map created 02 Sep 2014)



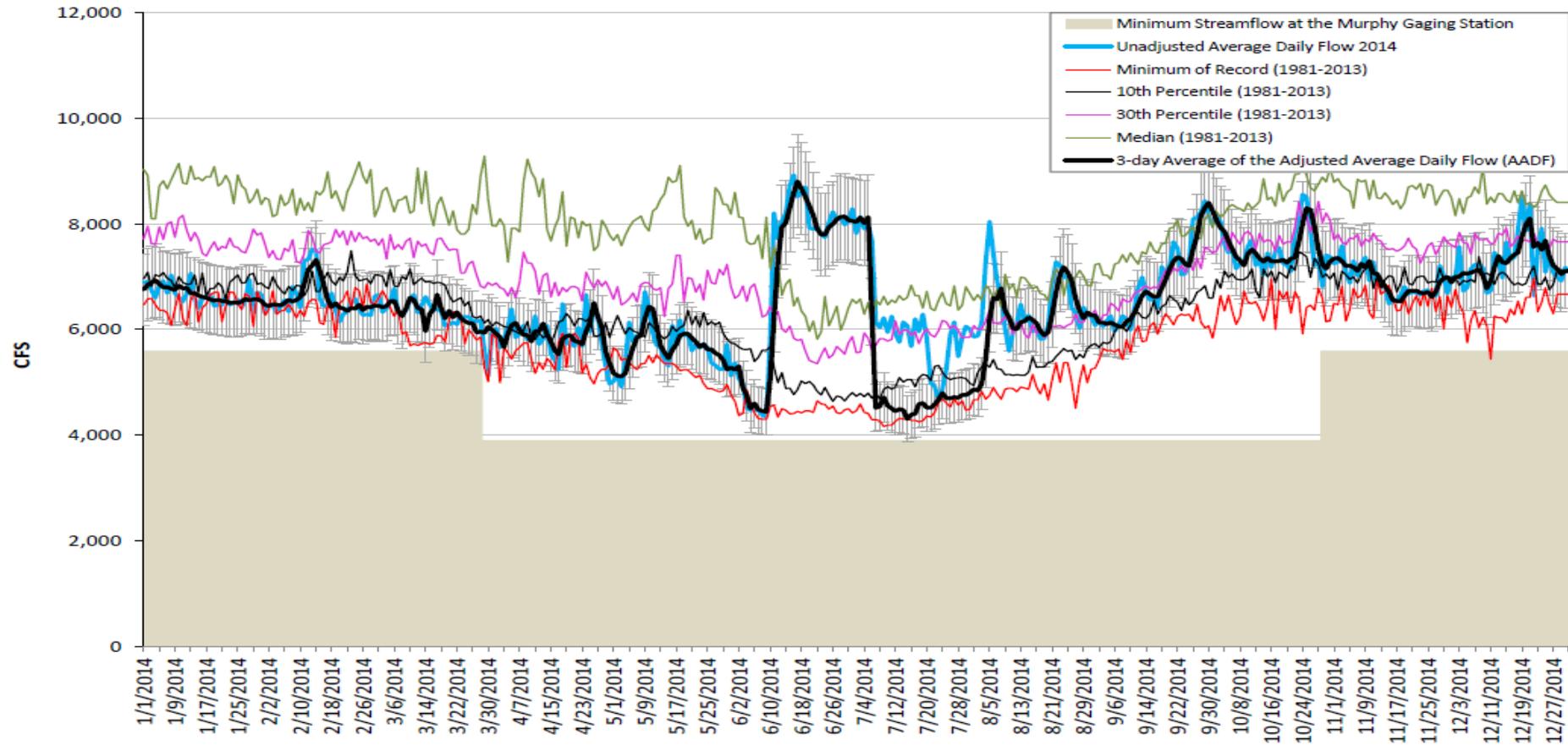
% of Average Precipitation

0	50 - 70	150 - 170
1 - 10	70 - 90	170 - 200
11 - 20	90 - 110	200 - 300
20 - 30	110 - 130	300 - 400
30 - 50	130 - 150	> 400

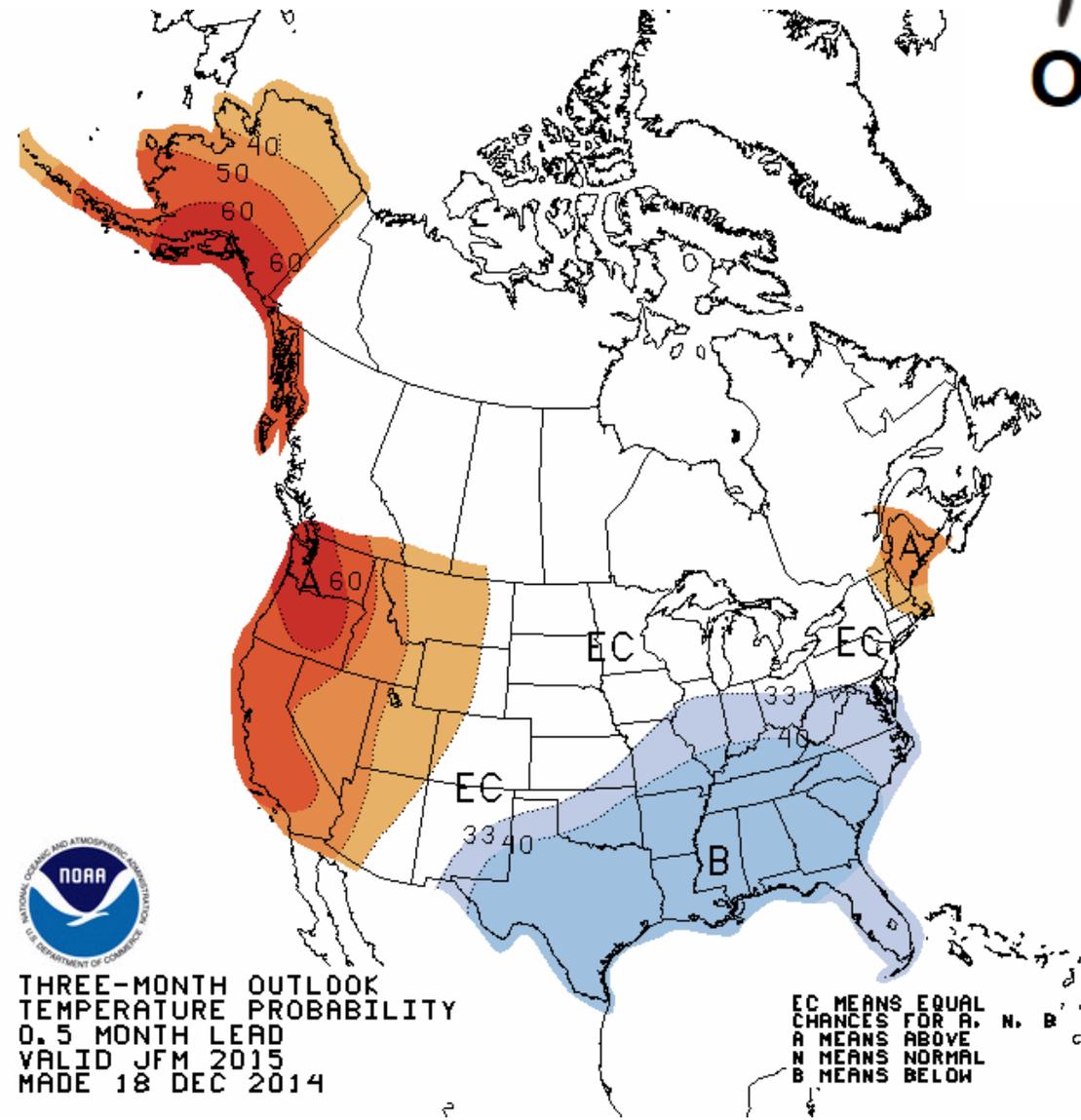
Copyright (c) 2014, PRISM Climate Group, Oregon State University



SUMMARY HYDROGRAPH SNAKE RIVER NR MURPHY 1981-2014



2014/2015 Temperature Forecasts

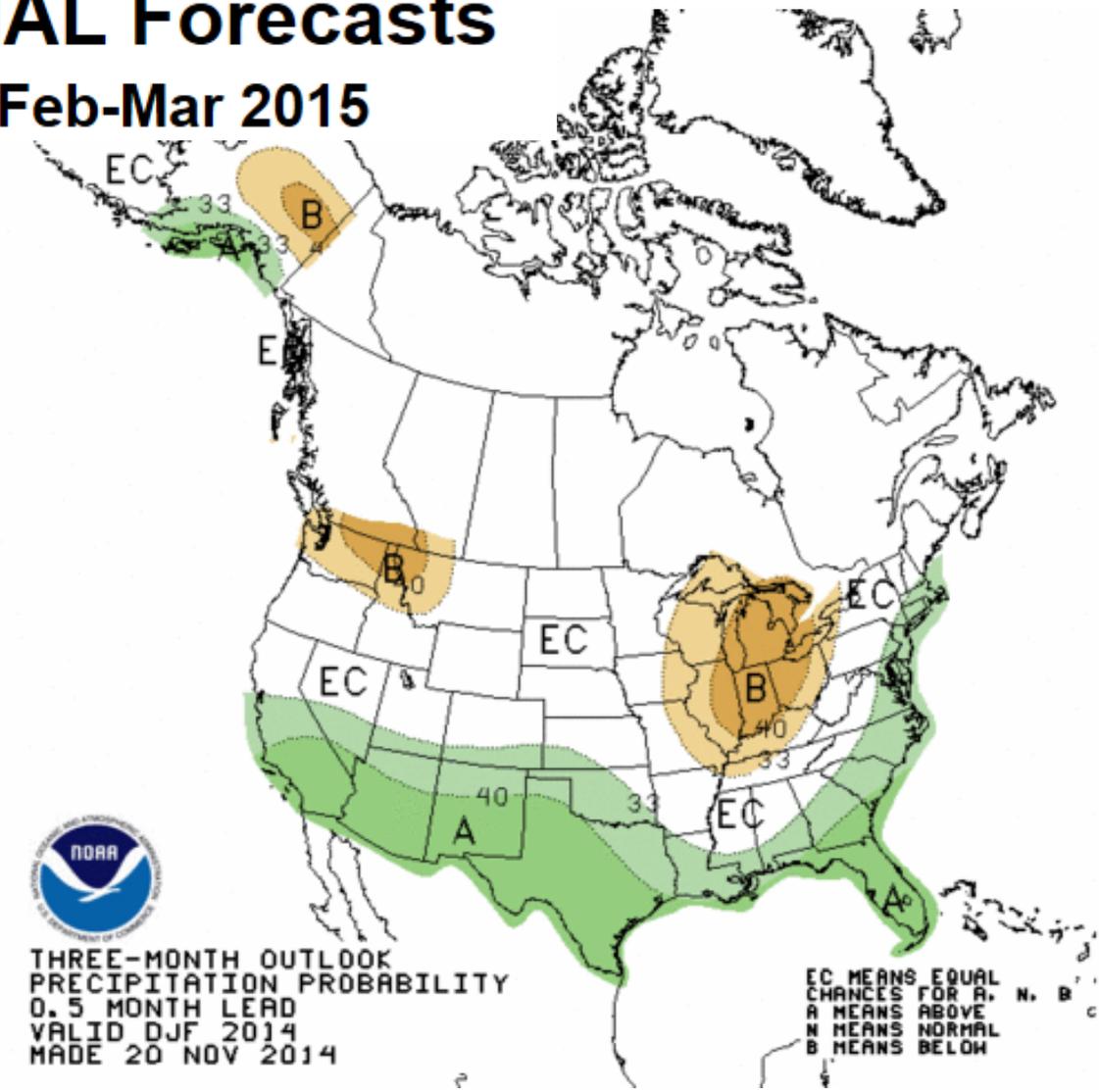


NOAA
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 U.S. DEPARTMENT OF COMMERCE

THREE-MONTH OUTLOOK
 TEMPERATURE PROBABILITY
 0.5 MONTH LEAD
 VALID JFM 2015
 MADE 18 DEC 2014

Three-Month Outlooks OFFICIAL Forecasts

Jan-Feb-Mar 2015



NOAA
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 U.S. DEPARTMENT OF COMMERCE

THREE-MONTH OUTLOOK
 PRECIPITATION PROBABILITY
 0.5 MONTH LEAD
 VALID DJF 2014
 MADE 20 NOV 2014

2014/2015 Precipitation Forecasts

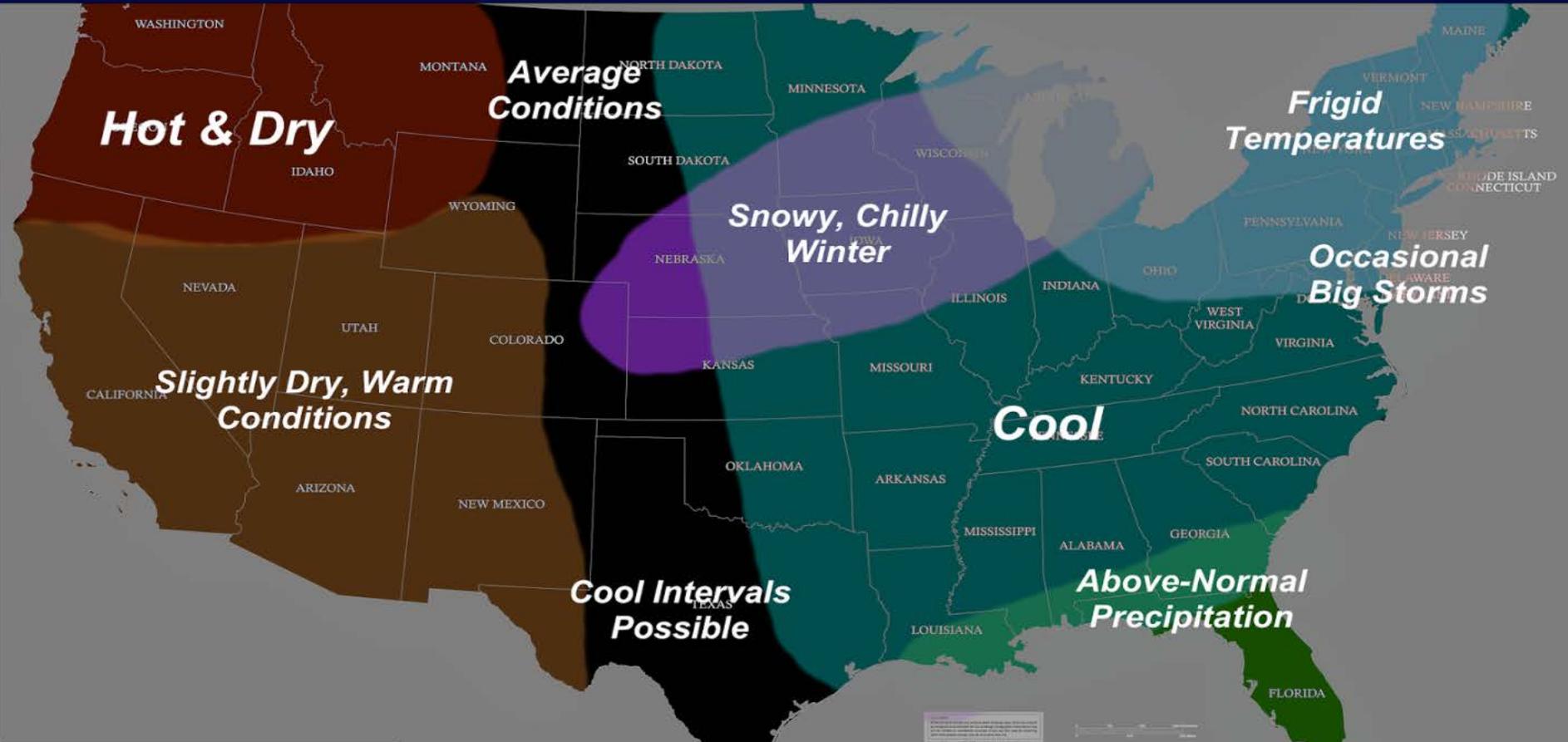


The Weather Centre

EXPECT THE UNEXPECTED

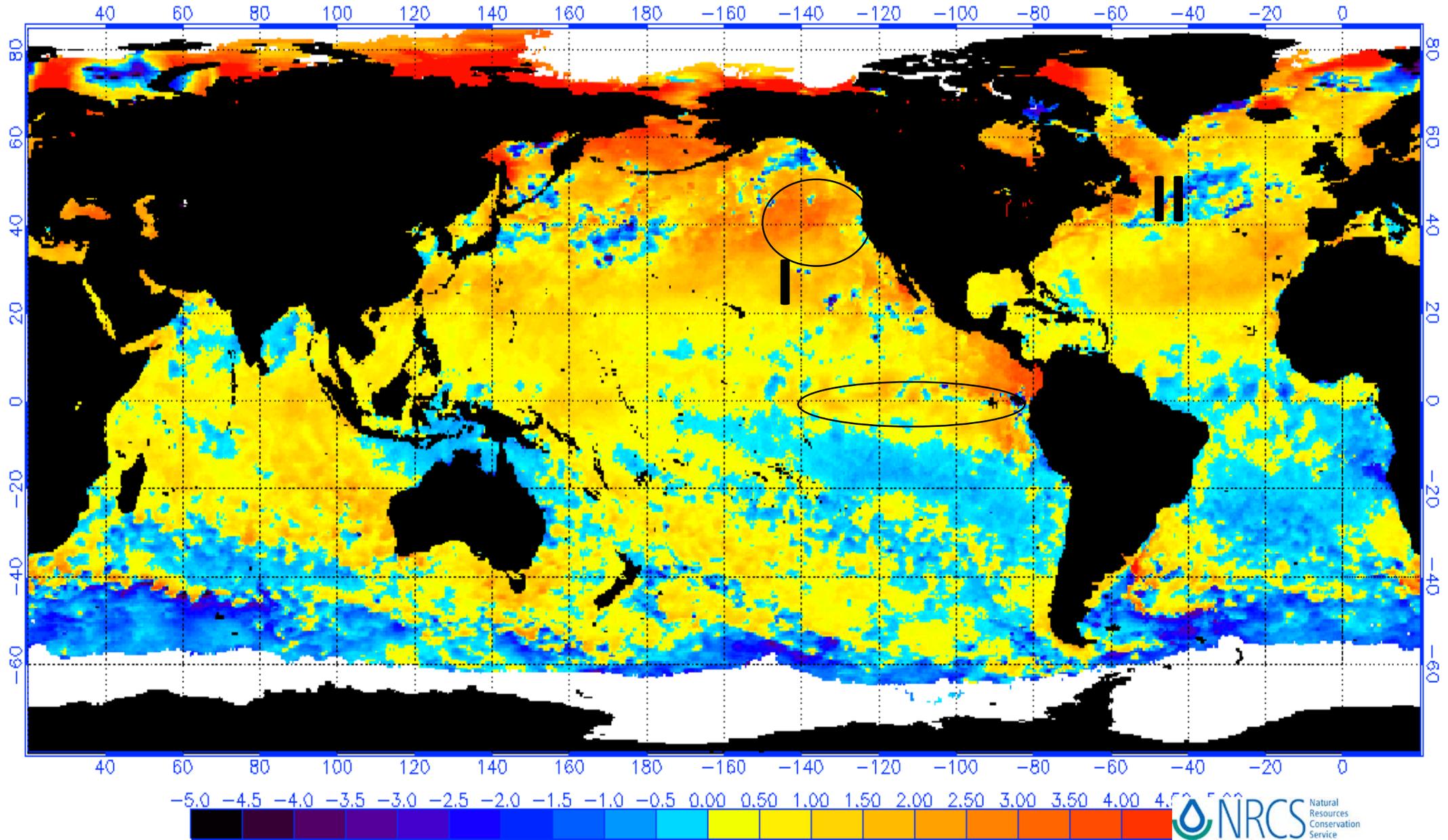
Official 2014-2015 Winter Forecast

Issued
October 11,
2014 by
Andrew @
The
Weather
Centre



Sept 8, 2014 – Sea Surface Temperatures

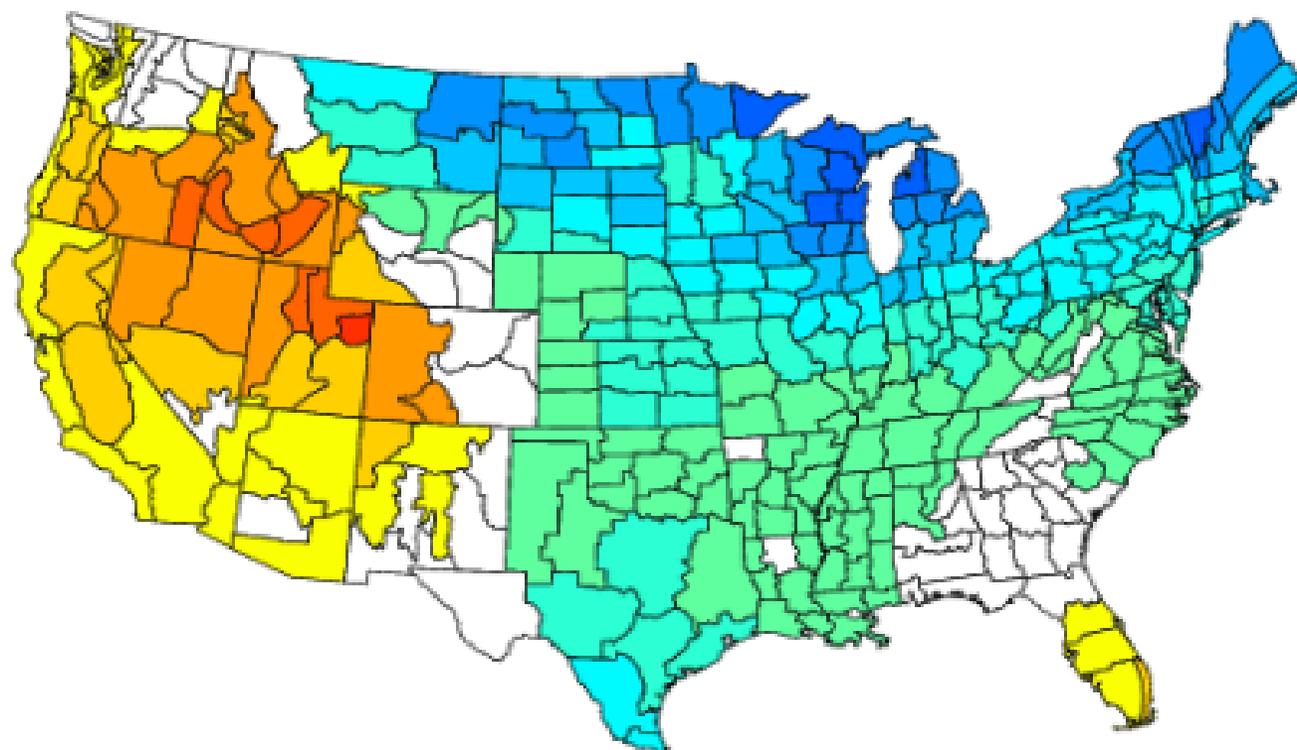
NOAA/NESDIS 50 KM GLOBAL ANALYSIS: SST Anomaly (degrees C), 9/8/2014
(white regions indicate sea-ice)



Something else we're using to watch for this winter is the perfect-scoring analog winter of 1958-1959, [which we](#)

From Andrew at The Weather Centre Aug 25, 2014

NOAA/NCDC Climate Division Temperature Anomalies (F)
Dec to Feb 1958-59
Versus 1950-1995 Longterm Average



ESRL

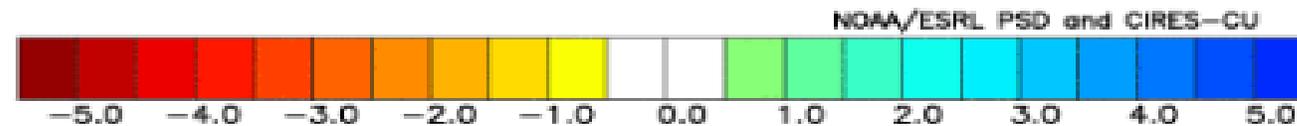
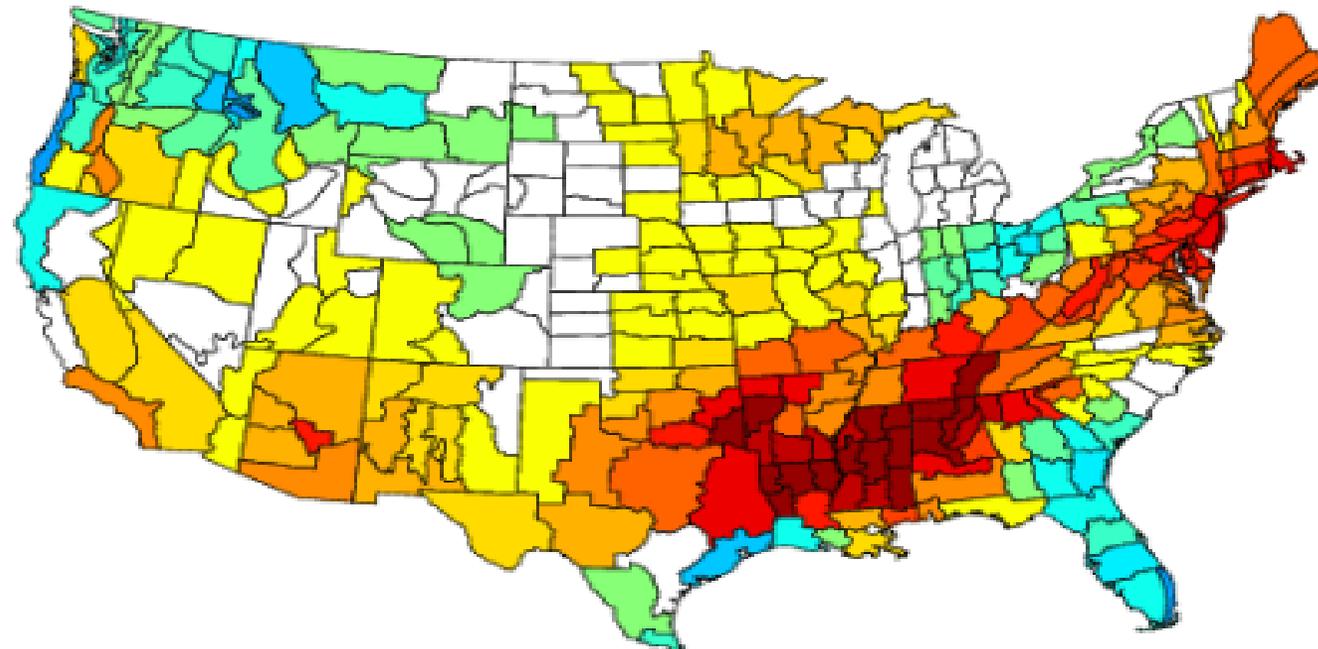
[Click to enlarge](#)

II. Precipitation Outlook Still Cloudy

From Andrew at The Weather Centre Aug 25, 2014

We're going to start out this section by going back to our analog year of 1958-1959 and seeing what it says.

NOAA/NCDC Climate Division Precipitation Anomalies (in)
Dec to Feb 1958-59
Versus 1950-1995 Longterm Average



ESRL

[Click to enlarge](#)

During the winter of 1958-1959, the majority of the nation saw quite a dry season. The south  **NRCS** Natural Resources Conservation Service

April – July Streamflow Runoff Volumes as Percent of 1981-2010 Normals From North to South

Forecast Point	1959	2014
Northern Idaho		
Boundary Ck NR Porthill	109%	104%
Moyie River	142%	115%
Priest R NR Priest River	121%	
Spokane River at Post Falls	140%	115%
St. Joe River at Calder	137%	
Dworshak Reservoir Inflow	---	122%
Locsha River	134%	
Selway River	129%	
Clearwater River nr Spalding	127%	
Salmon & West-Central Idaho		
Lemhi R NR Lemhi	92%	
Salmon River at White Bird	106%	114%
Weiser River nr Weiser	74%	
SF Payette at Lowman	91%	
Payette nr Horseshoe Bend	95%	
SF Boise River nr Featherville	~77%	
Boise River nr Twin Springs	92%	
Boise River nr Boise	86%	85%

April – July Streamflow Runoff Volumes as Percent of 1981-2010 Normals

<u>Forecast Point</u>	<u>1959</u>	<u>2014</u>
Central Idaho		
Camas Creek nr Blaine	49%	
Big Wood at Hailey	57%	59%
Little Wood River nr Carey	49%	31%
Big Lost R abv Howell	59%	
Big Lost blw Mackay Reservoir	---	40%
Little Lost R NR Howe	71%	68%
Eastern Idaho		
Teton River nr Driggs	---	102%
Snake River nr Heise	88%	118%
Snake R at Neely (American Falls)	66%	97%
Southern Idaho		
Bear River blw Stewart Dam	29%	51%
Oakley Reservoir Inflow	42%	57%
Salmon Falls Creek, NV	39%	46%
Bruneau River nr Hot Springs	46%	37%
Owyhee River nr Rome	17%	14%

La Nina and Pacific Decadal Oscillation (PDO)

Cooling in the Pacific Ocean

Don J. Easterbrook, Dept. of Geology, Western Washington University, Bellingham, WA

The announcement by NASA's Jet Propulsion Laboratory that the Pacific Decadal Oscillation (PDO) had shifted to its cool phase (Fig. 1) is right on schedule as predicted by past climate and PDO changes (Easterbrook, 2001, 2006, 2007). It is not an oddity superimposed upon and masking the predicted severe warming by the IPCC.

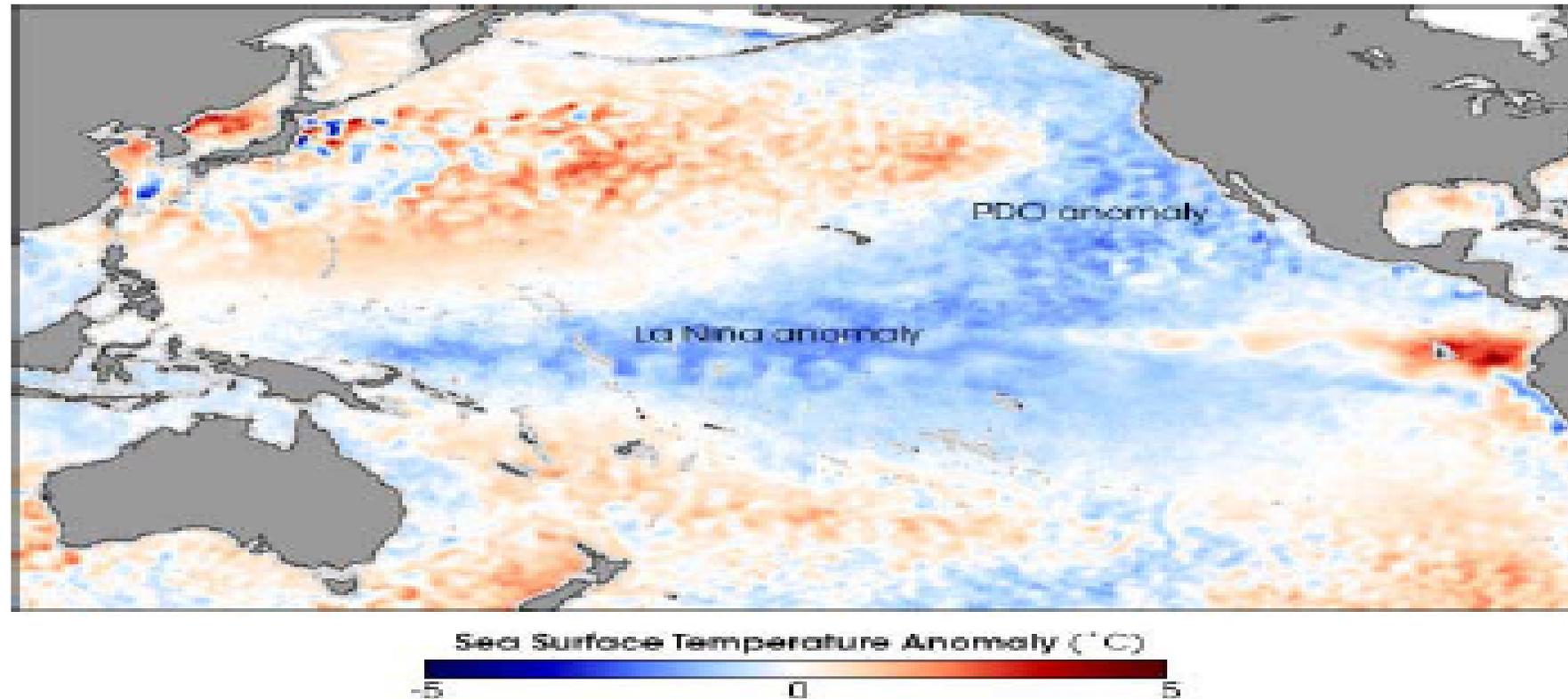
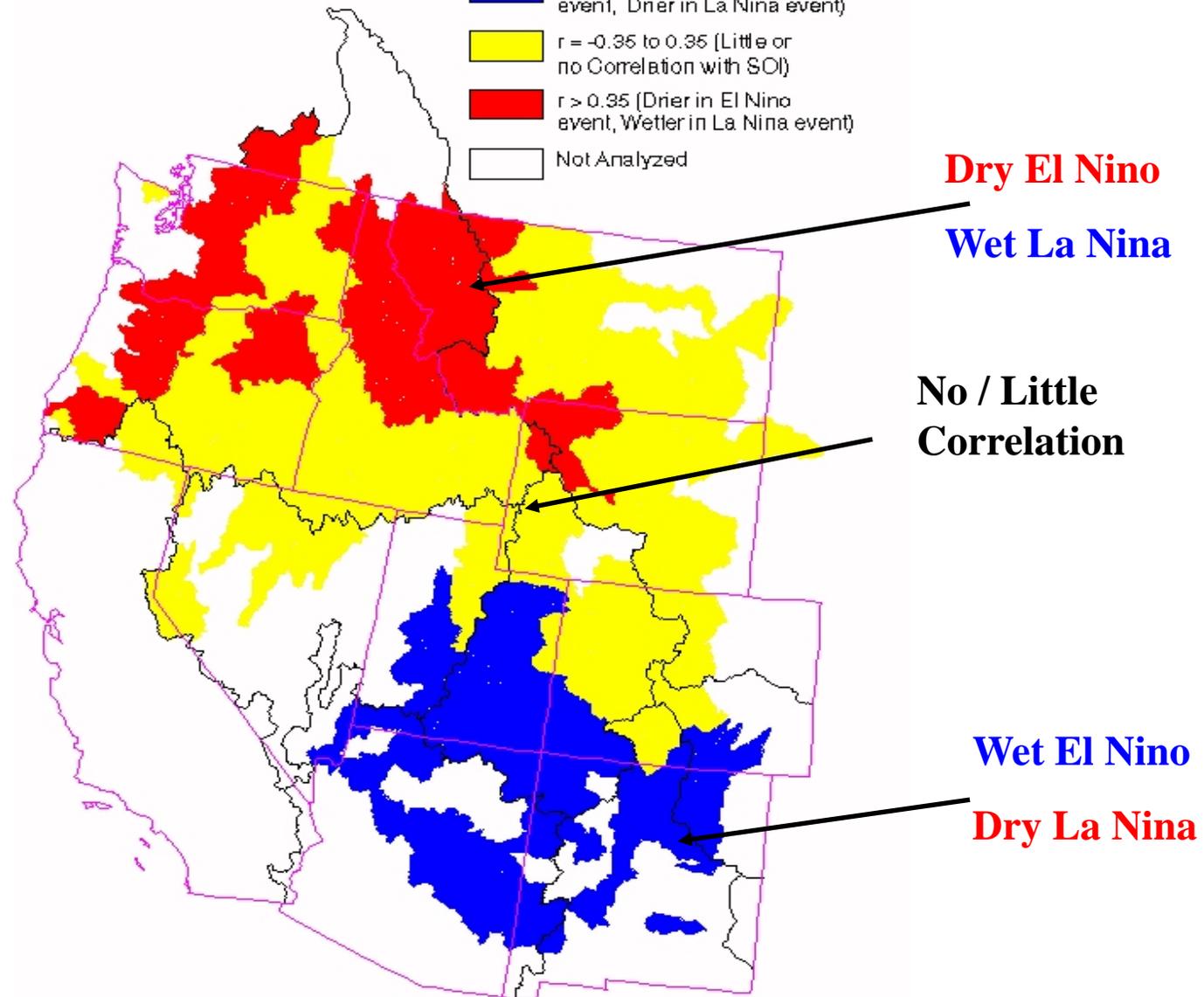


Figure 1. Cooling of the Pacific Ocean and setting up of the PDO. Sea surface temperature anomaly in the Pacific Ocean from April 14–21, 2008. The anomaly compares the recent temperatures measured by the Advanced Microwave Scanning Radiometer for EOS (AMSR-E) on NASA's Aqua satellite with

Correlation Map of the Southern Oscillation Index (SOI) with spring and summer streamflow

Legend

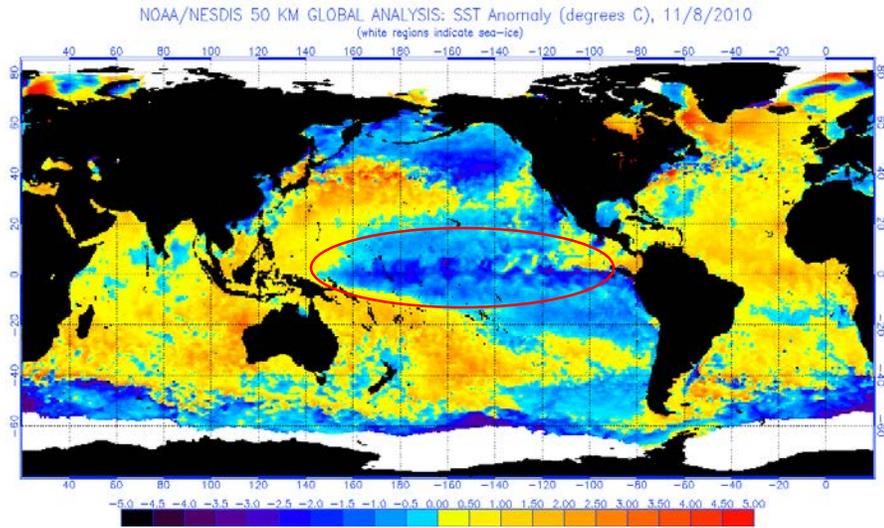
-  $r < -0.95$ (Wetter in El Nino event, Drier in La Nina event)
-  $r = -0.95$ to 0.95 (Little or no Correlation with SOI)
-  $r > 0.95$ (Drier in El Nino event, Wetter in La Nina event)
-  Not Analyzed



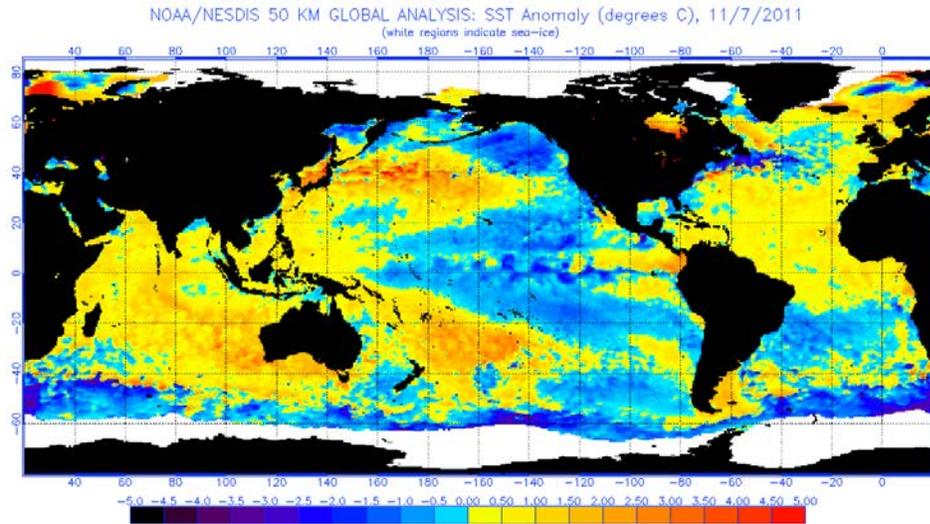
Winter 2013-2014

- ENSO Neutral Signal along with SOI
- Pacific Decadal Oscillation (PDO) is in cool phase since at least 2008 or 1997
- Key Time Period in Pacific Ocean is July to Nov – this period correlates the highest with our winter snowfall & water supplies

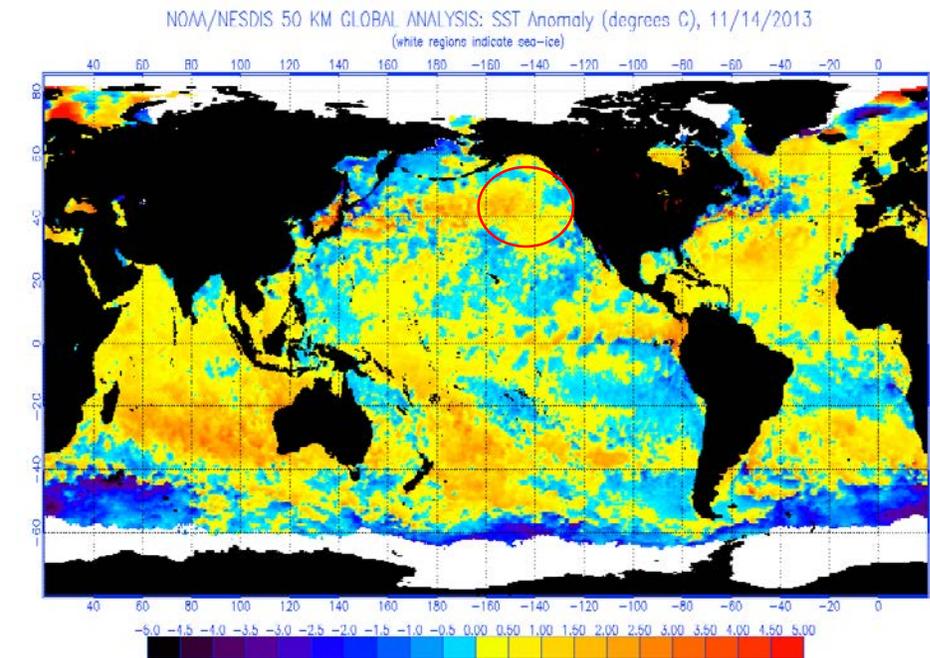
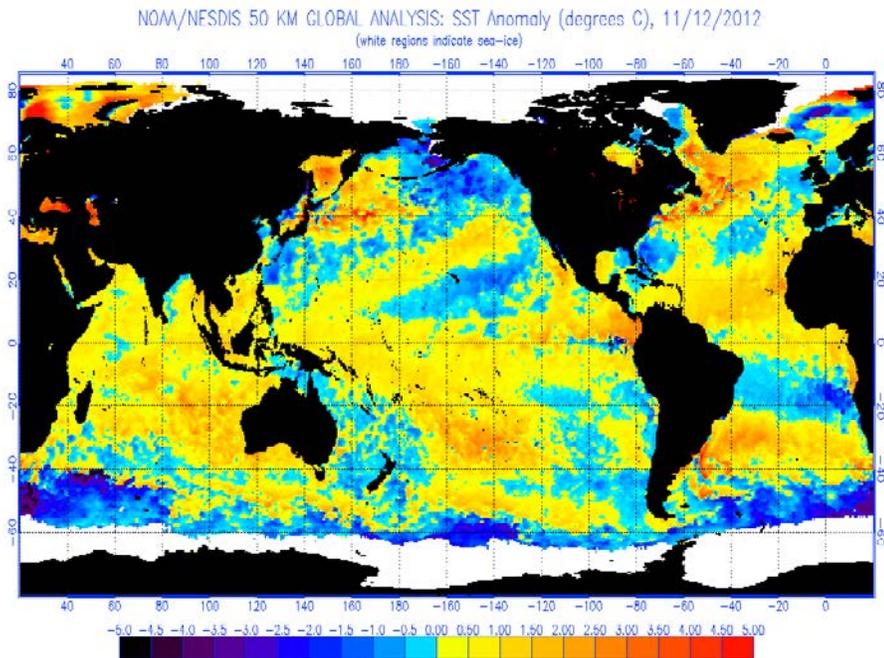
Nov 2010 – Strong La Nina



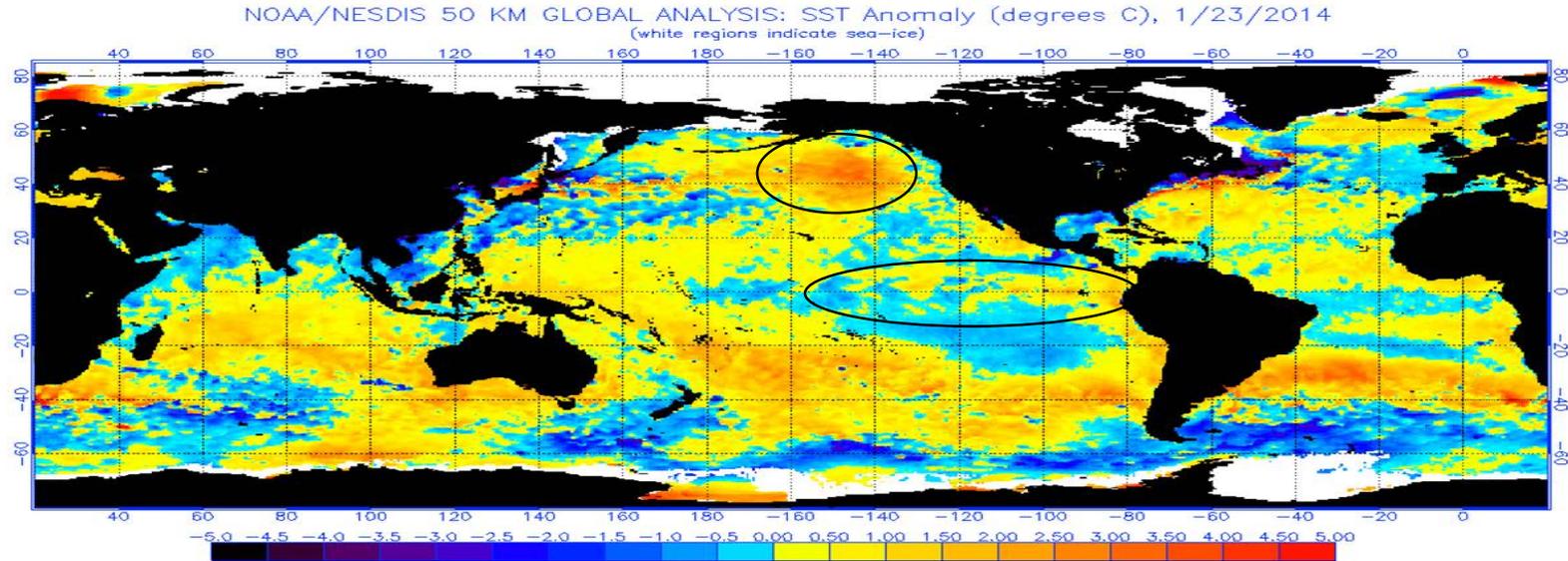
Nov 2011 – Weak La Nina



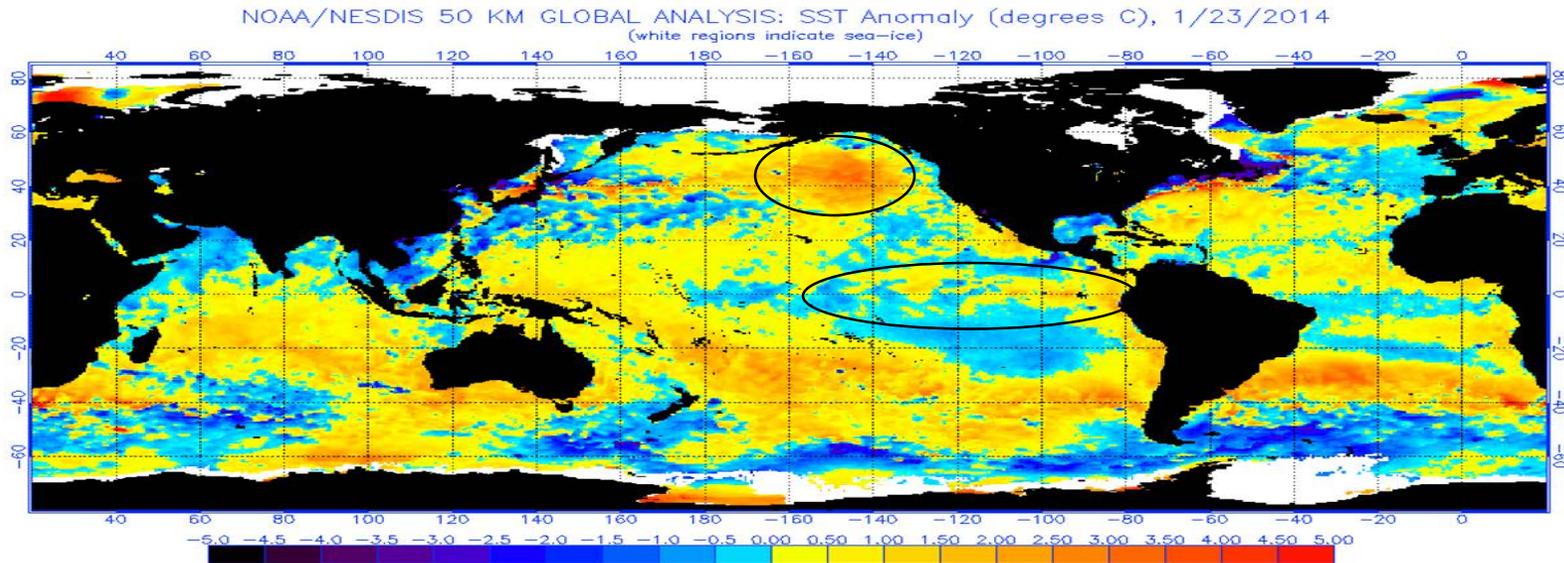
November 2012 ----- Neutral Years ----- November 2013



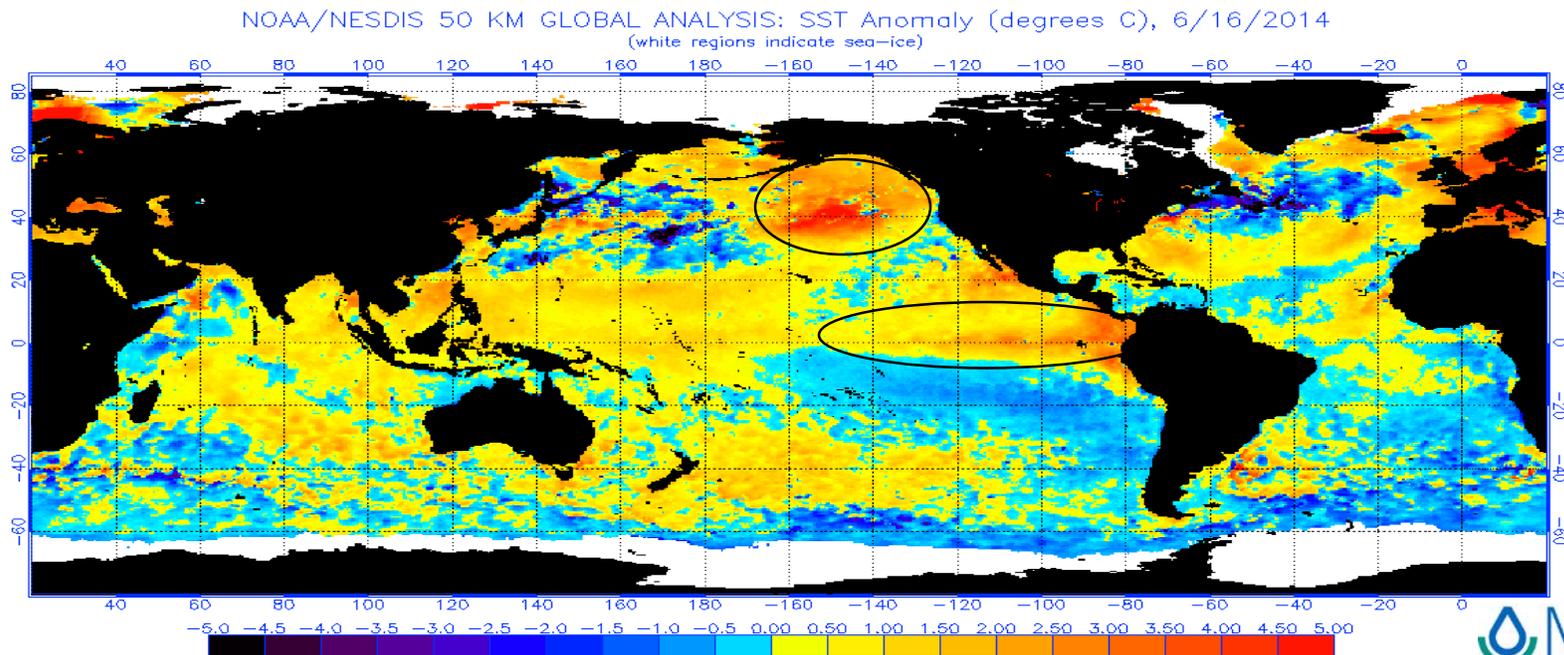
January 23, 2014 – warm water in NW Pacific increasing



January 23, 2014 – warm water in NW Pacific increasing

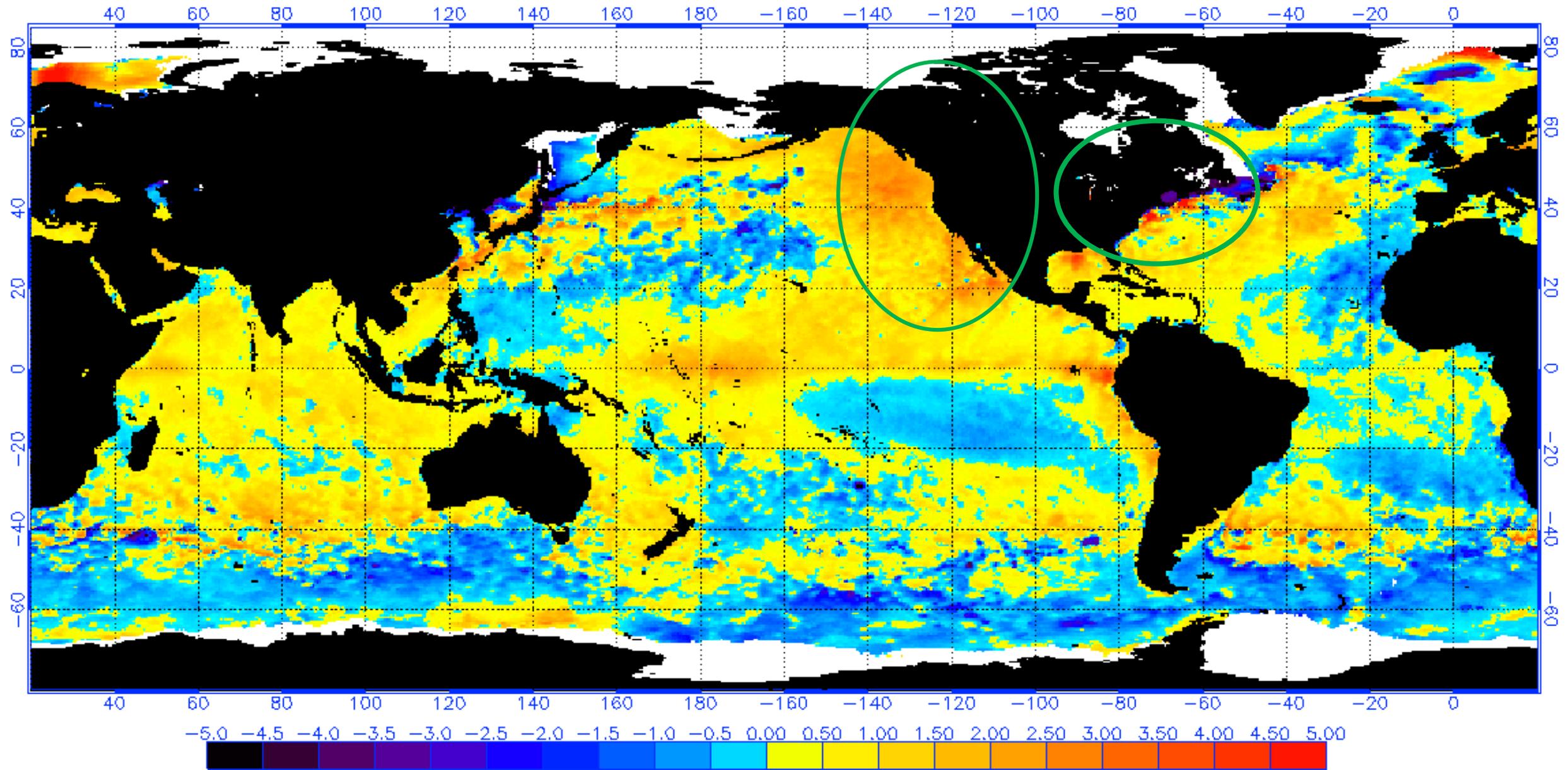


June 16, 2014 – El Nino Brewing



April 6, 2015 – warm waters still present in NW Pacific & El Nino warm waters increasing

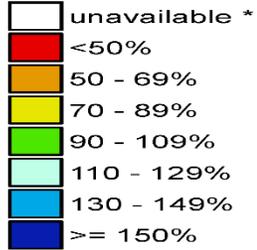
NOAA/NESDIS 50 KM GLOBAL ANALYSIS: SST Anomaly (degrees C), 4/6/2015
(white regions indicate sea-ice)



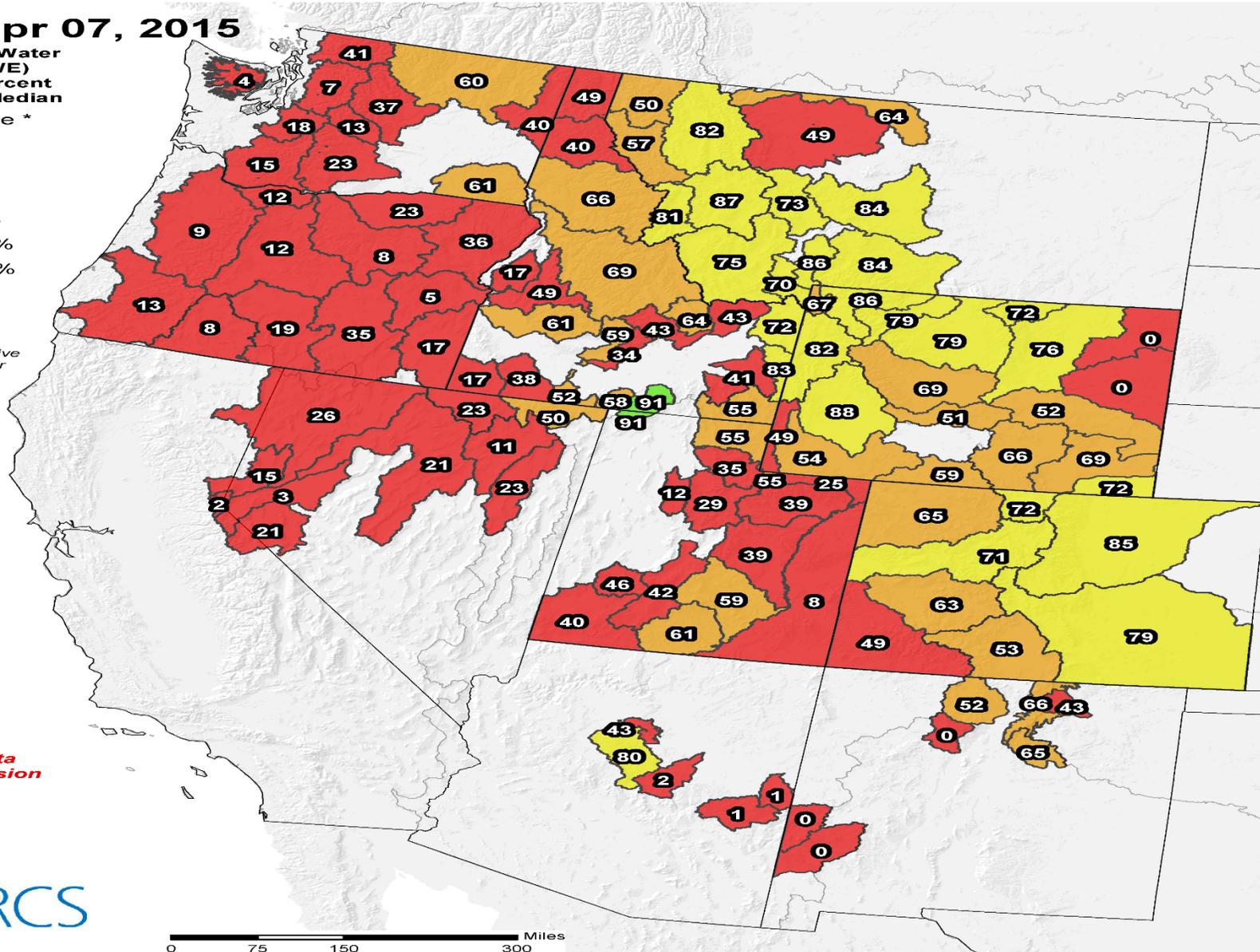
Westwide SNOTEL Current Snow Water Equivalent (SWE) % of Normal

Apr 07, 2015

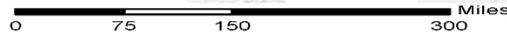
Current Snow Water Equivalent (SWE) Basin-wide Percent of 1981-2010 Median



* Data unavailable at time of posting or measurement is not representative at this time of year



Provisional data subject to revision

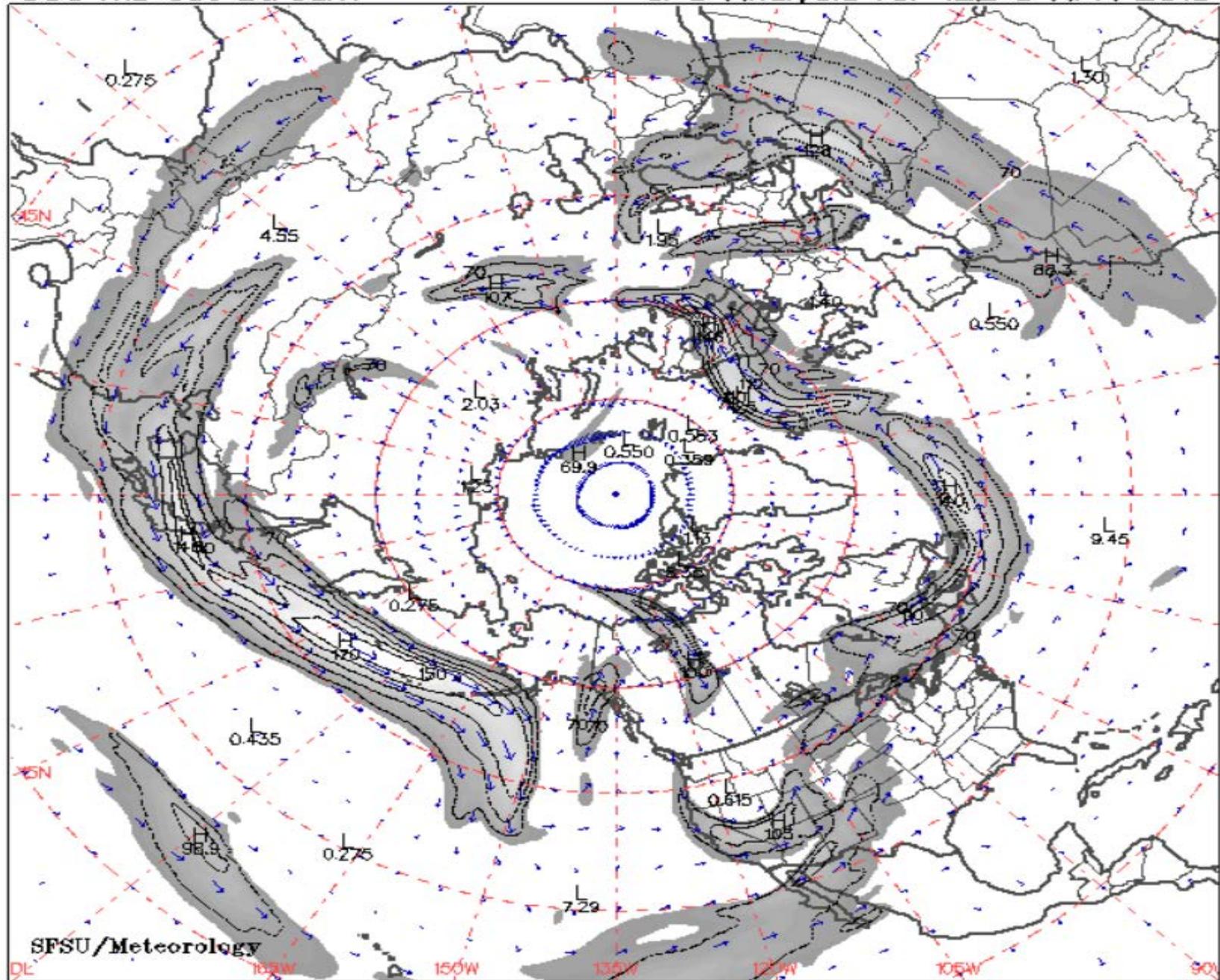


The snow water equivalent percent of normal represents the current snow water equivalent found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

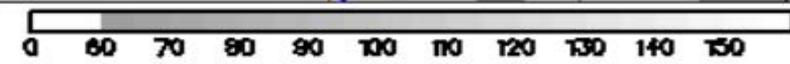
Prepared by:
USDA/NRCS National Water and Climate Center
Portland, Oregon
<http://www.wcc.nrcs.usda.gov>

300 mb Jet Stream

GFS Analysis for 12Z 8 APR 2015

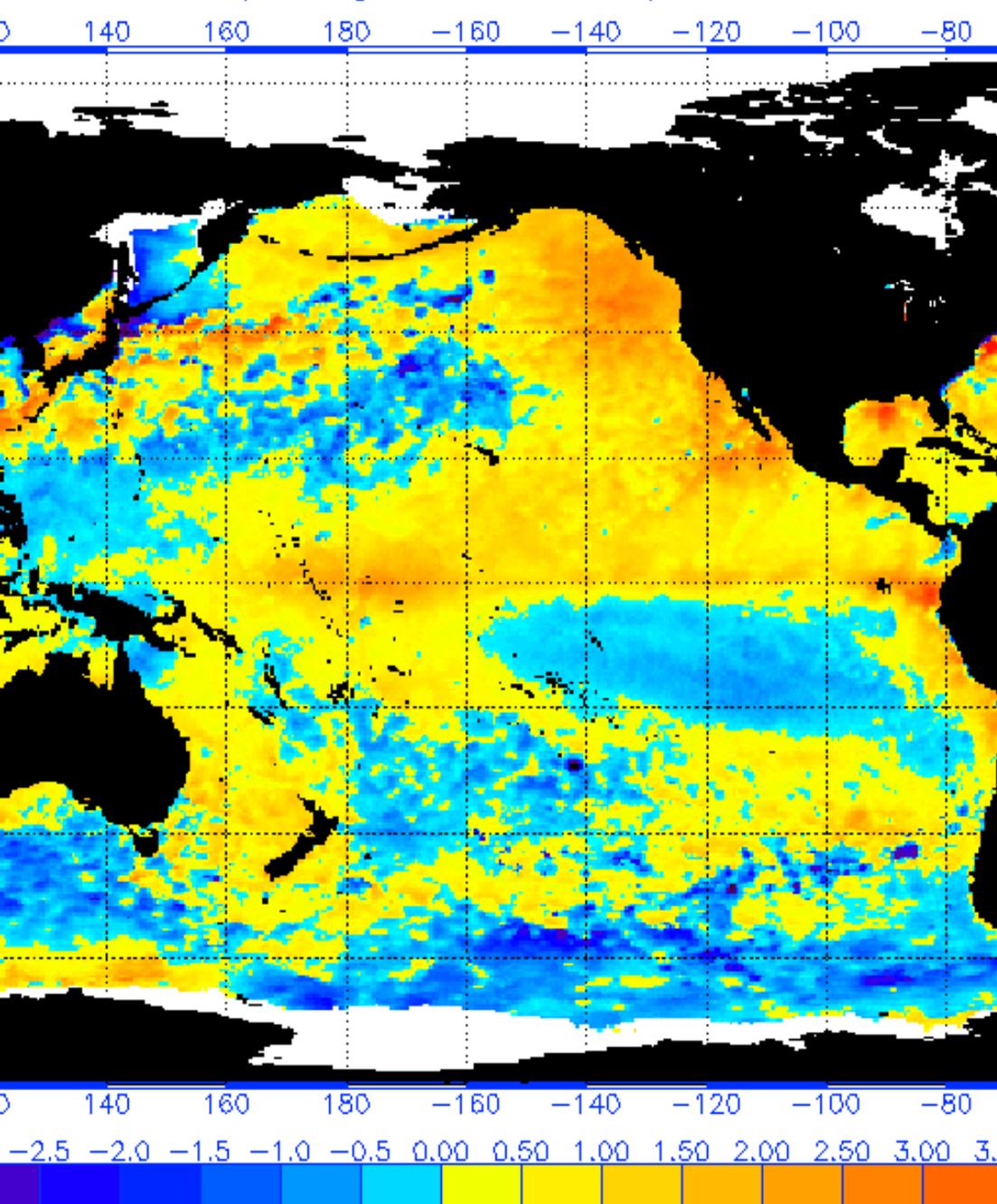


SFSU/Meteorology



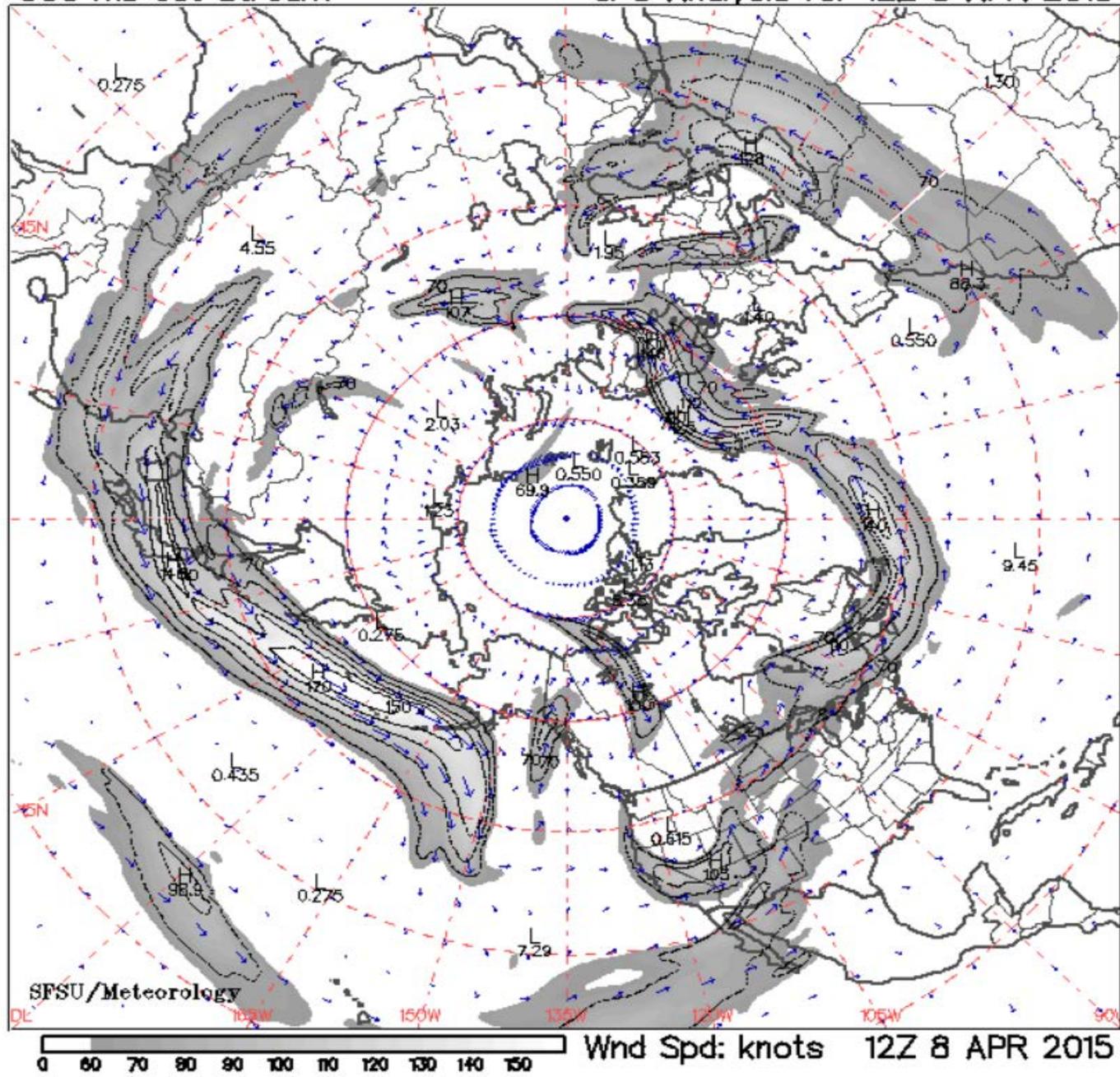
Wnd Spd: knots 12Z 8 APR 2015

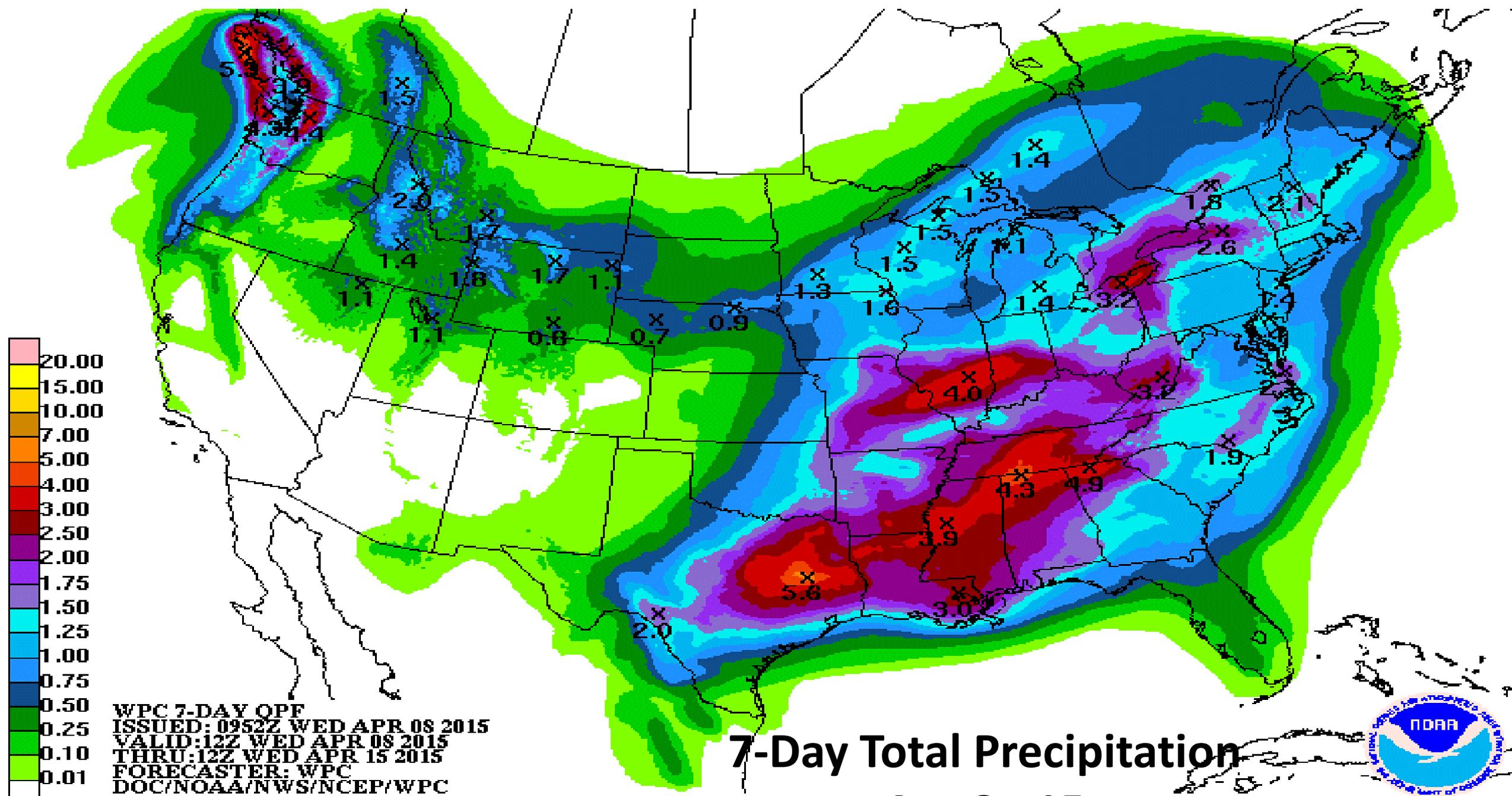
GLOBAL ANALYSIS: SST Anomaly (degrees C),
(white regions indicate sea-ice)



300 mb Jet Stream

GFS Analysis for 12Z 8 APR 2015



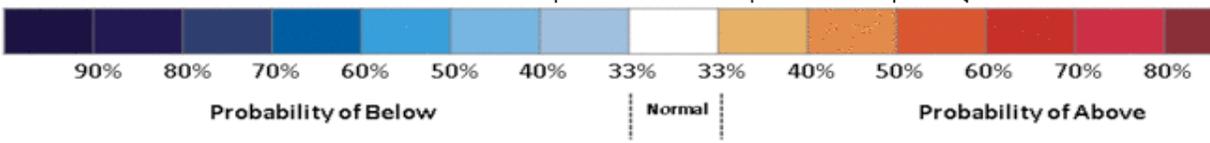
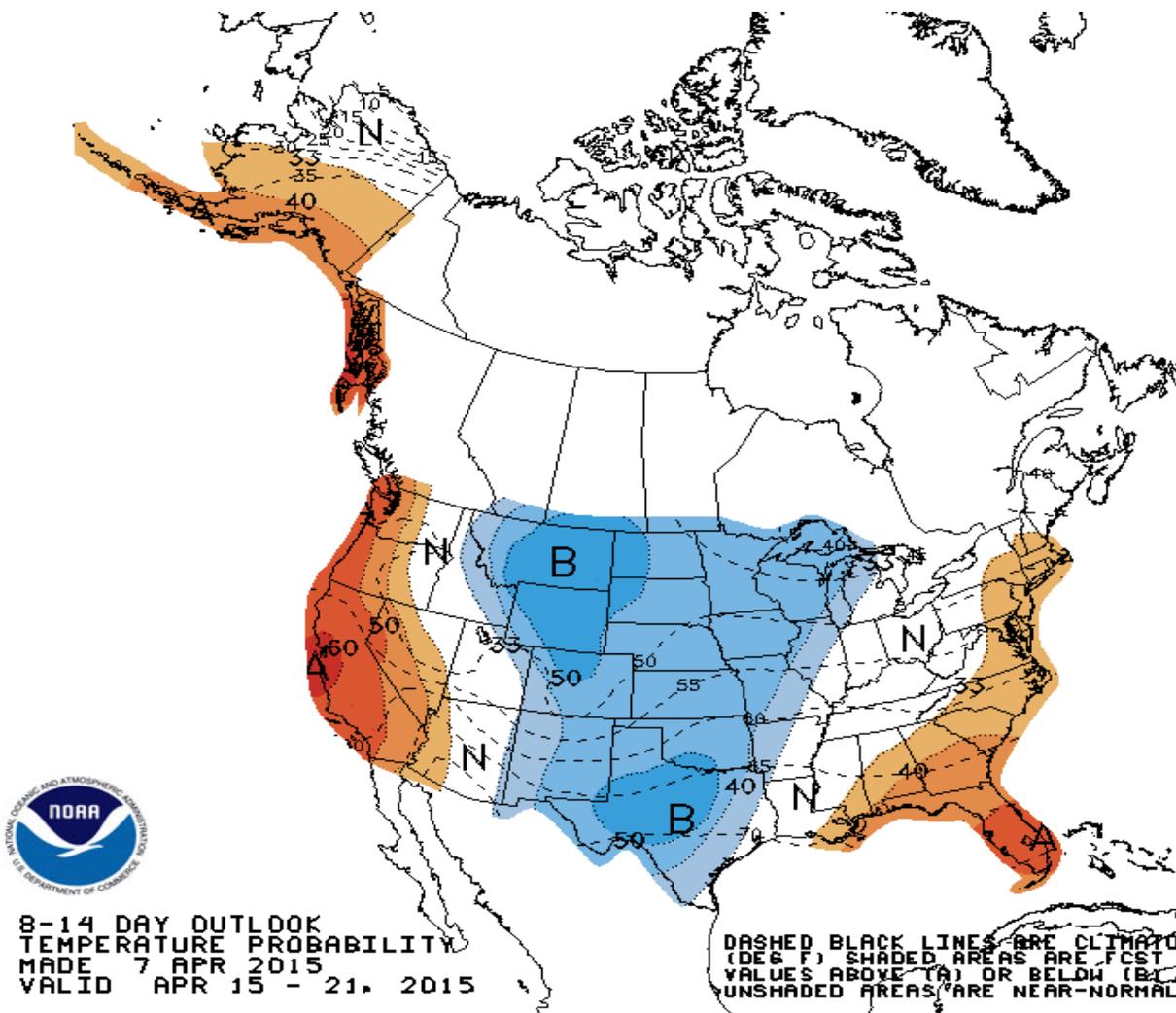


WPC 7-DAY OPF
 ISSUED: 0952Z WED APR 08 2015
 VALID: 12Z WED APR 08 2015
 THRU: 12Z WED APR 15 2015
 FORECASTER: WPC
 DOC/NOAA/NWS/NCEP/WPC

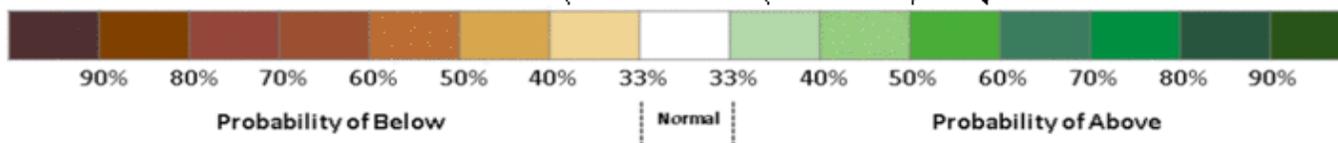
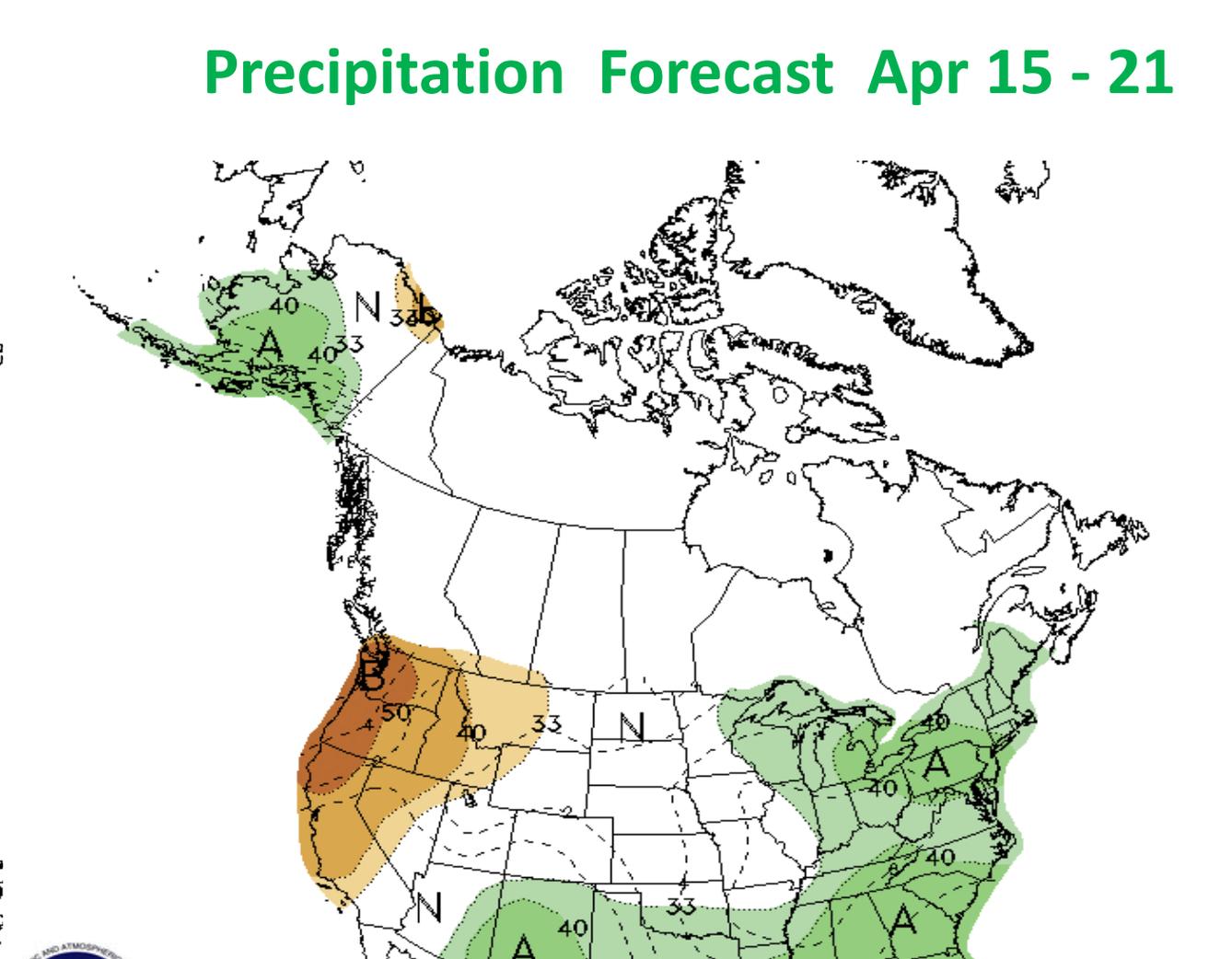
7-Day Total Precipitation Apr 8 - 15

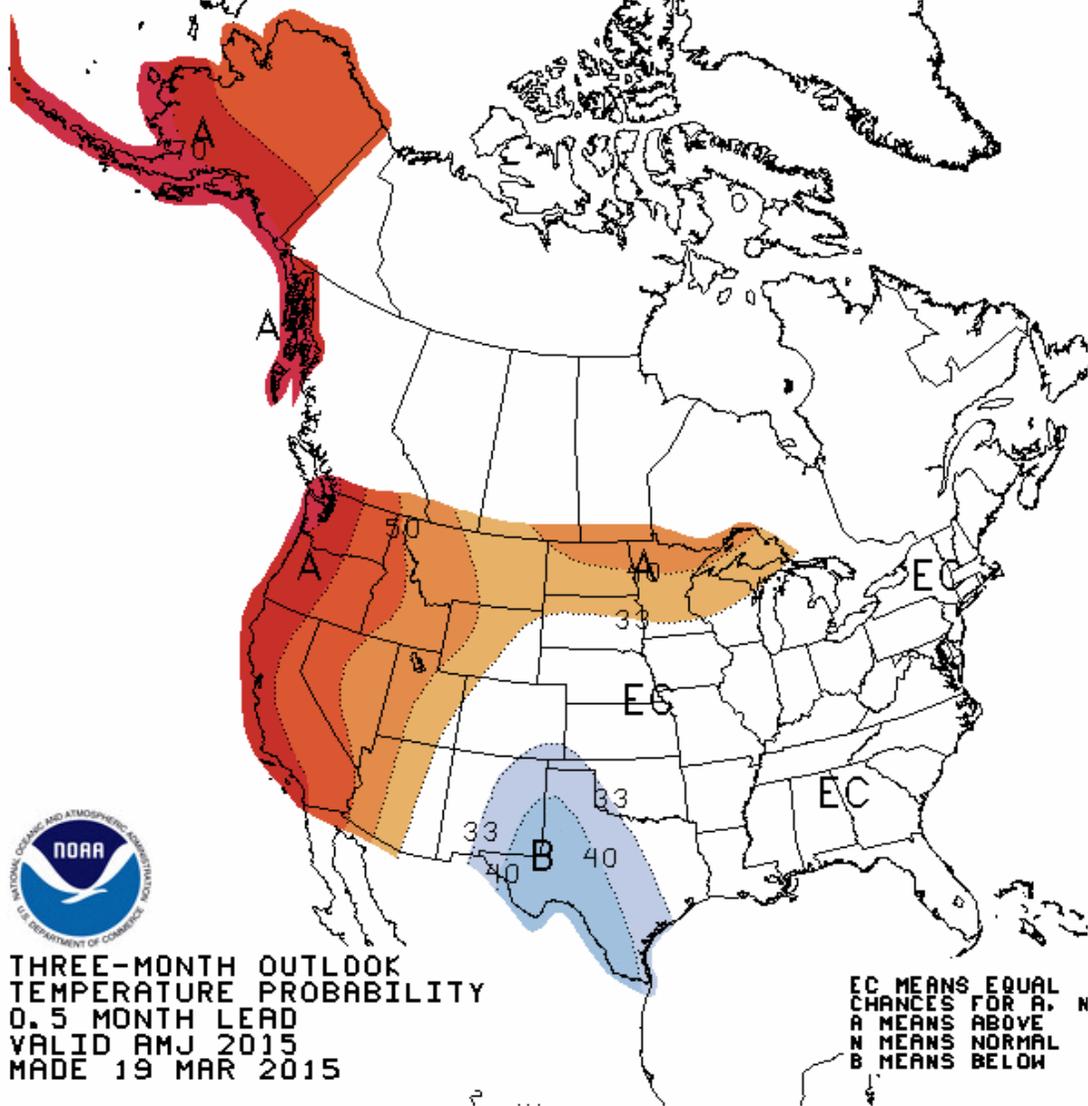


Precipitation Forecast Apr 15 - 21

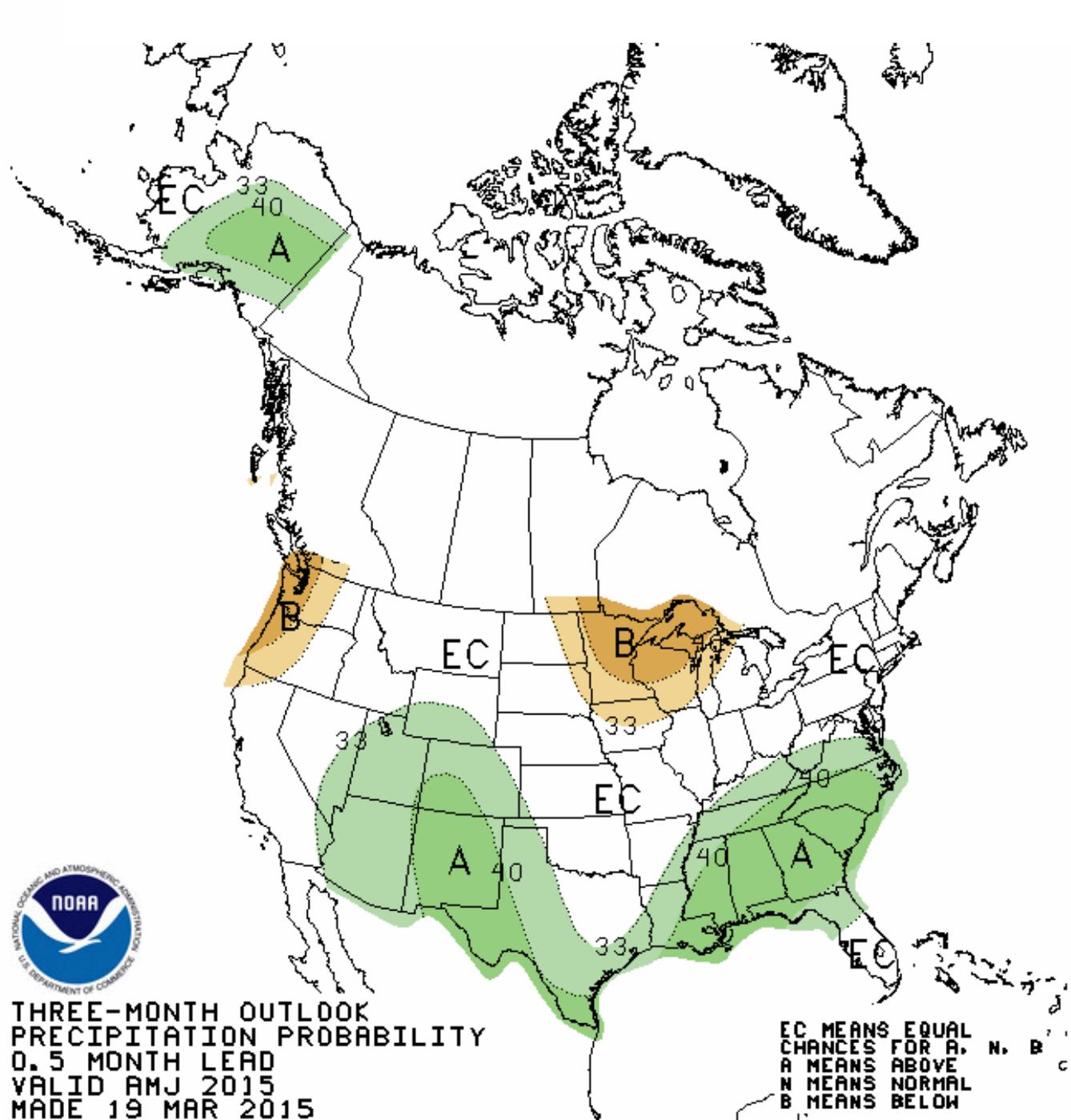


Apr 15 - 21 Temperature Forecast





Apr-May-Jun Temperature & Precipitation Forecast



Douglas calls for spring, summer moisture



[Matthew Weaver](#)
Capital Press

Published:
February 3, 2015 3:24PM



Creighton University professor emeritus Art Douglas addresses farmers at the Spokane Ag Expo and Pacific Northwest Farm Forum Feb. 3 in Spokane. [Buy this photo](#)

Creighton University professor emeritus Art Douglas forecasts a cool, wet spring and summer, with moisture likely coming in April in the Pacific Northwest.

SPOKANE — A celebrated weatherman predicts a cool, wet spring and summer, but a continued El Niño could delay planting in the fall for the Northwest region.

Art Douglas, professor emeritus at Creighton University in Omaha, Neb., and a mainstay at the Spokane Ag Expo, addressed farmers at the event.

Douglas expects warm temperatures to persist in the western United States through February, keeping precipitation below normal levels.

“This is not a real good pattern for trying to get some much-needed rain into the western U.S.,” Douglas said.

Douglas expects warm temperatures to persist in the western United States through February, keeping precipitation below normal levels.

“This is not a real good pattern for trying to get some much-needed rain into the western U.S.,” Douglas said.

April is the best chance for spring precipitation in the Pacific Northwest, Douglas said.

Douglas predicts cool temperatures and moisture in the region through June and July. Weather could delay planting in the Midwest.

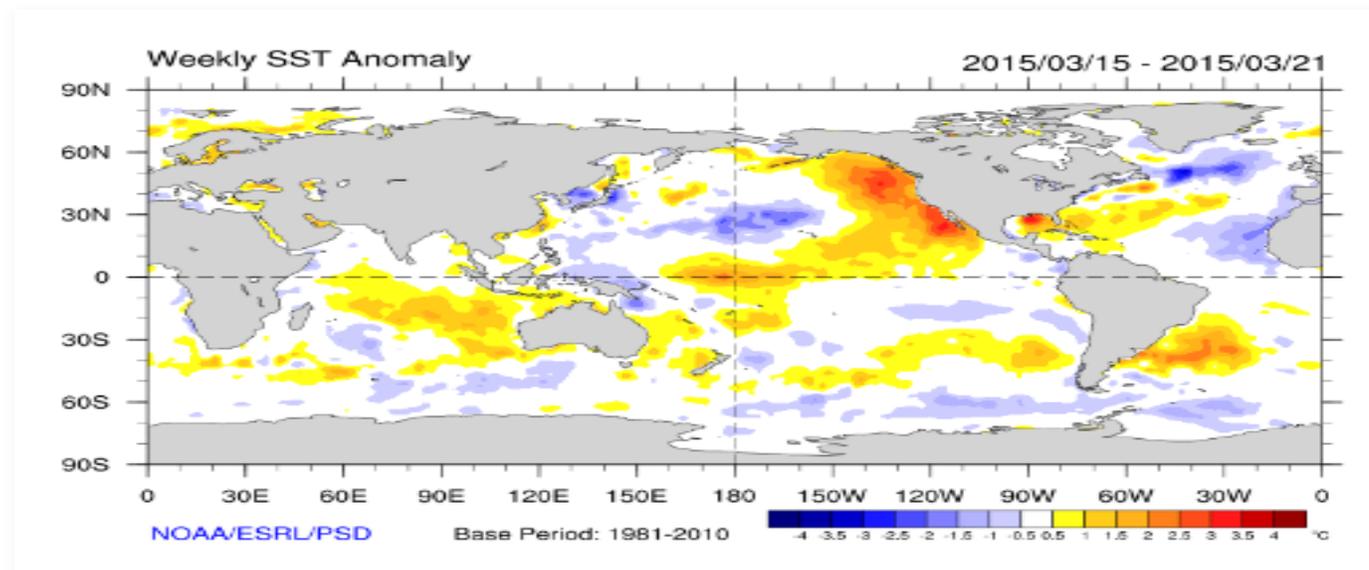
Will This Summer Be Warmer Than Normal?

I believe the probability of a warm summer in the Pacific Northwest is quite high.

Let me tell you why.

During the summer, high pressure builds offshore (the East Pacific High) and marine air from off the eastern Pacific Ocean slowly moves into the Pacific Northwest. The temperature of the ocean surface is an important factor in controlling our surface air temperature (and dew point).

For many months, the sea surface temperature (SST) of the eastern Pacific has been above normal and that is certainly true today. Here is the sea surface temperature anomaly (difference from normal) for the past week. You can see a huge area of warm water off the west coast of North America, with the water temperatures being 3-3.5 C (5-6F) above normal. There is no reason to suspect this warm water anomaly won't persist into the summer, and as the air moves over the warm water its temperatures will be enhanced.



In fact, the latest runs of the NOAA Climate Forecast System (CFS) model suggests a continuation of the warm water off our coast into the summer.

Seasonal Climate Forecast

April – June 2015

Issued: March 23, 2015

This Product is Published by the Oregon Department of Agriculture (ODA), in Cooperation with the Oregon Department of Forestry (ODF).

Contact: ODF Meteorologist Pete Parsons
at 503-945-7448 or peter.gj.parsons@oregon.gov

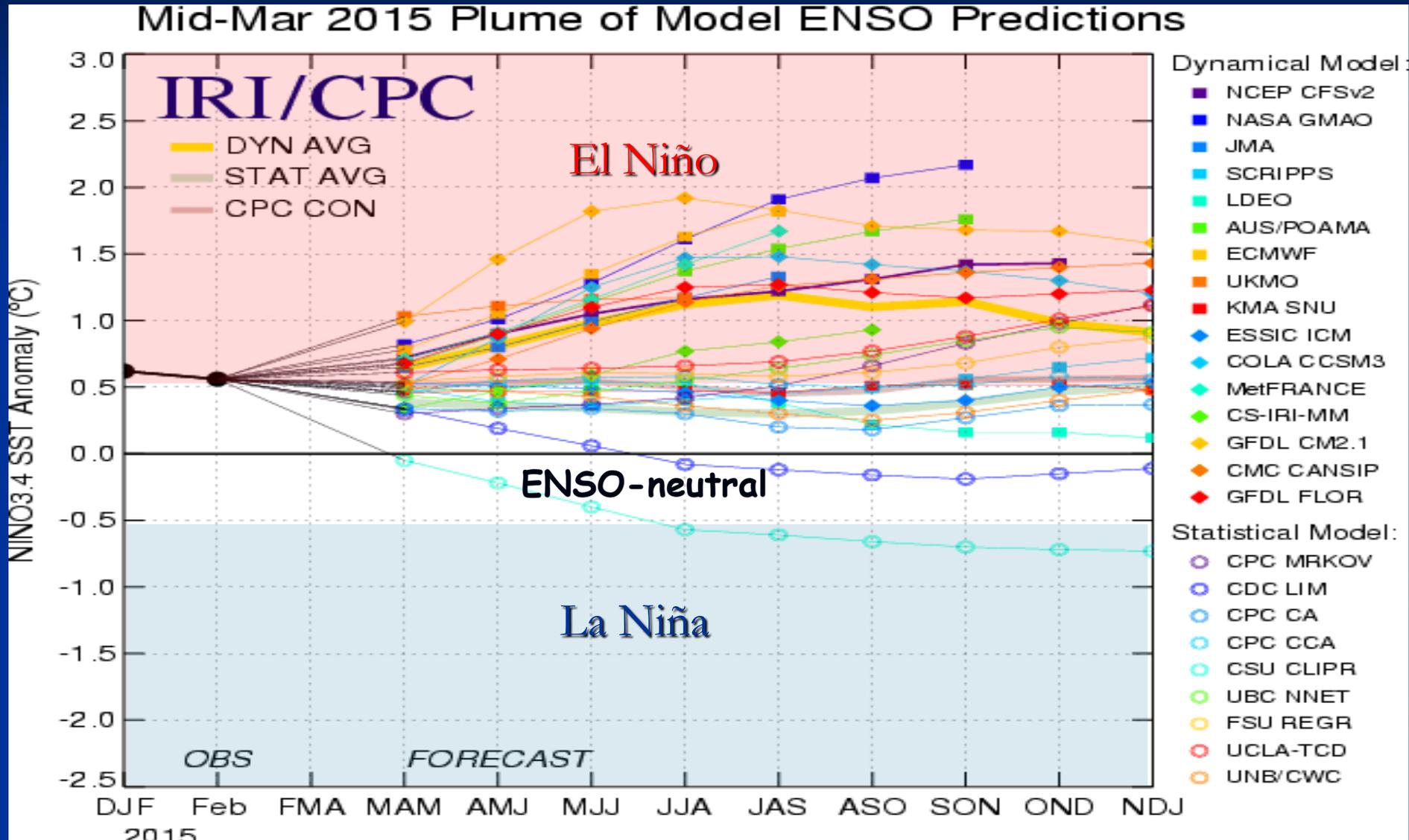
Get related Seasonal Climate Forecast information at:
<http://www.oregon.gov/ODA/programs/NaturalResources/Pages/Weather.aspx>

Forecast Method Notes...

- This forecast is generated by utilizing weather records from previous years (analogs) with similar oceanic and atmospheric indices, as compared to the current year.
- **Only “cool phase” PDO years were used to create the forecasts issued this past autumn and winter. However, the real-time PDO index is highly positive, which may help to explain the recent significant increase in forecast error.**
- Current analog year selection gives priority to years that most closely match both *real-time* Pacific Ocean sea-surface temperature (SST) profiles and predominant North American jet stream circulation patterns (see [Forecasting Methods](#)).
- **The top analog years used to create this forecast (1977; 2005; 2007) are unchanged from last month.**

ENSO Predictive Models

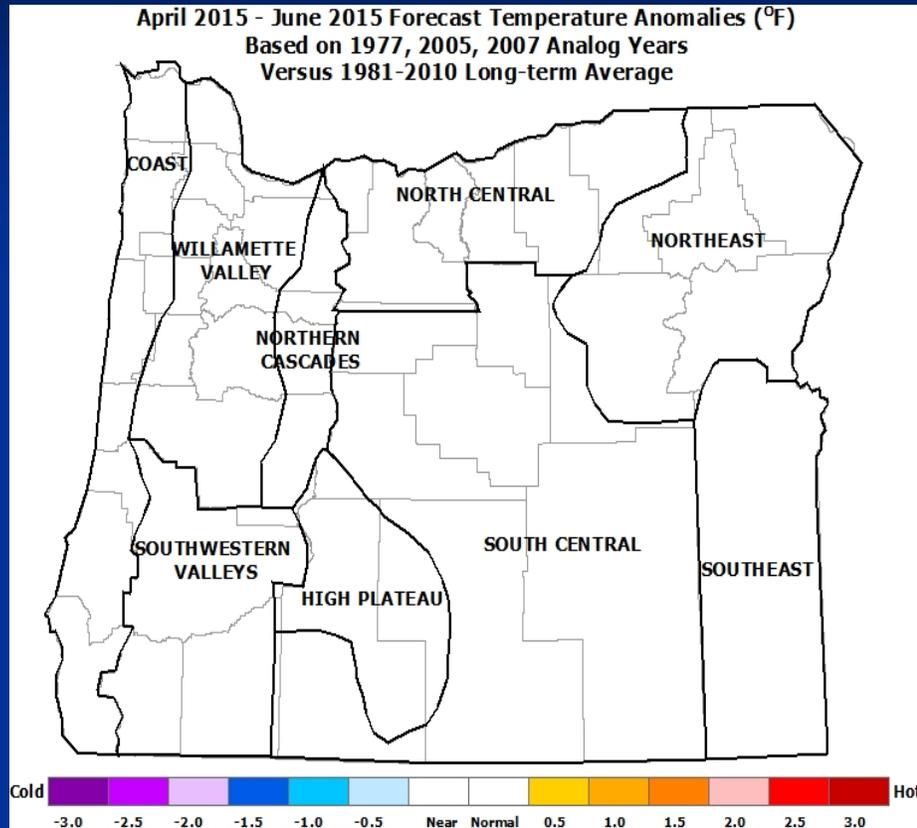
Borderline **El Niño** conditions will likely continue through spring



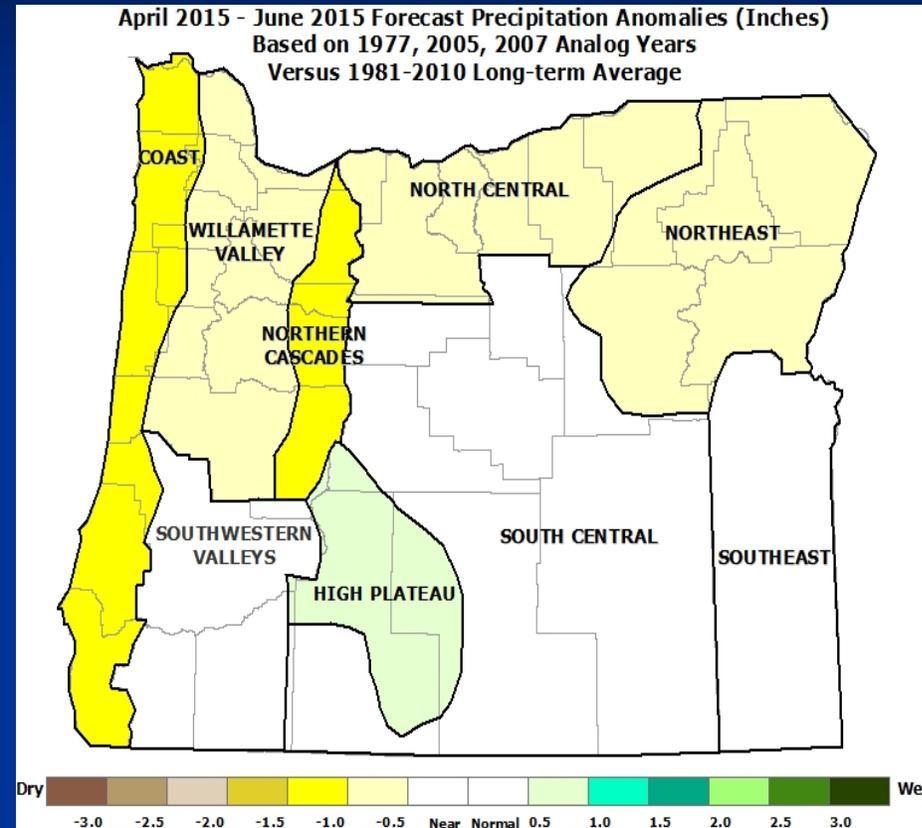
“Base” Graphic Courtesy: <http://iri.columbia.edu/our-expertise/climate/forecasts/enso/current/>

April – June 2015 Forecast

Temperatures



Precipitation



- A transition away from much warmer-and-drier-than-average weather, to something closer to “average,” is likely (typical of spring with El Niño).
- Mountains may get above-average spring snow, but that won't alleviate water concerns due to near-record low late-winter snowpacks.

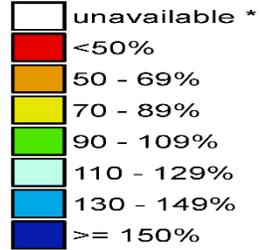
- **Persistence is still the best forecast and often wins in weather forecasting**
- **what you see in your area is what you will continue to have until a different weather pattern sets in**

When is the question?

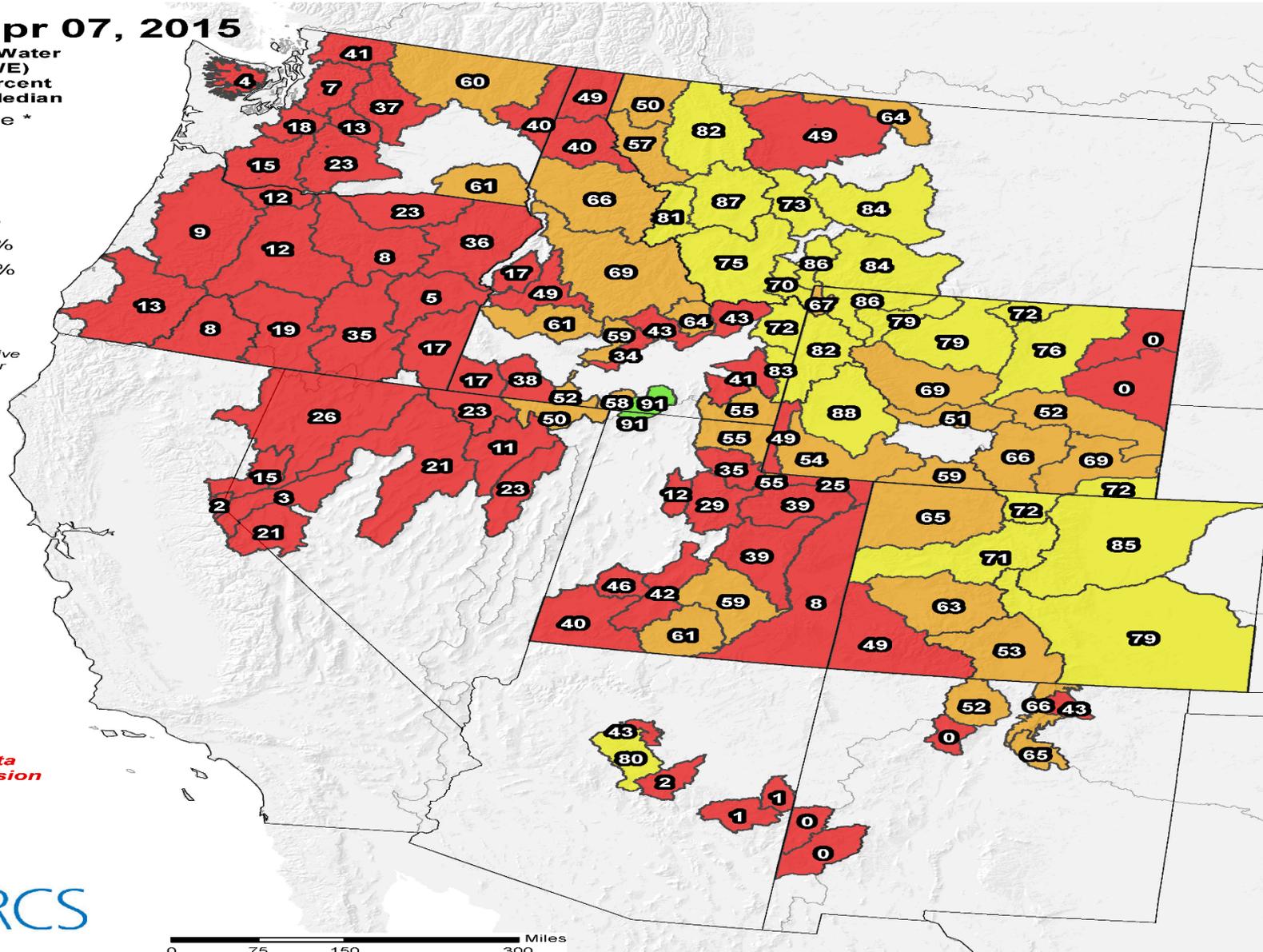
Westwide SNOTEL Current Snow Water Equivalent (SWE) % of Normal

Apr 07, 2015

Current Snow Water Equivalent (SWE) Basin-wide Percent of 1981-2010 Median



* Data unavailable at time of posting or measurement is not representative at this time of year



Provisional data subject to revision



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>

SNOTEL Current Snow Water Equivalent (SWE) Records

Apr 07, 2015

NOTE: Until further notice, record calculations are based on period of record through water year 2012; water years 2013 and 2014 are not analyzed.

Current Snow Water (SWE) Equivalent Records

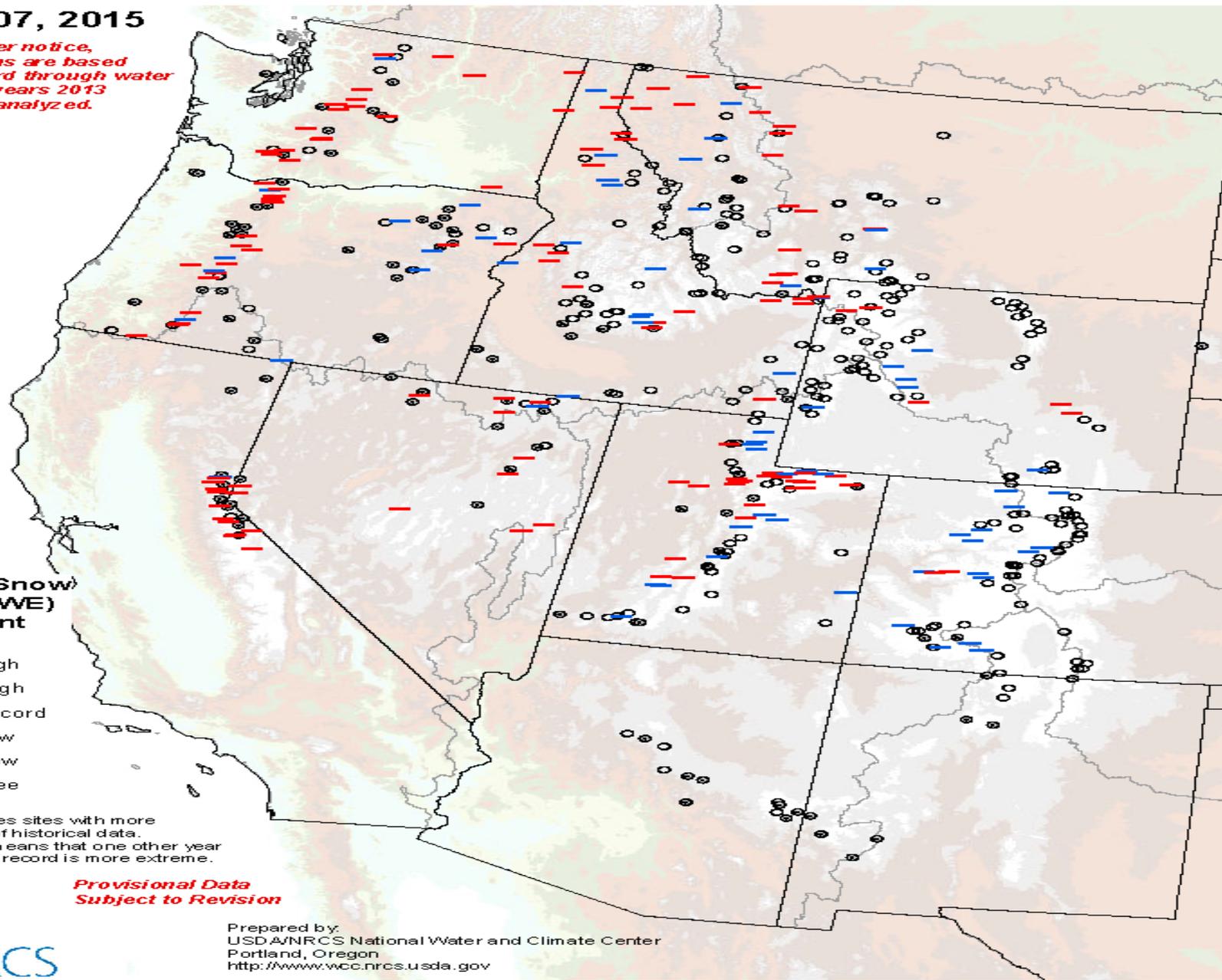
- + New High
- + Near High
- Non-Record
- New Low
- Near Low
- snow free

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*



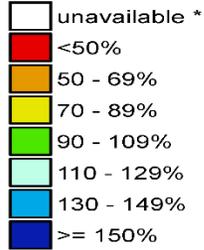
Prepared by:
USDA/NRCS National Water and Climate Center
Portland, Oregon
<http://www.wcc.nrcs.usda.gov>



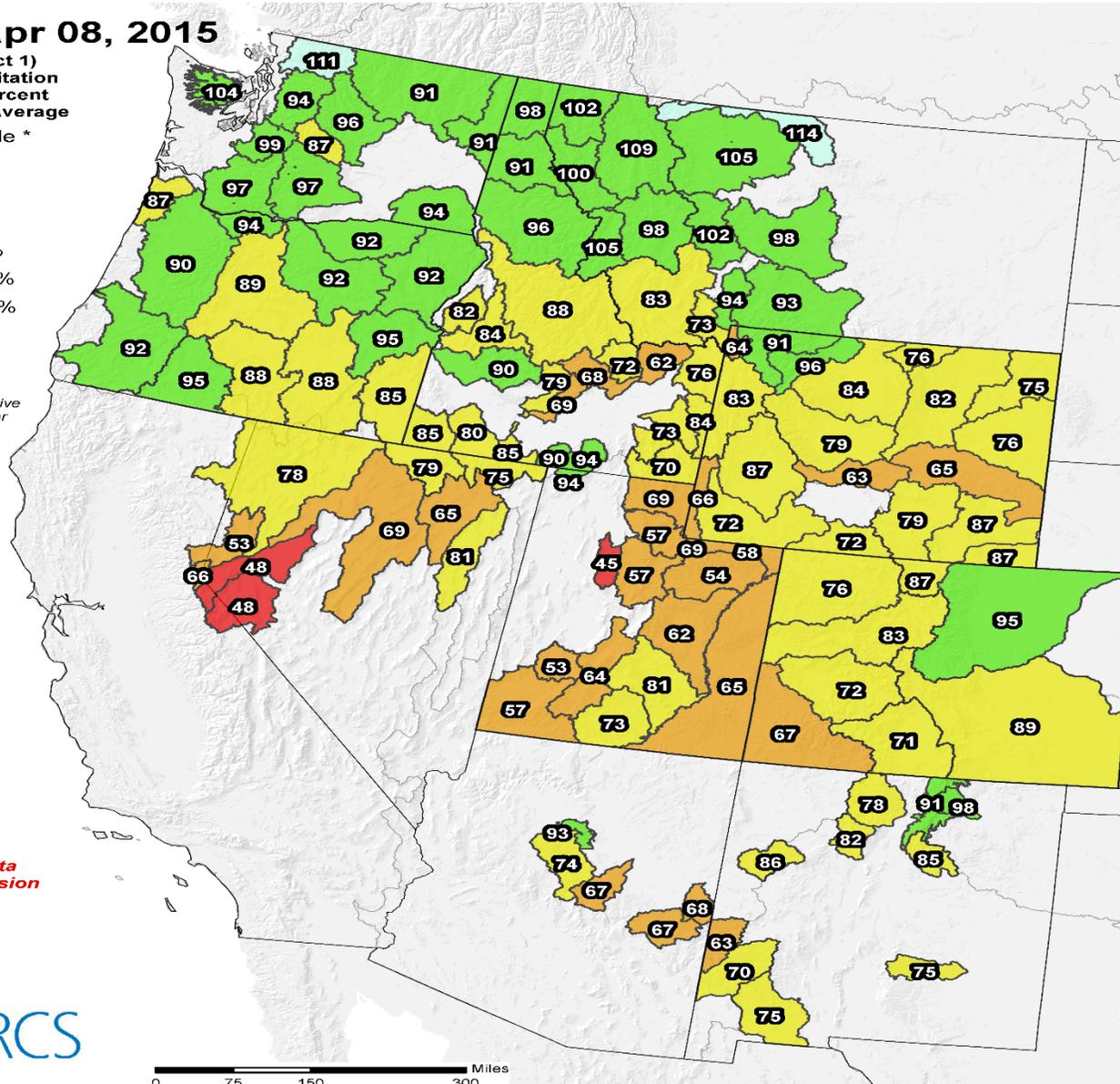
Westwide SNOTEL Water Year (Oct 1) to Date Precipitation % of Normal

Apr 08, 2015

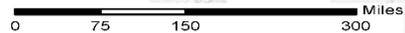
Water Year (Oct 1)
to Date Precipitation
Basin-wide Percent
of 1981-2010 Average



* Data unavailable
at time of posting
or measurement
is not representative
at this time of year



Provisional data
subject to revision

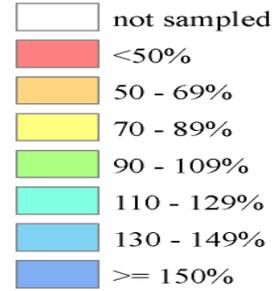


The water year to date precipitation percent of normal represents the accumulated precipitation found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

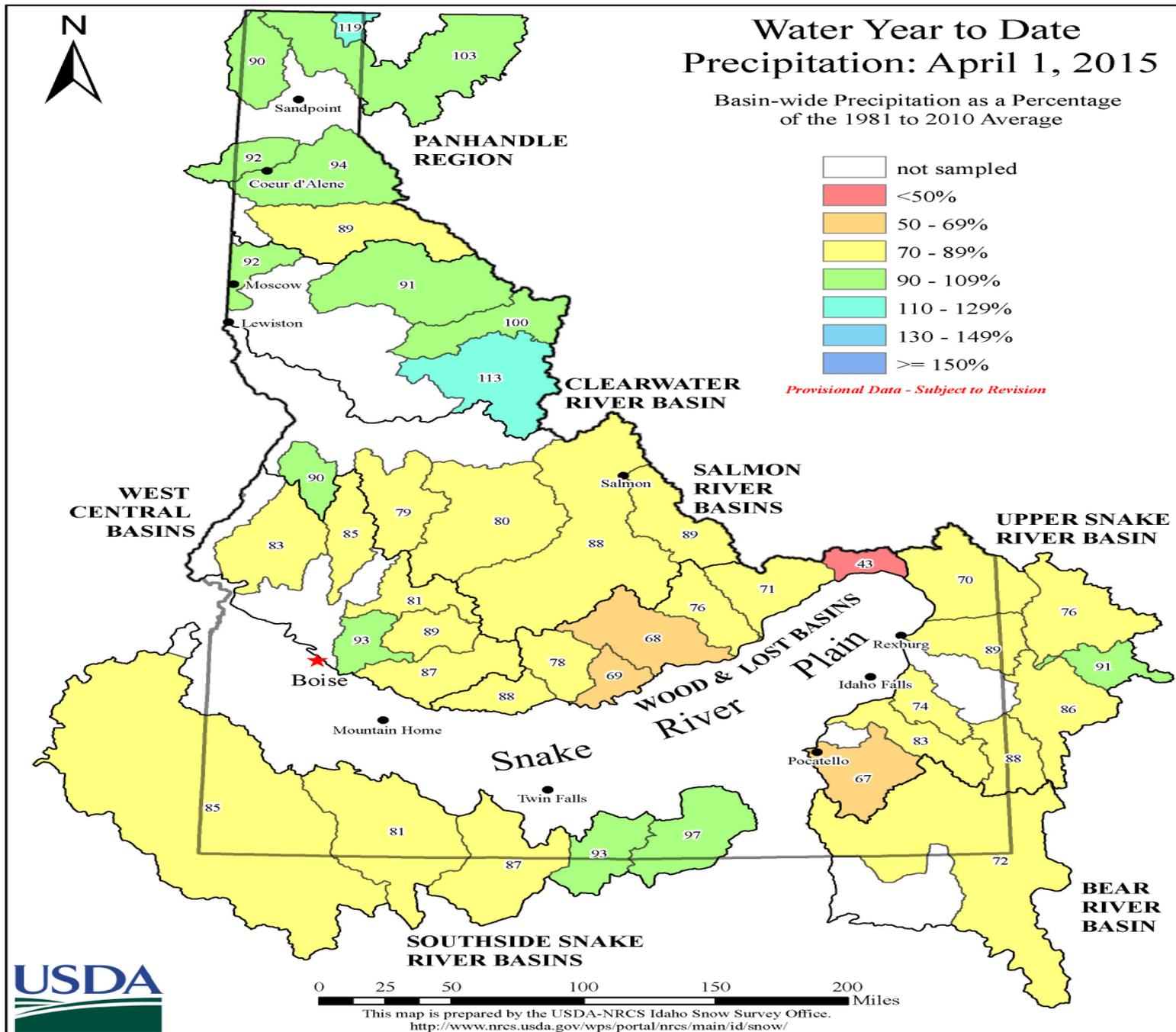
Prepared by:
USDA/NRCS National Water and Climate Center
Portland, Oregon
<http://www.wcc.nrcs.usda.gov>

Water Year to Date Precipitation: April 1, 2015

Basin-wide Precipitation as a Percentage
of the 1981 to 2010 Average



Provisional Data - Subject to Revision

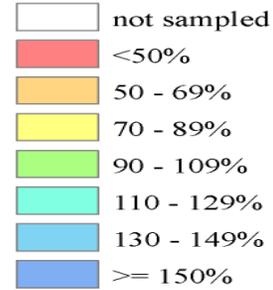


This map is prepared by the USDA-NRCS Idaho Snow Survey Office.
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/id/snow/>

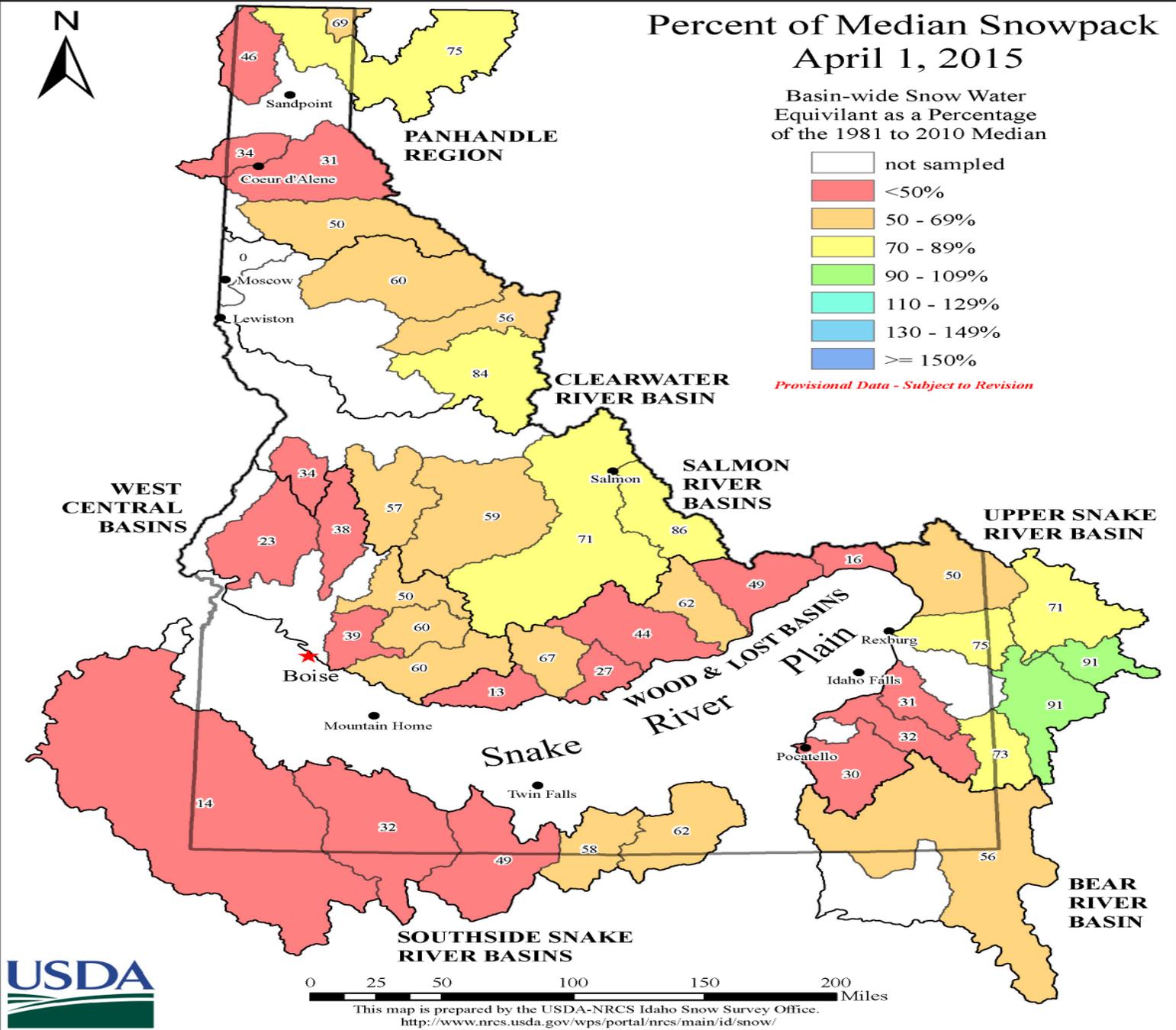


Percent of Median Snowpack April 1, 2015

Basin-wide Snow Water
Equivalent as a Percentage
of the 1981 to 2010 Median



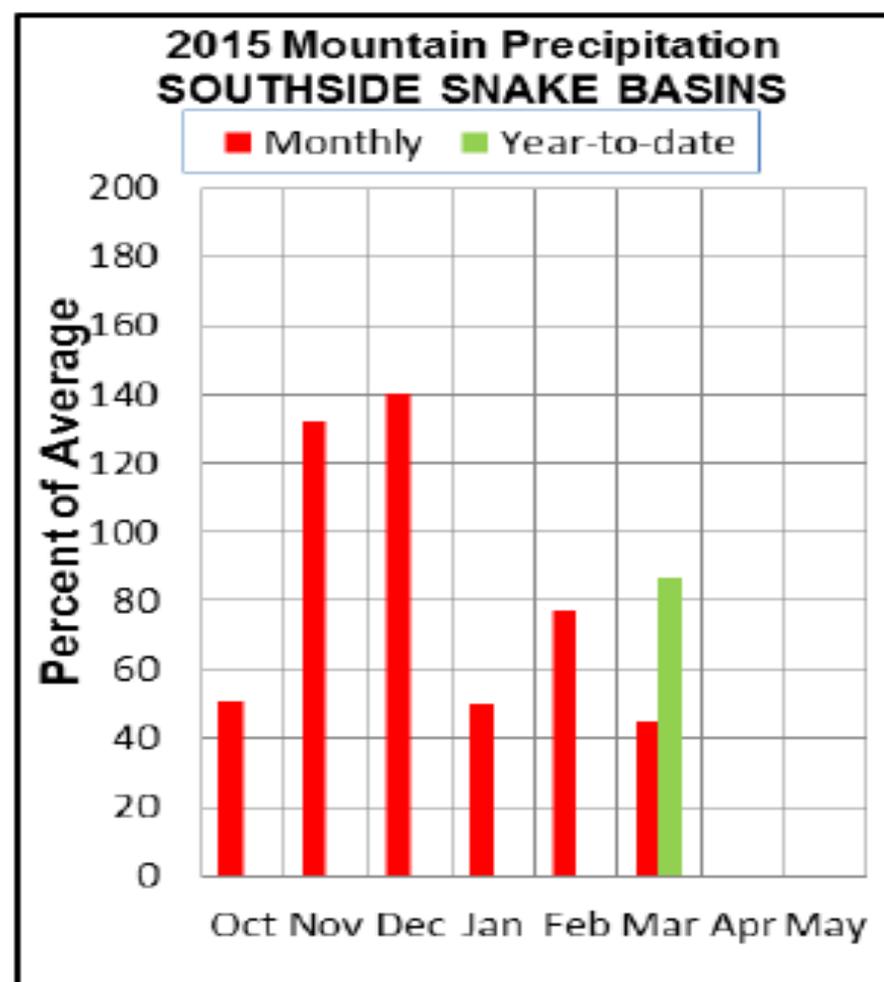
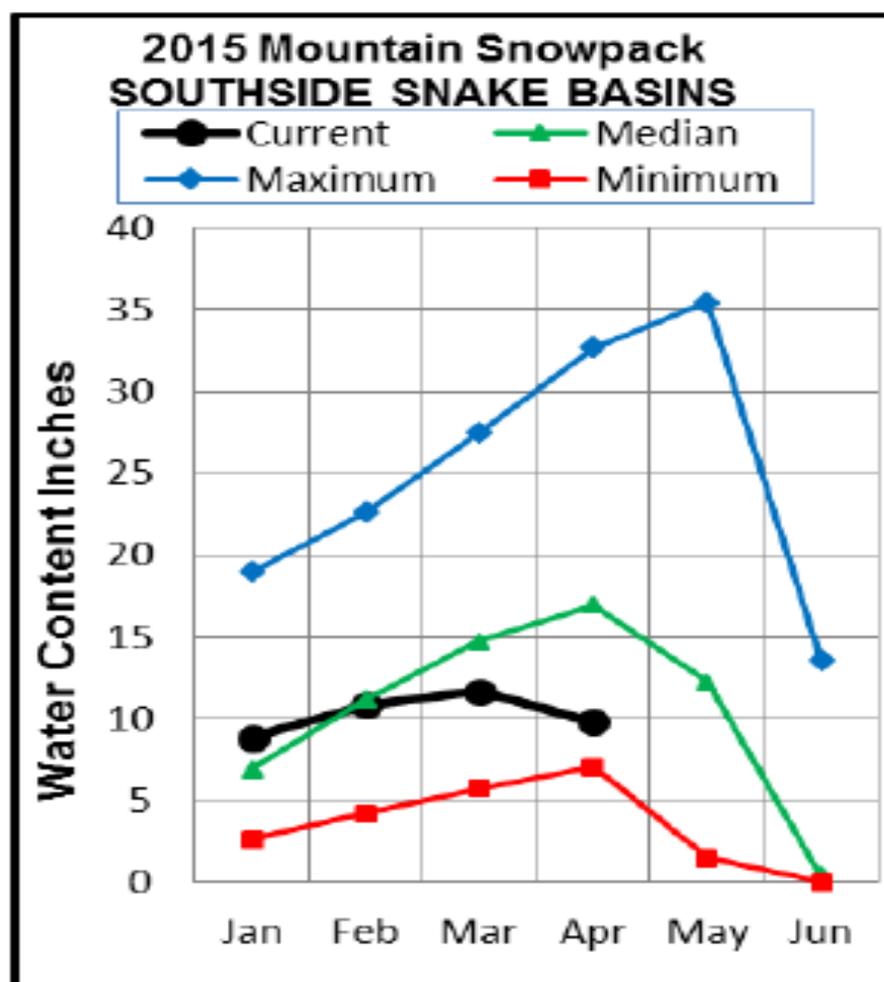
Provisional Data - Subject to Revision



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

SOUTHSIDE SNAKE RIVER BASINS

APRIL 1, 2015

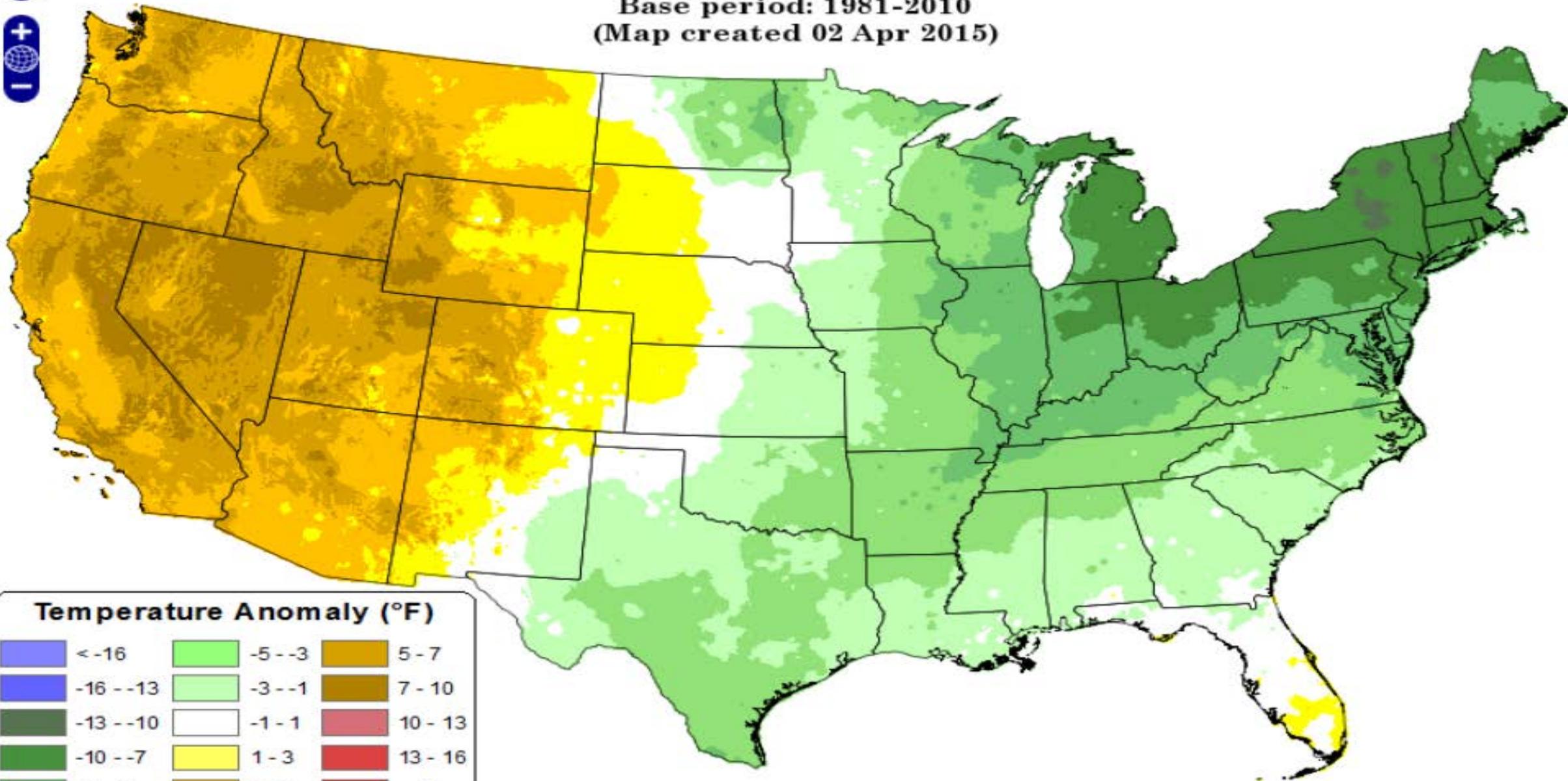
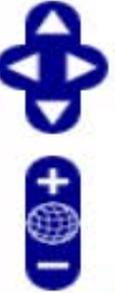


Daily Mean Temperature Anomaly: January 2015 - March 2015

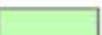
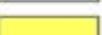
Period ending 7 AM EST 31 Mar 2015

Base period: 1981-2010

(Map created 02 Apr 2015)



Temperature Anomaly (°F)

 < -16	 -5 -- -3	 5 - 7
 -16 -- -13	 -3 -- -1	 7 - 10
 -13 -- -10	 -1 - 1	 10 - 13
 -10 -- -7	 1 - 3	 13 - 16
 -7 -- -5	 3 - 5	 > 16

Daily Mean Temperature Anomaly: March 2015

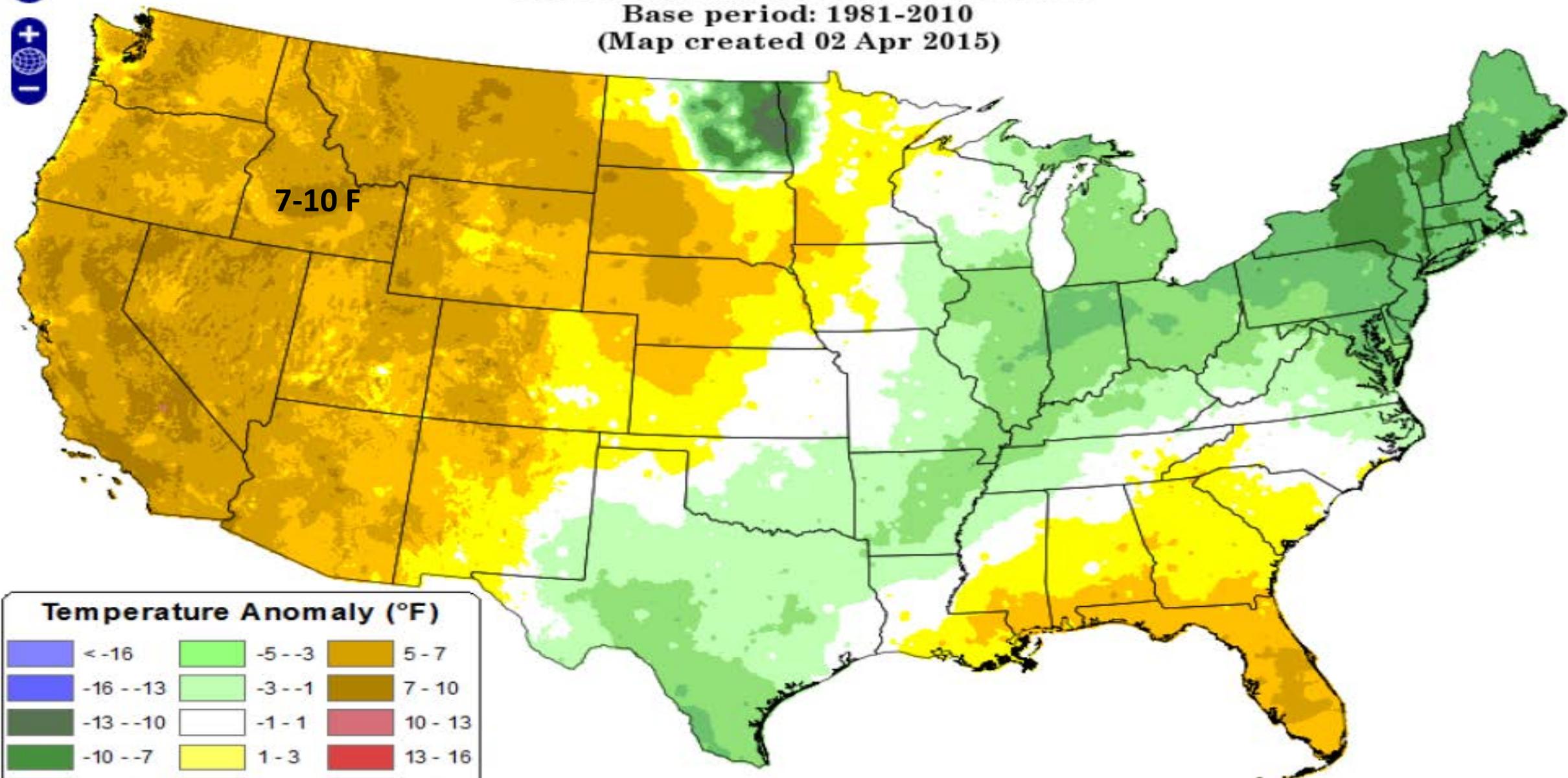
Period ending 7 AM EST 31 Mar 2015

Base period: 1981-2010

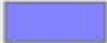
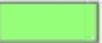
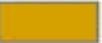
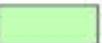
(Map created 02 Apr 2015)



7-10 F



Temperature Anomaly (°F)

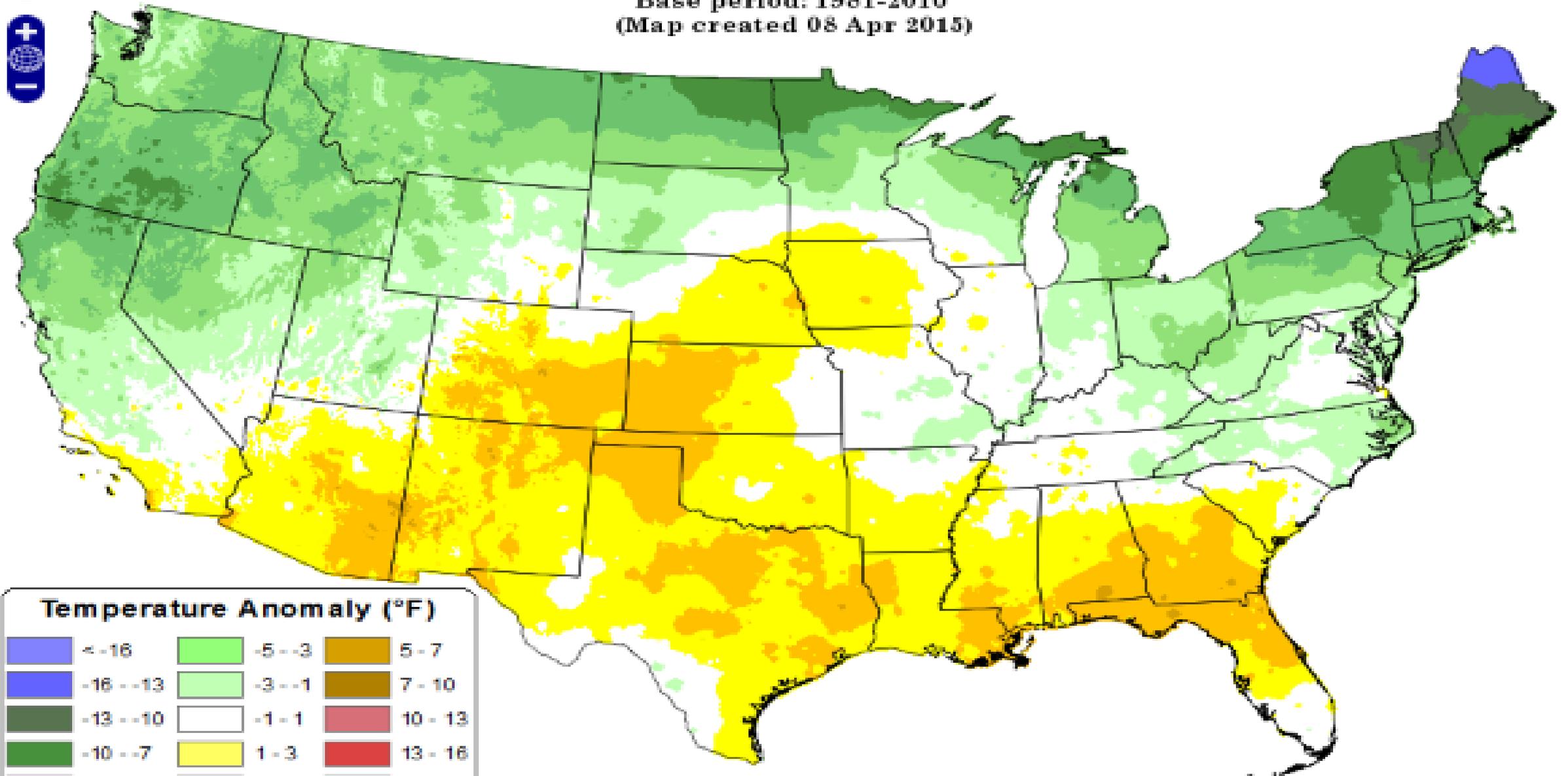
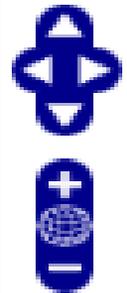
	< -16		-5 -- -3		5 - 7
	-16 -- -13		-3 -- -1		7 - 10
	-13 -- -10		-1 - 1		10 - 13
	-10 -- -7		1 - 3		13 - 16
	-7 -- -5		3 - 5		> 16

Daily Mean Temperature Anomaly: 01 April 2015 - 07 April 2015

Period ending 7 AM EST 07 Apr 2015

Base period: 1981-2010

(Map created 08 Apr 2015)



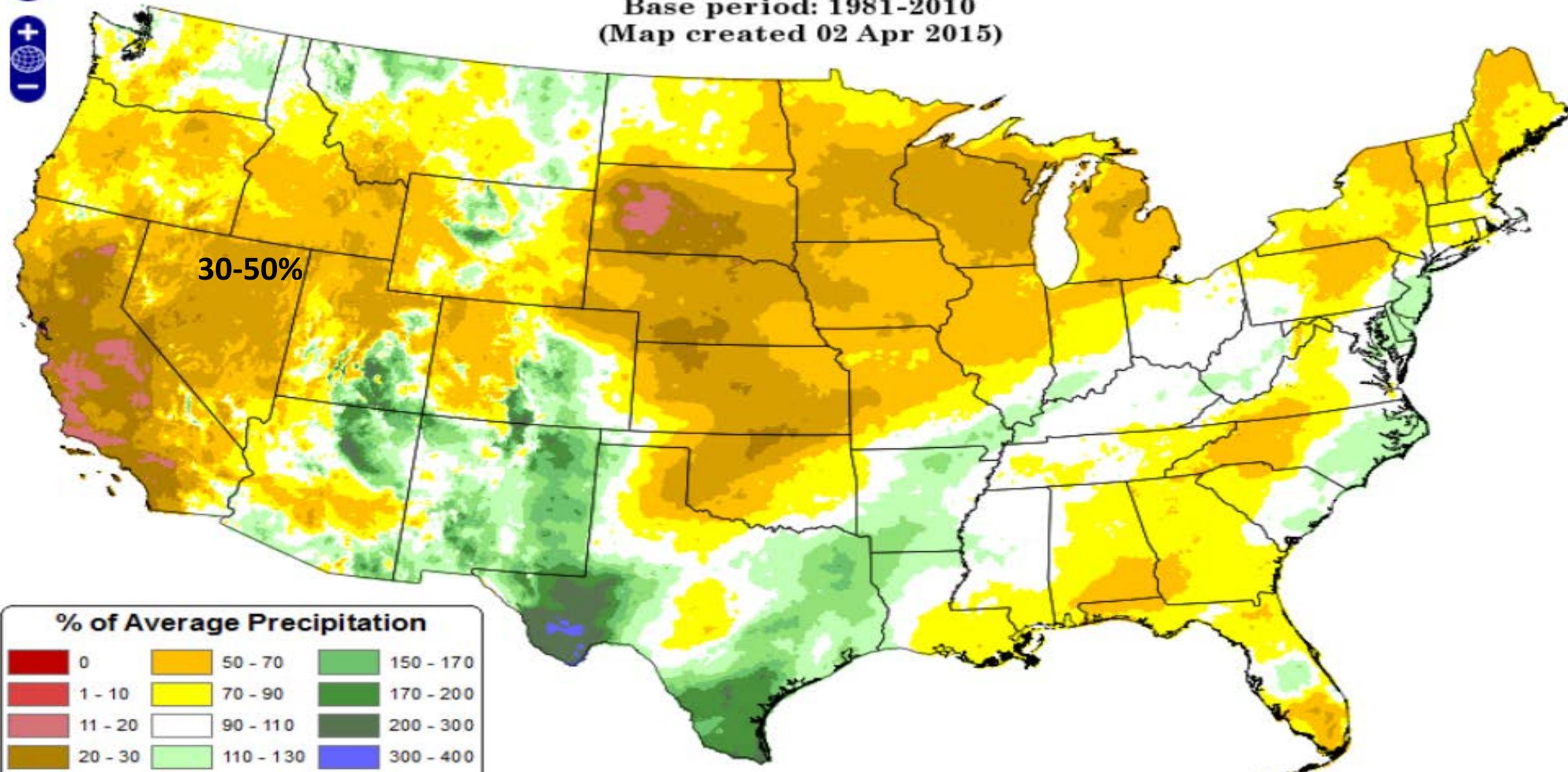
	< -16		-5 -- -3		5 - 7
	-16 -- -13		-3 -- -1		7 - 10
	-13 -- -10		-1 - 1		10 - 13
	-10 -- -7		1 - 3		13 - 16
	-7 -- -5		3 - 5		> 16

Total Precipitation Anomaly: January 2015 - March 2015

Period ending 7 AM EST 31 Mar 2015

Base period: 1981-2010

(Map created 02 Apr 2015)



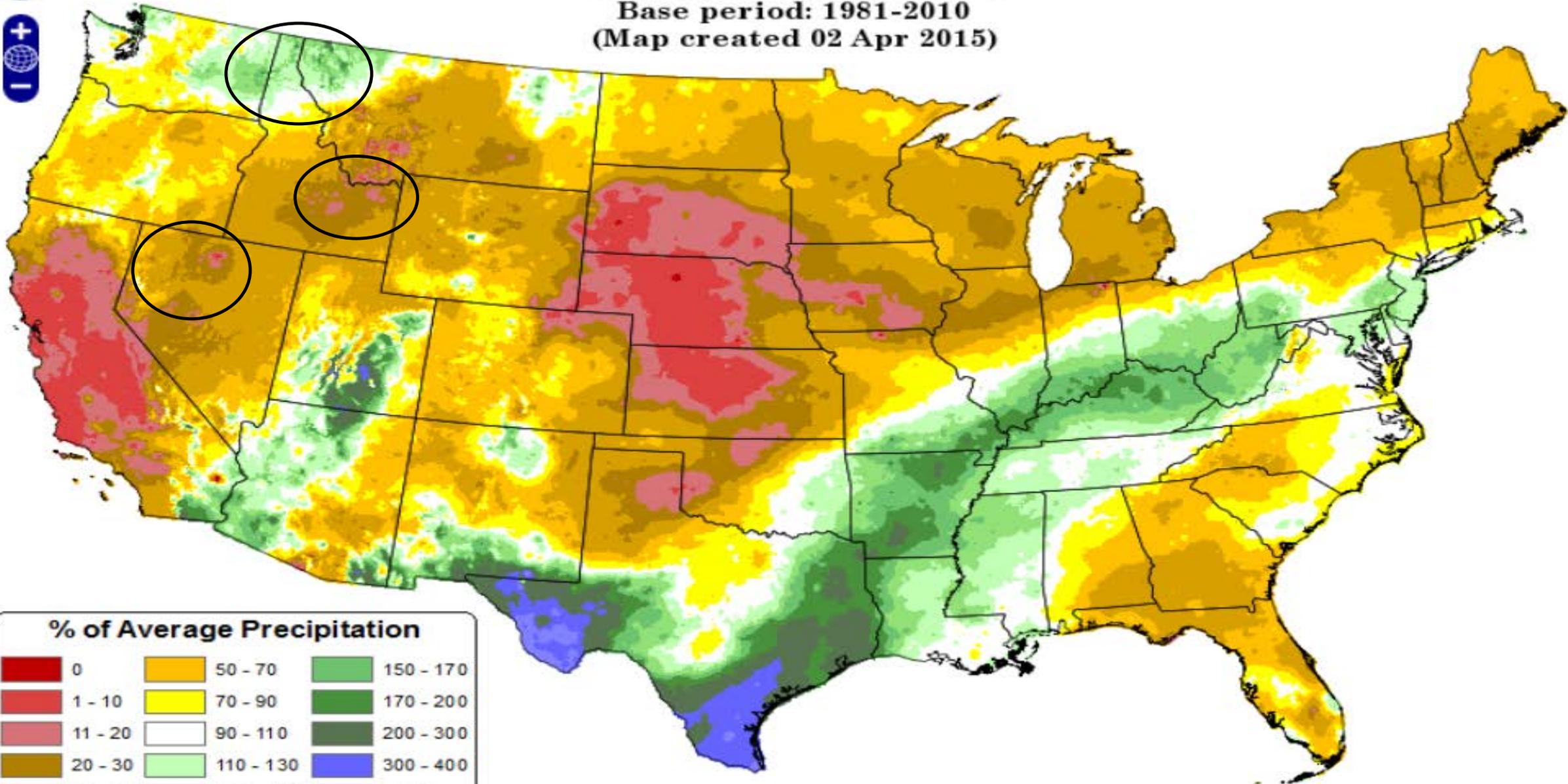


Total Precipitation Anomaly: March 2015

Period ending 31 Mar 2015

Base period: 1981-2010

(Map created 02 Apr 2015)



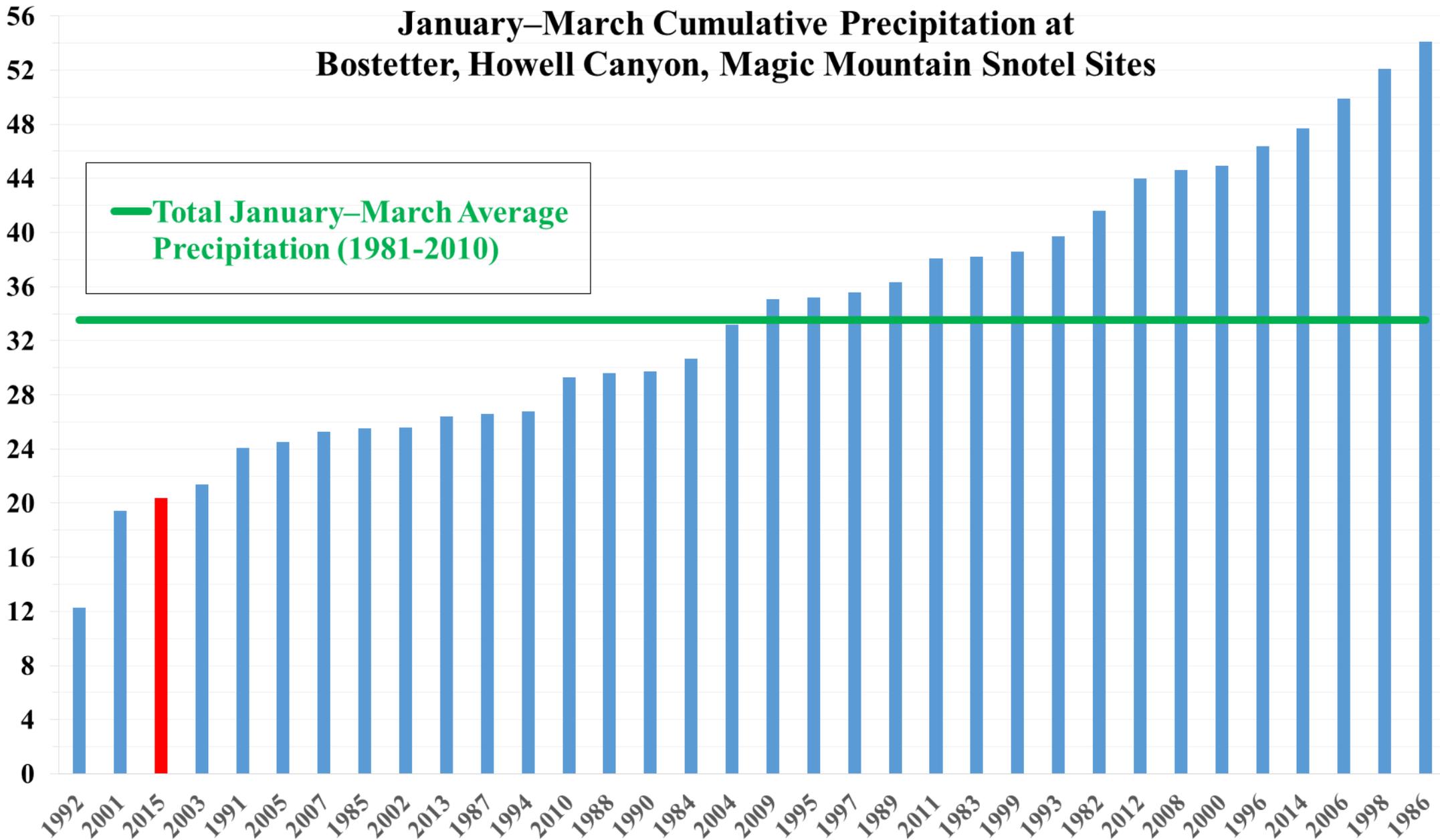
% of Average Precipitation

0	50 - 70	150 - 170
1 - 10	70 - 90	170 - 200
11 - 20	90 - 110	200 - 300
20 - 30	110 - 130	300 - 400
30 - 50	130 - 150	> 400

January–March Cumulative Precipitation at Bostetter, Howell Canyon, Magic Mountain Snotel Sites

Precipitation, in inches

— Total January–March Average
Precipitation (1981-2010)

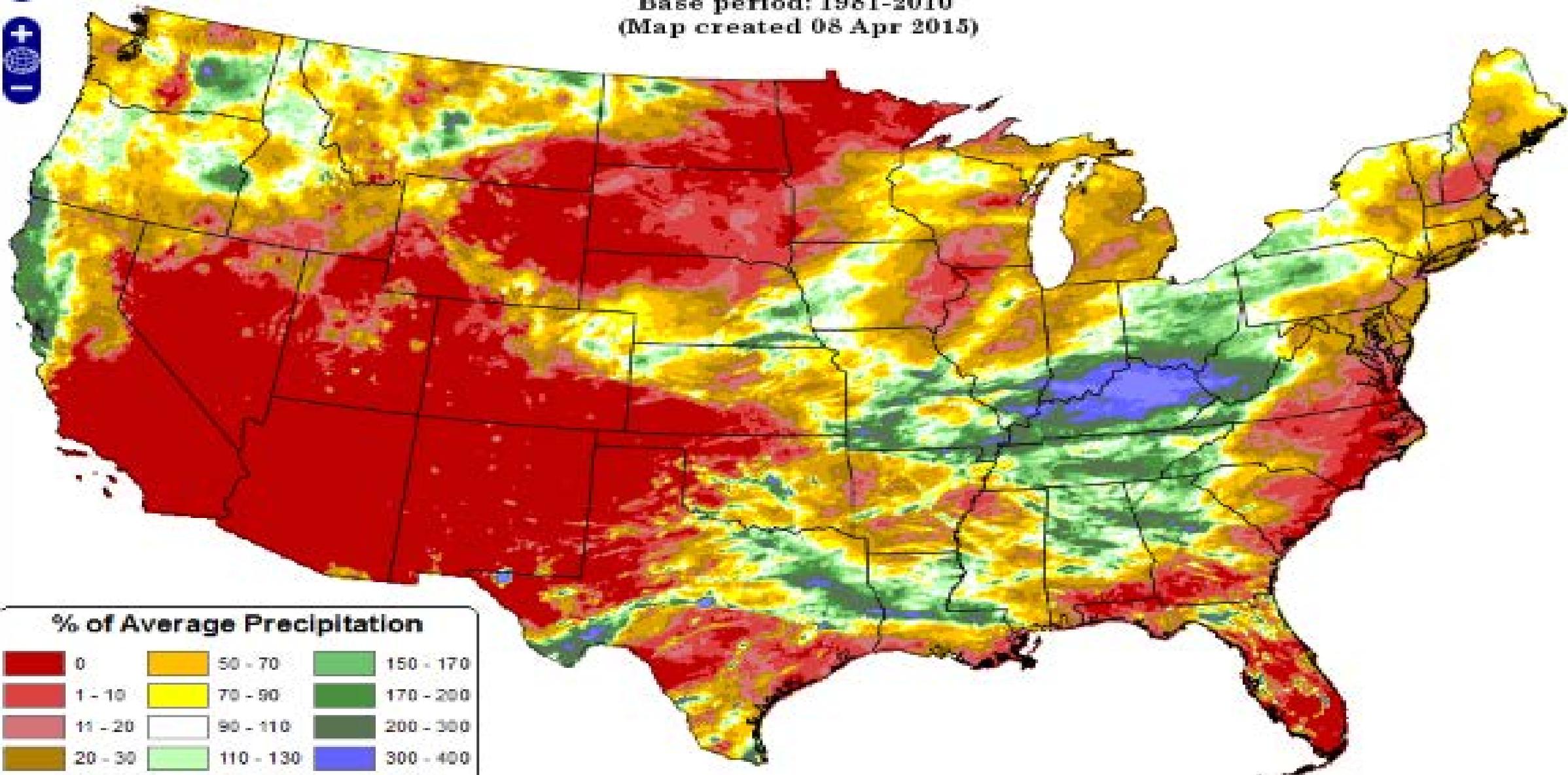


Total Precipitation Anomaly: 01 April 2015 - 07 April 2015

Period ending 7 AM EST 07 Apr 2015

Base period: 1981-2010

(Map created 08 Apr 2015)



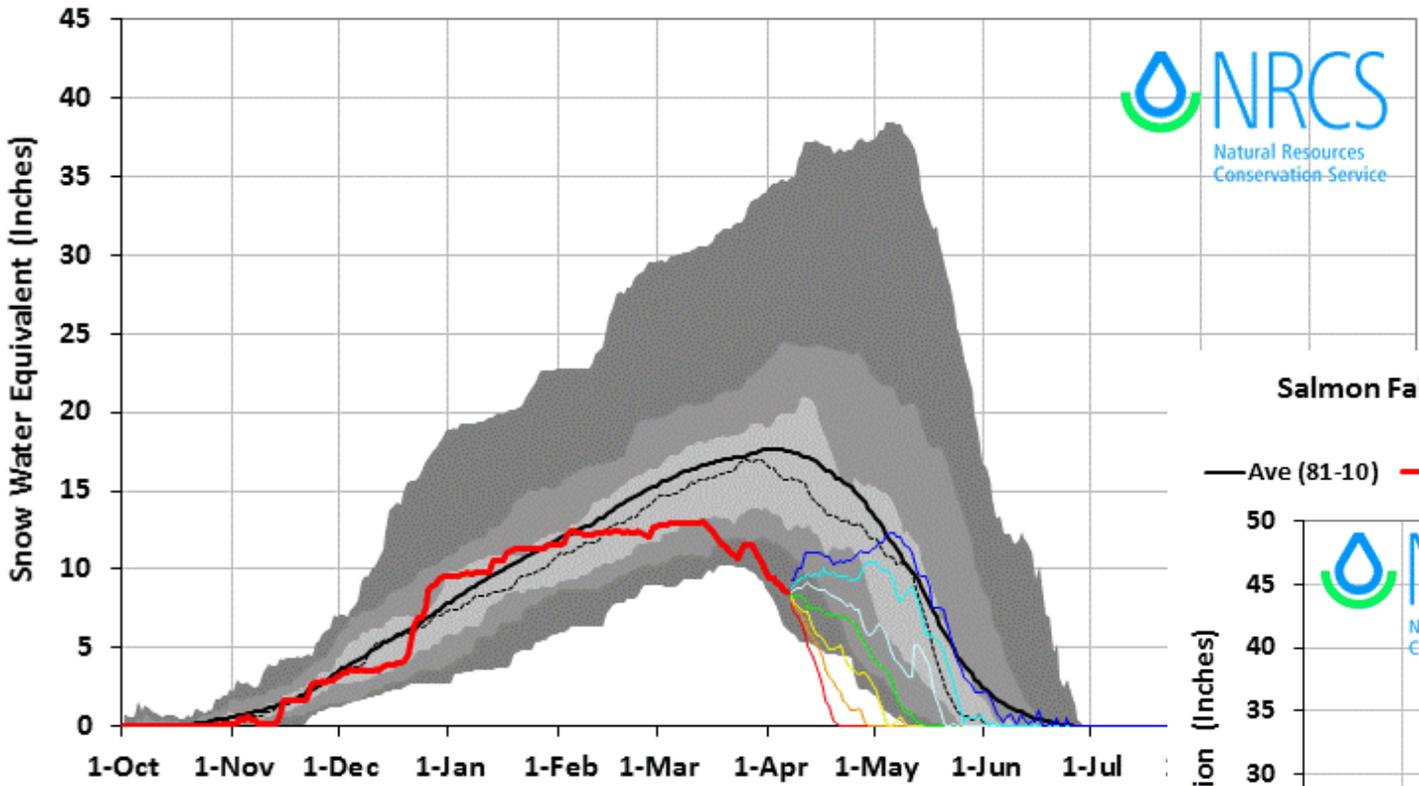
% of Average Precipitation

0	50 - 70	150 - 170
1 - 10	70 - 90	170 - 200
11 - 20	90 - 110	200 - 300
20 - 30	110 - 130	300 - 400
30 - 50	130 - 150	> 400

Salmon Falls Basin 2015 Snow Water with Non-Exceedence Projections (5 sites)

Based on Provisional SNOTEL data as of Apr 06, 2015

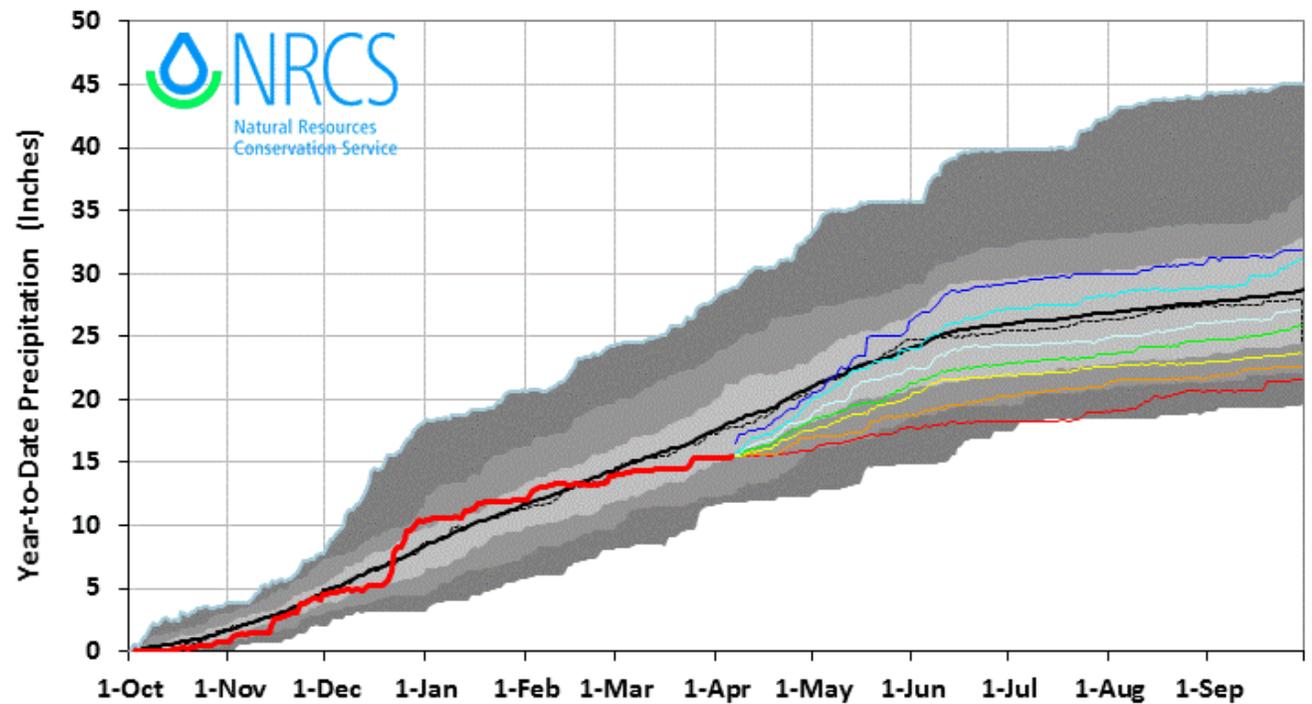
— Normal — WY2015 — Minimum — 10% — 30% — 50% — 70% — 90% — Maximum



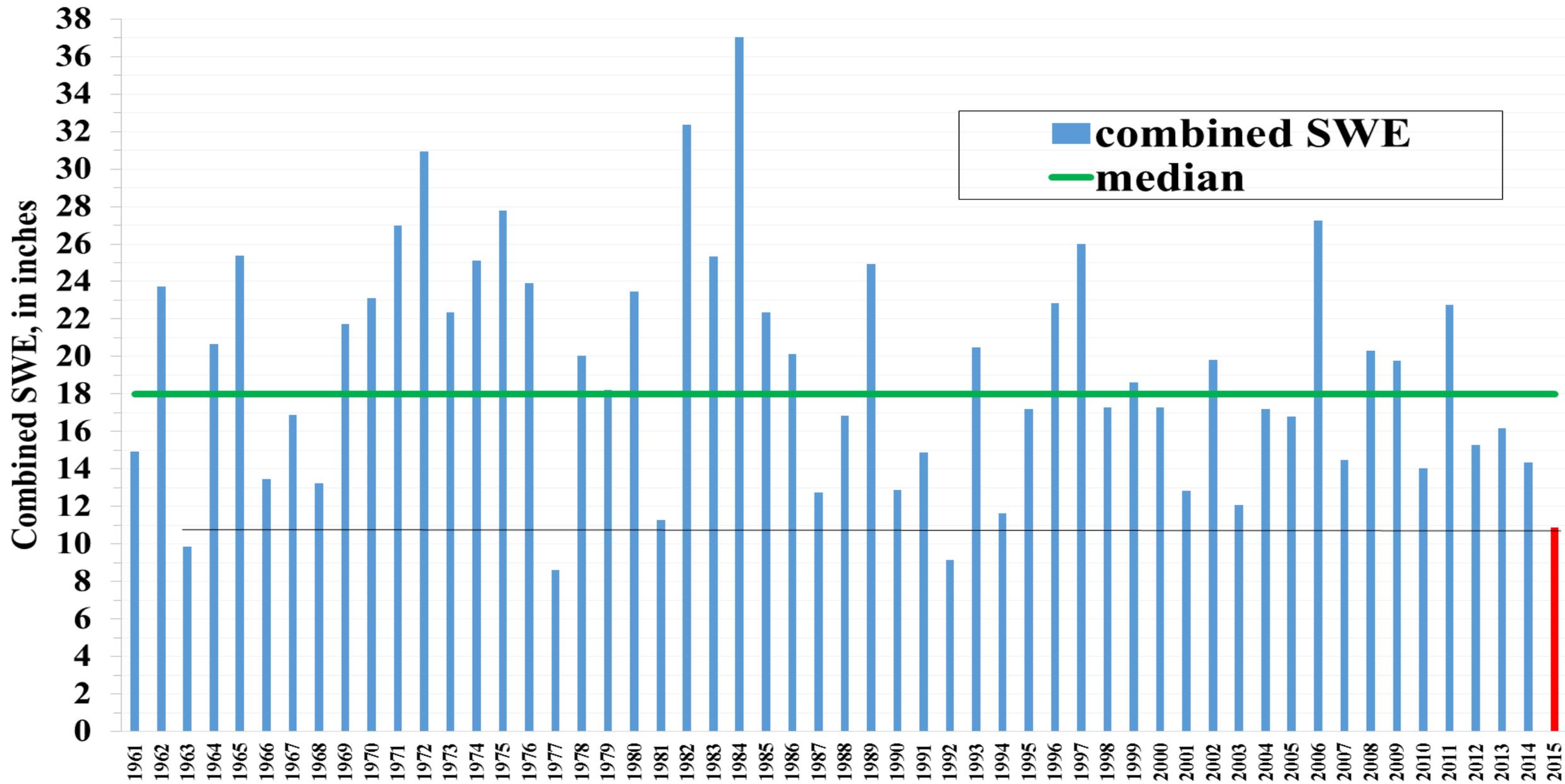
Salmon Falls Basin 2015 Precipitation with Non-Exceedence Projections (5 sites)

Based on Provisional SNOTEL data as of Apr 06, 2015

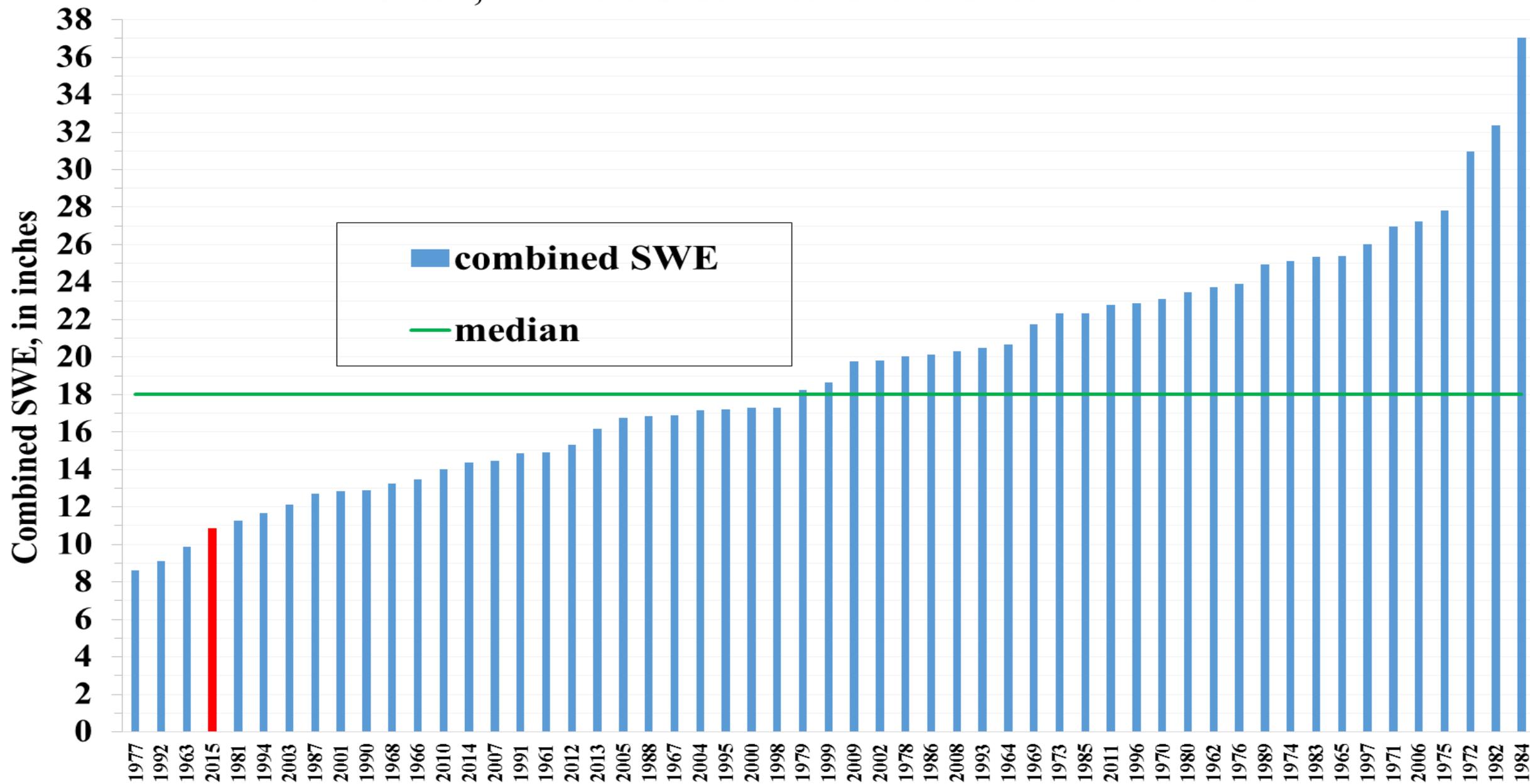
— Ave (81-10) — WY2015 — Minimum — 10% — 30% — 50% — 70% — 90% — Maximum



Combined April 1 Snow Water Equivalent at Bostetter RS, Magic Mountain, Bear Creek & Pole Creek RS SNOTEL Sites

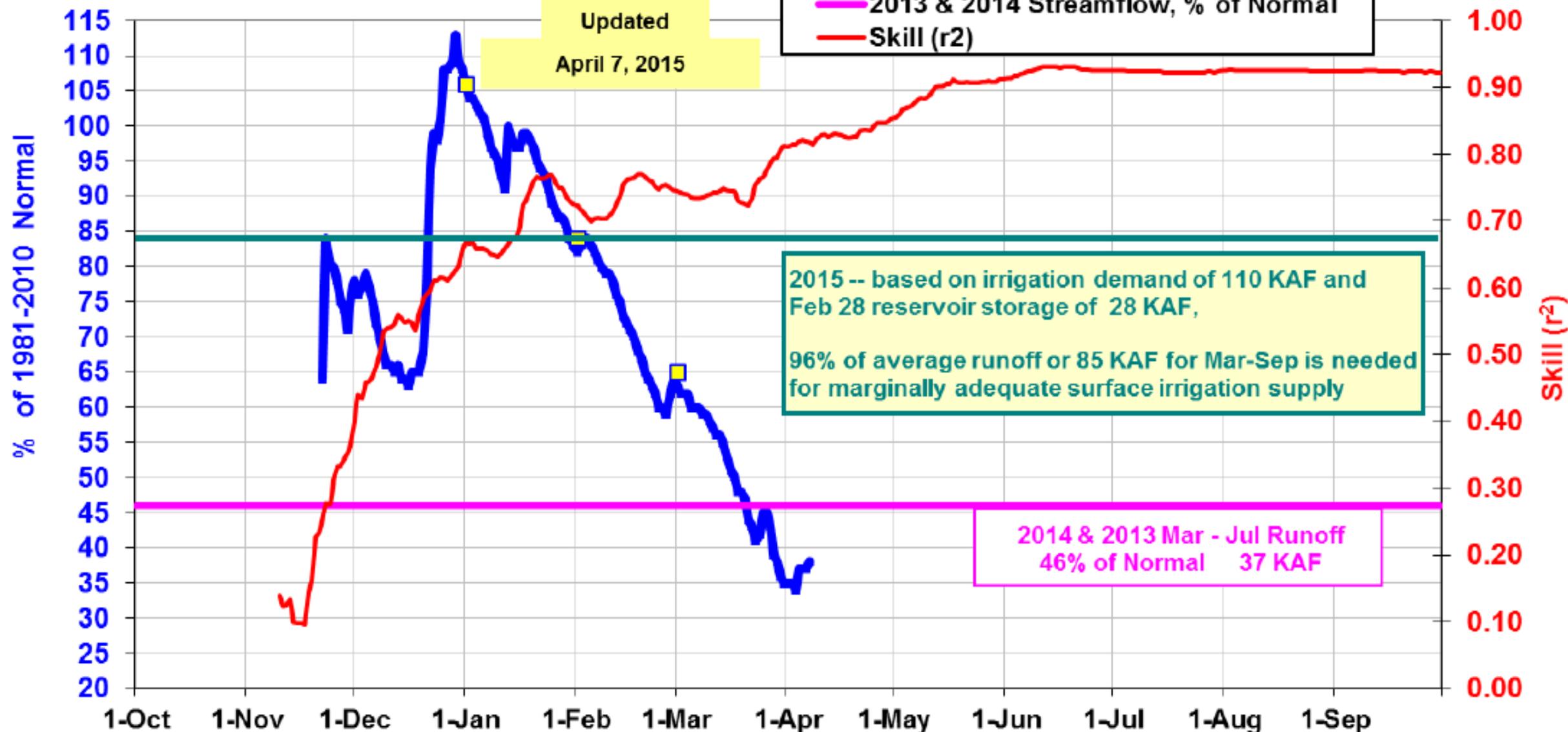


Combined April 1 SWE at Bostetter R.S., Magic Mountain, Bear Creek, and Pole Creek R.S. Snotel Sites 1961-2015



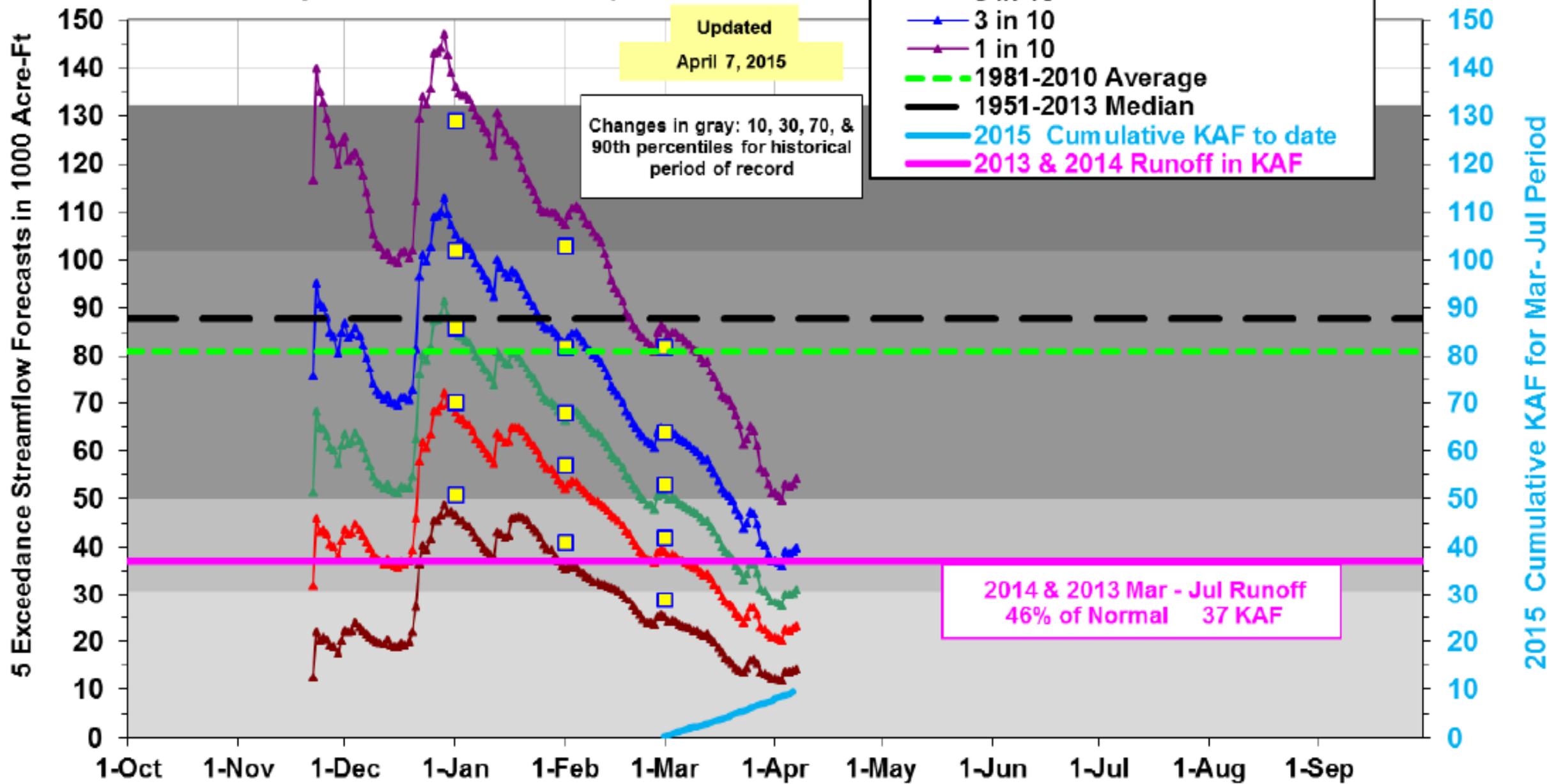
2015 Salmon Falls Creek: Mar - Jul Volume
NRCS Monthly are Yellow Squares

- Daily Guidance Forecast
- Monthly Forecasts
- 2013 & 2014 Streamflow, % of Normal
- Skill (r^2)



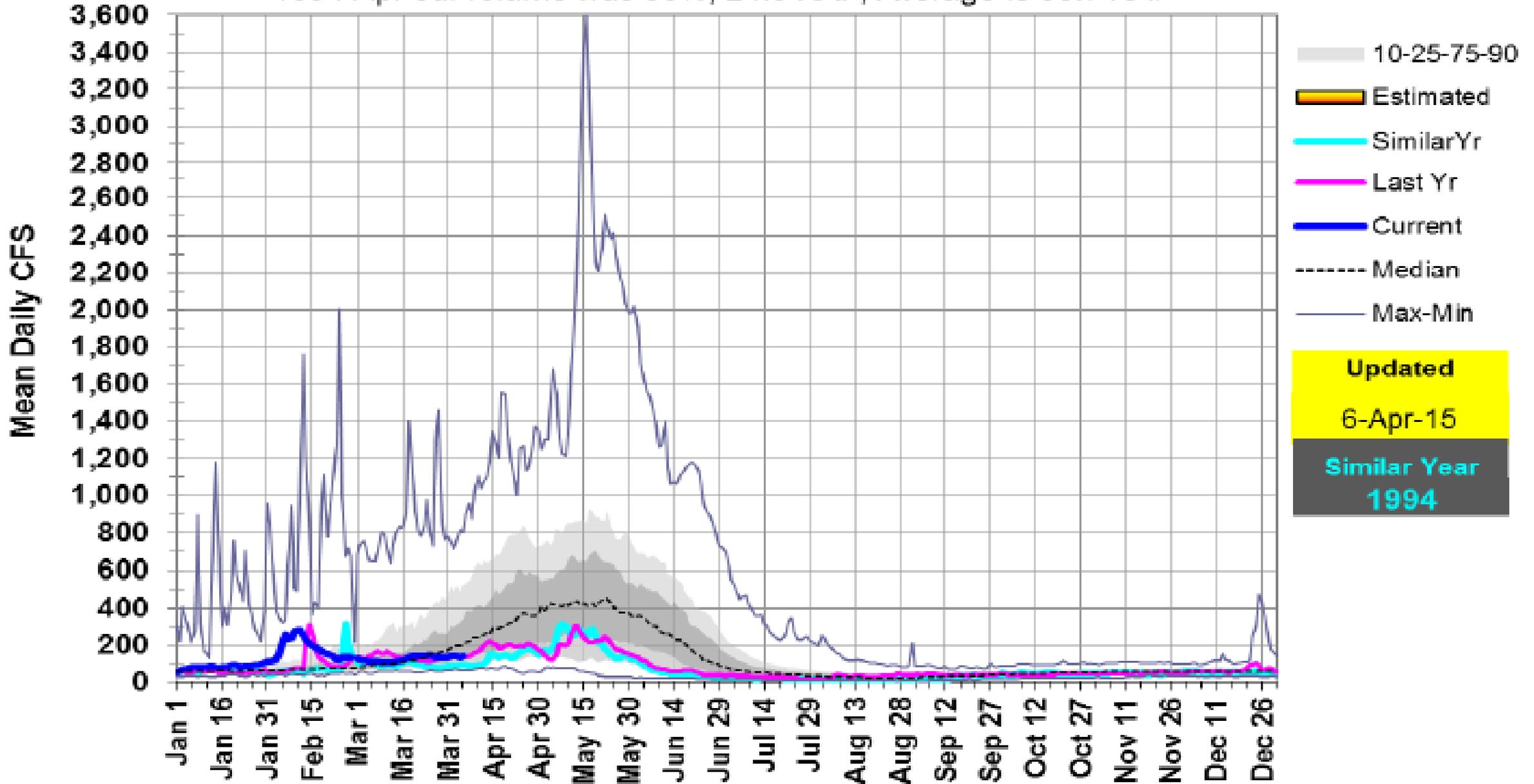
SNOTEL Sites used: Bear Creek, Seventy-Six Creek, Pole Creek, Wilson Creek and Draw Creek.

2015 Salmon Falls Creek near San Jacinto, NV: Mar - Jul Volume,
 NRCS Monthly Forecasts are Yellow Squares



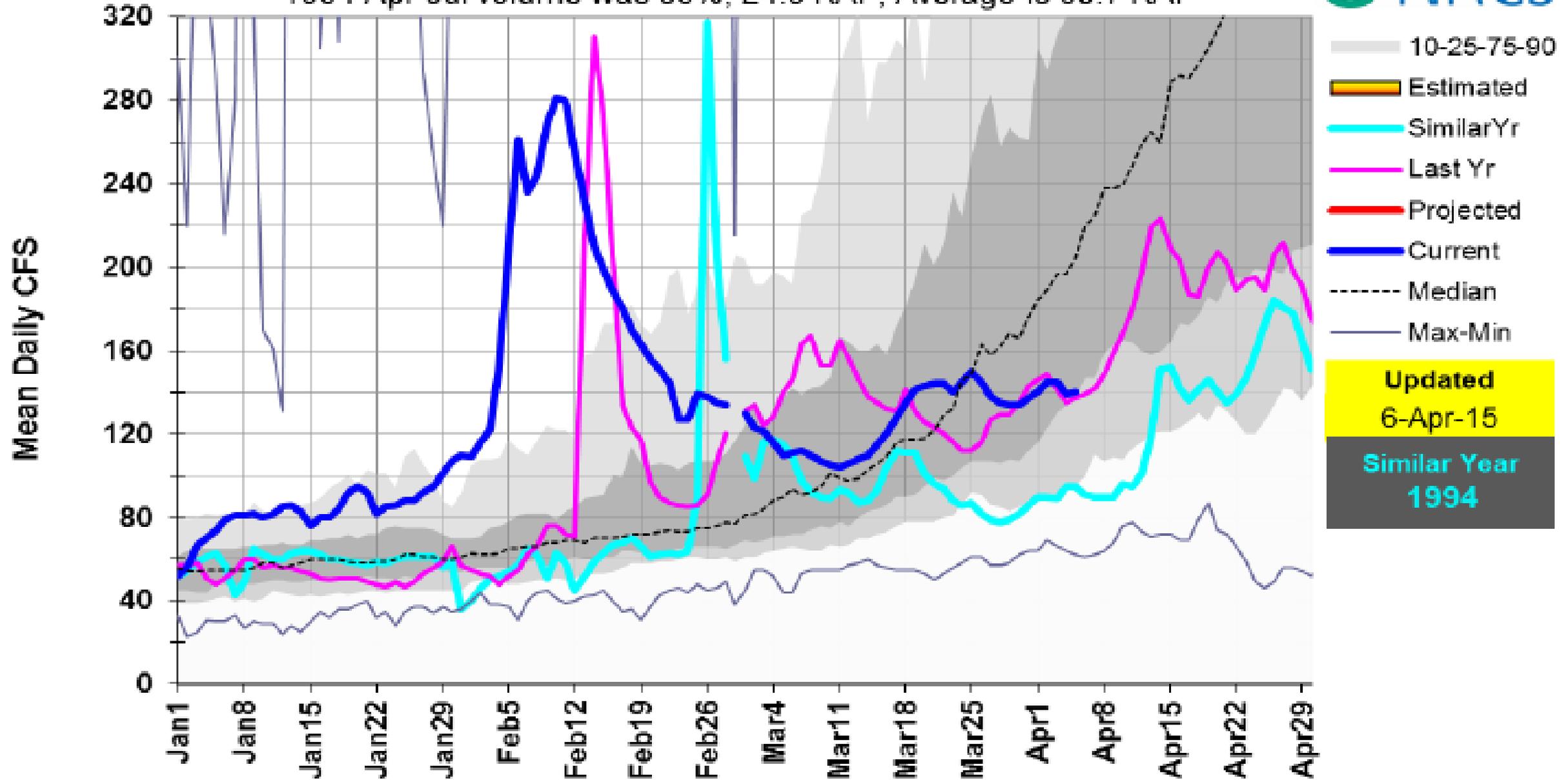
13105000: Salmon Falls Ck near San Jacinto, NV

1994 Apr-Jul volume was 36%, 24.5 KAF, Average is 68.7 KAF



13105000: Salmon Falls Ck near San Jacinto, NV

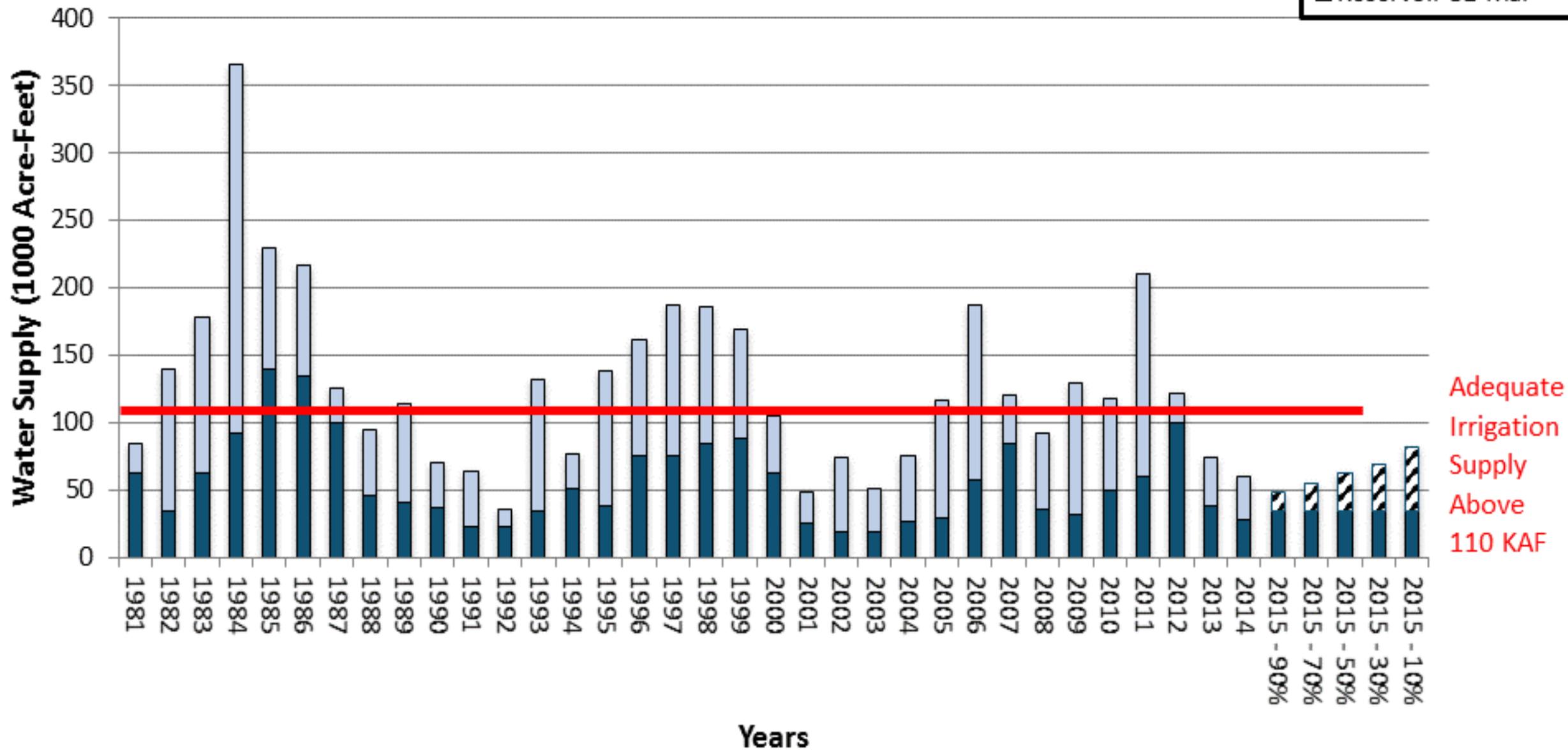
1994 Apr-Jul volume was 36%, 24.5 KAF, Average is 68.7 KAF



Station ID	Station Name	Period	Data Type	Years	# of Years			
13105000	Salmon Falls Creek nr San Jacinto	Apr-Sep	strm	1981-2014	34 Units KAF			
13106500	Salmon Falls Reservoir	31-Mar	resv	1981-2014	34 Units KAF			
ENSO Classification SE Strong El Nino - EN Mild El Nino - N Neutral - LN Mild La Nina - SL Strong La Nina								
Rank	Year	ENSO	Allotment (per share)	Stream Flow Apr-Sep	Reservoir 31-Mar	Streamflow + Reservoir Sum	Non-Exceedance Probability	SWSI
1	1984	N	1.167	273.7	92.6	366.3	97%	3.9
2	1985	N	1.167	90.3	139.5	229.8	94%	3.7
3	1986	N	1.167	83.0	134.0	217.0	91%	3.5
4	2011	SL	1.167	150.2	60.1	210.3	89%	3.2
5	1997	N	1.167	112.4	75.1	187.5	86%	3.0
6	2006	N	1.167	129.8	57.4	187.2	83%	2.7
7	1998	SE	1.167	102.1	83.7	185.8	80%	2.5
8	1983	SE	1.167	116.2	62.1	178.3	77%	2.3
9	1999	SL	1.020	80.3	88.4	168.7	74%	2.0
10	1996	N	1.167	85.3	75.8	161.1	71%	1.8
11	1982	N	1.167	105.2	33.8	139.0	69%	1.5
12	1995	SE	1.000	99.9	38.5	138.4	66%	1.3
13	1993	EN	1.050	97.7	34.2	131.9	63%	1.1
14	2009	N	1.000	98.4	31.0	129.4	60%	0.8
15	1987	N	0.940	25.9	99.9	125.8	57%	0.6
16	2012	LN	0.685	21.9	99.3	121.2	54%	0.4
17	2007	EN	0.655	35.6	84.9	120.5	51%	0.1
18	2010	EN	0.680	68.0	49.8	117.8	49%	-0.1
19	2005	EN	0.840	87.7	28.5	116.2	46%	-0.4
20	1989	SL	0.890	74.1	40.0	114.1	43%	-0.6
21	2000	N	0.481	41.3	63.0	104.3	40%	-0.8
22	1988	SE	0.570	48.2	46.0	94.2	37%	-1.1
23	2008	N	0.579	55.6	36.0	91.6	34%	-1.3
24	1981	N	0.520	22.0	62.5	84.5	31%	-1.5
2015 10% Chance Exceedance Forecast		EN	0.450	47.0	34.1	81.1	30%	-1.7
25	1994	SE	0.330	26.7	50.3	77.0	29%	-1.8
26	2004	N	0.425	48.7	26.2	74.9	26%	-2.0
27	2002	N	0.436	56.0	18.6	74.6	23%	-2.3
28	2013	N	0.380	35.6	37.8	73.4	20%	-2.5
29	1990	N	0.405	32.8	36.9	69.7	17%	-2.7
2015 30% Chance Exceedance Forecast		EN	0.400	35.0	34.1	69.1	16%	-2.9
30	1991	N	0.360	40.8	22.7	63.5	14%	-3.0
2015 50% Chance Exceedance Forecast		EN	0.350	28.0	34.1	62.1	13%	-3.1
31	2014	EN	0.332	32.9	27.2	60.1	11%	-3.2
2015 70% Chance Exceedance Forecast		EN	0.300	21.0	34.1	55.1	10%	-3.3
32	2003	EN	0.214	31.0	19.3	50.3	9%	-3.5
33	2001	LN	0.227	23.3	25.6	48.9	6%	-3.7
2015 90% Chance Exceedance Forecast		EN	0.200	13.6	34.1	47.7	4%	-3.8
34	1992	EN	0.150	13.7	22.2	35.9	3%	-3.9

Apr 1 Historic and Forecasted Surface Water Supply Salmon Falls Creek Basin

■ StreamFlow Apr-Sep
■ Reservoir 31-Mar



Salmon Falls Creek Basin SWSI

Adequate Water Supply Greater than -0.8 SWSI or 110 KAF

Station ID	Station Name	Period	Data Type	Years	# of Years			
13105000	Salmon Falls Creek nr San Jacinto	Apr-Sep	strm	1981-2014	34 Units KA			
13106500	Salmon Falls Reservoir	31-Mar	resv	1981-2014	34 Units KA			
ENSO Classification								
SE Strong El Nino - EN Mild El Nino - N Neutral - LN Mild La Nina - SL Strong La Nina								
Rank	Year	ENSO	Allotment (per share)	Stream Flow Apr-Sep	Reservoir 31-Mar	Streamflow + Reservoir Sum	Non-Exceedance Probability	SWSI
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22	1988	SE	0.570	48.2	46.0	94.2	37%	-1.1
23	2008	N	0.579	55.6	36.0	91.6	34%	-1.3
24	1981	N	0.520	22.0	62.5	84.5	31%	-1.5
2015 10% Chance Exceedance Forcast		EN	0.450	47.0	34.1	81.1	30%	-1.7
25	1994	SE	0.330	26.7	50.3	77.0	29%	-1.8
26	2004	N	0.425	48.7	26.2	74.9	26%	-2.0
27	2002	N	0.436	56.0	18.6	74.6	23%	-2.3
28	2013	N	0.380	35.6	37.8	73.4	20%	-2.5
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30	1991	N	0.360	40.8	22.7	63.5	14%	-3.0
2015 50% Chance Exceedance Forcast		EN	0.350	28.0	34.1	62.1	13%	-3.1
31	2014	EN	0.332	32.9	27.2	60.1	11%	-3.2
2015 70% Chance Exceedance Forcast		EN	0.300	21.0	34.1	55.1	10%	-3.3
32	2003	EN	0.214	31.0	19.3	50.3	9%	-3.5
33	2001	LN	0.227	23.3	25.6	48.9	6%	-3.7
2015 90% Chance Exceedance Forcast		EN	0.200	13.6	34.1	47.7	4%	-3.8
34	1992	EN	0.150	13.7	22.2	35.9	3%	-3.9

Salmon Falls Creek near San Jacinto

Oct - Sep Streamflow --- ONE Year Total Flow

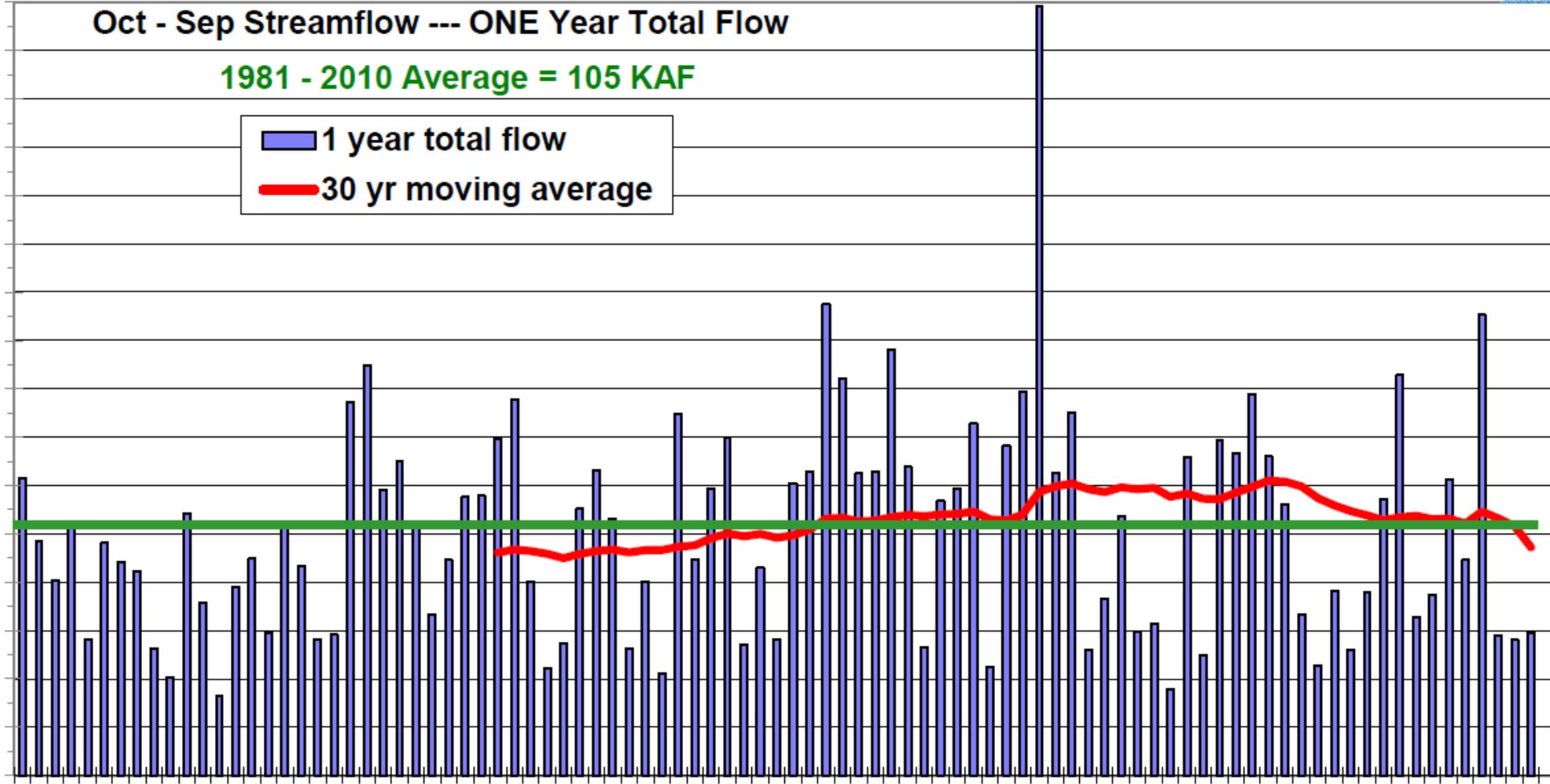
1981 - 2010 Average = 105 KAF

1 year total flow
30 yr moving average

1000 Acre-feet

1922 1924 1926 1928 1930 1932 1934 1936 1938 1940 1942 1944 1946 1948 1950 1952 1954 1956 1958 1960 1962 1964 1966 1968 1970 1972 1974 1976 1978 1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014

Years



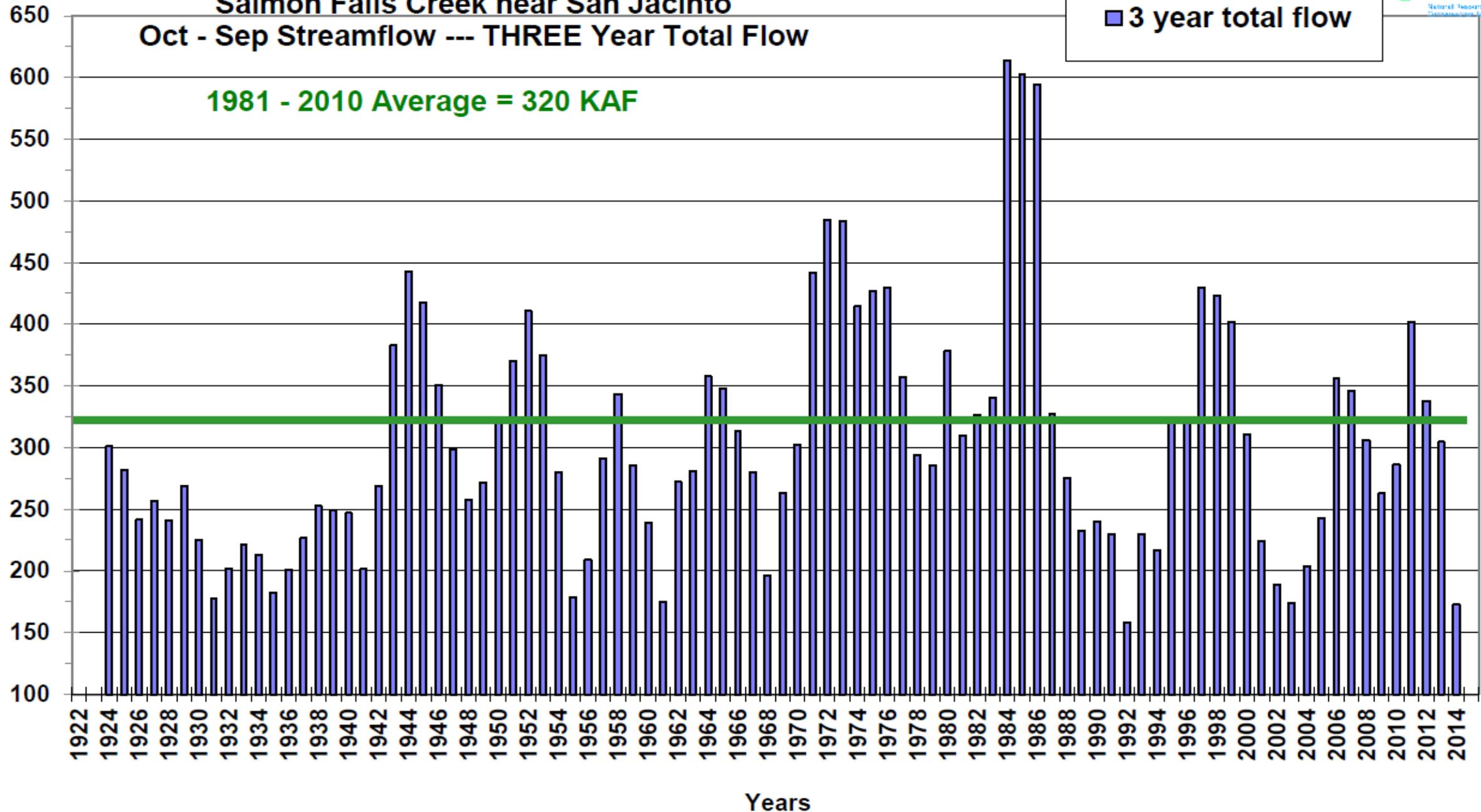
Salmon Falls Creek near San Jacinto

Oct - Sep Streamflow --- THREE Year Total Flow

1981 - 2010 Average = 320 KAF

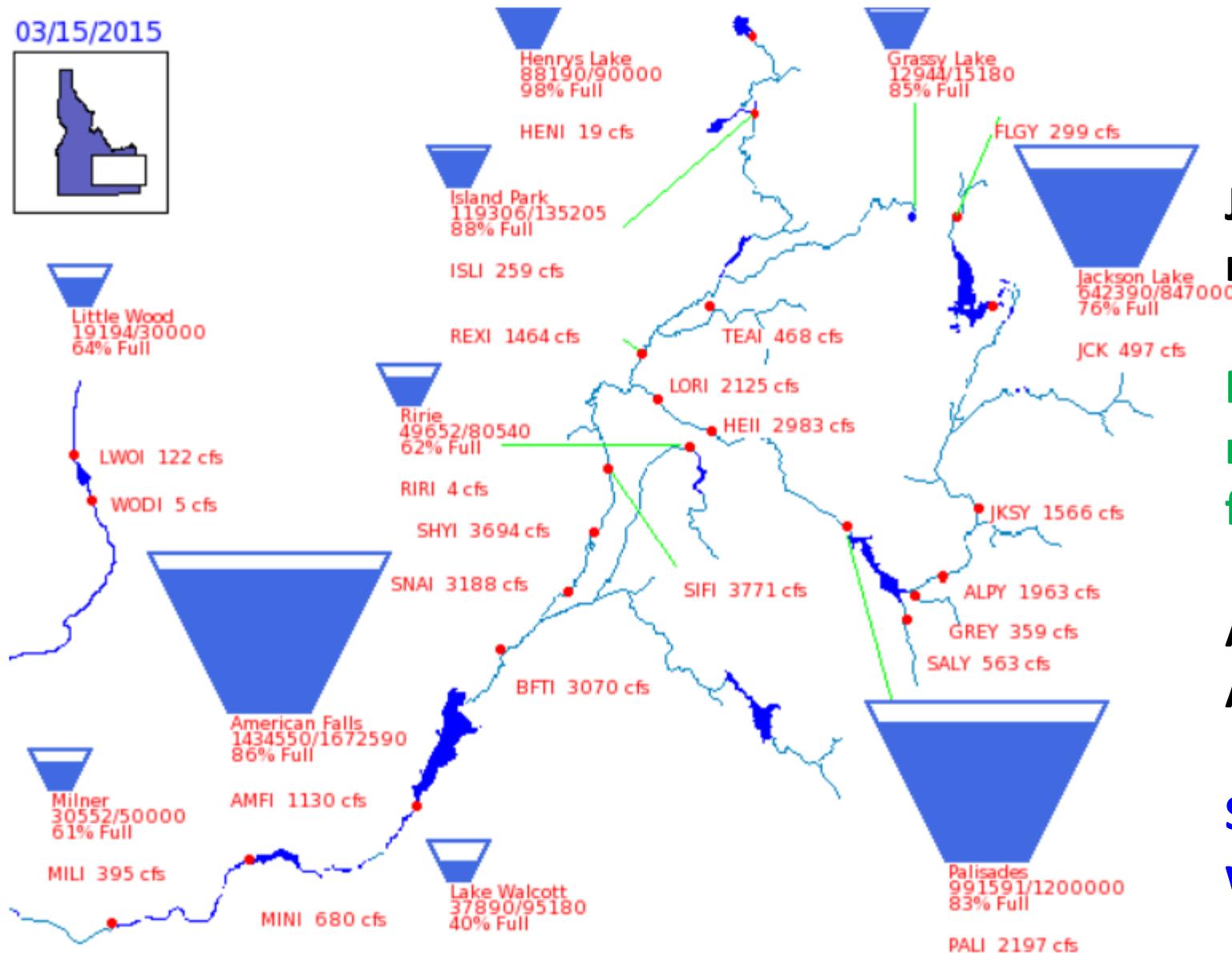
■ 3 year total flow

1000 Acre-feet



**Bureau of Reclamation, Pacific Northwest Region
Major Storage Reservoirs in the Upper Snake River Basin**

03/15/2015



PROVISIONAL DATA - SUBJECT TO CHANGE!

**Upper Snake River system is
at 81 % of capacity.**

(Jackson Lake, Palisades, Grassy Lake, Island Park, Ririe, American Falls, Lake Walcott)

Jackson 76% holding – should fill mid-Jun

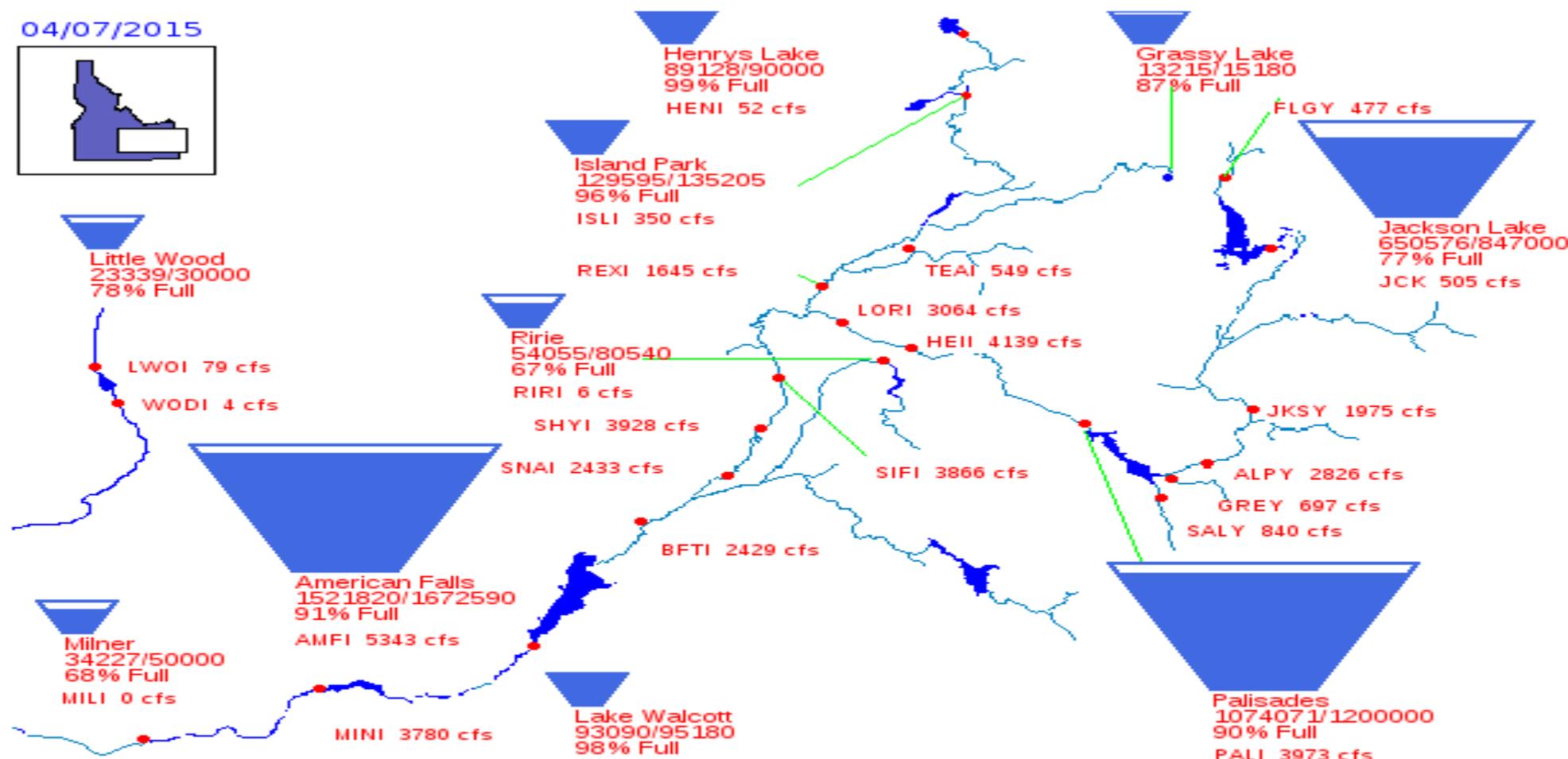
Palisades 83% releasing - will review April 1 streamflow forecast. Good position to be in.

American Falls 80% - fill in mid-April

System is in good shape for whatever future weather occurs.

Bureau of Reclamation, Pacific Northwest Region Major Storage Reservoirs in the Upper Snake River Basin

04/07/2015



PROVISIONAL DATA - SUBJECT TO CHANGE!

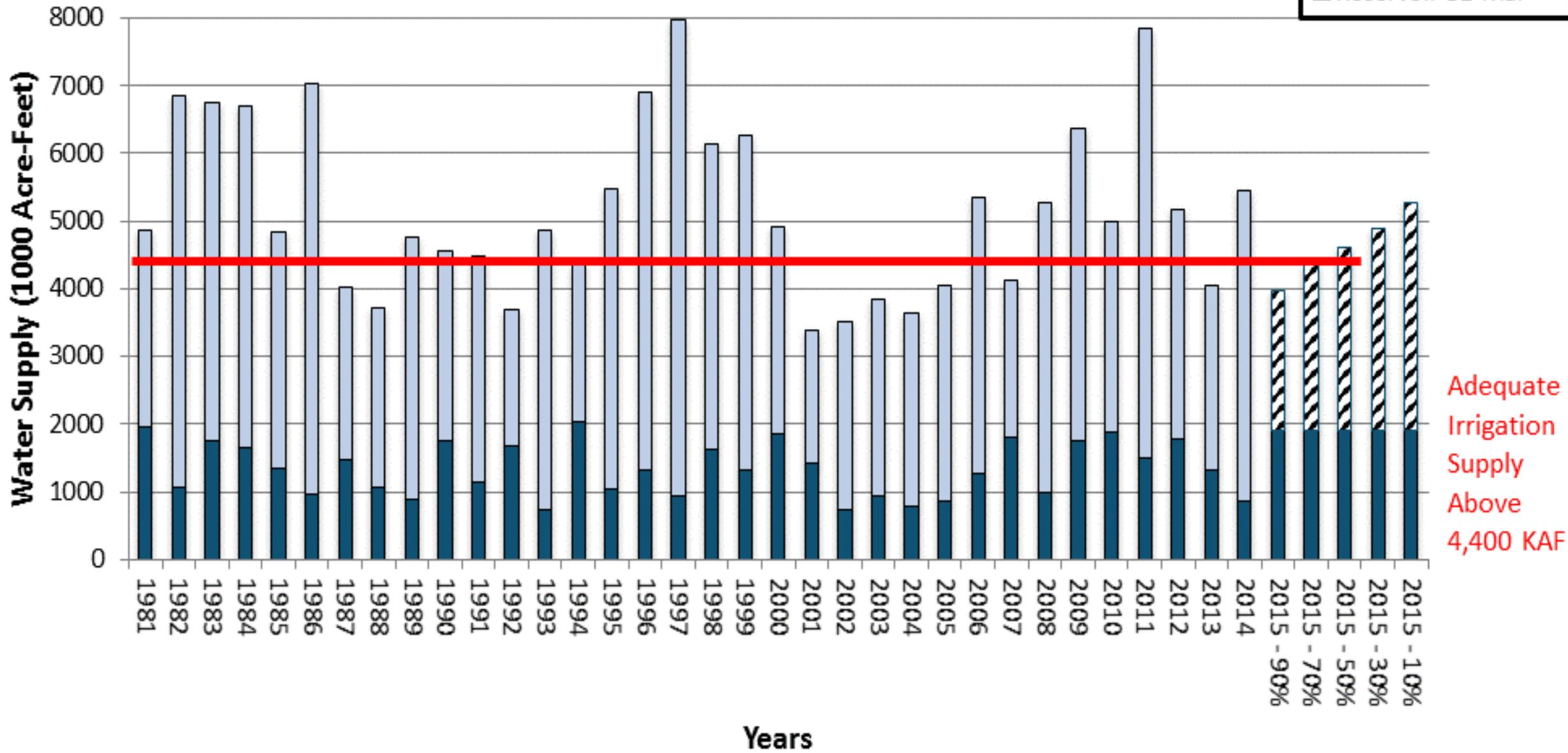
Average daily streamflows indicated in cubic feet per second.
Reservoir levels current as of midnight on date indicated.
Click on gaging stations (red dots) for streamflow hydrographs.

Upper Snake River system is at 87 % of capacity.
(Jackson Lake, Palisades, Grassy Lake, Island Park, Ririe, American Falls, Lake Walcott)

Total space available: 509,273 AF
Total storage capacity: 4,045,695 AF

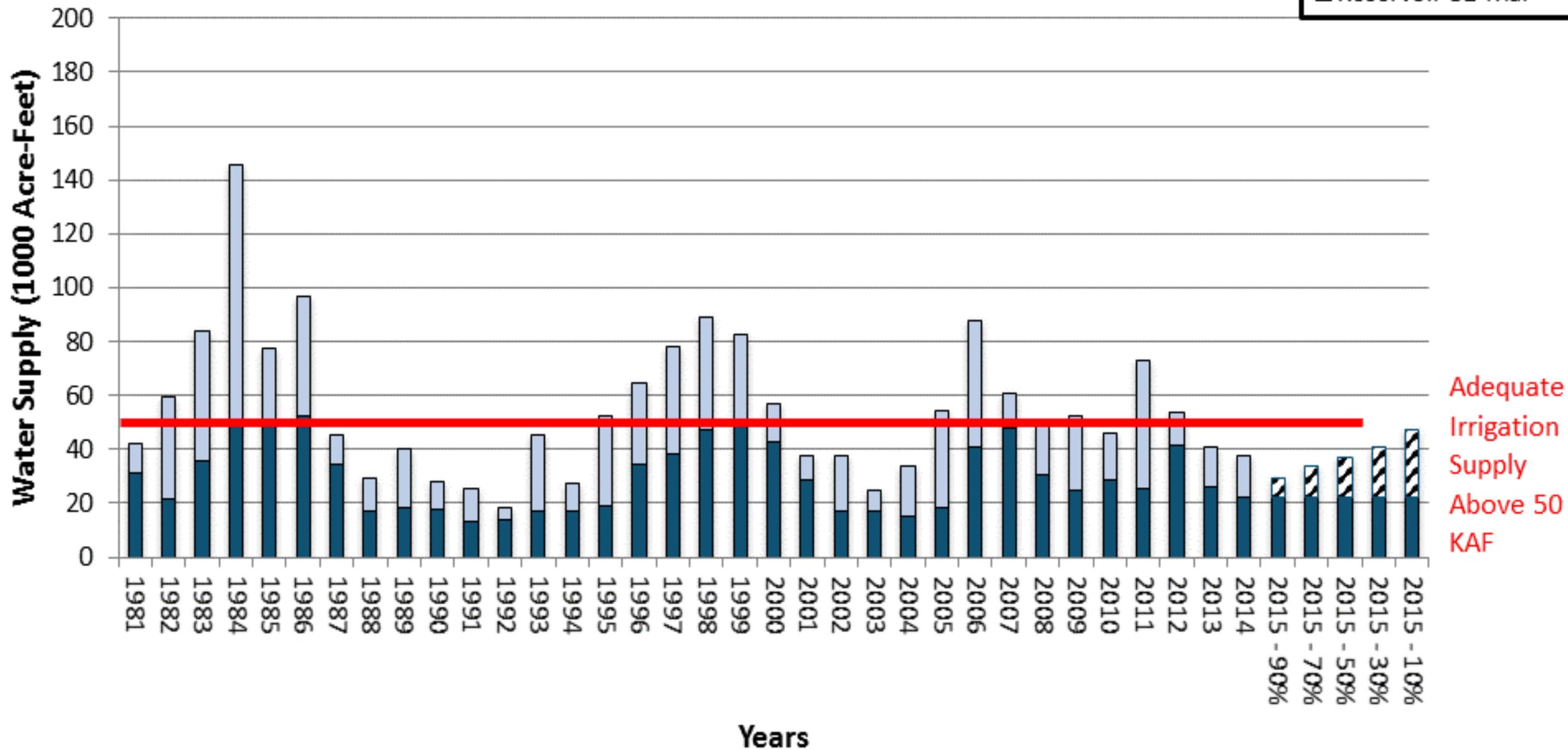
Apr 1 Historic and Forecasted Surface Water Supply Snake River Near Heise

■ StreamFlow Apr-Sep
■ Reservoir 31-Mar



Apr 1 Historic and Forecasted Surface Water Supply Oakley Basin

■ StreamFlow Apr-Sep
■ Reservoir 31-Mar

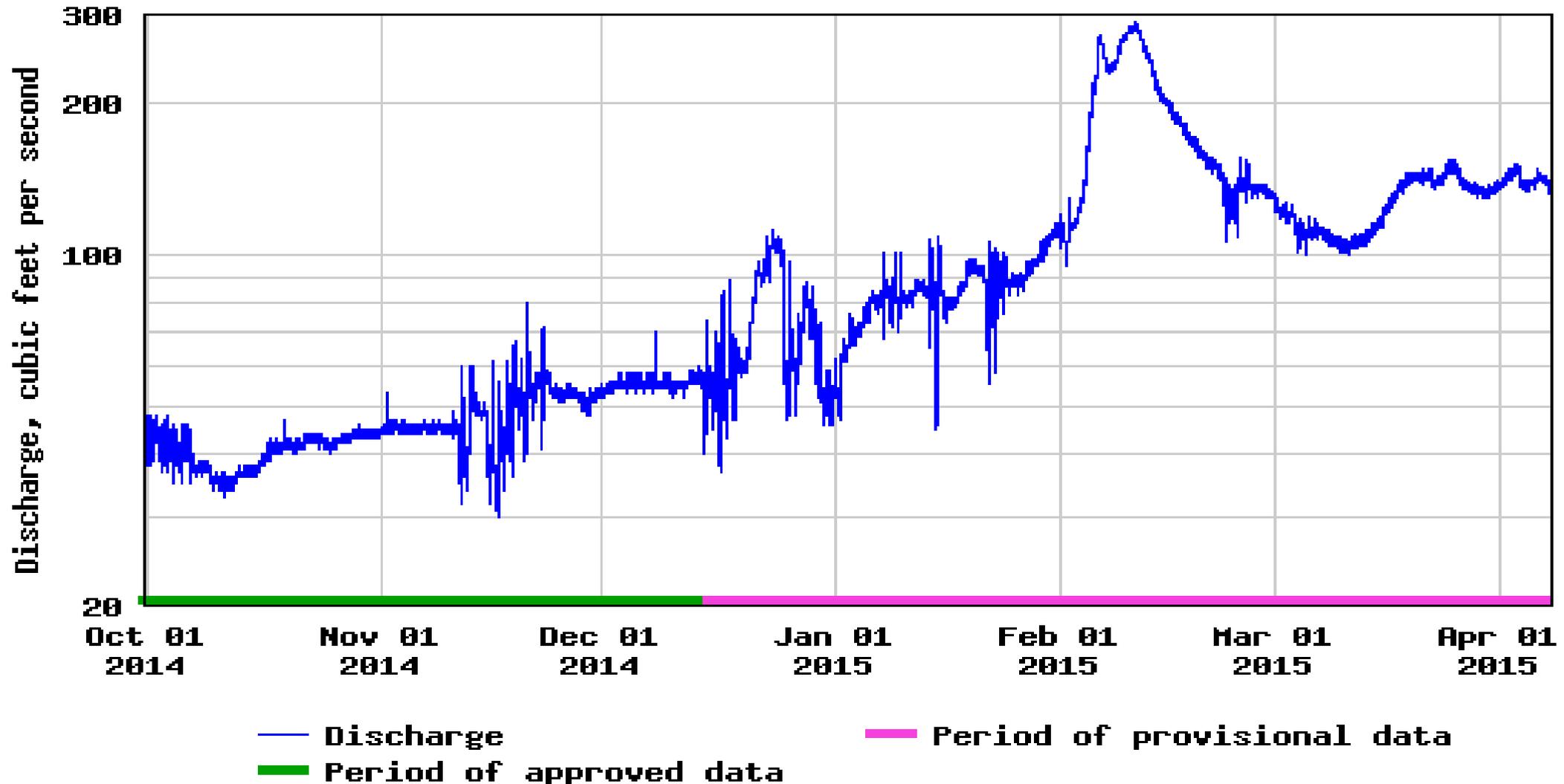


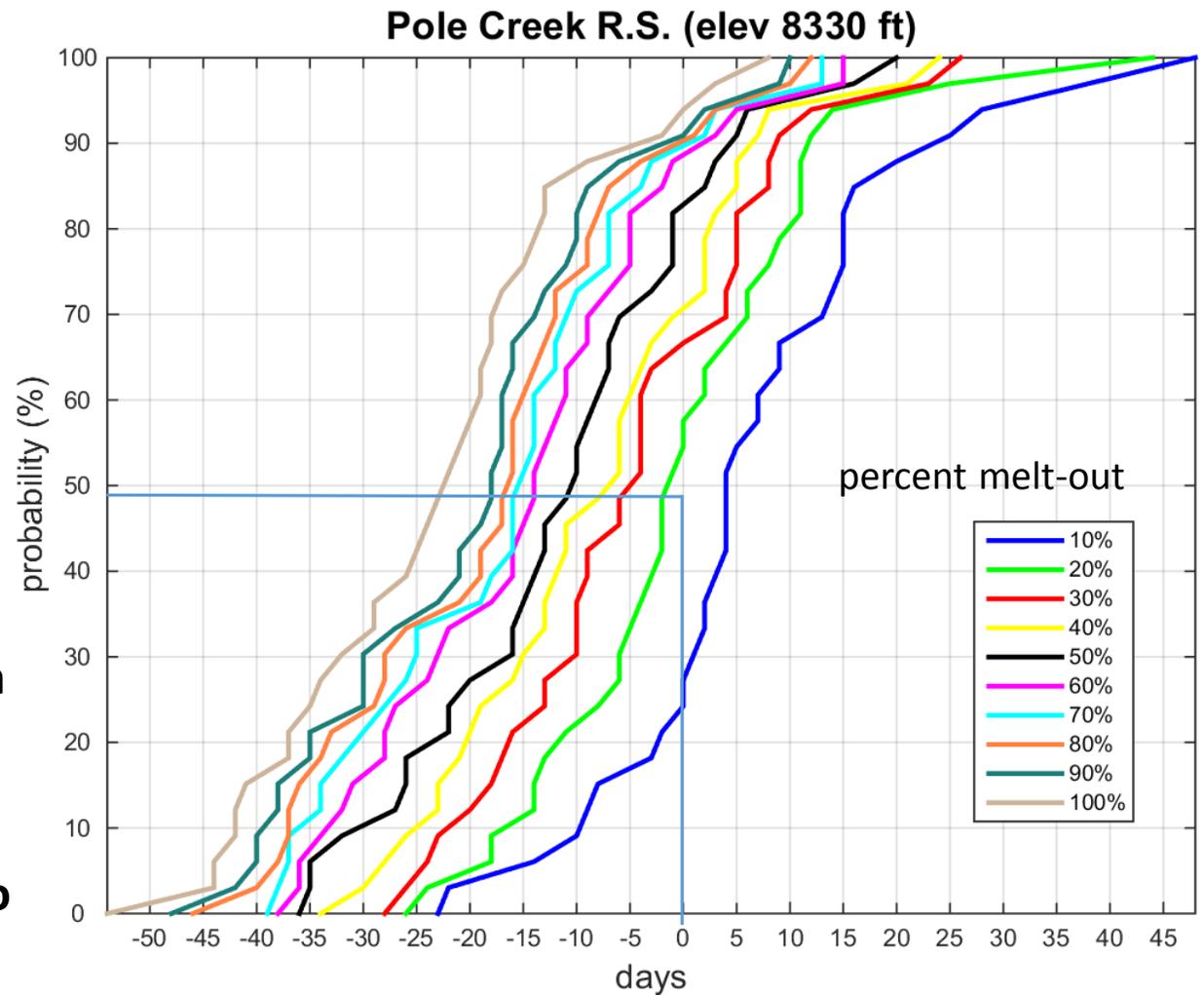
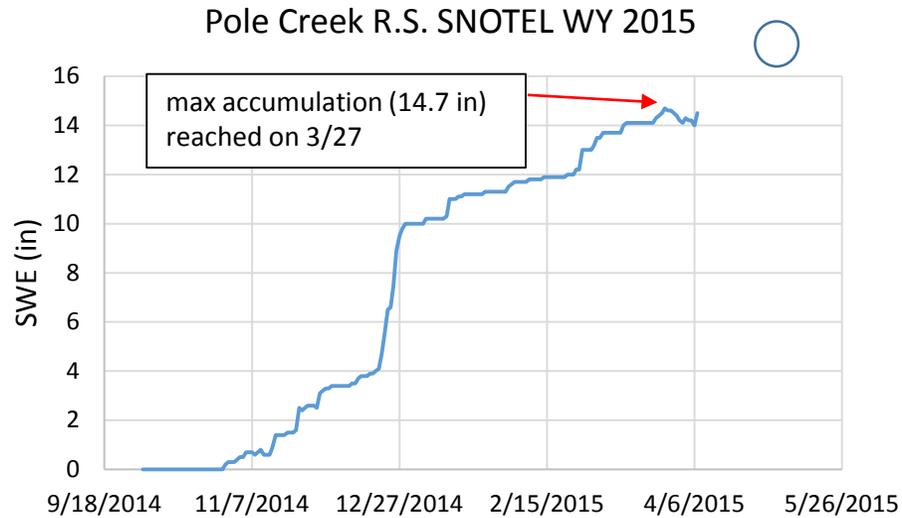
Adequate
 Irrigation
 Supply
 Above 50
 KAF

Salmon Falls Creek hydrograph for WY 2015 as of 4/7/2015



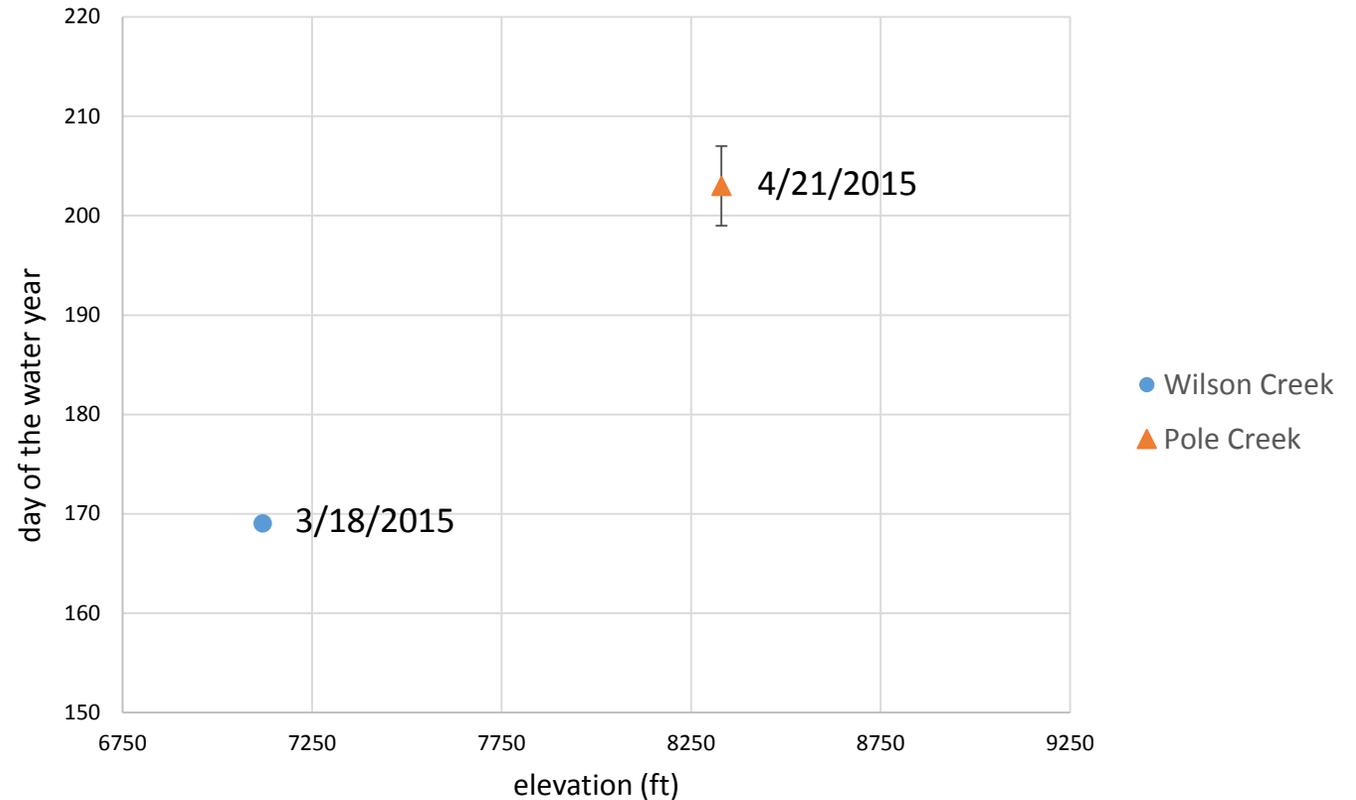
USGS 13105000 SALMON FALLS CREEK NR SAN JACINTO NV



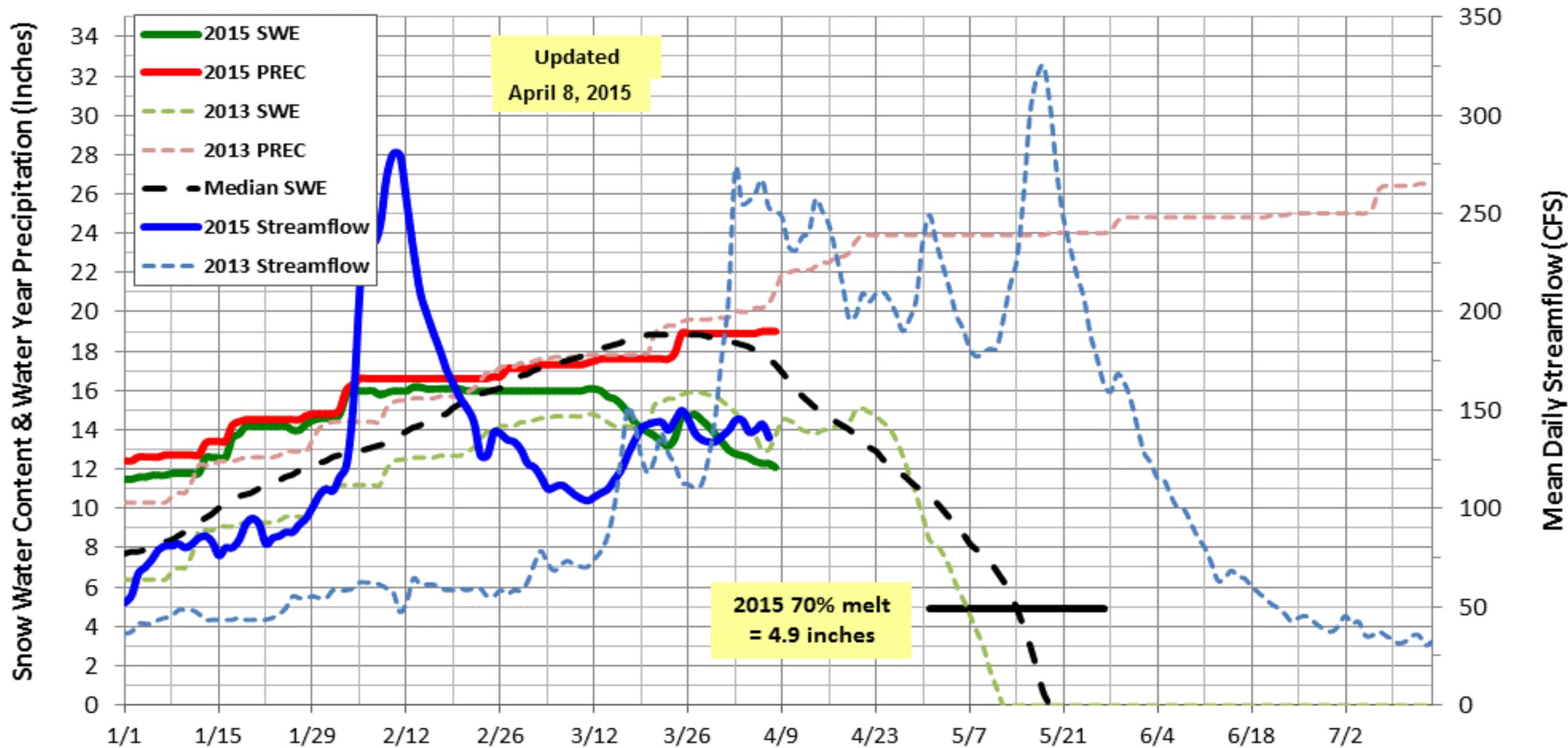


- Pole Creek SNOTEL site reached max accumulation (14.7 in) on 3/27.
- As of as of 4/7 SWE is 14.5 in (~1% melt-out).
- Currently, Pole Creek is not far enough into melt to use the melt-out percentages from the probability chart, however, the chart can be used to estimate the average melt-out percent at the time of peak streamflow.
- On average (50% probability), Pole Creek is at 20% melt-out (green line) at the time of peak streamflow for Salmon Falls.

- **Melt-out timing from Wilson Creek, the lower elevation SNOTEL site, may be used to estimate melt-out timing at Pole Creek, the highest elevation site.**
- **Wilson Creek reached 20% melt-out on 3/18, it is estimated Pole Creek will reach 20% melt-out on 4/21 (± 4 days).**



2015 & 2013 Magic Mountain SNOTEL and Salmon Falls Creek near San Jacinto



Salmon Fall Creek usually peaks or has an increase when Magic Mtn SNOTEL is about 70% melted

Twin Falls Soil & Water Conservation District Salmon Falls Reservoir Storage Allotment		Updated April 8, 2015				
Note: Allotment formula is based on March 31 reservoir storage and April 1 - September 30 forecasts.		Based on NRCS April 1 Streamflow Forecasts				
		Chance of Exceedance Streamflow Forecasts				
		90%	70%	50%	30%	10%
Inflow Forecast, April 1-September 30, acre-feet		13600	21000	28000	35000	0
Storage in Dam, March 31 , acre-feet	34100	34100	34100	34100	34100	34100
Total Storage (Inflow Forecast + Storage)		47700	55100	62100	69100	34100
Less Dead Storage in Reservoir (5000 A-F)	5000	42700	50100	57100	64100	29100
Projected Reservoir Loss of 20%	0.20	8540	10020	11420	12820	5820
In Dam, Available for Delivery		34160	40080	45680	51280	23280

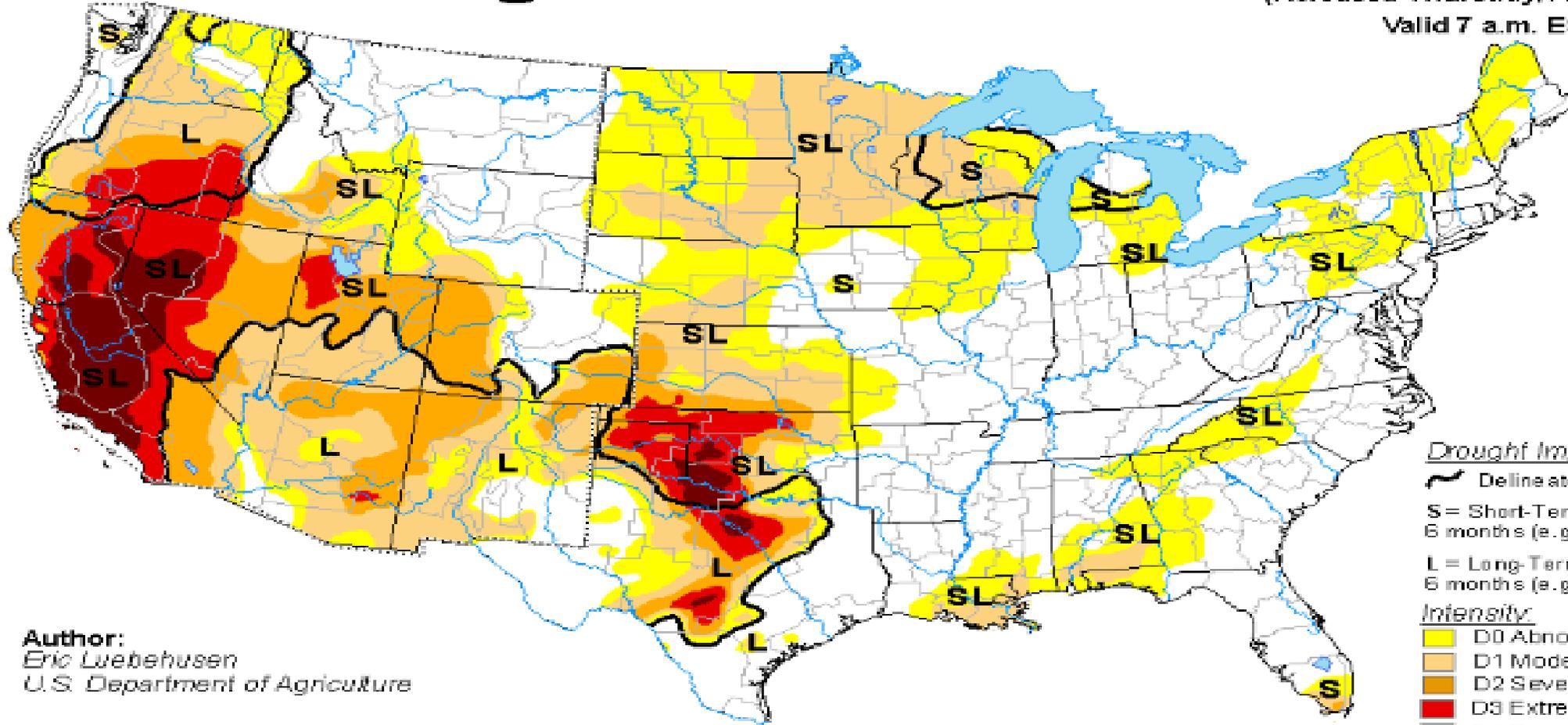
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Projected Delivery Efficiency: 2010 56.0% 2009 59.8% 2008 55% 2007 59.4% 2006 65.3% 2005 59.4% 2013 53% 2014 48%	0.48	16397	19238	21926	24614	11174
Less Water for Callen	485	485	485	485	485	485
Less Individual Storage Carryover	988	988	988	988	988	988
Water to be Delivered Over the Weir		14924	17765	20453	23141	9701

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Less Individual Storage Carryover	988	988	988	988	988	988
Water to be Delivered Over the Weir		14924	17765	20453	23141	9701
Divided by Total Shares	60050.65	0.249	0.296	0.341	0.385	0.162
Allotment if 'Individual Storage Carryover' is not subtracted from 'In Dam, Available for Delivery'		0.265	0.312	0.357	0.402	0.178
Average Allotment						
1924-2006	0.761					
1971-2000	0.934					
2002-2006	0.616	2013 allotment 0.380 Runoff 35 KAF Apr-Sep				
Full Allotment	1.167	2014 allotment 0.332 Runoff 33 KAF Apr-Sep				

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U.S. Drought Monitor

March 31, 2015
(Released Thursday, Apr. 2, 2015)
Valid 7 a.m. EST



Drought Impact Types:

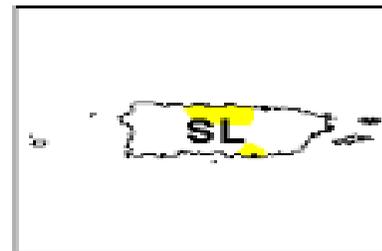
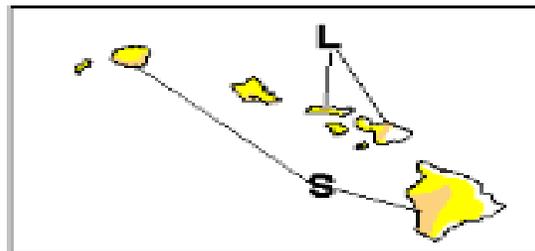
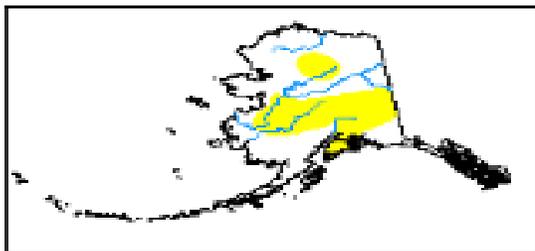
- ~ Delineates dominant impacts
- S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Eric Luebbehusen
U.S. Department of Agriculture



<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor

West

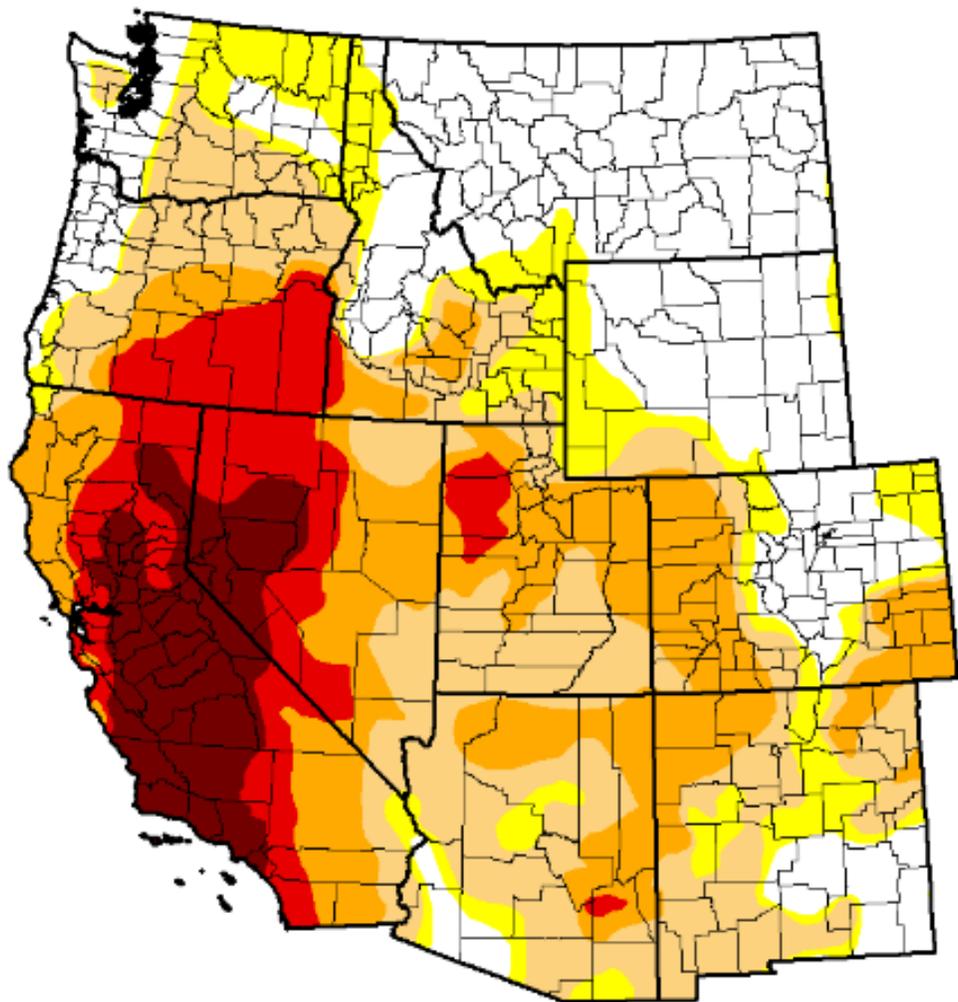
March 31, 2015

(Released Thursday April 2, 2015)

Valid 8 a.m. EDT

Statistics type: Traditional (D0-D4, D1-D4, etc.) Categorical (D0, D1, etc.)

Drought Condition (Percent Area):



Week	Date	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	2015-03-31	28.49	71.51	59.80	36.89	17.04	7.23
Last Week	2015-03-24	28.74	71.26	59.79	32.85	17.04	7.23
3 Months Ago	2014-12-30	34.76	65.24	54.48	33.50	18.68	5.40
Start of Calendar Year	2014-12-30	34.76	65.24	54.48	33.50	18.68	5.40
Start of Water Year	2014-09-30	31.48	68.52	55.57	35.65	19.95	8.90
One Year Ago	2014-04-01	28.11	71.89	60.21	41.95	16.03	4.03

Population Affected by Drought: **52,547,630**

[View More Statistics](#)

Intensity:

 D0 - Abnormally Dry

 D1 - Moderate Drought

 D2 - Severe Drought

 D3 - Extreme Drought

 D4 - Exceptional Drought

Download:

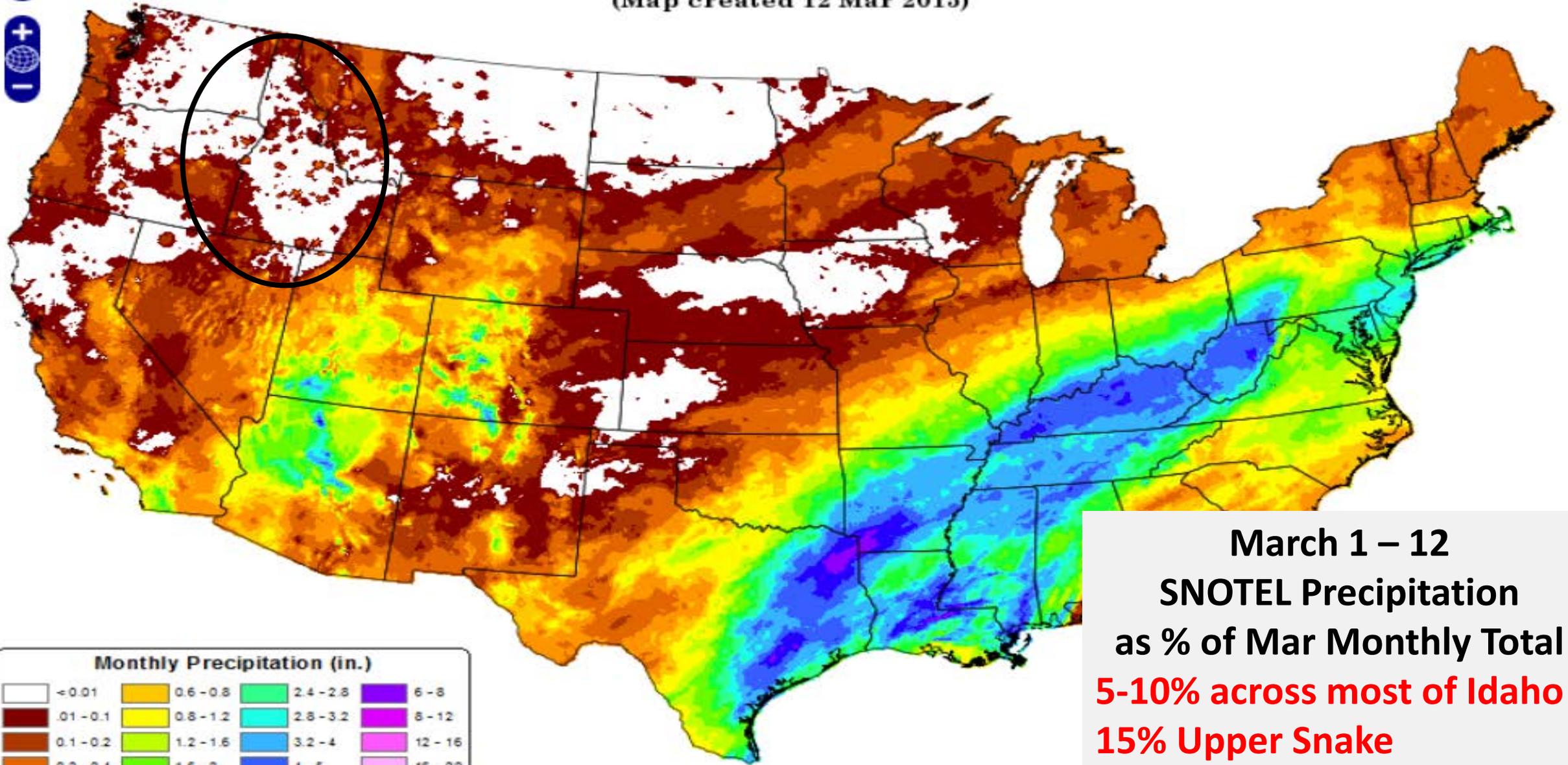


The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying [text summary](#) for forecast statements.

Total Precipitation: 01 March 2015 - 11 March 2015

Period ending 7 AM EST 11 Mar 2015

(Map created 12 Mar 2015)



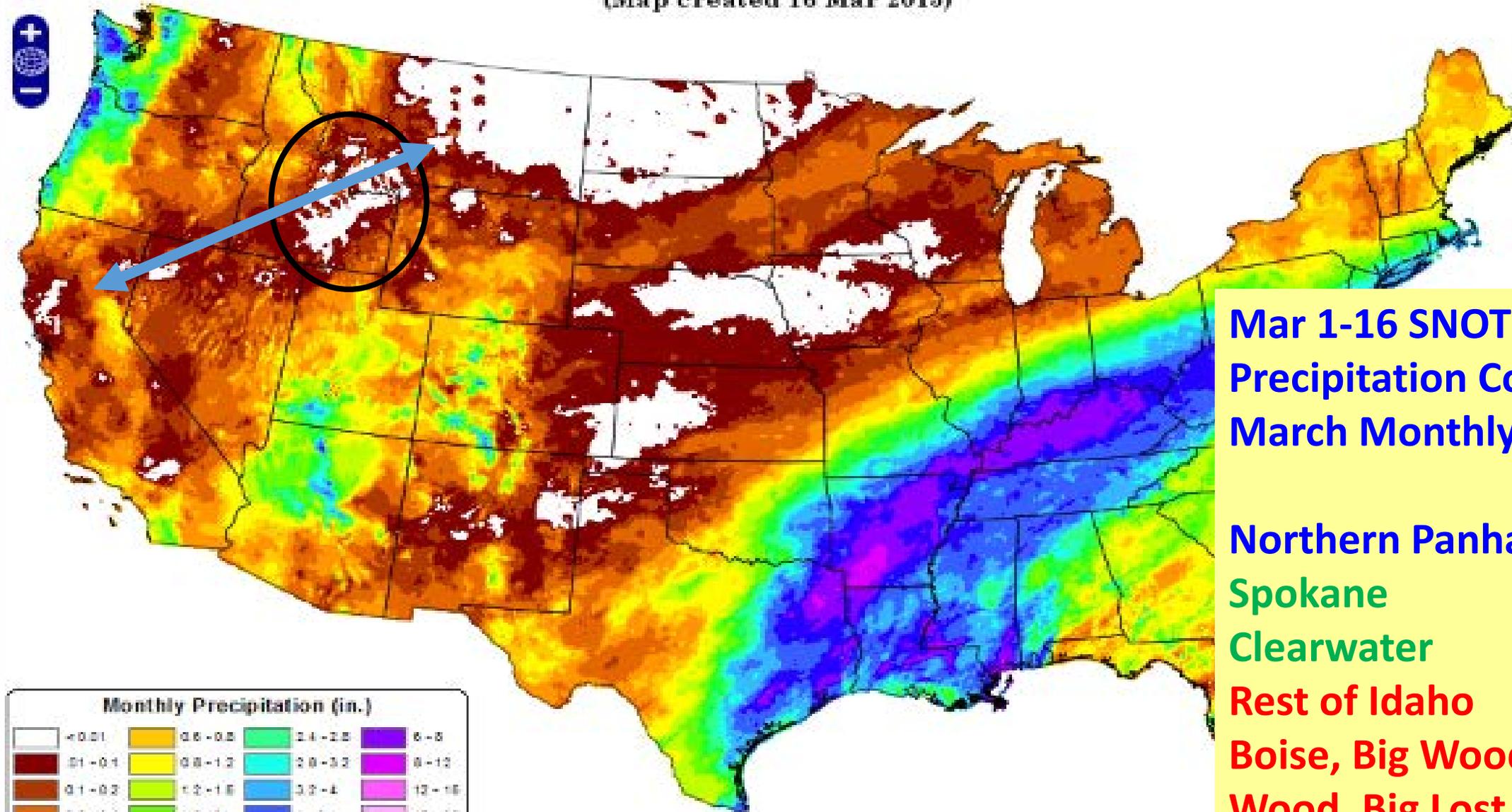
Monthly Precipitation (in.)			
<0.01	0.6-0.8	2.4-2.8	6-8
.01-0.1	0.8-1.2	2.8-3.2	8-12
0.1-0.2	1.2-1.6	3.2-4	12-16
0.2-0.4	1.6-2	4-5	16-20
0.4-0.6	2-2.4	5-6	>20

March 1 – 12
SNOTEL Precipitation
as % of Mar Monthly Total
5-10% across most of Idaho
15% Upper Snake
20% in Bear River

Total Precipitation: 01 March 2015 - 15 March 2015

Period ending 7 AM EST 15 Mar 2015

(Map created 16 Mar 2015)



**Mar 1-16 SNOTEL
Precipitation Compared to
March Monthly Total:**

Northern Panhandle 64%

Spokane 50%

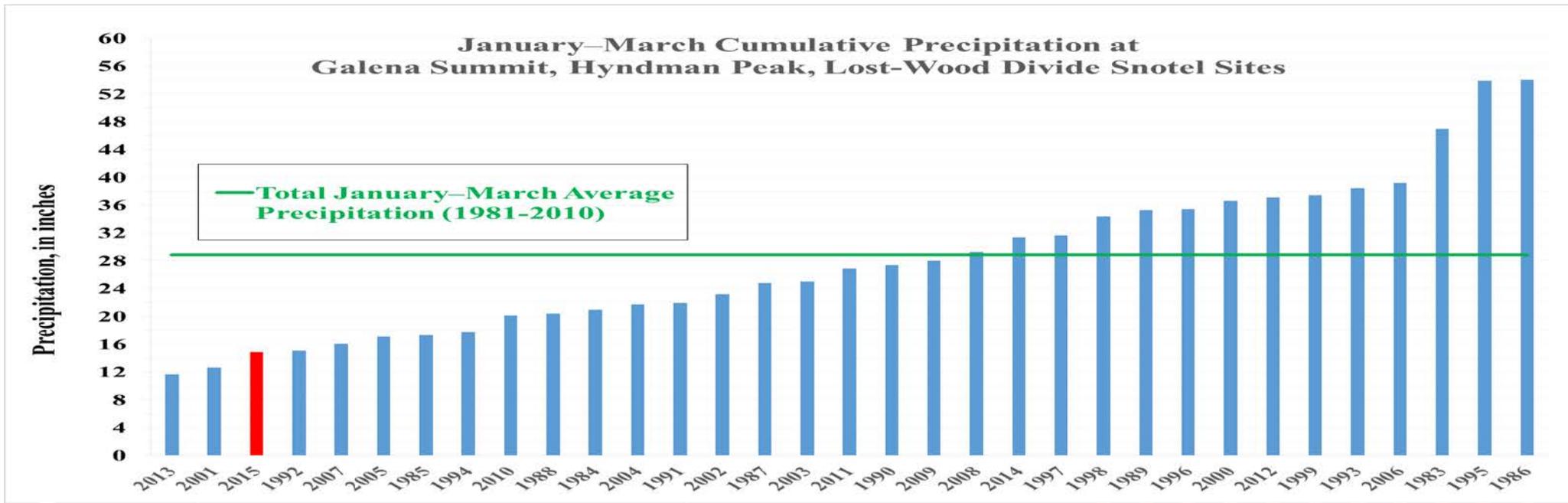
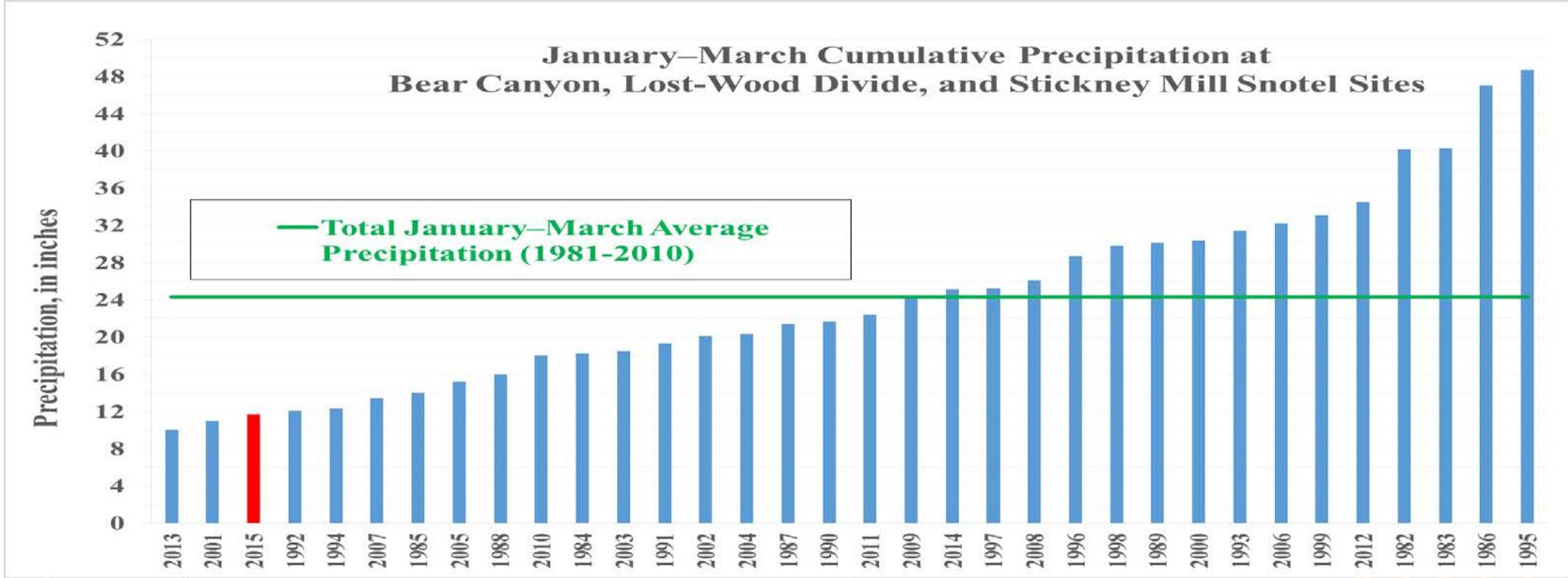
Clearwater 37%

Rest of Idaho 6-25%

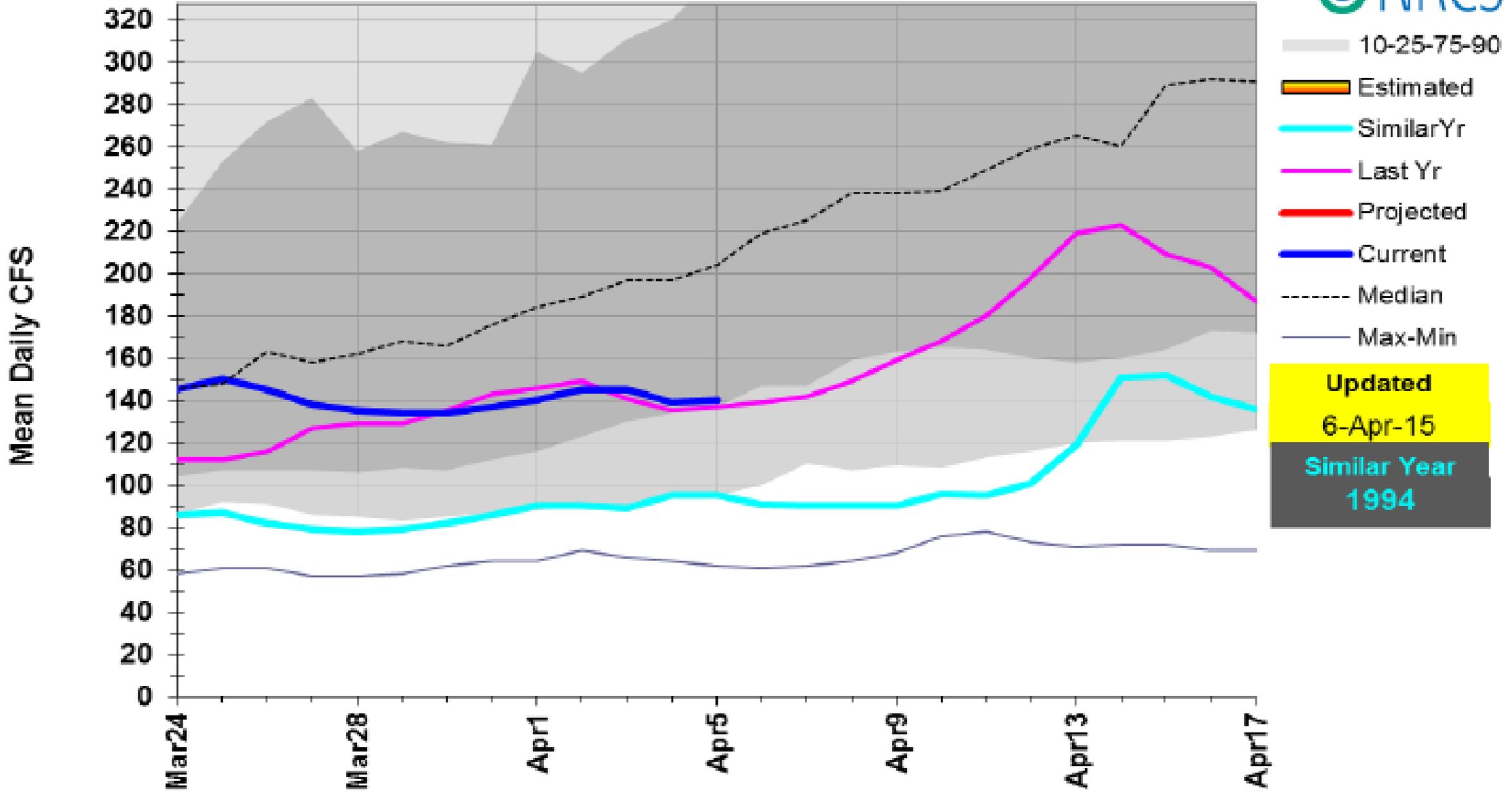
Boise, Big Wood, Little

Wood, Big Lost, Little Lost &

Mud Lake 6-11%



13105000: Salmon Falls Ck near San Jacinto, NV



**Apr 1 Surface Water Supply Index (SWSI)
Salmon Falls Creek Basin**

StreamFlow Apr-Sep
Reservoir 31-Mar

