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Managing Water in the West

47th Annual Mid-Pacific Region 2014 Water Users Conference

Water Supply Outlook

Reno, Nevada

January 22-24, 2014

U.S. Department of the Interior
Bureau of Reclamation

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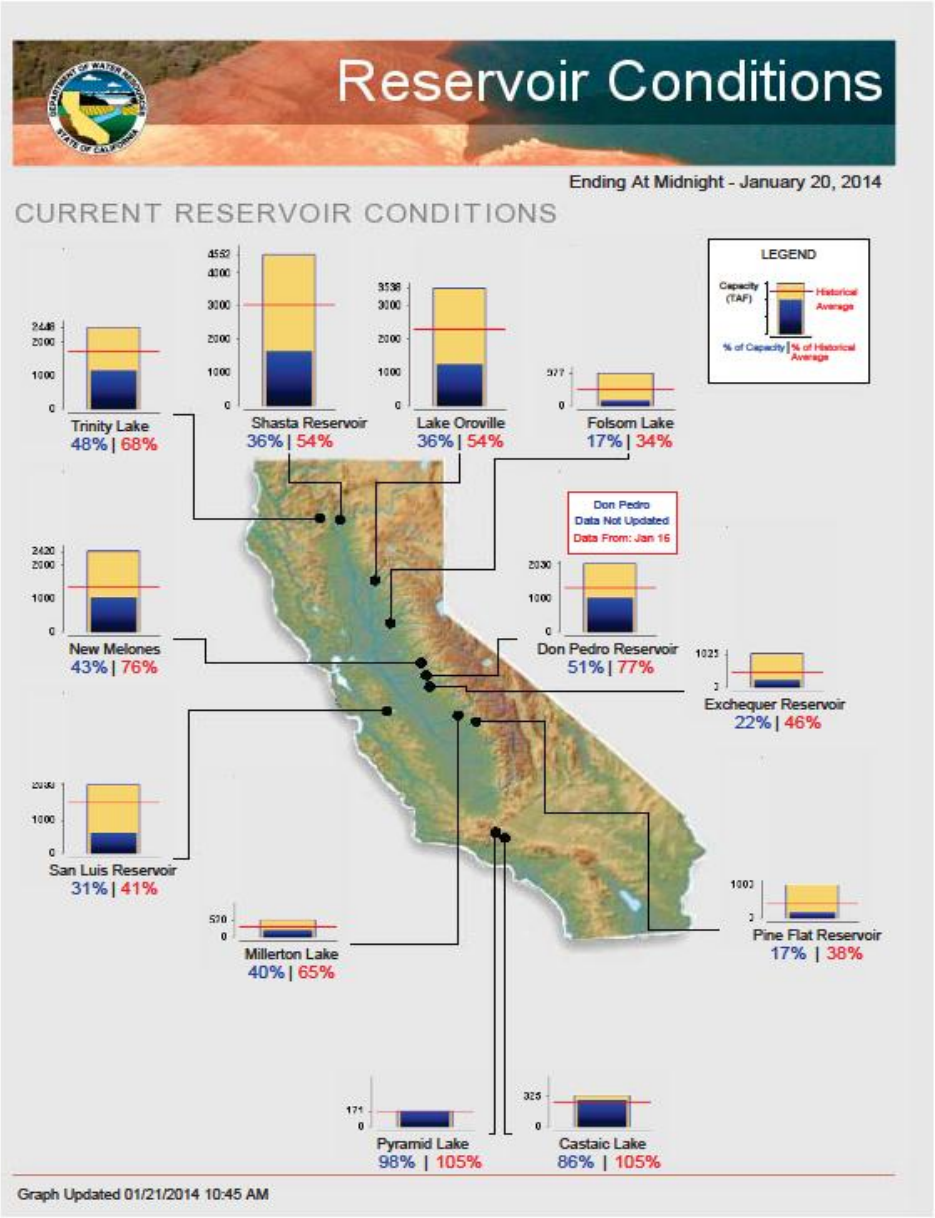
Managing Water in the West

Central Valley Project Operations
Water Supply Outlook
January 2014

U.S. Department of the Interior
Bureau of Reclamation



Current Reservoir Storages

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CVP Reservoir Storage

January 20 Storage

Reservoir	15-yr Ave	WY 2013	WY 2014
Trinity	1,632	1,911	1,171
Shasta	2,915	3,419	1,658
Folsom	420	556	169
New Melones	1,556	1,622	1,049
Fed San Luis	772	709	336

Total Capacity: 11,360

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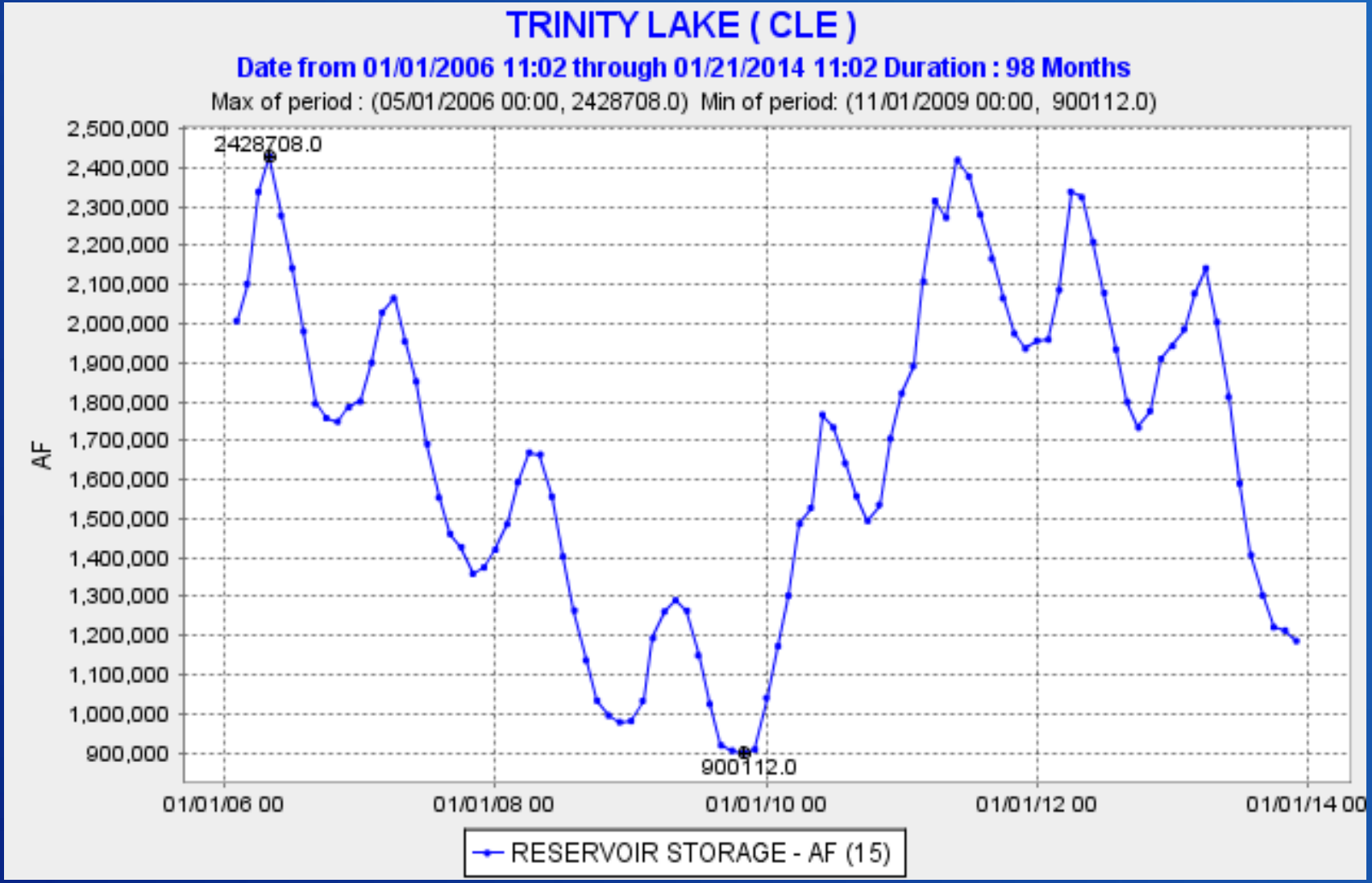
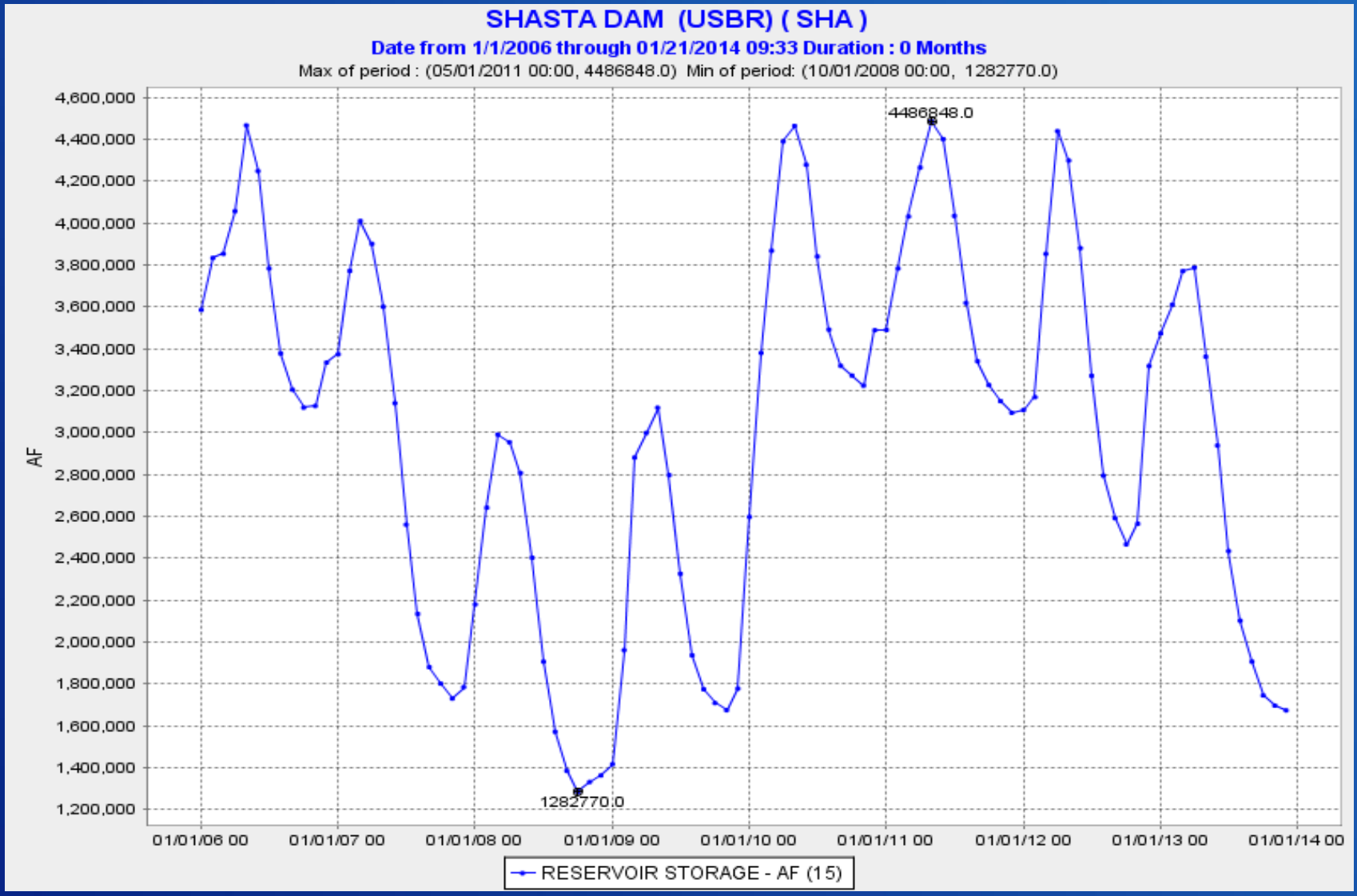


RECLAMATION



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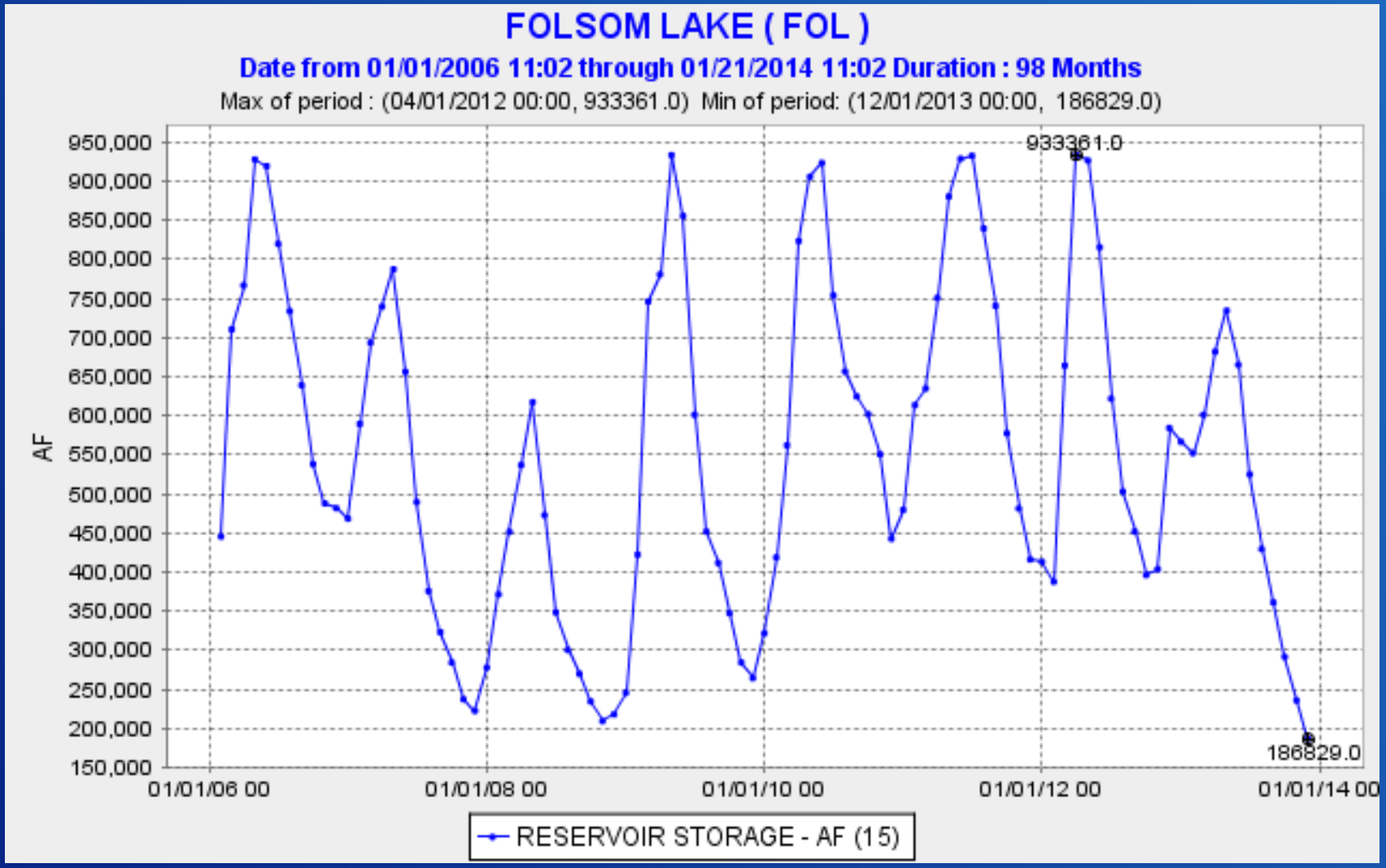

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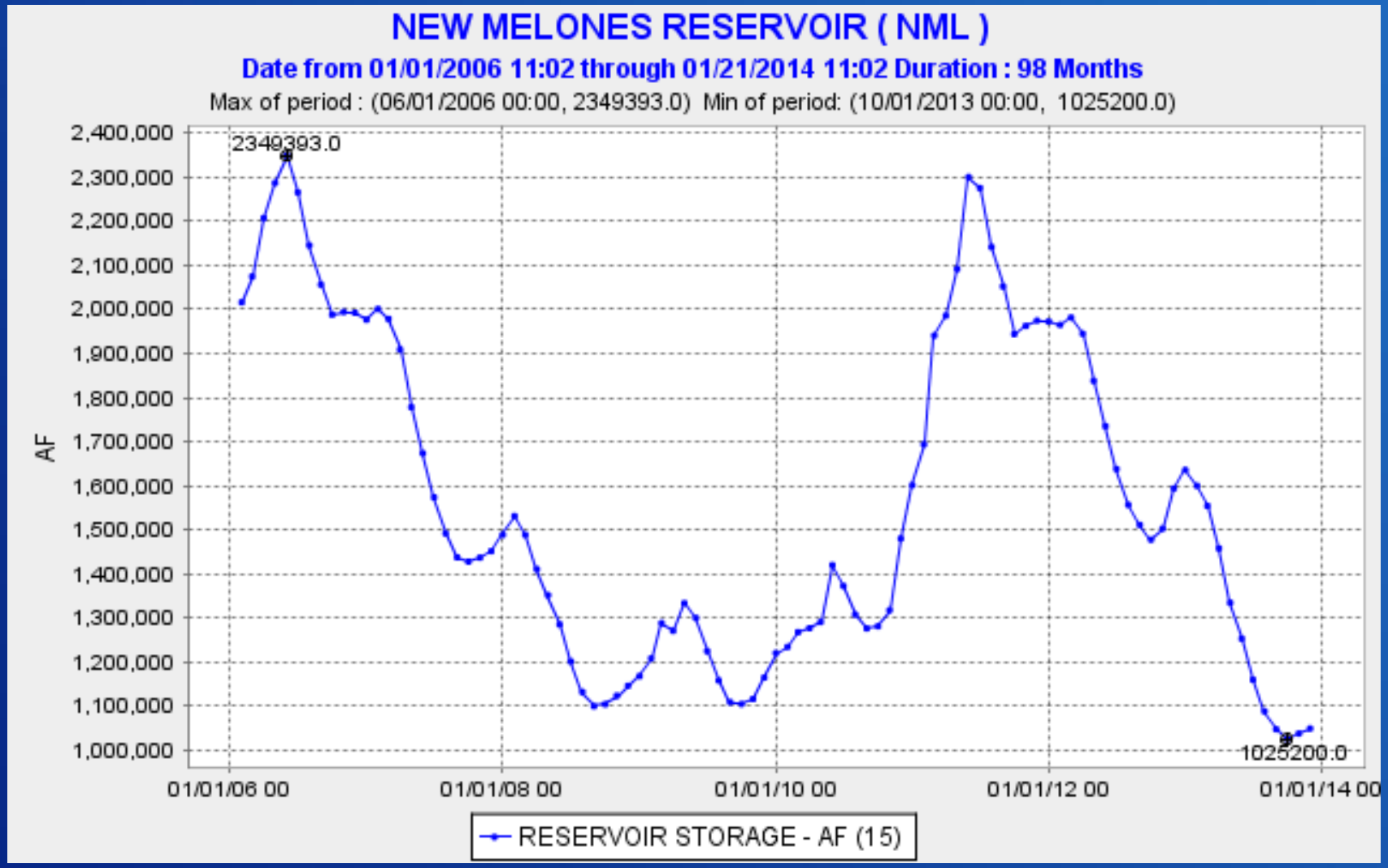

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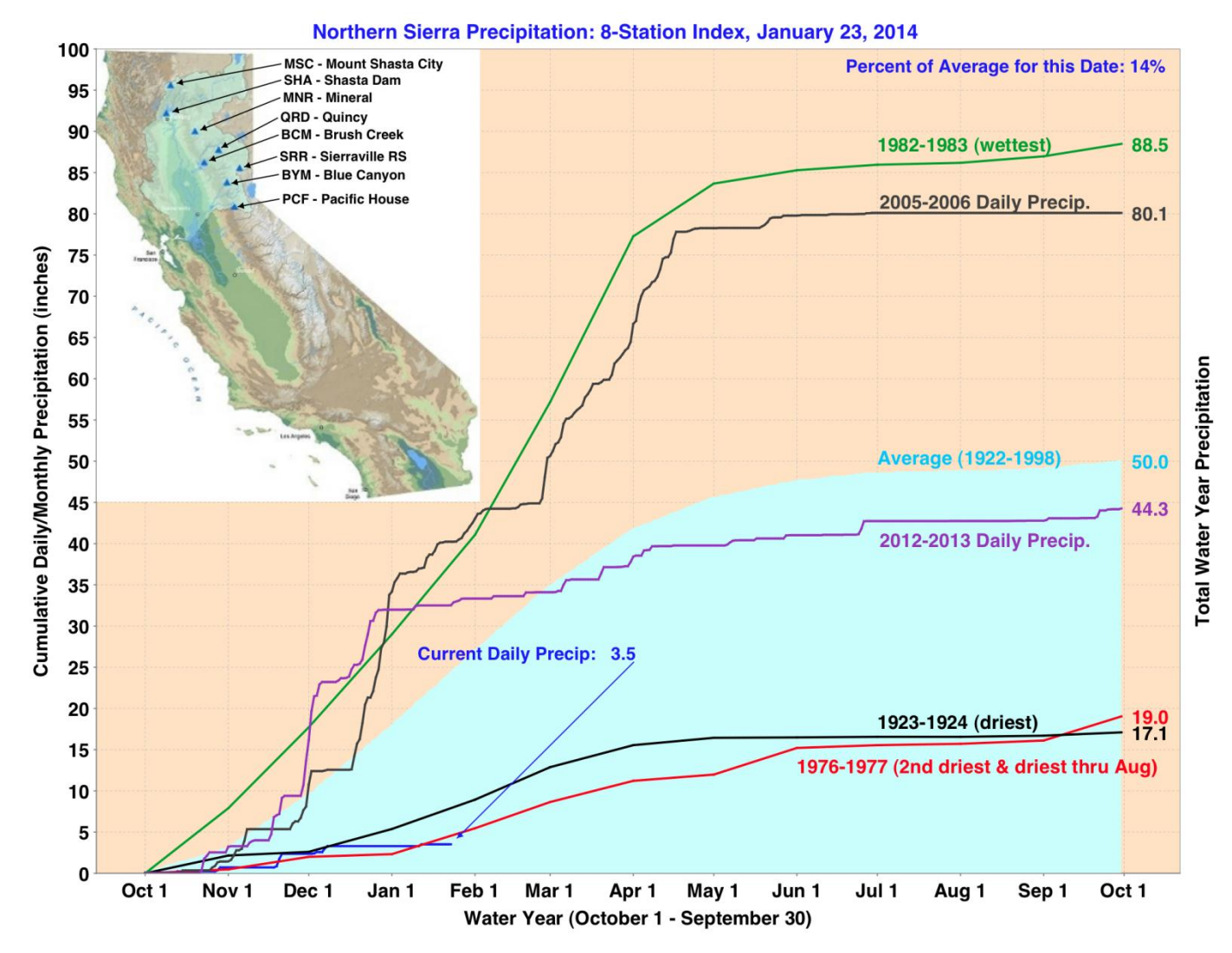
8-Station Index Precipitation



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5-Station Index Precipitation

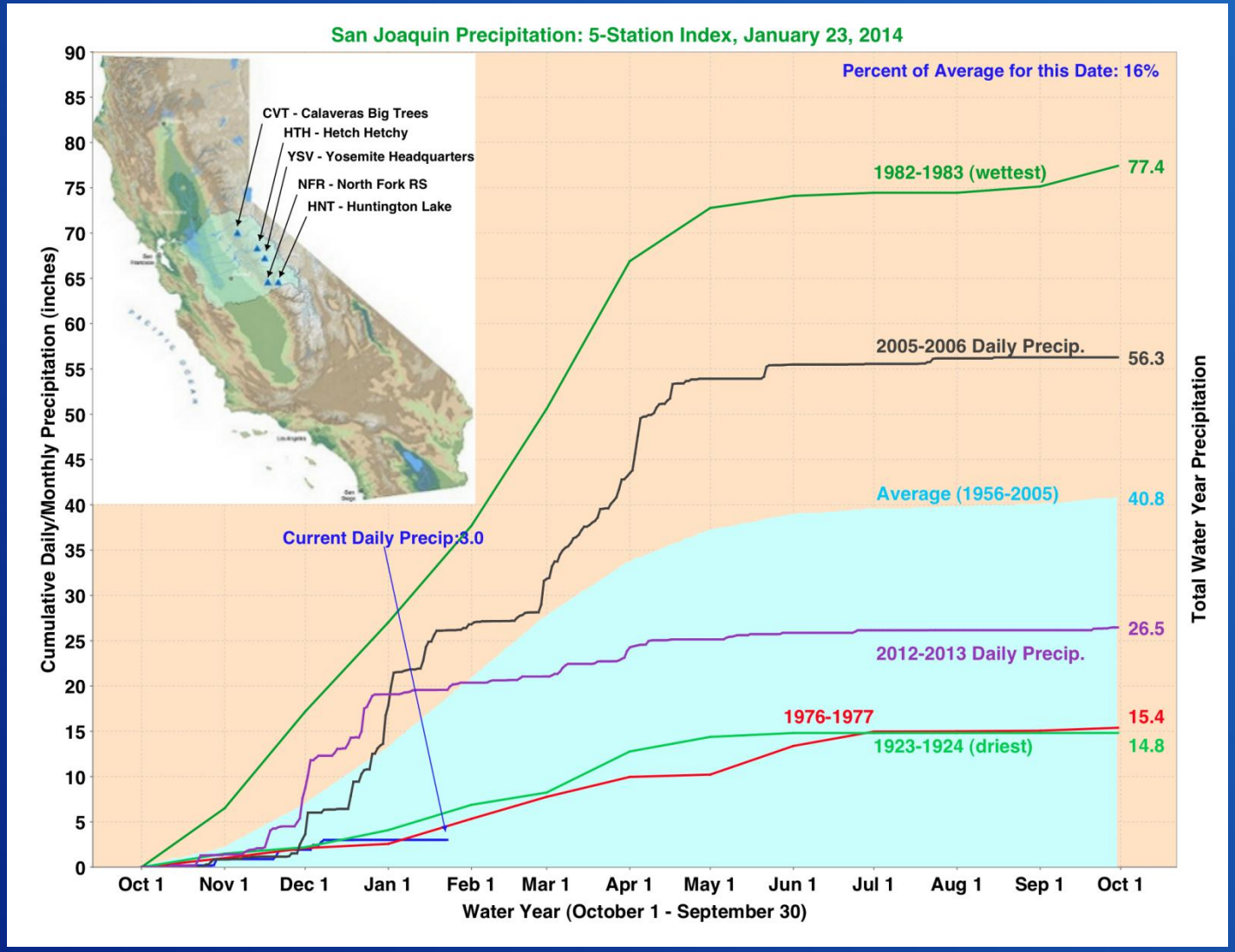

Chart from California Data Exchange Center

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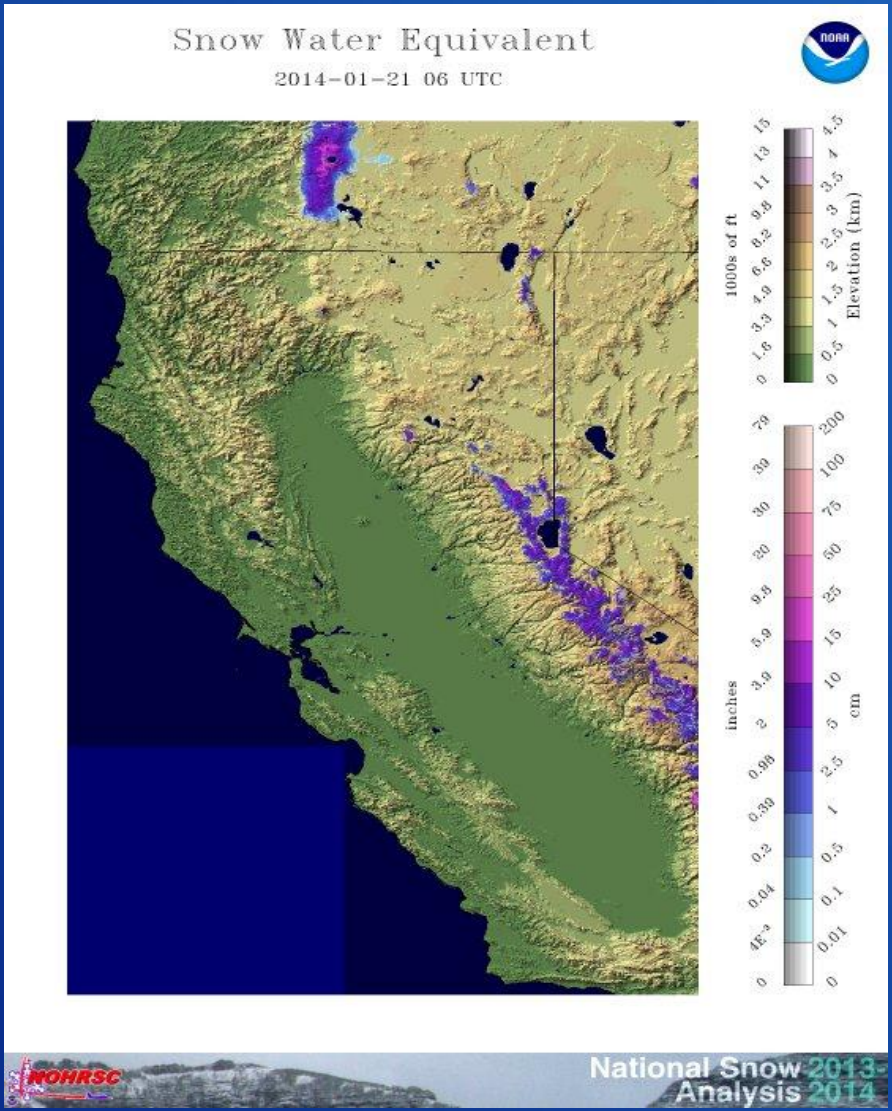
Sierra Snow Pack



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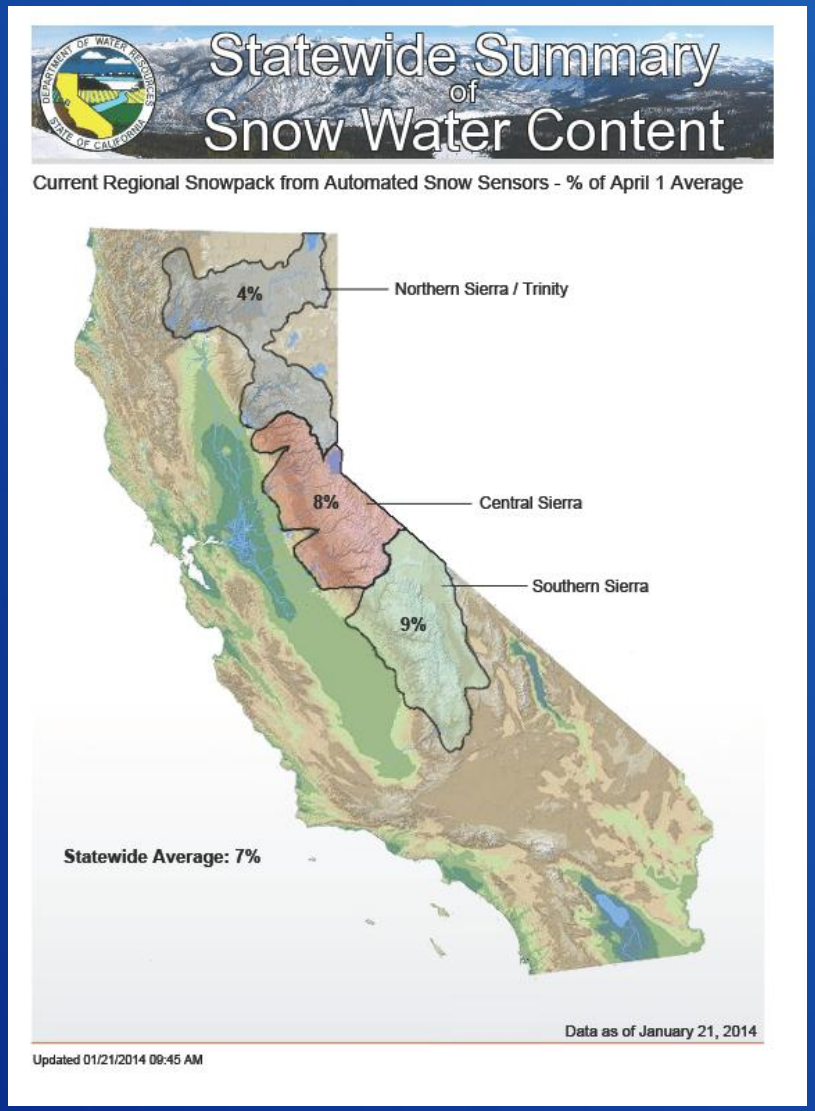
Snow Water Content



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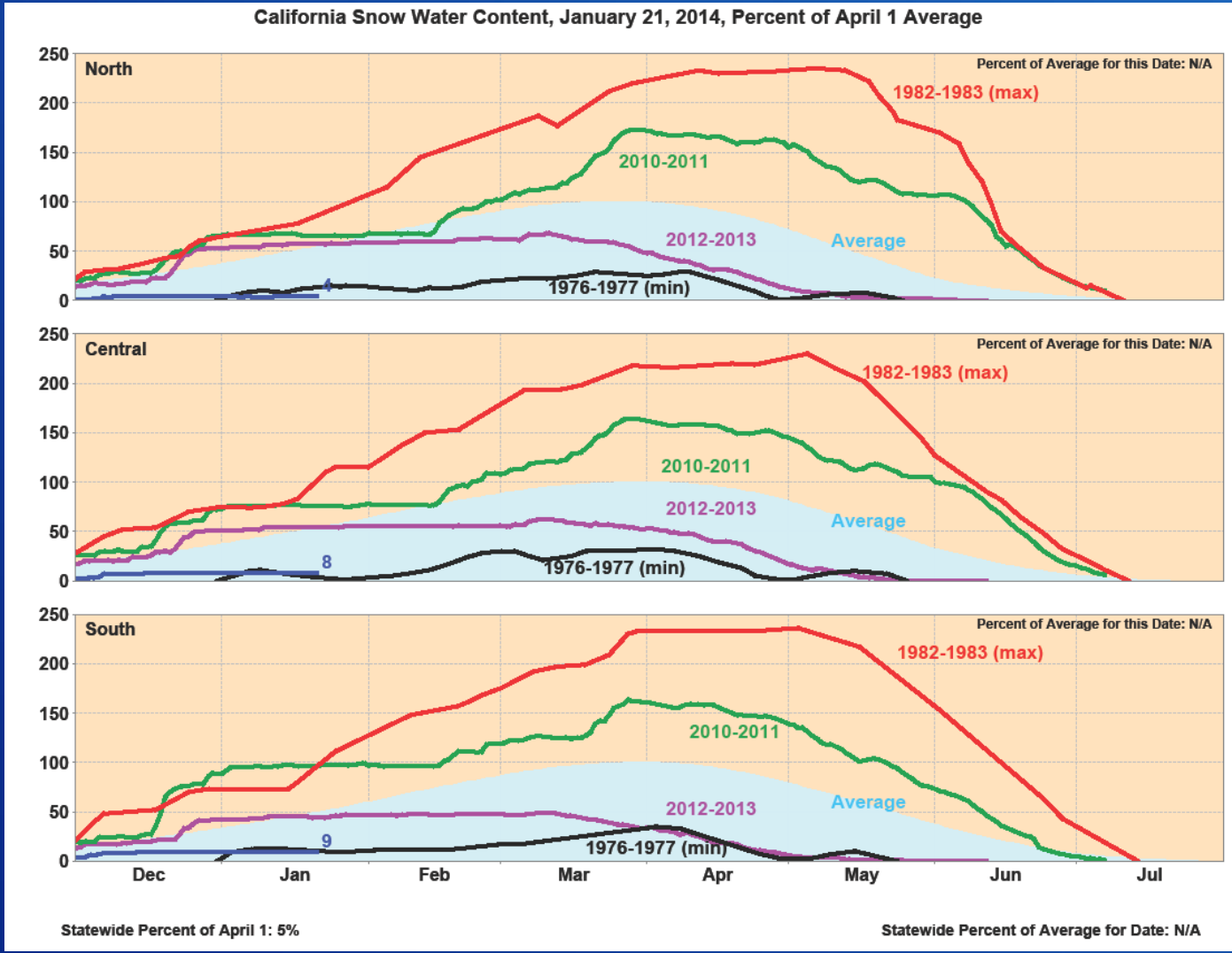
Snow Water Content



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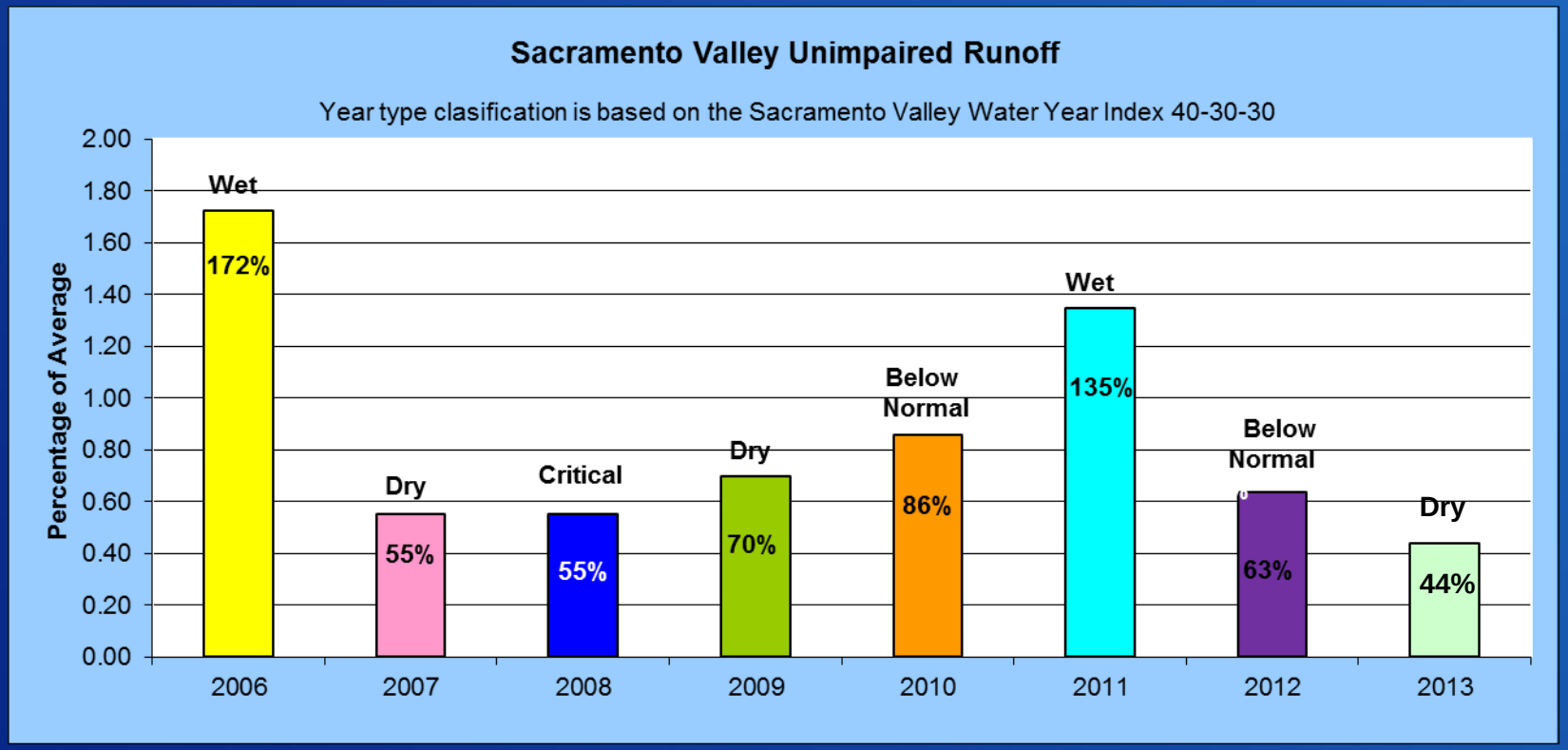
Sacramento Valley Unimpaired Runoff



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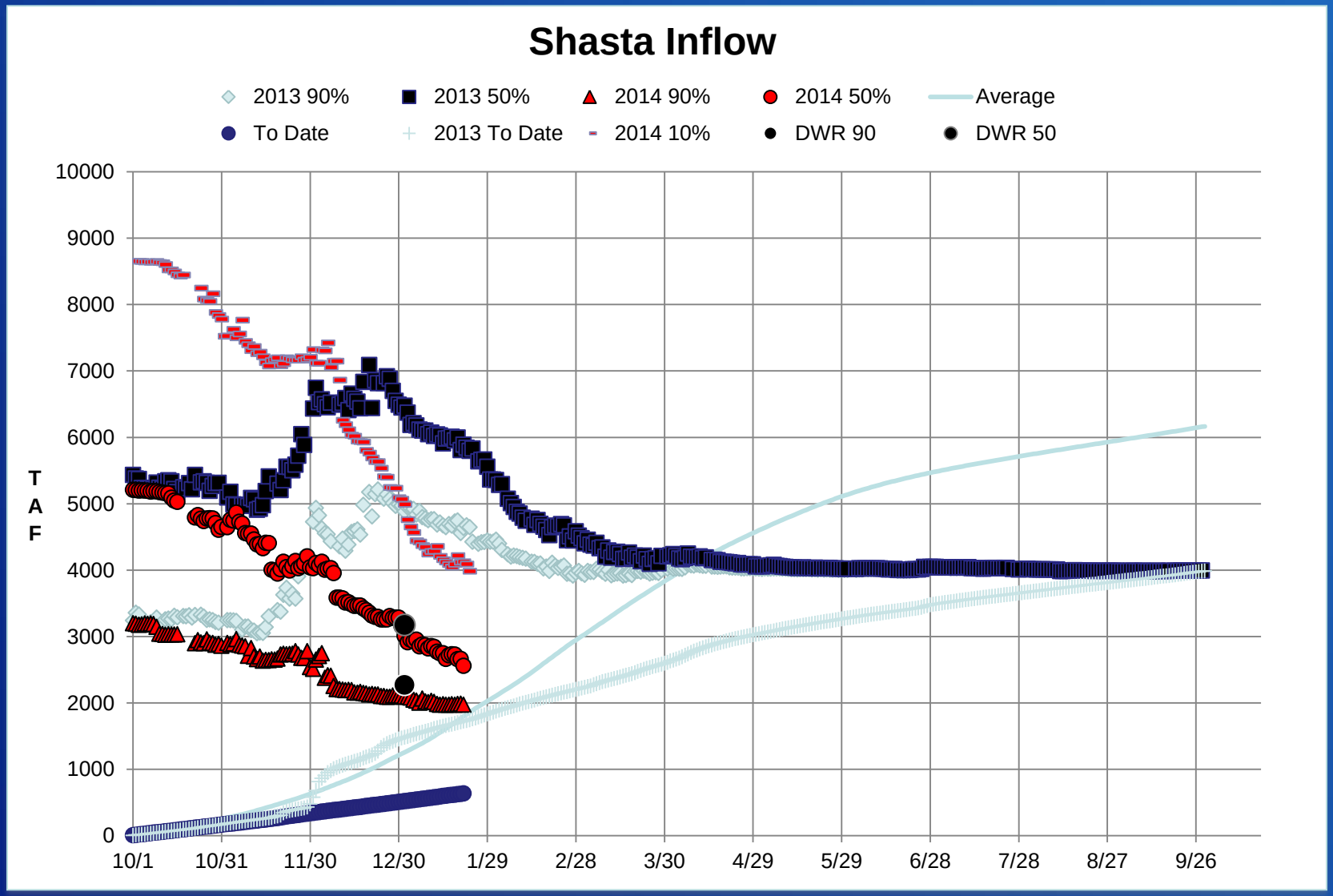
Inflow Projections



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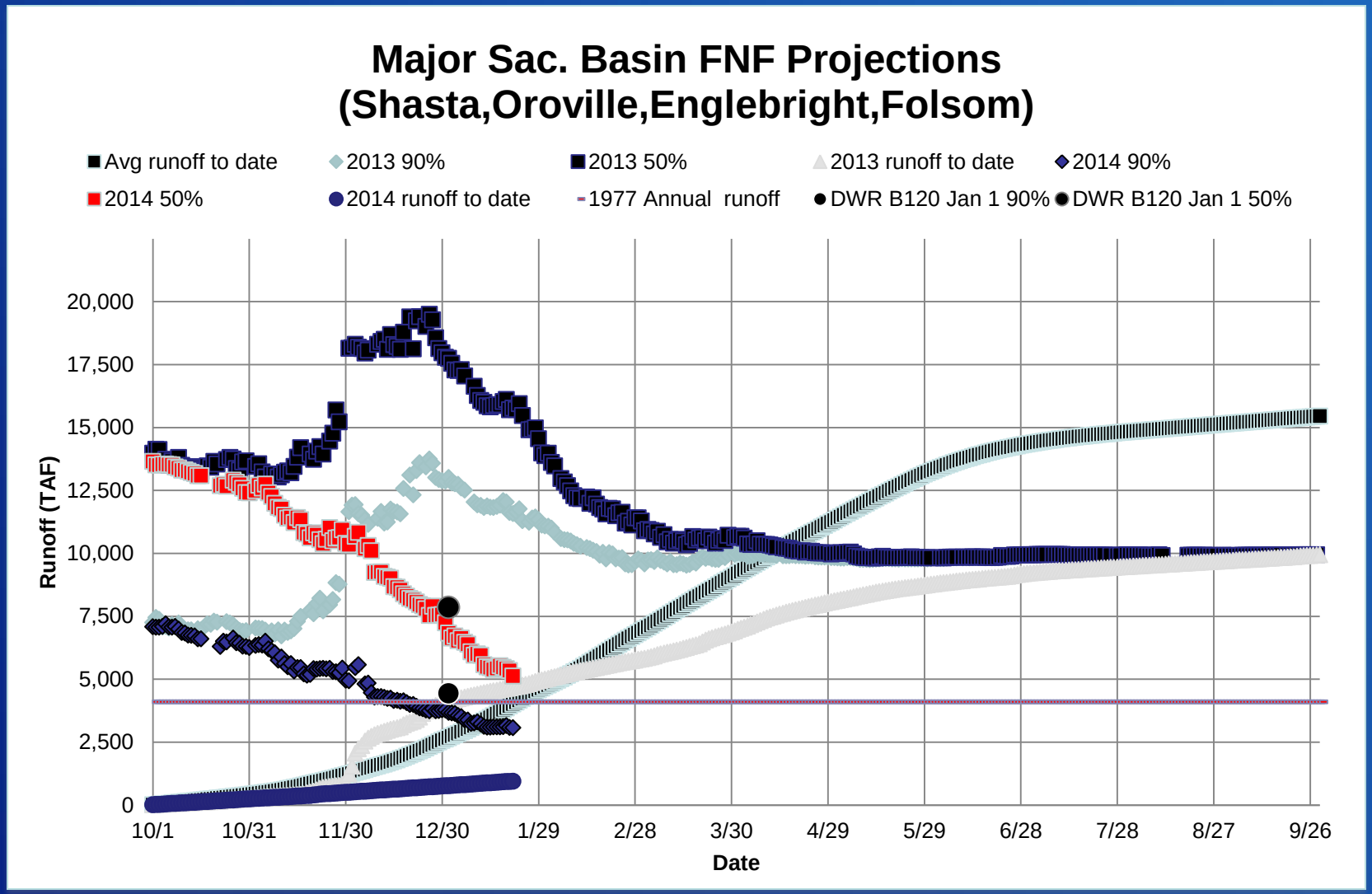
Inflow Projections



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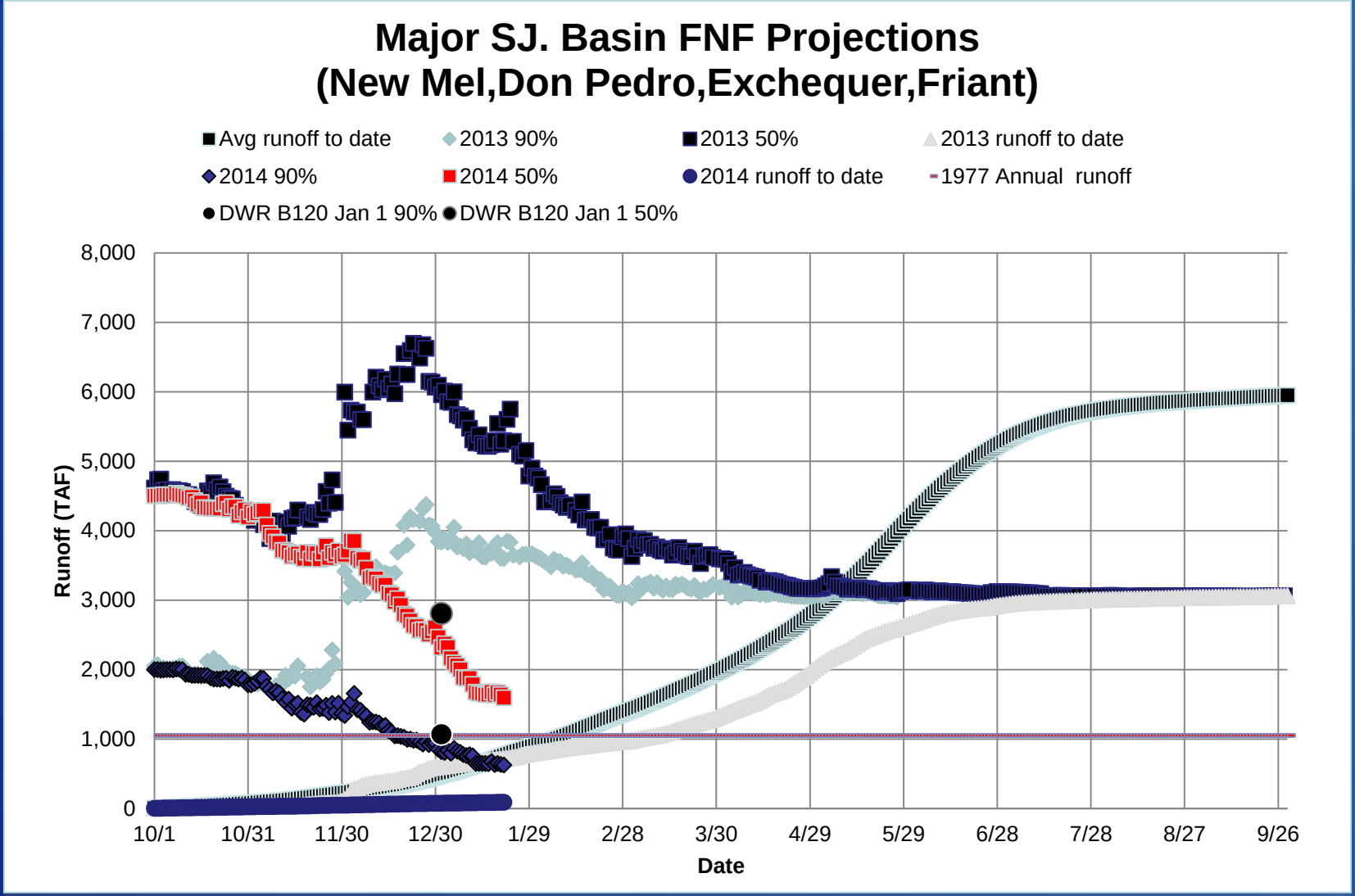
Inflow Projections



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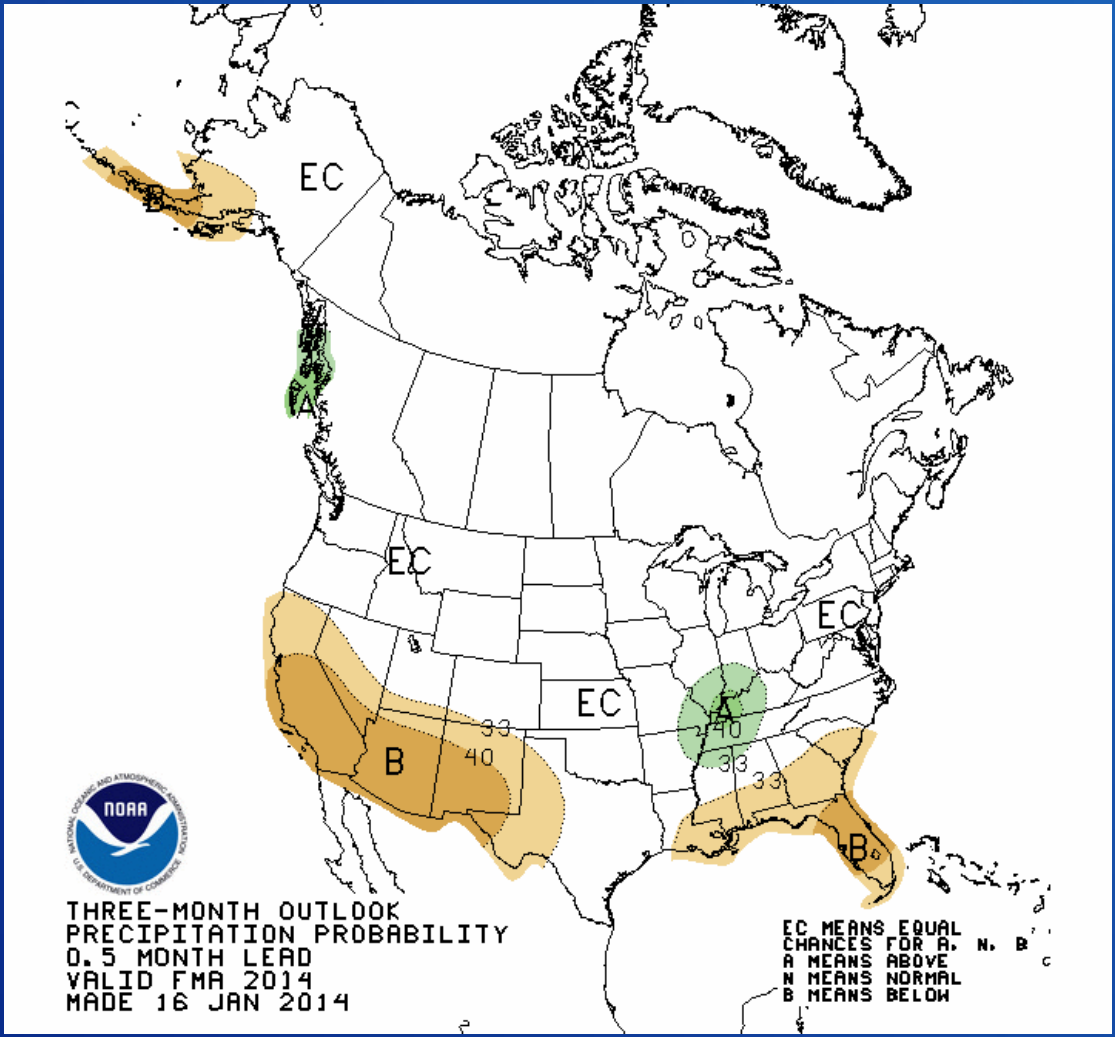
90 Day Precipitation Outlook



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Managing Water in the West

South-Central California Area Office
Fresno, CA
Water Supply Outlook
January 2014

U.S. Department of the Interior
Bureau of Reclamation

2014 Friant Division Outlook

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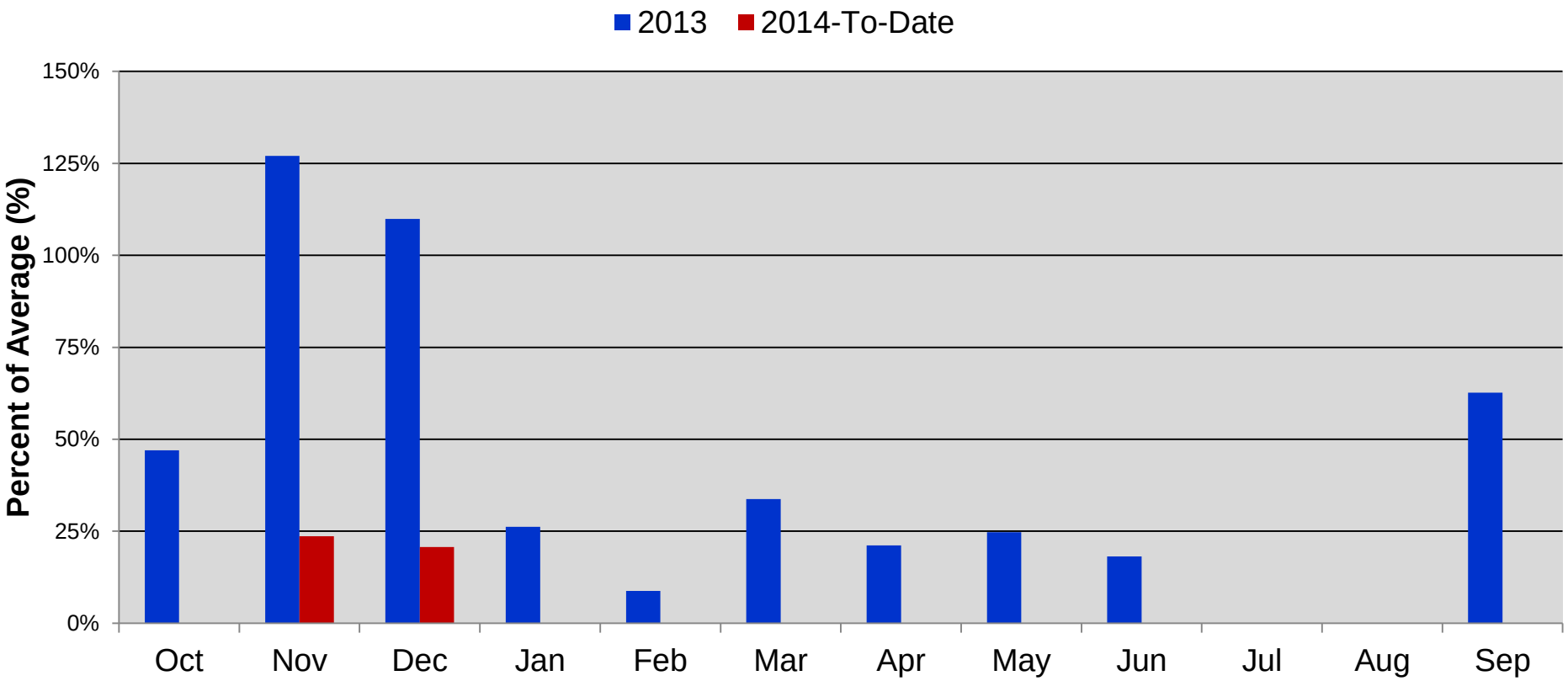
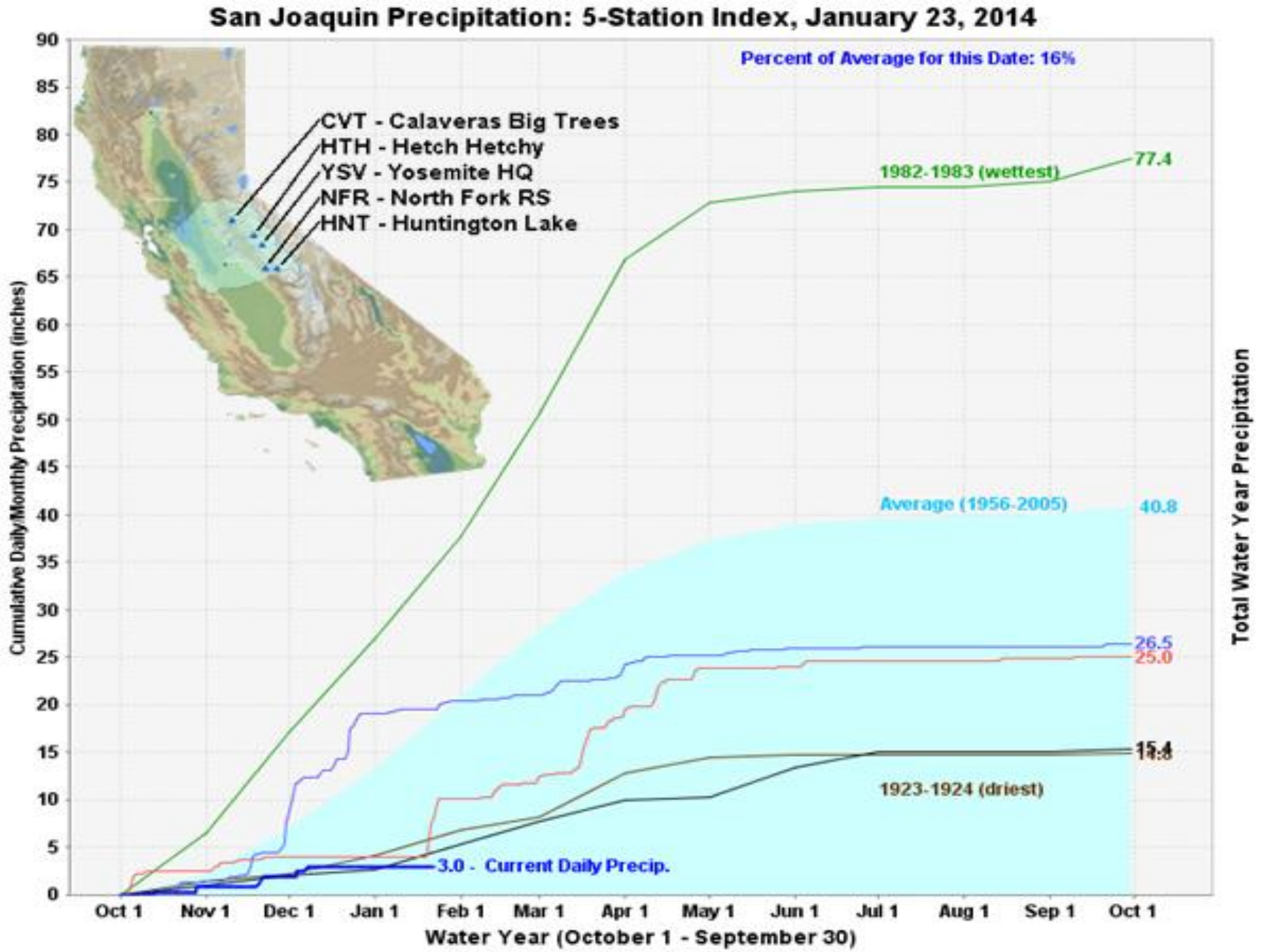
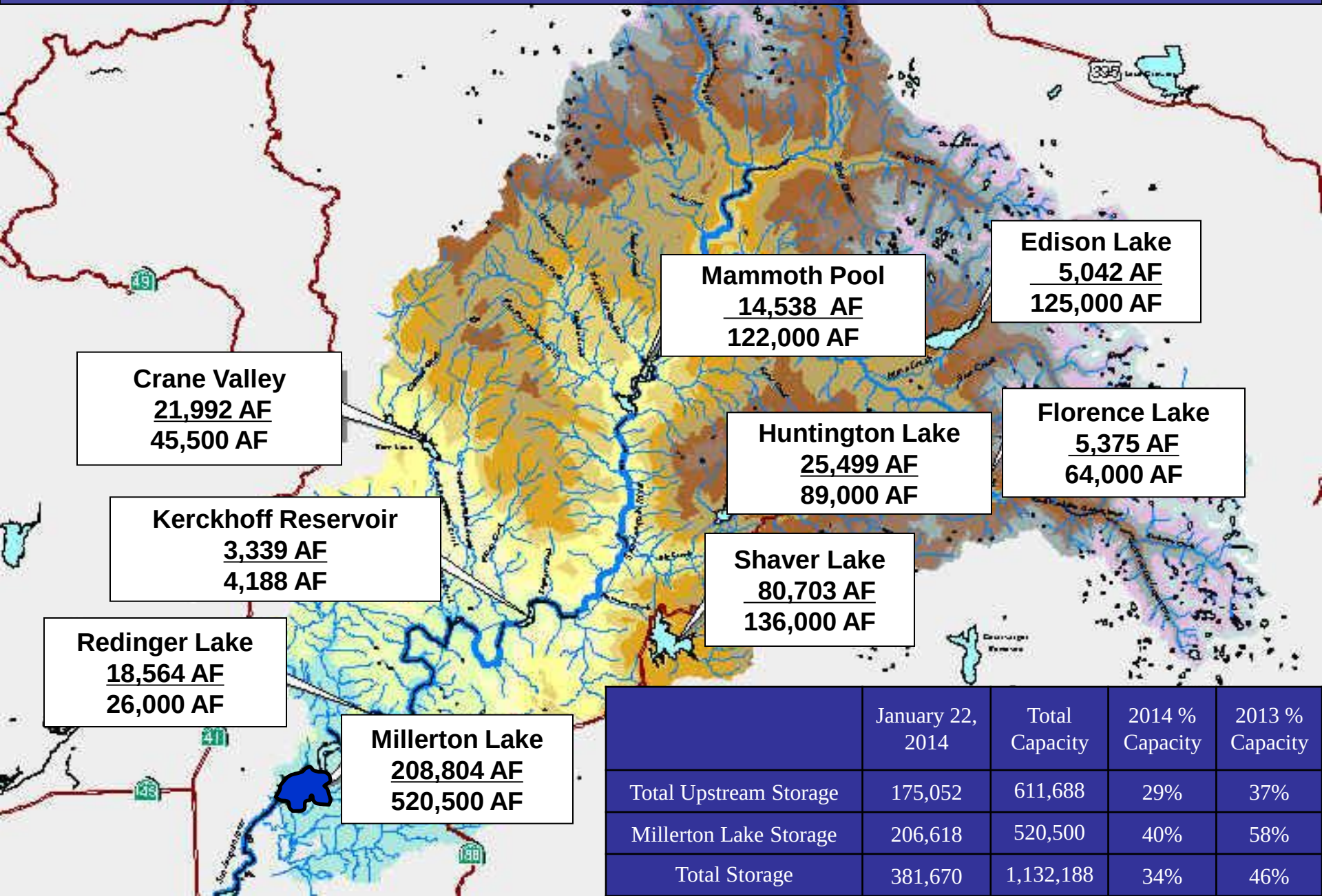
2014 Huntington Lake Precipitation Outlook



	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct-Jan
2014-to-Date	0.00	1.03	1.36	0.00									2.39
2013	1.17	5.54	7.22	2.10	0.68	2.36	0.78	0.52	0.12	0.00	0.00	0.52	21.01
Average 77-13	2.49	4.36	6.57	8.02	7.77	6.99	3.69	2.10	0.66	0.36	0.18	0.83	21.44

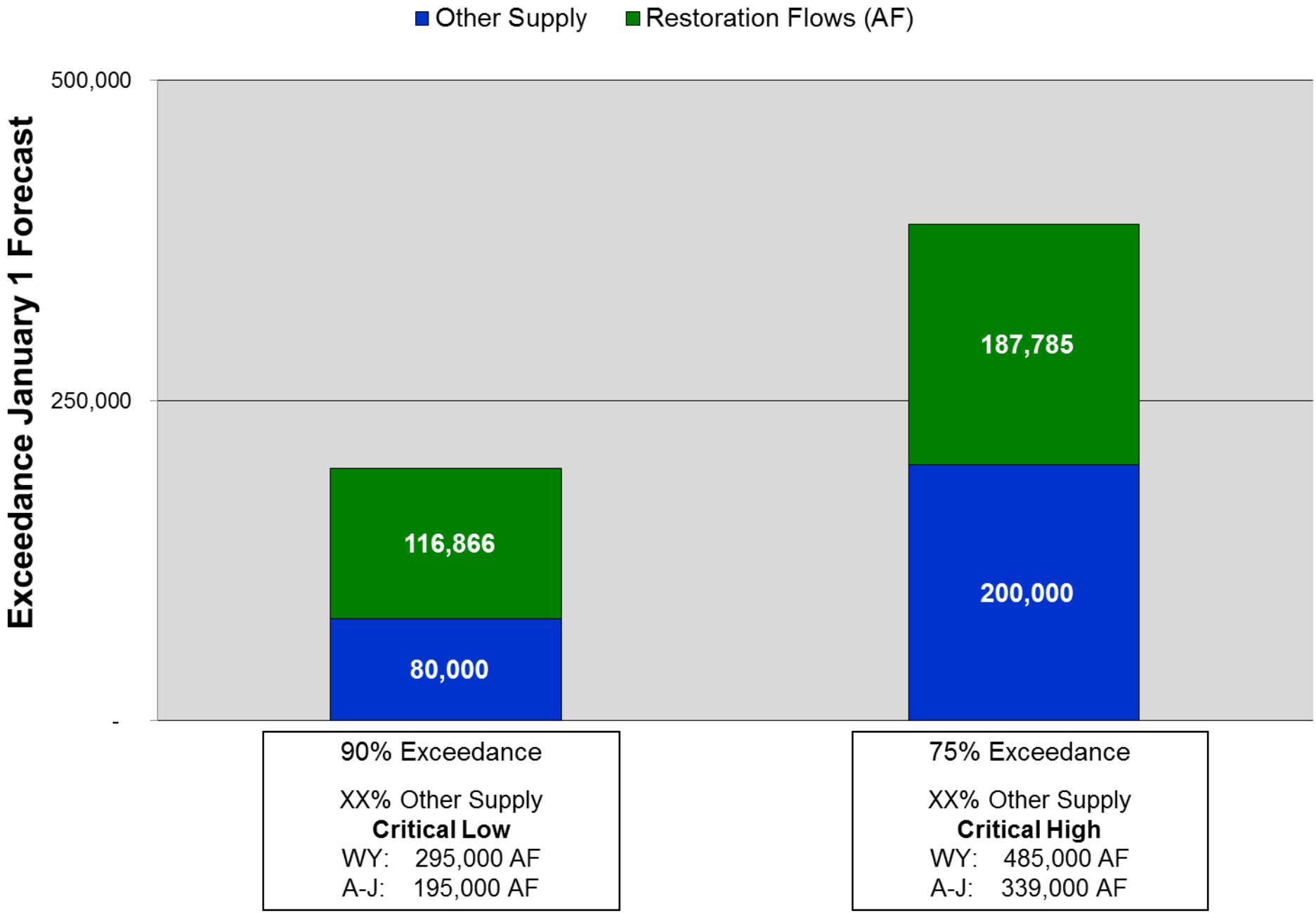

San Joaquin Precipitation: 5-Station Index, January 23, 2014
Percent of Average for this Date: 16%
CVT - Calaveras Big Trees
HTH - Hetch Hetchy
YSV - Yosemite HQ
NFR - North Fork RS
HNT - Huntington Lake
1982-1983 (wettest)
77.4
Average (1956-2005)
40.8
26.5
25.0
15.4
1923-1924 (driest)
3.0 - Current Daily Precip.
Cumulative Daily/Monthly Precipitation (inches)
Total Water Year Precipitation
Water Year (October 1 - September 30)
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
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90

San Joaquin Basin Upstream Storages

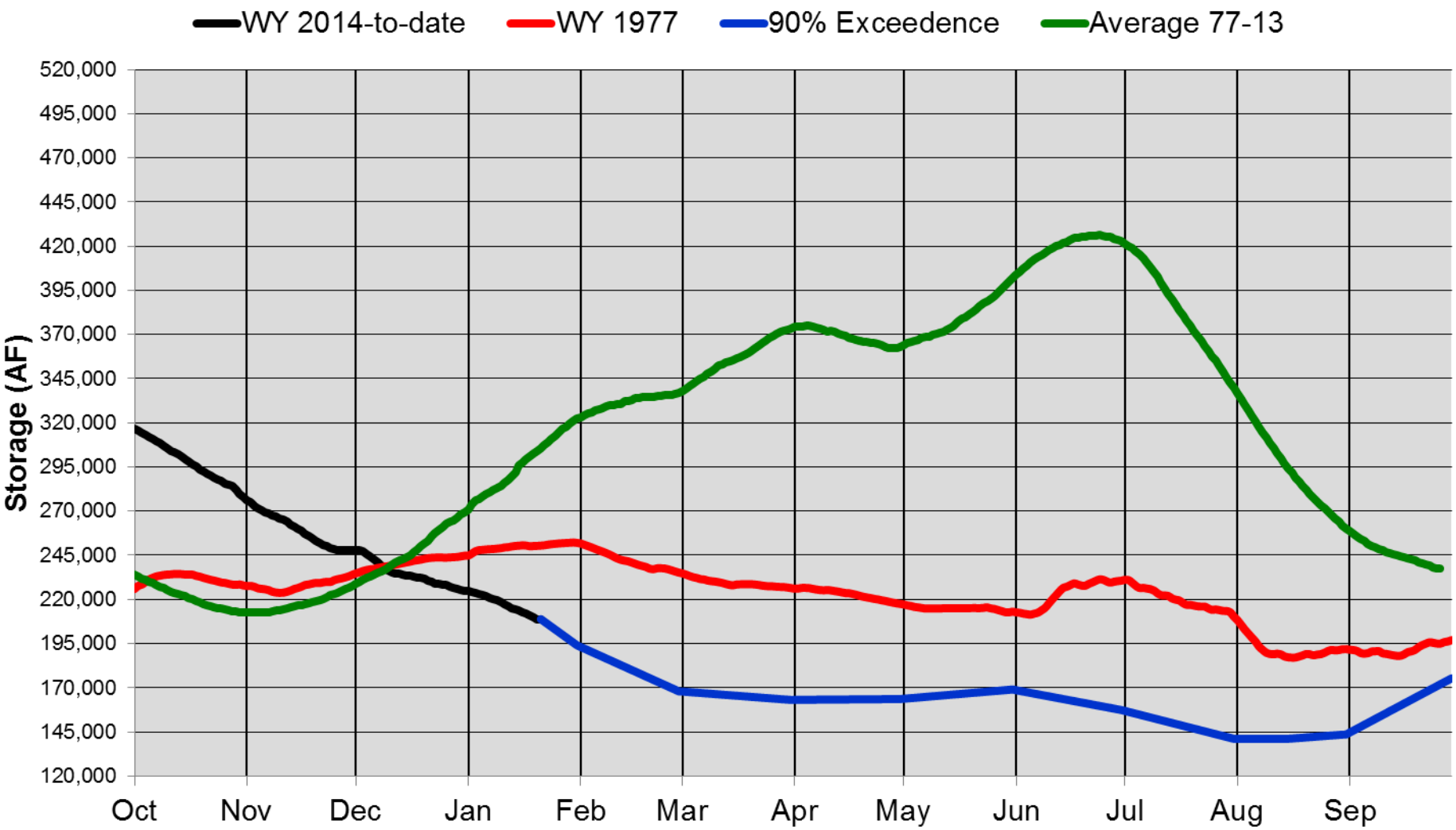


	January 22, 2014	Total Capacity	2014 % Capacity	2013 % Capacity
Total Upstream Storage	175,052	611,688	29%	37%
Millerton Lake Storage	206,618	520,500	40%	58%
Total Storage	381,670	1,132,188	34%	46%

2014 Water Supply Outlook Millerton Lake



2014 Millerton Lake Storage Outlook



Note:
January 22, 2014: **206,618 AF**
January 22, 2013: **302,518 AF**

Maximum Lake Storage (EOM)
June 16, 2013: **416,656 AF**
2014 90% Forecast: **316,487 AF** (Oct 1)

2014 Cachuma Project Outlook

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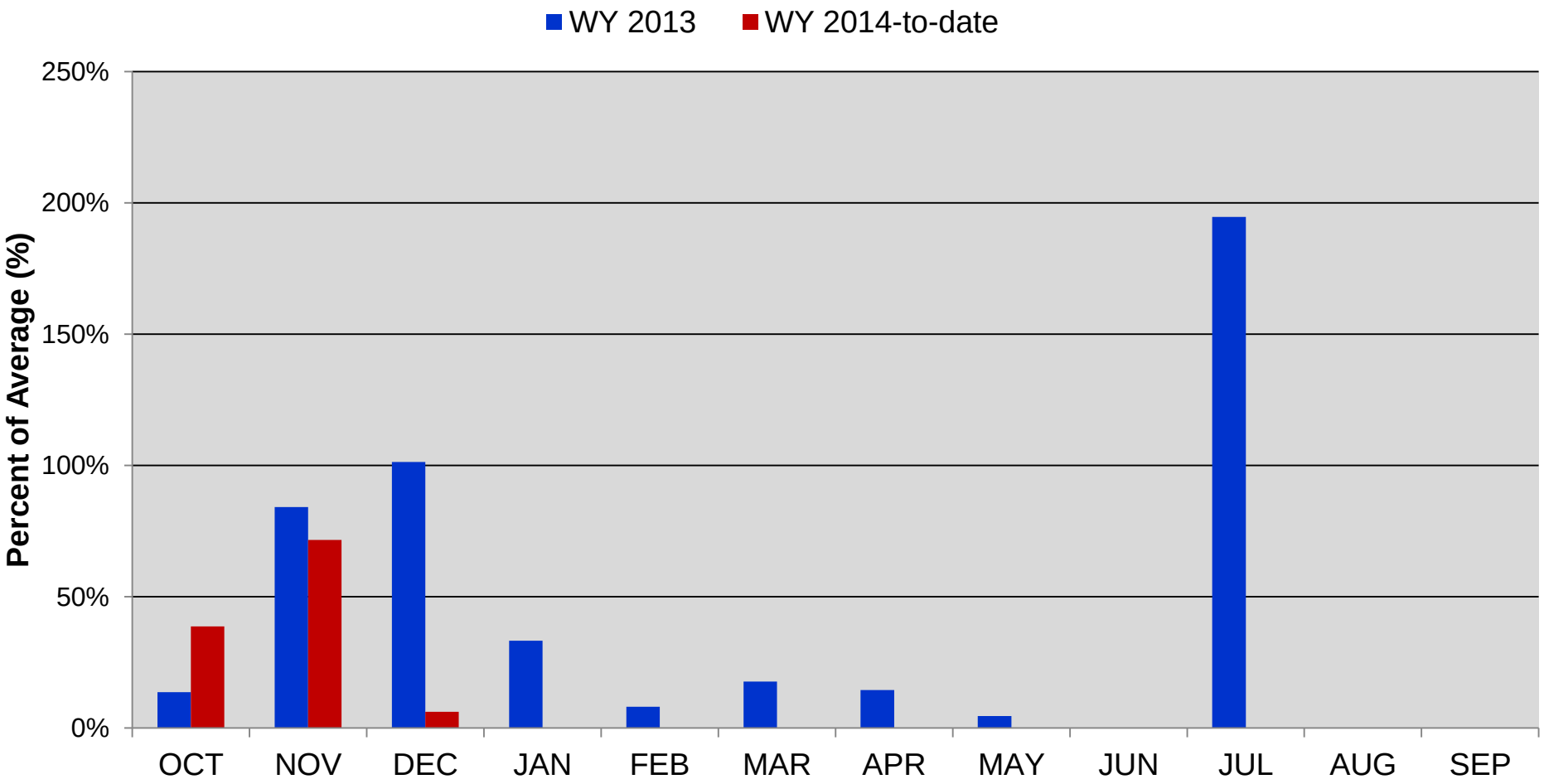
2014 Bradbury Dam Precipitation Outlook



	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct-Jan
2014-to-date	0.34	1.14	0.18	0.00									1.66
2013	0.12	1.34	2.95	1.75	0.40	0.80	0.19	0.02	0.00	0.02	0.00	0.00	6.16
Average 77-13	0.88	1.59	2.91	5.27	4.93	4.52	1.32	0.44	0.05	0.01	0.02	0.12	10.65

2014 Cachuma Project Water Supply Outlook

- **January 21, 2014:**
  - **Storage Capacity: 195,578 AF**
  - **Current Storage: 76,954 AF (39% capacity)**
    - **January 21, 2013: 133,453 AF (68% capacity)**
  - **Water Supply: (???%)**
    - **25,714 AF = 100%**

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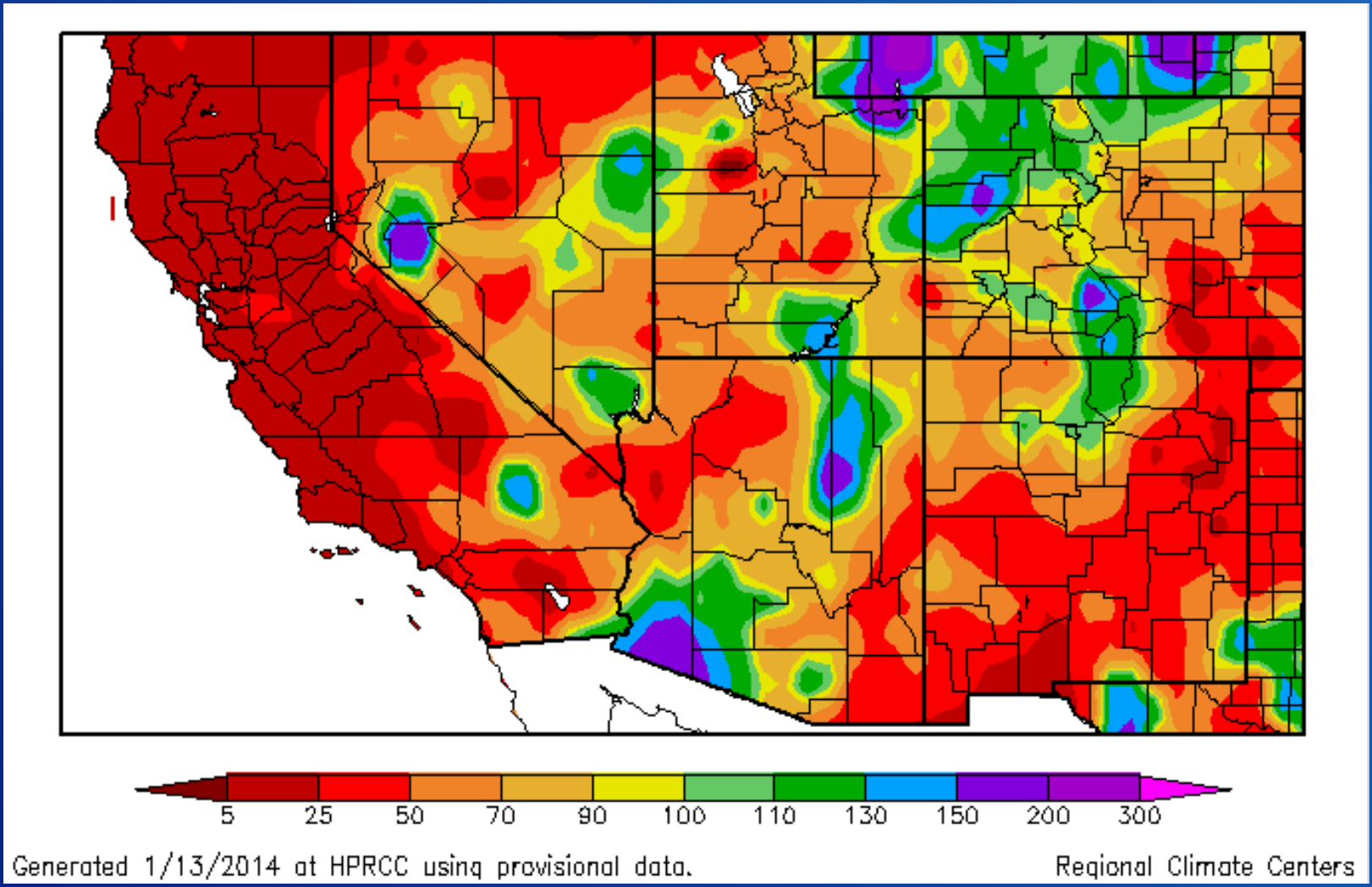
Managing Water in the West

Lahontan Basin Area Office
Carson City, NV
Water Supply Outlook
January 2014

U.S. Department of the Interior
Bureau of Reclamation

Water Year Precipitation % of Normal
10/1/2013 – 1/13/2014



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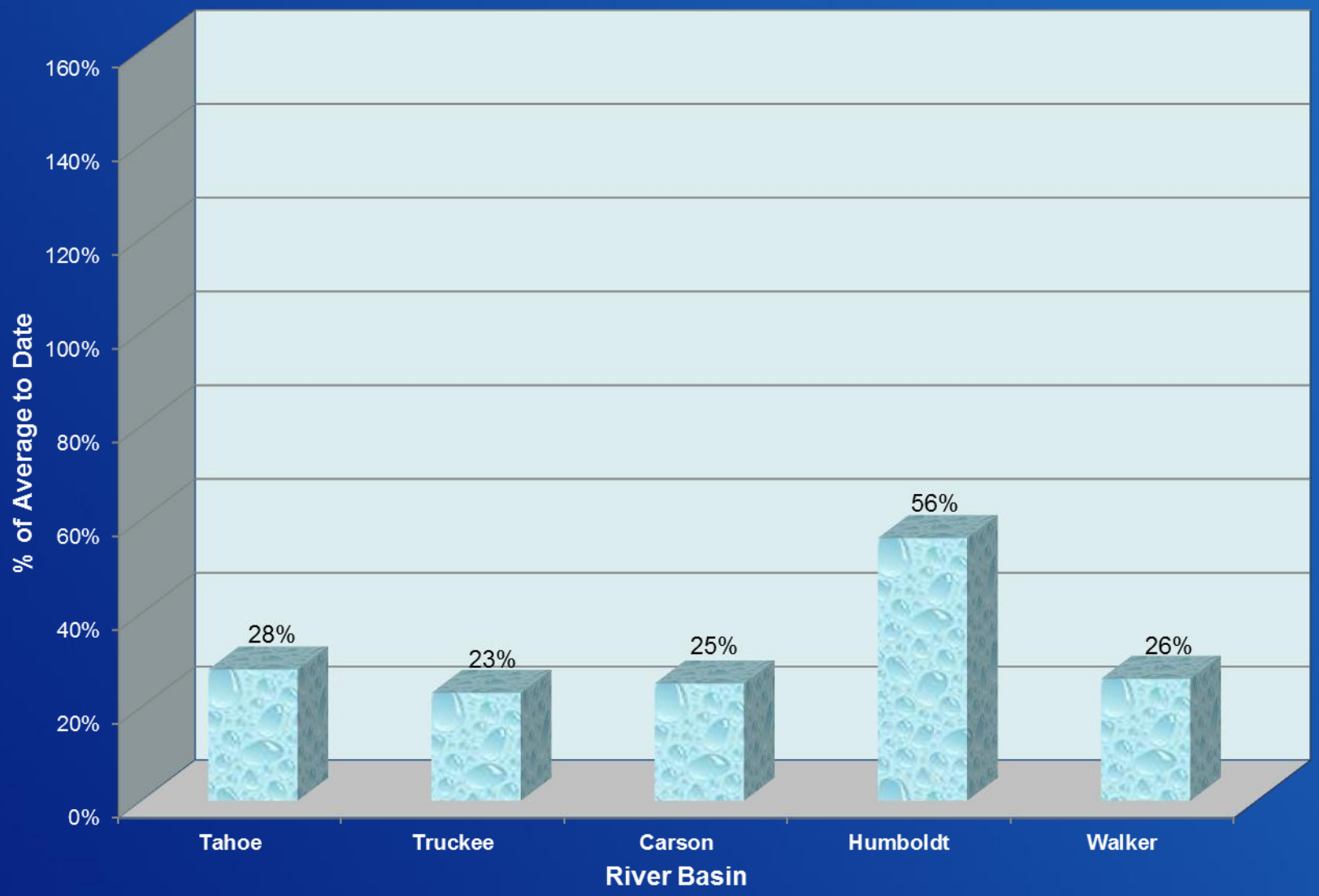
LBAO Water Year Precipitation To Date



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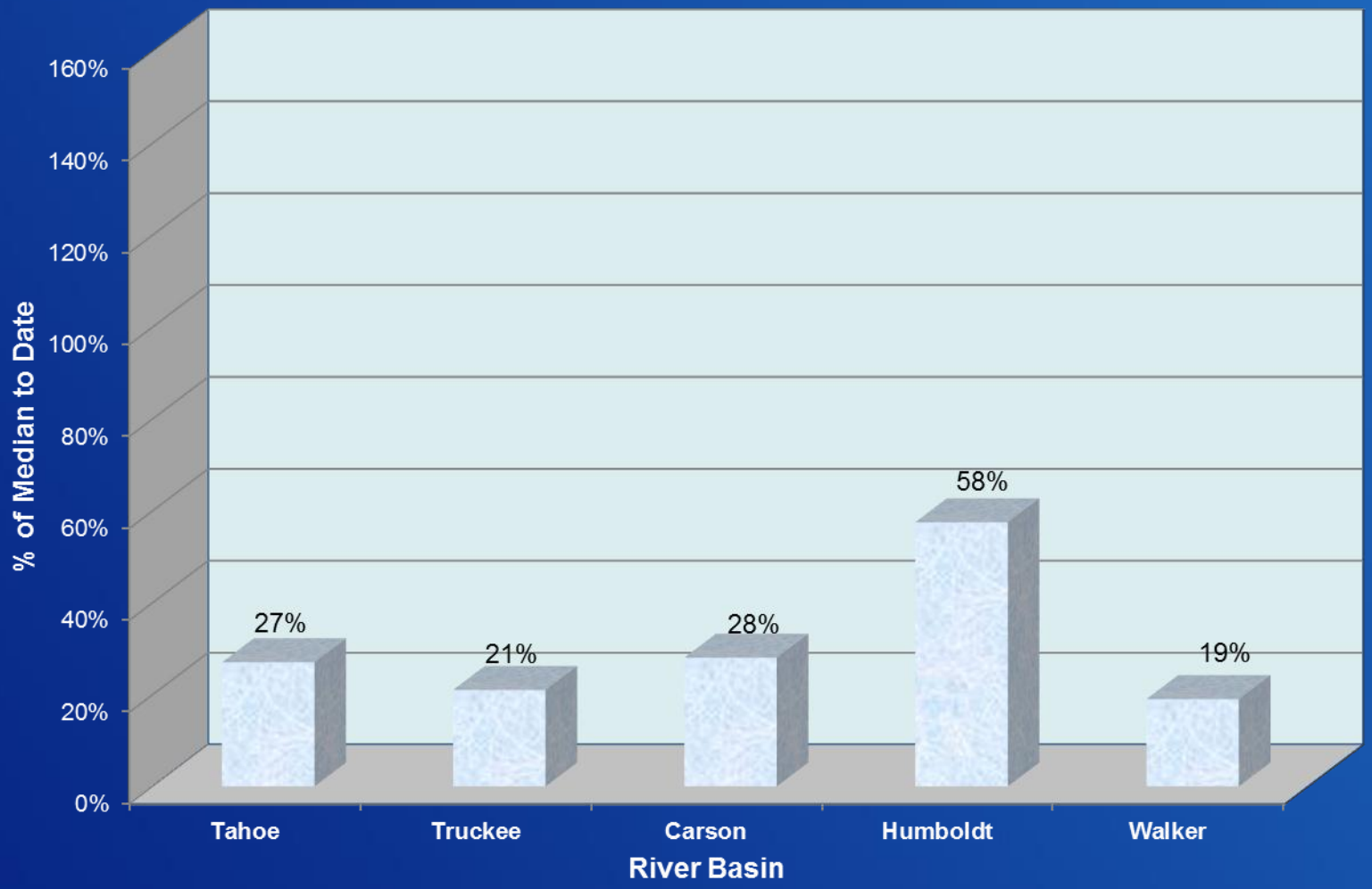
Current LBAO Snowpack Conditions
(Snow Water Equivalent)



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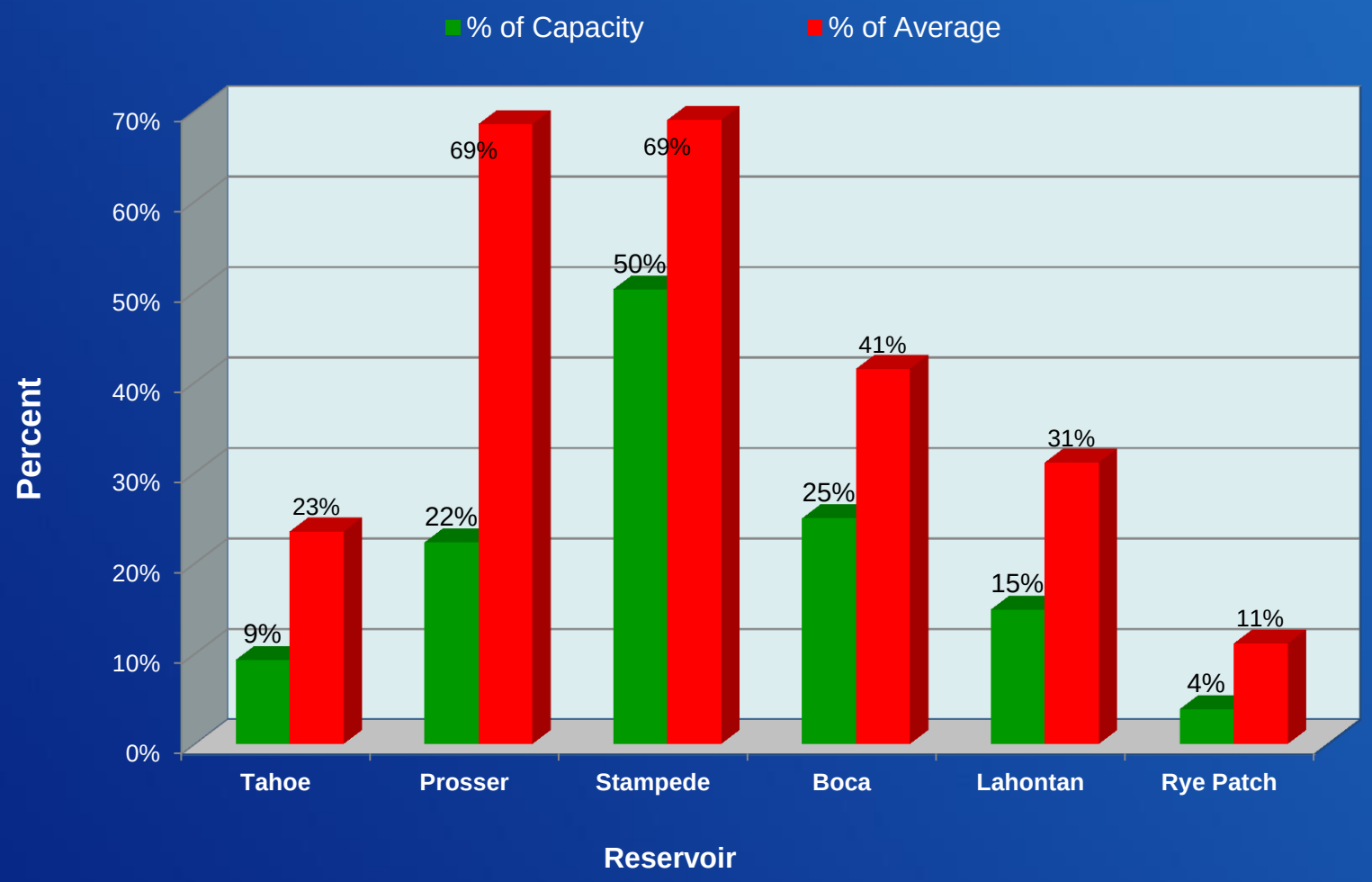
LBAO Reservoir Storage



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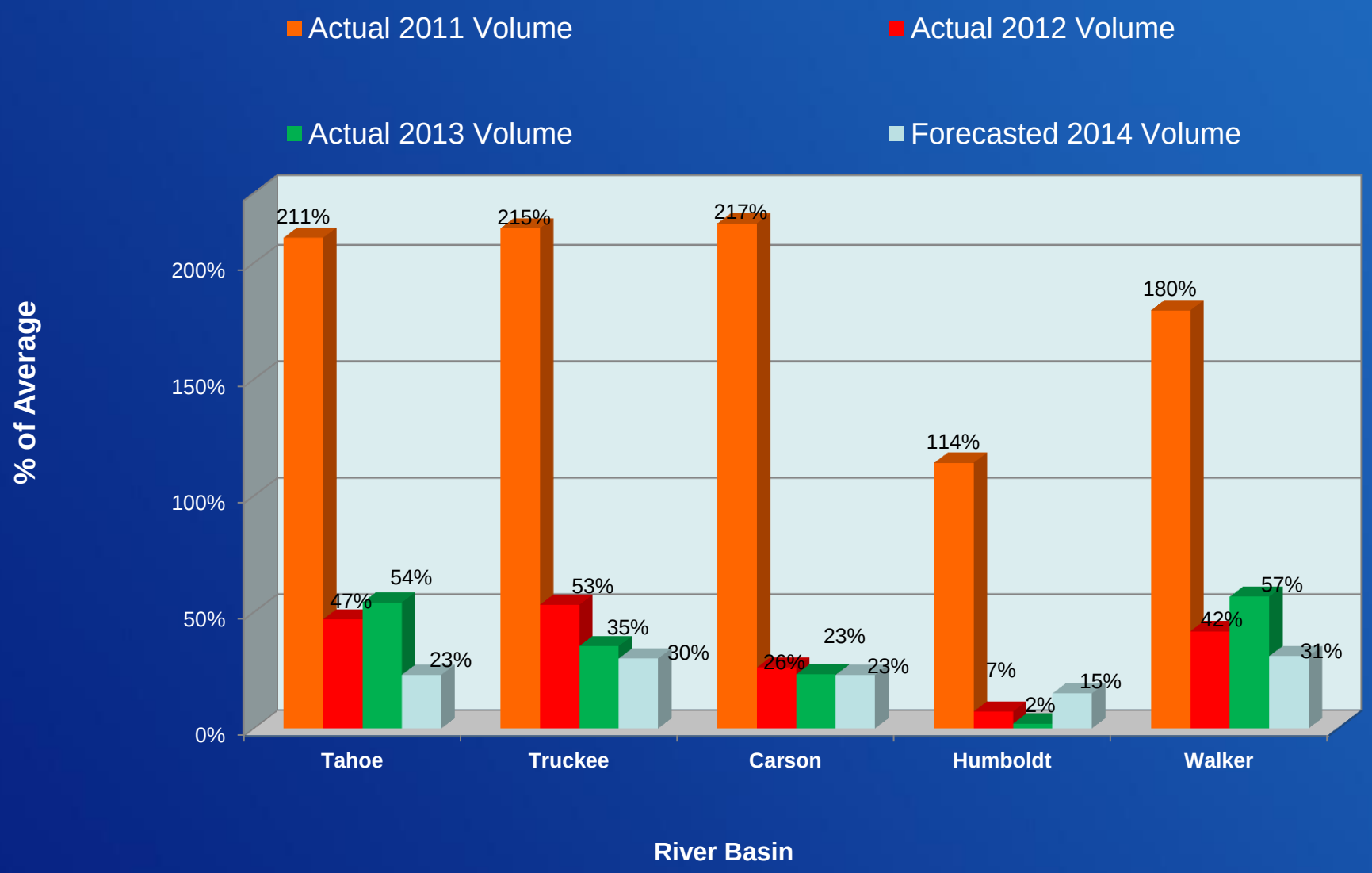
LBAO April-July Runoff



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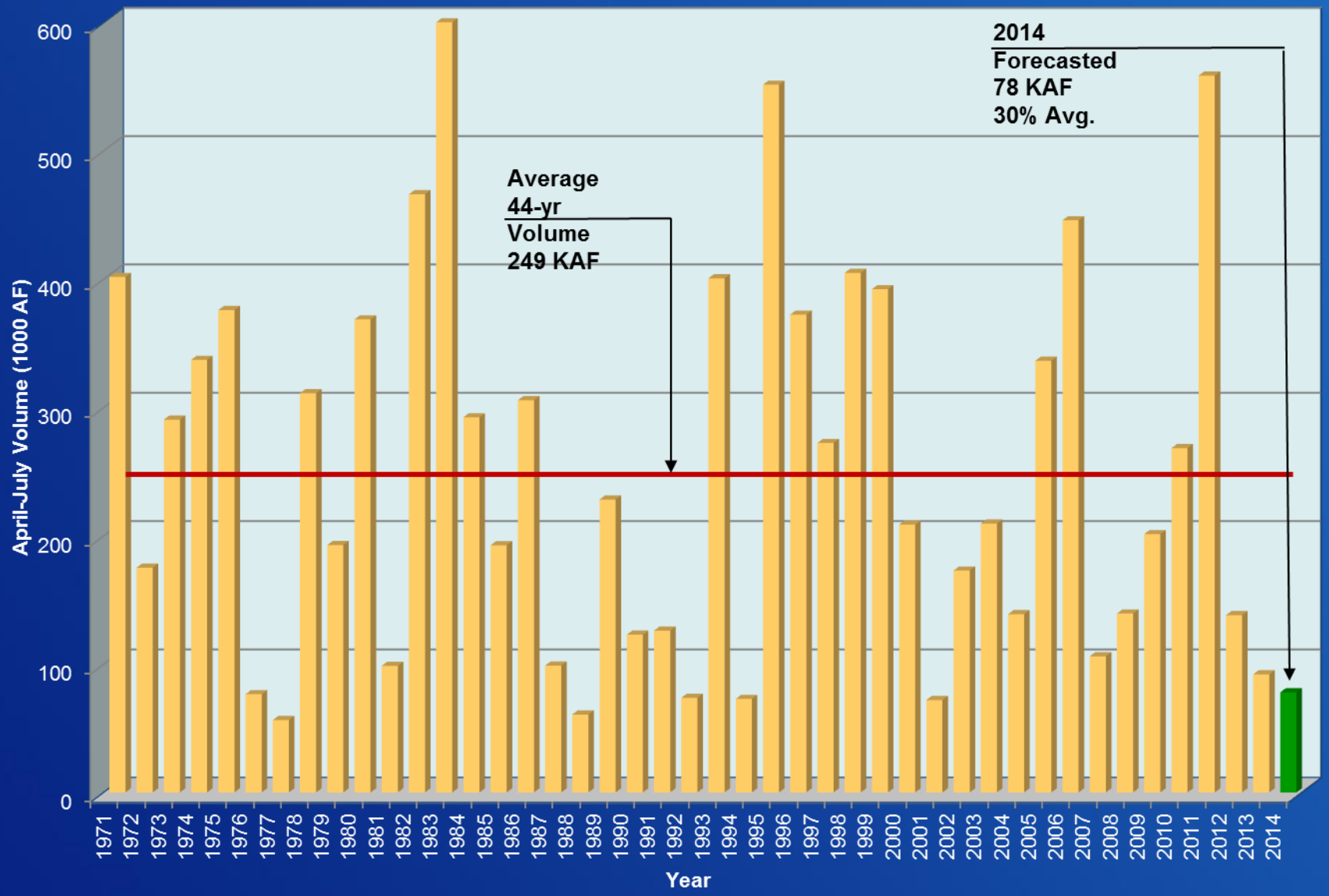
Historical Truckee River Runoff April-July



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Managing Water in the West

Klamath Basin Area Office
Klamath Falls, OR
Water Supply Outlook
January 2014

U.S. Department of the Interior
Bureau of Reclamation

Klamath Basin Outlook

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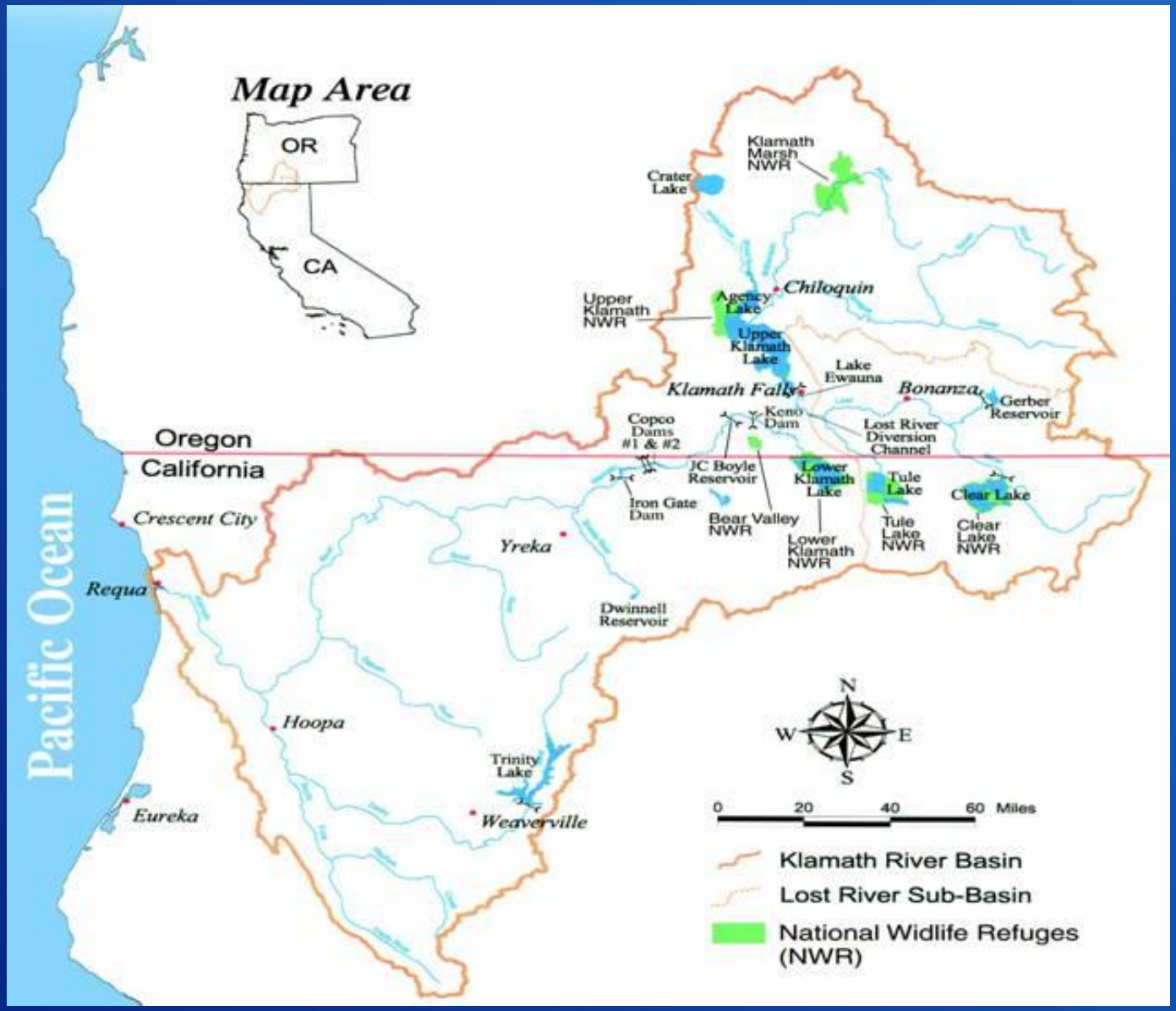
Klamath Basin Outlook



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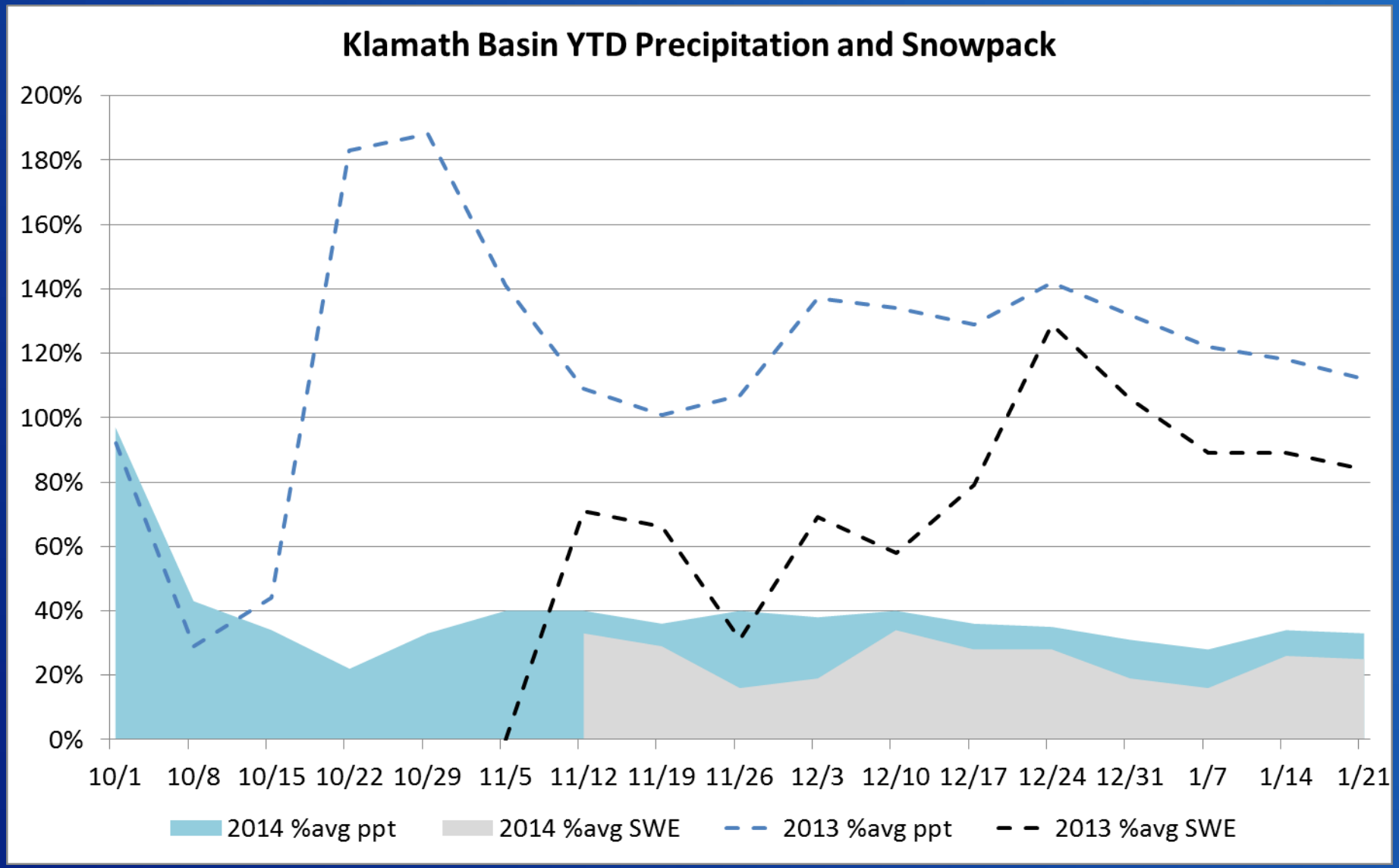
Klamath Basin YTD



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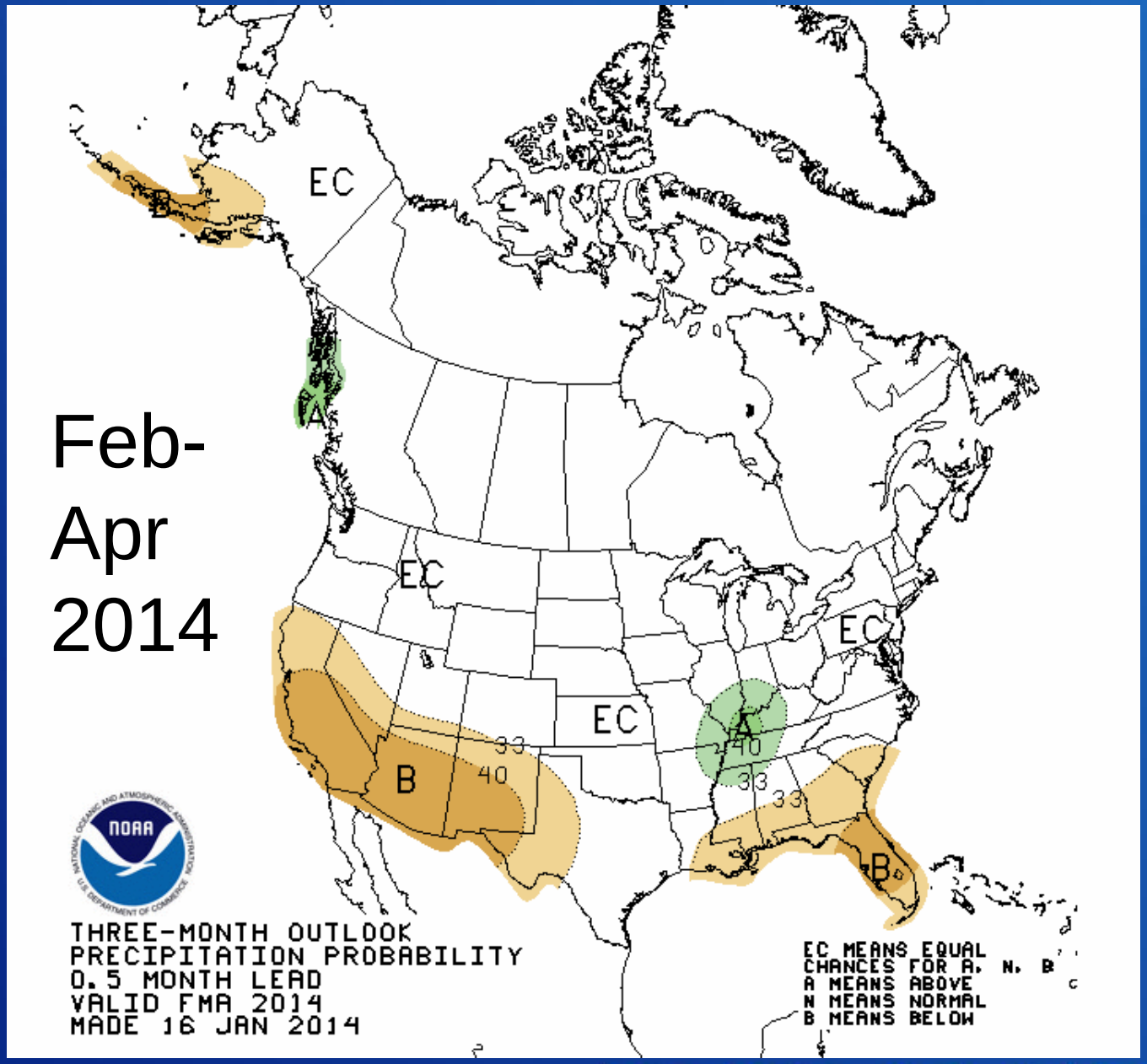
Feb-
Apr
2014



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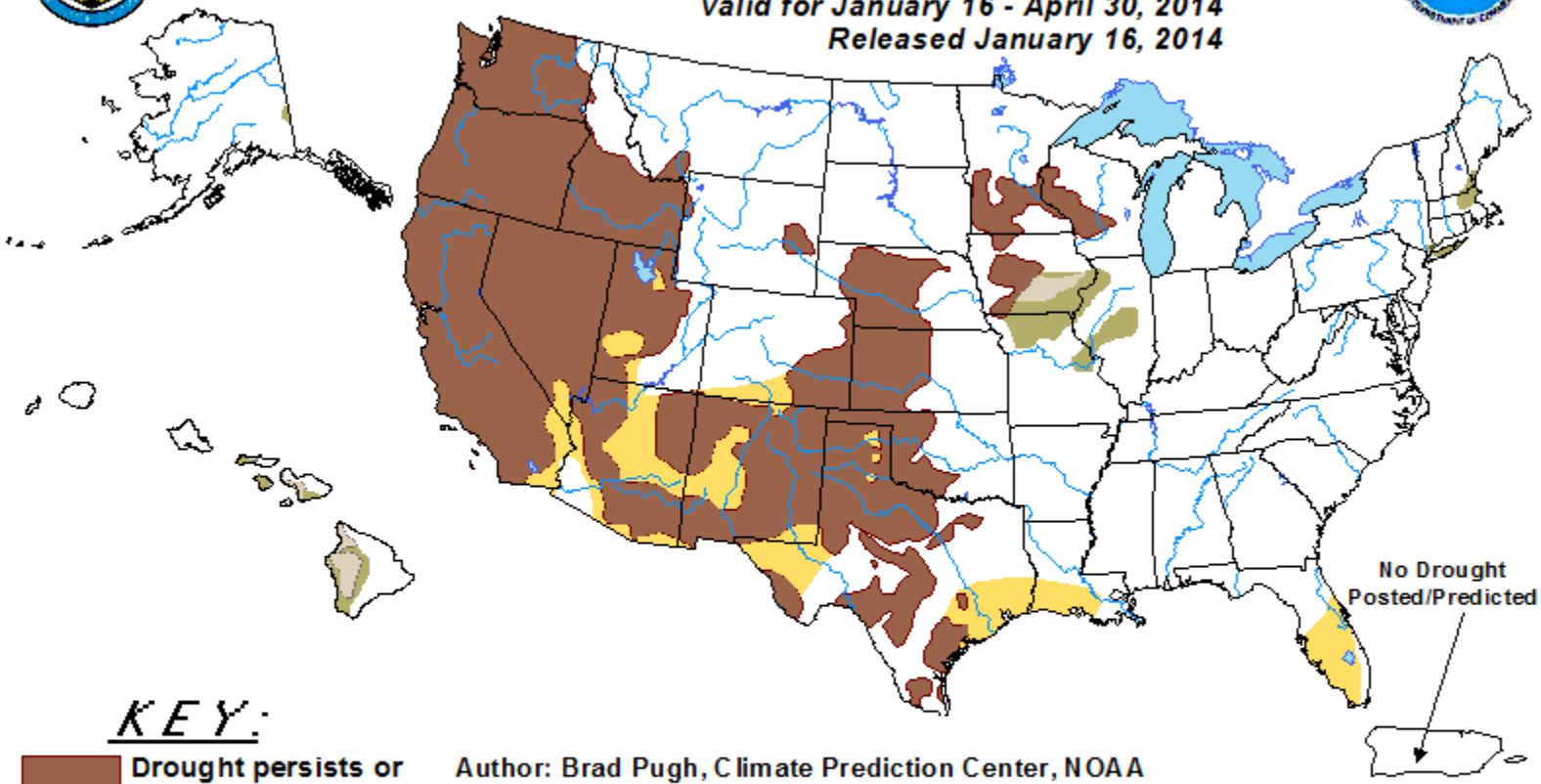
U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for January 16 - April 30, 2014

Released January 16, 2014



KEY:

- Drought persists or intensifies
- Drought remains but improves
- Drought removal likely
- Drought development likely

Author: Brad Pugh, Climate Prediction Center, NOAA

http://www.cpc.ncep.noaa.gov/products/expert_assessment/season_drought.html

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity).

For weekly drought updates, see the latest U.S. Drought Monitor.

NOTE: The tan area areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period although drought will remain.

The Green areas imply drought removal by the end of the period (D0 or none)

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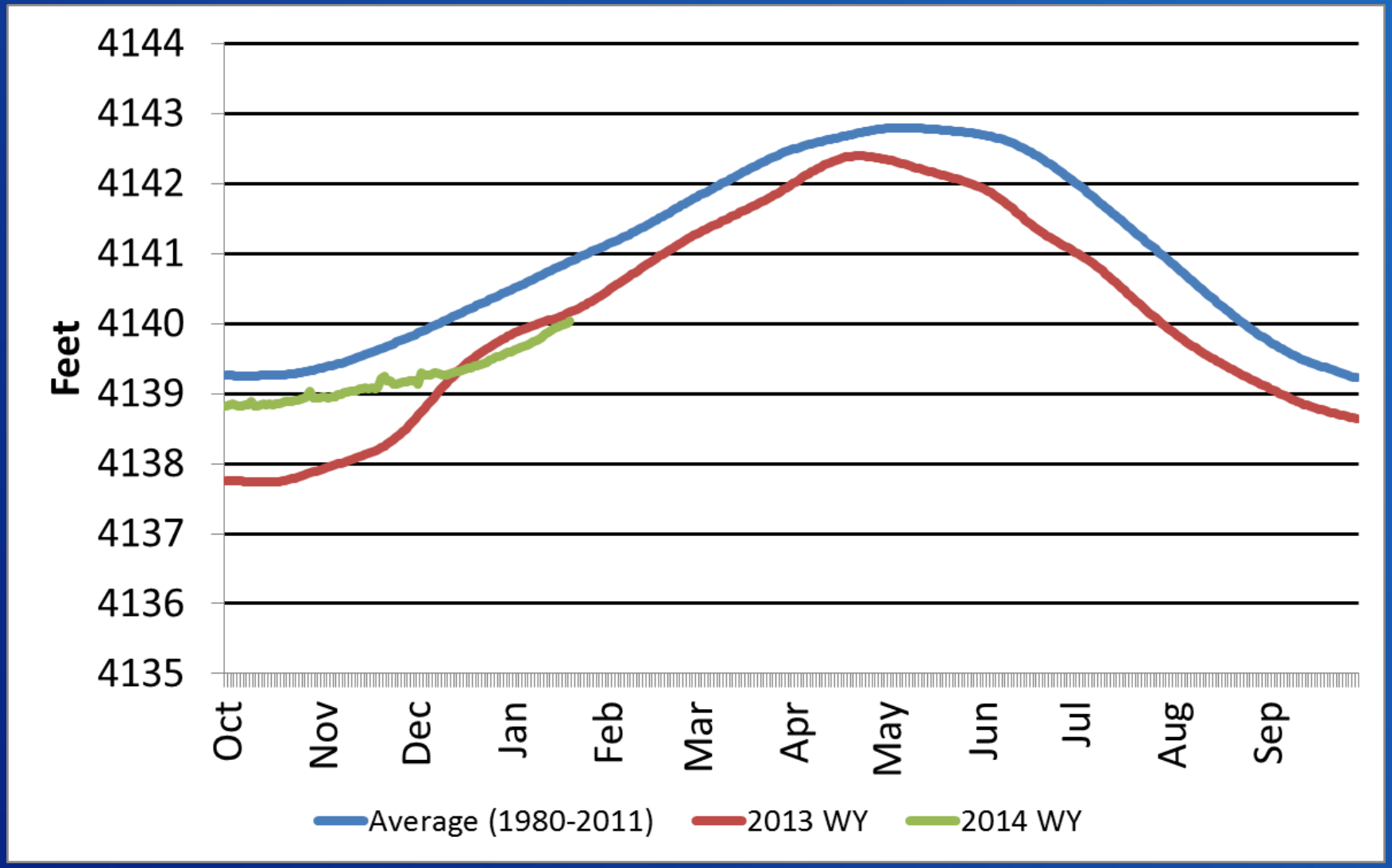
Upper Klamath Lake Elevation



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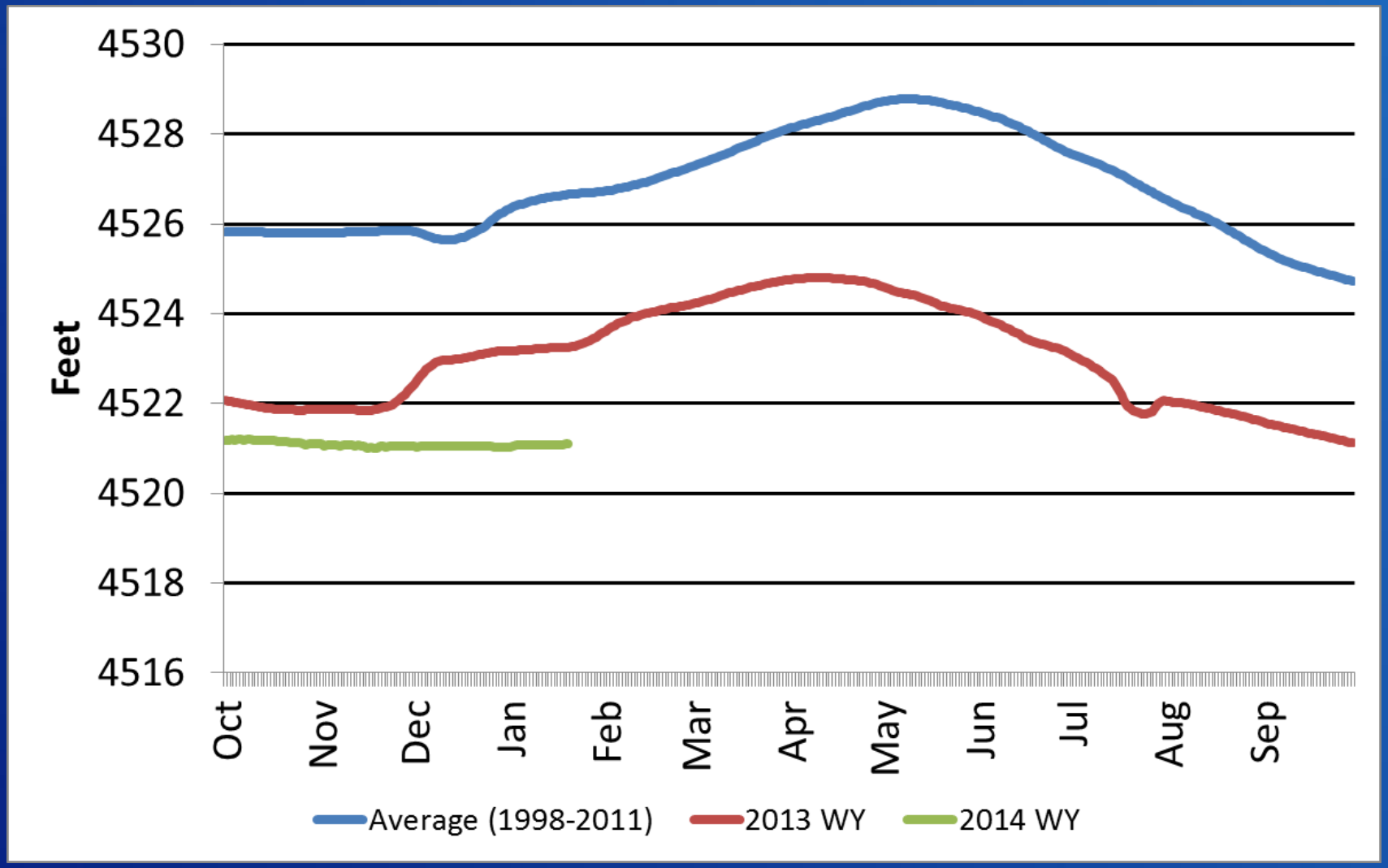
Clear Lake Elevation



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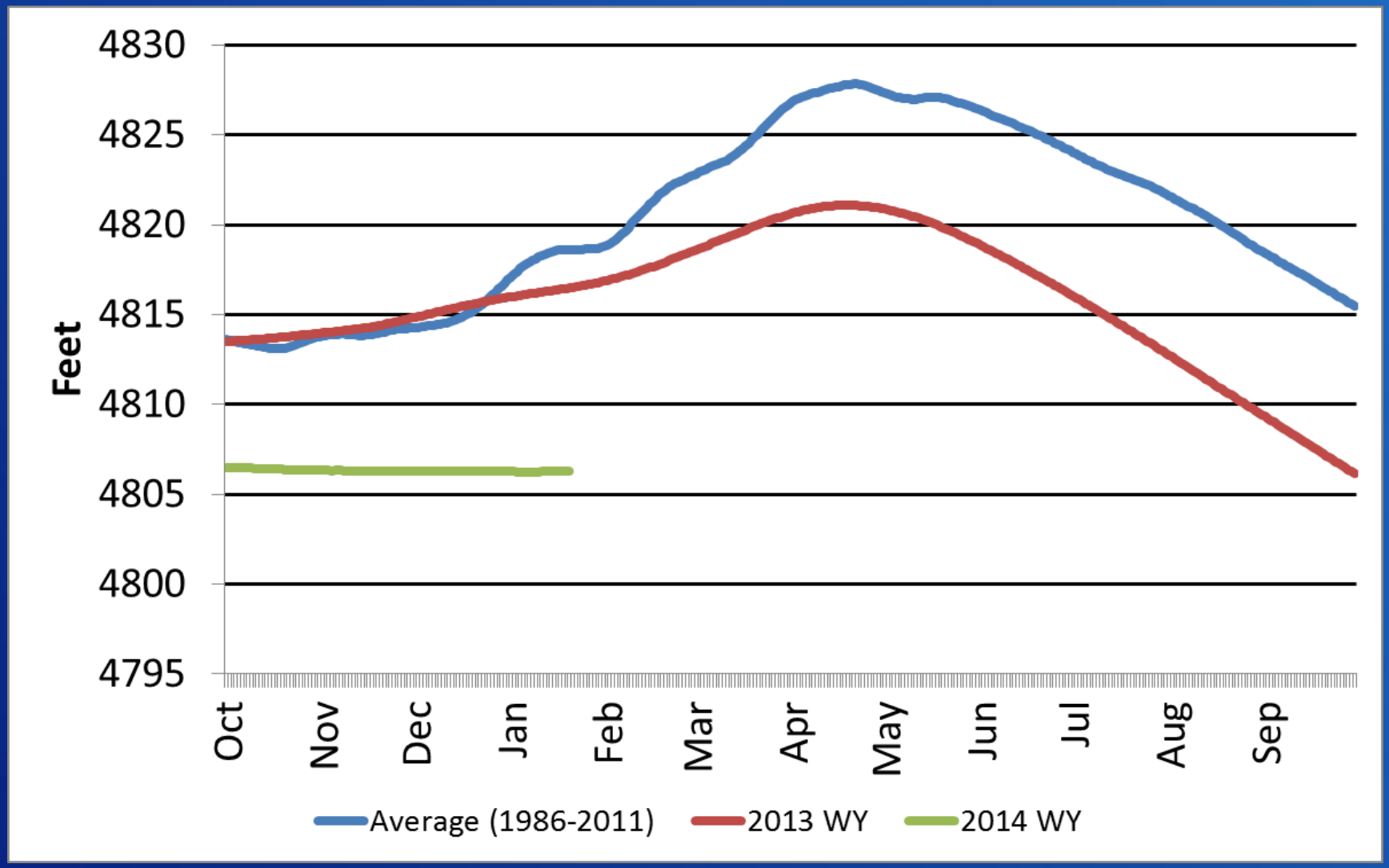
Gerber Reservoir Elevation



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2014 Projected Water Supply

Clear Lake

Clear Lake NRCS February through July Inflow Forecasts				
% Exceedance Inflow Forecast	Forecasted Inflow Volume (AF)	% of Average Inflow	Est Klamath Project Clear Lake Supply (AF)	% of Estimated Clear Lake Irrigation Demand
30%	36,000	39%	0	0%
50%	7,400	8%	0	0%
70%	2,800	3%	0	0%

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2014 Projected Water Supply

Gerber Reservoir

Gerber Reservoir NRCS February through July Inflow Forecasts				
% Exceedance Inflow Forecast	Forecasted Inflow Volume (AF)	% of Average Inflow	Est Klamath Project Gerber Supply (AF)	% of Estimated Gerber Irrigation Demand
30%	12,300	30%	18,454	54%
50%	2,000	5%	7,918	23%
70%	820	2%	7,225	21%

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2014 Projected Water Supply

Upper Klamath Lake

Upper Klamath Lake NRCS February through September Inflow Forecasts				
% Exceedance Inflow Forecast	Forecasted Inflow Volume (AF)	% of Average Inflow	Est Klamath Project UKL Supply (AF)	% of Maximum UKL Irrigation Supply
30%	365,000	46%	154,000	39%
50%	295,000	37%	94,000	24%
70%	170,000	21%	0	0%

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2014 Water Users Conference

http://www.usbr.gov/mp/PA/water/

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