

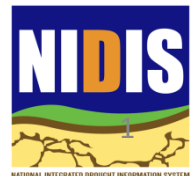
California-Nevada Climate and Drought Update



Dan McEvoy

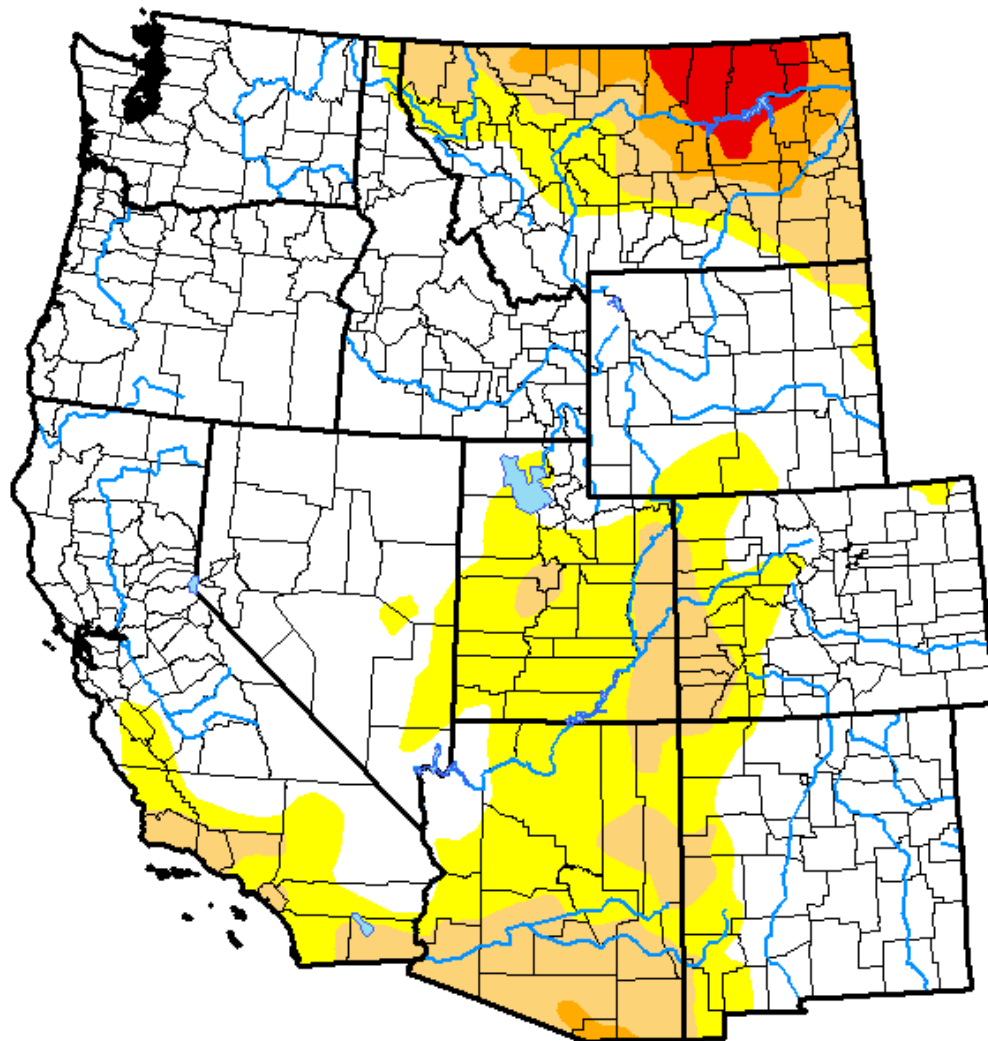
Assistant Research
Professor,
Regional Climatologist,
Western Regional Climate
Center,
Desert Research Institute

CNAP-NIDIS Drought and Climate Update Webinar
November 27, 2017








U.S. Drought Monitor West

November 21, 2017
(Released Wednesday, Nov. 22, 2017)
Valid 7 a.m. EST



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.

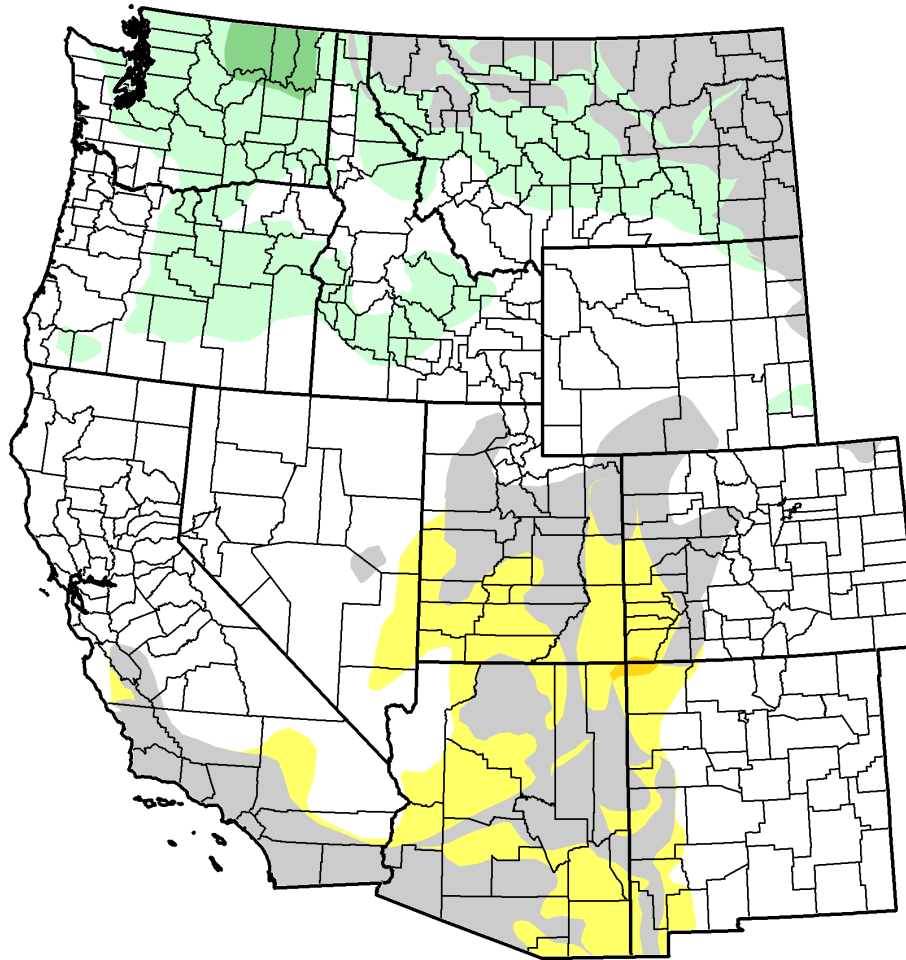
Author:












Richard Tinker
CPC/NOAA/NWS/NCEP



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

U.S. Drought Monitor Class Change - West 1 Month



-  5 Class Degradation
-  4 Class Degradation
-  3 Class Degradation
-  2 Class Degradation
-  1 Class Degradation
-  No Change
-  1 Class Improvement
-  2 Class Improvement
-  3 Class Improvement
-  4 Class Improvement
-  5 Class Improvement

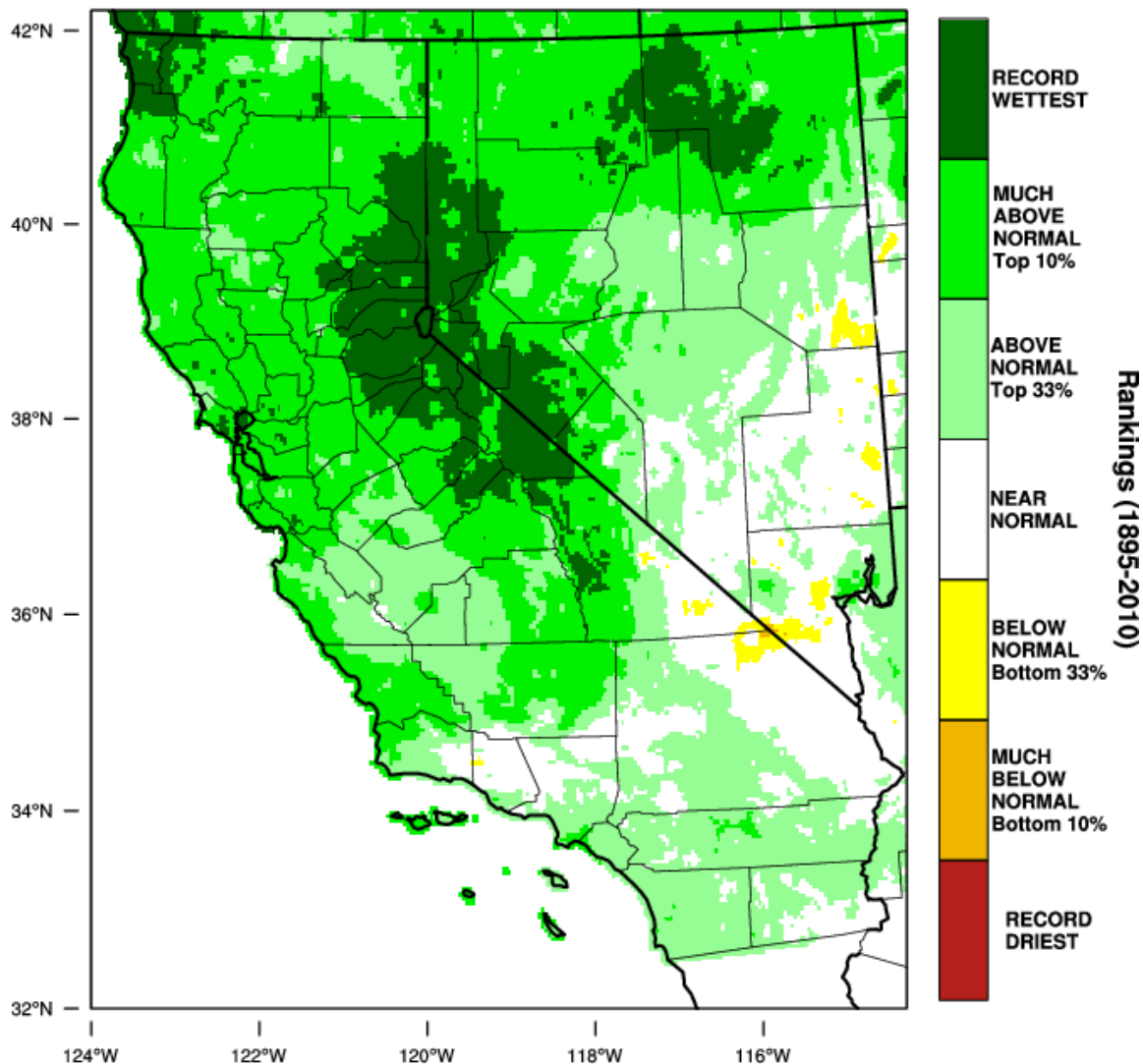
November 21, 2017
compared to
October 24, 2017

<http://droughtmonitor.unl.edu>

Water Year 2017 Precipitation

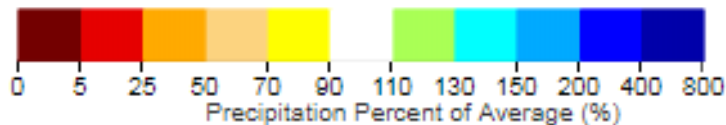
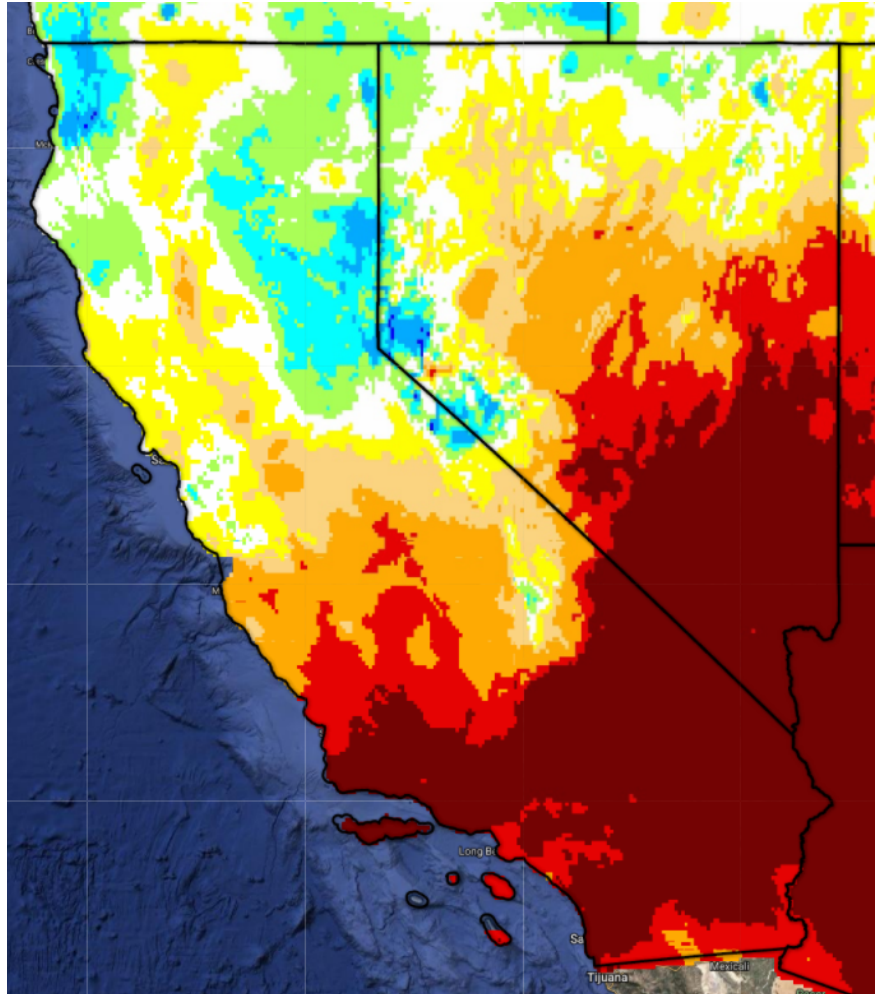
California - Precipitation

October-September 2017 Percentile



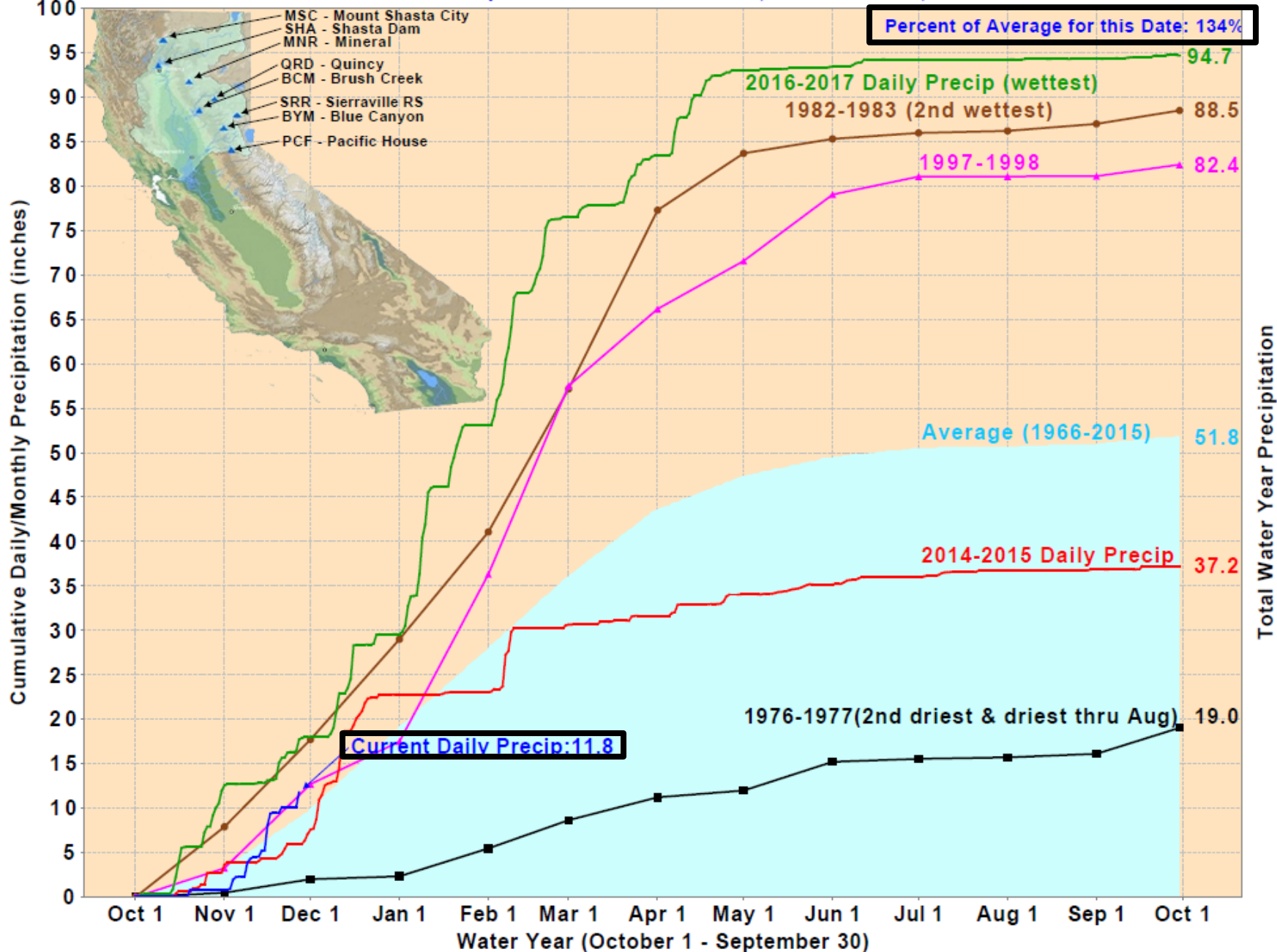
October 1 – November 24 , 2017

Percent of Average Precipitation

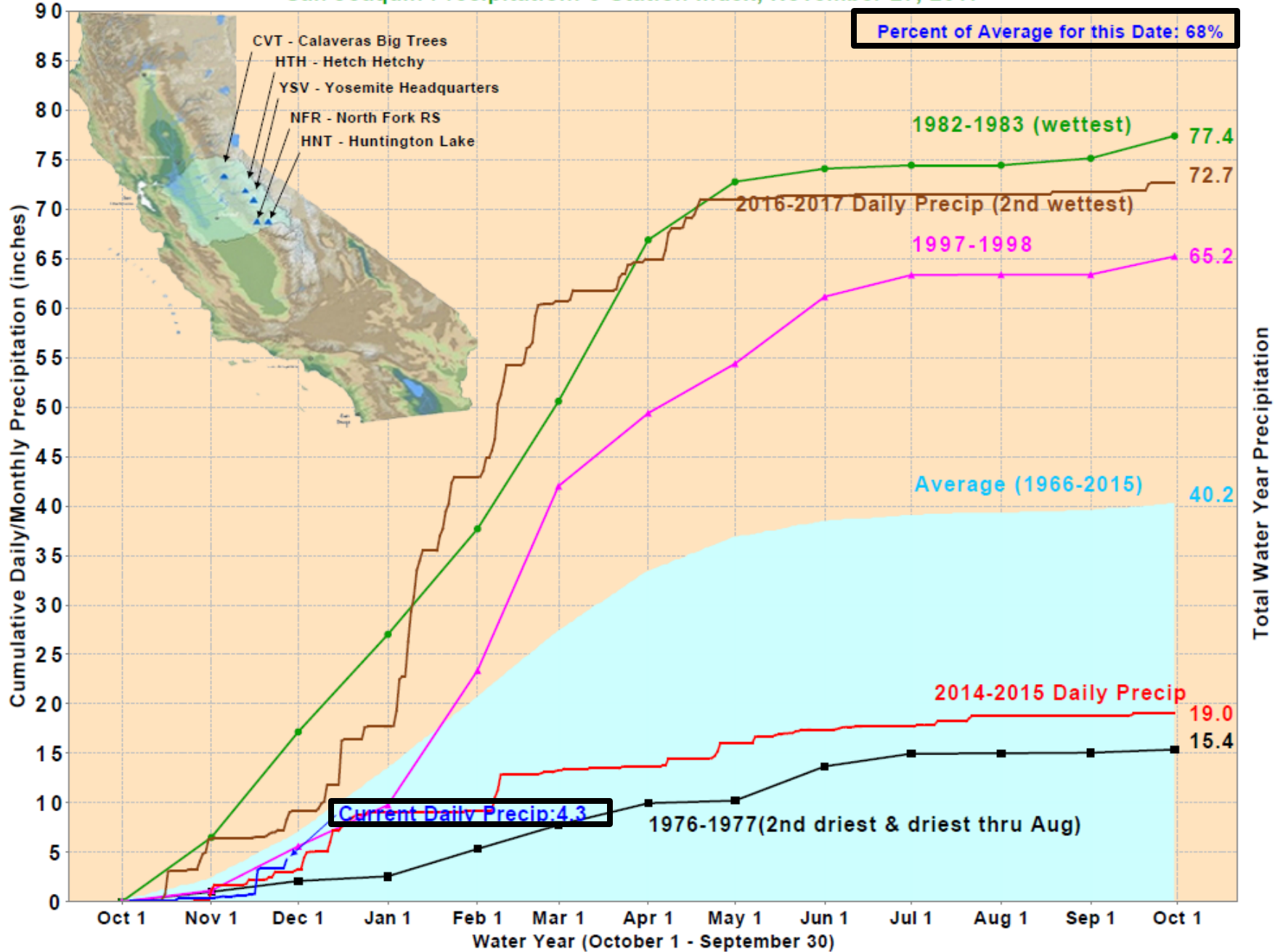


- ClimateEngine.org
- University of Idaho's gridded meteorological data
- 4-km spatial resolution
- Sharp north-south precipitation gradient so far this water year

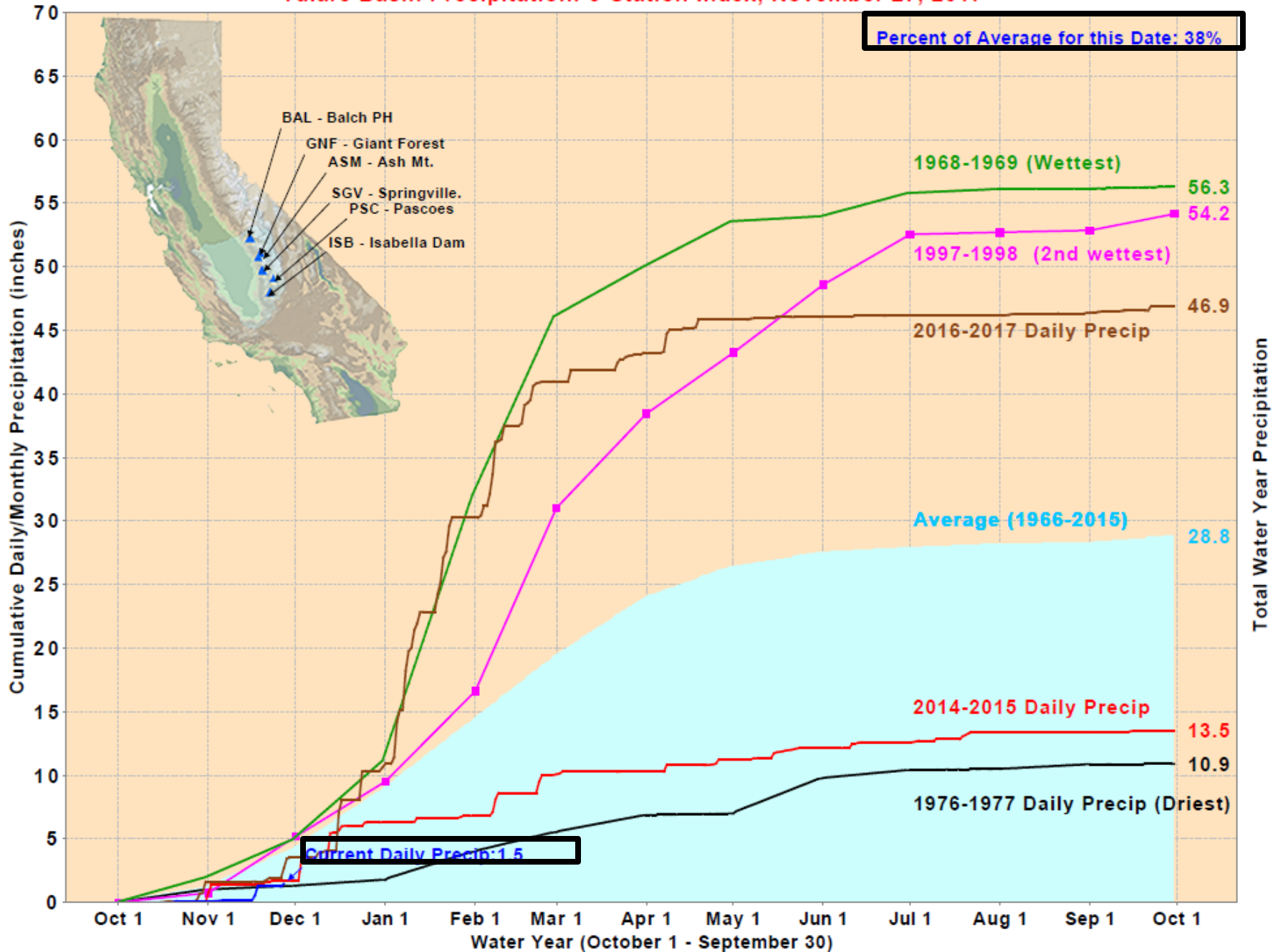
North Sierra Precipitation: 8-Station Index, November 27, 2017



San Joaquin Precipitation: 5-Station Index, November 27, 2017

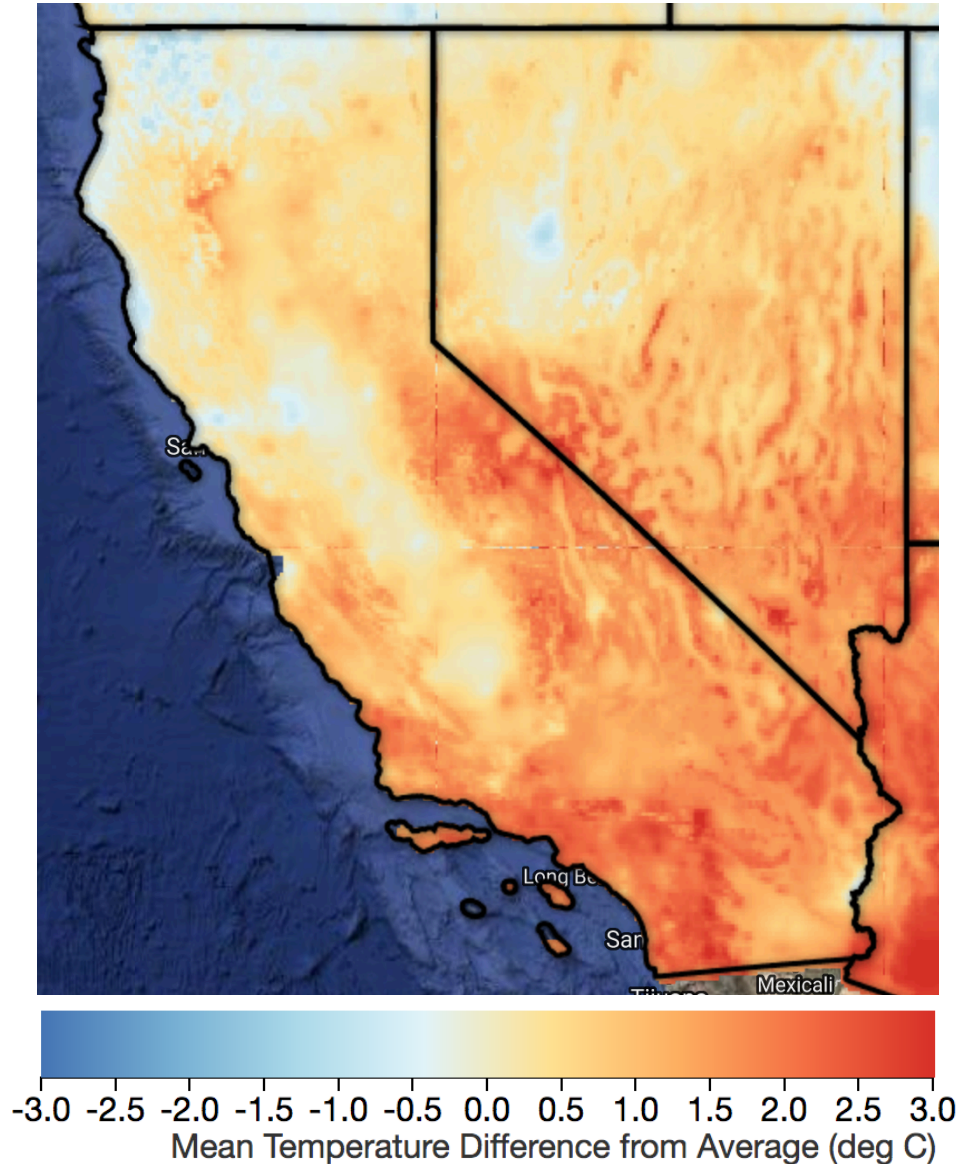


Tulare Basin Precipitation: 6-Station Index, November 27, 2017



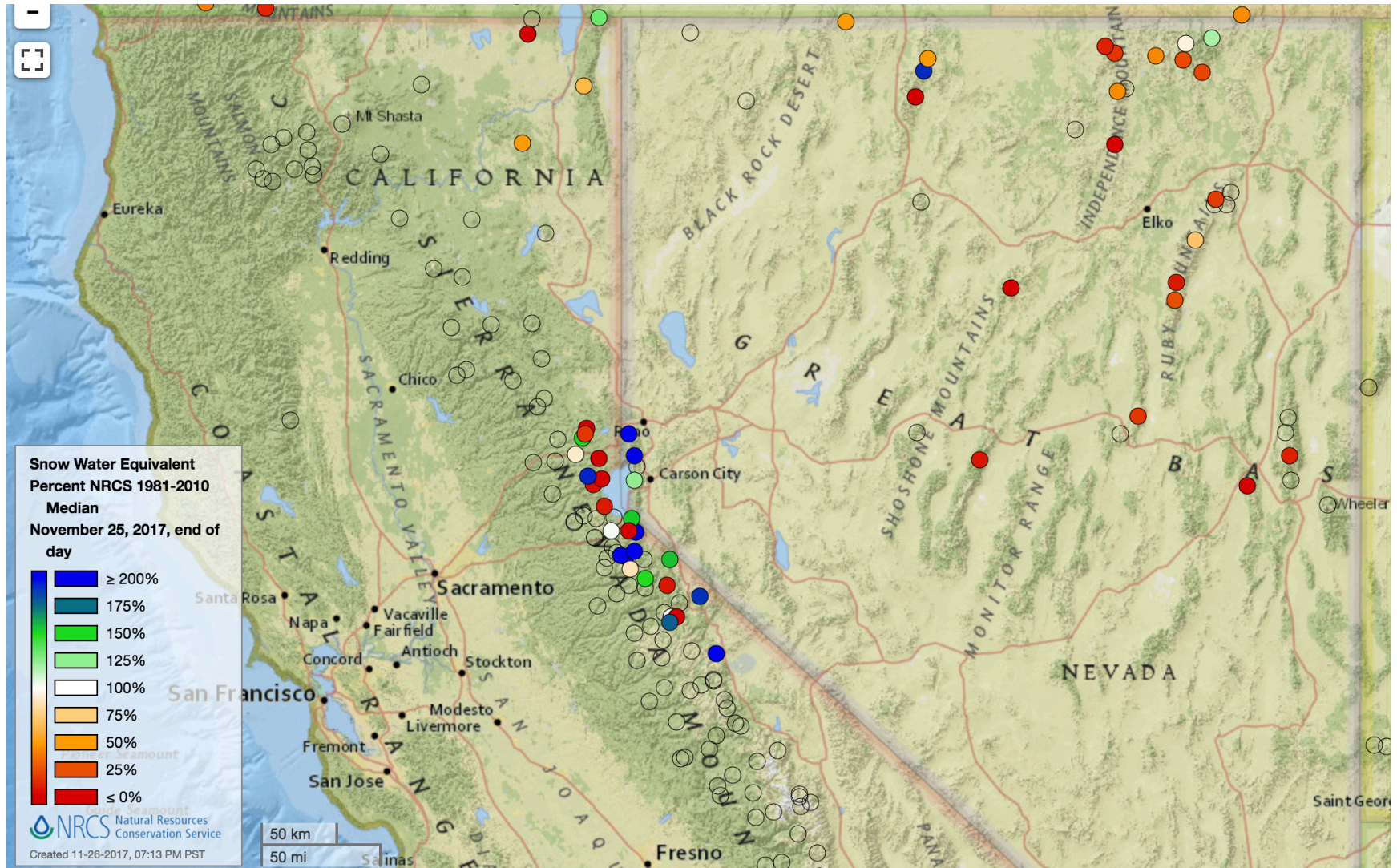
October 1 – November 24 , 2017

Mean Temperature Anomaly



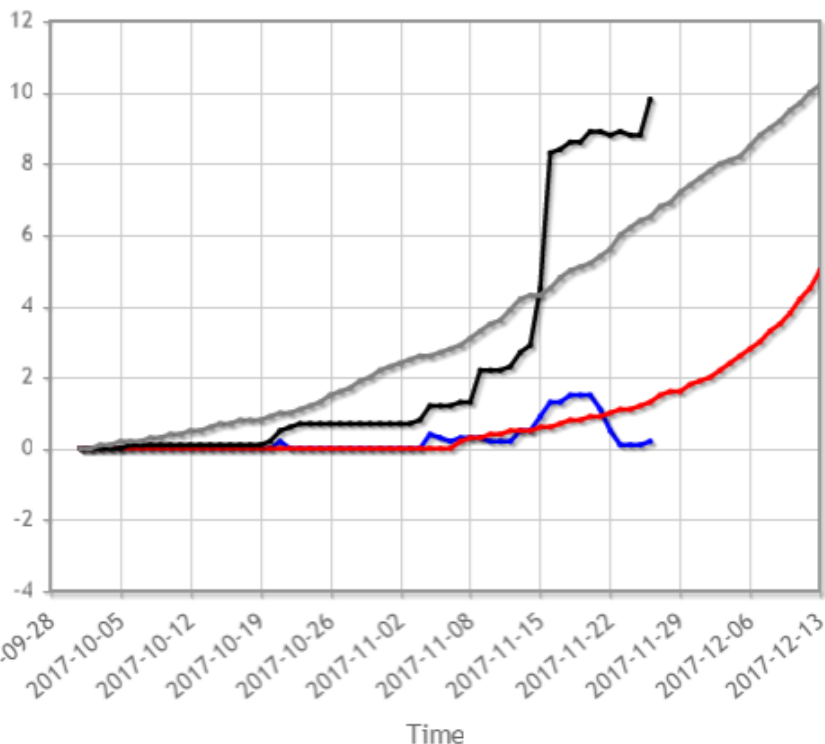
- ClimateEngine.org
- University of Idaho's gridded meteorological data
- 4-km spatial resolution
- Generally warm start to water year
- High snow levels with Sierra storms thus far

SNOTEL Percent of Median Snow Water Equivalent, November 25, 2017

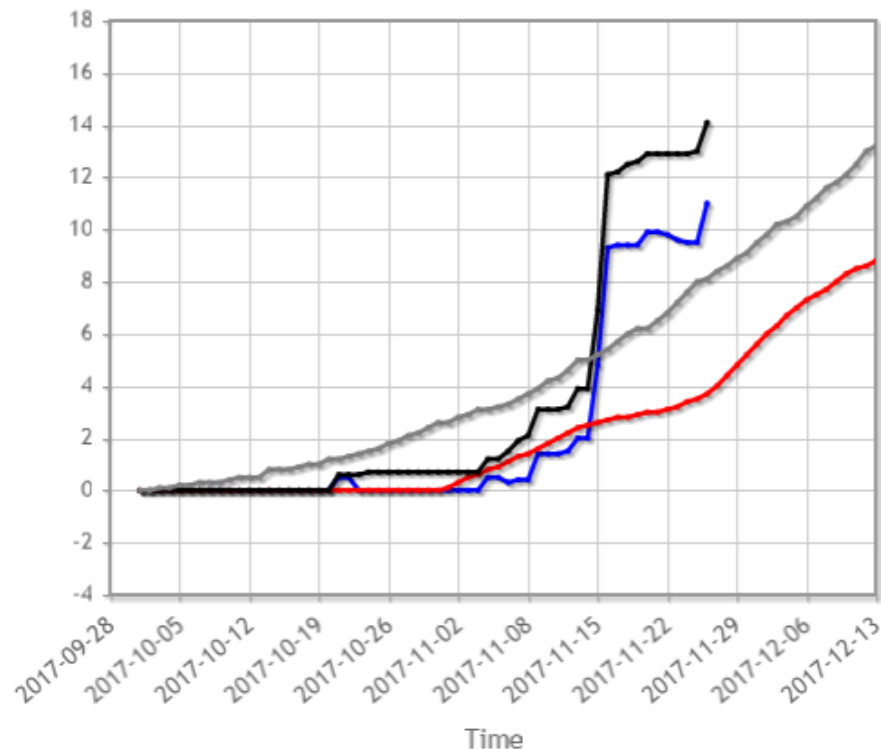


Early Season Snow Drought

Rubicon #2 SNOTEL, 7,619 ft



Mt Rose Ski Area SNOTEL, 8,801 ft

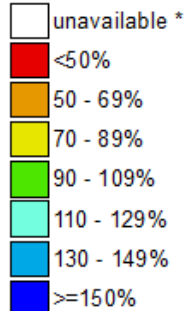


- Snow Water Equivalent (in) Start of Day Values
- Median Snow Water Equivalent (1981-2010) (in) Start of Day Values
- Precipitation Accumulation (in) Start of Day Values
- Average Precipitation Accumulation (1981-2010) (in) Start of Day Values

Nevada/California SNOTEL Current Snow Water Equivalent (SWE) % of Normal

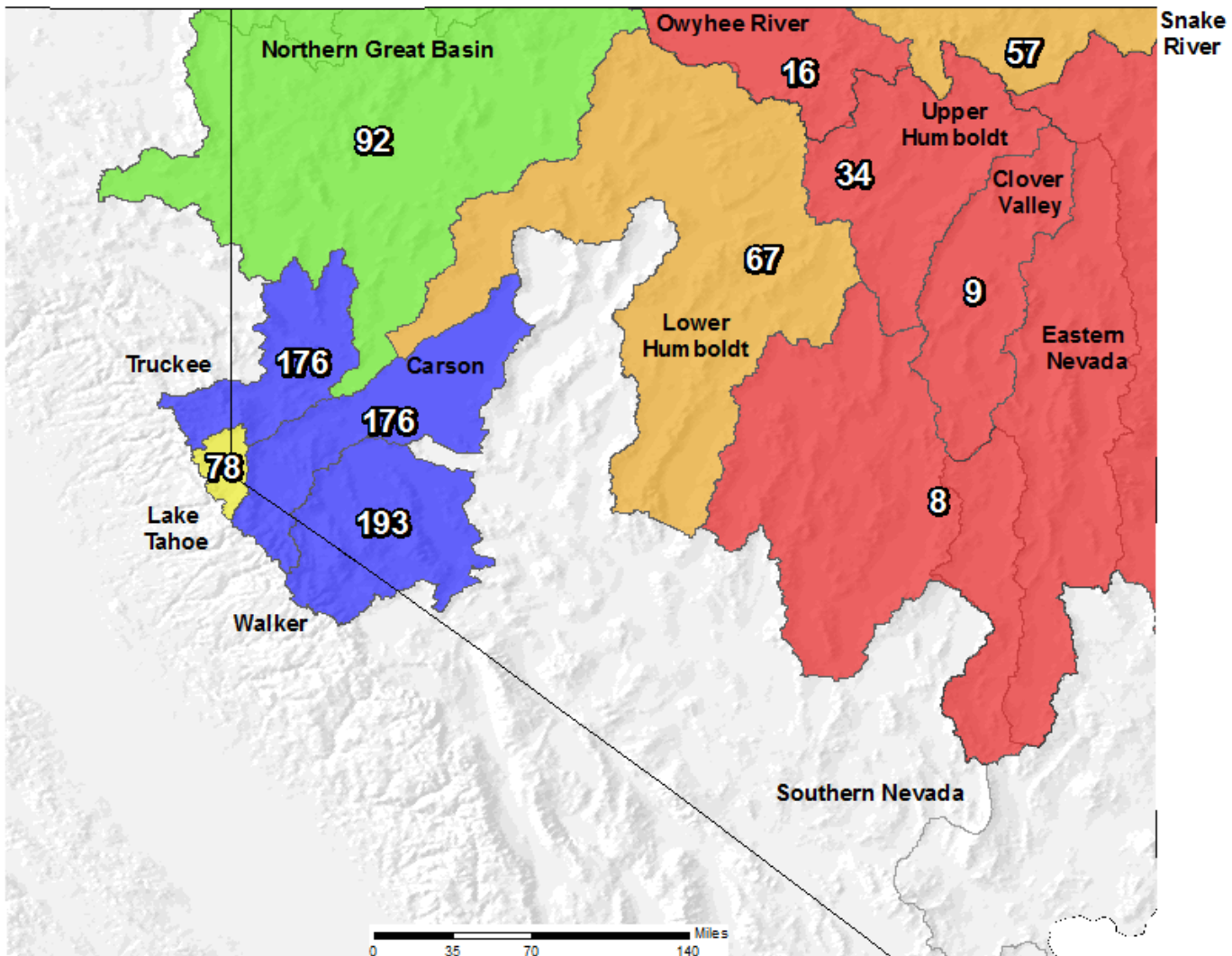
Nov 27, 2017

Current Snow Water Equivalent 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



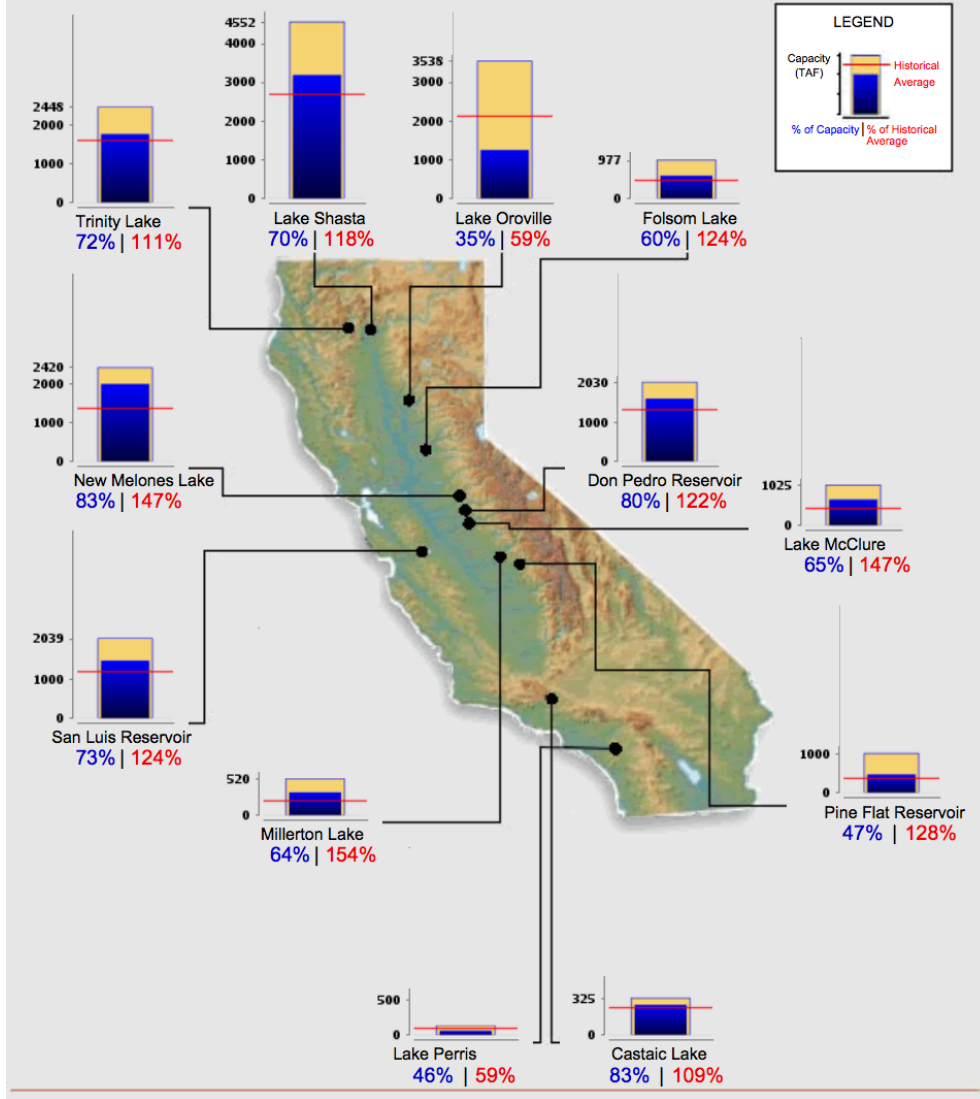
The current snow water equivalent percent of normal represents the snow water equivalent found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

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

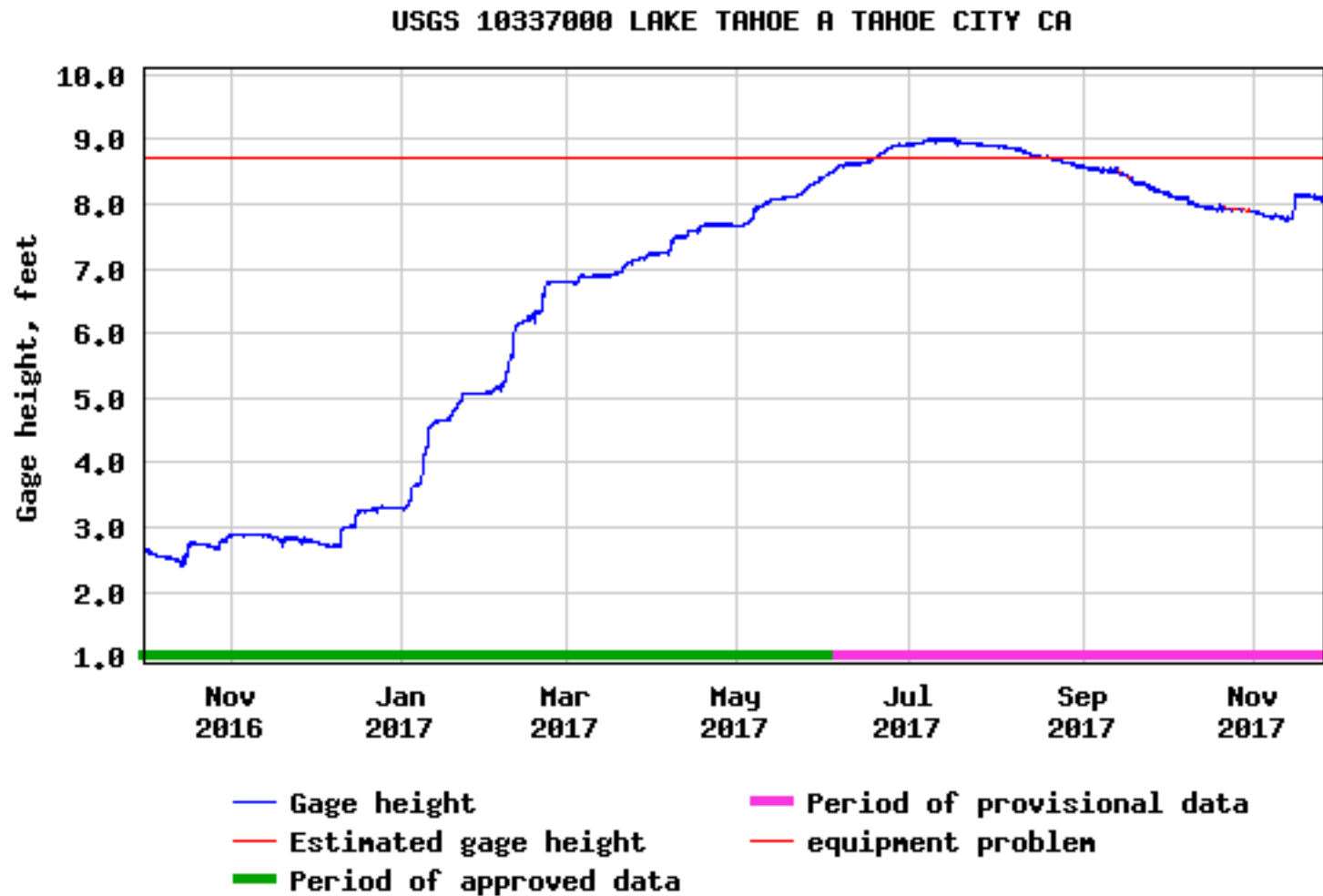
California Reservoir Conditions

Ending At Midnight - November 25, 2017

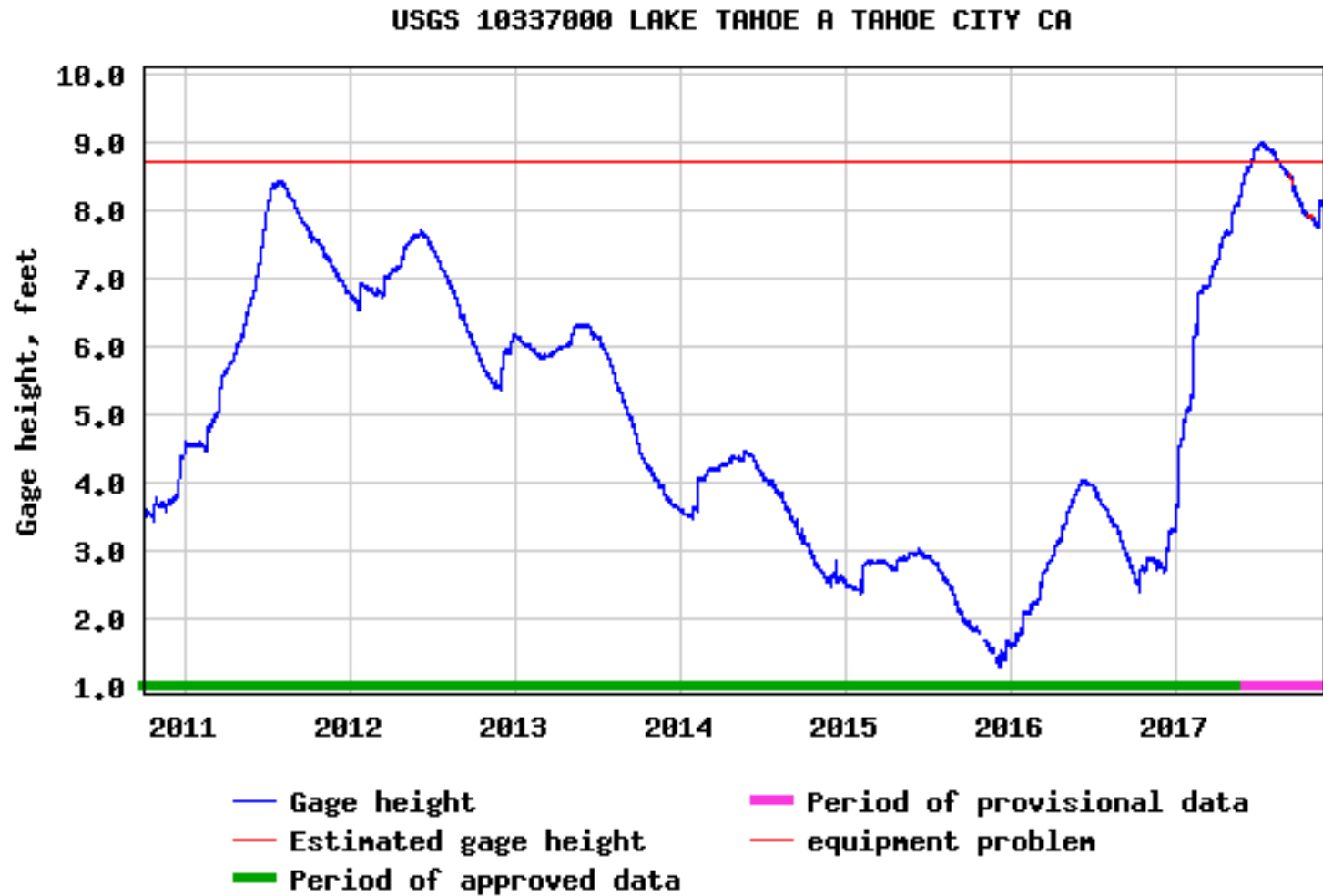
CURRENT RESERVOIR CONDITIONS



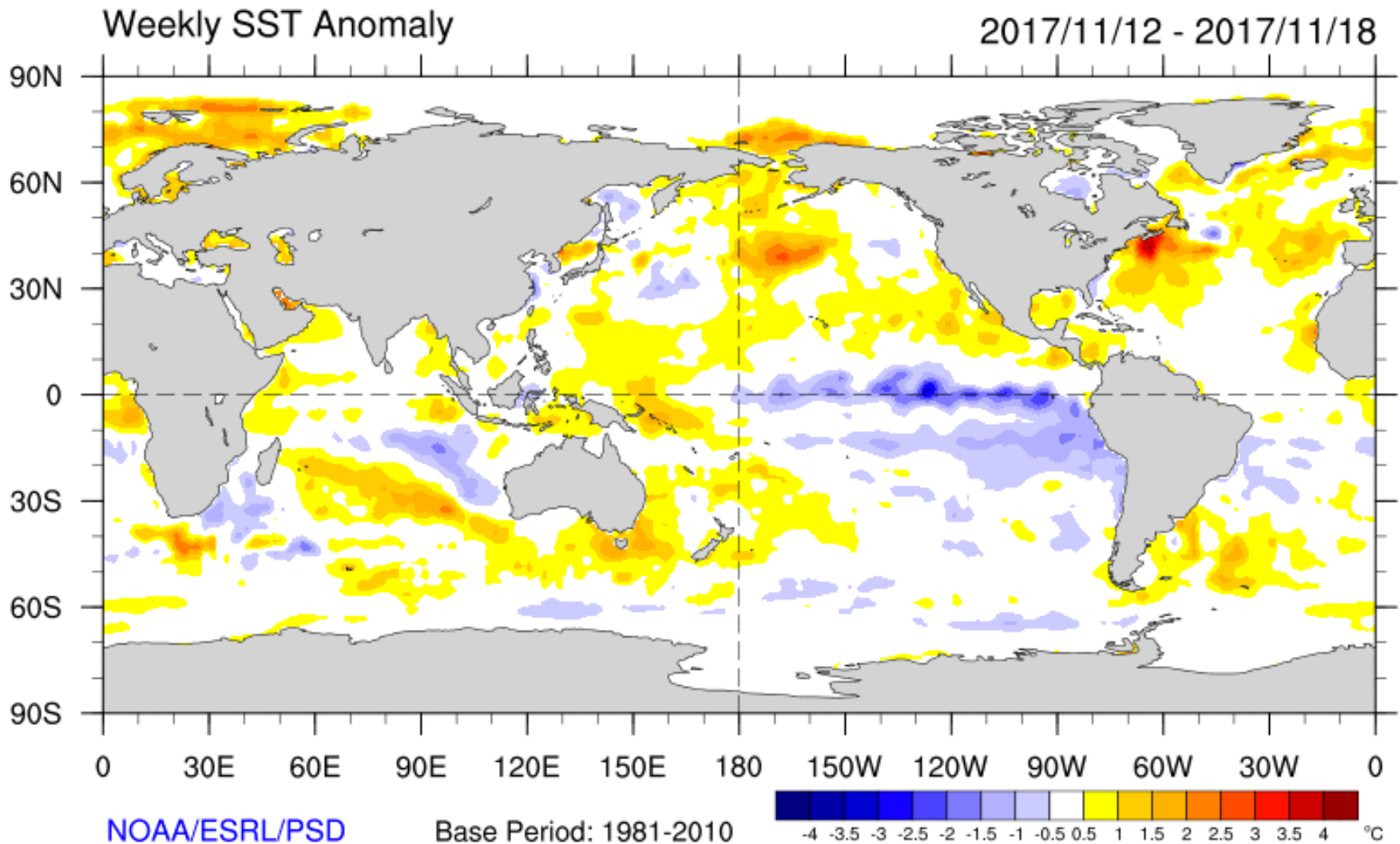
Lake Tahoe Water Levels



Lake Tahoe Water Levels



Current ENSO Conditions

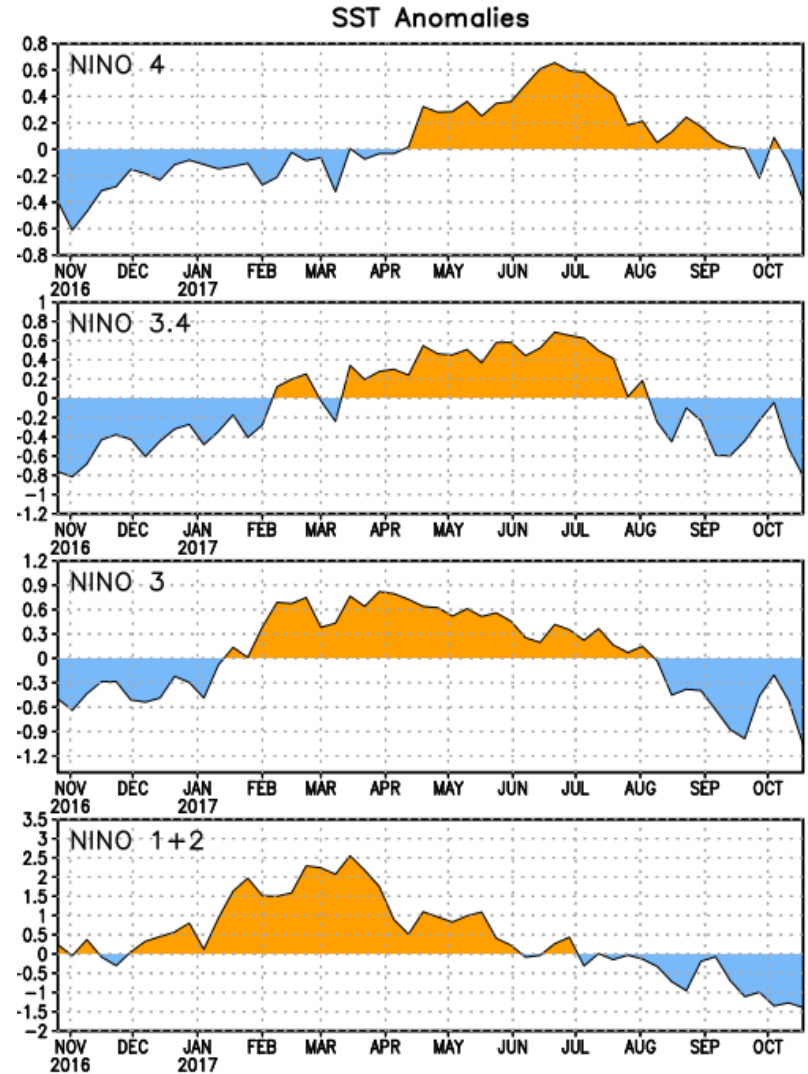
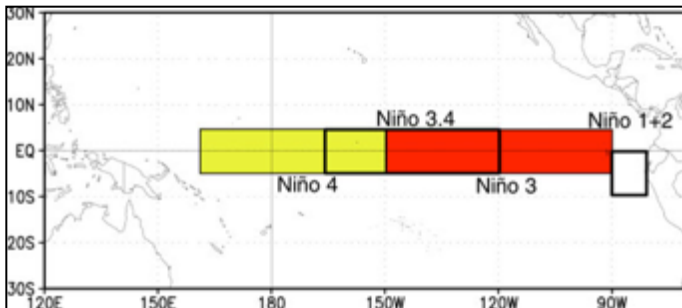


From Climate Prediction Center: La Niña conditions are present

Current ENSO Conditions

The latest weekly SST departures are:

| | |
|----------|--------|
| Niño 4 | -0.1°C |
| Niño 3.4 | -0.8°C |
| Niño 3 | -1.1°C |
| Niño 1+2 | -1.2°C |



Summary

- Most of CA-NV currently drought free
- Exception being CA south coast where long-term drought impacts still exist
- Water year precipitation off to a good start in Northern Sierra and Northwest California coast
- Elsewhere, quite dry, especially southern CA and NV
- Early season snow drought conditions exist due to warm storms with high snow levels
- Reservoirs generally in good condition with a few exceptions
- La Niña conditions are present and expected to persist throughout the winter

Thank You!

mcevoyd@dri.edu



**Glacier Point
Yosemite National Park, CA
October, 2017**