

Oregon Water Conditions Report January 11, 2017



Above average mountain snowpack continues to build. Cooler temperatures combined with recent weather events have contributed to a continued increase in mountain snowpack. In the Owyhee Basin, snowpack is over 160 percent of normal. The lowest values are in the northeast corner of the state where snowpack is at 103 percent. The statewide average is almost 135 percent. It is worth noting that last year at this time, the statewide average was 138 percent. While this is good news, and a very good start to the season, there is cautious optimism about what this means for the upcoming 2017 water supply. How long the snowpack sticks around into the spring will be critical.

The NRCS Snow Survey's first monthly report of the season has just been released and is available online:

http://www.wcc.nrcs.usda.gov/ftpref/states/or/watersupply/2017/WSOR_2017_Jan.pdf

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 March.

Precipitation probability is predicted to be above normal during the same period. Even when considering the recent cool December weather, 2016 now ranks as the 7th warmest year on record. The record warmest was set in 2015.

Statewide average streamflows for December were almost 90 percent of normal.

Regionally, streamflow conditions east of the Cascades are almost 80 percent of normal. West of the Cascades streams were over 100 percent of normal for this time of year. Recent conditions (as of January 7) reflect an increase in flows east of the Cascades to 85 percent. For streams west of the Cascades flows have decreased to 40 percent of normal.

Based on the current snowpack conditions, the (NRCS) spring and summer streamflow forecasts are projecting near average to above average streamflows for the water supply season. However, there are several months left in the snow accumulation season, which means there is a lot of uncertainty in these first forecasts of the year.

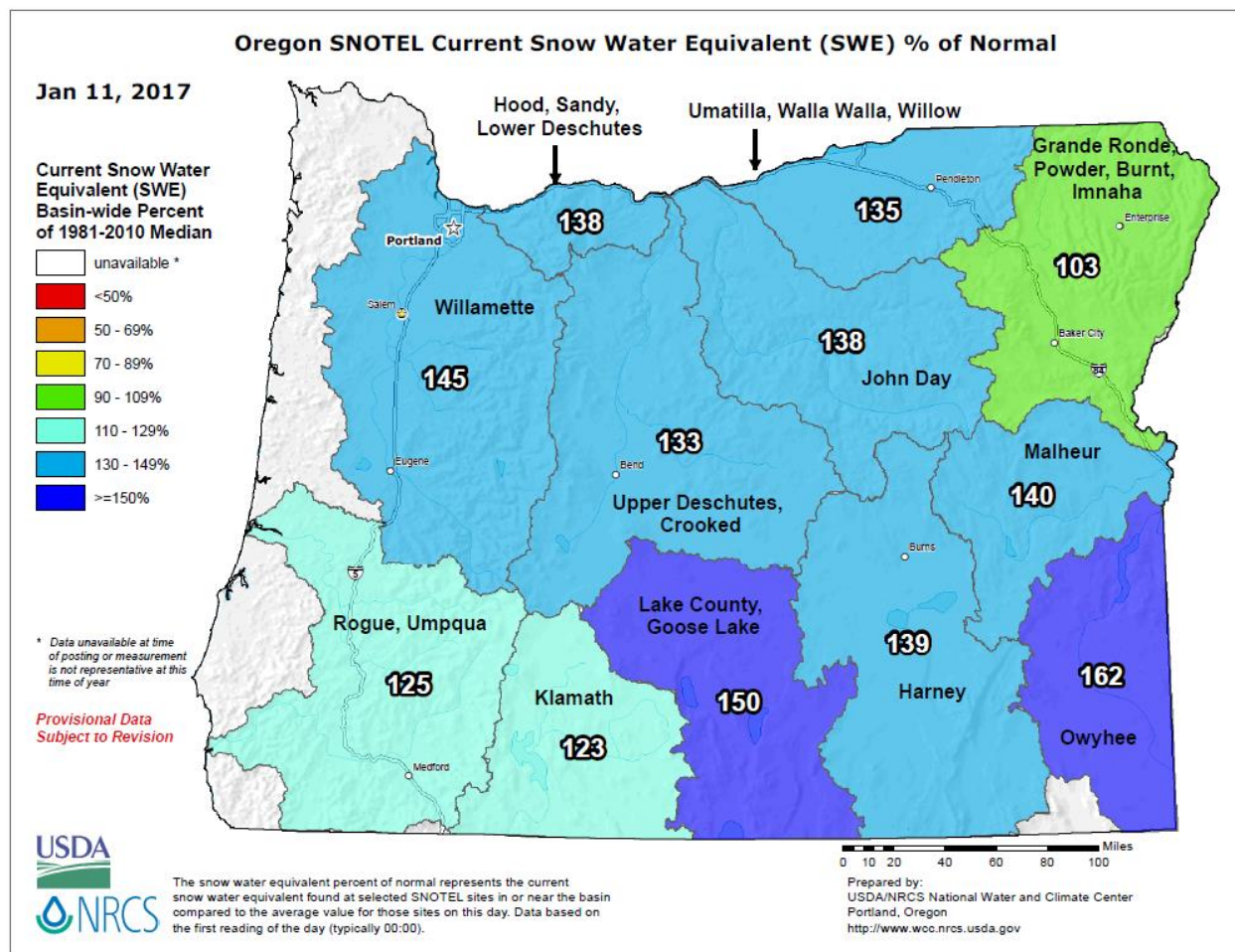
Early winter rainfall and good snowpack continues to raise hopes of increased reservoir inflows. A majority of reservoirs in the Willamette and Rogue basins, primarily used for flood control, are currently being maintained at typically low levels for this purpose. While there has been a recent increase in storage levels, reservoirs used for water supply in the central, southwest and eastern regions of Oregon continue to be below normal for this time of year. Refer to the graphic on page 11 for a statewide map of storage conditions for the end of December.

For the most recent, site specific reservoir conditions (teacup diagrams) visit the [USBR](#) or [USACE](#) websites.

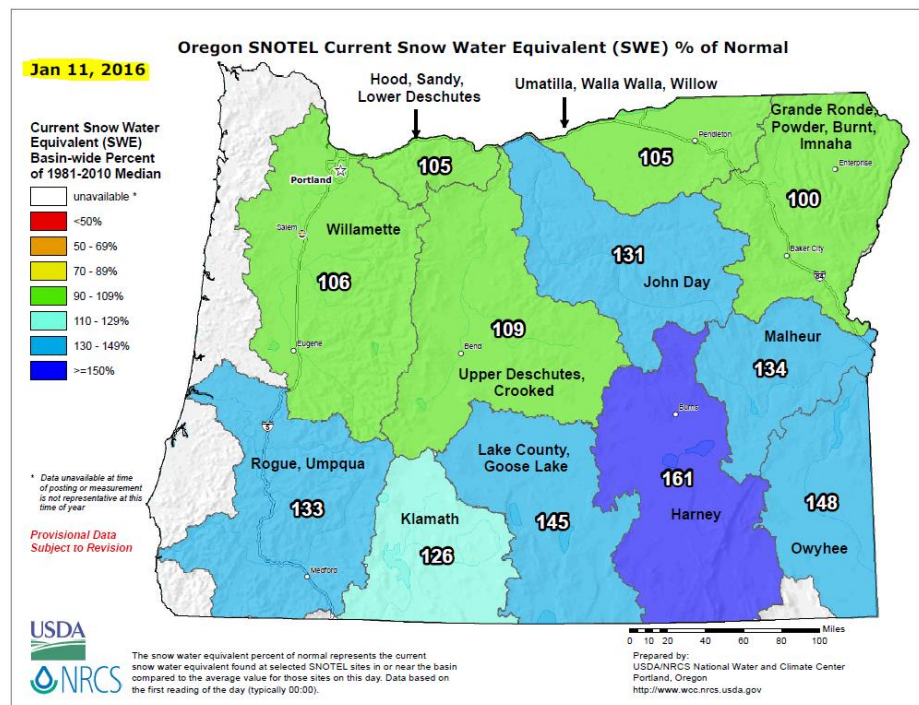
There has been change in drought conditions in the past two weeks. The US Drought Monitor has been updated to indicate that 65 percent of the state is no longer listed in any drought category. 35 percent of the state is listed in the D0 (abnormally dry) category and 5.3 percent is listed as D1 (moderate drought) category. Of note are areas in Baker and Malheur Counties that were listed in the D2 (severe drought) category have now been lowered to D1. Soil moisture models continue to indicate drier than normal conditions within these areas. The effect of recent rainfall on soil moisture is evident in the map on page 9.

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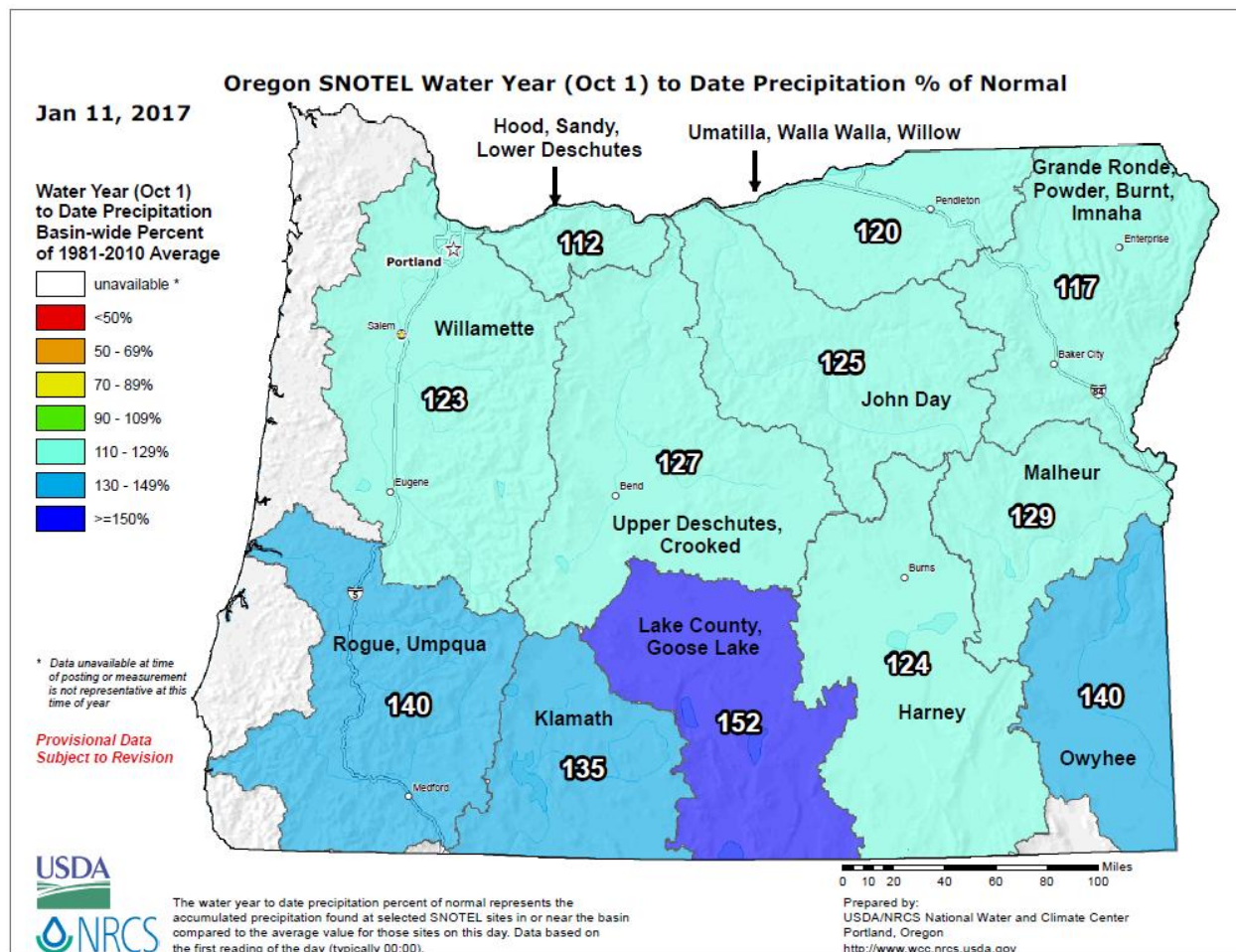
Snowpack - Percent of Normal



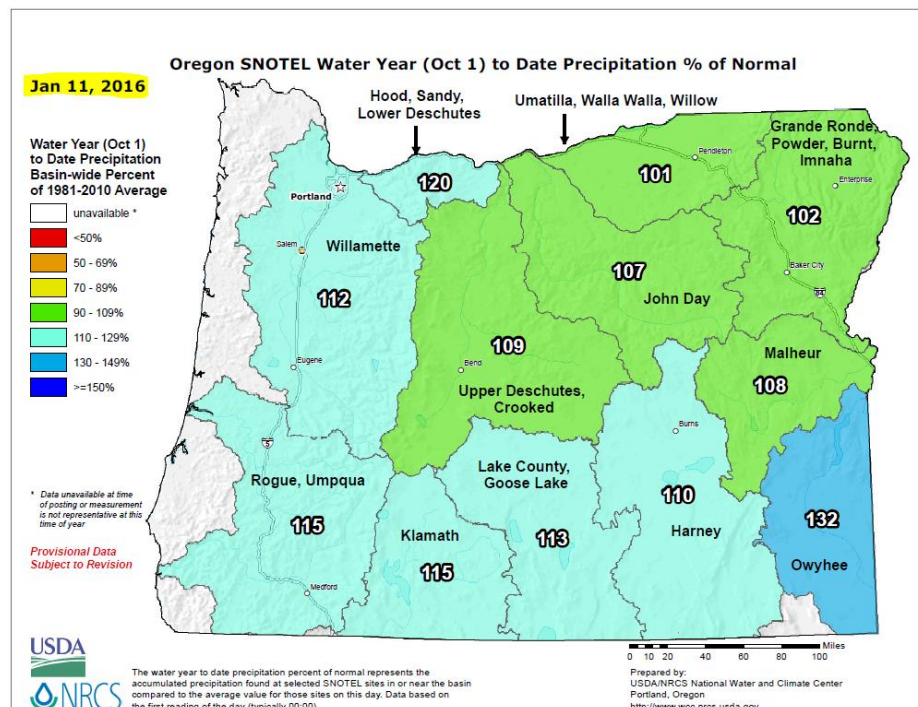
Compared to this time last year



Precipitation (mountain) - Percent of Normal



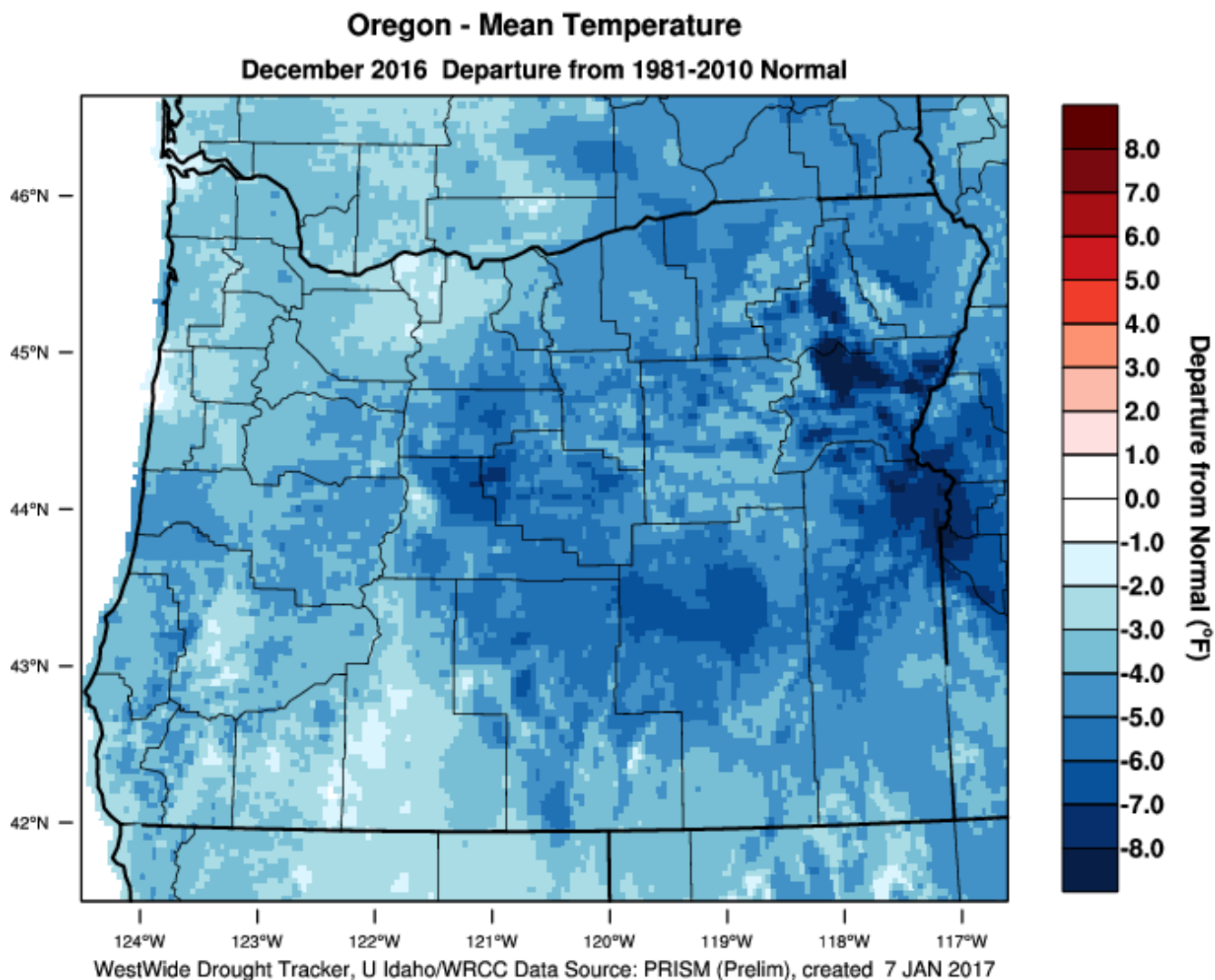
Compared to this time last year



Temperature – (December) Departure from Normal

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

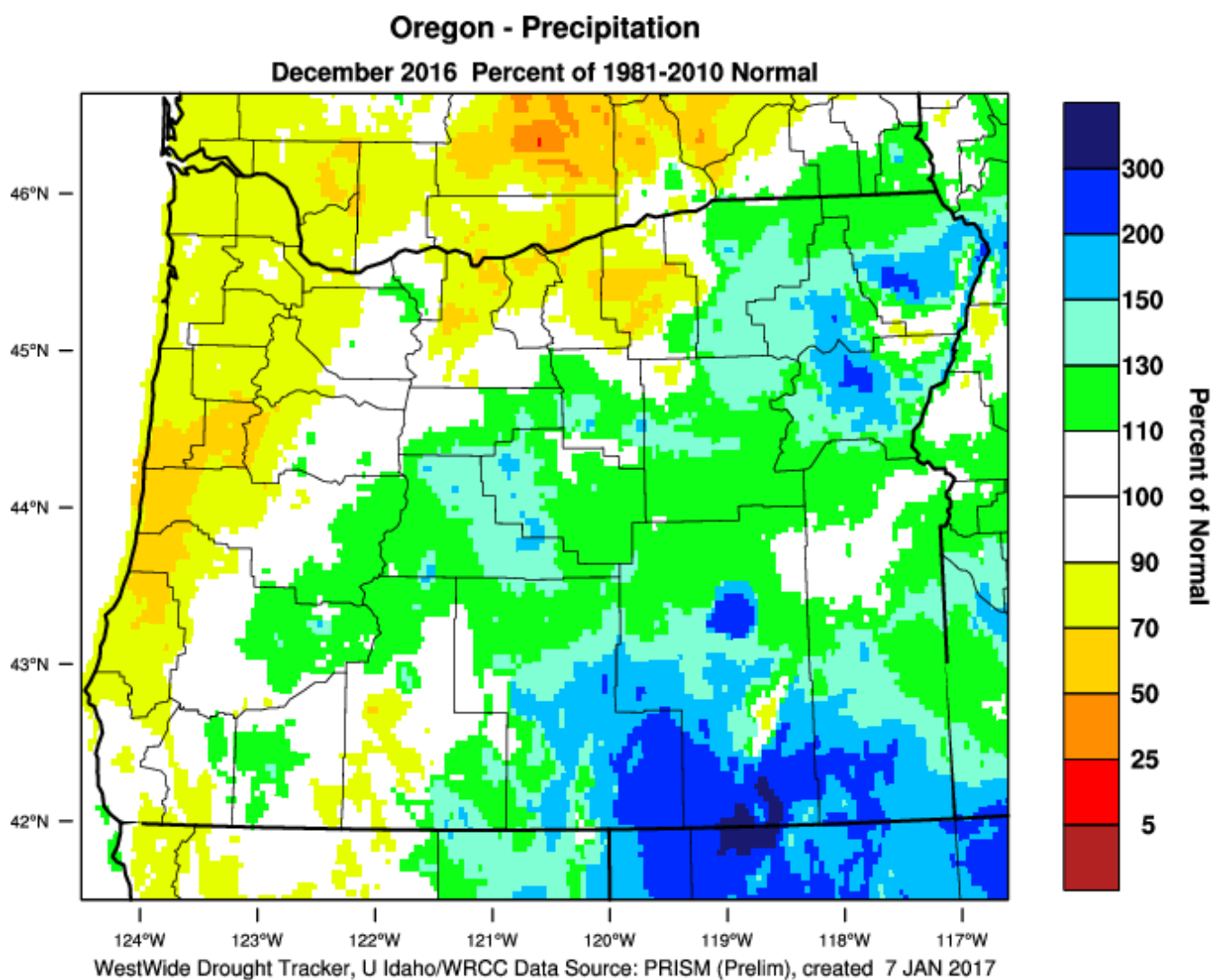
PRISM > Temperature Anomaly 1 Month > Oregon



Precipitation – (December) Percent of Normal

Website: http://www.wrcc.dri.edu/anom/ore_anom.html

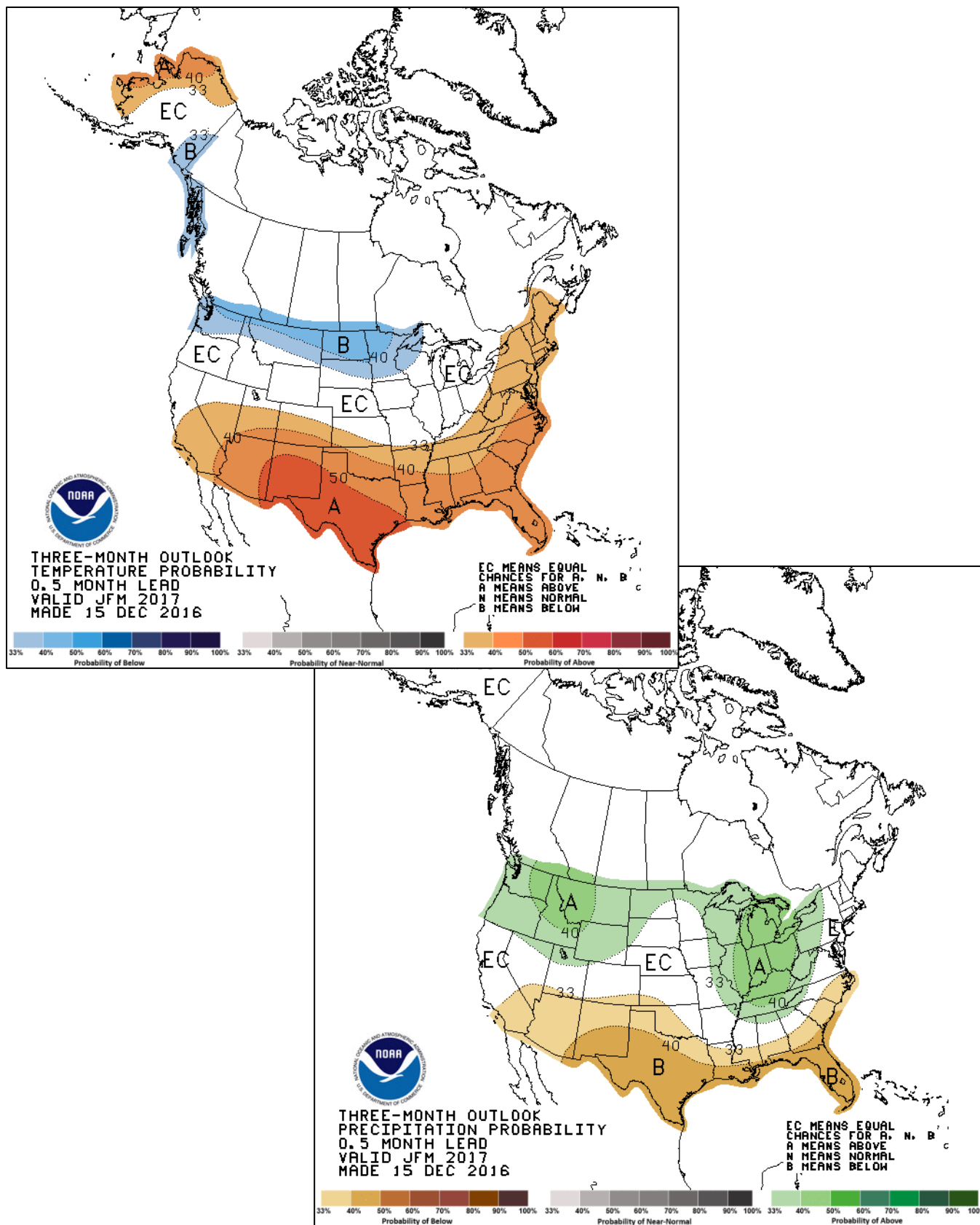
PRISM > Precipitation Anomaly 1 Month > Oregon



Three Month Temperature and Precipitation Outlook

January-February-March

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

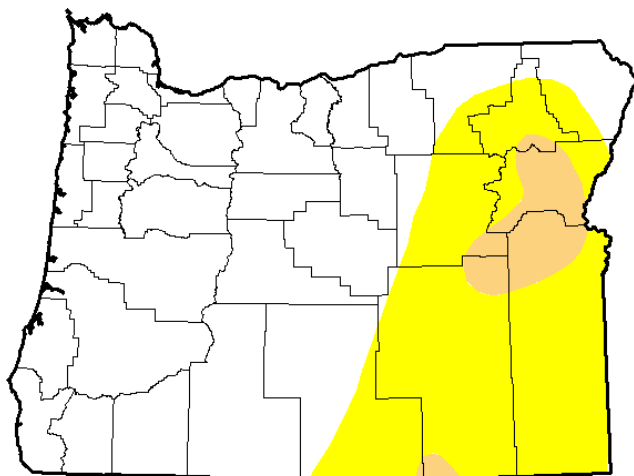


U.S. Drought Monitor for Oregon

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

U.S. Drought Monitor Oregon

January 3, 2017
(Released Thursday, Jan. 5, 2017)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	65.31	34.69	5.29	0.00	0.00	0.00
Last Week 12/27/2016	65.31	34.69	5.29	0.00	0.00	0.00
3 Months Ago 10/4/2016	0.00	100.00	50.28	12.30	0.00	0.00
Start of Calendar Year 1/3/2017	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 1/5/2016	14.52	85.48	76.99	44.33	6.35	0.00

Intensity:

 D0 Abnormally Dry	 D3 Extreme Drought
 D1 Moderate Drought	 D4 Exceptional Drought
 D2 Severe Drought	

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

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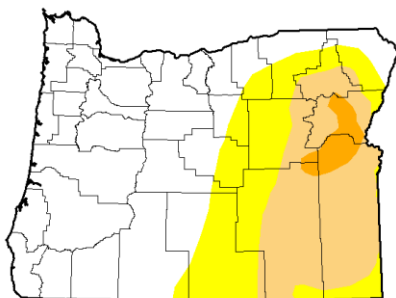


<http://droughtmonitor.unl.edu/>

Note: Change from December 6, 2016 report

U.S. Drought Monitor Oregon

December 6, 2016
(Released Thursday, Dec. 8, 2016)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	56.44	43.56	23.22	2.63	0.00	0.00
Last Week 12/2/2016	56.44	43.56	23.22	2.63	0.00	0.00
3 Months Ago 9/6/2016	0.00	100.00	50.21	12.03	0.00	0.00
Start of Calendar Year 12/6/2016	14.52	85.48	80.45	65.33	39.55	0.00
Start of Water Year 9/27/2016	0.00	100.00	50.59	12.30	0.00	0.00
One Year Ago 12/6/2015	3.31	96.69	90.99	88.52	59.57	0.00

Intensity:

 D0 Abnormally Dry	 D3 Extreme Drought
 D1 Moderate Drought	 D4 Exceptional Drought
 D2 Severe Drought	

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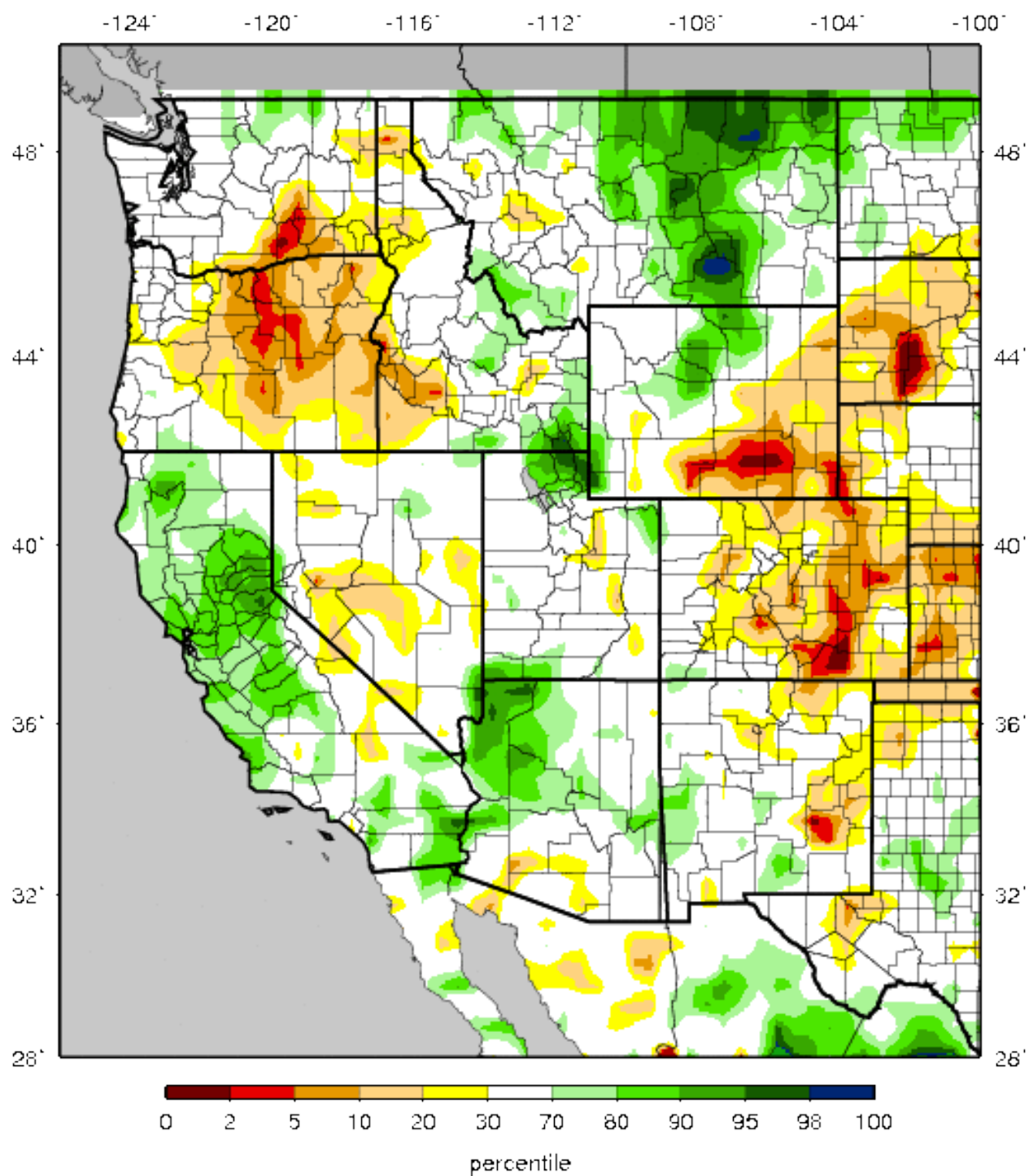
<http://droughtmonitor.unl.edu/>

Soil Moisture - Percentile

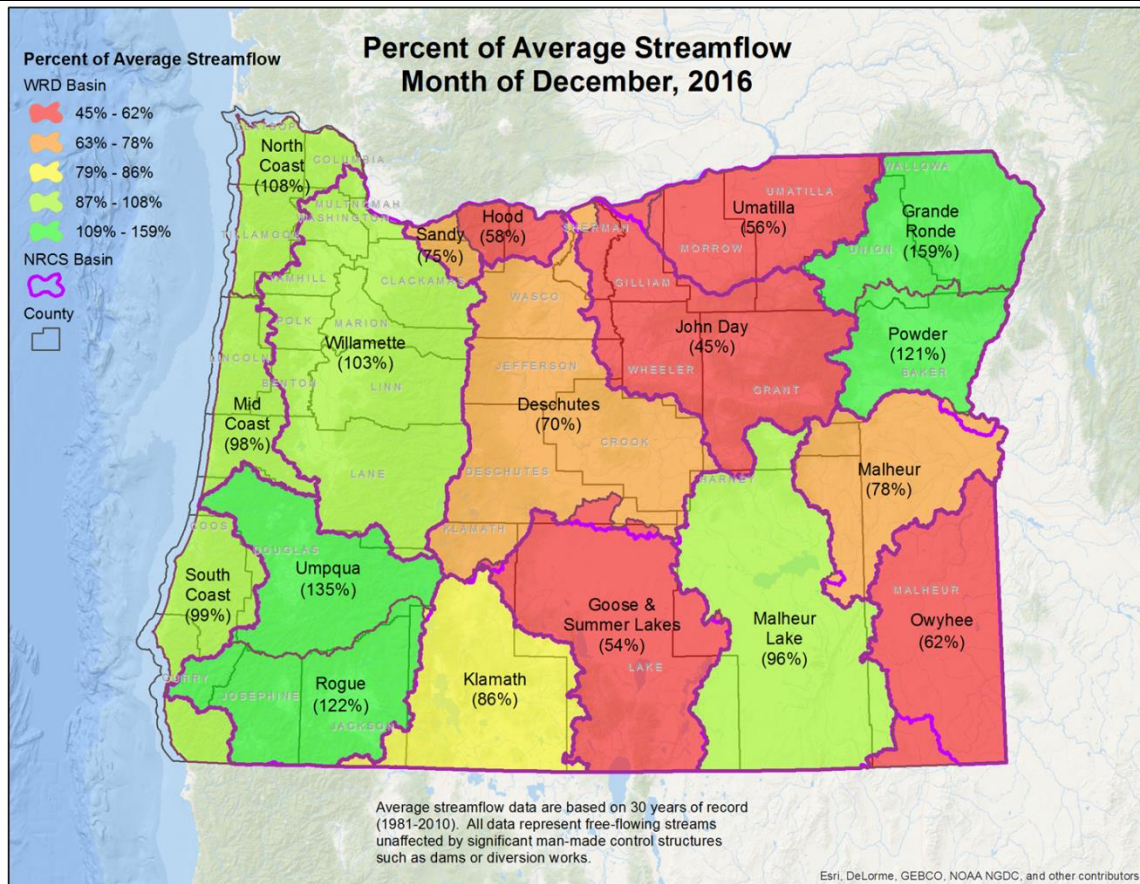
Website: http://www.hydro.washington.edu/forecast/monitor/curr/conus.mexico/west.vic.sm_qnt.gif

VIC Soil Moisture Percentiles (wrt/ 1916-2004)

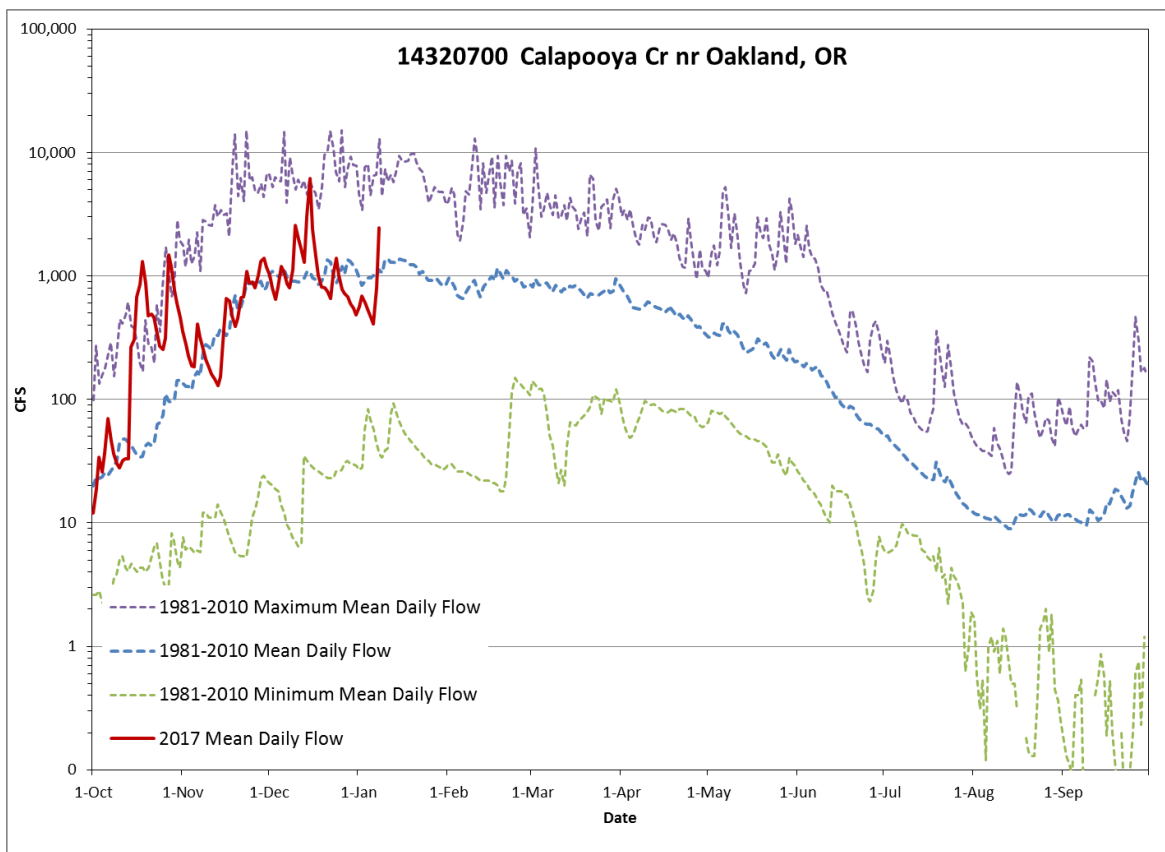
Western United States - 20170108



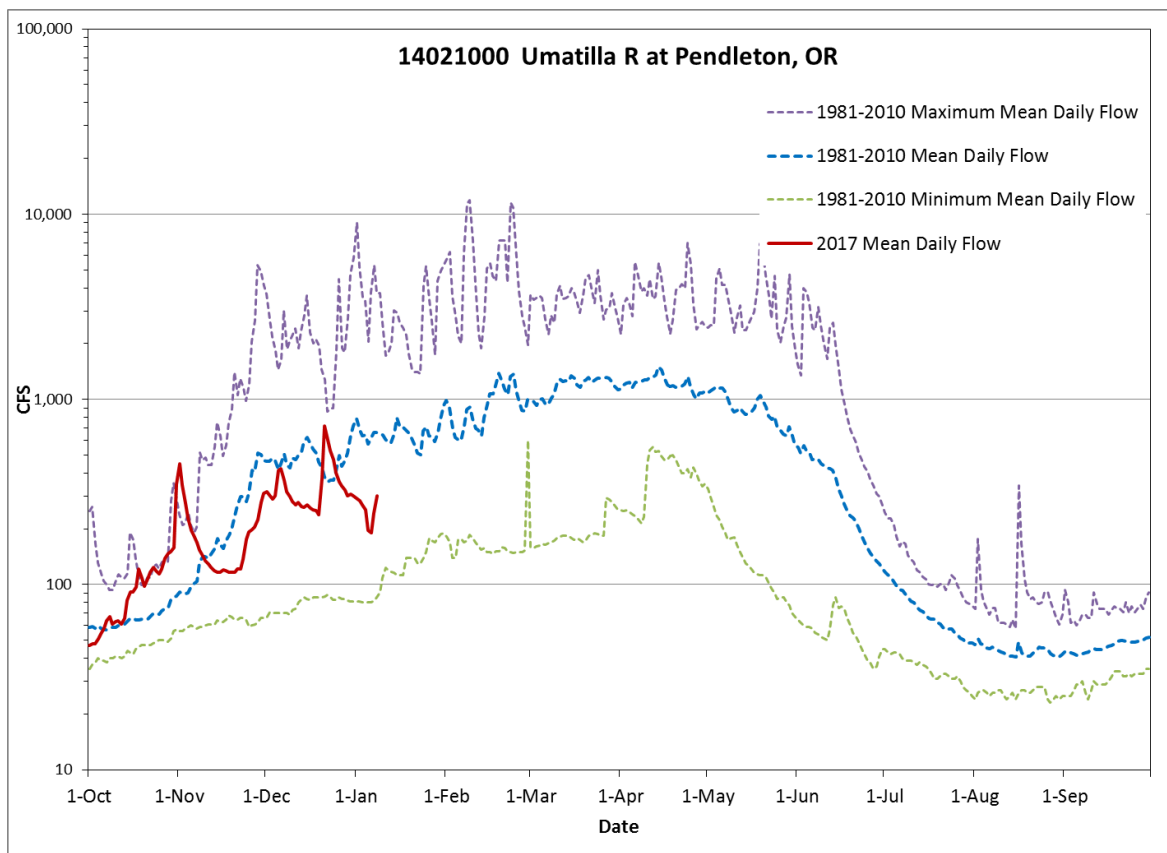
December Regional Streamflow Conditions



Streamflow Example - Western Oregon (Umpqua)



Streamflow Example – Eastern Oregon (Umatilla)



Regional Reservoir Storage Conditions

