Oregon
Water Conditions Report
June 29, 2020

OREGON
WATER RESOURCES
DEPARTMENT

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 remains below average at 83 percent. Basin precipitation values range from a low of 69 percent of average in the Klamath basin to 107 percent of average in the Grande Ronde, Powder, Burnt, and Imnaha basins.

The NRCS Basin Outlook Report for June is now available. The June report mentions that after a warm and dry April, the month of May brought significant precipitation to Oregon; most parts of the state received above average monthly precipitation. In addition, SNOTEL sites in many locations melted out one to three weeks early. **Note that this is the last report of the 2020 season.**

Precipitation over the past two weeks has ranged between 0.75 inches above-average to 0.75 inches below. The exception was in Douglas County where precipitation appears to have been well above average. 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. The exception were areas in Lake and Malheur counties where precipitation was between 90 and 70 percent of normal.

Temperatures over the past two weeks have been warmer than normal across most of the state with the exception of parts of Grant and Union counties where temperatures were a few degrees below average. 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 lower than normal temperatures across the state. Above-normal precipitation is forecast across all but a small strip of southern Oregon where there is equal probability of above or below normal precipitation. The most recent three month outlook indicates an increased probability of above-normal temperatures. Below-normal precipitation is forecast for all but the southwest third of the state, where there is equal probability of above or below normal precipitation. The next long-term outlook is scheduled to be issued on July 16, 2020.

There is a ~60 percent chance of ENSO-neutral during Northern Hemisphere summer 2020, with roughly equal chances (~40-50%) of La Niña or ENSO-neutral during the autumn and winter 2020-21. During May 2020, sea surface temperature (SST) anomalies were near-to-below average across the east-central and eastern equatorial Pacific. All of the Niño indices decreased during the month, and the latest weekly Niño-3.4 index value was -0.4°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 July 9, 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 for May ranged from a high of close to 150 percent of normal in the Umatilla Basin to a low of only 44 and 45 percent in the Owyhee and Klamath. Recent mild weather continues to provide benefit to streamflow in some parts of western Oregon. Flows in western Oregon are close to average, ranging from around 110 percent in the North Coast, Umpqua and South Coast to 75 percent in the Rogue. In central and eastern Oregon, flows are currently below 70 percent of average, ranging from around 120 percent of normal in the Grande Ronde and Umatilla to only about 45 percent of normal in the Klamath Basin.

USACE Reservoirs:

Rogue: The Rogue system is 74 percent full and 26 percent below rule curve. Lost Creek is 79 percent full, 21 percent below rule curve and releasing close to 2,000 cfs. Applegate is only 52 percent full, 47 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 91 percent full and 9 percent below rule curve. Recent rains have helped to fill several project reservoirs. The projects within 5 percent of full are Detroit, Green Peter, Foster, Dorena and Fall Creek. The flow in the Willamette River at Salem is 9,220 cfs and 5,840 cfs at Albany.

Willow Creek: Willow Creek is full and passing inflow. Current releases are 19 cfs.

USBR Reservoirs:

Tualatin River Basin: Scoggins reservoir is at 94 percent of capacity and drafting with inflows around 17 cfs and outflows around 71 cfs.

Umatilla River Basin: McKay reservoir is at 99 percent of capacity and drafting with inflows around 32 cfs and outflows around 79 cfs.

Deschutes River Basin: Prineville reservoir is at 60 percent of capacity and drafting with inflows around 7 cfs and outflows around 264 cfs. Ochoco reservoir is at 44 percent of capacity and drafting with inflows around 2 cfs and outflows around 10 cfs. Crescent Lake is at 53 percent, Wickiup reservoir is at 39 percent and Crane Prairie reservoir is at 84 percent of capacity.

Malheur River Basin: Warm Springs reservoir is at 69 percent of capacity and drafting with inflows around 45 cfs and outflows of around 352 cfs. Beulah reservoir is at 68 percent of capacity and drafting with inflows around 66 cfs and outflows around 254 cfs. Bully Creek reservoir is at 79 percent of capacity and drafting with inflows below 5 cfs and outflows around 11 cfs.

Owyhee River Basin: Owyhee reservoir is at 74 percent of capacity and drafting on average, with current inflows around 705 cfs and outflows around 190 cfs.

Burnt and Powder River Basins: Unity reservoir is at 88 percent of capacity and drafting with inflows around 18 cfs and outflows around 90 cfs. Phillips reservoir is at 58 percent of capacity and maintaining storage levels with inflows around 117 cfs and outflows around 132 cfs.

The most recent update to the US Drought Monitor has remained somewhat static with almost 95 percent of the state in D0 (abnormally dry) conditions, 78 percent listed as in D1 (moderate drought), 45 percent is listed as in D2 (severe drought) and just under 5 percent in D3 (extreme drought).

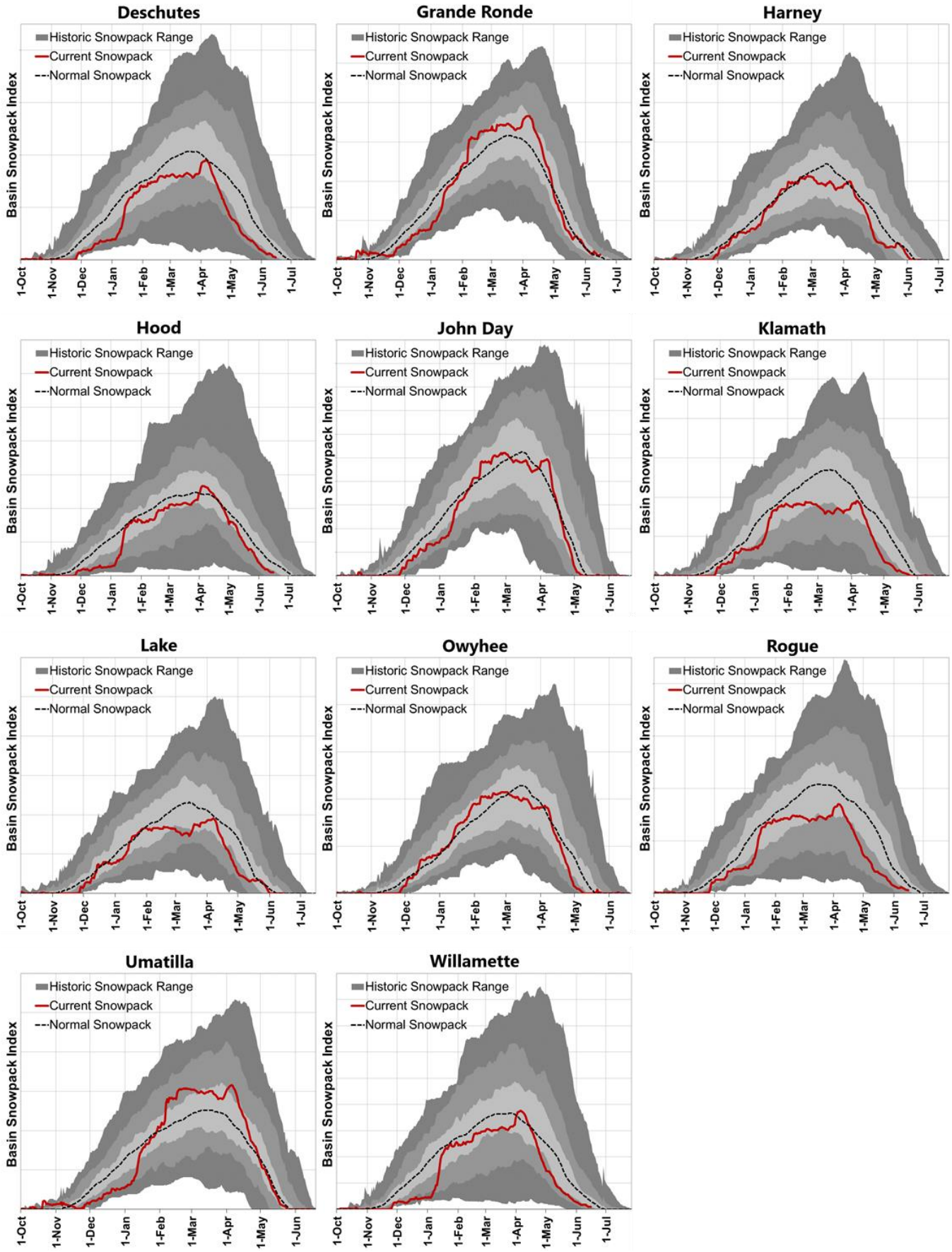
Governor Brown declared a drought emergency in Klamath County in early March, followed by Curry County in April, Jackson County in early May and most recently in Coos County. It is very likely that more counties will follow in the near future.

Above-normal significant large fire potential will begin developing across southwestern Oregon in June and then expand to include all but the northwestern quarter of the region in July. The above-normal significant large fire potential will persist into September before the seasonal transition begins. Other locations in the Pacific Northwest can expect normal significant large fire potential during the outlook period. See the latest report from the National Interagency Fire Center for the June through September outlooks.
Refer the Oregon Department of Forestry's Wildfire News page for the latest news and updates.

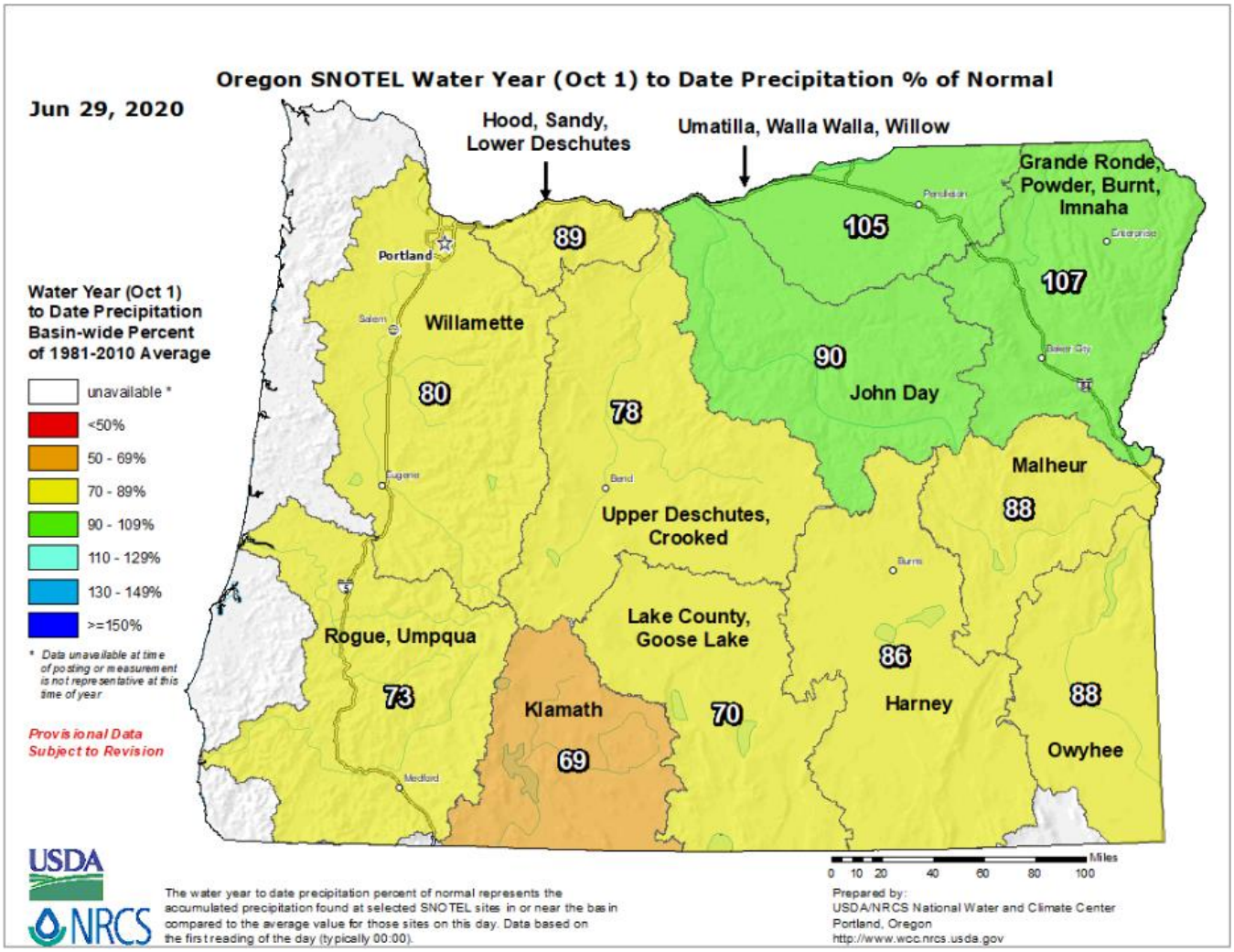
The Oregon Office of Emergency Management has assembled a hydrology/meteorology dashboard featuring many of the data sources used to generate this report. Use the selection arrows at the bottom of your browser to navigate to the various data sources.

Data & Products: Page:

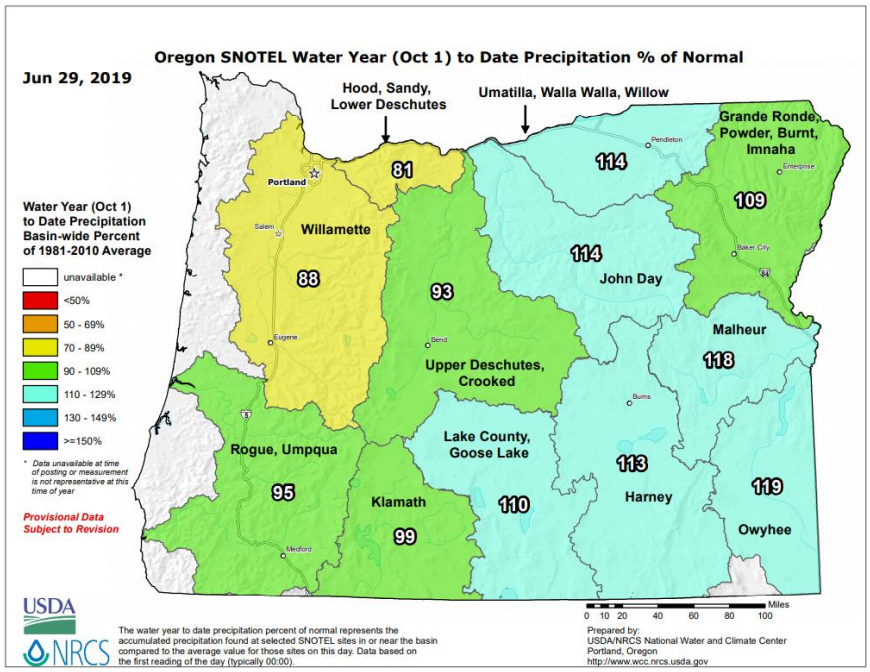
Snowpack Graphs – June 15, 2020



Precipitation (Mountain) - Percent of Normal



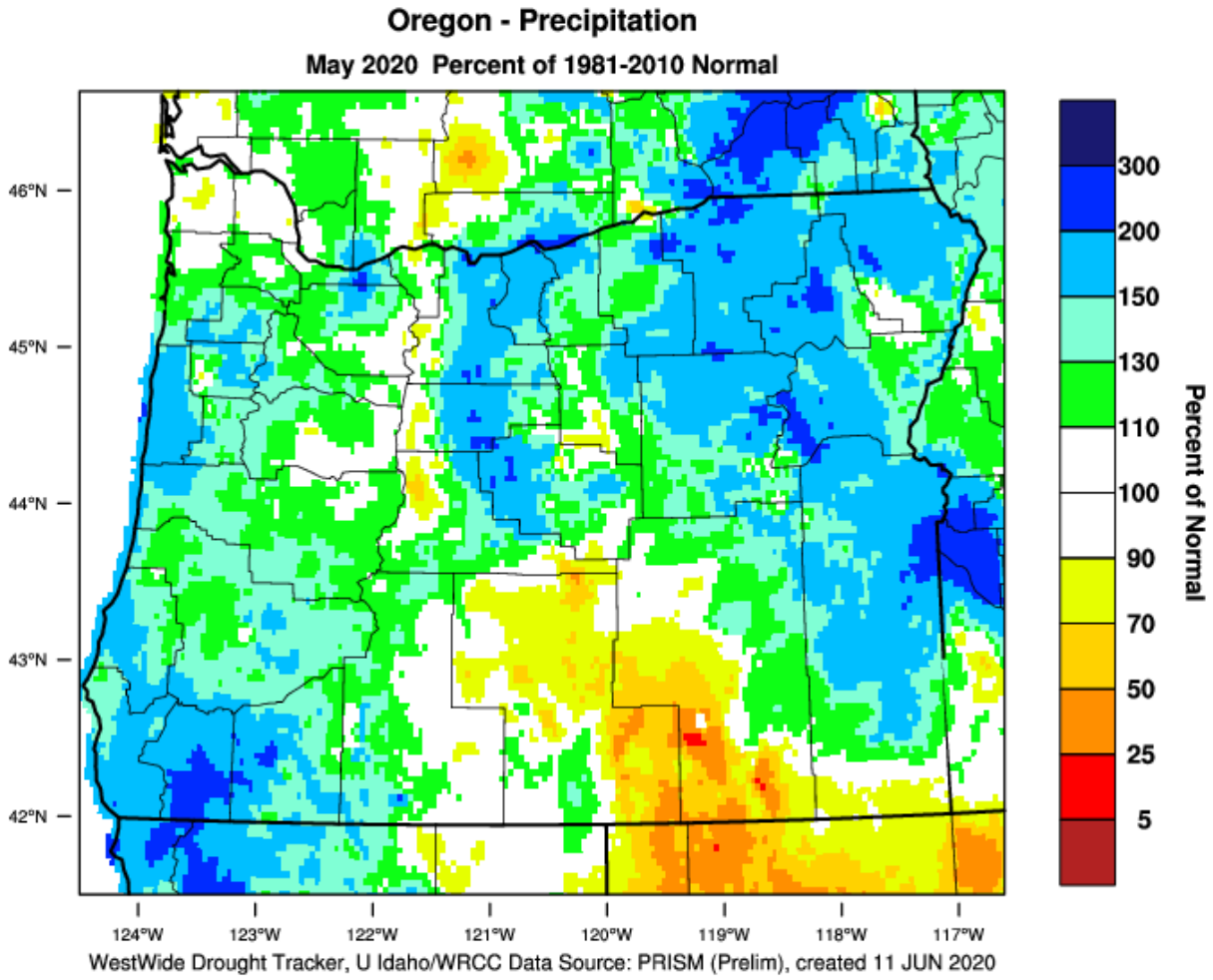
Compared to this time <u>last year</u>:



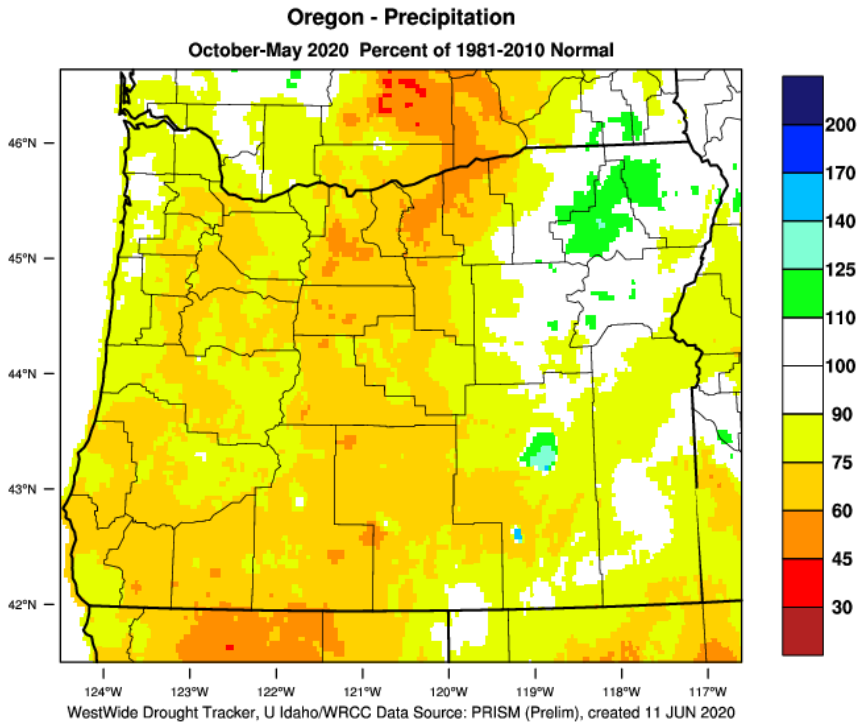
Precipitation – (1 Month) Percent of Normal

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

PRISM > Precipitation Anomaly 1 Month > Oregon



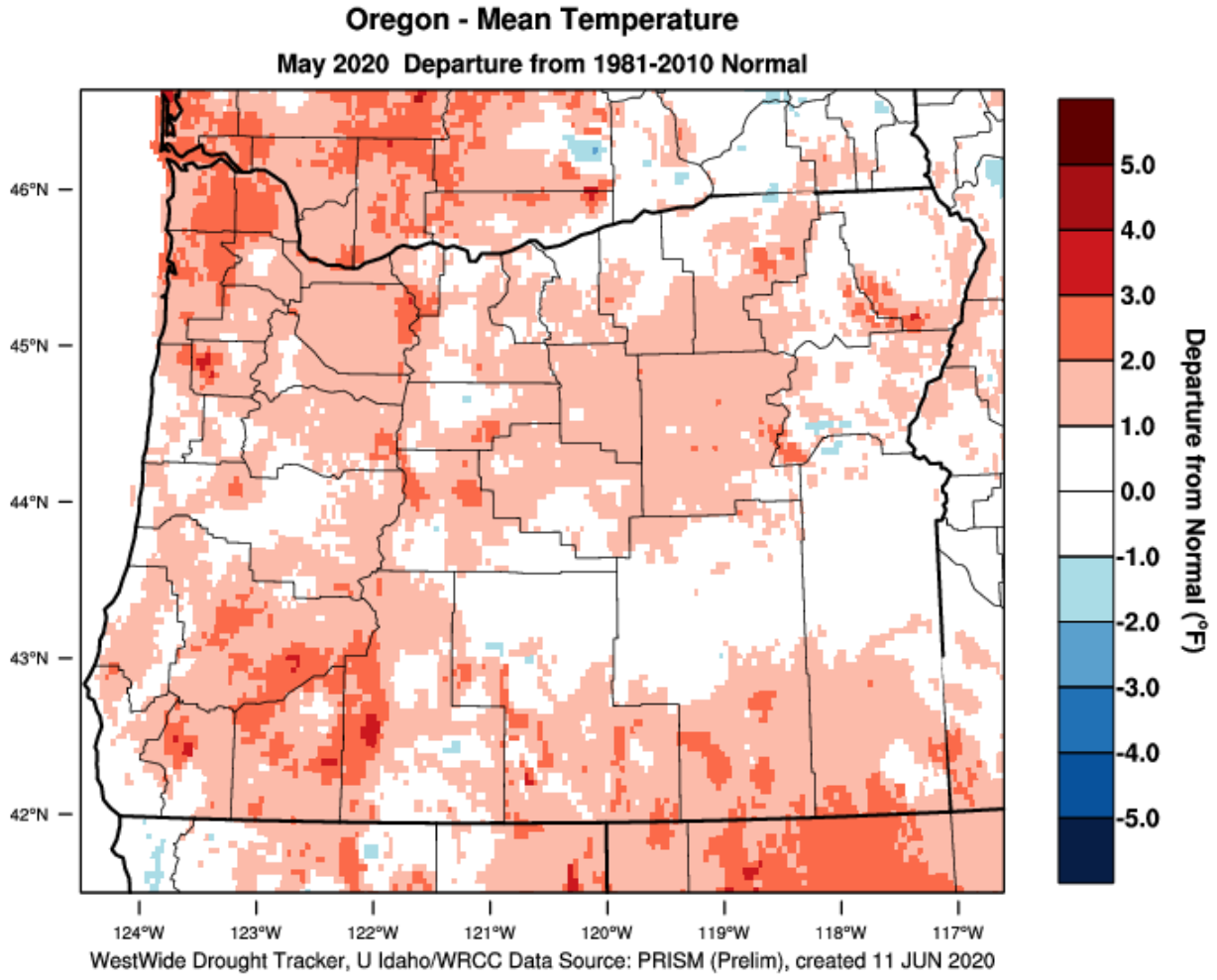
Precipitation since the beginning of the water year:



Temperature – (1 Month) Departure from Normal

Website: https://wrcc.dri.edu/cgi-bin/anomimage.pl?ore30dTvdep.png

PRISM > Temperature Anomaly 1 Month > Oregon



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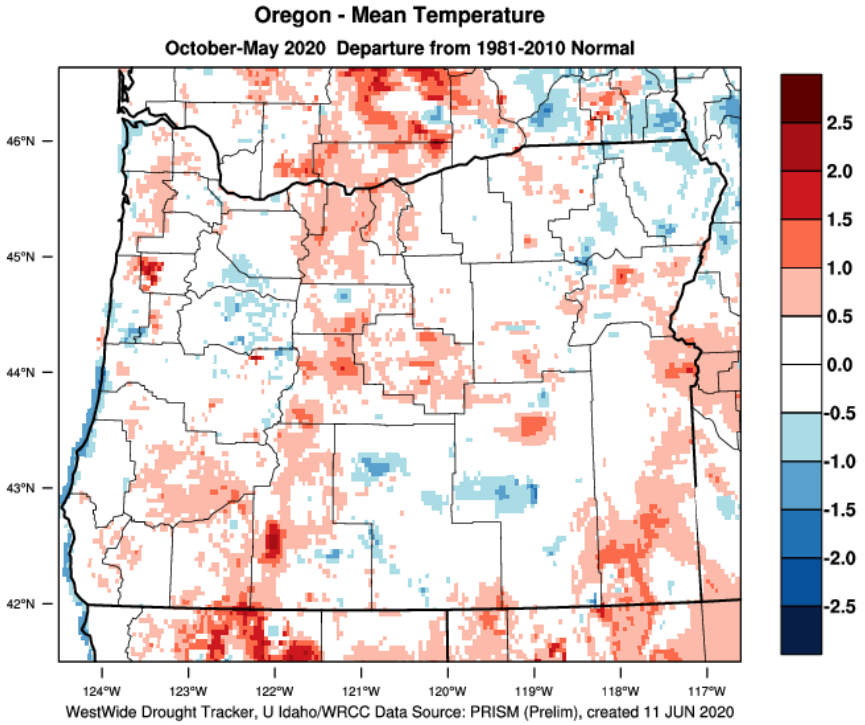
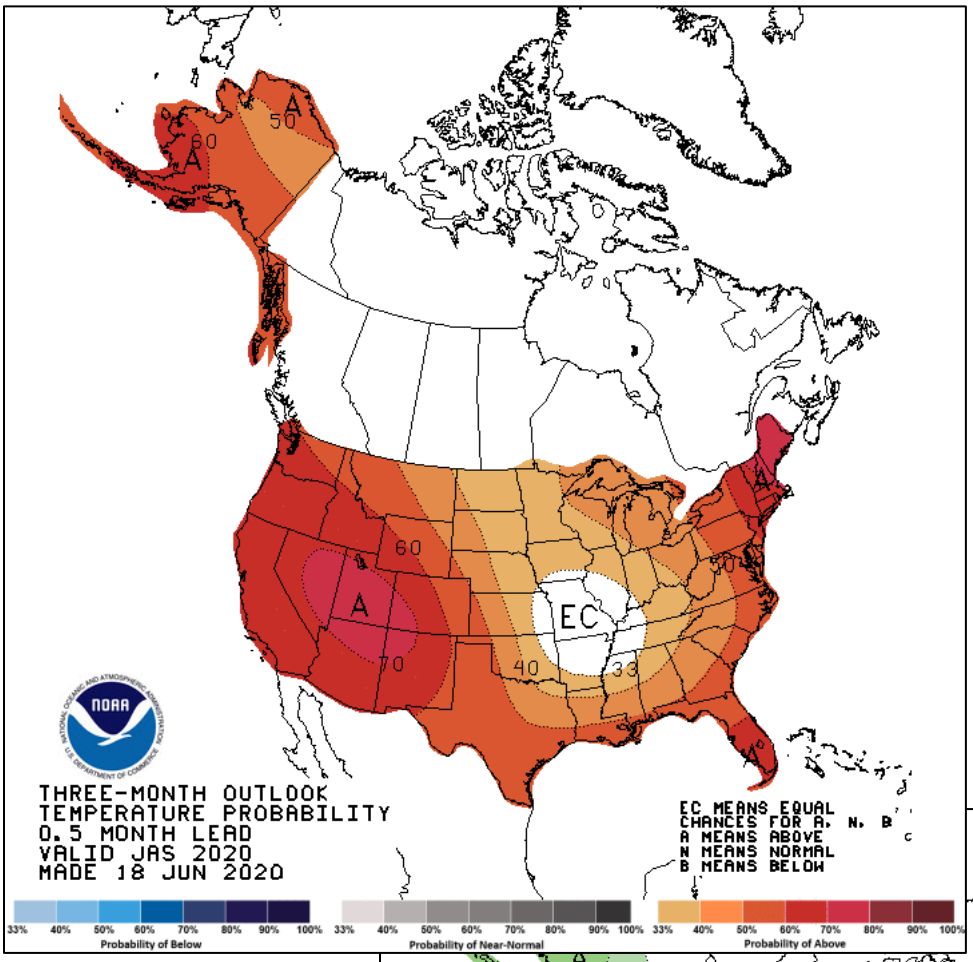
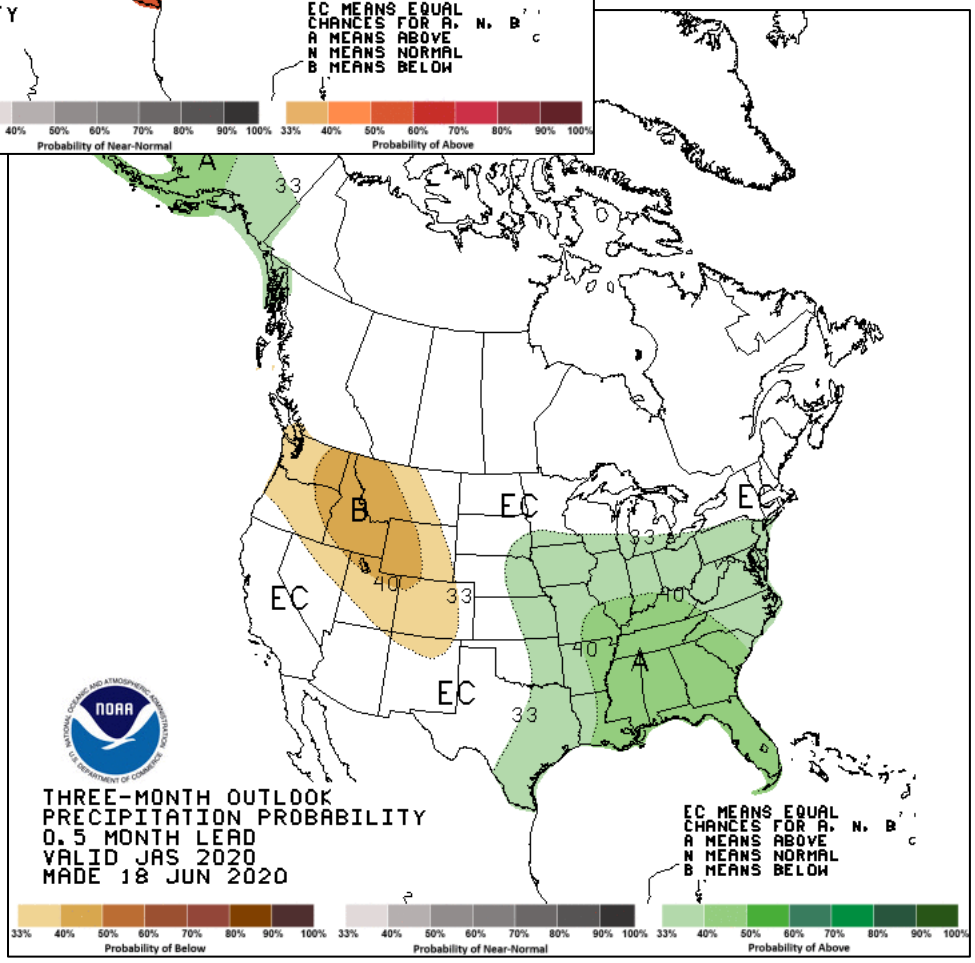


Three Month Temperature and Precipitation Outlook

July through September

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

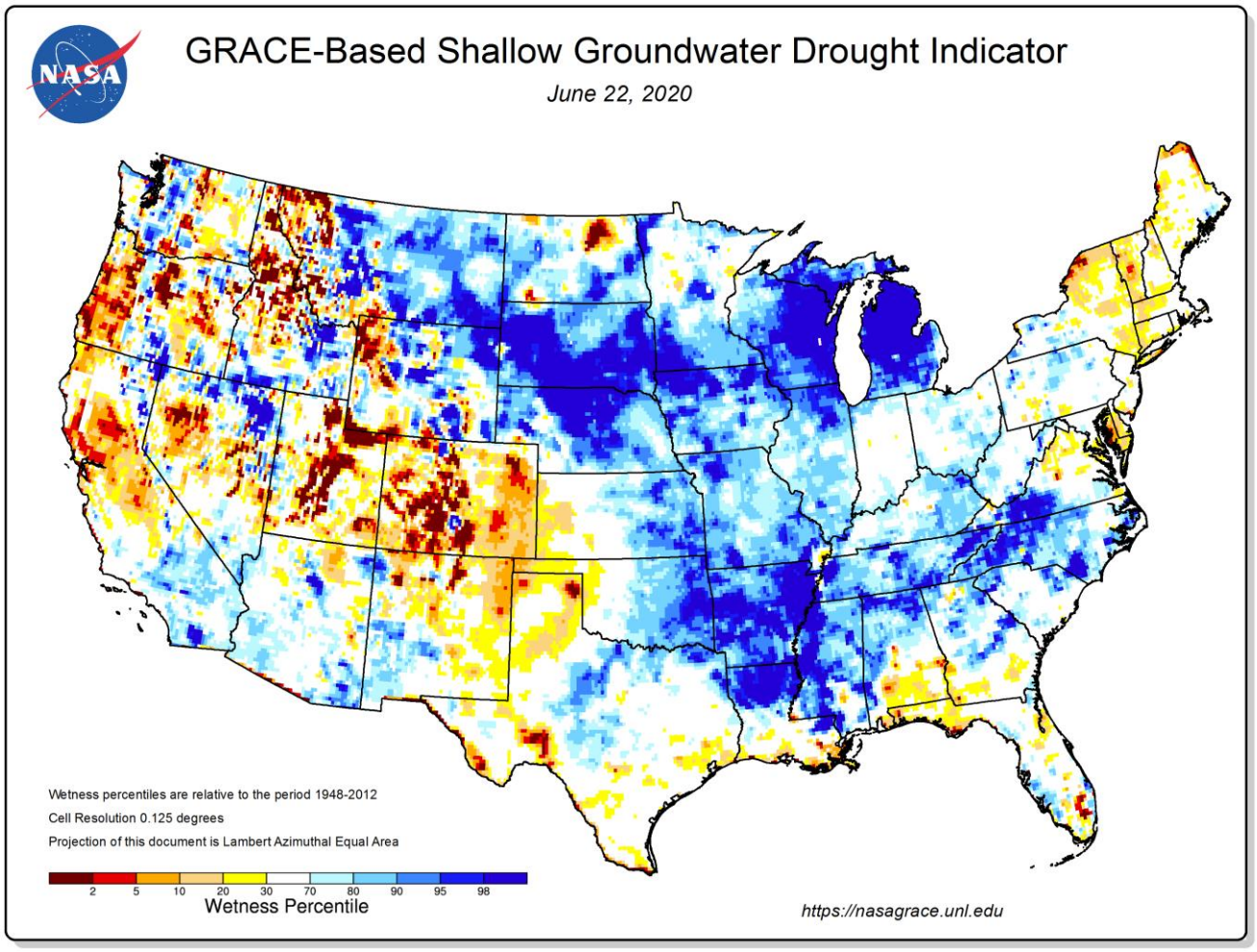




Satellite-Based Soil Moisture Percentile

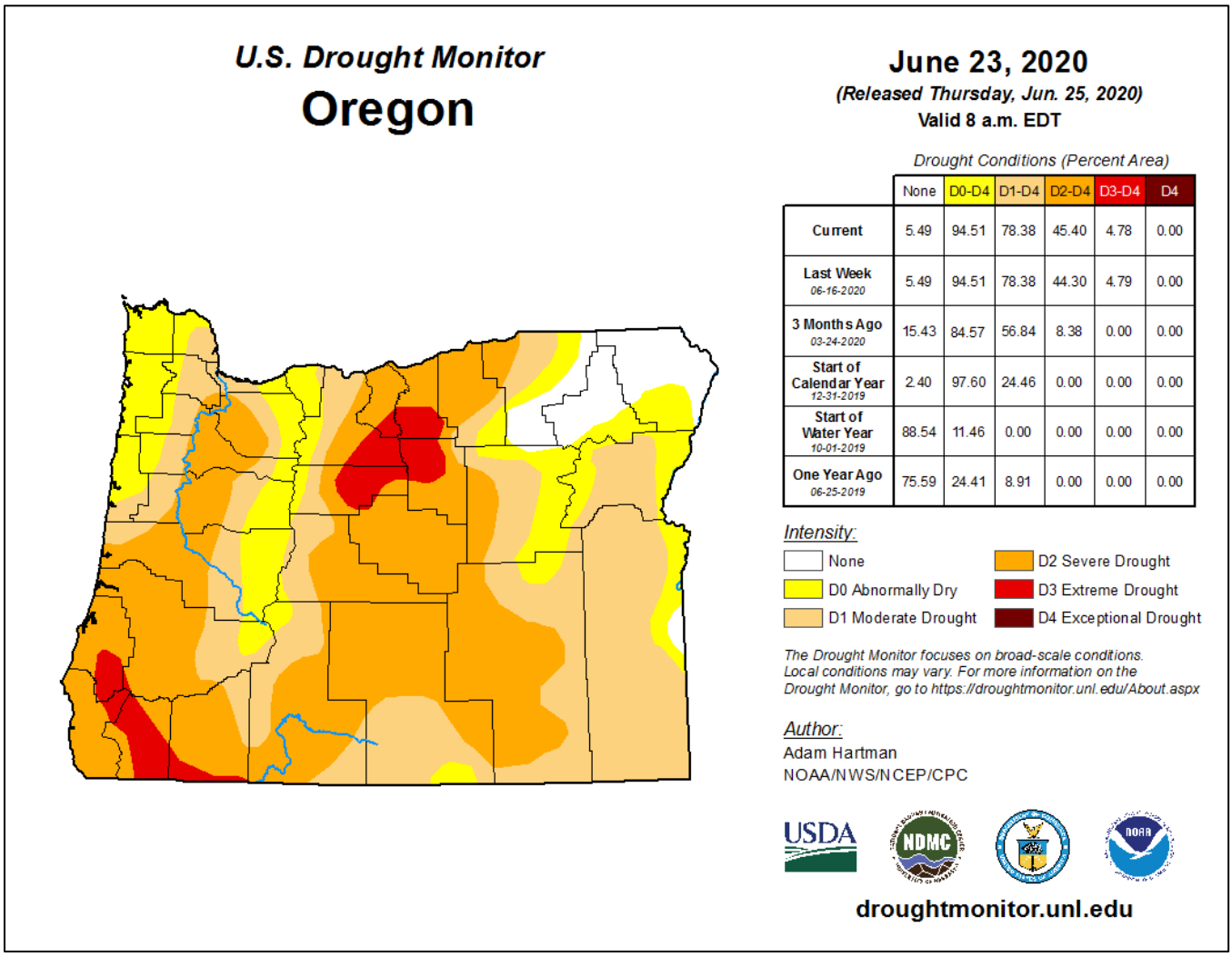
The maps are based on data from NASA's Gravity Recovery and Climate Experiment (GRACE; 2002-2017) and GRACE Follow On (GRACE-FO; 2018-present) satellites, which detect small changes in the Earth's gravity field caused by the redistribution of water on and beneath the land surface.

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

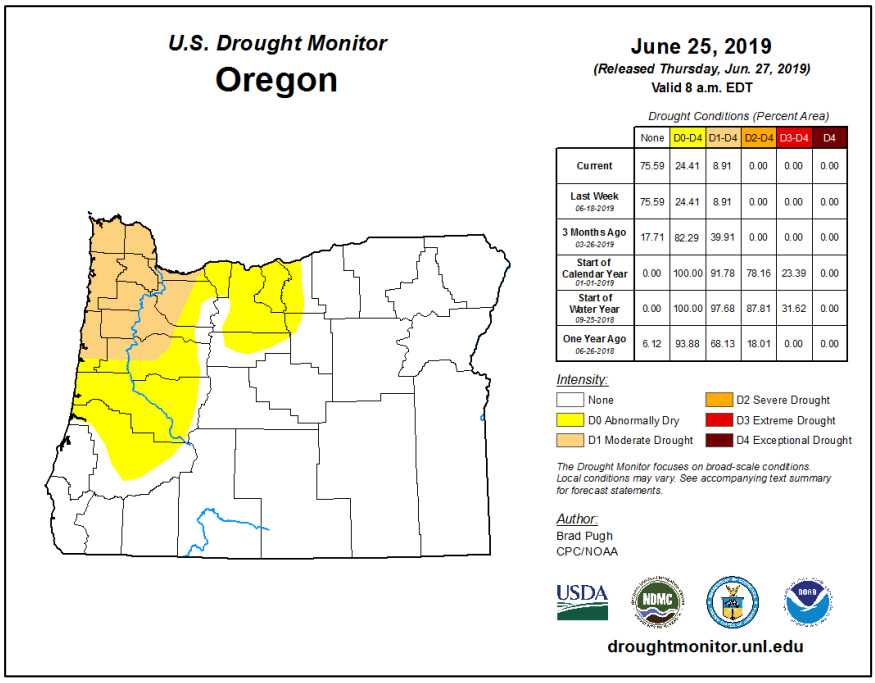


U.S. Drought Monitor for Oregon

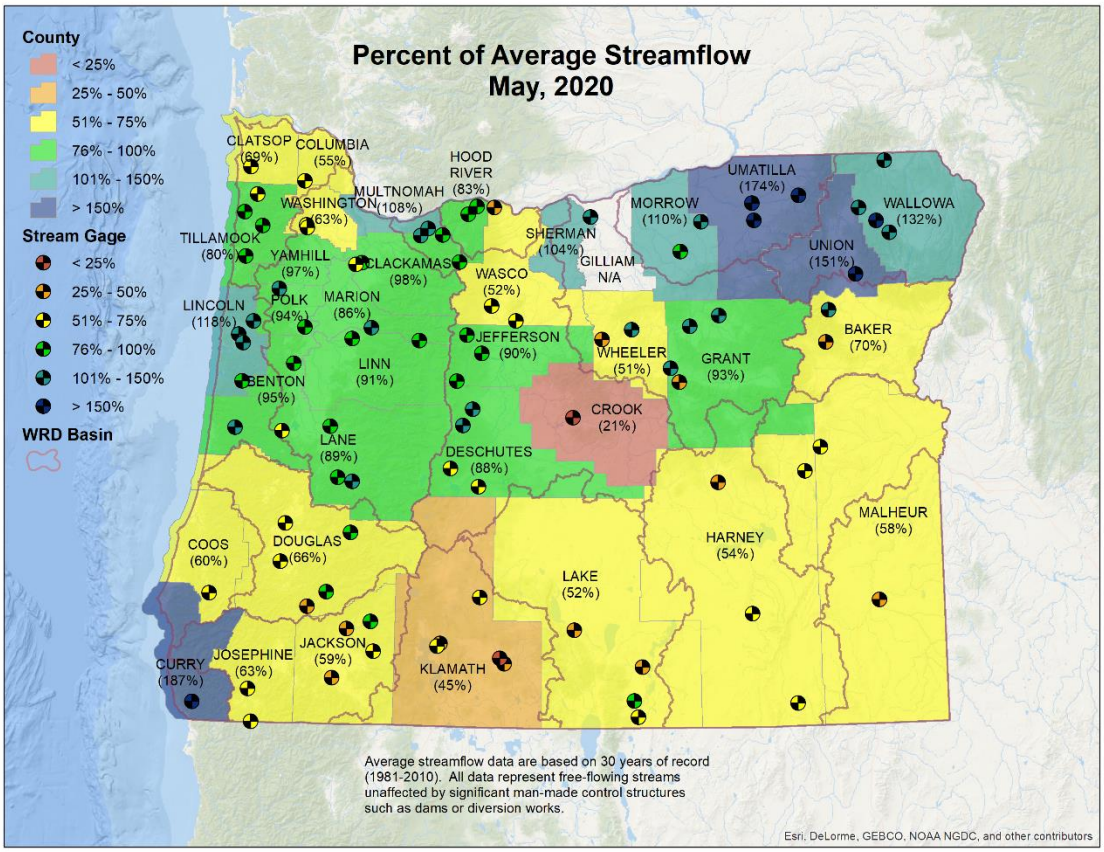
Website: https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?OR



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