

Oregon Water Conditions Report March 20, 2017



Mountain snowpack accumulation slows. Recent warm temperatures accompanied by rainfall at all but the highest elevations have slowed the increase of snowpack values in many regions. Regardless, values are still well above normal across the state through mid-March. The Willamette region has the highest basin snowpack in the state at 135 percent of normal, while the lowest is found in the Malheur and Owyhee basins at 92 and 93 percent respectively.

The NOAA Climate Prediction Center is forecasting an increased probability of lower than normal temperatures in the northeastern two thirds of the state and normal temperatures for this time of year for the remaining southwestern. The precipitation forecast is for a higher than normal chance of precipitation similar (to temperature) in area over the [next 8-14 days](#).

For an in-depth, basin-by-basin discussion of conditions, the NRCS Snow Survey's most recent water supply outlook report can be accessed at the following link:

https://www.wcc.nrcs.usda.gov/ftpref/states/or/watersupply/2017/WSOR_2017_Mar.pdf

The NRCS Snow Survey also publishes weekly condition reports on three areas that were affected by wildfire during 2015 in eastern Oregon. Because the inability of scorched soils to readily absorb water, these areas experience a higher risk for flash flooding. The reports can be accessed here: <https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/or/snow/?cid=nrcseprd854607>

Statewide precipitation continues to be well above normal. Precipitation records for the water year (October 1, 2016 to date) are ranked in the top 5 in several statewide locations. For this day in March, the Rogue and Umpqua basins show over percent of normal precipitation, the highest in the state. The lowest amounts are in the Harney basin at almost 120 percent.

The most recent three month outlook from NOAA's Climate Prediction Center indicates an equal chance of above or below normal temperatures between now and June. Precipitation probability is predicted to be above normal in the northeastern two thirds of the state and equal chances for the southwestern third.

Recent climate observations indicate that ENSO Neutral conditions have returned. These conditions will likely persist through spring. The Climate Prediction Center forecasts the onset of a weak [el nino](#) in mid-2017, strengthening to moderate intensity by the upcoming summer. This can bring generally warm, dry conditions to the Pacific Northwest.

Statewide average streamflows for early March were well over 200 percent of normal. Regionally, streamflow conditions east the Cascades are the highest at almost 300 percent of normal. West of the Cascades, flows are over 180 percent of normal for this time of year. The

effect of ice experienced during February’s cold weather has abated at most stream monitoring sites.

As of March 1, most streamflow forecasts have increased since February and are calling for well above average streamflows for the majority of Oregon this summer.

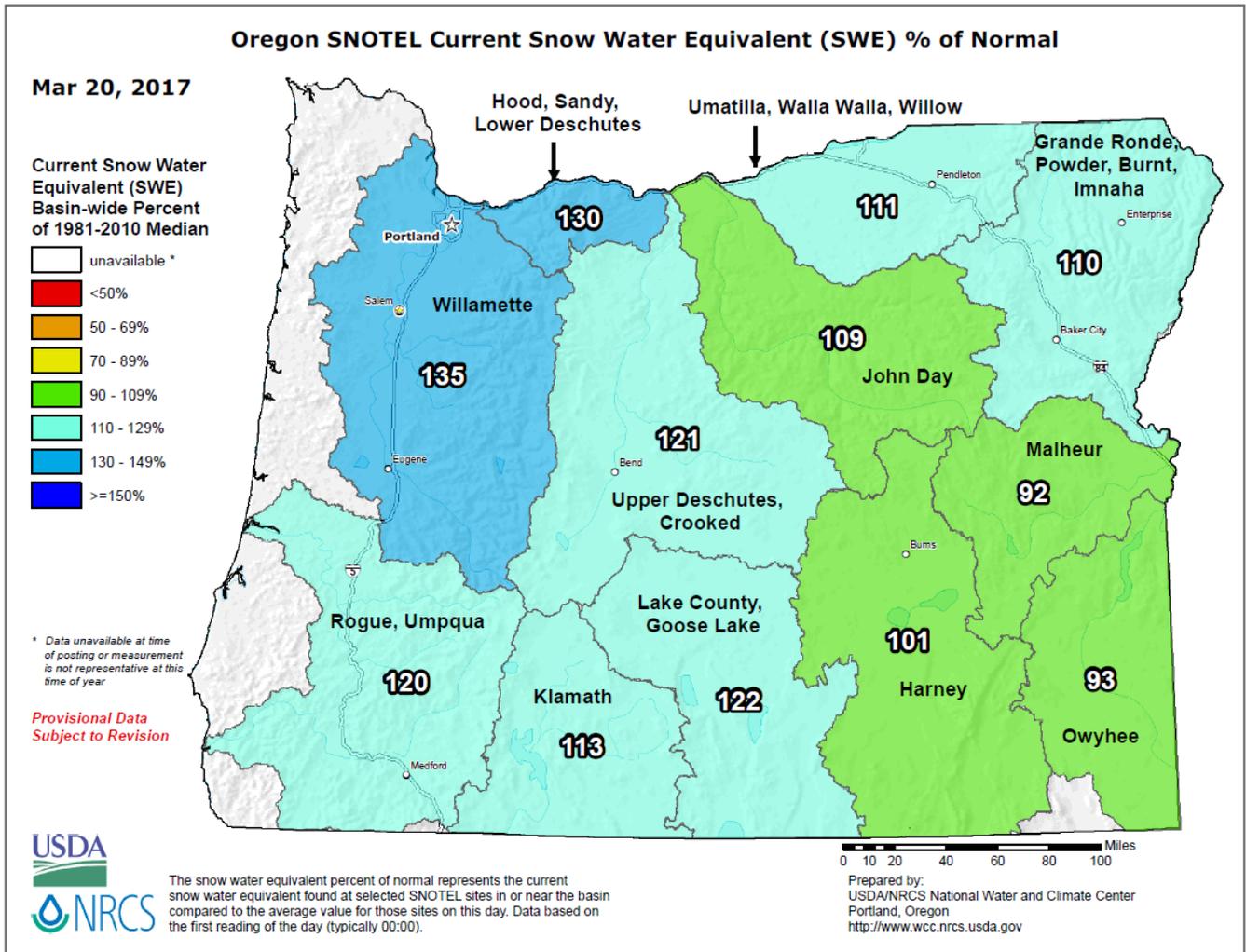
Recent precipitation events have continued to fill most of the states reservoirs at a rapid pace. [Willamette](#) and [Rogue](#) project reservoirs appear to be on track for a good summer season. Recent weather events continue to fill central and eastern Oregon Reservoirs at a remarkable pace. While there are still a couple of reservoirs in the eastern regions of Oregon that continue to be below normal for this time of year, most are well on the way to full capacity. Worthy of continued note is that [Owyhee Reservoir](#) levels have increased to almost 90 percent of capacity and is projected to fill. Refer to the graphic on page 12 for a statewide map of storage conditions for the end of February. For the most recent near real-time, site-specific reservoir conditions (teacup diagrams) visit the [USBR](#) or [USACE](#) websites.

There was noteworthy change in drought conditions in the past two weeks. The most recent US Drought Monitor report indicates that the entire state (100 percent) is no longer listed in any drought category. The last time this condition was observed was in October, 2011. Refer to the map on page 9 for details.

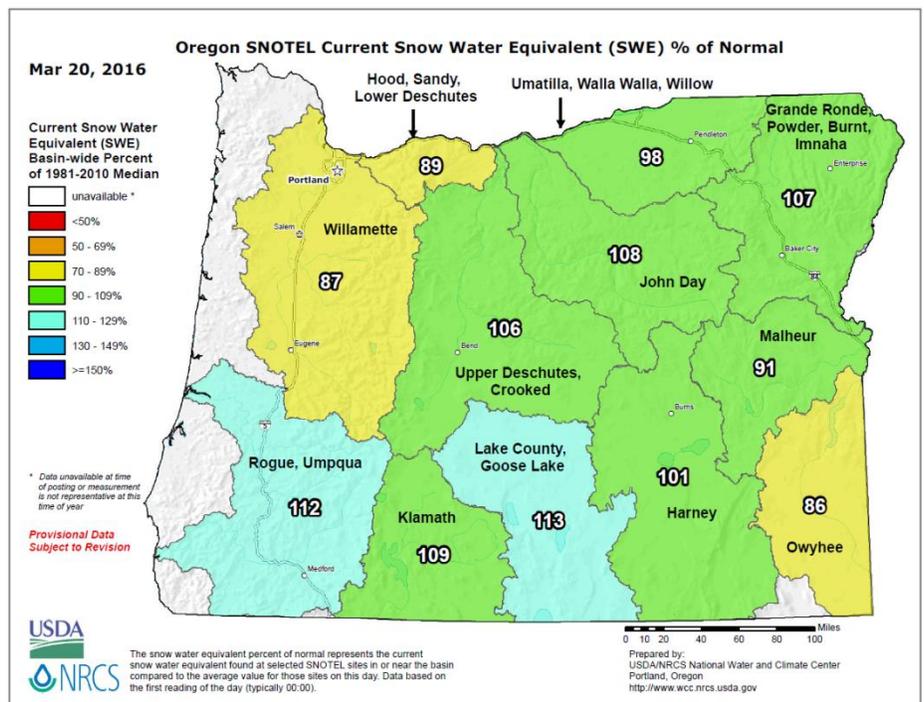
The Oregon Department of Forestry has recently issued the following statement concerning the 2017 fire season outlook. “Current fuels in the state are either wet or white. While there has been recent snowmelt with the warm rain, it doesn’t appear the existing snowpack will leave the high country early this spring. Spring temperatures are likely to be near average or below average and moisture is likely to be above average. Drought has left the state and combined with the other listed climate conditions, fire season is likely to be below average again.”

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Snowpack - Percent of Normal

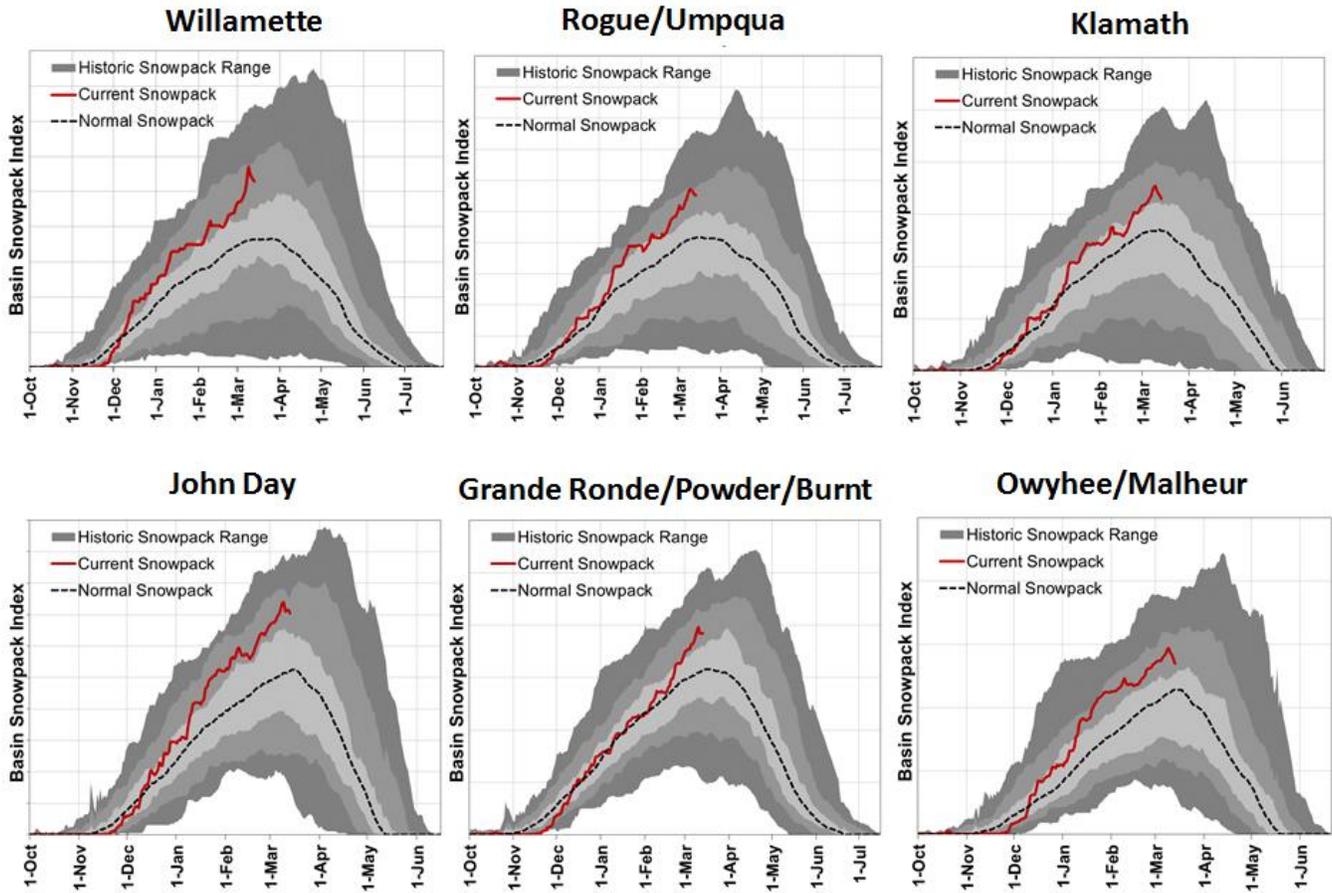


Compared to this time last year -



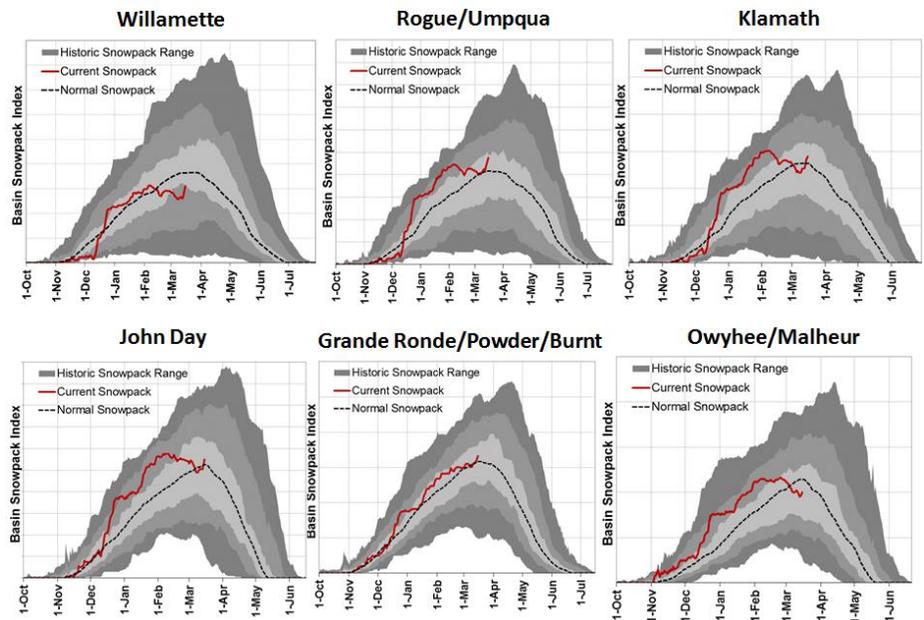
Snowpack – (Continued)

Water Year 2017

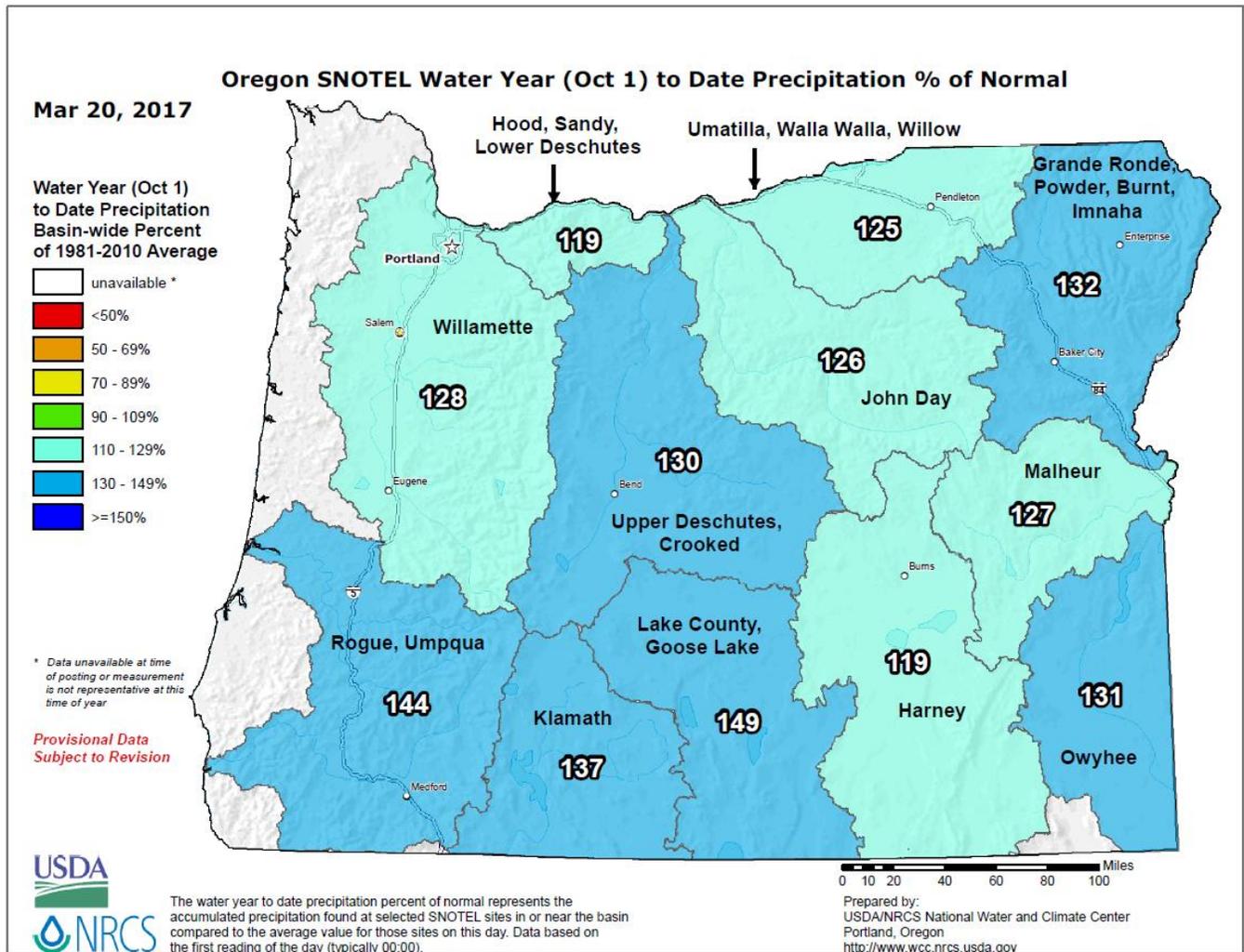


Compared to this time last year:

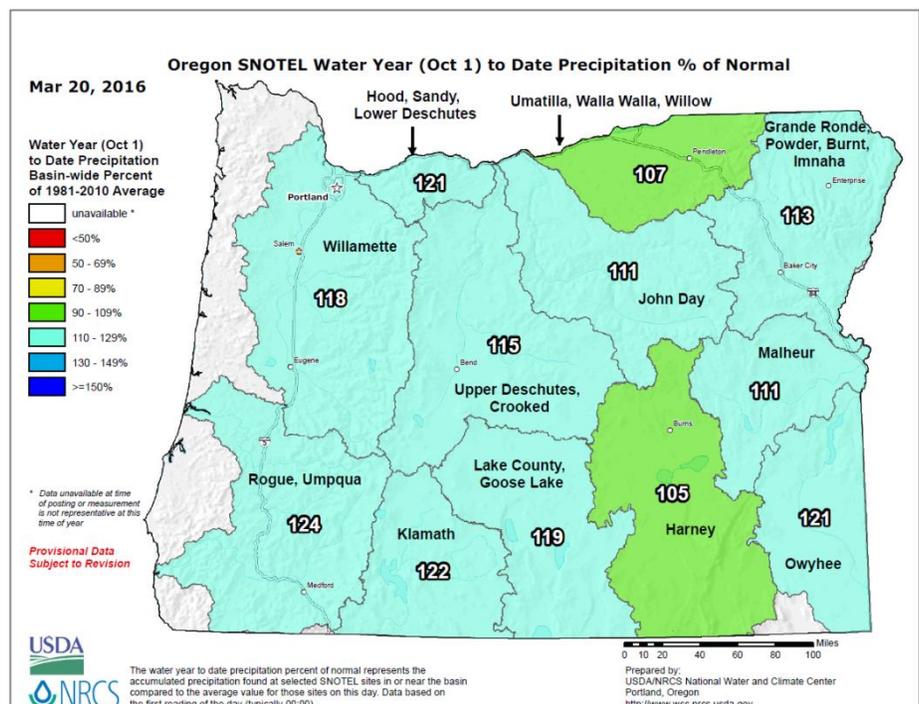
Water Year 2016



Precipitation (mountain) - Percent of Normal



Compared to this time last year -



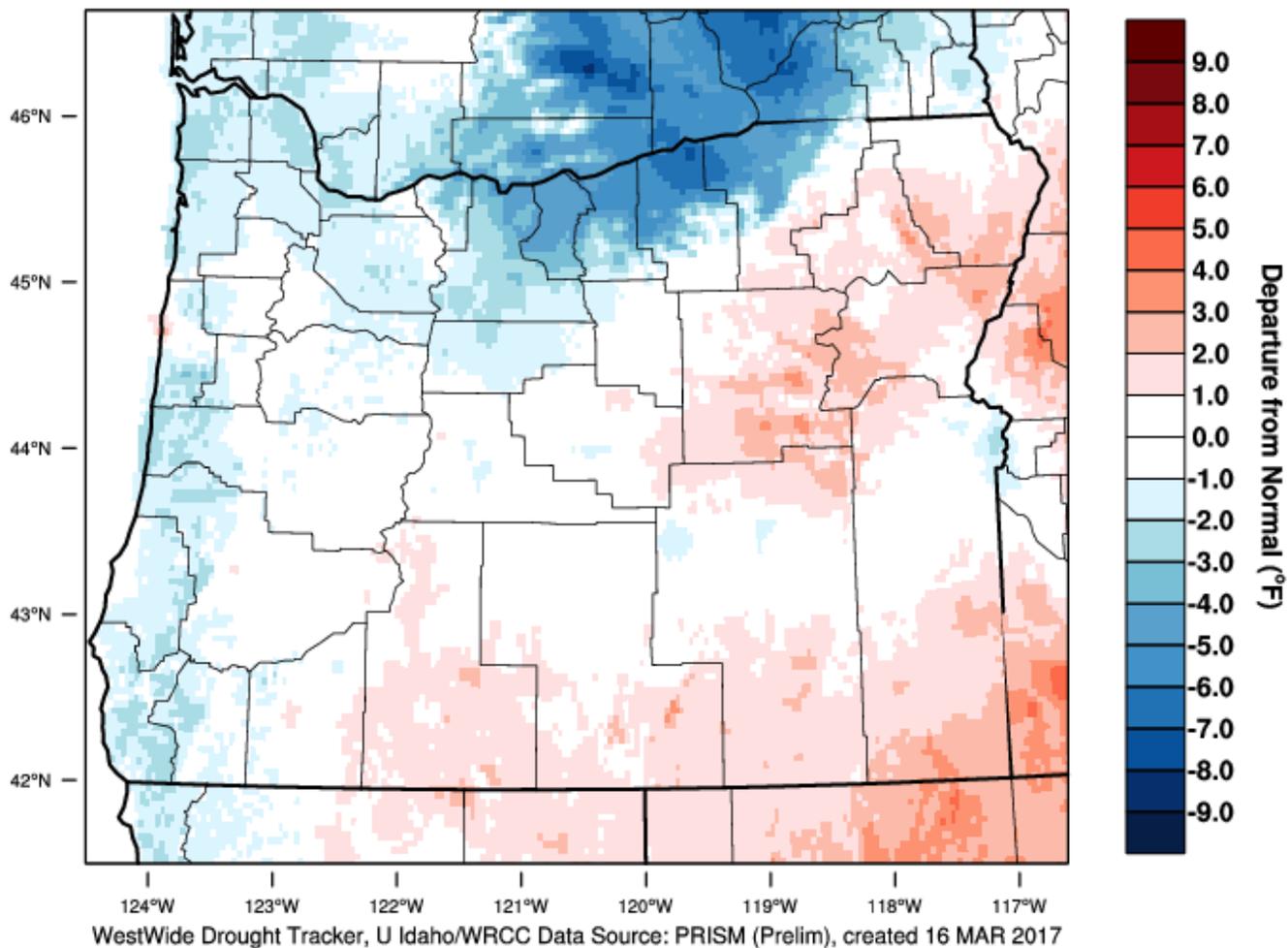
Temperature – (1 Month) Departure from Normal

Website: <http://www.wrcc.dri.edu/wwdt/index.php?folder=mdn1>

PRISM > Temperature Anomaly 1 Month > Oregon

Oregon - Mean Temperature

February 2017 Departure from 1981-2010 Normal



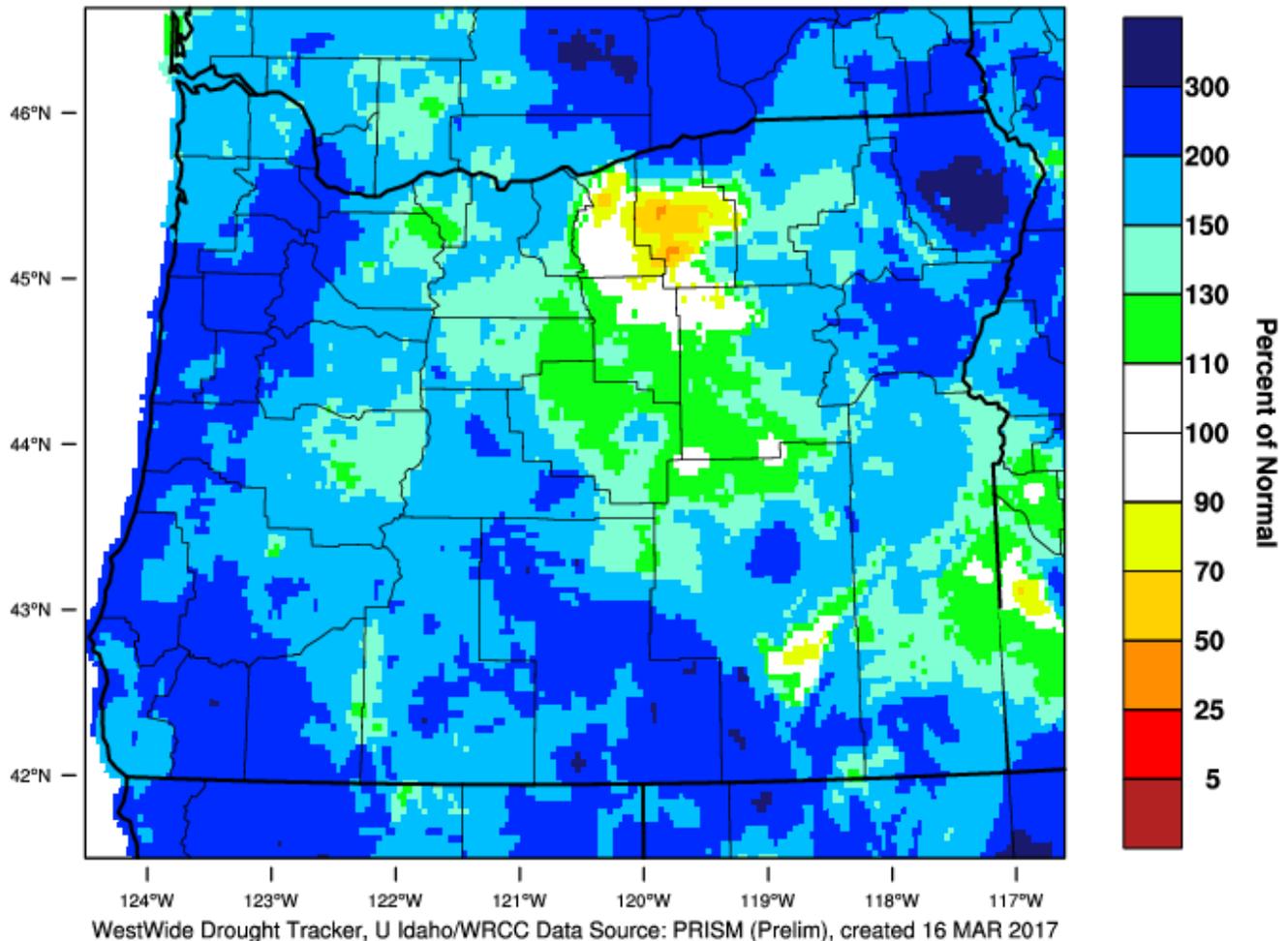
Precipitation – (1 Month) Percent of Normal

Website: <http://www.wrcc.dri.edu/wwdt/index.php?folder=pon1>

PRISM > Precipitation Anomaly 1 Month > Oregon

Oregon - Precipitation

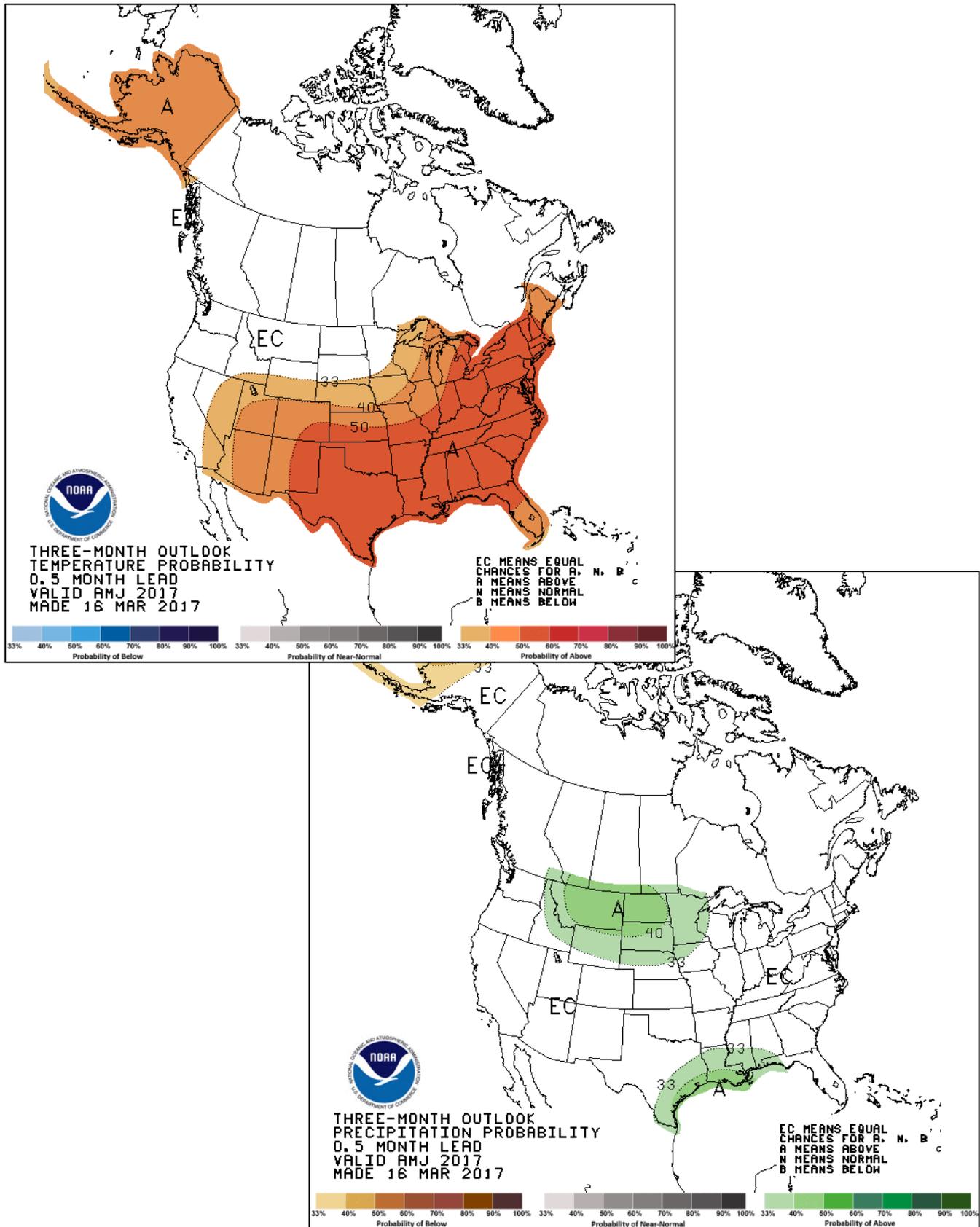
February 2017 Percent of 1981-2010 Normal



Three Month Temperature and Precipitation Outlook

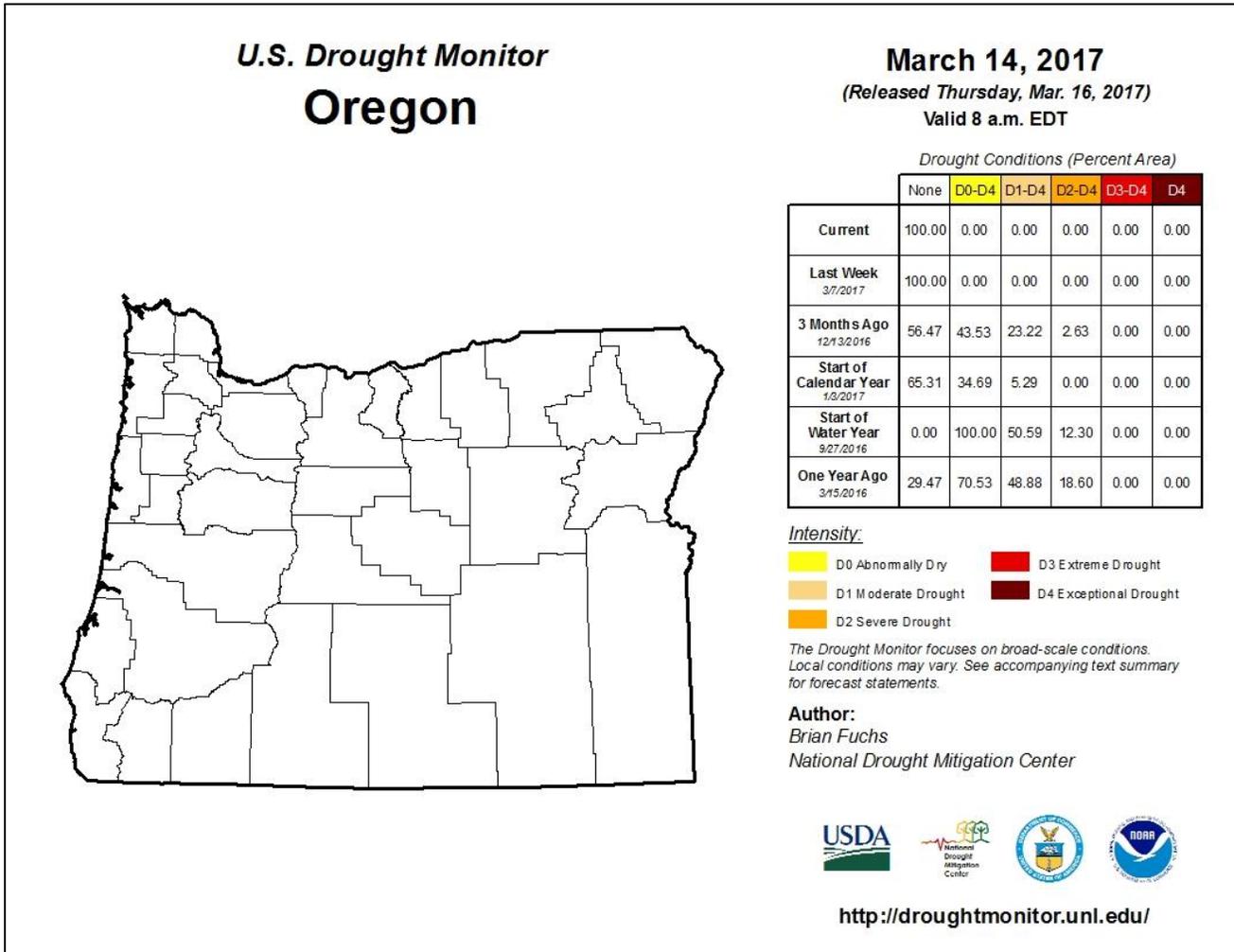
April-May-June

Website: http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1

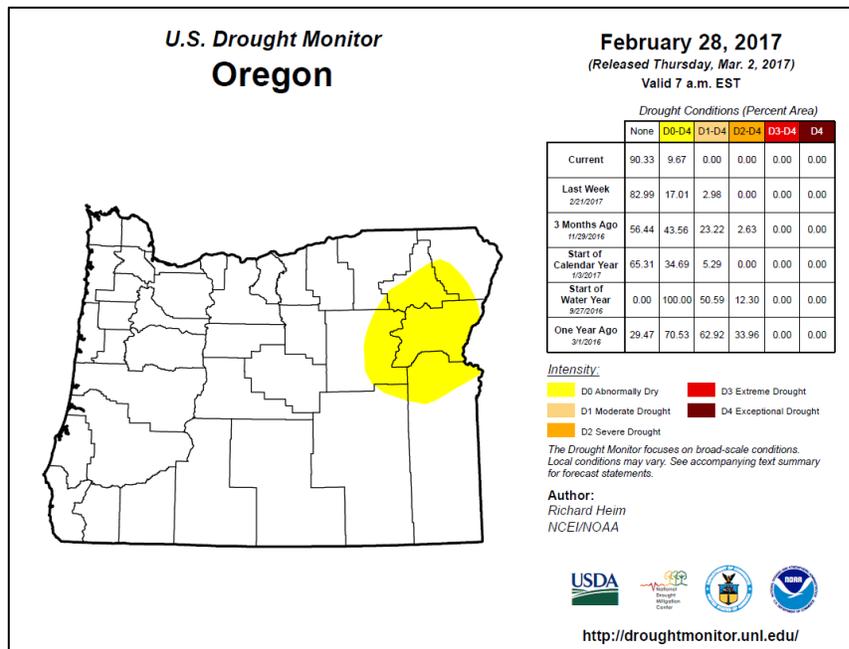


U.S. Drought Monitor for Oregon

Website: <http://droughtmonitor.unl.edu/Home/StateDroughtMonitor.aspx?OR>



Note: Change from February 28, 2017 report

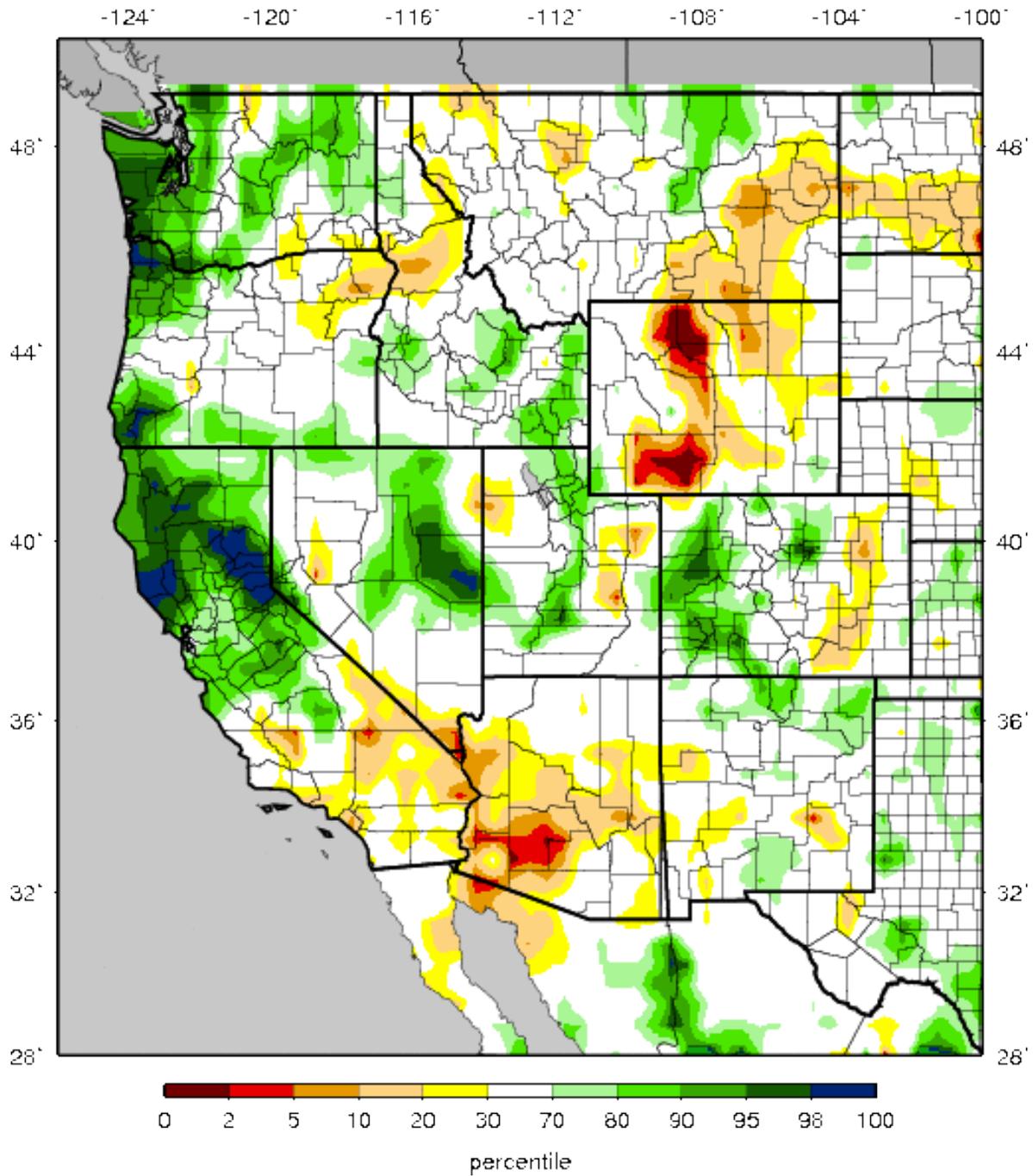


Soil Moisture - Percentile

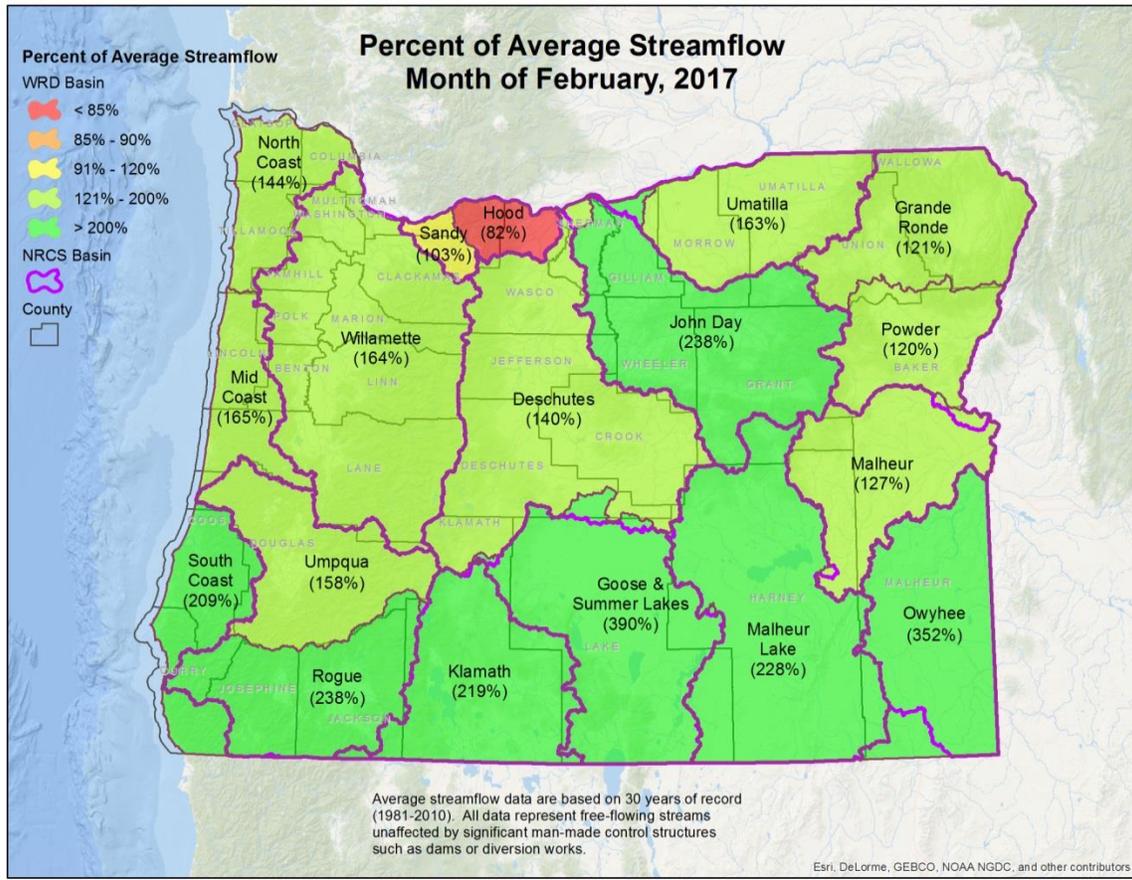
Website:

http://www.hydro.washington.edu/forecast/monitor/curr/conus.mexico/west.vic.sm_qnt.gif

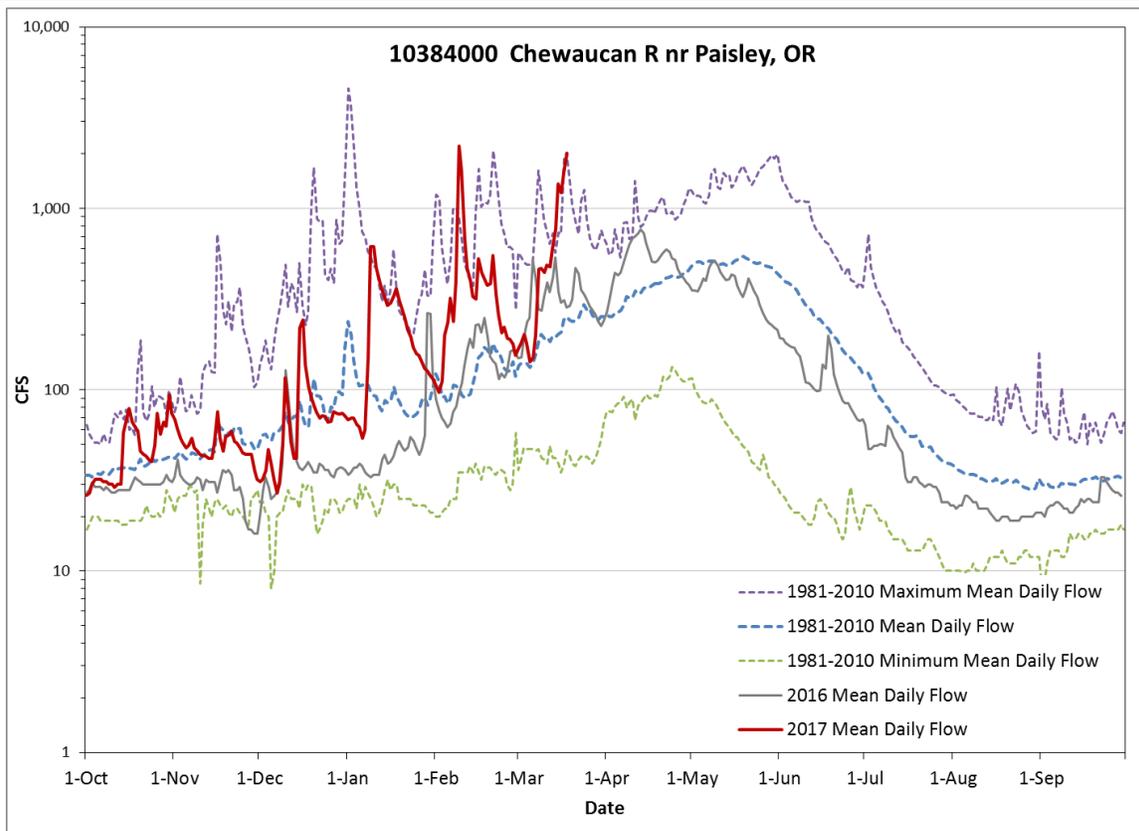
VIC Soil Moisture Percentiles (wrt' 1916-2004)
Western United States - 20170318



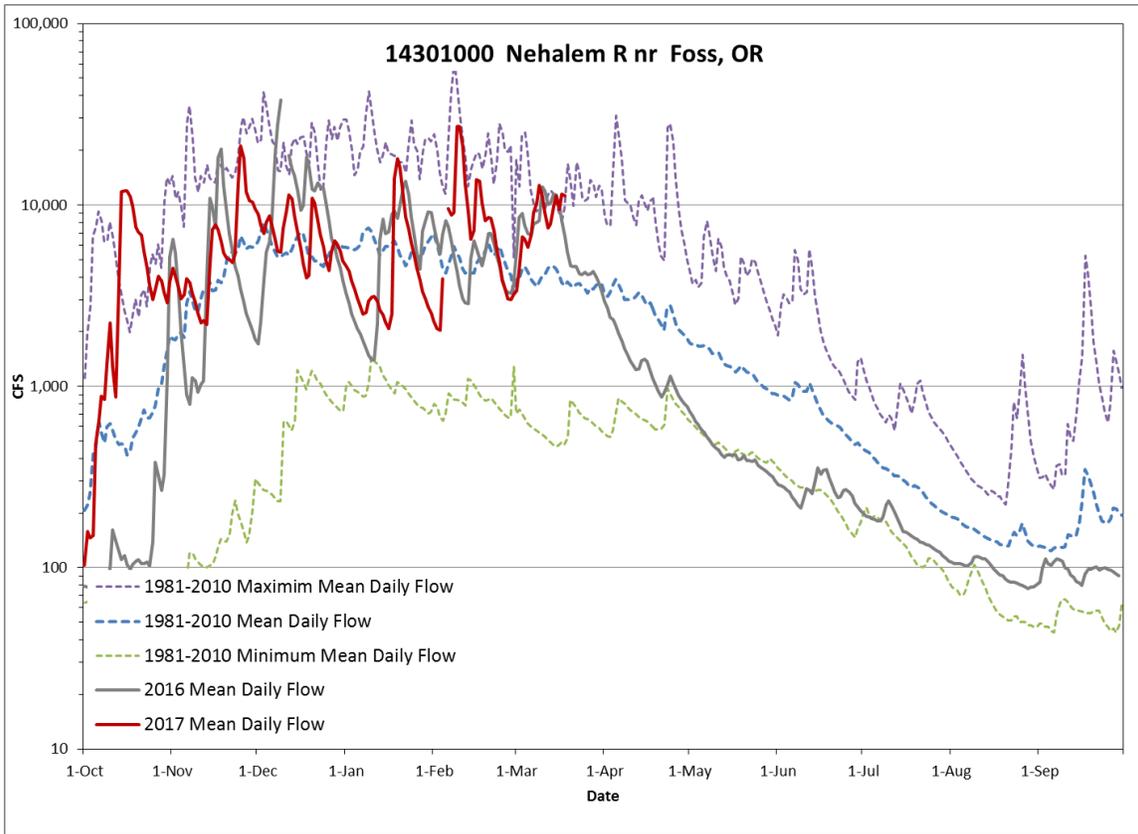
February Regional Streamflow Conditions



Streamflow Example – Eastern Oregon (Goose & Summer Lakes)



Streamflow Example – Western Oregon (North Coast)



February Regional Reservoir Storage Conditions

