Oregon Water Conditions Report March 26, 2018



Snow water equivalent values measured at NRCS SNOTEL sites continued to improve over the past two weeks. While still below normal, the statewide average is now at 77 percent. The Hood, Sandy, and Lower Deschutes basins have received the highest amounts of snowpack recently and are measuring 90 percent of normal. The Malheur and Owyhee basins are measuring the least amount of snowpack and stand at 51 and 50 percent of normal, respectively.

Statewide water year precipitation at NRCS SNOTEL sites is 92 percent of normal, remaining fairly steady over the past month. The highest amounts of precipitation for the water year have been in the Umatilla, Walla Walla, and Willow basins with 109 percent of normal, while the lowest value remains in the Klamath basin at 79 percent.

For more region specific details, the most recent <u>NRCS Snow Survey Basin Outlook</u> <u>Report</u> is now available and will continue to be published monthly until June, 2018. The Snow Survey also publishes weekly condition reports on three areas affected by wildfire in eastern Oregon. After exposure to high heat, soils in these burned areas can't absorb as much water. As a result, these watersheds can experience a higher risk for flash flooding. The reports can be accessed at:

https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/or/snow/?cid=nrcseprd854607

For most of the state, temperatures over the <u>past two weeks</u> have been cooler than normal. Of note, areas in south central Oregon have seen temperatures 3 to 5 degrees cooler than normal, while in Eastern Oregon temperatures have been 1 to 3 degrees warmer than normal. Over the next <u>8 to 14 days</u>, the NOAA Climate Prediction Center is forecasting equal chances of above or below-normal temperatures along with an increased probability of above-normal precipitation for most of the state.

The Climate Prediction Center's most recent <u>three month outlook</u> favors increased chances of above-normal temperatures in the southern third of Oregon with equal chances of above or below-normal temperatures for the rest of the state. The precipitation outlook for the same period indicates equal chances of above or below-normal precipitation for most of the state. The next long-term outlook will be issued on April 19, 2018.

La Niña conditions are expected to transition to ENSO-Neutral conditions most likely early this spring (~55 percent chance). The <u>diagnostic discussion</u> issued on March 8, 2018 provides more insight. For the latest discussion on the spring outlook, refer to the latest <u>ENSO blog</u> on the climate.gov website. The situation continues to be monitored and

updated by the Climate Prediction Center. The next ENSO Diagnostics Discussion is scheduled for April 12, 2018.

Statewide streamflows for February were just over 60 percent of normal. This is down considerably from 90 percent seen for the month of January. Regionally for February, streamflow conditions were at 70 percent east of the Cascades and 50 percent to the west. Weather events in late February contributed to a rise in flows late in the month, especially the northern areas of the state. Streamflow forecasts for the approaching spring and summer seasons continue to predict that streamflows will be much lower than normal.

Most of the state's water supply reservoirs are at near-normal levels for this time of year. The <u>Willamette</u> System is currently 50 percent full and 16 percent below rule curve. Most projects are on minimum flow except <u>Dorena</u> and <u>Foster</u>, which are releasing a higher flow rate to stay on rule curve. USACE reservoir simulation models indicate that there is still a reasonable probability that Detroit, Cottage Grove, Dorena and Fern Ridge will fill by the summer recreation season.

With low flow conditions prevalent in the <u>Rogue</u> basin, <u>Lost Creek</u> releases have been reduced to sustain refill efforts, relying on local inflow below the project to maintain flows downstream. Currently the project is 10 percent below rule curve. <u>Applegate</u> continues to release minimum outflow to sustain refill efforts. Currently the project is 22 percent below rule curve.

All of the USBR Oregon projects are well below any flood control requirements and continue to pass minimum flows, storing as much water as possible ahead of the start of irrigation season. A bright spot is <u>McKay Reservoir</u> which looks to have a good chance of filling. <u>Scoggins</u> is close to its fill curve and should also fill this spring. A wet spring will be needed to fill the other projects.

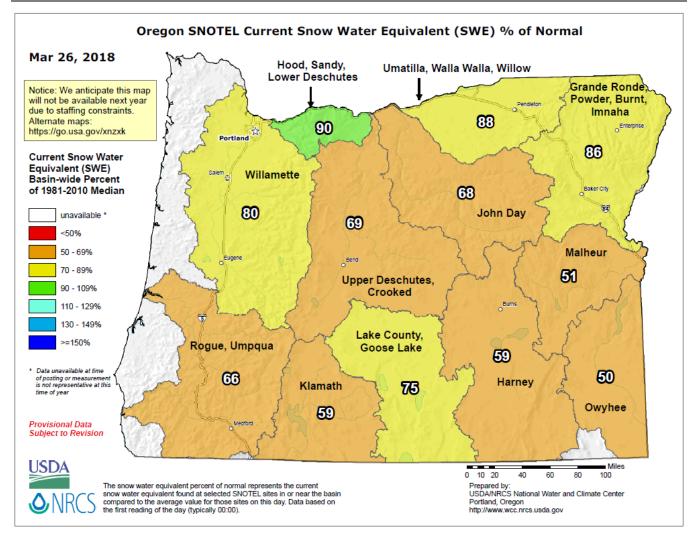
<u>Central Oregon</u> reservoirs are between 56 and 100 percent of capacity. <u>Eastern Oregon</u> reservoirs (not considering Thief Valley) are now at 55 to 78 percent of capacity. Reservoirs in <u>North Central Oregon</u> are at 88 and 96 percent. For the most recent near real-time, site-specific reservoir conditions (teacup diagrams) visit the <u>USBR</u> or <u>USACE</u> websites.

The <u>US Drought Monitor</u> remains unchanged in the past two weeks. The March 22, 2018 report indicates that 76 percent of Oregon is now listed as "Abnormally Dry" (D0). In addition, 38 percent of the state is now listed as in "Moderate Drought" (D1).

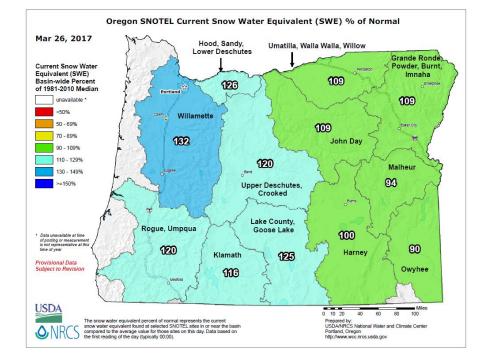
Data & Products:

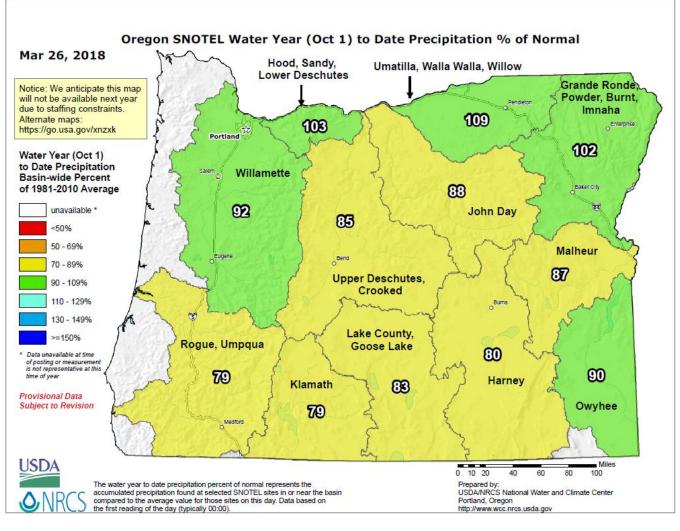
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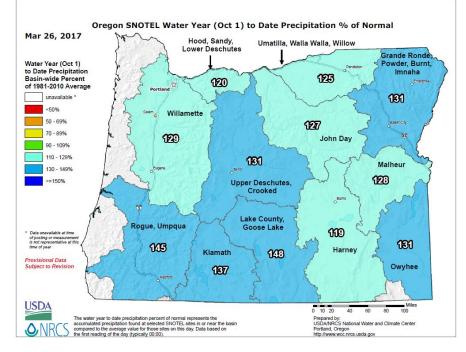


Compared to this time last year -



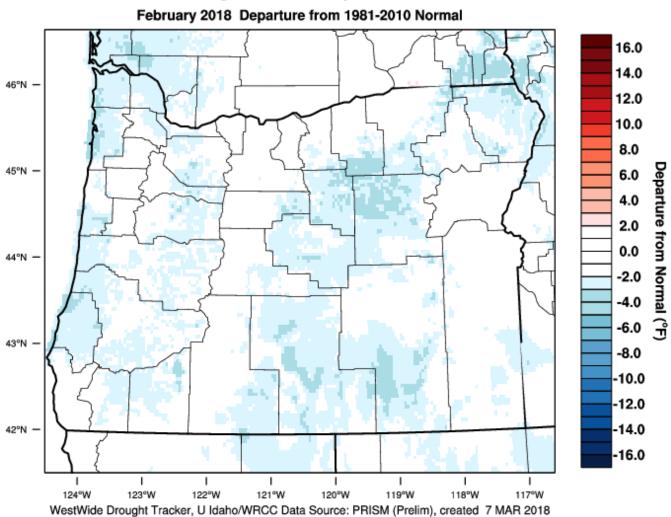


Compared to this time last year -



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

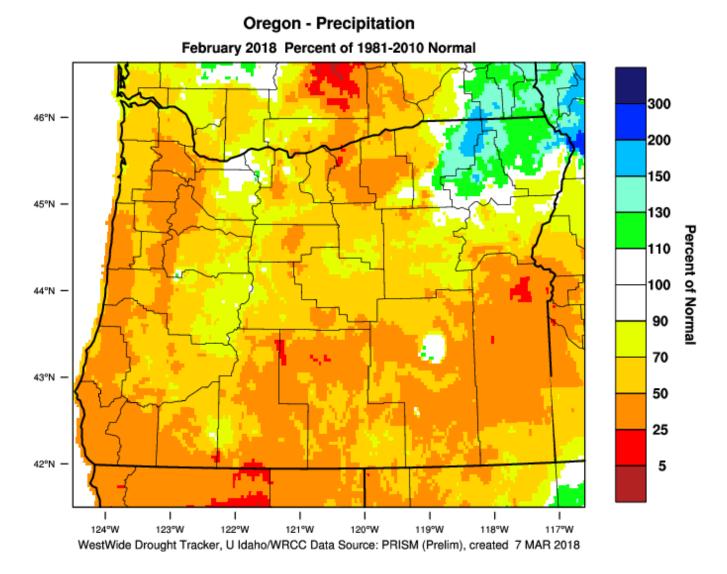
PRISM > Temperature Anomaly 1 Month > Oregon



Oregon - Mean Temperature

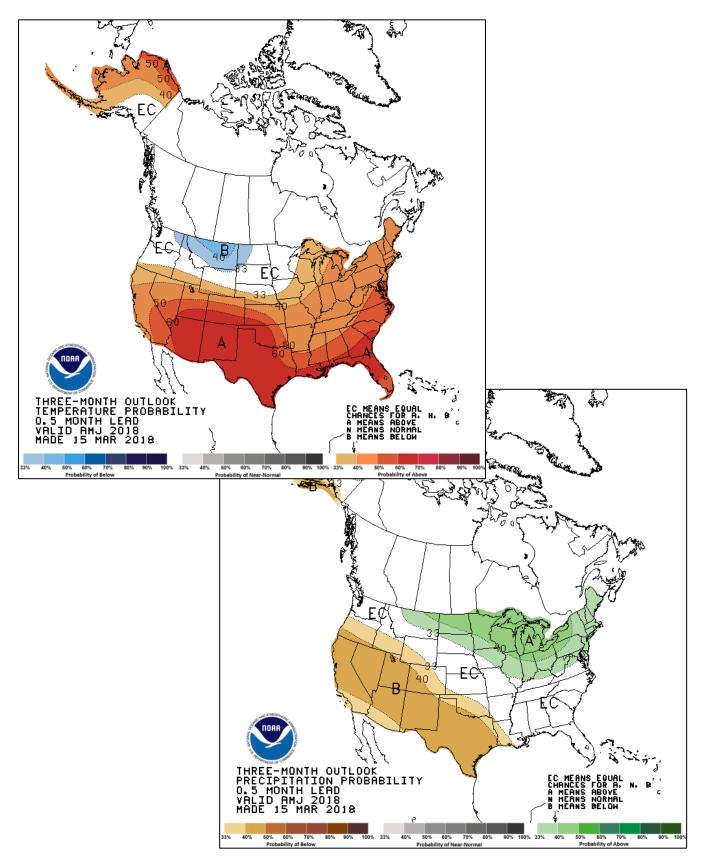
Website: http://www.wrcc.dri.edu/wwdt/index.php?folder=pon1

PRISM > Precipitation Anomaly 1 Month > Oregon



April through June Outlook - Follow link for the latest information.

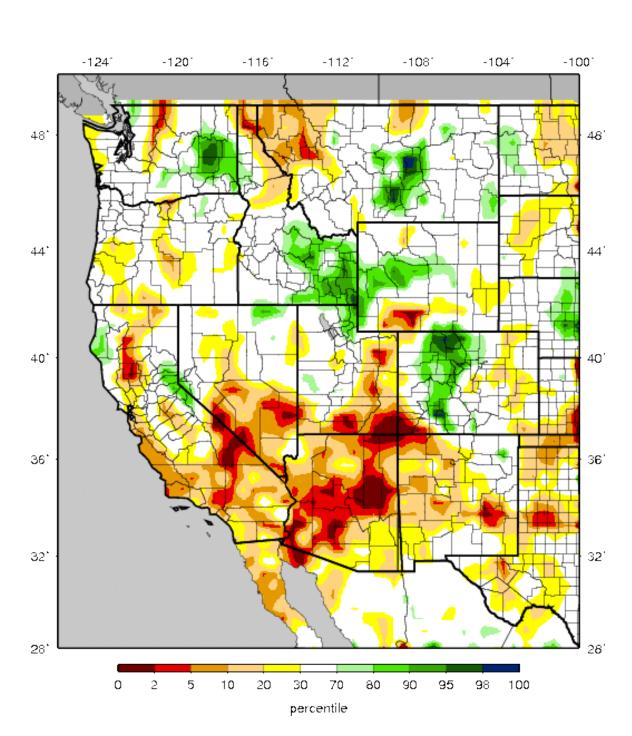
Website: <u>http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1</u>



Soil Moisture - Percentile

Website:

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



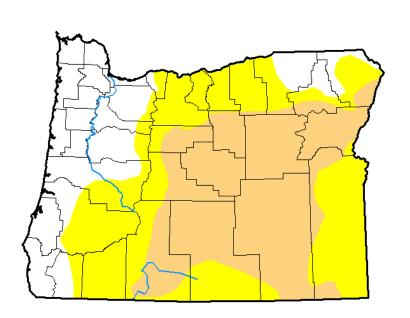
VIC Soil Moisture Percentiles (wrt/ 1916-2004) Western United States - 20180324

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

U.S. Drought Monitor Oregon

March 20, 2018

(Released Thursday, Mar. 22, 2018) Valid 8 a.m. EDT



Drought Conditions (Percent Area)							
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	
Current	23.86	76.14	38.32	0.00	0.00	0.00	
Last Week 03-13-2018	23.86	76.14	38.32	0.00	0.00	0.00	
3 Month s Ago 12-19-2017	100.00	0.00	0.00	0.00	0.00	0.00	
Start of Calend ar Year 01-02-2018	100.00	0.00	0.00	0.00	0.00	0.00	
Start of Water Year 09-26-2017	39.23	60.77	28.57	0.00	0.00	0.00	
One Year Ago 03-21-2017	100.00	0.00	0.00	0.00	0.00	0.00	

Intensity:



D3 Extreme Drought

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

Author: Chris Fenimore NCEI/NESDIS/NOAA



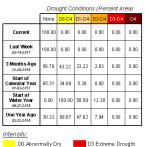
http://droughtmonitor.unl.edu/

Compared to this time last year:

U.S. Drought Monitor Oregon



(Released Thursday, Mar. 23, 2017) Valid 8 a.m. EDT





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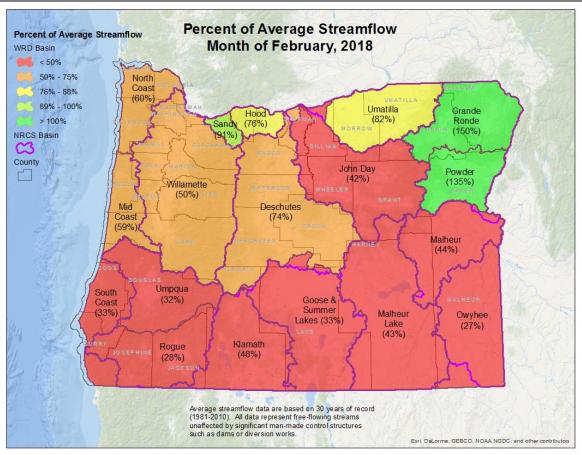
<u>Author:</u> Eric Luebehusen U.S. Department of Agriculture



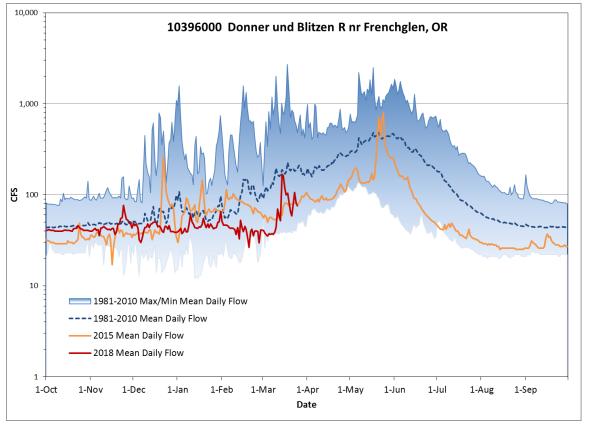
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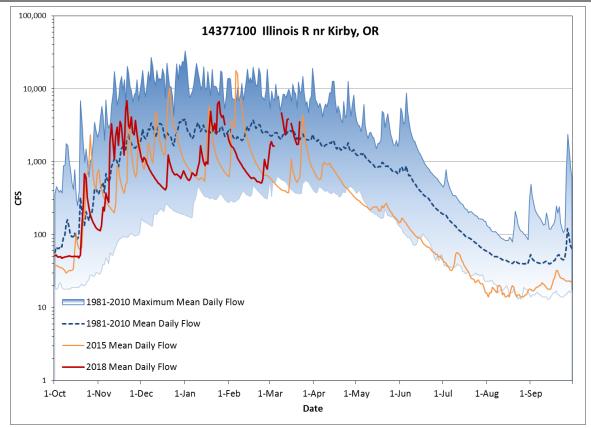




Streamflow Conditions – Malheur Lake



Streamflow Conditions – Rogue



Statewide Reservoir Conditions - February

