Weather and Climate Summary and Forecast

Spring 2015

Gregory V. Jones
Southern Oregon University
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Sorry for the delay, busier than normal and traveling around speaking on this topic to numerous wine regions in the eastern and western US.

The general forecast given in the fall of last year for this winter has more or less materialized over the entire US. The country continues to experience the dramatic east-west differences due to the strong and persistent ridge in the west (warm, dry) and equally strong and persistent trough in the east (cold, snow). If the winter forecast was off, it was only in the magnitude of the warmth in the west and the amount of snow in the east. Temperatures over the western US have run from 2 to 7 degrees above normal during Dec-Jan-Feb (see below or attached) while precipitation was near normal to below normal.

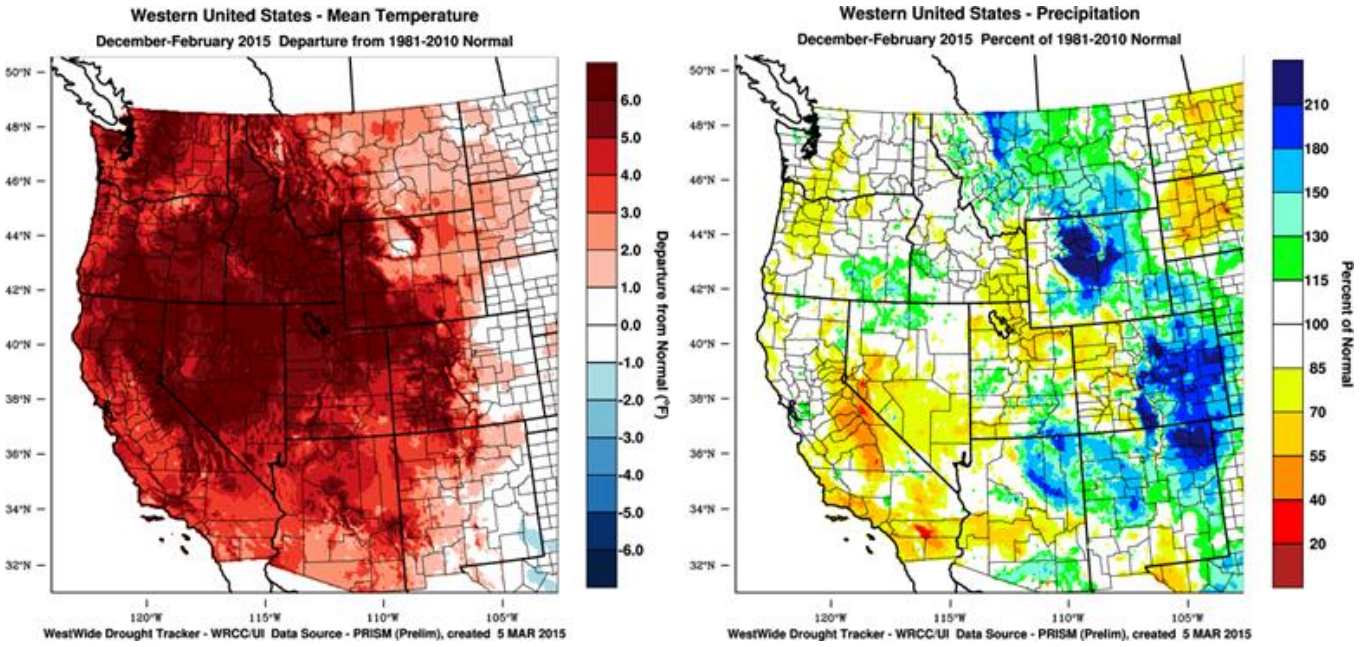

Figure 1 – Western US winter 2014-15 (Dec-Jan-Feb) temperature departure from normal (°F, left panel) and percent of normal precipitation (images from WestWide Drought Tracker, Western Region Climate Center, University of Idaho).

But as reported widely in the media, snowpack's have not developed this winter with current snow water equivalents running significantly below normal in the Cascades and Sierra Nevadas (see below or attached). Each day without snow accumulation from here on out drops the probability of any recovery closer to being highly unlikely.

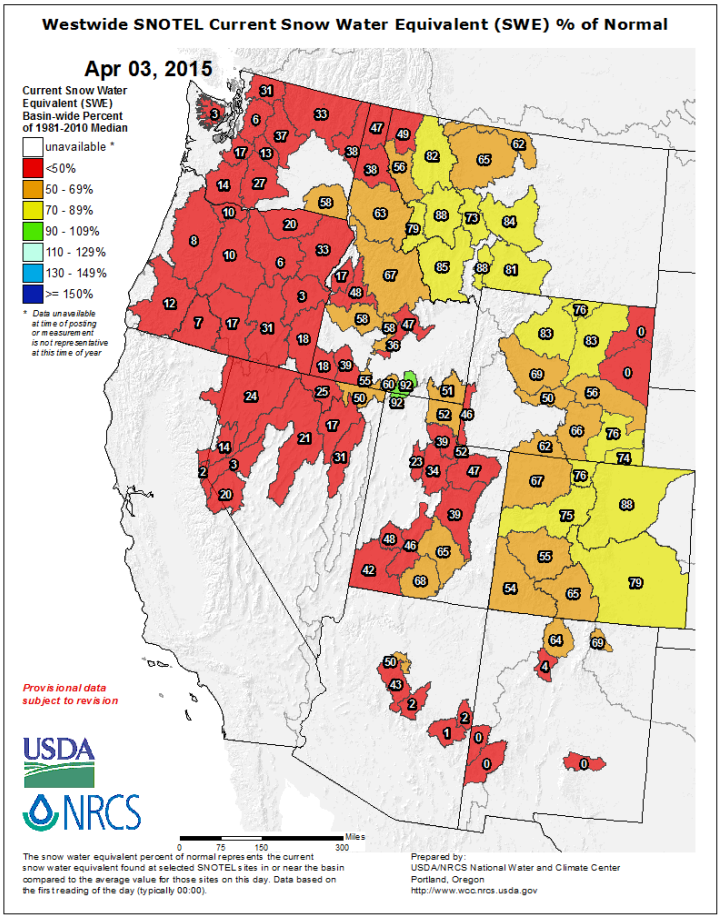

Figure 2 – Western US SNOTEL snow water equivalent percent of normal by basin (image from NRCS).

The short term forecast calls for continued dry and mild conditions with a few periods of potential moisture over the west coast during March. The longer term conditions are being driven by the usually suspects. Tropical sea surface temperature conditions show a neutral to mild El Niño, likely fading into summer. Due to the expected weak strength of the El Niño, widespread or significant west coast to global impacts are not anticipated. North Pacific sea surface temperatures remain much warmer than normal along the west coast of North America, producing warmer minimum temperatures and helping to hold the ridge in place over the west. Taken together the conditions tilt the odds in favor of a warm and dry late winter/early spring for the west. However, dry springs tend to have later individual cold events, where frost frequency goes up with ridges and the inversions they produce in the western valleys. The 90 day forecast is pointing to normal spring rains, but not likely enough to 'catch up' and even less additional snowpack. Dynamic seasonal models and historical analogs are all pointing to normal to higher than average heat accumulation during the summer (similar to 2013 and 2014).

Gregory V. Jones, PhD
Environmental Science and Policy
Southern Oregon University
1250 Siskiyou Blvd
Ashland, OR 97520
541-552-6758
gjones@sou.edu