Oregon Water Conditions Report February 11, 2019



Snow water equivalent values measured at NRCS SNOTEL sites remain below normal statewide at 80 percent. The Lake County, Goose Lake basin currently has the highest amounts of snowpack, measuring 115 percent of normal. The Hood, Sandy, and Lower Deschutes basins are measuring the least amount of snowpack and stand at 57 percent of normal.

Oregon statewide water year precipitation at NRCS SNOTEL sites is 82 percent of normal. The highest amounts of water year precipitation have been in the Grande Ronde, Burnt, and Powder basins with 99 percent of normal, while the lowest value is in the Hood, Sandy, and Lower Deschutes basins at 77 percent of normal for the water year.

The February NRCS <u>Basin Outlook Report</u> is now available. This report is published monthly from January through June. The most recent edition points out that a wide array of snow conditions exists throughout the state. In general, most of eastern Oregon has snowpack conditions in the 80-100 percent of normal range, while the snow in western and central Oregon ranges from about 50-70 percent of normal.

Temperatures over the <u>past two weeks</u> have been cooler than normal across the north and western regions of the state. Temperatures were normal to warmer than normal in Baker, Malheur, Harney, Klamath and Josephine counties. For the <u>month of January</u>, temperatures were above normal for almost the entire state.

Over the next <u>8 to 14 days</u>, the NOAA Climate Prediction Center is forecasting belownormal temperatures across the state. Precipitation probability is for equal chances of above or below normal for all but the southwest corner of the state where below-normal precipitation is forecast. The most recent <u>three month outlook</u> indicates increased chances of above-normal temperatures along with below-normal precipitation for the entire state. The next long-term outlook will be issued on February 21, 2019.

El Niño is expected to form and continue through the Northern Hemisphere spring **2019.** ENSO-neutral conditions continued during December 2018, despite widespread above-average sea surface temperatures across the equatorial Pacific Ocean. For more insight, refer to the January 10, 2019 <u>diagnostic discussion</u> issued by the Climate Prediction Center. Another excellent source of information is the latest <u>ENSO blog</u> on the climate.gov website. The Climate Prediction Center provides updates on a regular basis. The next diagnostics discussion is scheduled for February 14, 2019.

Statewide streamflows for January were 62 percent of normal. This is up slightly from the 60 percent seen for the month of December. Regionally for January, streamflow conditions were about 55 percent east of the Cascades and 74 percent to the west. More recent data indicate that flows remain lower than normal, ranging from a little over 20 percent in the North Coast to well over 100 percent in the Grande Ronde.

USACE Reservoirs: Rogue: Currently the system is 53 percent full and on rule curve. Lost Creek is at 60 percent and also on rule curve, maintaining an outflow of about 1,085 cfs with inflows currently at 1,420 cfs. Applegate is at 20 percent and on rule curve. Applegate outflows are right at 200 cfs with inflows now at 250 cfs.

<u>Willow Creek:</u> Currently the project is 58 percent full and 4 percent above rule curve. Inflows are about 32 cfs while the project has been maintaining an outflow of about 2.4 cfs. The project goal is to continue to capture inflows to stay on rule curve.

<u>Willamette:</u> The project is currently at 12 percent of capacity and just below rule curve. The flows in the Willamette River at Albany are about 10,300 cfs and flows at Salem are about 16,300 cfs.

<u>USBR Reservoirs</u>: Storage contents in Reclamation's Pacific Northwest Region reservoirs in Oregon remain below-normal for this time of year and range from 20 percent of average in the Powder Basin system to almost 80 percent of average in the Owyhee. Coupled with below average precipitation and runoff forecasts for this upcoming spring, there is the potential for minimal risk in terms of flood control operations and a relatively increased risk in terms of refill. The current operation at all reservoirs is to release winter minimum flows to allow the reservoirs to fill over the winter and it is anticipated this operation will continue for the next few months.

In north central Oregon, <u>McKay Reservoir</u> is at 49 percent of capacity, which is about 70 percent of normal for this time of year. In the Willamette, <u>Scoggins Reservoir</u> is currently 64 percent full. <u>Central Oregon</u> reservoirs are between 12 (Ochoco) and 72 (Crane Prairie) percent of capacity. <u>Eastern Oregon</u> reservoirs (not considering Thief Valley) are all at or below 40 percent now with Phillips at 9 percent and Owyhee at 40 percent of capacity. <u>Rogue Basin</u> reservoirs are between 12 and 34 percent of capacity. <u>Upper Klamath Lake</u> is currently at 63 percent of capacity.

The most recent update to the <u>US Drought Monitor</u> is showing a slight improvement in conditions in Oregon over the past few weeks. Indicators now point toward D3 (Extreme Drought) in a little under 12 percent of the state. The report now shows that 74 percent of the state is in D2 (Severe Drought), 91 percent is listed as in D1 (Moderate Drought) and 100 percent of the state is still listed as D0 (Abnormally Dry).

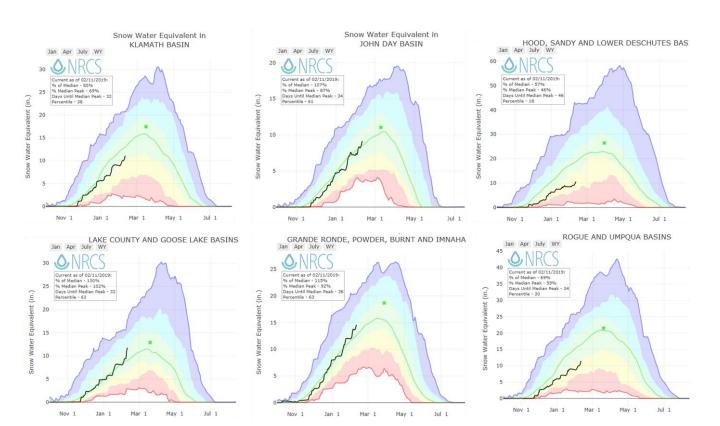
Wildfire conditions across the state are now at low levels. The next wildland fire <u>outlook</u> update is scheduled for February 1, 2019. More information can also be accessed through the Northwest Interagency Coordination Center <u>website</u>. Another recommended resource is the Oregon Office of Emergency Management's <u>RAPTOR</u> incident mapping program which includes current situational information, such as wildfire perimeters, thermal satellite, fire evacuation boundaries, and air quality info.

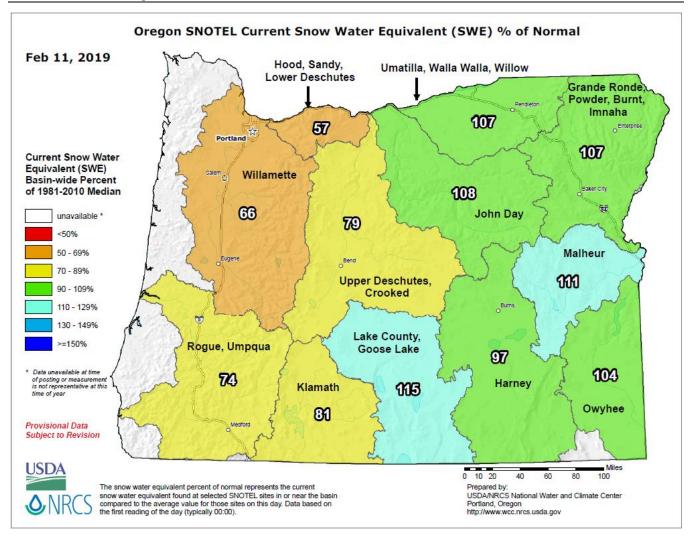
Data & Products:

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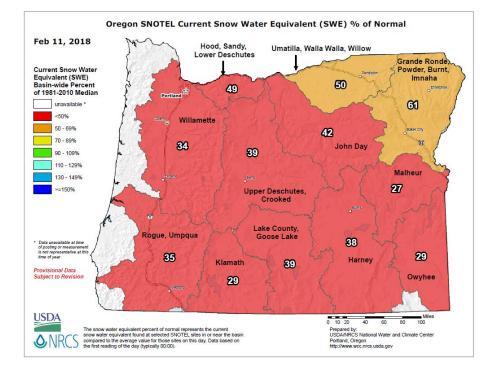
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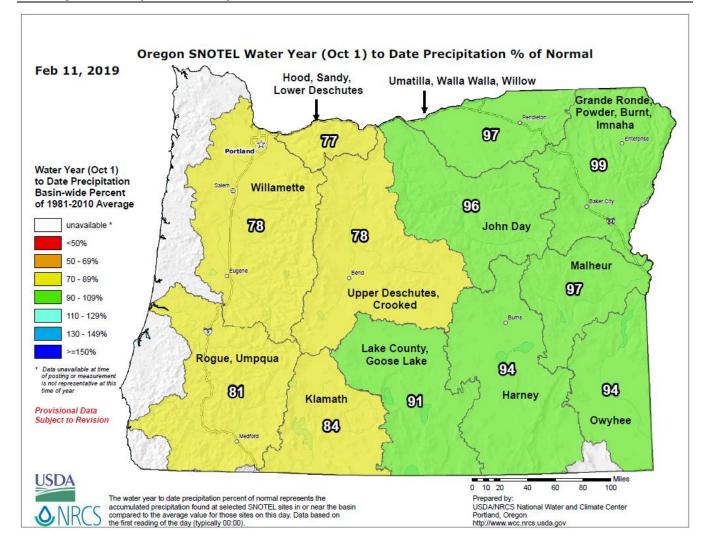
Snowpack Graphs – February, 2019



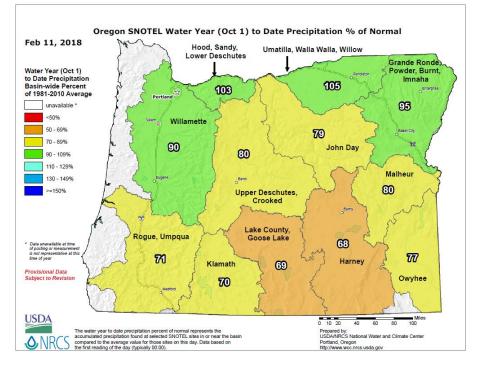


Compared to this time last year -



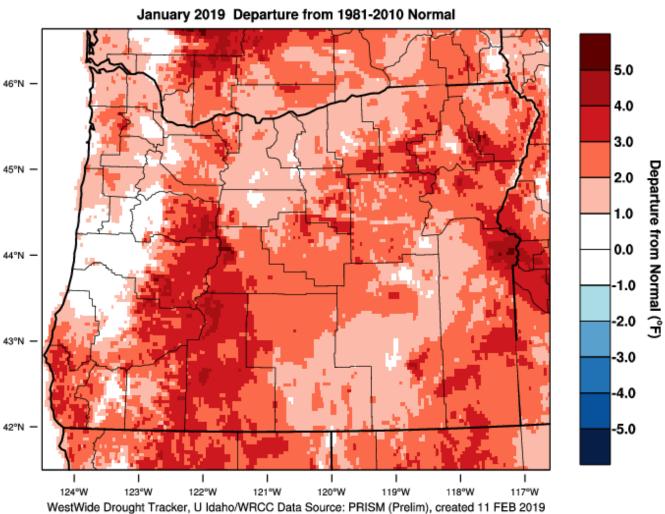


Compared to this time last year -



Website: <u>https://wrcc.dri.edu/wwdt/index.php?region=or</u>

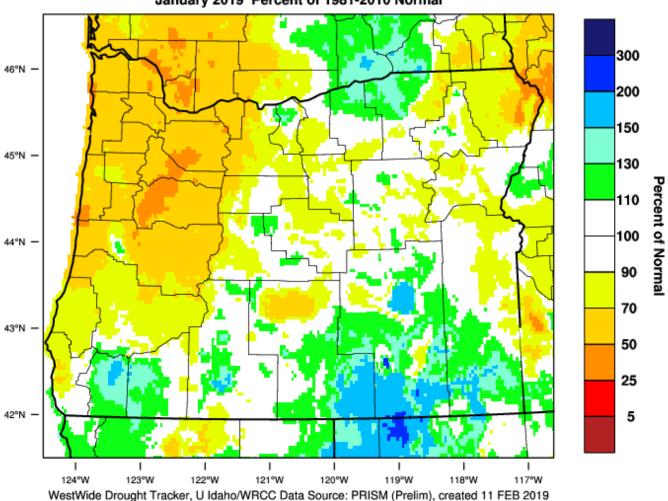
PRISM > Temperature Anomaly 1 Month > Oregon



Oregon - Mean Temperature

Websitehttps://wrcc.dri.edu/wwdt/index.php?region=or

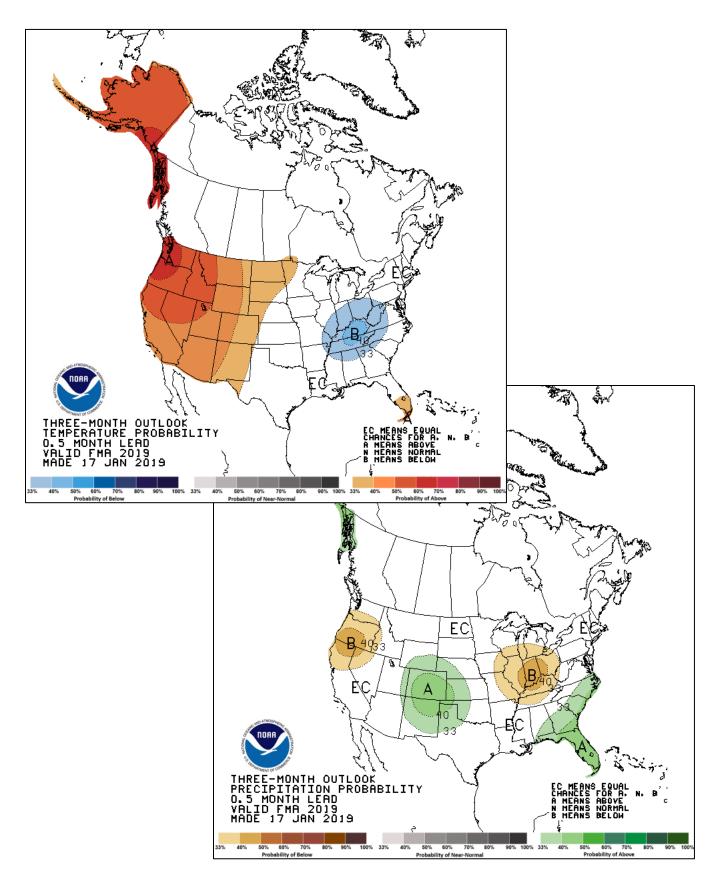
PRISM > Precipitation Anomaly 1 Month > Oregon



Oregon - Precipitation January 2019 Percent of 1981-2010 Normal

February through April

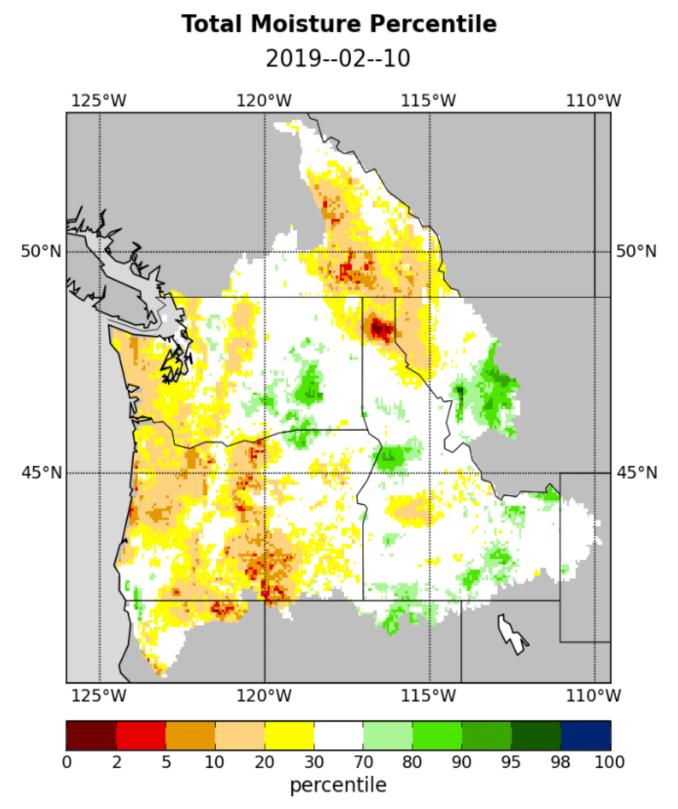
Website: http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1



Total Moisture - Percentile

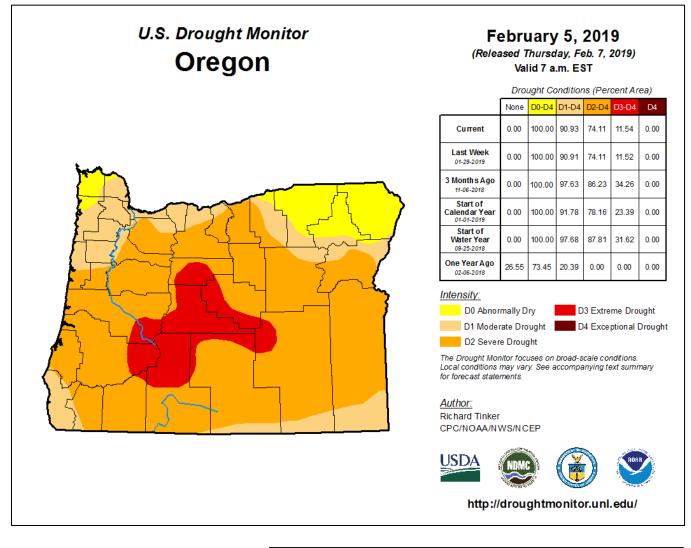
Total Moisture (STOT) is a moisture index calculated by adding Soil Moisture and Snow Water Equivalent. STOT represents the total water content of a region.

Website: http://www.hydro.ucla.edu/SurfaceWaterGroup/forecast/monitor pnw/index.shtml

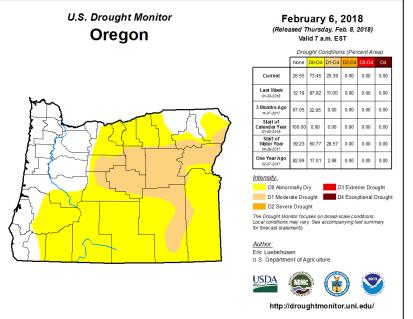


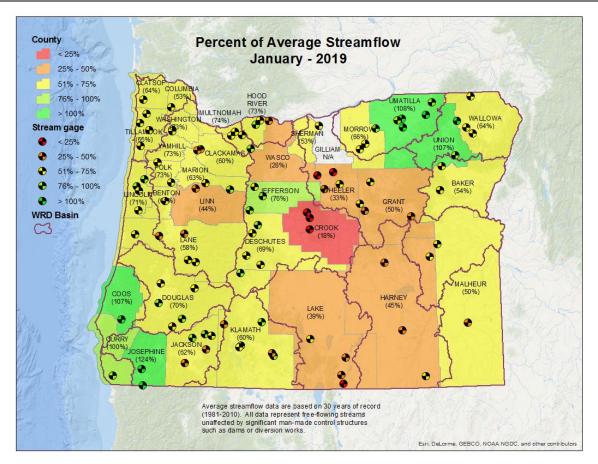
U.S. Drought Monitor for Oregon

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

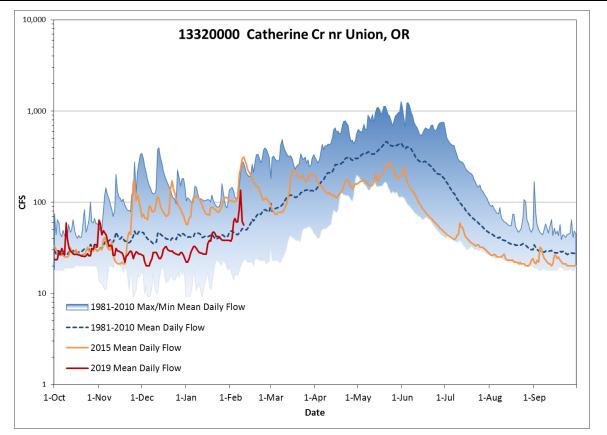


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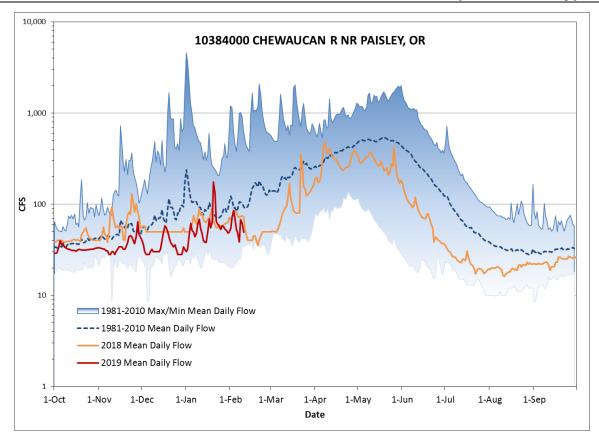




Streamflow Conditions – Grande Ronde Basin (Union County)



Streamflow Conditions – Goose & Summer Lake Basin (Lake County)



Streamflow Conditions – Deschutes Basin (Crook County)

