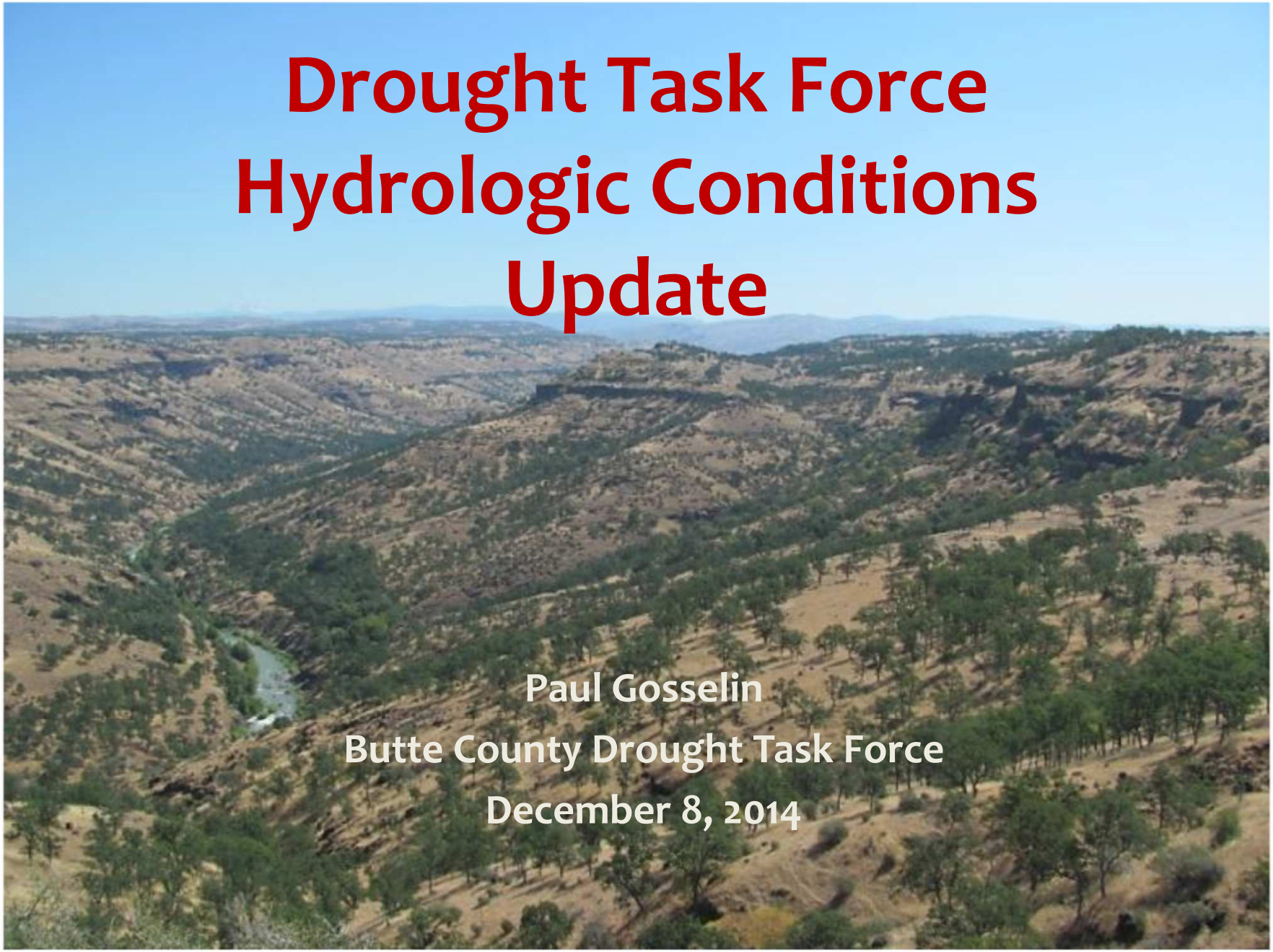
Drought Task Force Hydrologic Conditions Update



Paul Gosselin

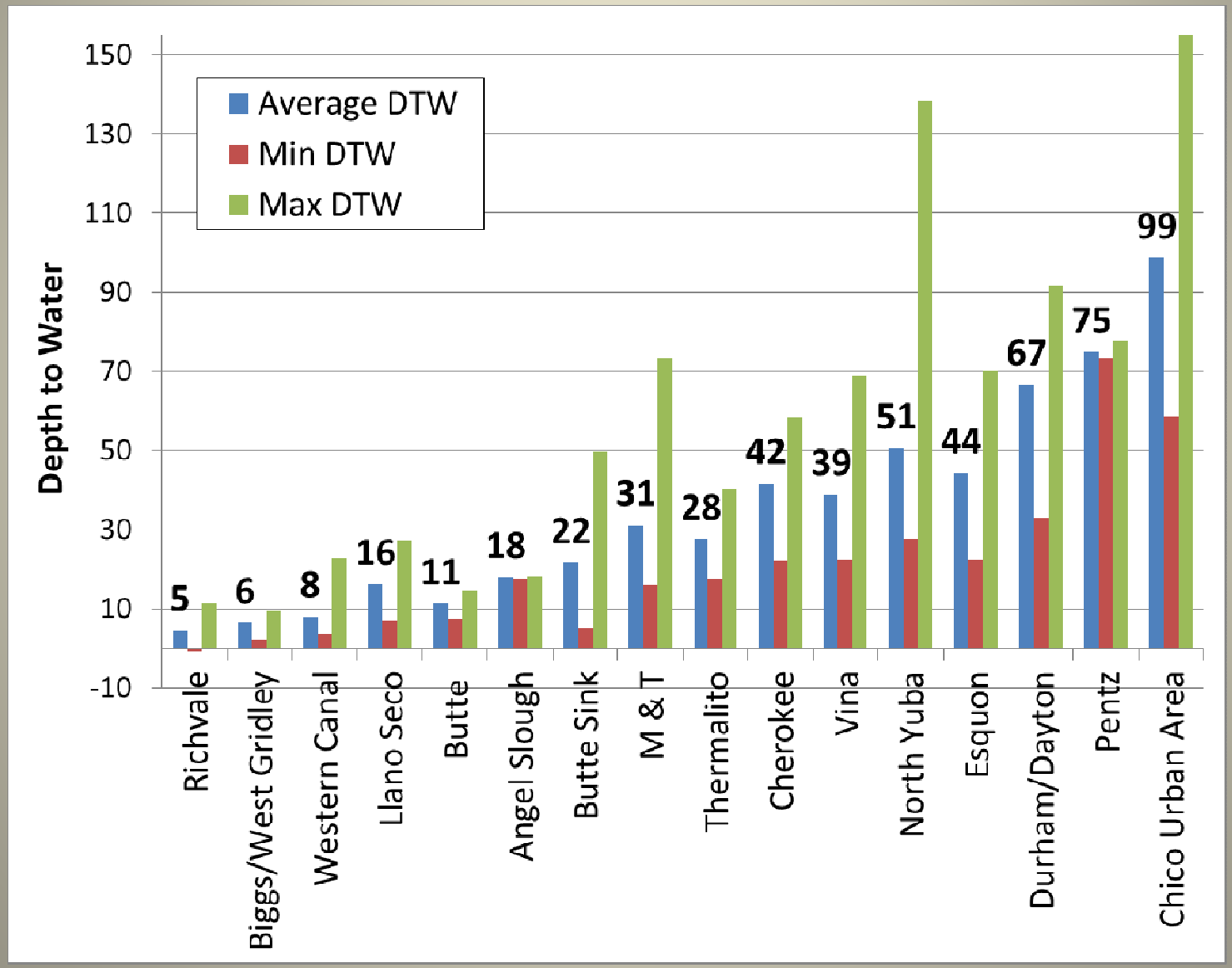
Butte County Drought Task Force

December 8, 2014

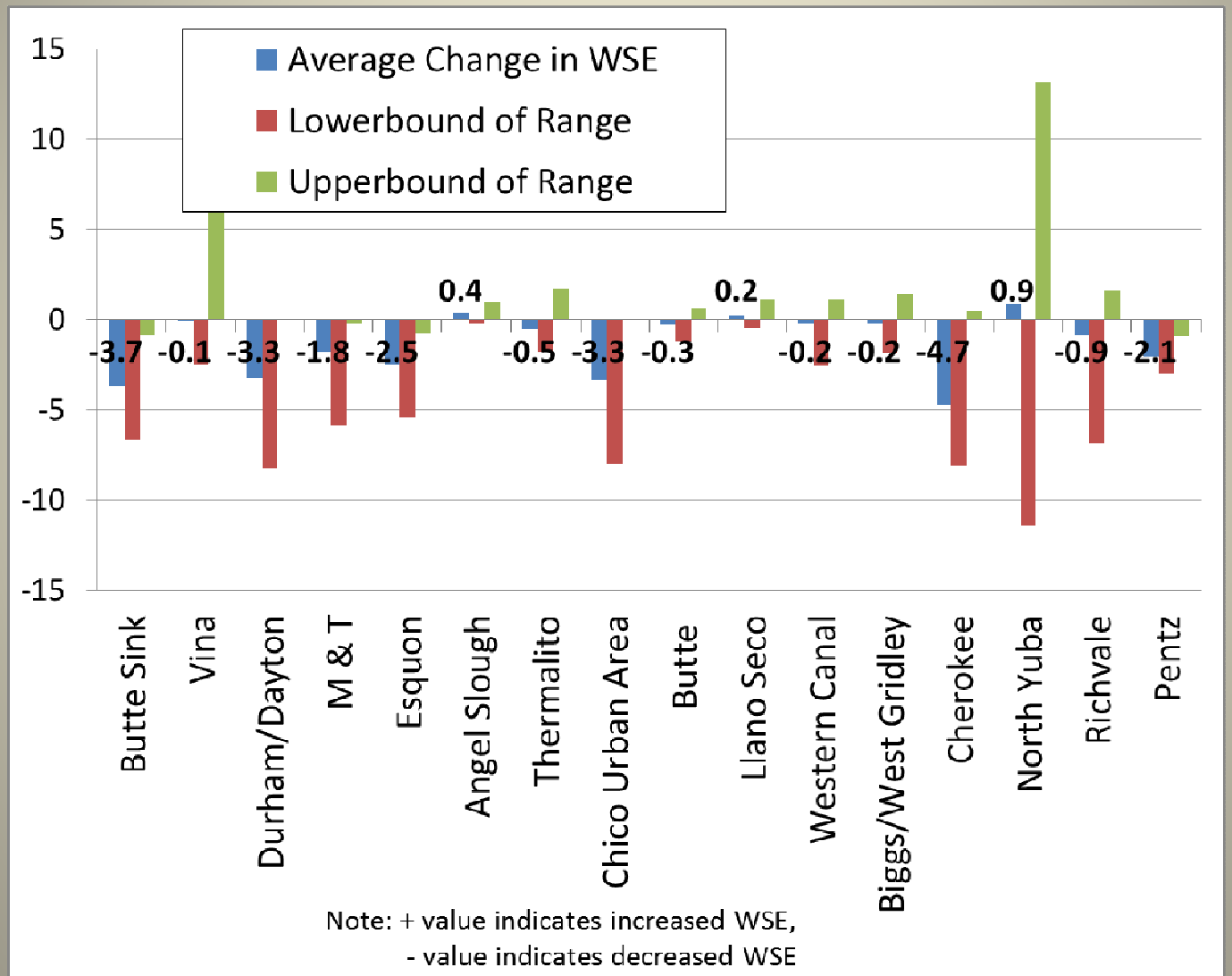
Water Year 2014

- Oct. 1, 2013 - Sept. 30, 2014
- Water year index: CRITICAL
- Follows below normal conditions in Sac Valley & dry conditions in SJ Valley since WY 2012

Groundwater: Depth to Water
Fall 2014 Measurements



Average Change: Fall 2013→2014



Note: + value indicates increased WSE,
- value indicates decreased WSE

Groundwater Elevation Change: Fall 2013-->2014

		Change (feet)	SIU
Well Count	**Max Increase**	**10.7**	Vina
25	Average Increase	7	
	Max Decrease	**-14**	North Yuba
66	Average Decrease	-3	
	Average GWL Change	**-2**	
	Number of Wells	91	

**Questionable Measurements not included

BMO Alert Stage Frequency

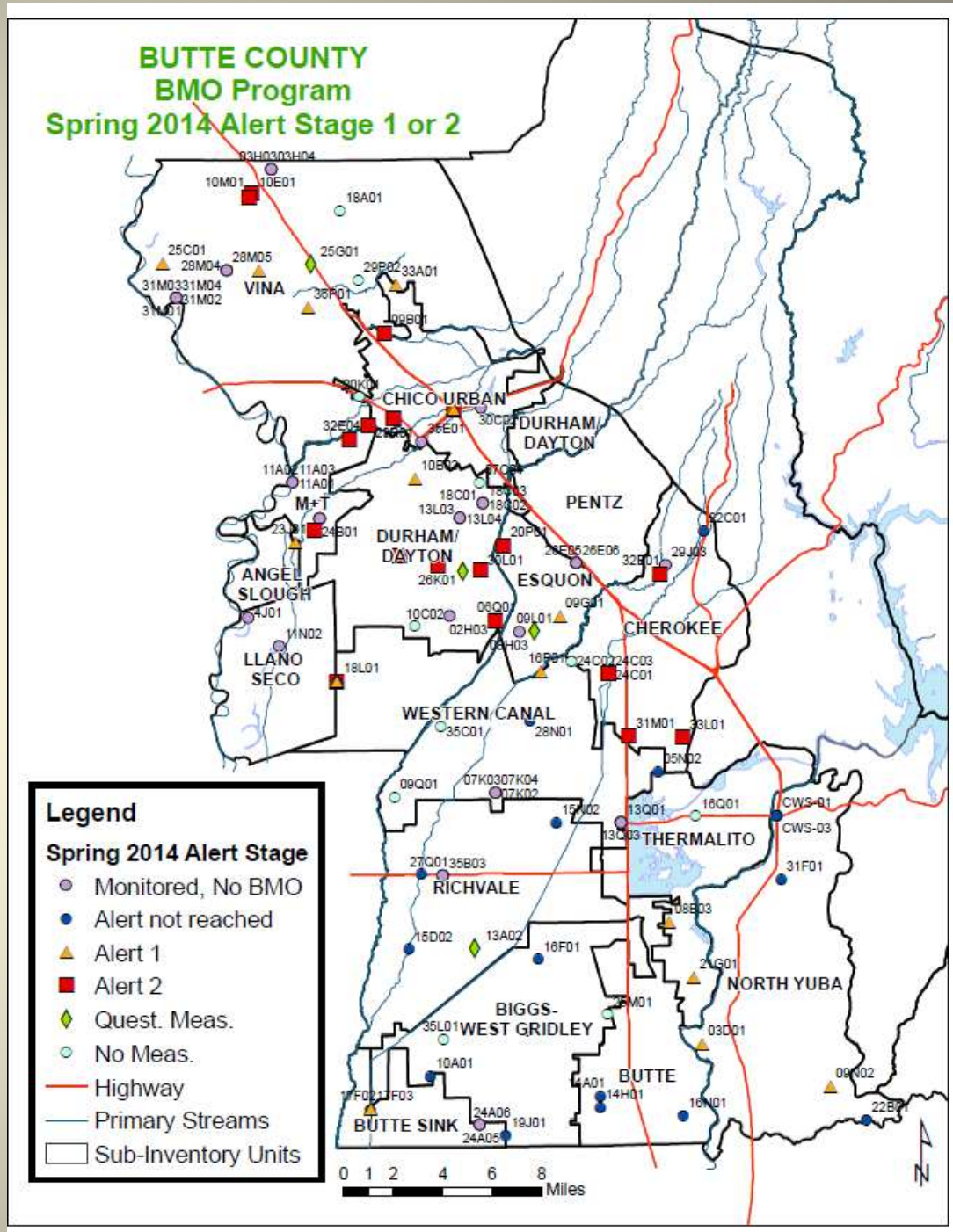
Spring: March 2014

	2008	2009	2010	2011	2012	2013	2014
Alert 1	26	31	25	24	25	20	24
Alert 2	0	6	3	0	4	15	21

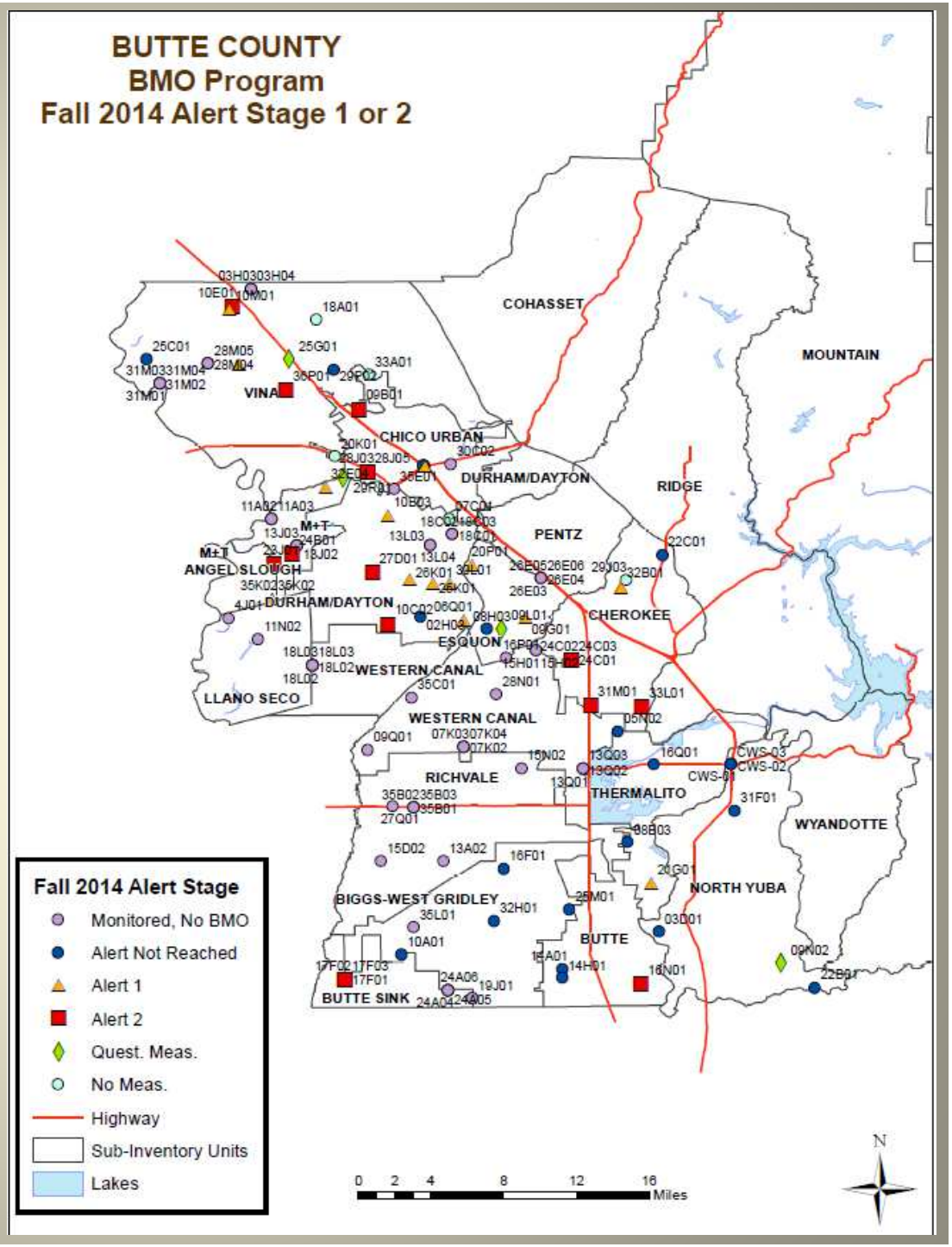
Fall: October 2014

	2008	2009	2010	2011	2012	2013	2014
Alert 1	28	31	24	8	26	25	21
Alert 2	2	1	2	2	7	14	19

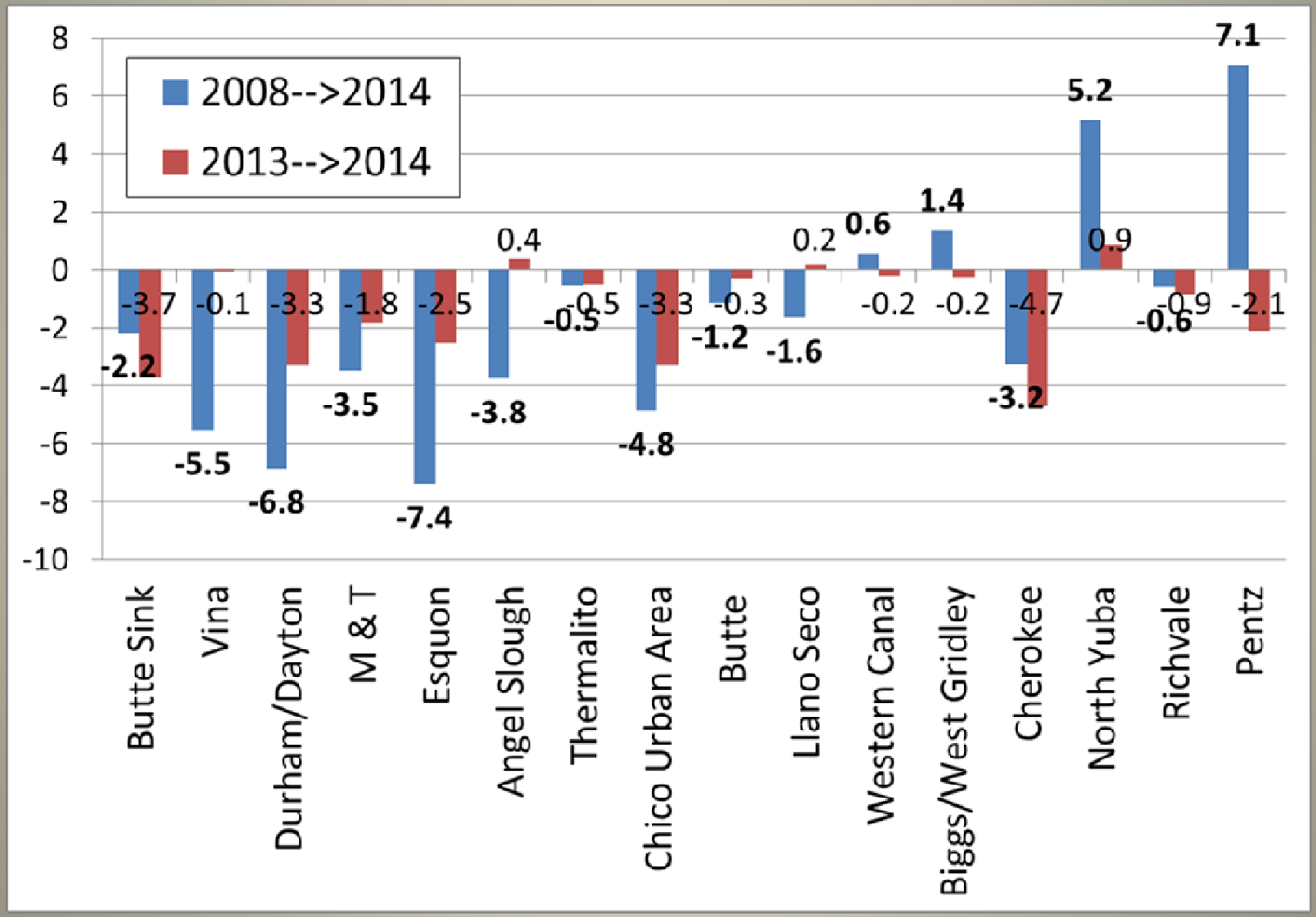
Spring 2014 BMO Alert Stages

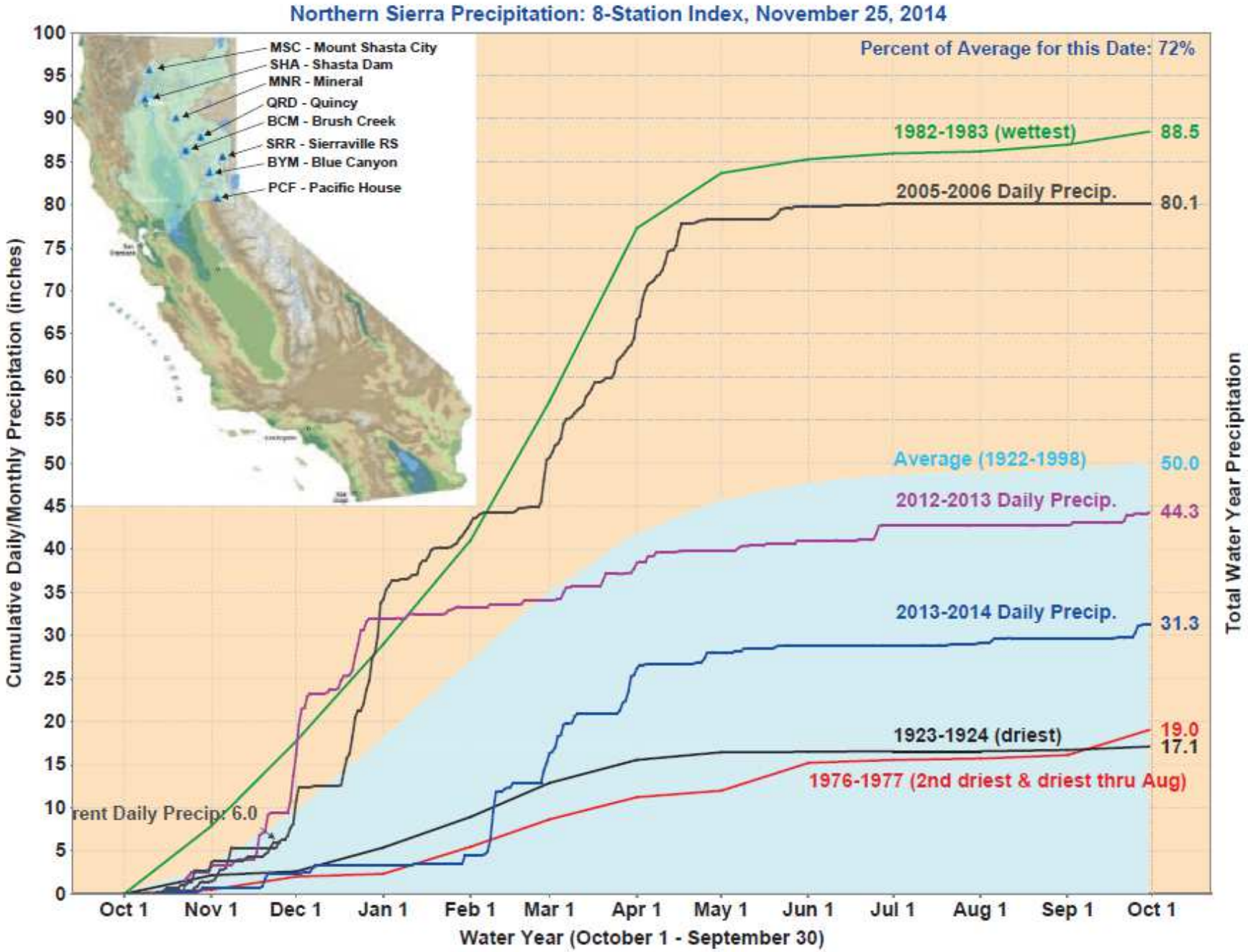


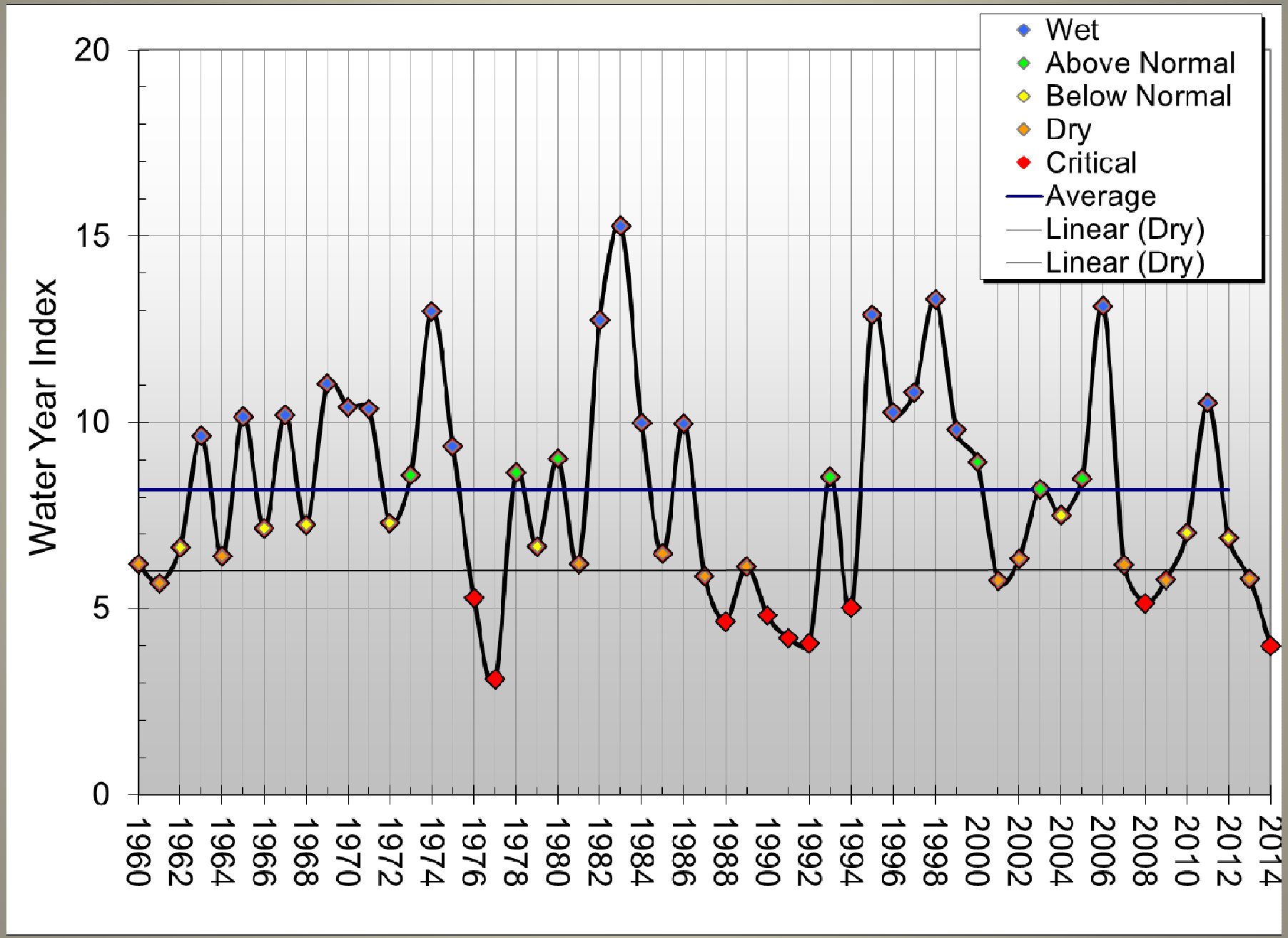
Fall 2014 BMO Alert Stages



Fall Water Surface Elevation
Average Change: Fall 2008 to 2014



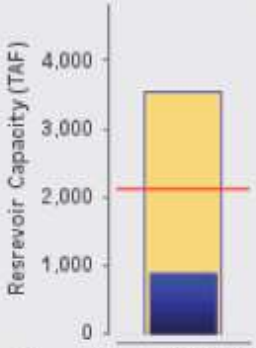

Northern Sierra Precipitation: 8-Station Index, November 25, 2014
MSC - Mount Shasta City
SHA - Shasta Dam
MNR - Mineral
QRD - Quincy
BCM - Brush Creek
SRR - Sierraville RS
BYM - Blue Canyon
PCF - Pacific House
Percent of Average for this Date: 72%
1982-1983 (wettest)
88.5
2005-2006 Daily Precip.
80.1
Average (1922-1998)
50.0
2012-2013 Daily Precip.
44.3
2013-2014 Daily Precip.
31.3
1923-1924 (driest)
17.1
19.0
1976-1977 (2nd driest & driest thru Aug)
rent Daily Precip: 6.0
Cumulative Daily/Monthly Precipitation (inches)
Total Water Year Precipitation
Oct 1
Nov 1
Dec 1
Jan 1
Feb 1
Mar 1
Apr 1
May 1
Jun 1
Jul 1
Aug 1
Sep 1
Oct 1
Water Year (October 1 - September 30)


Wet
Above Normal
Below Normal
Dry
Critical
Average
Linear (Dry)
Linear (Dry)
Water Year Index
20
15
10
5
0
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

Reservoir Conditions - Lake Oroville

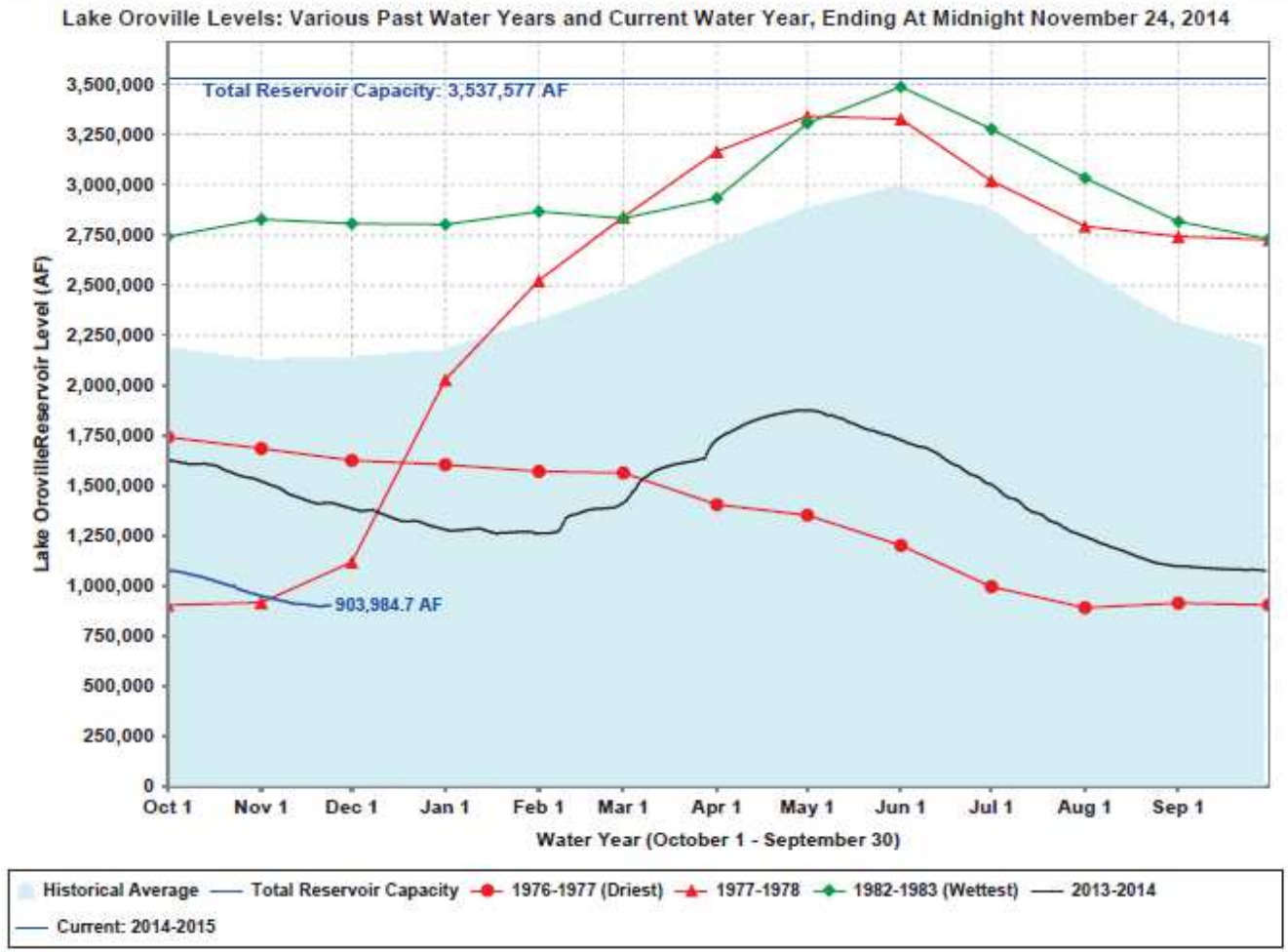
Lake Oroville Conditions

(as of Midnight - November 24, 2014)



Current Level: 903,984.7 AF

26% (Total Capacity) | 42% (Historical Avg.)



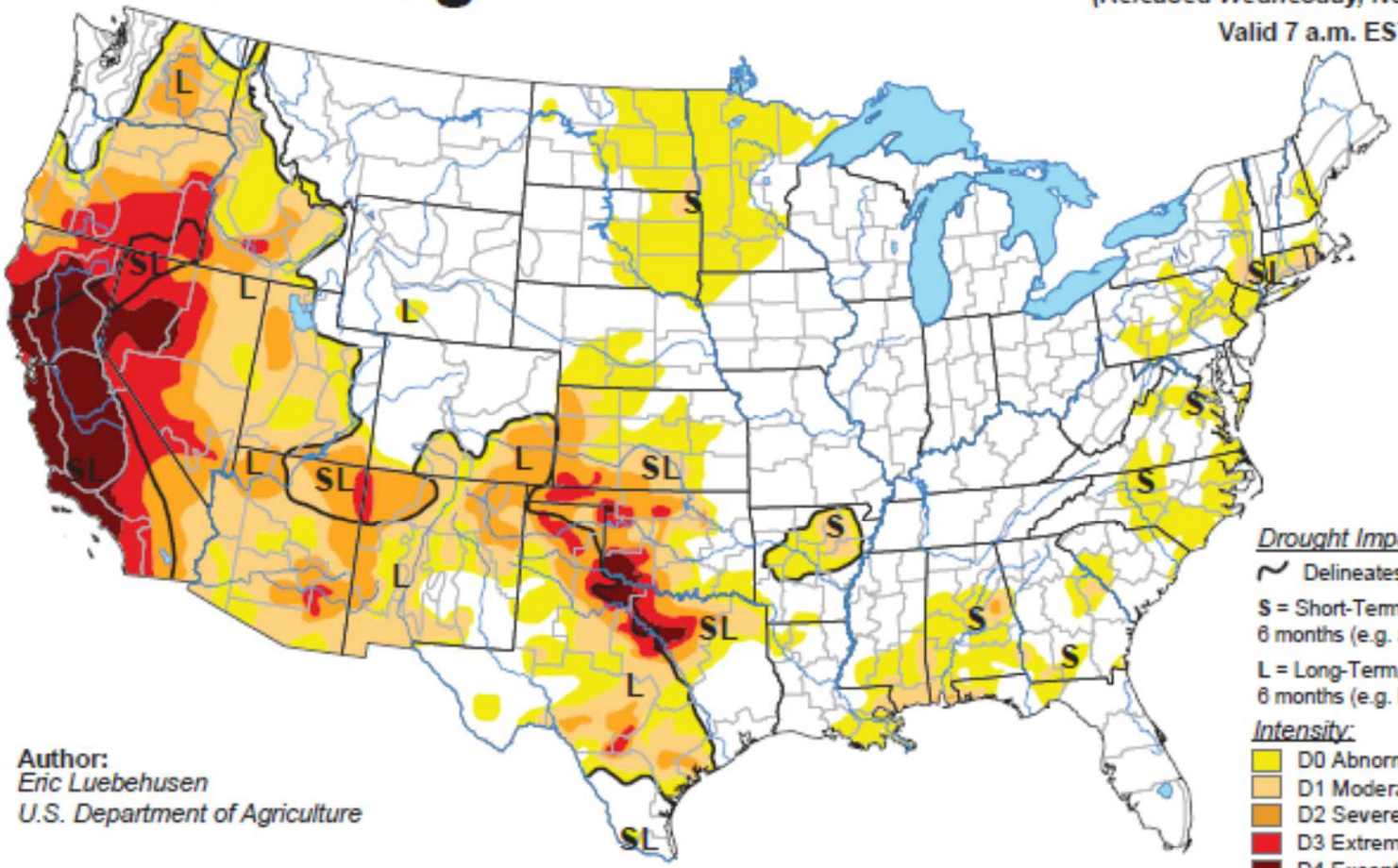
Data Updated 11/25/2014 02:45 PM

U.S. Drought Monitor

November 25, 2014

(Released Wednesday, Nov. 26, 2014)

Valid 7 a.m. EST



Author:
Eric Luebehusen
U.S. Department of Agriculture

Drought Impact Types:

~ Delineates dominant impacts

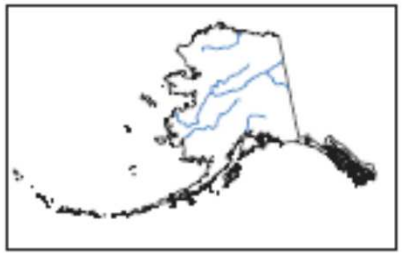
S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)

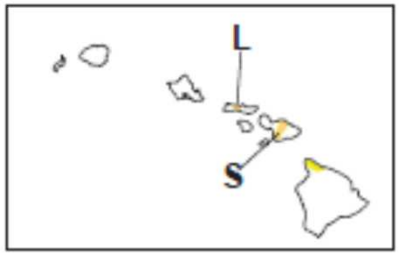
L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

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.





USDA

http://droughtmonitor.unl.edu/

Questions/Discussion