

Oregon Water Conditions Report February 21, 2017



February weather events continue to bring steady increase in mountain snowpack. State-wide average is currently 125 percent of normal. Snow measuring sites in the Grande Ronde, Powder, Burnt, and Imnaha basins, currently at 111 percent of normal, are the lowest in the state. This is an improvement from 98 percent of normal observed on February 6. The Lake County and Goose Lake basins have the highest snowpack in the state at 140 percent of normal.

With the NOAA Climate Prediction Center forecasting cooler temperatures over the [next 8-14 days](#), the favorable snowpack conditions will most likely be maintained with minimal snowmelt or associated runoff.

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_Feb.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>

So far, February precipitation has been well above normal. Statewide water year precipitation continues to increase compared to average and is currently at 124 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 April. Precipitation probability is predicted to be above normal in the northeastern corner of the state and equal chances for the rest of the state during the same period.

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 January were 100 percent of normal. Regionally, streamflow conditions east and west of the Cascades were both equal at 100 percent of normal for this time of year. Recent conditions (as of February 19) reflect the widespread effect of recent storm events with statewide stream flows over 165 percent of normal. Streams flows east of the Cascades appear to be in excess of 190 percent. It should be noted that because many streams in eastern Oregon are experiencing the effect of ice, it is often difficult to represent accurate flows in

real time. Recent rain events west of the Cascades have increased flows to over 150 percent (and rising).

The additional snow accumulation should increase 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. Two Willamette reservoirs are undergoing maintenance and are being held to lower than normal elevations. Fall Creek is being held low until the end of Feb for bulkhead placement prior to repairing a regulating outlet. Refill will resume March 1 and it is not likely that the delay will affect the ability to refill to full pool. Dorena is being held low to inspect one of the regulating outlets. The current plan is to only delay refill through February. Refill will resume March 1 and it is also not likely to affect the ability to refill to full pool.

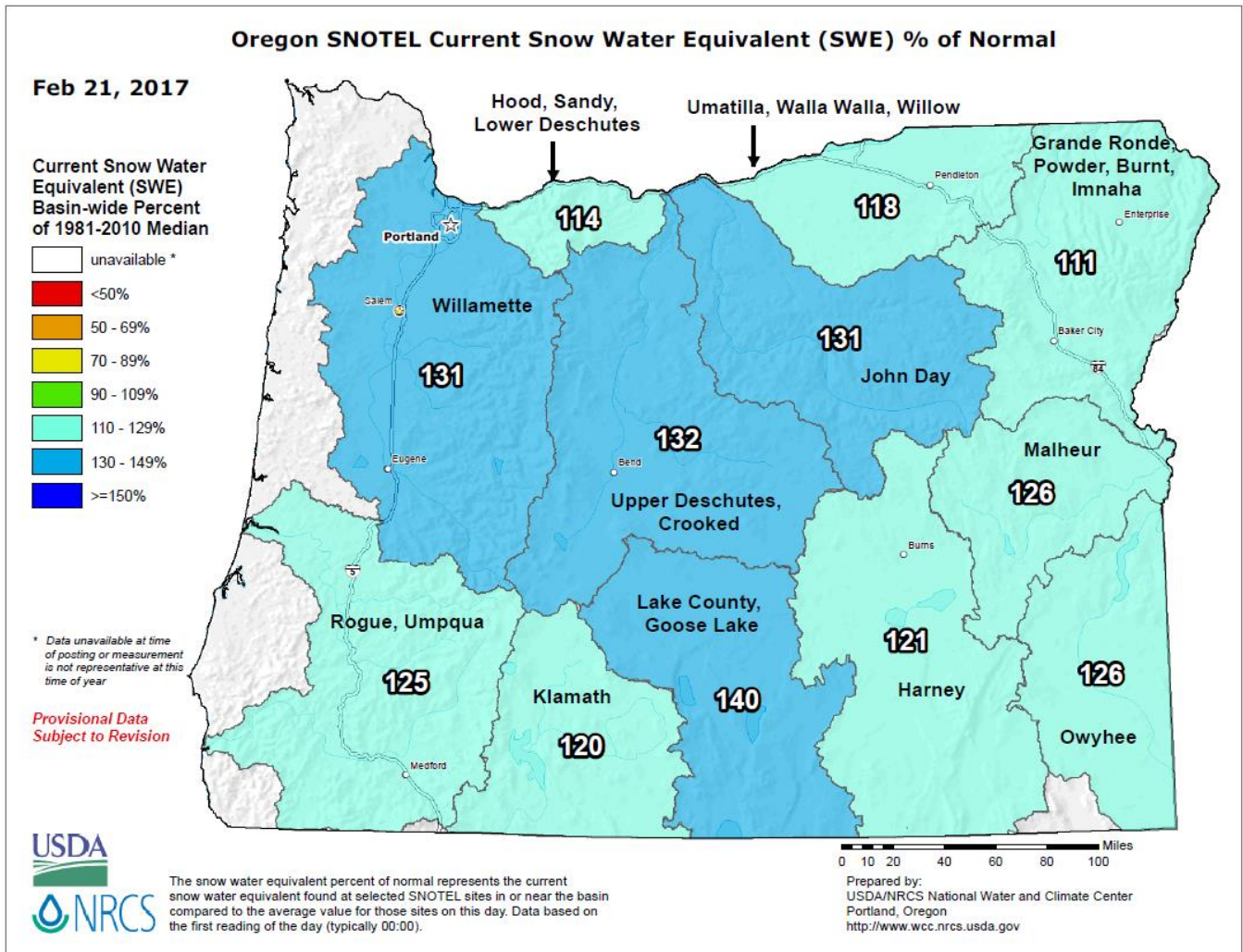
While there has been gradual increase in storage levels, reservoirs used for water supply in the eastern regions of Oregon continue to be below normal for this time of year. In central and southwest Oregon, reservoir levels are encouraging. However, worthy of note is Owyhee Reservoir currently at 61 percent of capacity.

Refer to the graphic on page 12 for a statewide map of storage conditions for the end of January. For the most recent, site-specific reservoir conditions (teacup diagrams) visit the [USBR](#) or [USACE](#) websites.

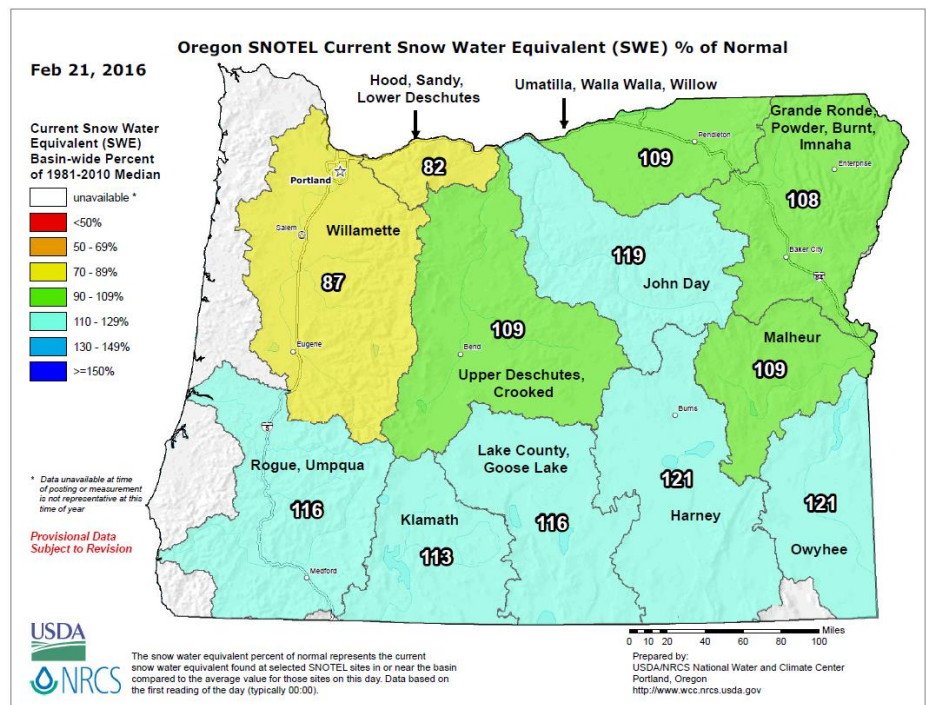
There was no change in drought conditions in the past two weeks. The US Drought Monitor continues to indicate that 83 percent of the state is no longer listed in any drought category. 17 percent of the state is listed in the D0 (abnormally dry) category, and 3 percent is listed as D1 (moderate drought) category.

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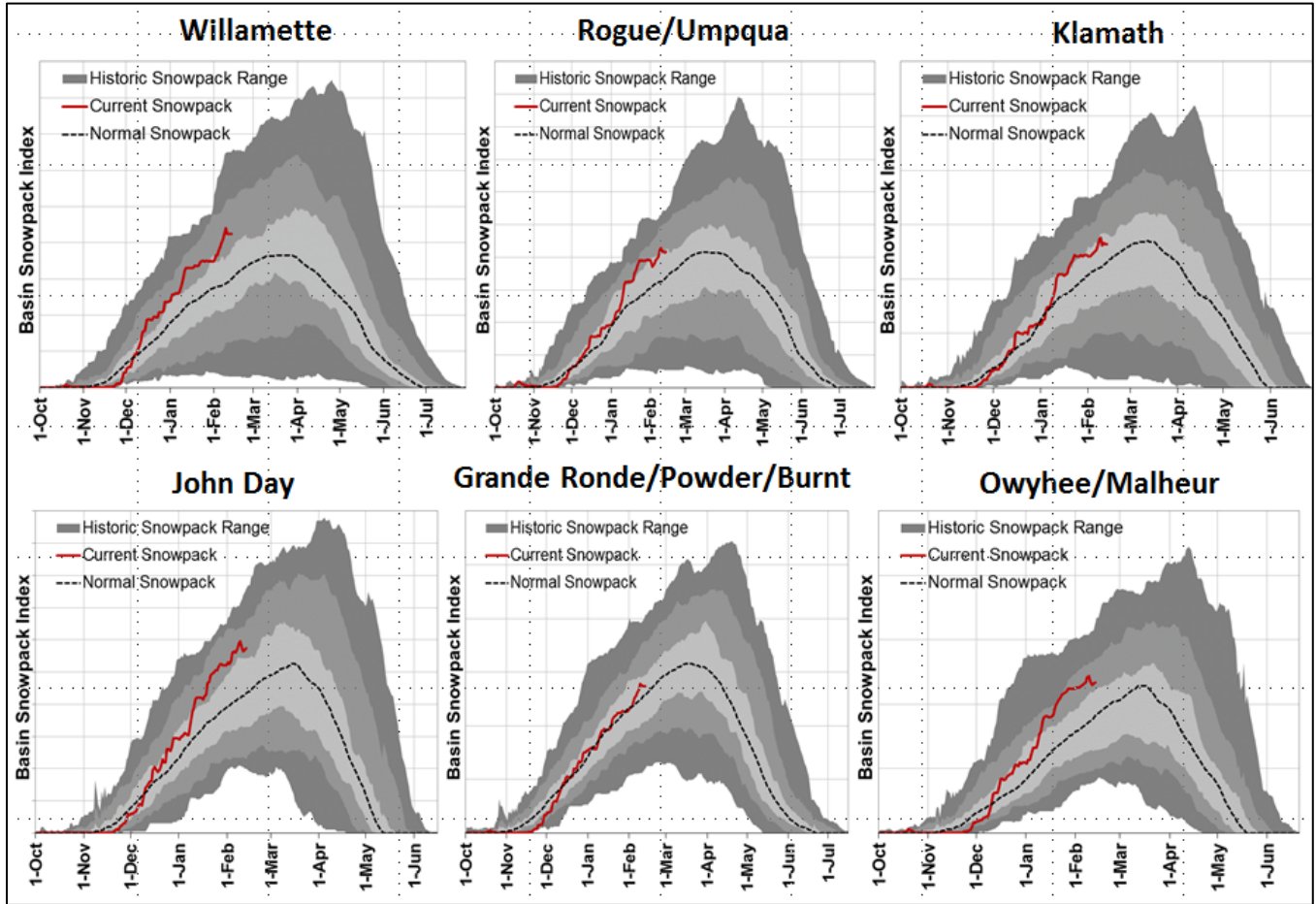
Snowpack - Percent of Normal



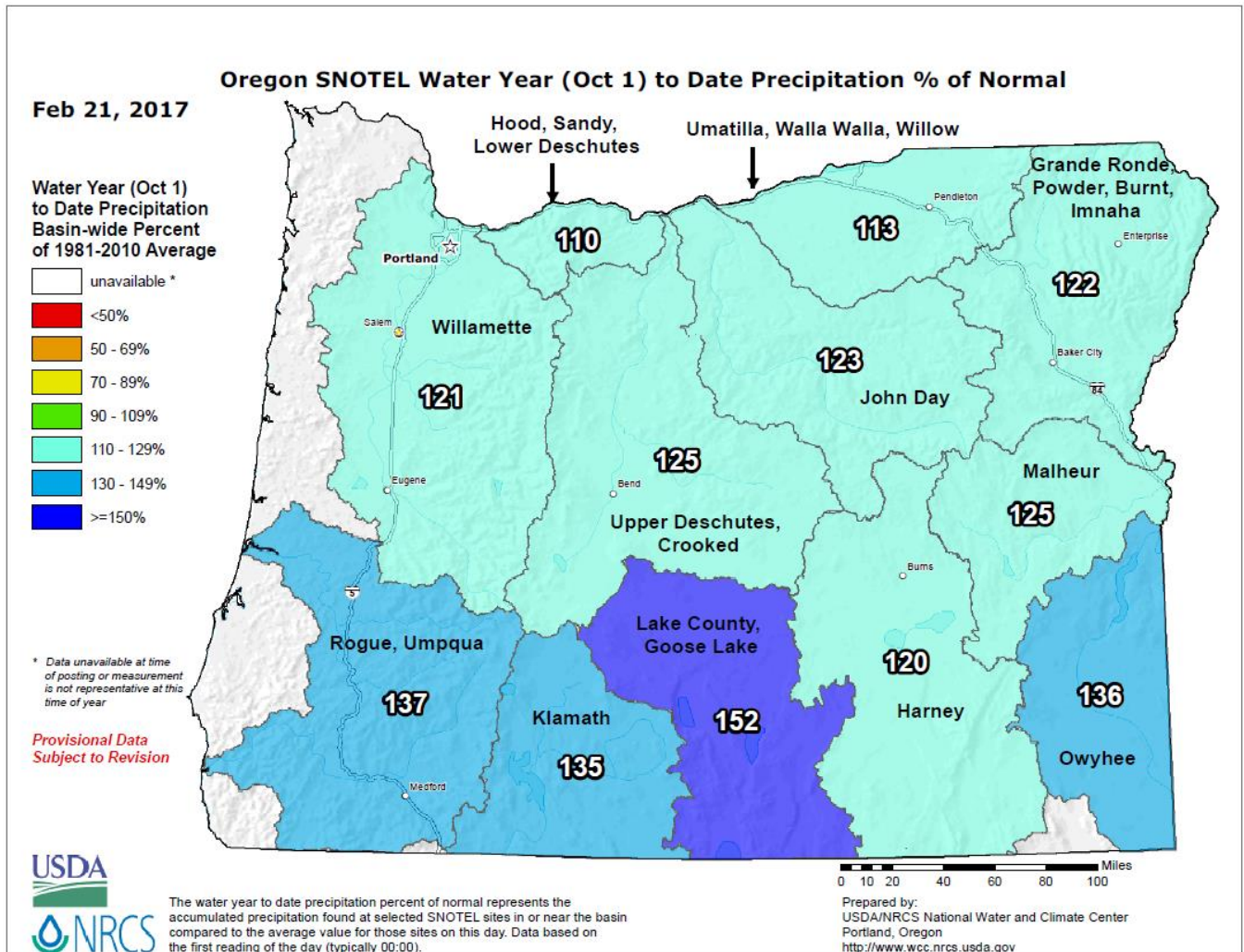
Compared to this time last year -



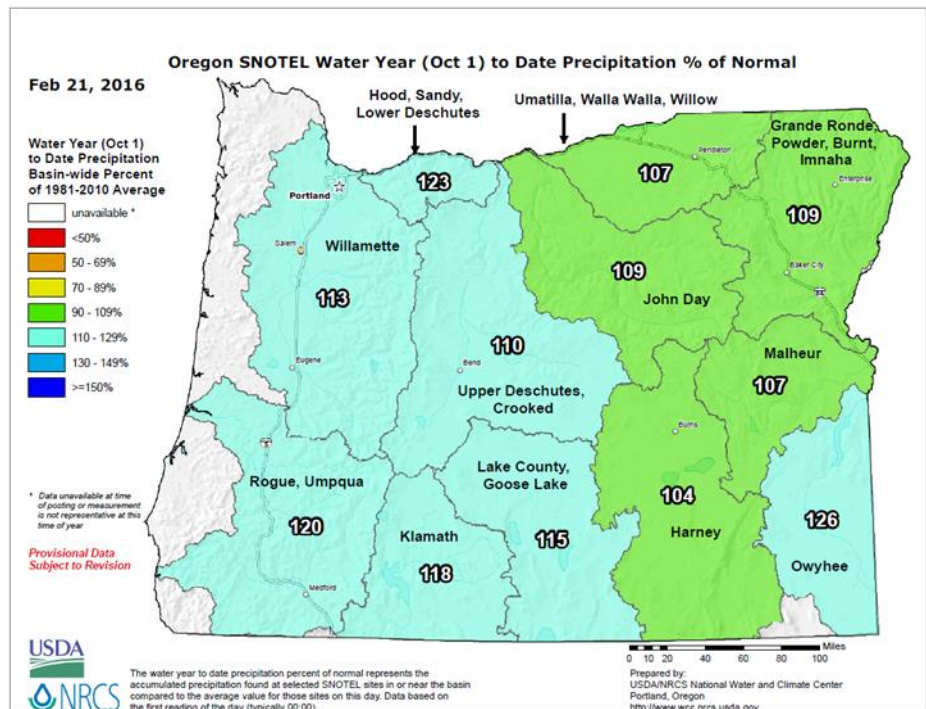
Snowpack – Basin Data Charts



Precipitation (mountain) - Percent of Normal



Compared to this time last year -



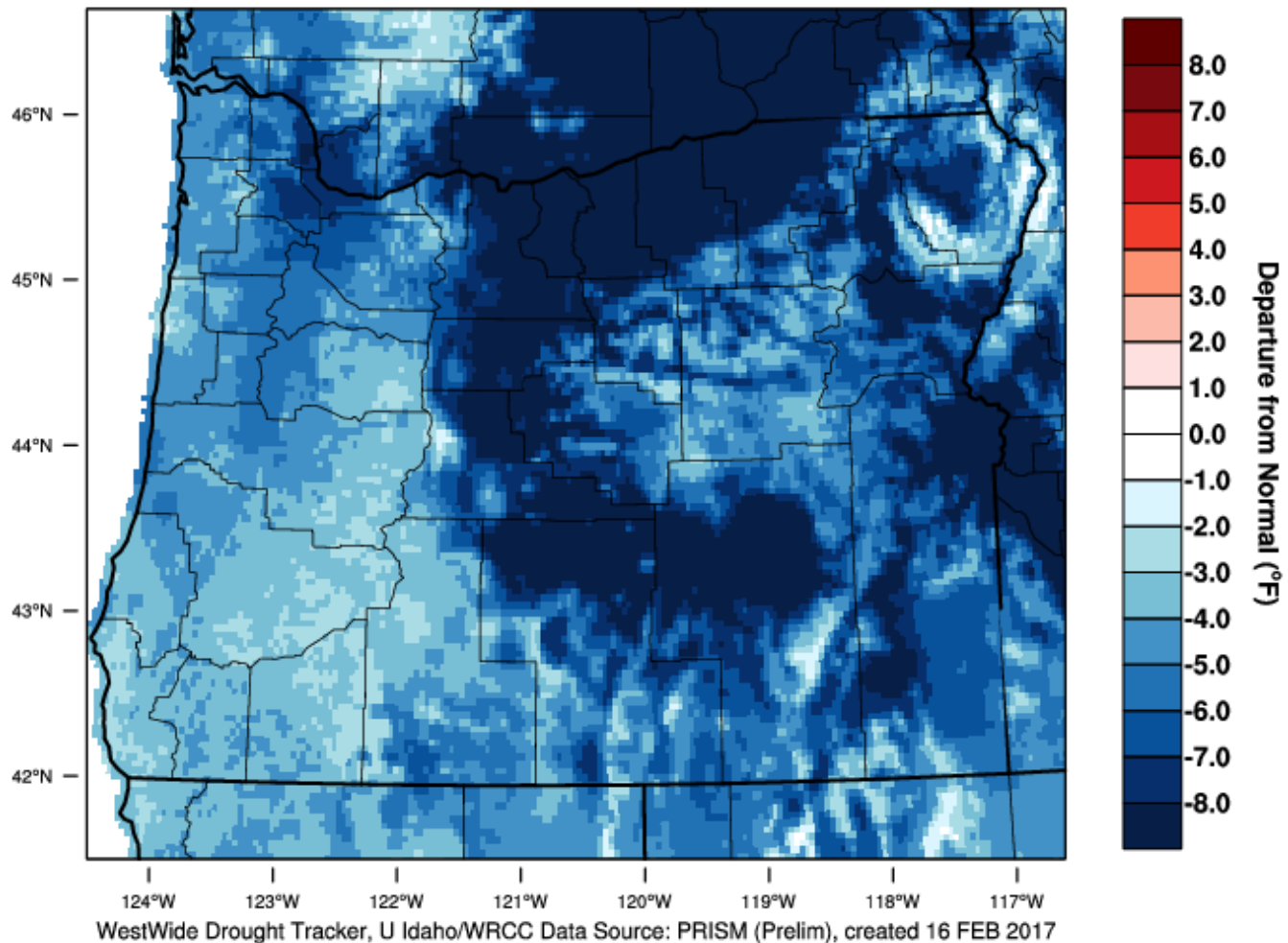
Temperature – (1 Month) Departure from Normal

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

PRISM > Temperature Anomaly 1 Month > Oregon

Oregon - Mean Temperature

January 2017 Departure from 1981-2010 Normal



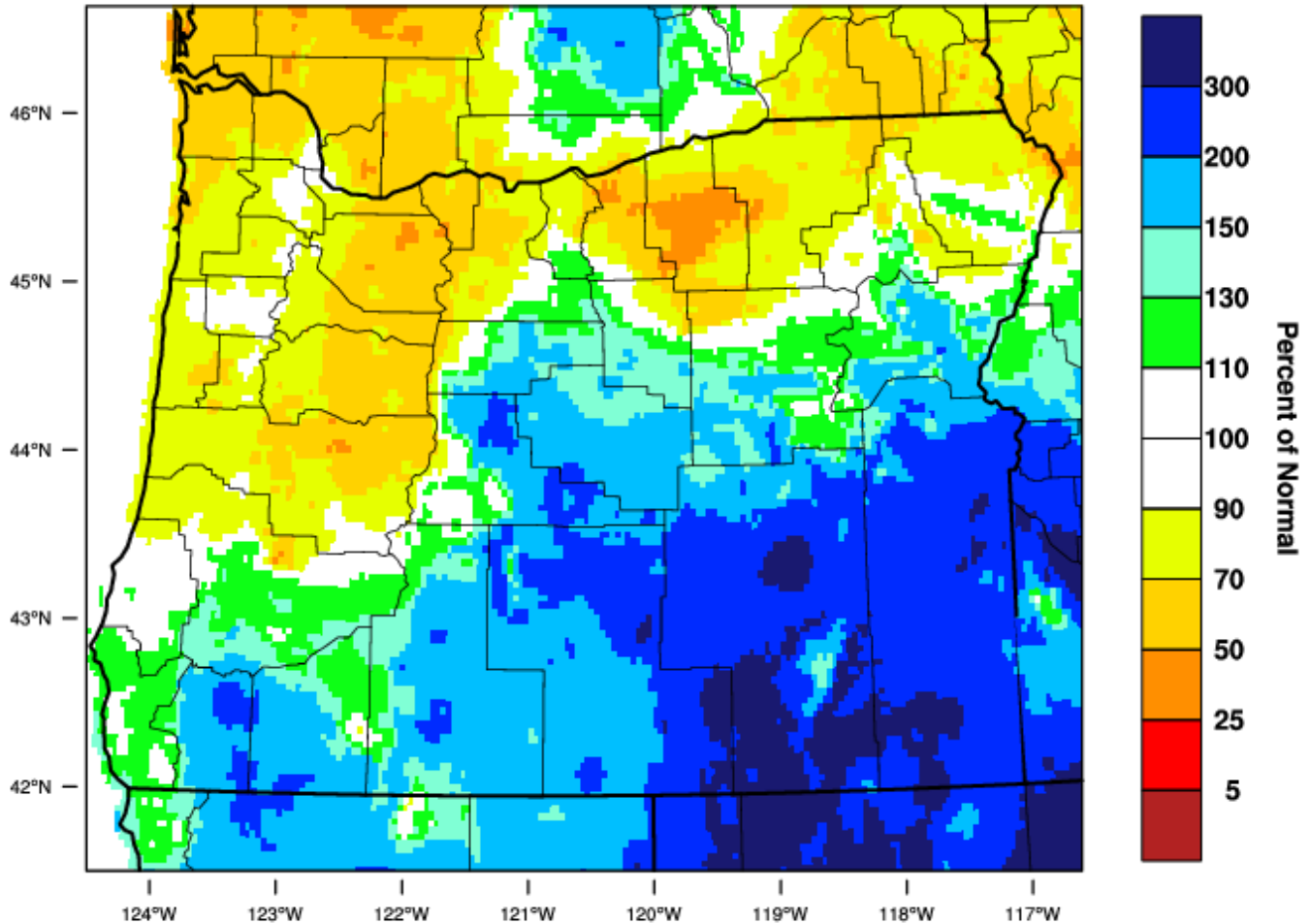
Precipitation – (1 Month) Percent of Normal

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

PRISM > Precipitation Anomaly 1 Month > Oregon

Oregon - Precipitation

January 2017 Percent of 1981-2010 Normal

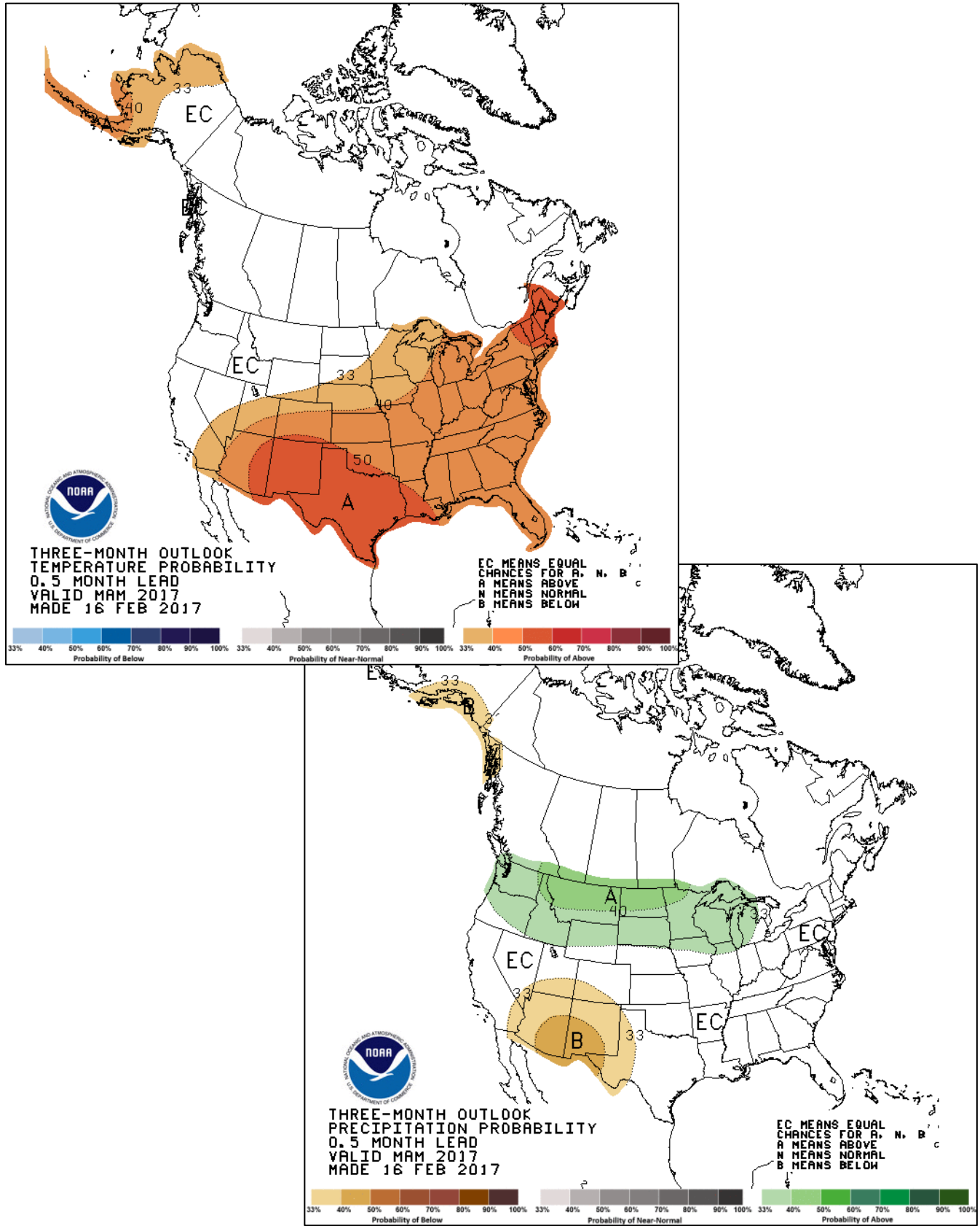


WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 16 FEB 2017

Three Month Temperature and Precipitation Outlook

February-March-April

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

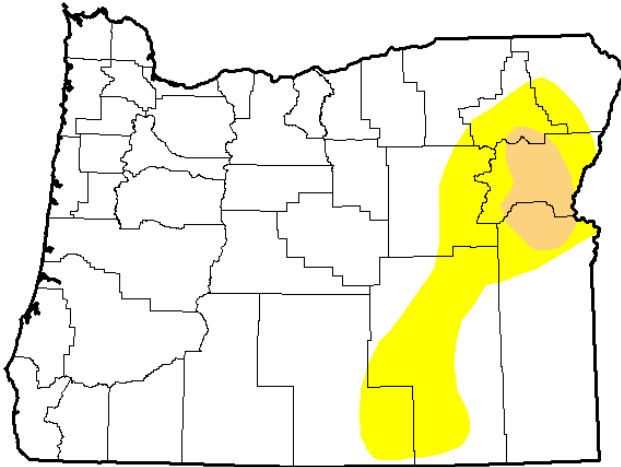


U.S. Drought Monitor for Oregon

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

U.S. Drought Monitor Oregon

February 14, 2017
(Released Thursday, Feb. 16, 2017)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	82.99	17.01	2.98	0.00	0.00	0.00
Last Week 2/7/2017	82.99	17.01	2.98	0.00	0.00	0.00
3 Months Ago 11/15/2016	56.44	43.56	23.22	2.63	0.00	0.00
Start of Calendar Year 1/2/2017	65.31	34.69	5.29	0.00	0.00	0.00
Start of Water Year 9/27/2016	0.00	100.00	50.59	12.30	0.00	0.00
One Year Ago 2/16/2016	22.58	77.42	67.55	33.96	0.00	0.00

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:
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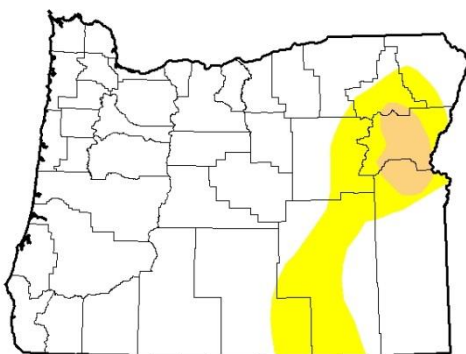


<http://droughtmonitor.unl.edu/>

Note: No change from January 31, 2017 report

U.S. Drought Monitor Oregon

January 31, 2017
(Released Thursday, Feb. 2, 2017)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	82.27	17.73	2.98	0.00	0.00	0.00
Last Week 1/24/2017	82.27	17.73	2.98	0.00	0.00	0.00
3 Months Ago 11/1/2016	56.44	43.56	27.07	2.63	0.00	0.00
Start of Calendar Year 1/2/2017	65.31	34.69	5.29	0.00	0.00	0.00
Start of Water Year 9/27/2016	0.00	100.00	50.59	12.30	0.00	0.00
One Year Ago 2/2/2016	14.58	85.42	74.56	40.97	4.38	0.00

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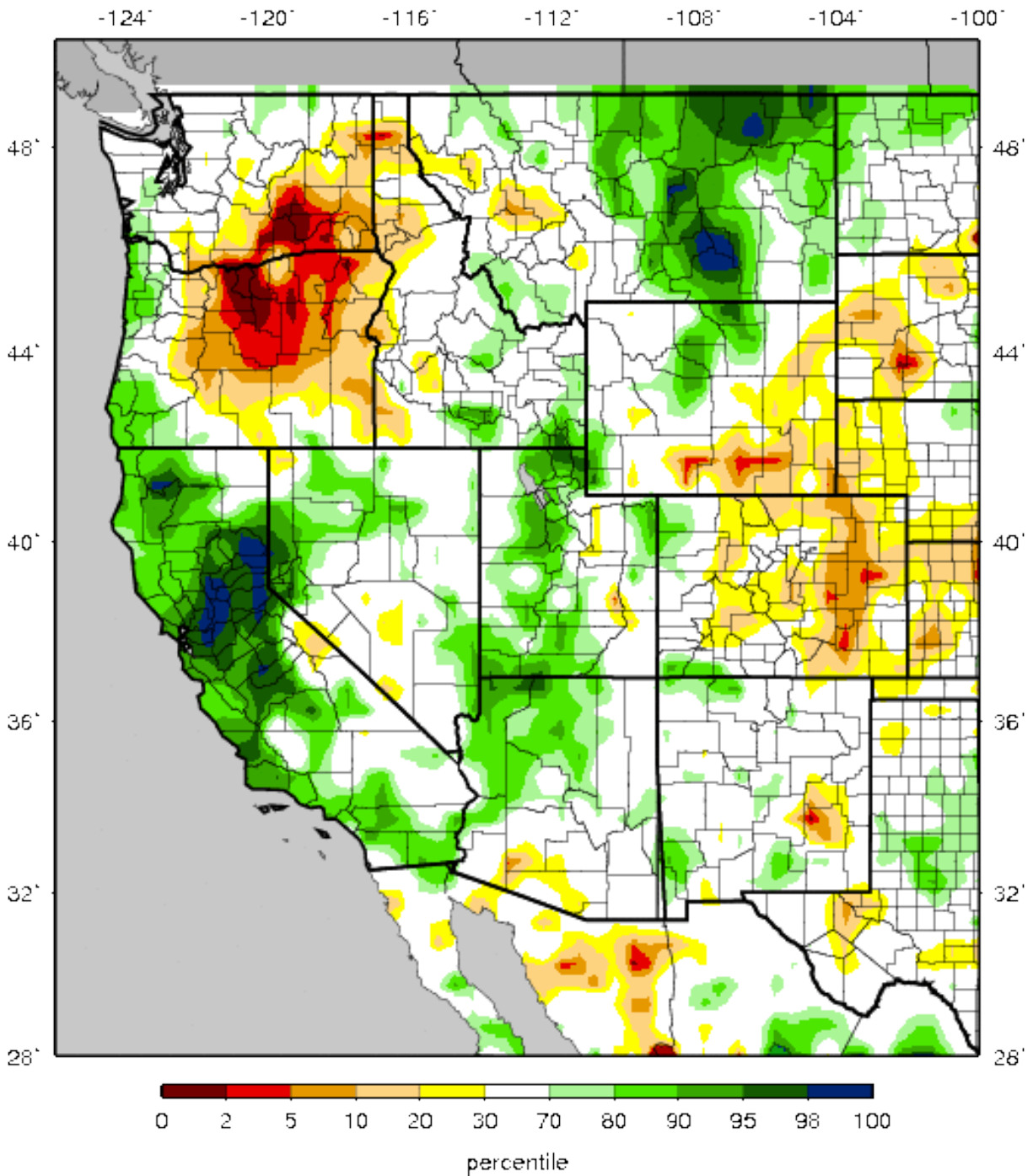
<http://droughtmonitor.unl.edu/>

Soil Moisture - Percentile

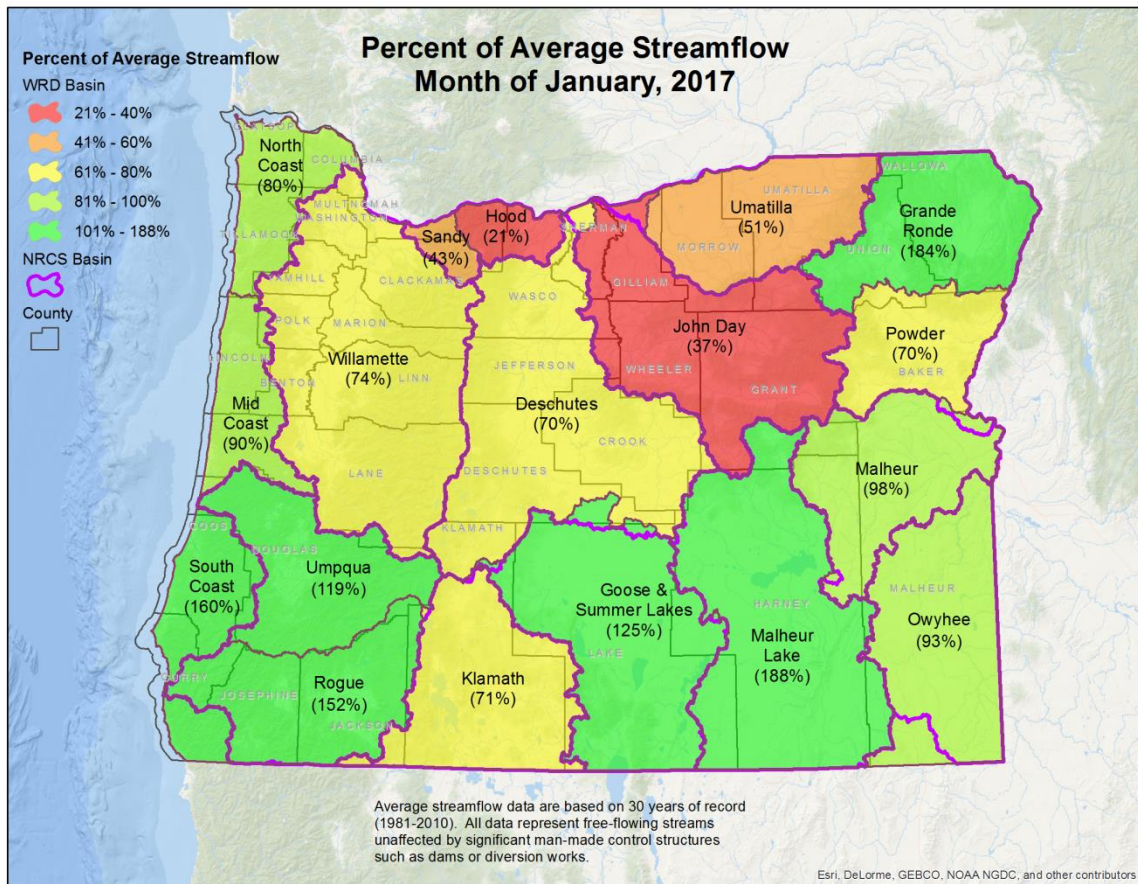
Website:

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

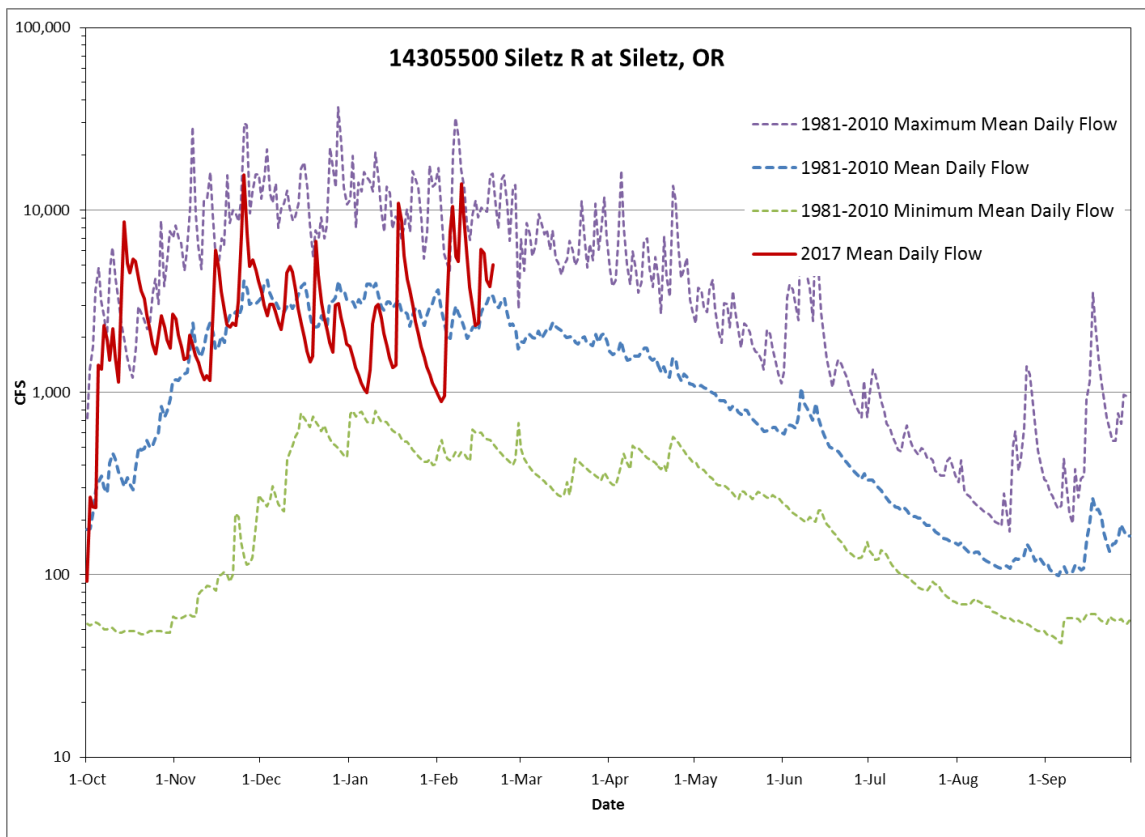
VIC Soil Moisture Percentiles (wrt' 1916-2004)
Western United States - 20170219



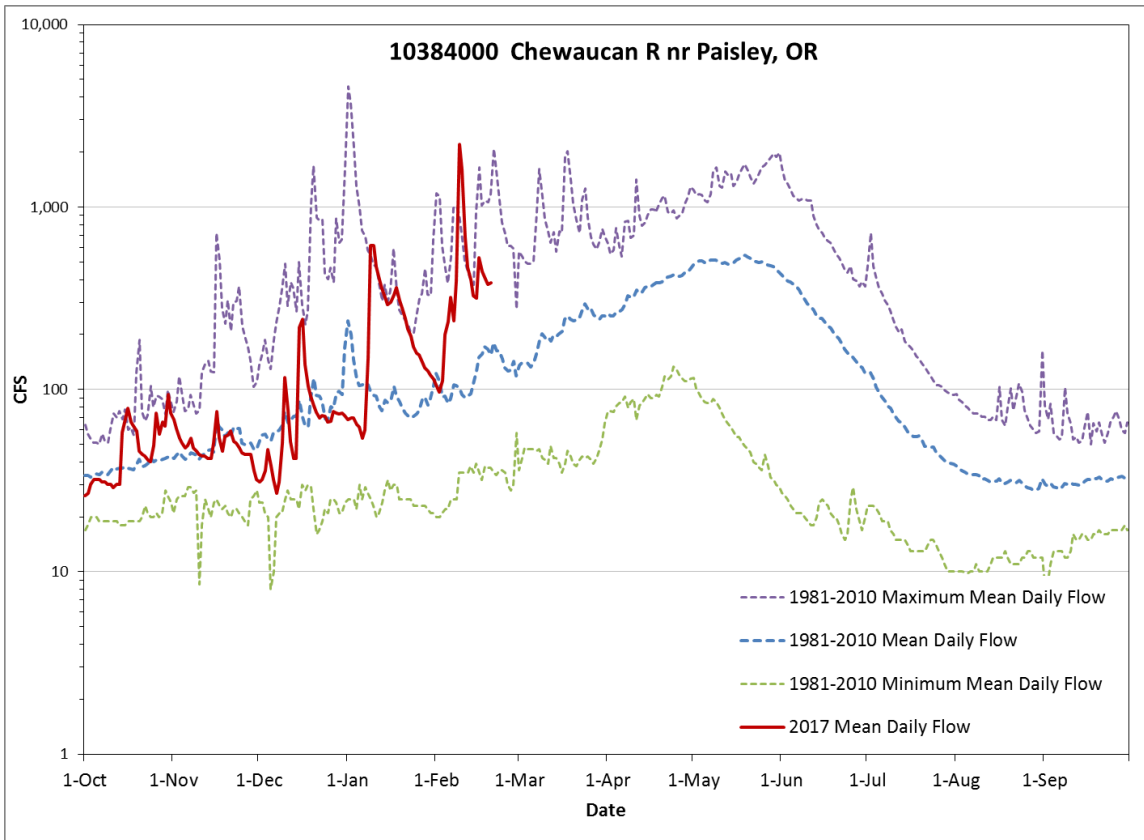
January Regional Streamflow Conditions



Streamflow Example - Western Oregon (Mid Coast)



Streamflow Example – South Central Oregon (Goose & Summer Lake)



January Regional Reservoir Storage Conditions

