Oregon Water Conditions Report December 27, 2016



Just in case you haven't already noticed, there is a lot of snow in the mountains! Cooler temperatures combined with recent weather events have contributed to a marked increase in mountain snowpack. In the Owyhee Basin, snowpack is over 150 percent of normal. The lowest values are in the northeast corner if the state where snowpack is at 107 percent. The statewide average is almost 140 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. While we are in better shape than the past few years, it is still much too early in the season to be overly optimistic.

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 for the state. Current climate observations indicate a trend toward the increasing likelihood of a mild La Nina potential. For the Pacific Northwest, La Nina conditions typically bring wetter, cooler conditions. Even considering the recent cool weather and improved snowpack, 2016 will likely rank as warmer than normal.

Statewide average streamflows for the middle of December are over 150 percent of normal.

Regionally, streamflow conditions east of the Cascades are almost 90 percent of normal. West of the Cascades streams are over 200 percent of normal for this time of year. Recent conditions (as of December 26) reflect an increase in flows east of the Cascades – 70 percent for streams west of the Cascades and 90 percent to the east.

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 10 for a statewide map of storage conditions for the end of November. For the most recent, site specific reservoir conditions (teacup diagrams) visit the <u>USBR</u> or <u>USACE</u> websites.

There has been no change in drought conditions in the past six weeks. The US Drought Monitor continues to indicate that 56 percent of the state is no longer listed in <u>any</u> drought category. However, 44 percent of the state is still listed in the D0 (abnormally dry) category as well as 23 percent listed as D1 (moderate drought) category. Of note are areas in Baker and Malheur Counties that continue to be listed in the D2 (severe drought) category. 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 7.

Data & Products:

Precipitation – Percent of Average	.2
Temperature - Departure from Average	.2
Precipitation and Snowpack - Percent of Normal	.3
Three Month Temperature and Precipitation Outlook	.4
U.S. Drought Monitor for Oregon	.5
Soil Moisture	.6
USDA Federal Drought Designations	.7
November Regional Streamflow Conditions	.8
Streamflow Example - Western Oregon	.8
Streamflow Example – Eastern Oregon	.9
Regional Reservoir Storage Conditions	.9

Precipitation – Percent of Average

Website: <u>http://www.wrcc.dri.edu/anom/ore_anom.html</u> (12/27/2016 - Site is currently not responding)

Temperature - Departure from Average

Website: <u>http://www.wrcc.dri.edu/anom/ore_anom.html</u> (12/27/2016 - Site is currently not responding)

Page:

Precipitation and Snowpack - Percent of Normal



January-February-March

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



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

U.S. Drought Monitor Oregon

December 20, 2016 (Released Thursday, Dec. 22, 2016) Valid 7 a.m. EST



	Drought Conditions (Percent Area)							
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4		
Current	56.78	43.22	23.22	2.63	0.00	0.00		
Last Week 12/13/2016	56.47	43.53	23.22	2.63	0.00	0.00		
3 Month s Ago 9/20/2016	0.00	100.00	50.59	12.30	0.00	0.00		
Start of Calendar Year 1229/2015	14.52	85.48	80.45	65.33	39.55	0.00		
Start of Water Year 8/27/2016	0.00	100.00	50.59	12.30	0.00	0.00		
One Year Ago 12/22/2015	10.18	89.82	84.93	77.89	49.16	0.00		



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.

Author:

Brad Rippev U.S. Department of Agriculture



http://droughtmonitor.unl.edu/

Note: No Change from December 6, 2016 report





0.0

0.00

0.00

Soil Moisture

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 - 20161225



Website: http://www.usda.gov/documents/usda-drought-fast-track-designations.pdf



2016 Secretarial Drought Designations - All Drought



November Regional Streamflow Conditions

Streamflow Example - Western Oregon (Mid Coast)



Streamflow Example – Eastern Oregon (Grande Ronde)



Regional Reservoir Storage Conditions

