

Oregon Water Conditions Report June 1, 2020



The majority of Oregon snowpack has melted out and the remaining areas with snow will be rapidly melting out over the next couple of weeks.

Current Oregon statewide water year precipitation at NRCS SNOTEL sites is 80 percent of average. Basin precipitation values range from a low of 68 percent in the Klamath basin to 104 percent of average in the Grand Ronde, Powder, Burnt, and Imnaha basins.

The NRCS [Basin Outlook Report](#) for May is available. The June report should be released in a few days. This report is published monthly from January through June.

Precipitation over the [past two weeks](#) varied widely, ranging from 1.5 inches below-normal along the coast, northwest, and south central Oregon to over 2.5 inches above-normal in parts northeast Oregon. For the [month of May](#), precipitation was normal to well above normal across most of the state. Most noteworthy were areas in north central, northeast, and southwestern Oregon where precipitation was up to 300 percent of normal.

Temperatures over the [past two weeks](#) have been generally warmer than normal. In some areas of eastern Oregon, temperatures were up to 5 degrees warmer than normal and up to 4 degrees warmer than normal in parts of western and southwest Oregon. For the [month of May](#), temperatures were warmer than normal across most of the state with temperatures close to normal in the north central and south central regions of Oregon.

Over the next [8 to 14 days](#), the NOAA Climate Prediction Center is forecasting a range of temperature and precipitation probabilities across the state. From higher than normal temperature in the southwest, transitioning to normal temperatures from northwest to south central Oregon and below-normal temperature in the eastern third of the state. The precipitation outlook is also varied from above-normal in the northwest transitioning to normal precipitation stretching from southwest to northeast and finally, above-normal in southeastern Oregon. The most recent [three month outlook](#) indicates an increased probability of above-normal temperatures along with below-normal precipitation across the Pacific Northwest. The next long-term outlook will be issued on June 18, 2020.

There is a ~65 percent chance of [ENSO-neutral](#) during Northern Hemisphere summer 2020, with chances decreasing through the autumn (to 45-50 percent). During April 2020, positive sea surface temperature (SST) anomalies weakened and were near zero by the end of the month. All of the Niño indices decreased during the month, with the latest weekly Niño index values near +0.2°C. For a more complete report, refer to the May 14, 2020 [diagnostic discussion](#) issued by the Climate Prediction Center. The next diagnostic discussion is scheduled for June 11, 2020. Another source of information is the latest [ENSO blog](#) on the climate.gov website.

Statewide streamflow conditions for May showed improvement but remained lower than normal at 82 percent. Values ranged from a high of close to 150 percent of normal in

the Umatilla Basin to a low of only 44 percent in the Owyhee. Recent rainfall continues to provide benefit to streamflow in some parts of western and northeast Oregon. Flows in eastern and central Oregon are currently ranging from well over 130 percent of normal in the Umatilla and Grande Ronde basins to only around 45 percent of normal in the Klamath Basin. West of the Cascades, flows are ranging from about 120 percent in the Mid and South Coast to around 55 percent in the Umpqua Basin.

USACE Reservoirs:

Rogue: The Rogue system is 86 percent full and 13 percent below rule curve. Lost Creek is 94 percent full, 6 percent below rule curve and releasing a fisheries recommended flow of 2500 cfs. Applegate is only 53 percent full, 46 percent below rule curve and releasing a minimum flow of 150 cfs. Applegate is not expected to fill this year, and will probably be on or close to minimum flow for most of the summer.

Willamette: The Willamette system is 90 percent full and 10 percent below rule curve. System-wide inflow is close to 7,650 cfs and outflow is about 6,425 cfs. The Willamette River at Salem is currently flowing at 13,128 cfs and has seen an average flow of 14,700 cfs the past 7 days. Most but not all reservoirs are releasing recommended minimum flow. A few are releasing a higher than minimum flow which is used to augment natural streamflow to meet mainstem flow targets measured at Salem. As the weather dries USACE will increase the reservoir releases to ensure that mainstem targets are met, since the targets are identified in the 2008 Biological Opinion.

Willow Creek: Willow Creek is full and is passing inflow. Current releases are 29 cfs.

USBR Reservoirs:

Tualatin River Basin: Scoggins reservoir is at 97 percent of capacity and maintaining storage levels with inflows around 18 cfs and outflows around 38 cfs.

Umatilla River Basin: McKay reservoir is at 100 percent of capacity and drafting with inflows around 224 cfs and outflows around 364 cfs.

Deschutes River Basin: Prineville reservoir is at 68 percent of capacity and drafting with inflows around 47 cfs and outflows around 247 cfs. Ochoco reservoir is at 49 percent of capacity and drafting with inflows around 33 cfs and outflows around 13 cfs. Crescent Lake is at 54 percent, Wickiup reservoir is at 52 percent and Crane Prairie reservoir is at 85 percent of capacity.

Malheur River Basin: Warm Springs reservoir is at 76 percent of capacity and maintaining storage levels with inflows around 179 cfs and outflows of around 174 cfs. Beulah reservoir is at 80 percent of capacity and maintaining storage levels with inflows around 198 cfs and outflows around 174 cfs. Bully Creek reservoir is at 88 percent of capacity and drafting with inflows below 5 cfs and outflows around 10 cfs.

Owyhee River Basin: Owyhee reservoir is at 81 percent of capacity and maintaining storage levels with inflows around 1205 cfs and outflows around 184 cfs.

[Burnt and Powder River Basins](#): Unity reservoir is at 100 percent of capacity and maintaining storage levels with inflows around 125 cfs and outflows around 136 cfs. Phillips reservoir is at 53 percent of capacity and filling with inflows around 363 cfs and outflows around 73 cfs.

The most recent update to the [US Drought Monitor](#) shows some slight improvement with over 95 percent of the state in D0 (abnormally dry) conditions, 82 percent listed as in D1 (moderate drought), 38 percent is listed as in D2 (severe drought) and 7 percent in D3 (extreme drought).

Governor Brown declared a [drought emergency](#) in Klamath County in early March, followed by Curry County in April, Jackson County in early May and most recently in Coos County. It is very likely that more counties will follow in the near future.

May was the transitional period into the Western Fire Season. The Pacific Northwest received beneficial precipitation in late April and May, keeping fire activity light. See the latest report from the [National Interagency Fire Center](#) for the June through September outlooks.

The wildfire season starts today (June 1, 2020) in Central Oregon, Klamath and Lake counties. Refer the Oregon Department of Forestry's [Wildfire News](#) page for more details.

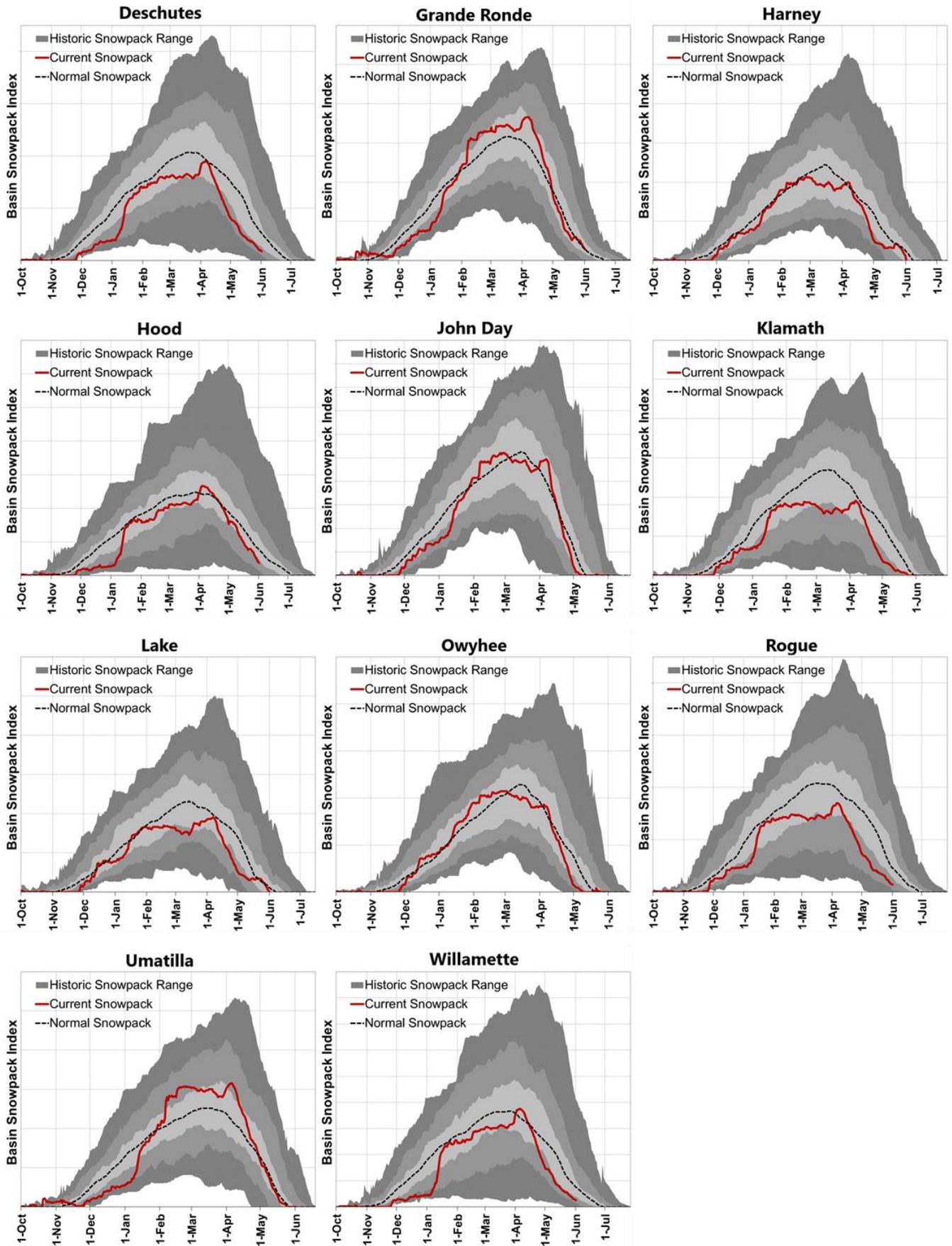
The Oregon Office of Emergency Management has assembled a [hydrology/meteorology dashboard](#) featuring many of the data sources used to generate this report. Use the selection arrows at the bottom of your browser to navigate to the various data sources.

Data & Products:

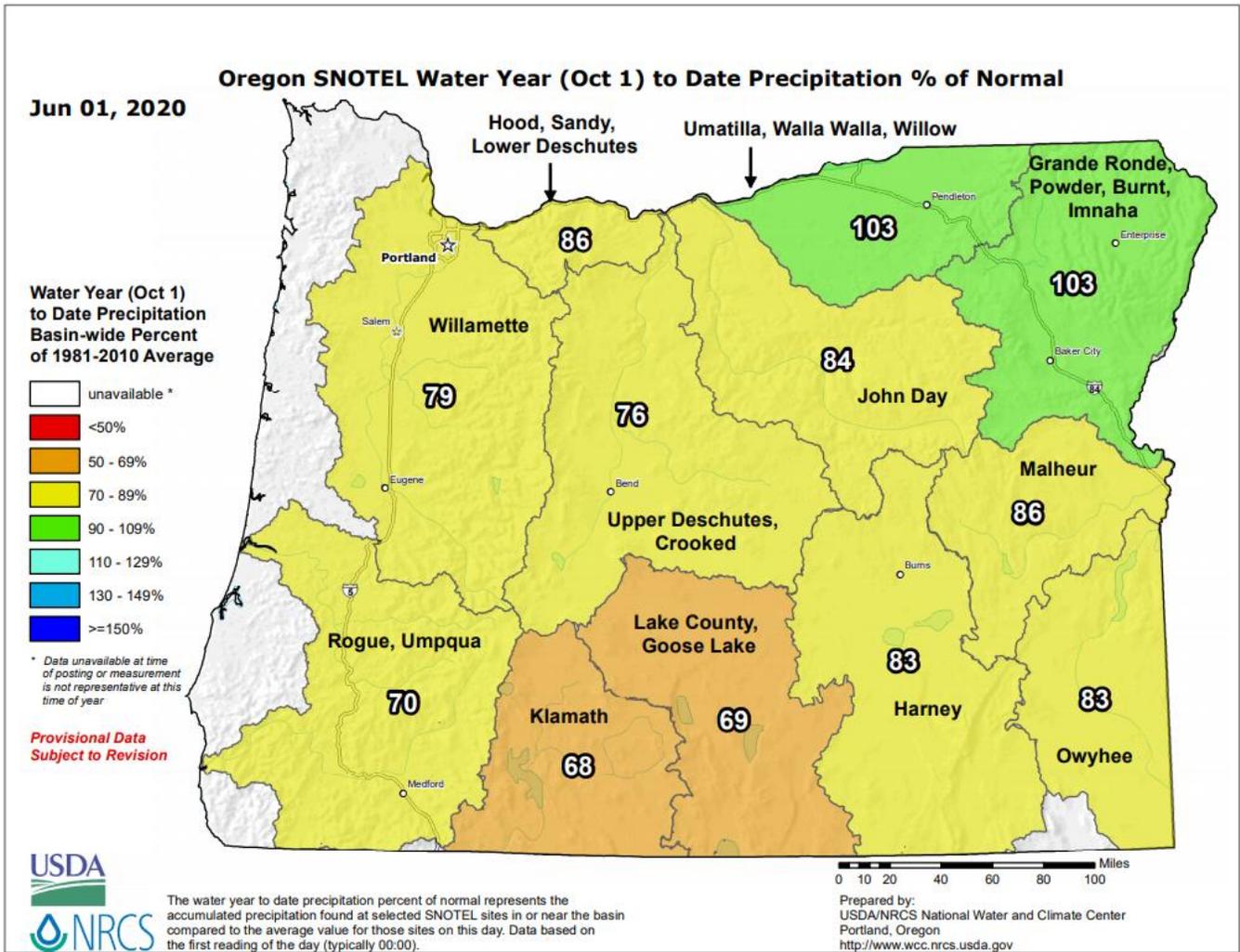
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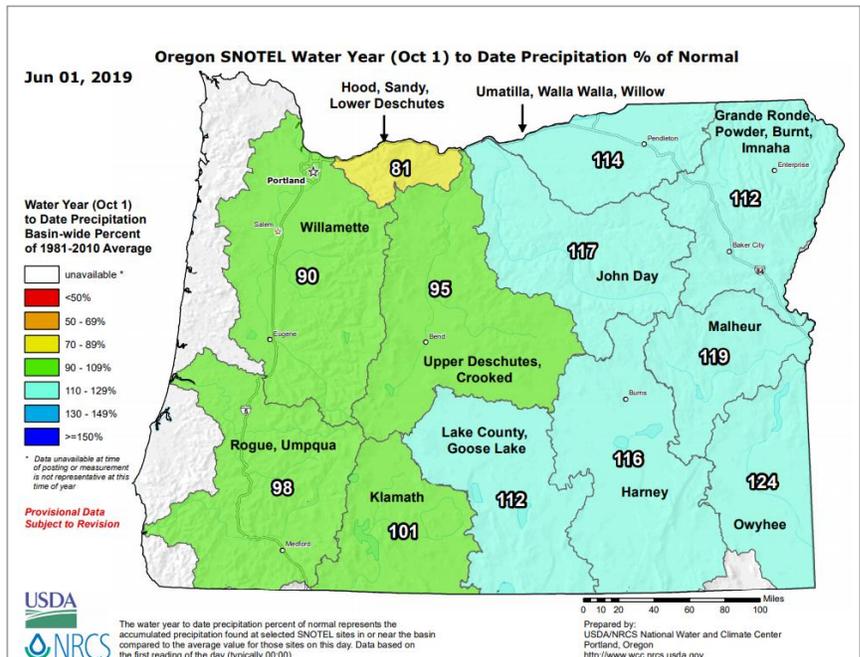
Snowpack Graphs – June 1, 2020



Precipitation (Mountain) - Percent of Normal

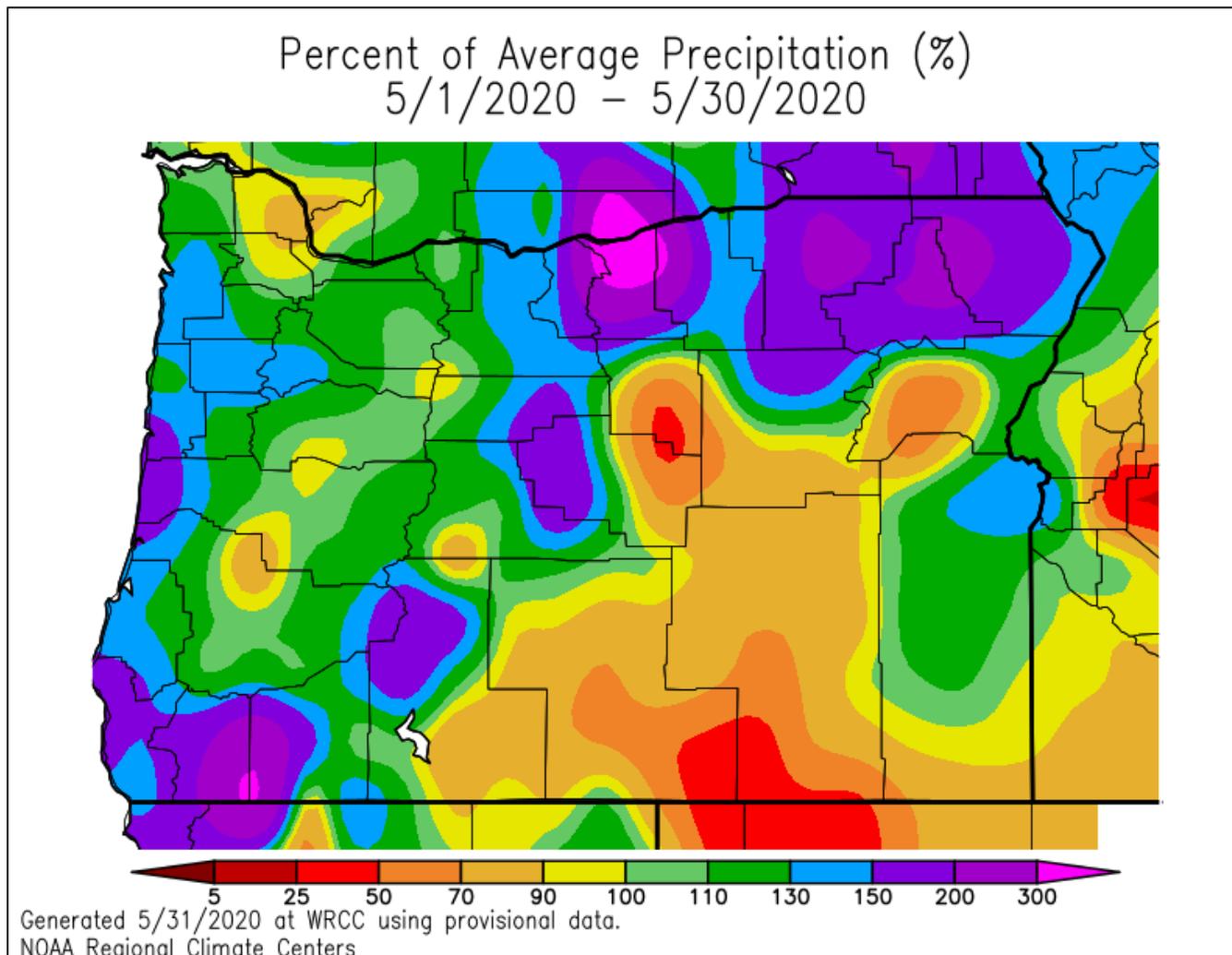


Compared to this time last
year:



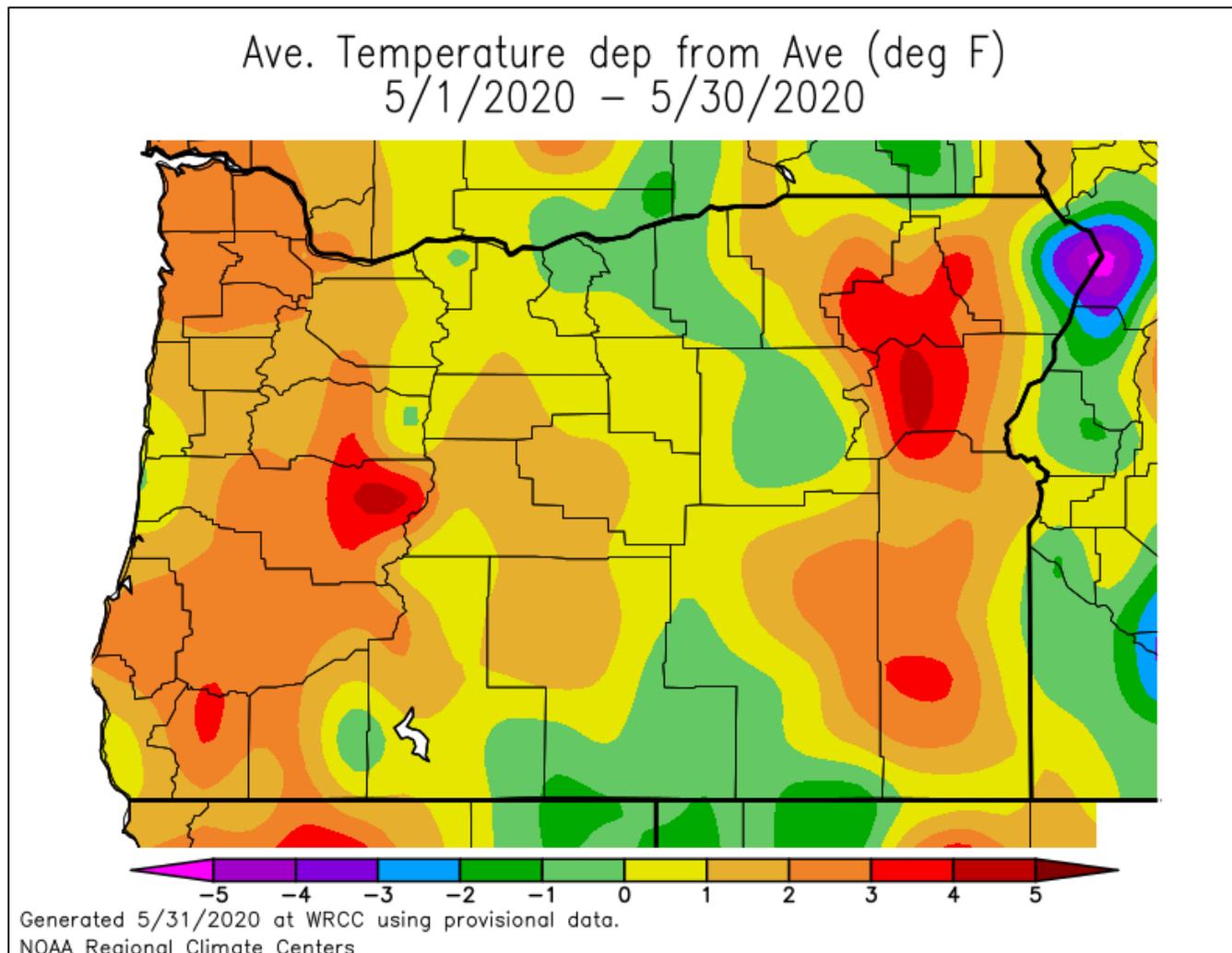
Precipitation – (1 Month) Percent of Normal

Website: <https://wrcc.dri.edu/cgi-bin/anomimage.pl?ore30dPpct.png>



Temperature – (1 Month) Departure from Normal

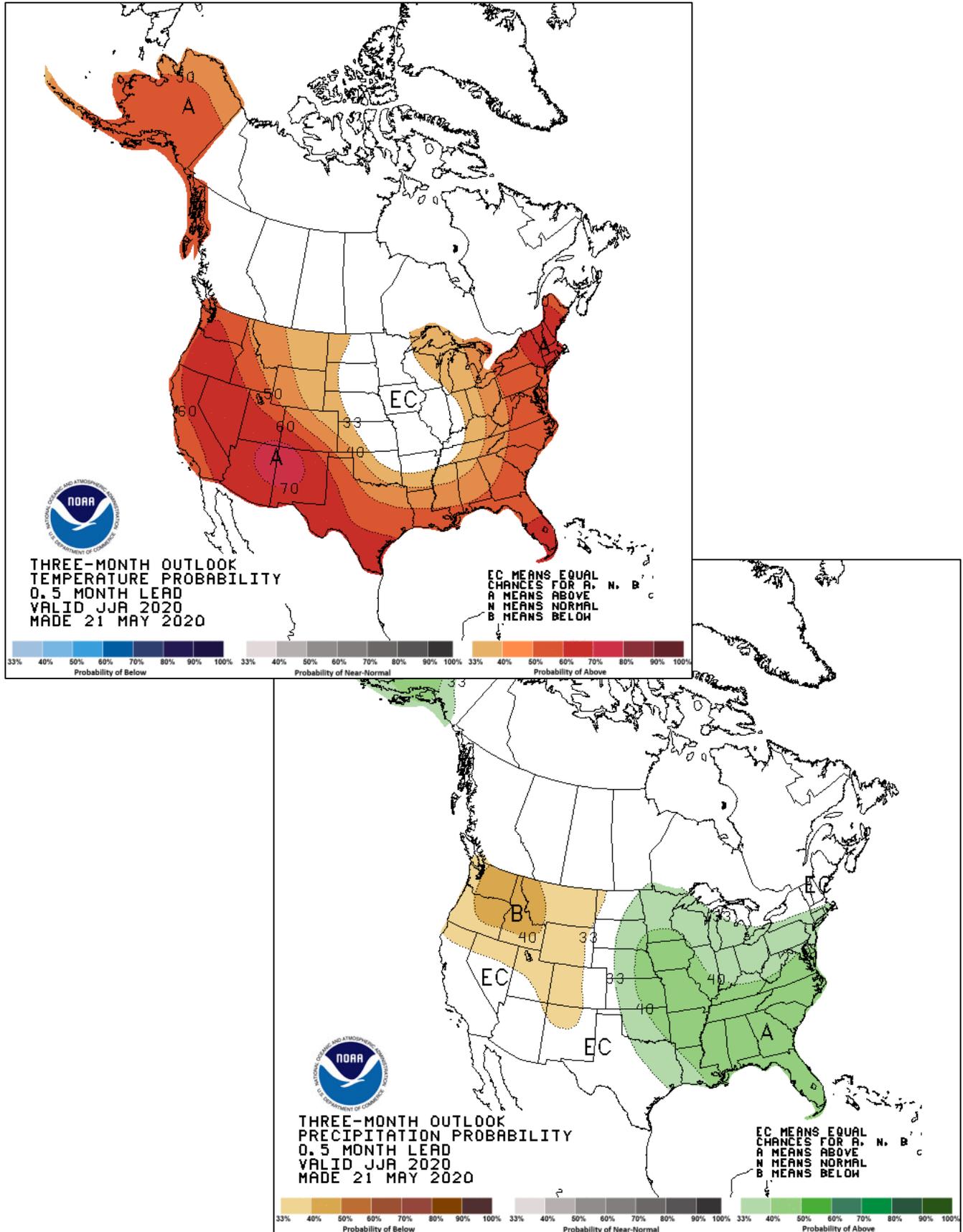
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Three Month Temperature and Precipitation Outlook

June through August

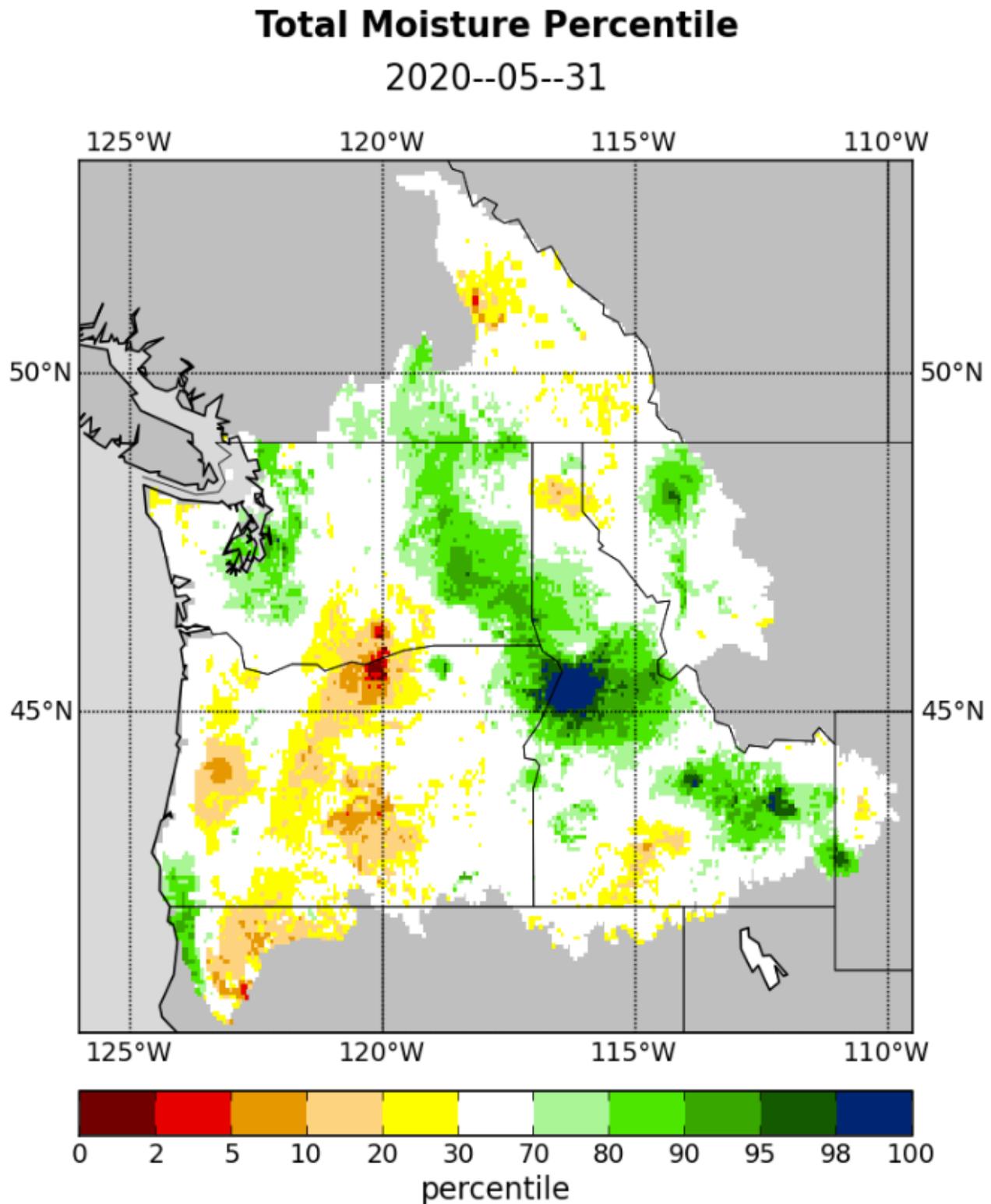
Website: http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1



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.

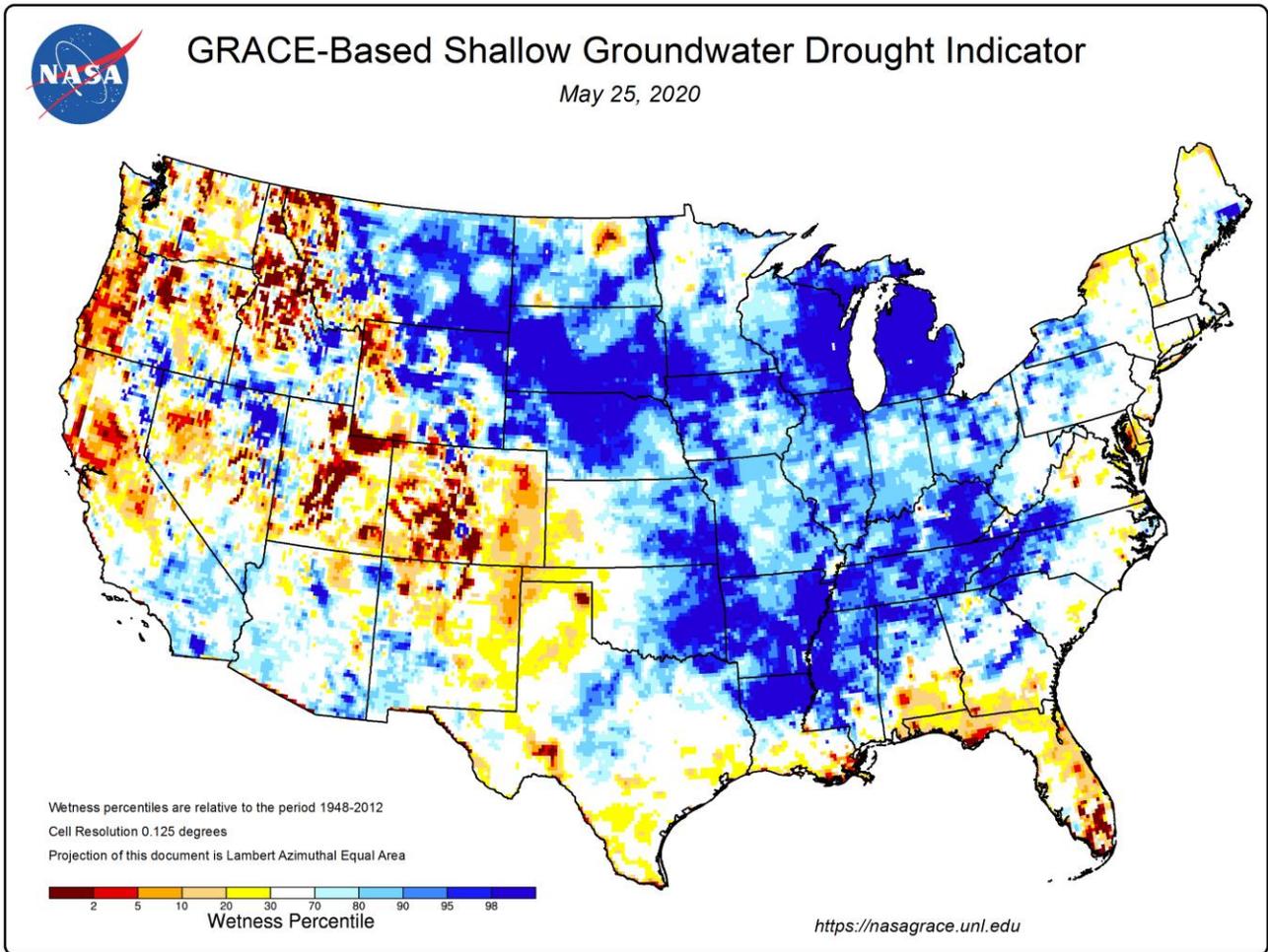
Website: http://www.hydro.ucla.edu/SurfaceWaterGroup/forecast/monitor_pnw/index.shtml



Satellite-Based Soil Moisture Percentile

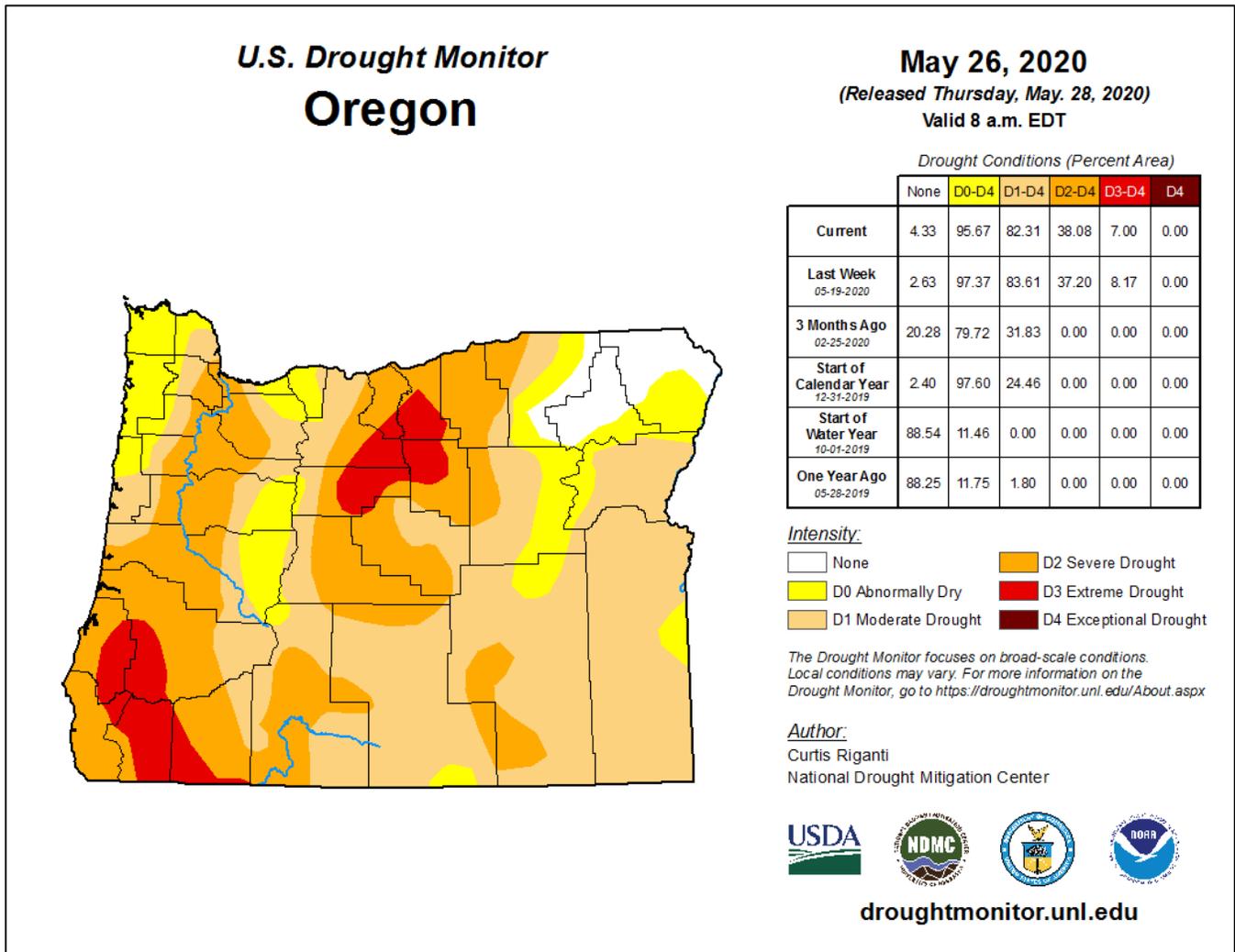
The maps are based on data from NASA's Gravity Recovery and Climate Experiment (GRACE; 2002-2017) and GRACE Follow On (GRACE-FO; 2018-present) satellites, which detect small changes in the Earth's gravity field caused by the redistribution of water on and beneath the land surface.

Website: <https://nasagrace.unl.edu/Default.aspx>

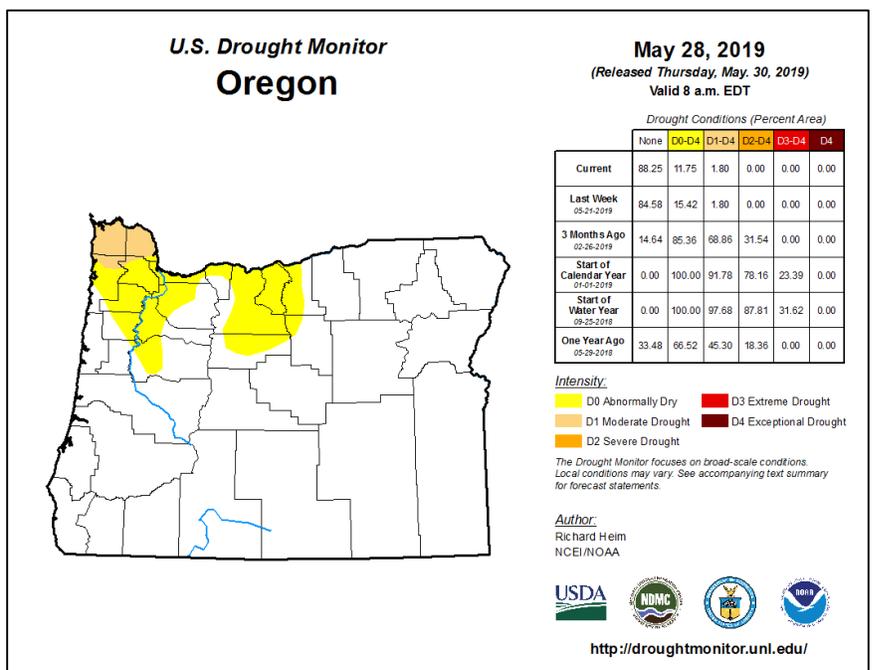


U.S. Drought Monitor for Oregon

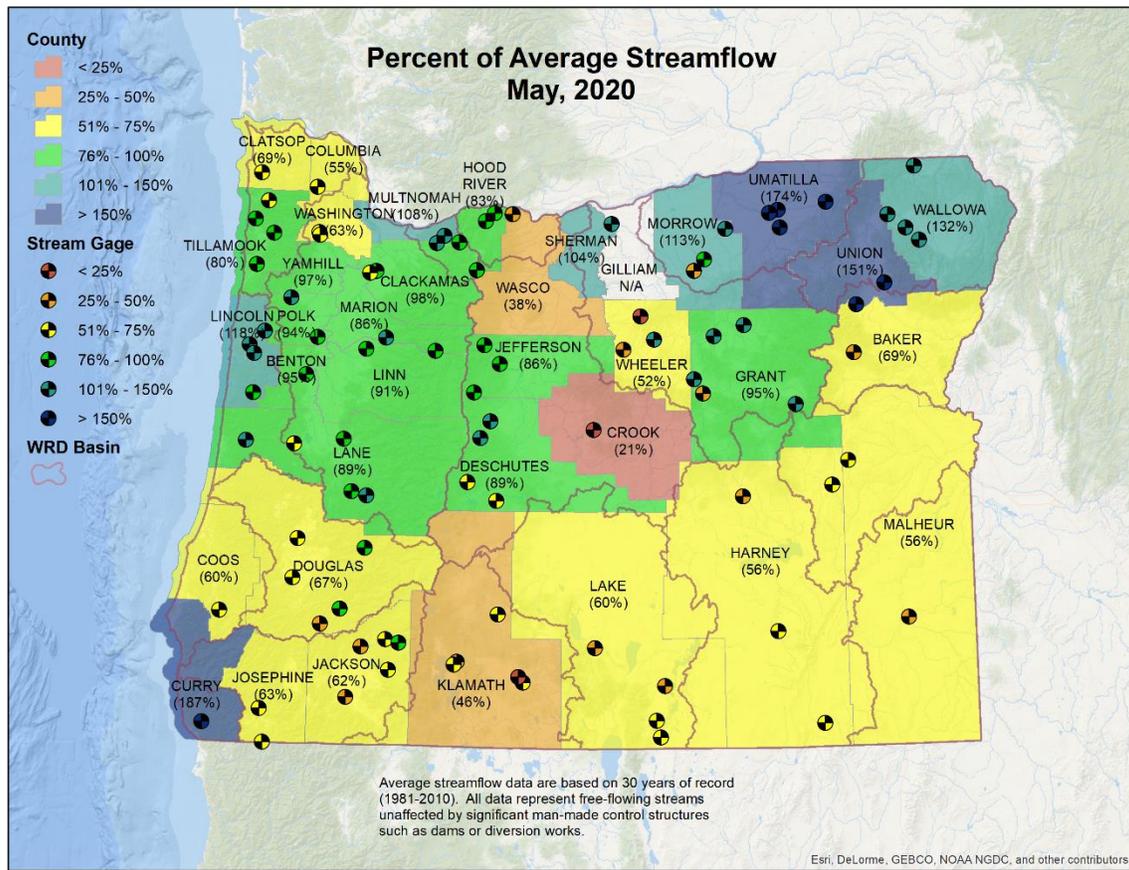
Website: <https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?OR>



Compared to this time last year:



Streamflow Conditions by County – May, 2020



Streamflow Conditions – 7-day average (USGS)

Website: <https://waterwatch.usgs.gov/index.php?m=pa07d&r=or&w=map>

Sunday, May 31, 2020

