

Oregon Water Conditions Report January 28, 2019



Snow water equivalent values measured at NRCS SNOTEL sites remain below normal.

Statewide snowpack is currently at 70 percent of normal. The Lake County, Goose Lake and Umatilla, Walla Walla, and Willow basins have the highest amounts of snowpack and are measuring 105 to 104 percent of normal. The Hood, Sandy, and Lower Deschutes basins are measuring the least amounts of snowpack and stand at 50 percent of normal.

Oregon statewide water year precipitation at NRCS SNOTEL sites is 81 percent of normal. The highest amounts of water year precipitation have been in the Umatilla, Walla Walla, and Willow basins with 97 percent of normal, while the lowest values are in the Upper Deschutes, Crooked basins at 77 percent of normal for the water year.

The first NRCS [Basin Outlook Report](#) of the year is now available. This report is published monthly from January through June. The most recent edition points out that while we are seeing snowpack deficits for this time of the year, it is still early in the season and there are opportunities for these conditions to change significantly. While eastern Oregon currently has about-normal snowpack as of January 1, storms must continue to bring snow and cold temperatures in order to keep it on track.

Temperatures over the [past two weeks](#) have been warmer than normal across most of the state. Temperatures ranged from two degrees below normal in parts of central and western Oregon to eight degrees above normal in the southeast and eastern regions of the state. For the [month of December](#), temperatures were above normal for the northern part of the state and about normal for the rest of the state.

Over the next [8 to 14 days](#), the NOAA Climate Prediction Center is forecasting below-normal temperatures across the state. Precipitation probability is for below-normal precipitation in the western half of the state with equal chances of above or below for the eastern half. The most recent [three month outlook](#) 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 [diagnostic discussion](#) issued by the Climate Prediction Center. Another excellent source of information is the latest [ENSO blog](#) 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 December were 60 percent of normal. This is up from the 50 percent seen for the month of November. Regionally for December, streamflow conditions were about 56 percent east of the Cascades and 63 percent to the west. More recent data

indicate that despite recent rain events flows remain lower than normal, ranging from less than 40 percent in the John Day and Owyhee to almost 100 percent in the South Coast.

USACE Reservoirs: Rogue: Currently the system is 50 percent full and 7 percent above rule curve. Lost Creek is at 54 percent and 4 percent above rule curve, maintaining an outflow of about 1,050 cfs with inflows currently at 1,750 cfs. Applegate is at 29 percent and 19 percent above rule curve. Applegate outflows are just below 1,000 cfs with inflows now at 530 cfs.

Willow Creek: Currently the project is 37 percent full and 9 percent below rule curve. Inflows are about 30 cfs while the project has been maintaining an outflow of about 3 cfs. The project goal is to continue to capture inflows to get back to rule curve.

Willamette: The project is currently effectively empty and very close to the rule curve. The flows in the Willamette River at Albany are about 16,000 cfs and flows at Salem are about 26,000 cfs.

USBR Reservoirs: Storage contents in Reclamation's Pacific Northwest Region reservoirs in Oregon remain below-normal for this time of year and range from 15 percent of average in the Crooked River 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.

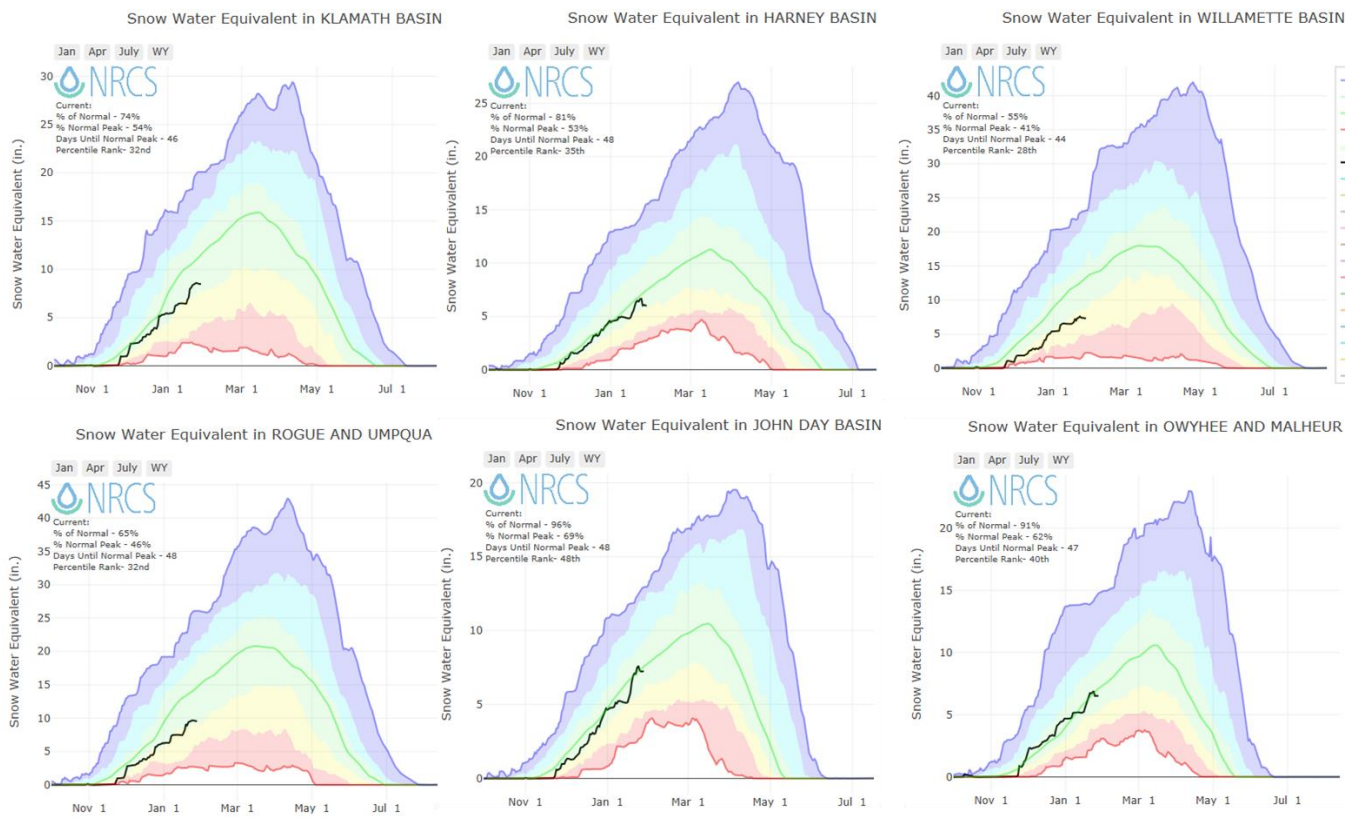
In north central Oregon, **McKay Reservoir** is at 38 percent of capacity, which is below normal for this time of year. In the Willamette, **Scoggins Reservoir** is currently 60 percent full. **Central Oregon** reservoirs are between 6 (Ochoco) and 70 (Crane Prairie) percent of capacity. **Eastern Oregon** reservoirs (not considering Thief Valley) are all at or below 38 percent now with Warm Springs at 8 percent and Owyhee at 38 percent of capacity. **Rogue Basin** reservoirs are between 11 and 33 percent of capacity. **Upper Klamath Lake** is currently at 58 percent of capacity.

The most recent update to the US Drought Monitor is showing an improvement in conditions in Oregon over the past few weeks. Indicators now point toward D3 (Extreme Drought) in a little over 12 percent of the state. This is down from the 23 percent indicated last week. The report continues to show that 78 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).

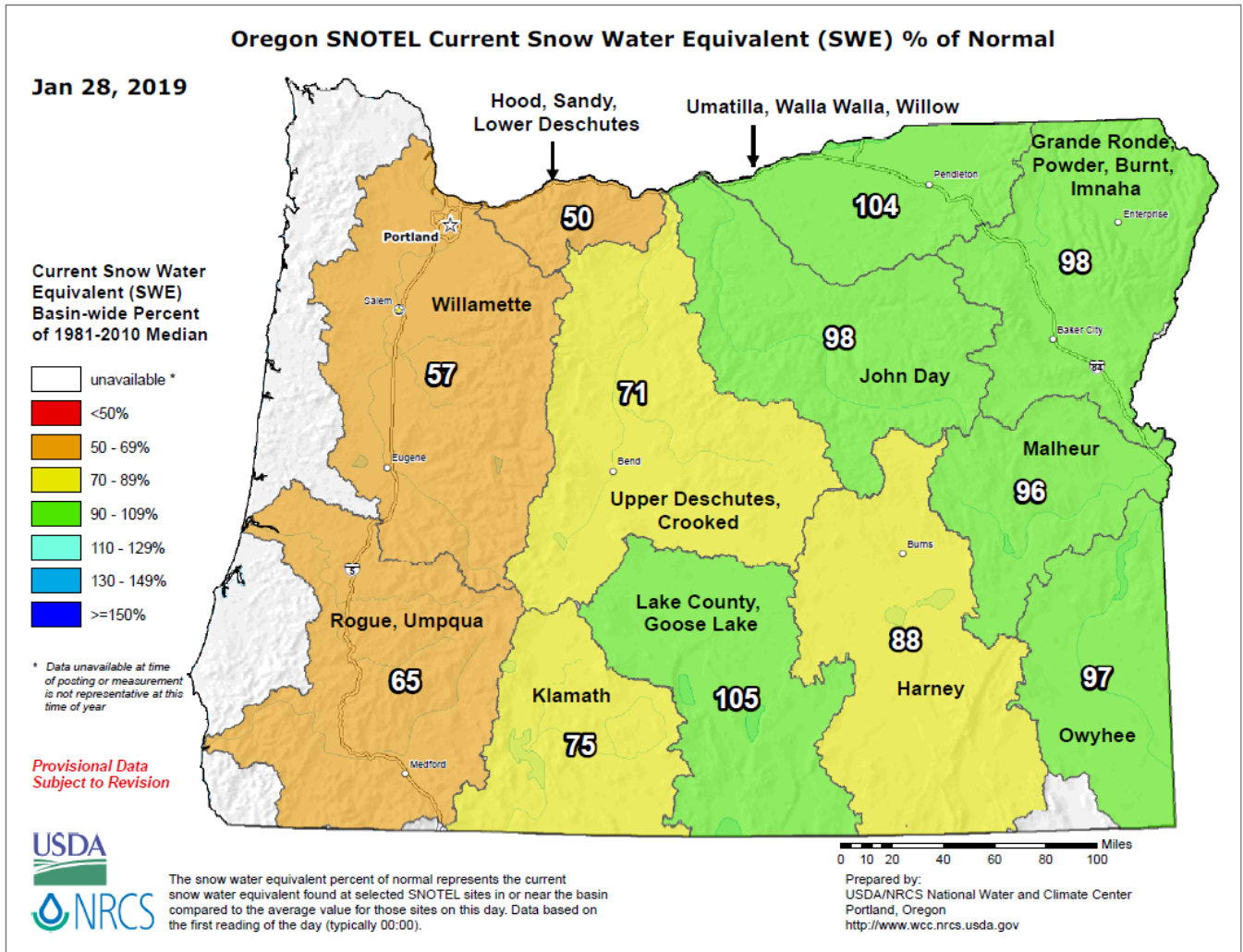
Wildfire conditions have abated across the state with fire danger now at low levels. The next wildland fire **outlook** update is scheduled for February 1, 2019. More information can also be accessed through the Northwest Interagency Coordination Center **website**. Another recommended resource is the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

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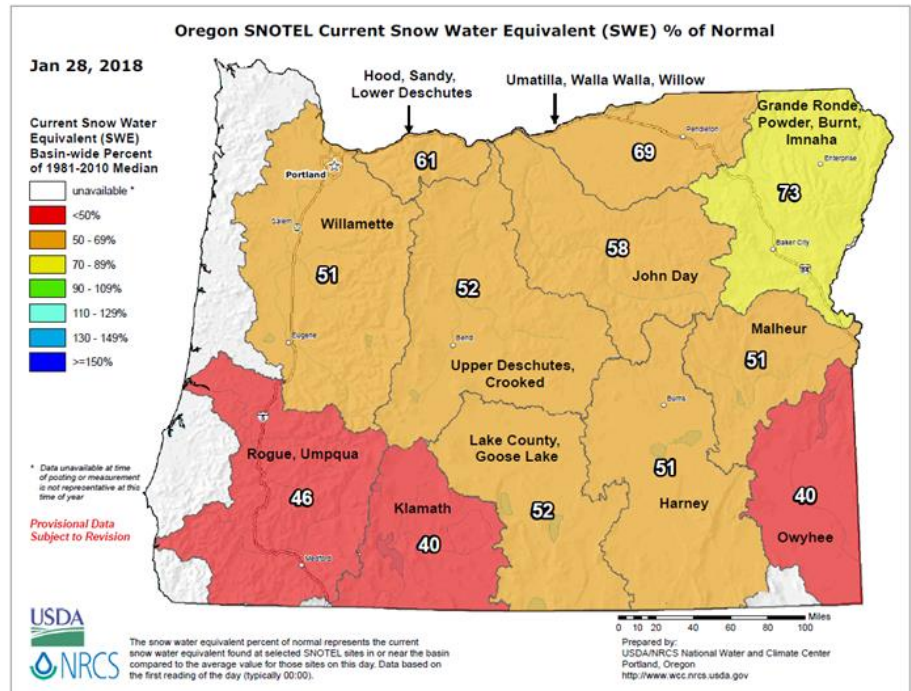
Snowpack Graphs – January 2019



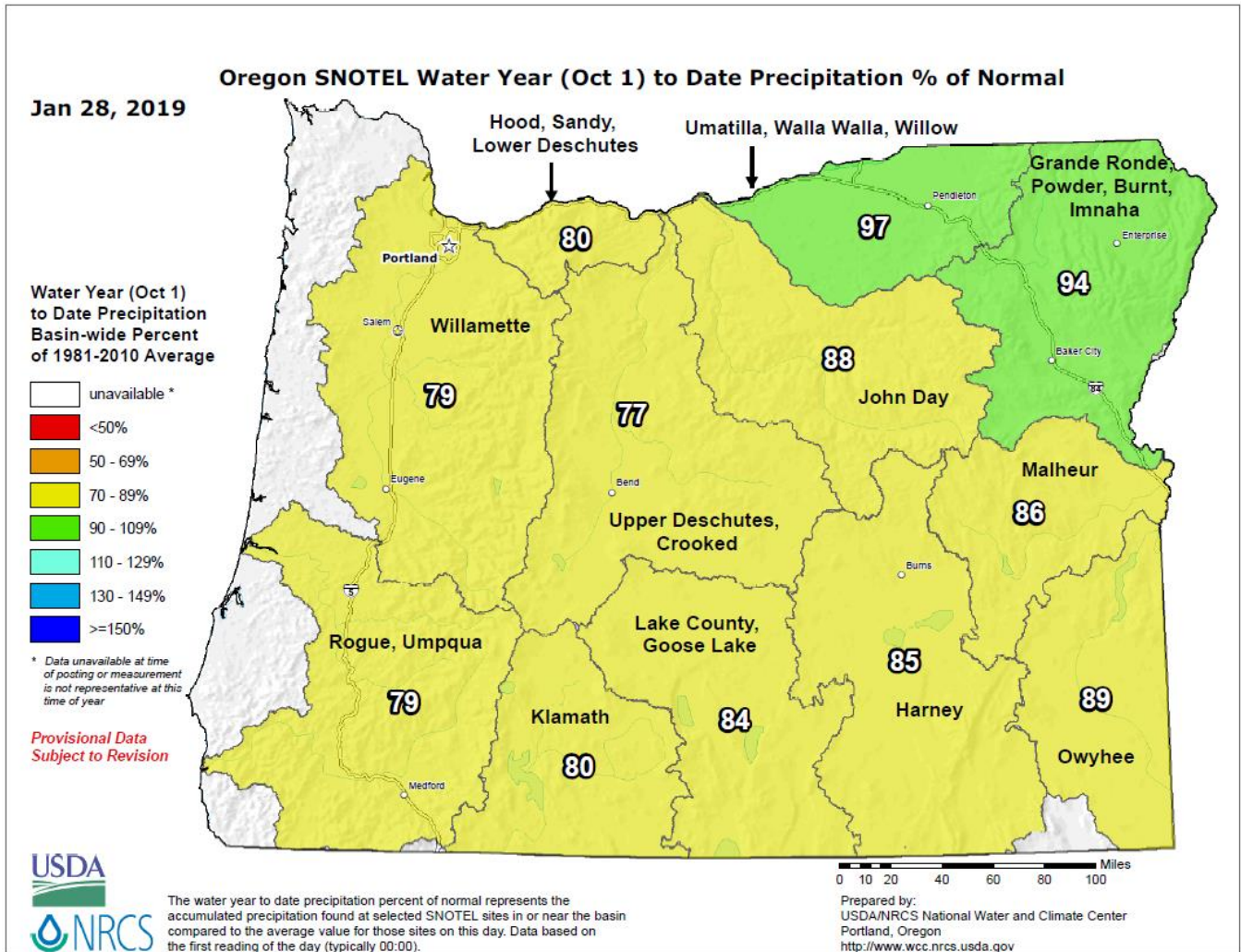
Snow Water Equivalent - Percent of Normal



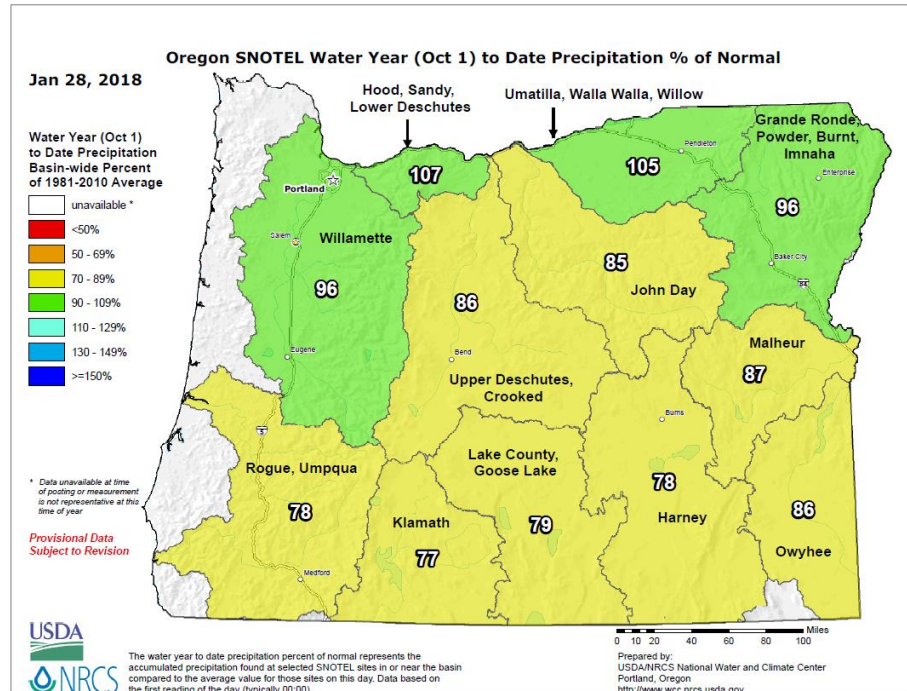
Compared to this time last year -



Precipitation (Mountain) - Percent of Normal



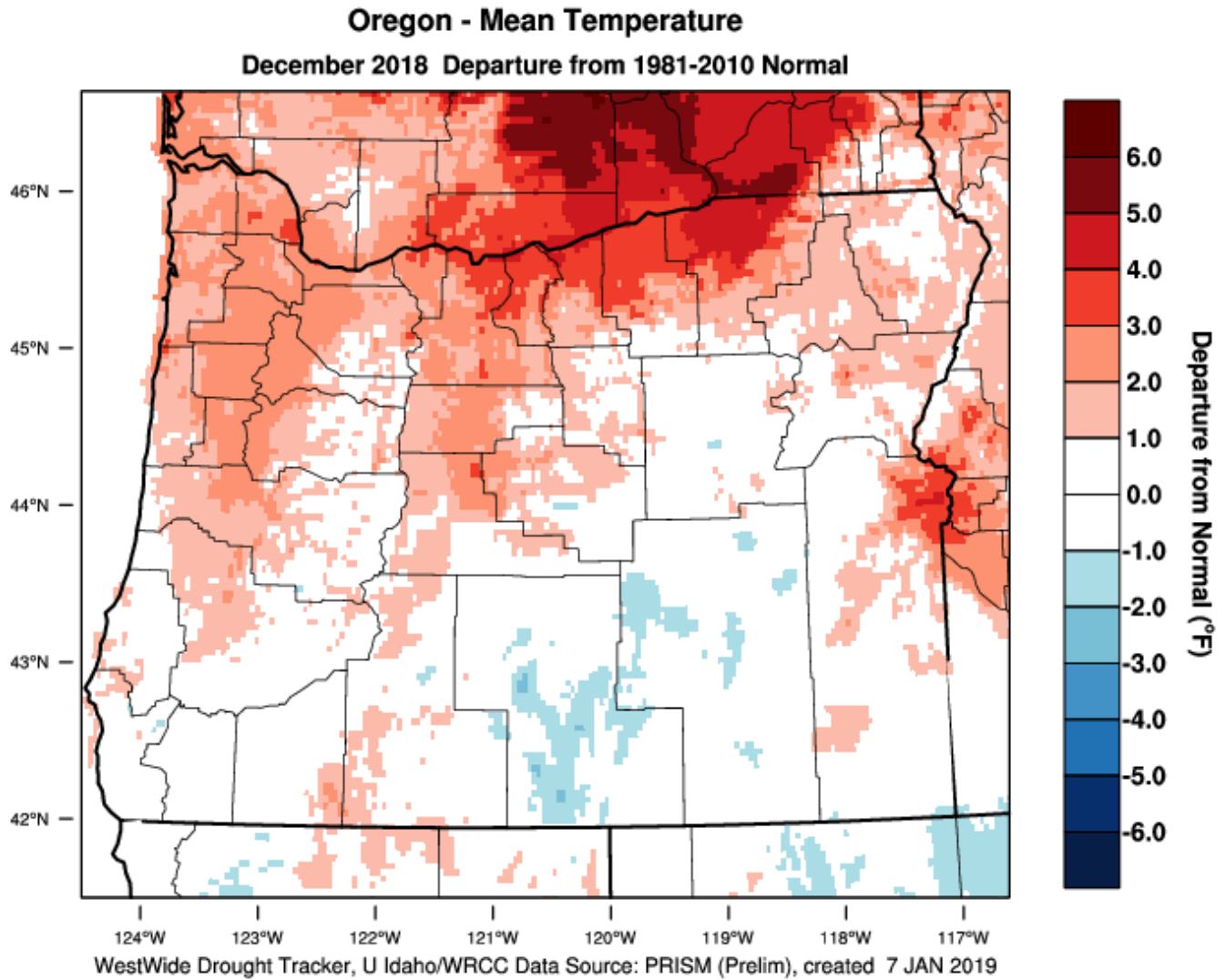
Compared to this time last year -



Temperature – (1 Month) Departure from Normal

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

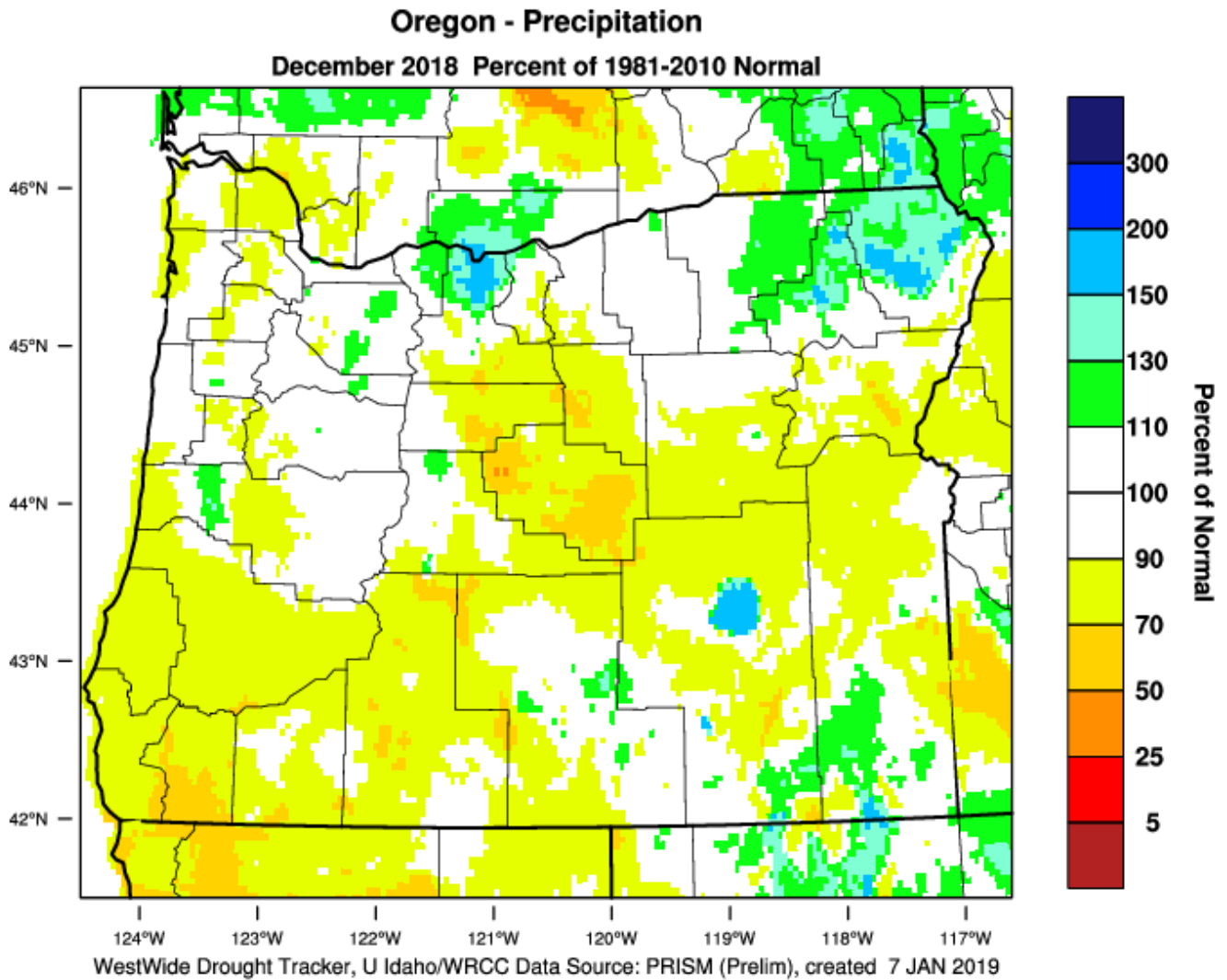
PRISM > Temperature Anomaly 1 Month > Oregon



Precipitation – (1 Month) Percent of Normal

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

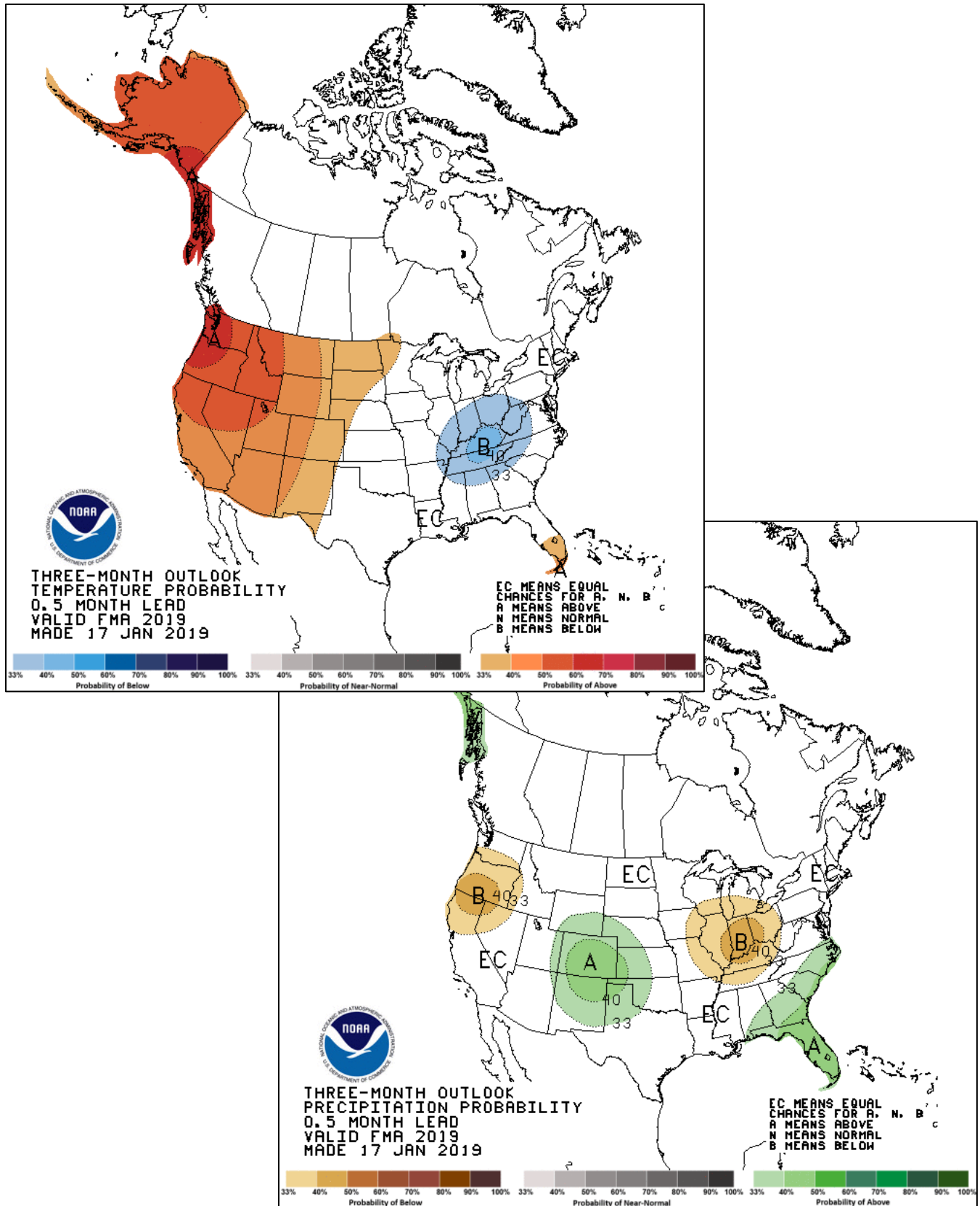
PRISM > Precipitation Anomaly 1 Month > Oregon



Three Month Temperature and Precipitation Outlook

February through April

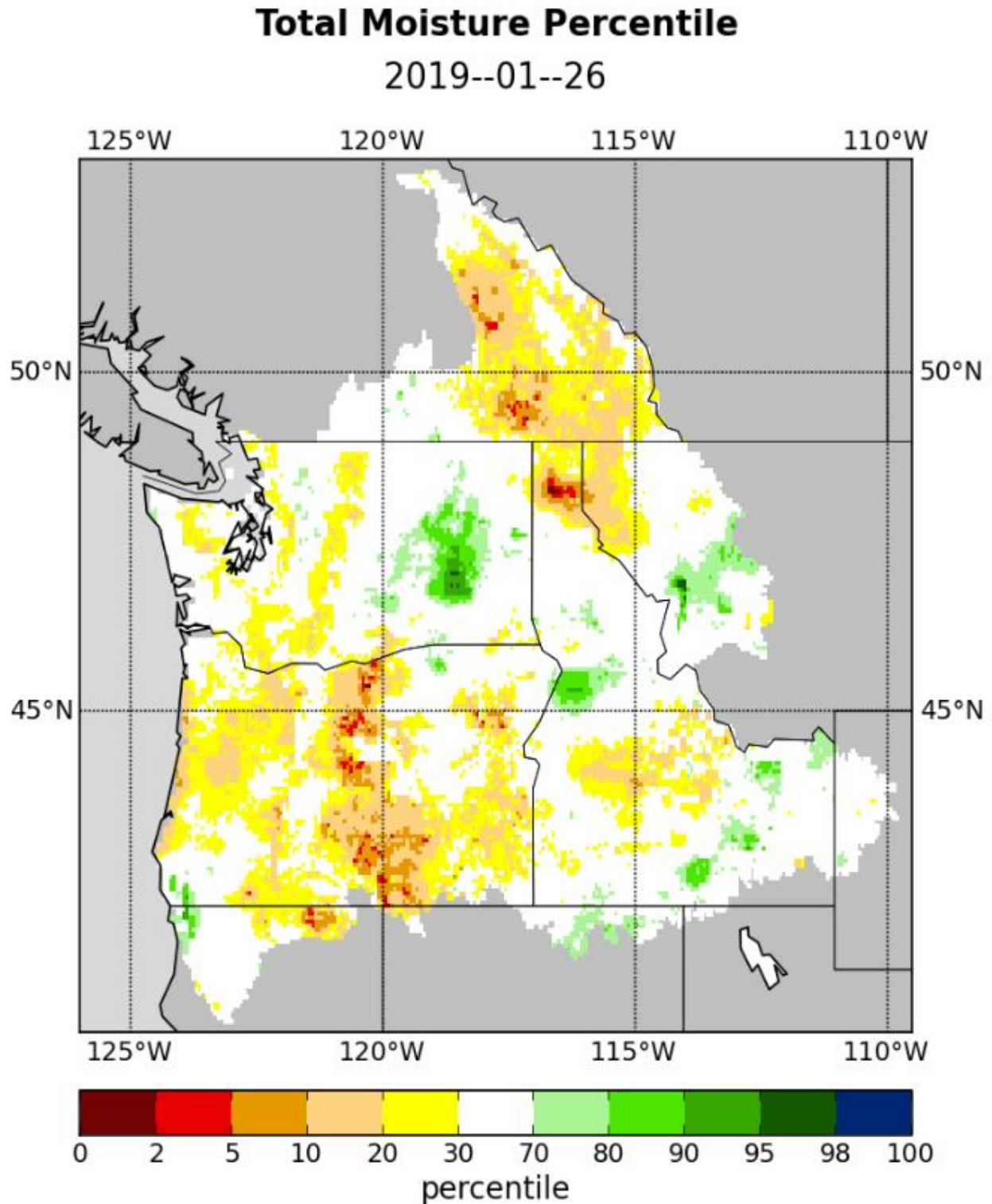
Website: http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1



Total Moisture - Percentile

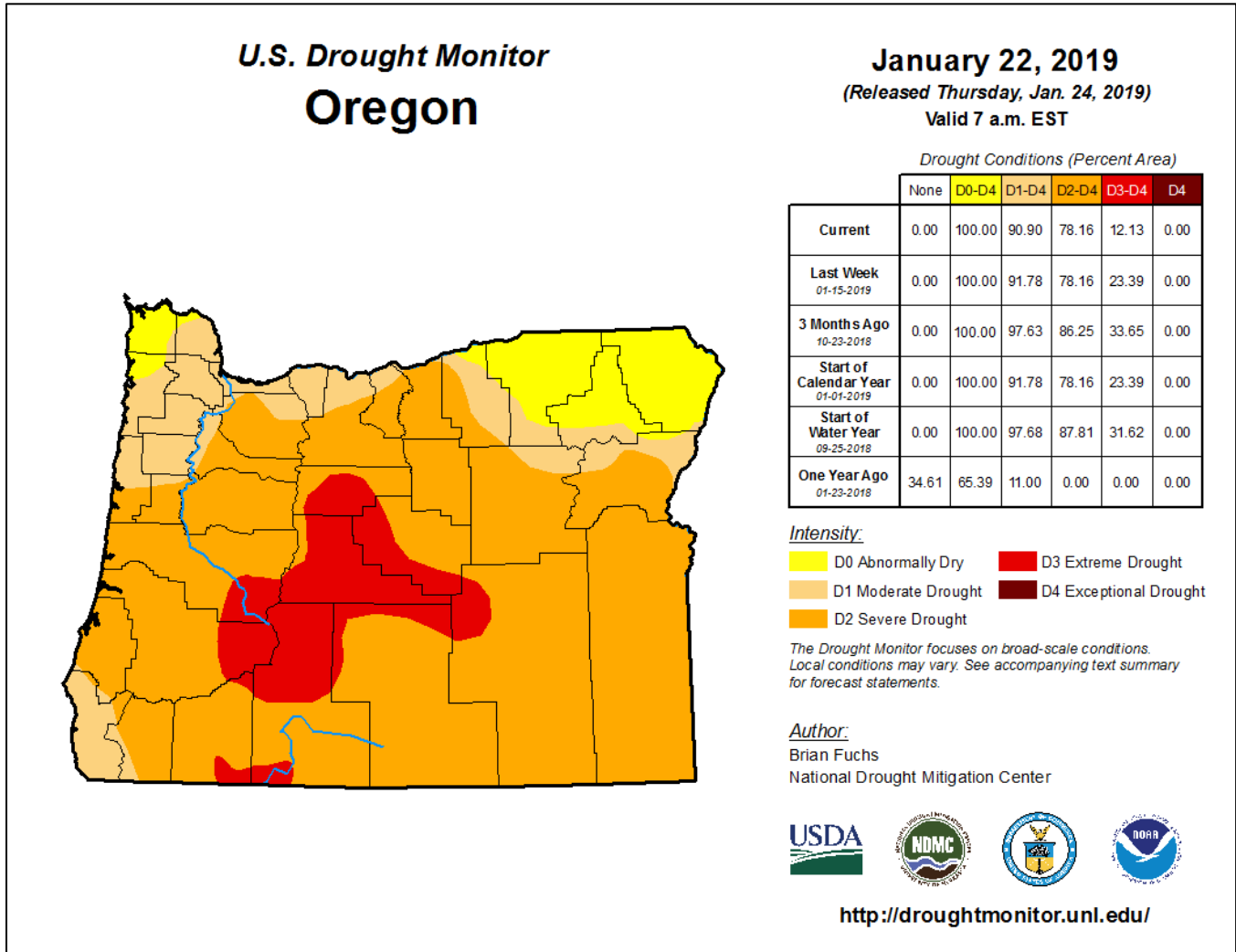
Total Moisture (STOT) is a moisture index calculated by adding Soil Moisture and Snow Water Equivalent. STOT represents the total water content of a region.

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

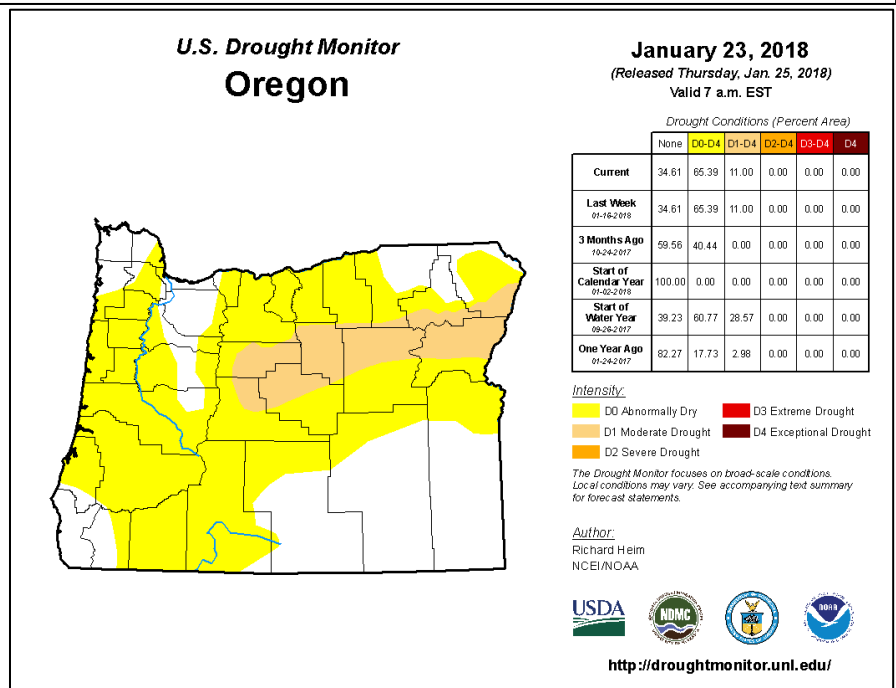


U.S. Drought Monitor for Oregon

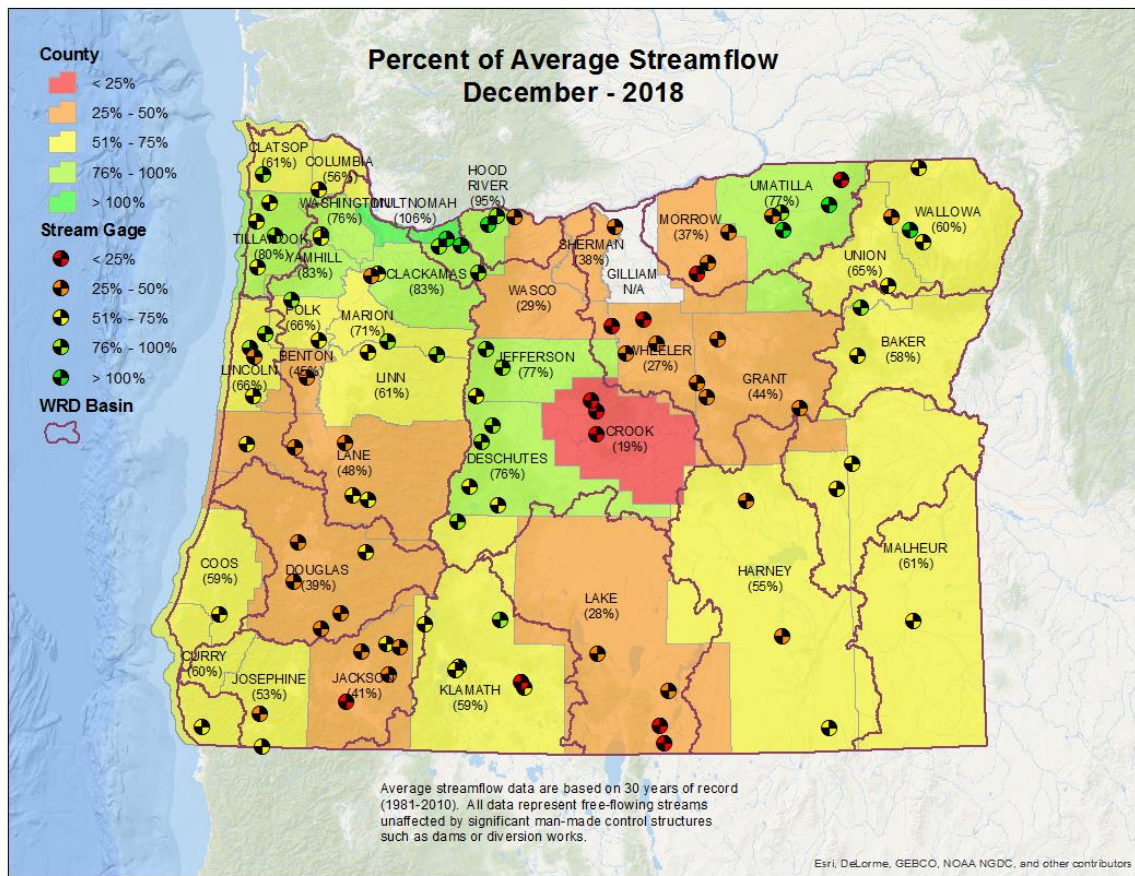
Website: <https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?OR>



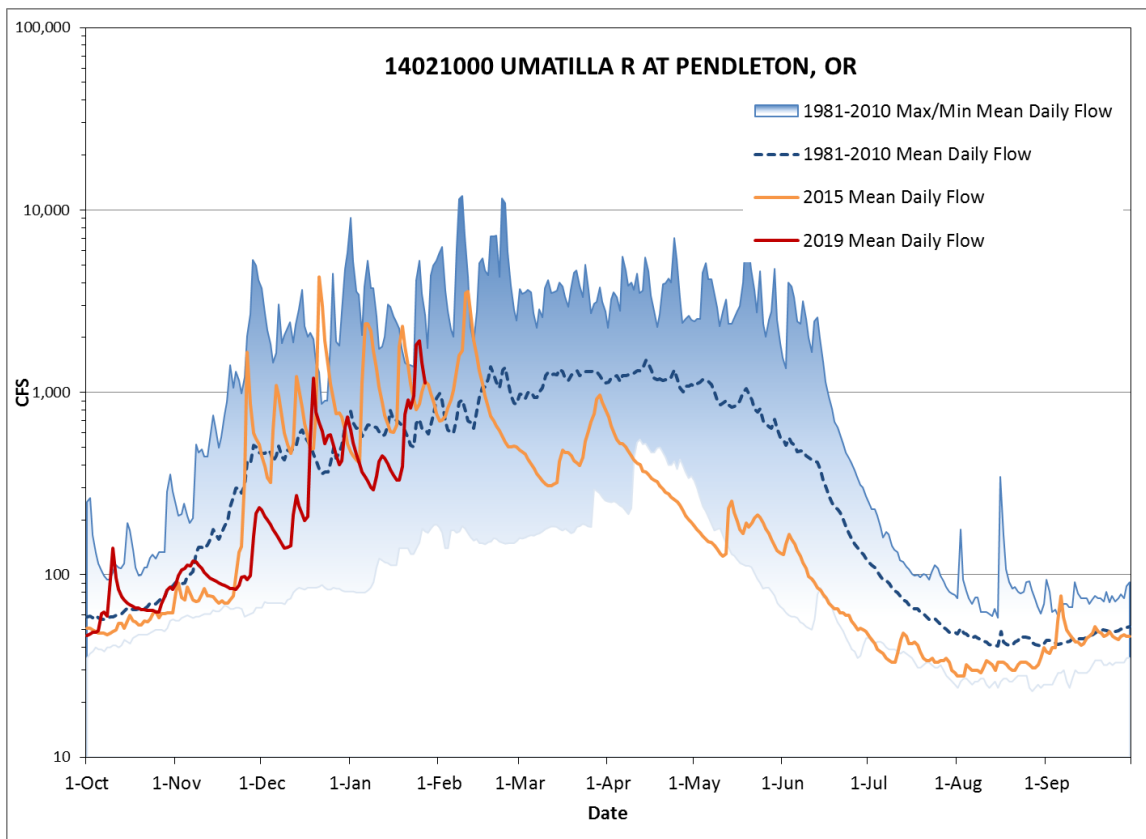
Compared to this time last year:



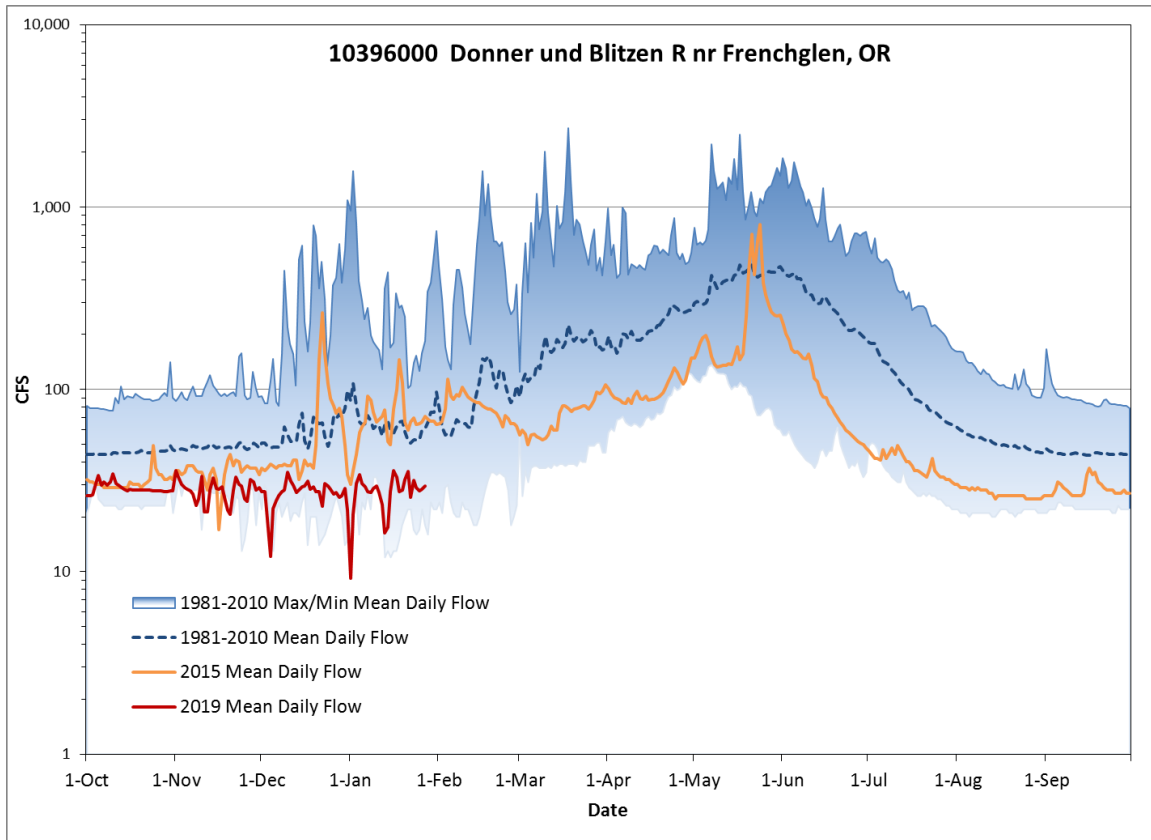
Streamflow Conditions by County - December



Streamflow Conditions – Umatilla Basin (Umatilla County)



Basin Streamflow Conditions – Malheur Lake Basin (Harney County)



Basin Streamflow Conditions – Powder Basin (Baker County)

