

Oregon Water Conditions Report March 6, 2017



Mountain snowpack continues to accumulate. Values are well above normal across the state through early March. Storm systems during February impacted much of the Pacific Northwest, bringing record-high February precipitation and more than double the normal amount of snow accumulation at numerous measurement sites.

Statewide snowpack is at 134 percent of normal. This is higher than the 87 percent seen on this date in 2016. The last year that Oregon had snowpack values this high was 2008, when the statewide snow water equivalent was 158 percent of normal. As of March 1st, the Goose and Summer Lake region has the highest basin snowpack at 142 percent of normal, while the lowest is found in the Grande Ronde, Burnt, Powder and Imnaha basins at 118 percent.

The NOAA Climate Prediction Center is forecasting the probability of lower than normal temperatures and higher than normal precipitation over the [next 8-14 days](#).

By this Wednesday, March 8, 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 burned soils can't absorb as much 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 February precipitation has been well above normal. February SNOTEL mountain precipitation was approximately 150 percent. Precipitation records for the month of February were broken in several locations. The Rogue and Umpqua basins experienced 204 percent of normal precipitation, the highest in the state. The lowest amounts fell in the Harney basin at 121 percent. Since the beginning of the water year (October, 2016) statewide precipitation is at 126 percent, compared to 113 percent on this date in 2016.

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 May. 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 February were over 180 percent of normal. Regionally, streamflow conditions east the Cascades were the highest at almost 200 percent of normal. West of the Cascades, flows were over 160 percent of normal for this time of year. It should be noted that during February, numerous streams in eastern Oregon experienced the effect of ice. Because of this, it is often difficult to represent accurate flows in real time.

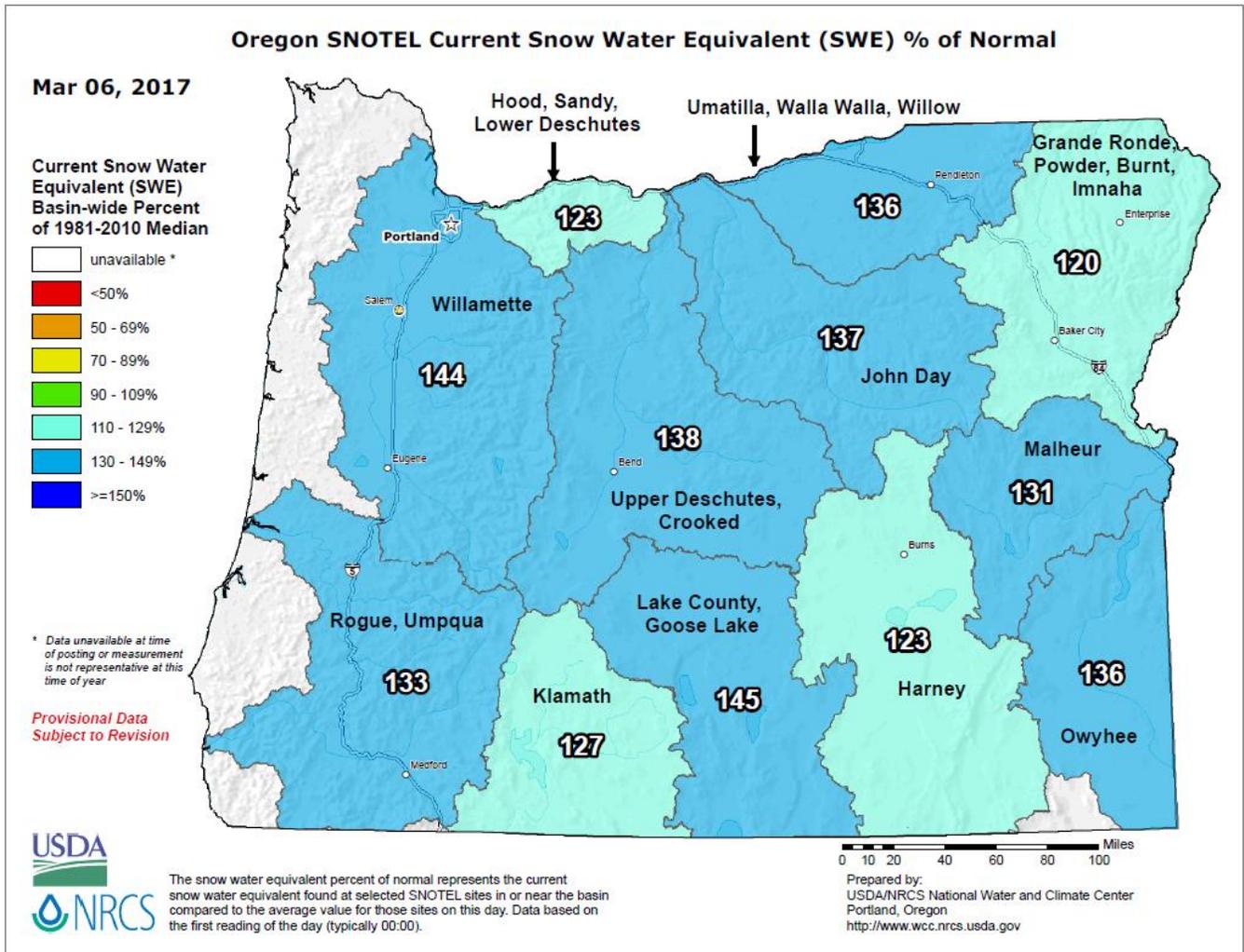
As of March 1, most streamflow forecasts have increased since February and are calling for well above average streamflows for the majority of Oregon this summer.

The additional snow and precipitation accumulation has increased the probability that reservoir storage will be much improved from the last several years. Willamette and Rogue project reservoirs appear to be on track for a good summer season. While February weather brought a marked increase to many reservoirs, there are still some reservoirs in the eastern regions of Oregon that continue to be below normal for this time of year. In central and southwest Oregon, reservoir levels are near normal for this time of year. Worthy of note is that Owyhee Reservoir levels have increased to 73 percent of capacity. (Well over 100 percent of average.) Refer to the graphic on page 11 for a statewide map of storage conditions for the end of February. For the most recent, site-specific reservoir conditions (teacup diagrams) visit the [USBR](#) or [USACE](#) websites.

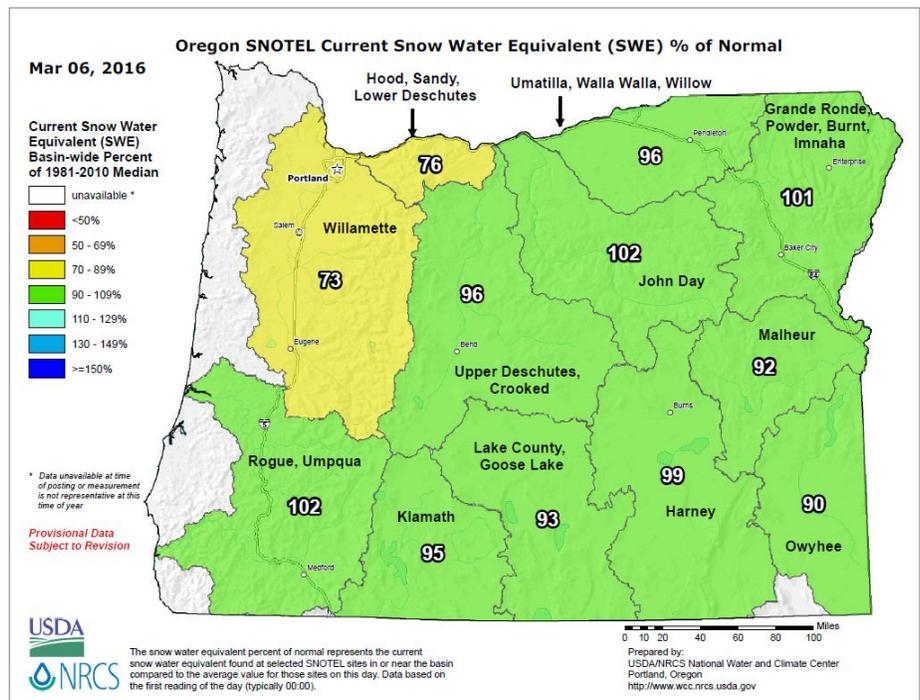
There was noteworthy change in drought conditions in the past two weeks. The most recent US Drought Monitor report indicates that over 90 percent of the state is no longer listed in any drought category. Now less than 10 percent of the state is listed in the D0 (abnormally dry) category. This is primarily centered on and around the Baker County area. Refer to the map on page 8 for details.

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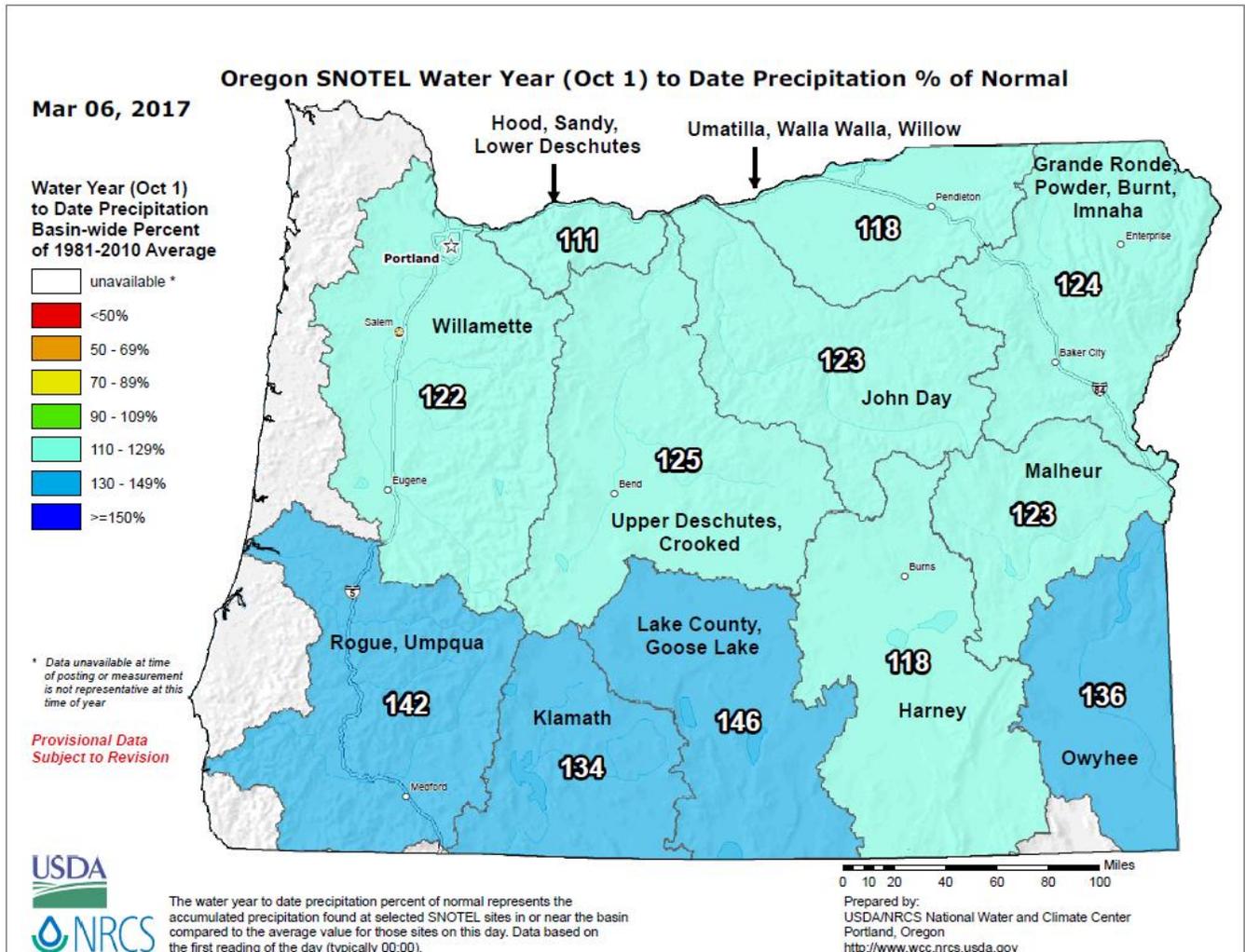
Snowpack - Percent of Normal



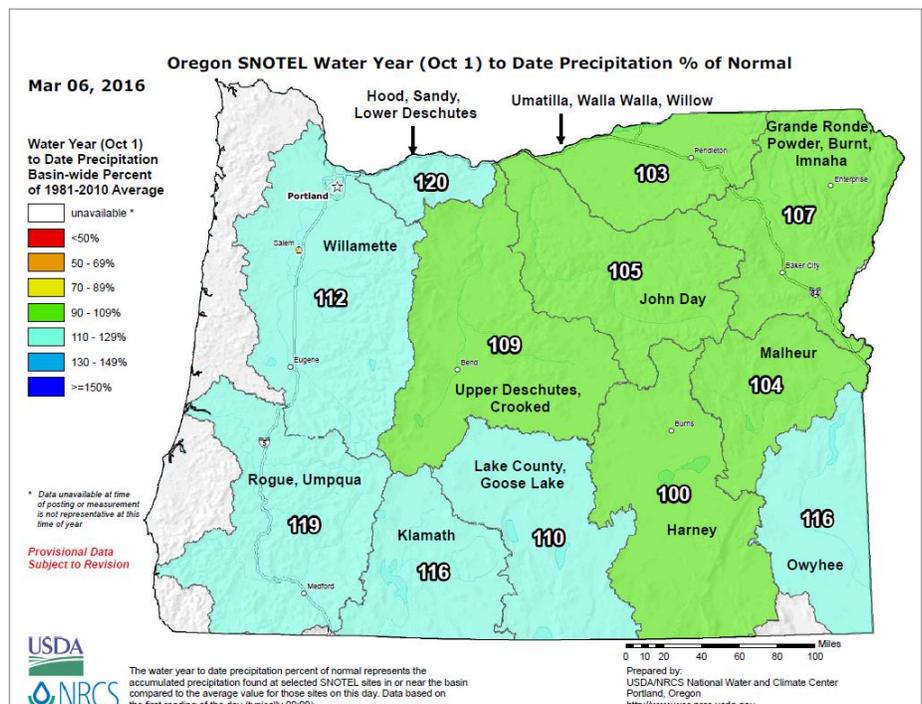
Compared to this time last year -



Precipitation (mountain) - Percent of Normal



Compared to this time last year -



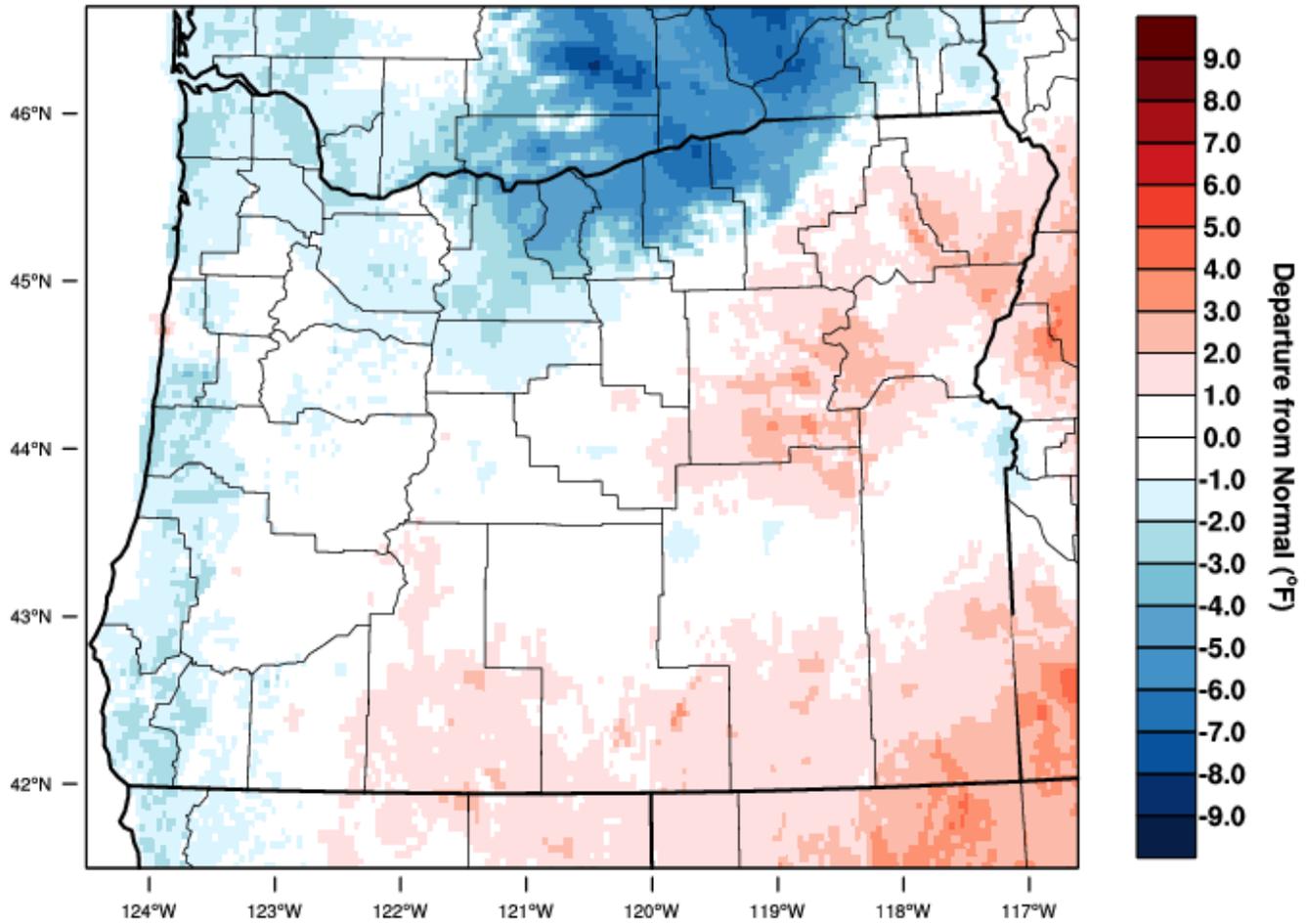
Temperature – (1 Month) Departure from Normal

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

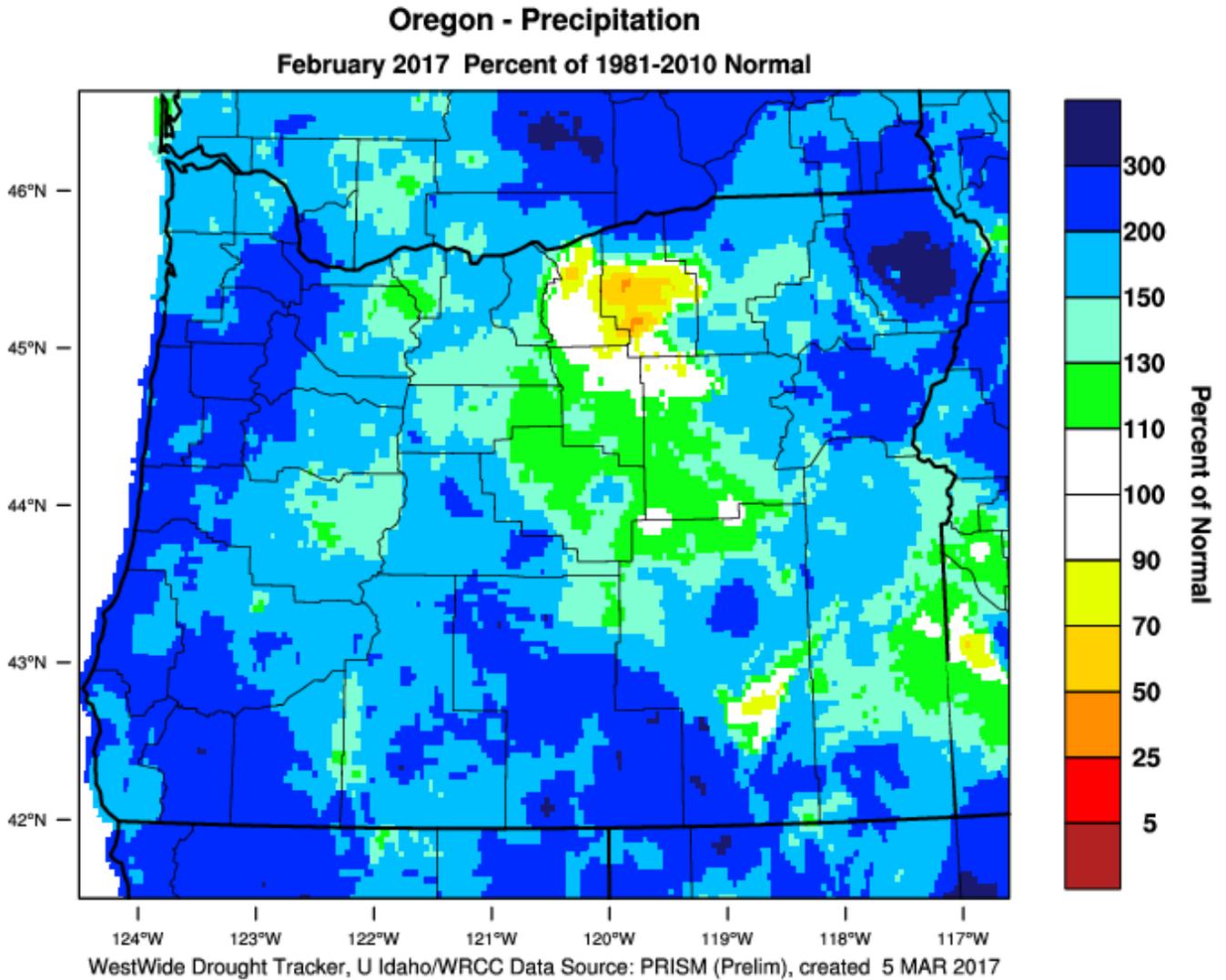


WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 5 MAR 2017

Precipitation – (1 Month) Percent of Normal

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

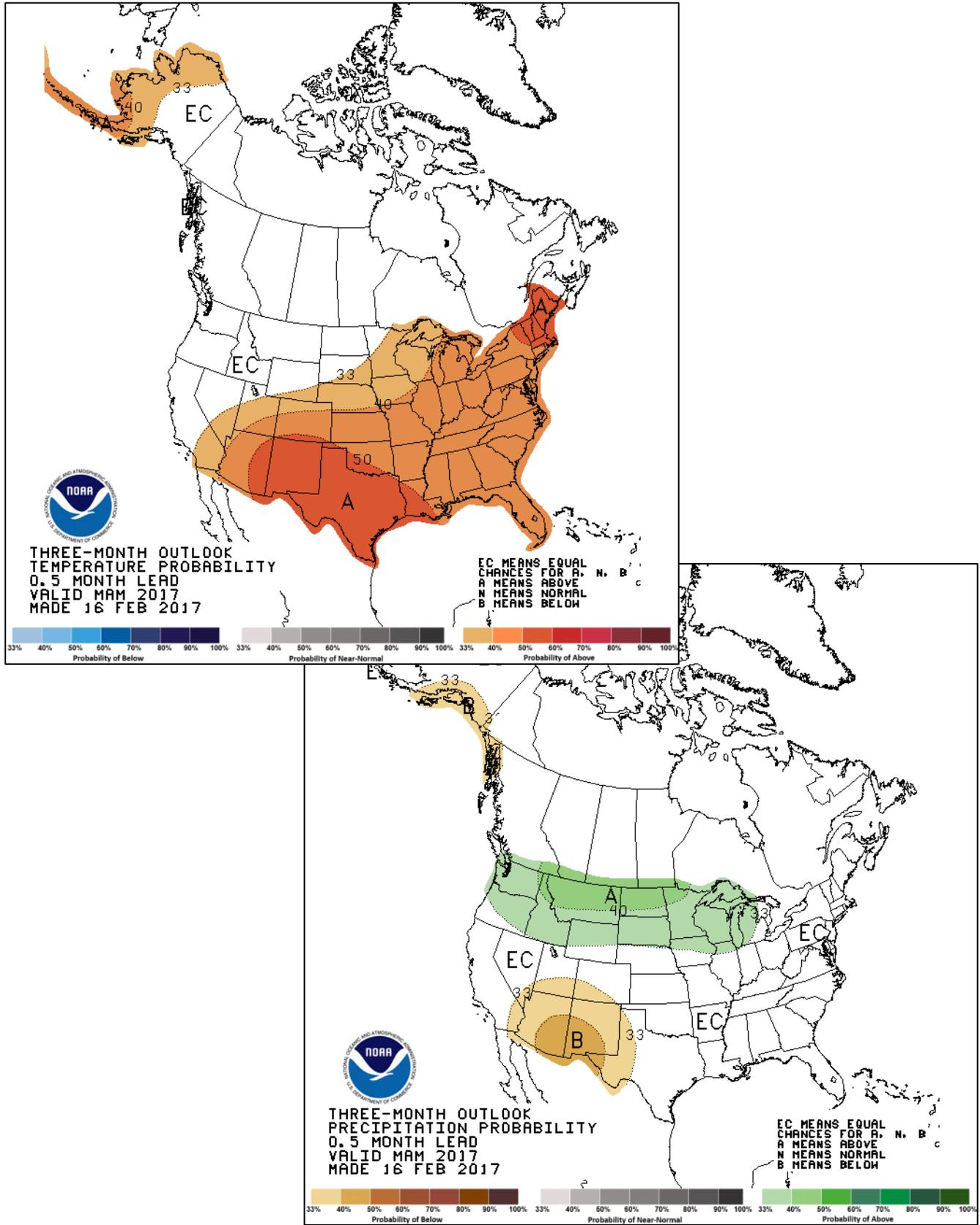
PRISM > Precipitation Anomaly 1 Month > Oregon



Three Month Temperature and Precipitation Outlook

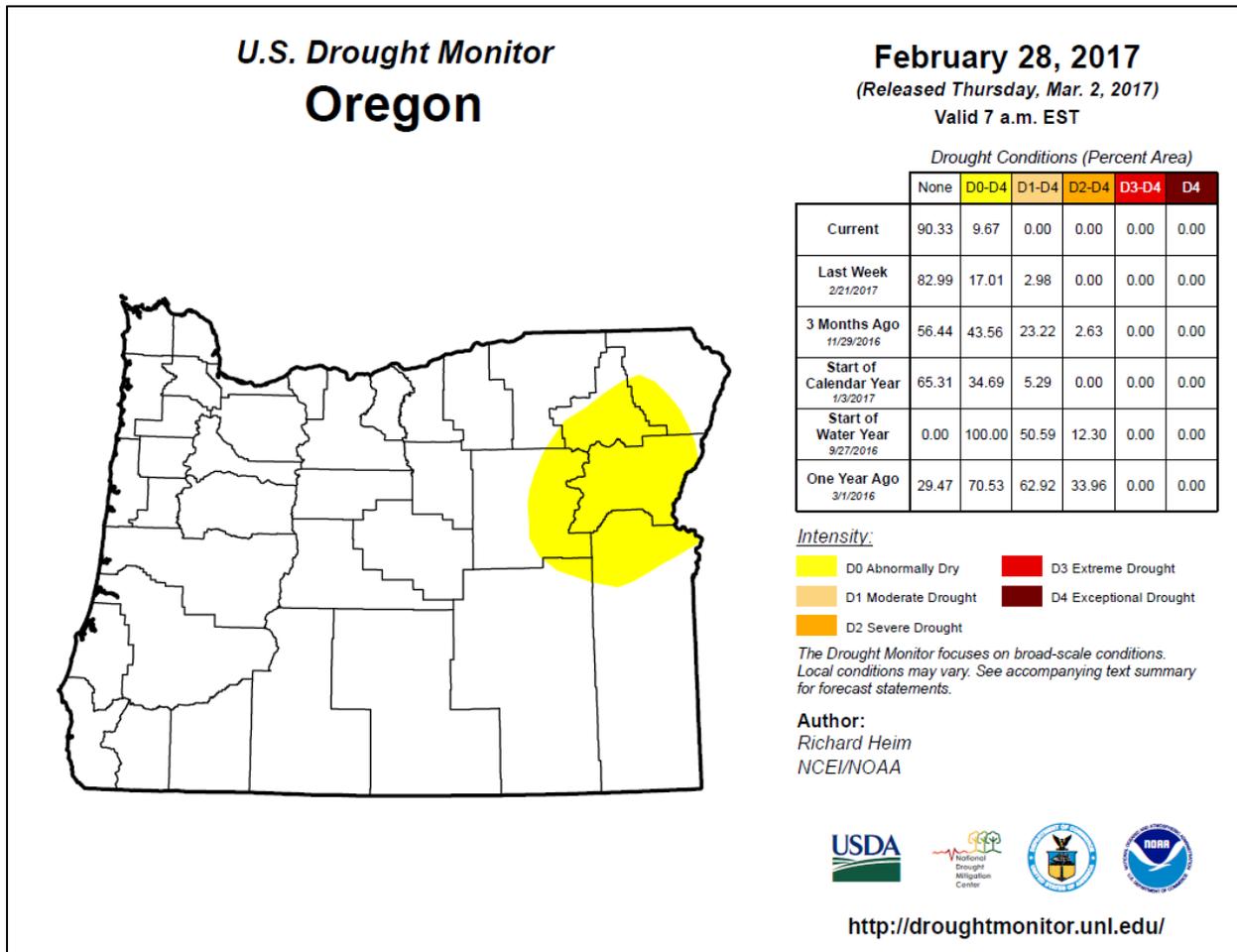
March-April-May

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

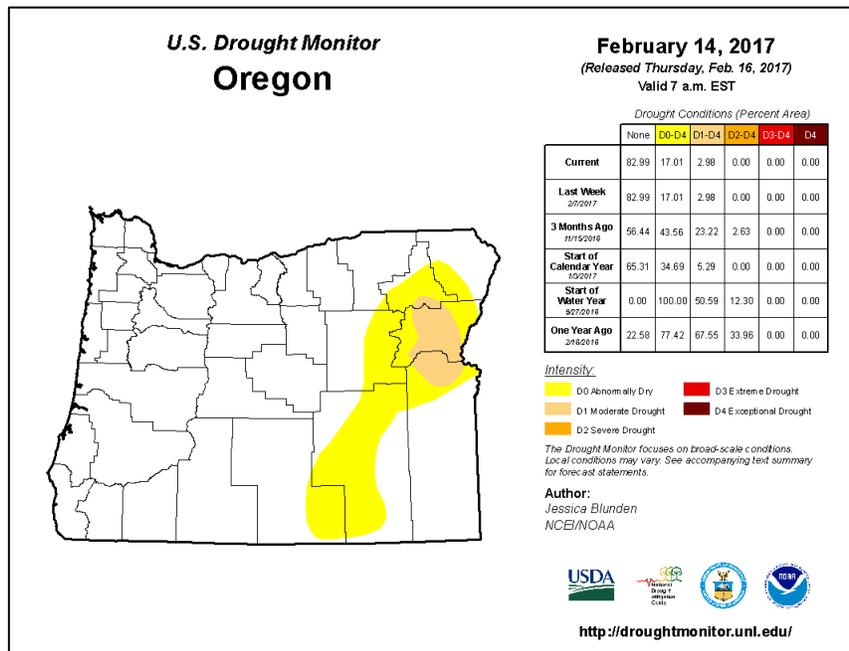


U.S. Drought Monitor for Oregon

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



Note: Change from February 14, 2017 report

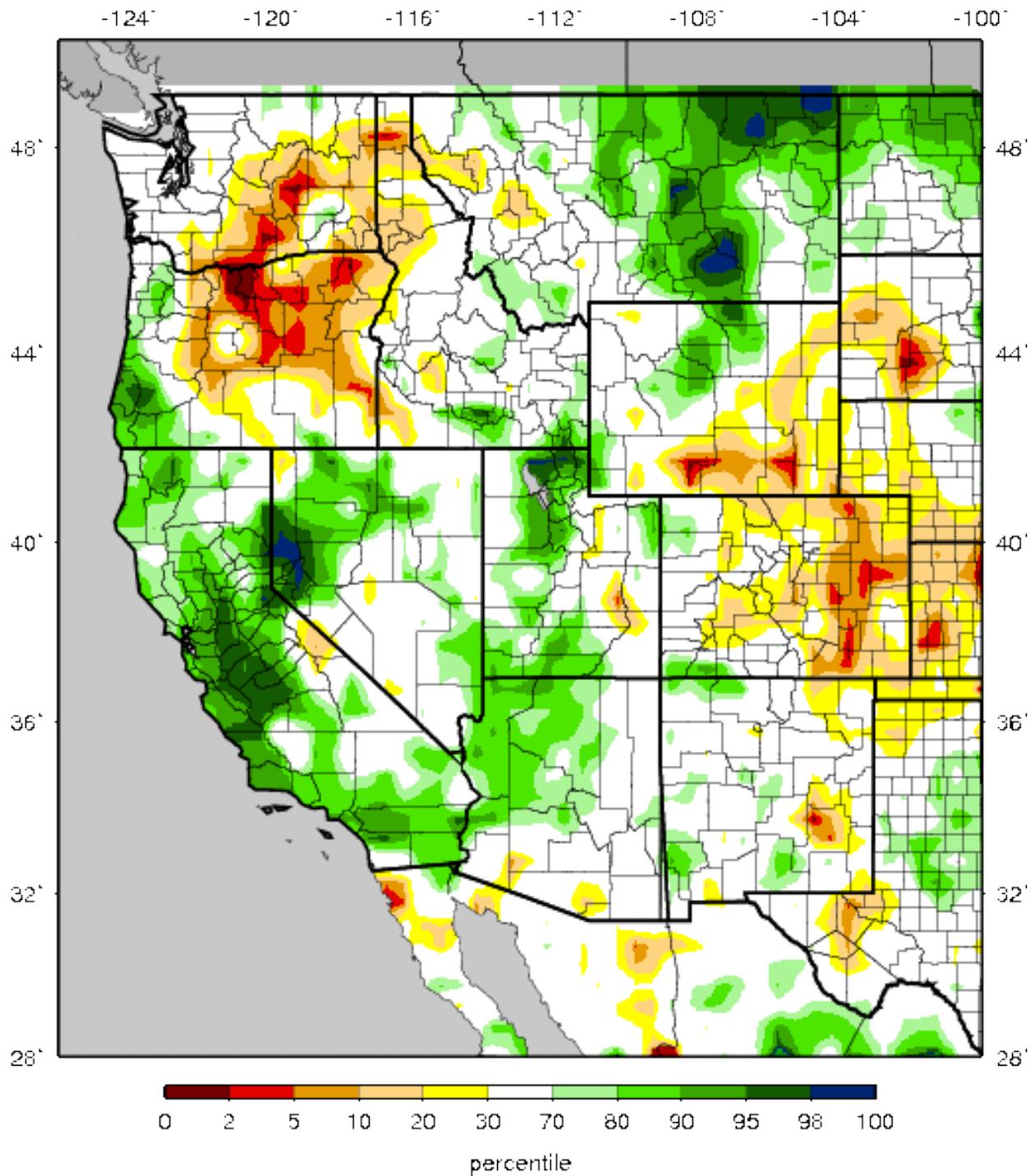


Soil Moisture - Percentile

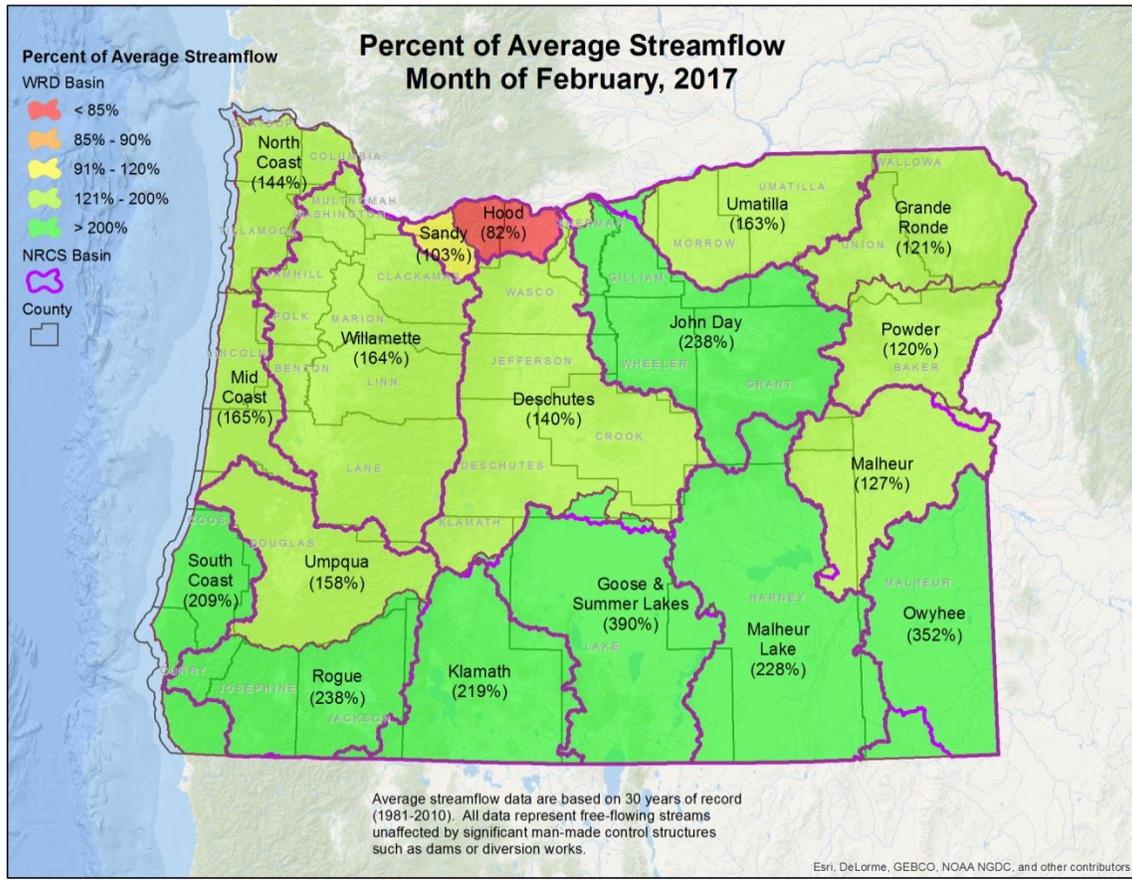
Website:

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

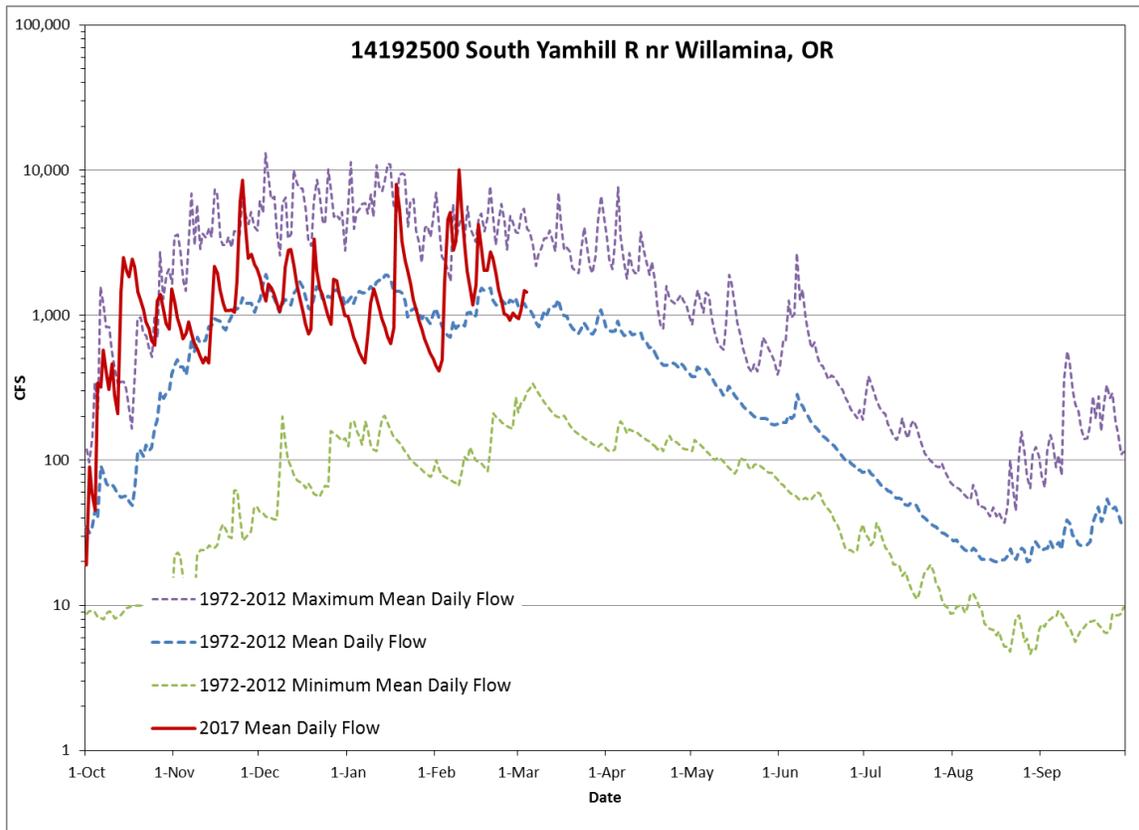
VIC Soil Moisture Percentiles (wrt' 1916-2004)
Western United States - 20170305



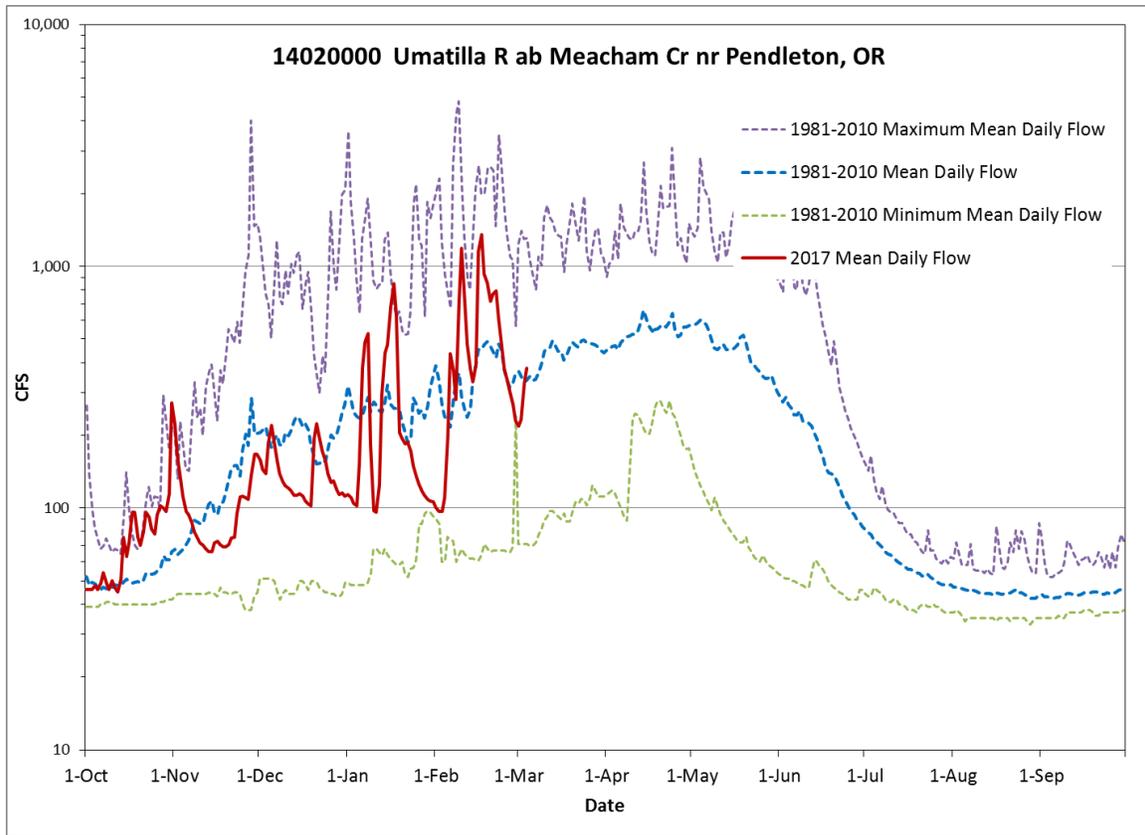
February Regional Streamflow Conditions



Streamflow Example - Western Oregon (Willamette)



Streamflow Example – North Central Oregon (Umatilla)



February Regional Reservoir Storage Conditions

