# Oregon
# Water Conditions Report
## May 4, 2020

OREGON
WATER RESOURCES
DEPARTMENT

**Current Oregon statewide snow water equivalent** is 64 percent of normal, however in many basins, the majority of sites have already melted out. This makes it difficult to statistically describe conditions across a broad landscape like a watershed or administrative basin. Statewide snowpack melt-out is occurring at all elevations.

**Current Oregon statewide precipitation at NRCS SNOTEL sites** is 78 percent of average, well below average for the water year. Basin precipitation values range from a low of 65 percent of average in the Klamath basin to 96 percent of average in the Umatilla, Walla Walla, Willow and Grand Ronde, Powder, Burnt, Burnt, and Imnaha basins.

**The NRCS Basin Outlook Report for April is available.** This report is published monthly from January through June. The May report should be available in the next few days.

**Precipitation over the past two weeks** varied widely, ranging from 1.5 inches below normal in Tillamook County to 2.5 inches above normal in the coastal region of Lane County, with much of the state about 0.5 inches below normal. For the month of April, precipitation was below-normal across most of the state. Most noteworthy were Klamath and Lake Counties where precipitation was less than 25 percent of normal.

**Temperatures over the past two weeks** have been warmer than normal across the entire state and up to 8 degrees above normal in Deschutes County. For the month of April, temperatures were warmer than normal across the central and western regions of Oregon and right around normal for the rest of the state.

**Over the next 8 to 14 days, the NOAA Climate Prediction Center** is forecasting a higher than normal probability of above-normal temperature and above-normal precipitation across the state. 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 May 21, 2020.

**ENSO-neutral is favored for the Northern Hemisphere summer 2020 (~60% chance), remaining the most likely outcome through autumn.** During March 2020, above-average sea surface temperatures were observed across most of the tropical Pacific Ocean. For a more complete report, refer to the April 9, 2020 diagnostic discussion issued by the Climate Prediction Center. The next diagnostic discussion is scheduled for May 14, 2020. Another source of information is the latest ENSO blog on the climate.gov website.

**Statewide streamflow conditions for April were lower than normal at 63 percent.** Values ranged from a high of 93 percent of normal in the Umatilla Basin to a low of only 35 percent in the Owyhee. Recent rainfall provided temporary benefit to streamflow in some parts of northwestern Oregon. Flows are currently ranging from over 110 percent of normal in the Mid Coast and Sandy Basins to around 60 percent of normal in the Rogue and Umpqua Basins. East of the Cascades, flows are ranging from over 120 percent in the Grande Ronde to a little over 40 percent in the Powder and Owyhee Basins.

## USACE Reservoirs:

Rogue: The Rogue system is currently 88 percent full and 12 percent below rule curve. Lost Creek is currently 98 percent full and 2 percent below rule curve. The project is releasing 1750cfs with inflows at 2,480 cfs. Applegate is 44 percent full and 55 percent below rule curve. The project is currently releasing 150cfs with inflows at 287 cfs. Current fisheries goals are maintaining fry rearing habitat.

Willow Creek: The Willow Creek Project is currently 103 percent full and 3 percent above Rule Curve. The current project objective is to release 13 cfs to satisfy the current irrigation demand of the senior water rights holders, as well as an additional 27 cfs to slow down the current fill rate. Current inflow is around 43 cfs with outflows of about 51 cfs.

Willamette: The Willamette Basin is 76 percent full and 20 percent behind rule curve. Only Dorena and Foster reservoirs are forecast to fill on rule curve this week while the rest continue to lag behind. Updated modeling efforts indicate that we are likely to experience a deficit year. This is also borne out by NOAA's Climate Prediction Center's Seasonal Drought Outlook which has had the Willamette basin in a 'Persistent Drought/Drought Likely' category since end of March. Flows in the Willamette River at Albany are 9,970 cfs with flows at Salem at 16,100 cfs.

## USBR Reservoirs:

Tualatin River Basin: Scoggins reservoir is at 95 percent of capacity and maintaining storage levels with inflows around 45 cfs and outflows around 11 cfs.

Umatilla River Basin: McKay reservoir is close to 100 percent of capacity and filling with inflows around 107 cfs and outflows around 21 cfs.

Deschutes River Basin: Prineville reservoir is at 75 percent of capacity and drafting with inflows around 257 cfs and outflows around 420 cfs. Ochoco reservoir is at 54 percent of capacity and maintaining storage levels with inflows around 45 cfs and outflows around 14 cfs. Crescent Lake is at 52 percent, Wickiup reservoir is at 62 percent and Crane Prairie reservoir is at 84 percent of capacity.

Malheur River Basin: Warm Springs reservoir is at 77 percent of capacity and maintaining storage levels with inflows around 290 cfs and outflows of around 385 cfs. Beulah reservoir is at 80 percent of capacity and filling with inflows around 344 cfs and outflows around 282 cfs. Bully Creek reservoir is at 93 percent of capacity and drafting with inflows below 10 cfs and outflows around 12 cfs.

Owyhee River Basin: Owyhee reservoir is at 83 percent of capacity and maintaining storage levels with inflows around 977 cfs and outflows around 184 cfs.

Burnt and Powder River Basins: Unity reservoir is at 99 percent of capacity and maintaining storage levels with inflows around 268 cfs and outflows around 279 cfs. Phillips reservoir is at 43 percent of capacity and filling with inflows around 300 cfs and outflows around 220 cfs.

**The most recent update to the US Drought Monitor** indicates that over 96 percent of the state is in D0 (abnormally dry) conditions, with almost 64 percent of the state listed as in D1 (moderate drought), over 33 percent is listed as in D2 (severe drought) and now over 2 percent in D3 (extreme drought).

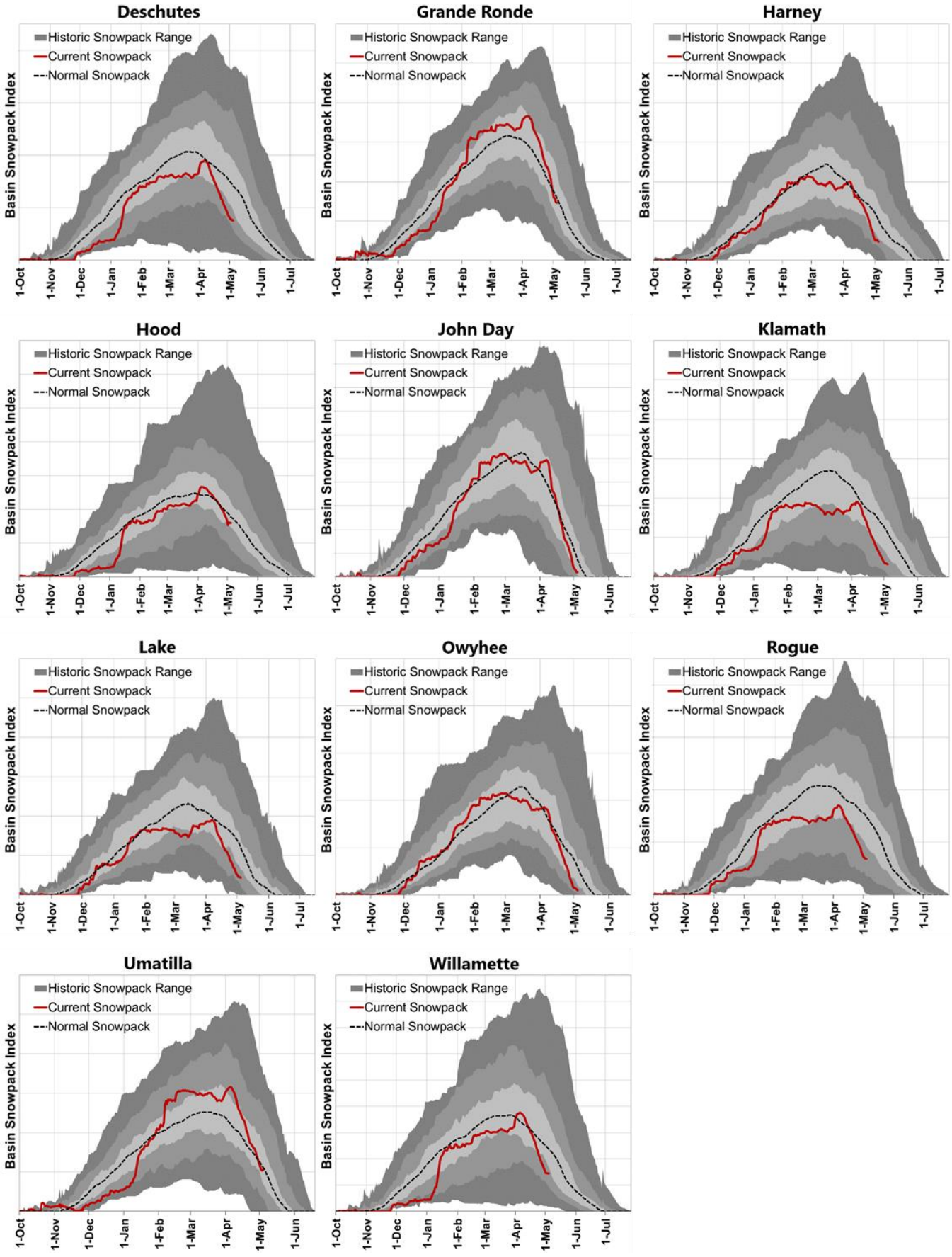
Governor Brown declared a drought emergency in Klamath County in early March, followed by Curry County in April and most recently in Jackson County. It is very likely that more counties could follow in the near future.

**May is the transitional period into the Western Fire Season**. Overall, the entry into the season is expected to be normal; however, there are areas of concern emerging for the summer months. While the Pacific Northwest received beneficial precipitation in late April, the overall weather pattern has been warm and dry which may be problematic for Oregon and Central through Eastern Washington. The Oregon Department of Forestry's Southwest Oregon District started fire season this year on Friday, May 1. This is the earliest that the Southwest Oregon District has declared fire season since 1968 (52 years).

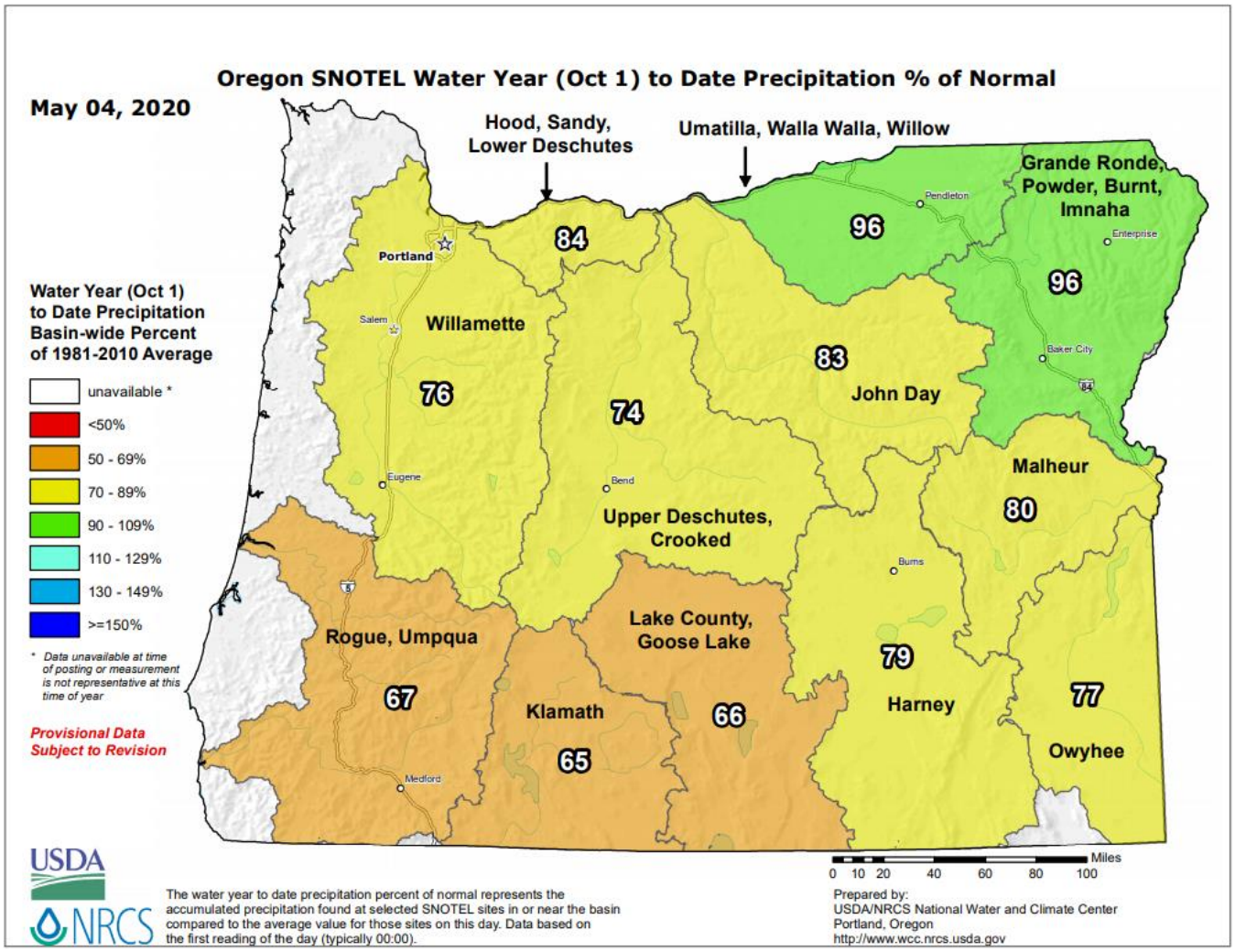
**The Oregon Office of Emergency Management has assembled a hydrology/meteorology dashboard** featuring many of the data sources used to generate this report. Use the selection arrows at the bottom of your browser to navigate to the various data sources.

## Data & Products: Page:

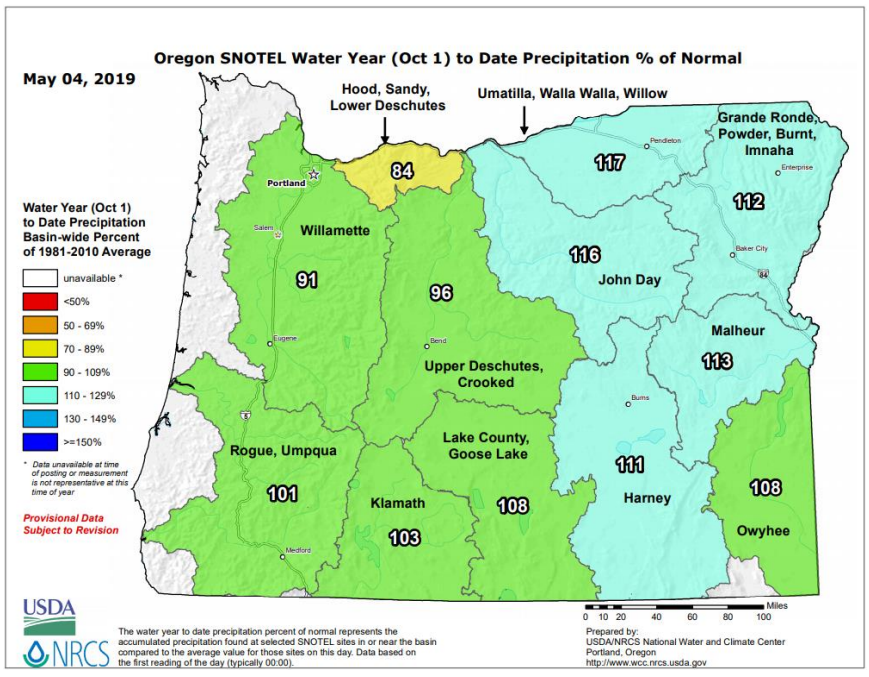
## Snowpack Graphs – May 4, 2020



## Precipitation (Mountain) - Percent of Normal



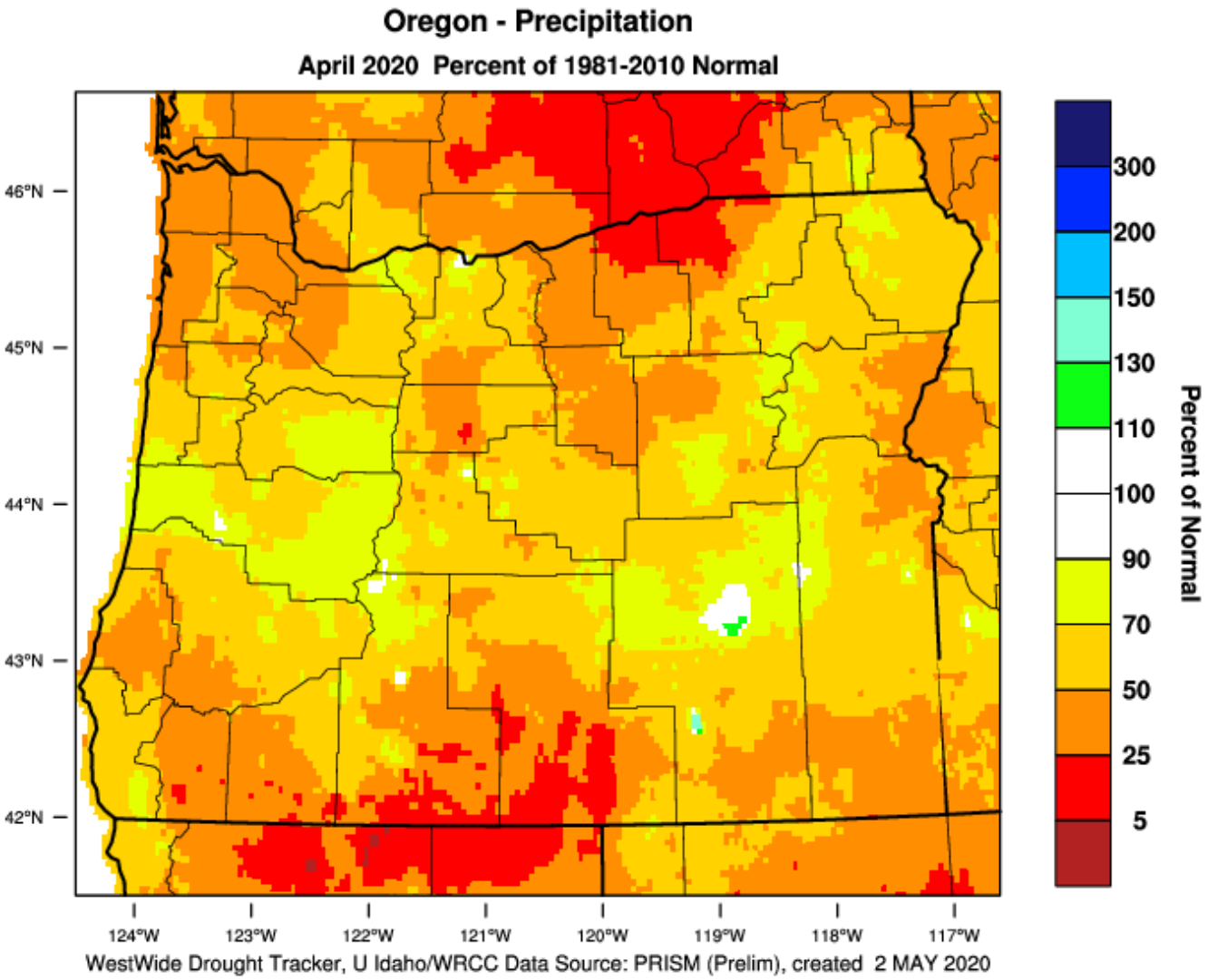

**Compared to this time last year:**



## Precipitation – (1 Month) Percent of Normal

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

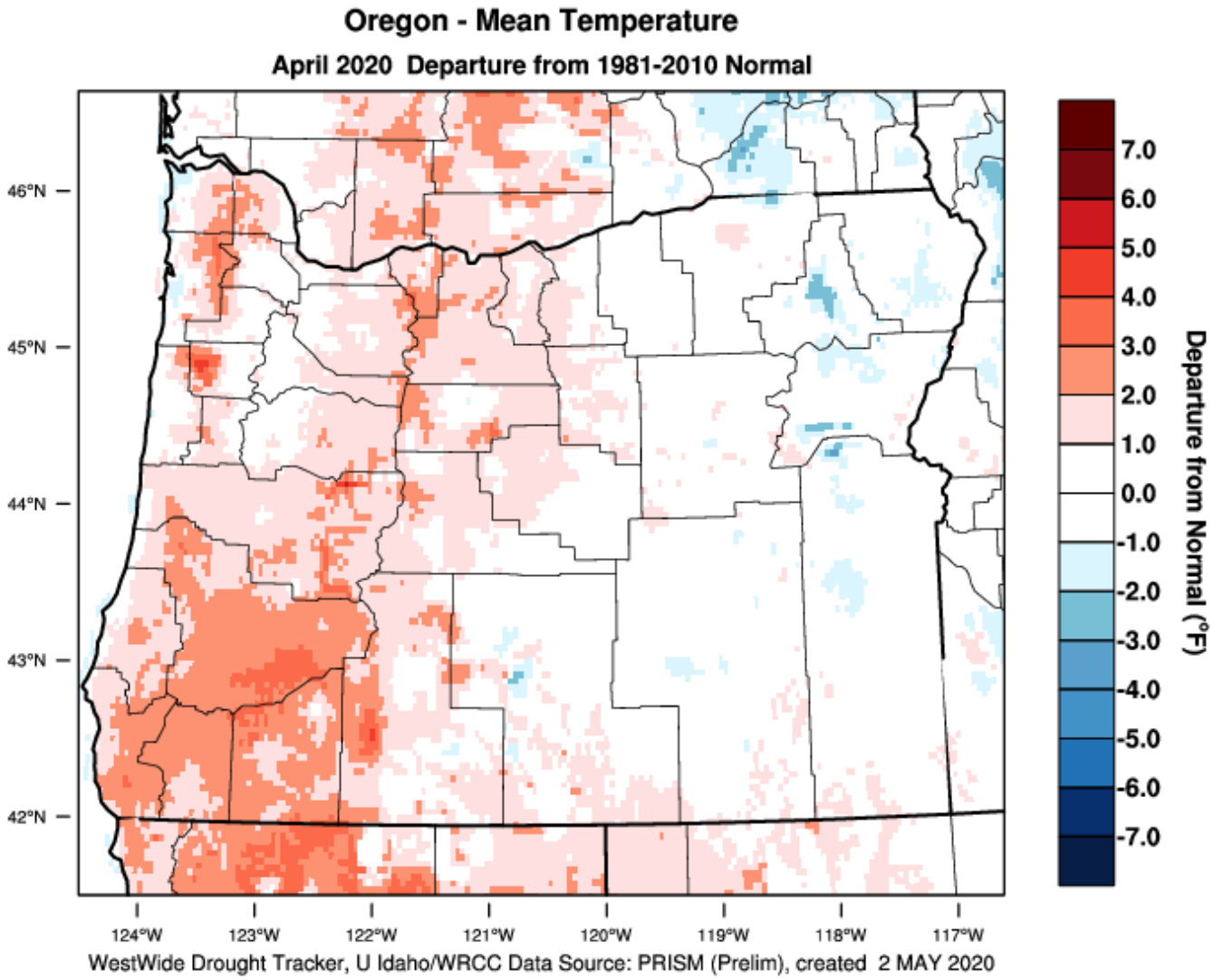
**PRISM > Precipitation Anomaly 1 Month > Oregon**



## Temperature – (1 Month) Departure from Normal

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

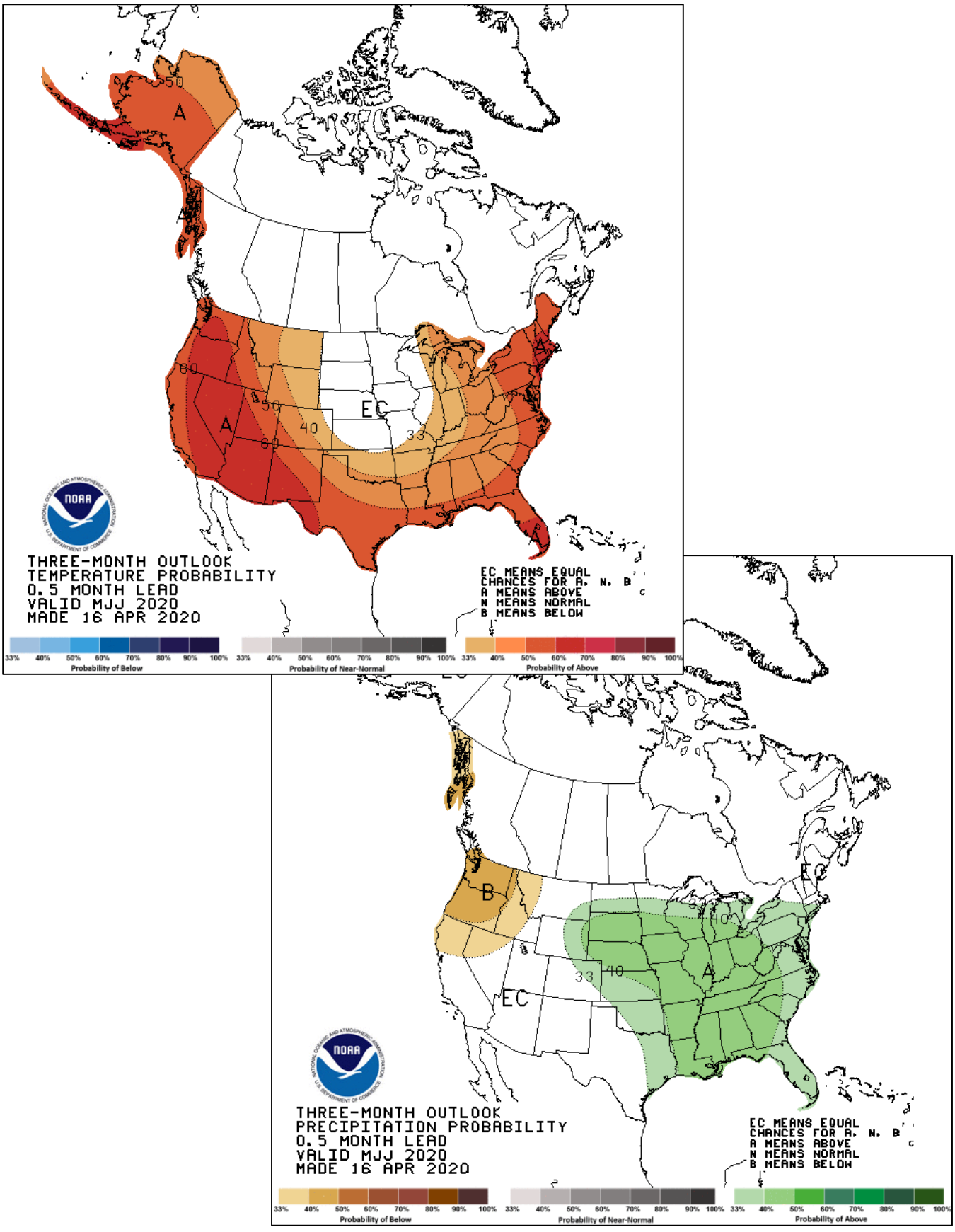
**PRISM > Temperature Anomaly 1 Month > Oregon**



## Three Month Temperature and Precipitation Outlook

**April through June**

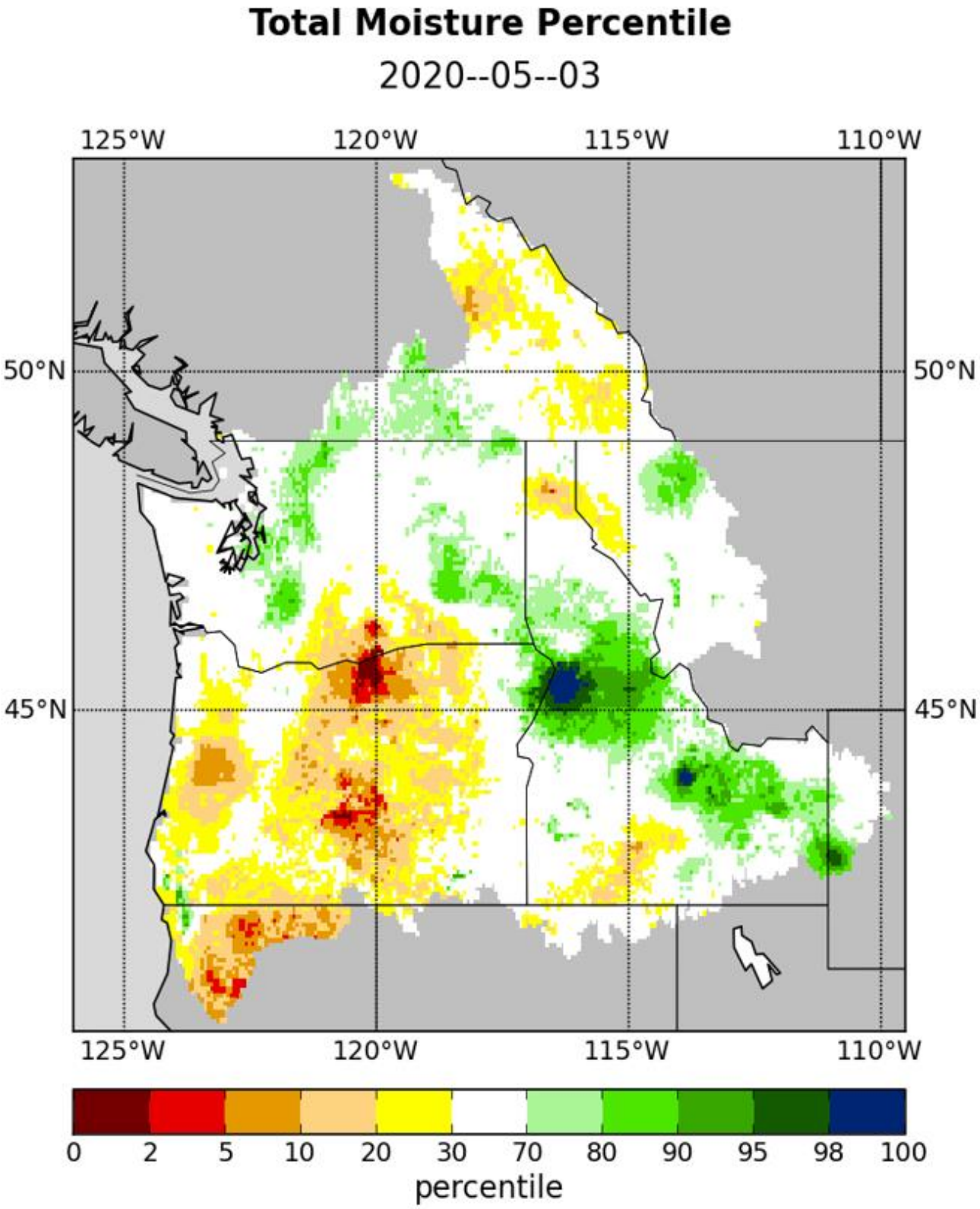
Website: http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1



## Total Moisture - Percentile

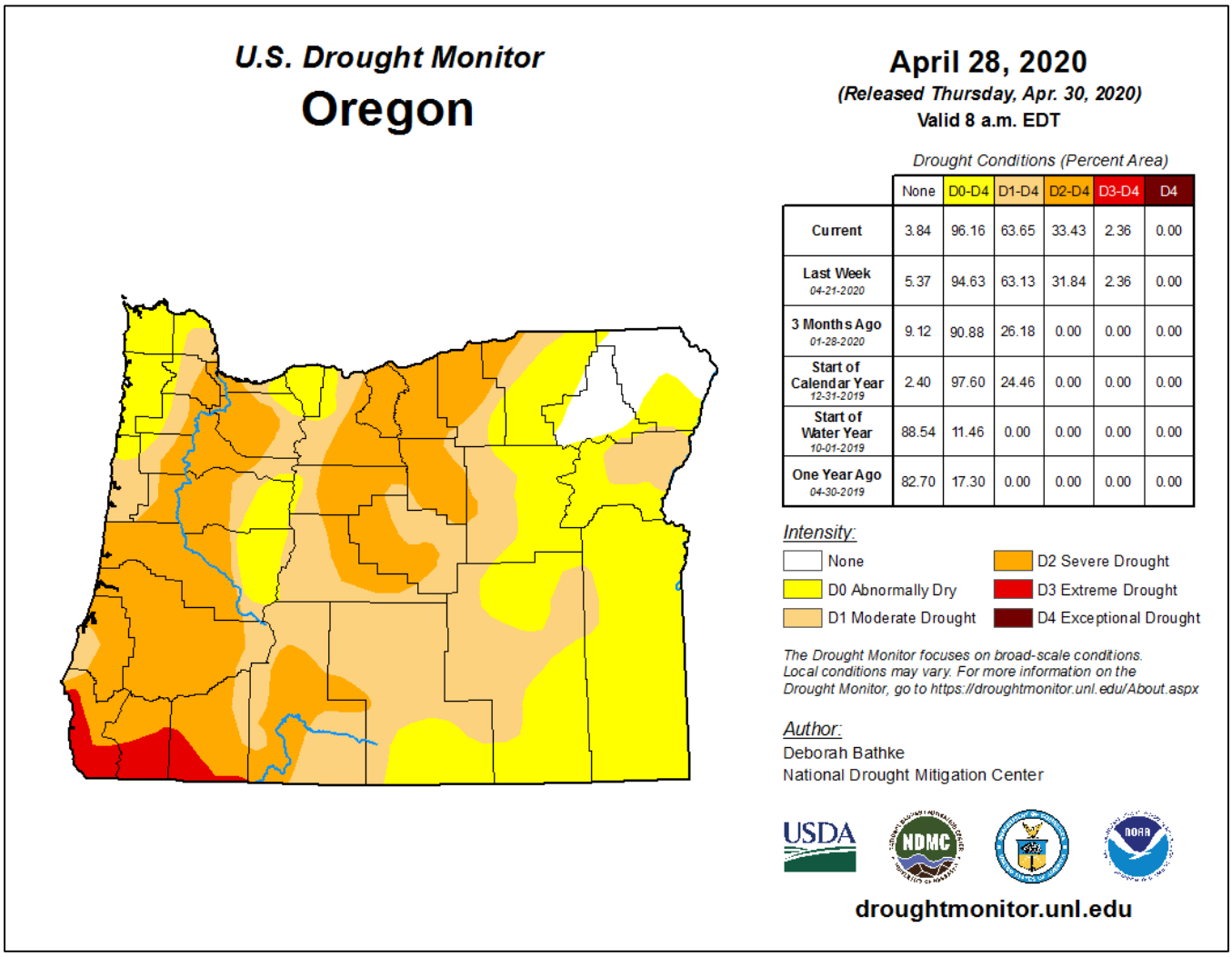
Total Moisture (STOT) is a moisture index calculated by adding Soil Moisture and Snow Water Equivalent. STOT represents the total water content of a region.

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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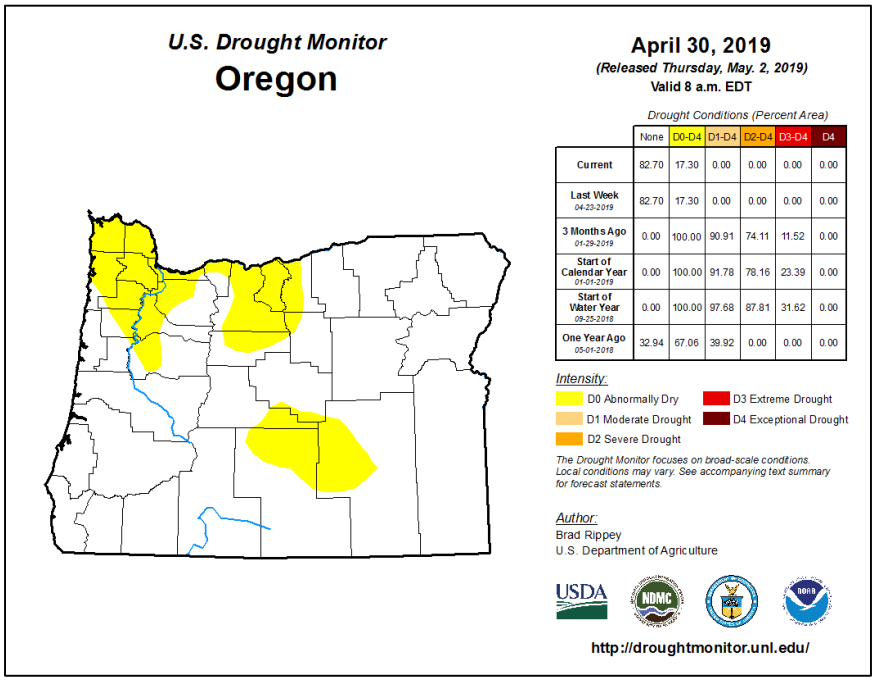
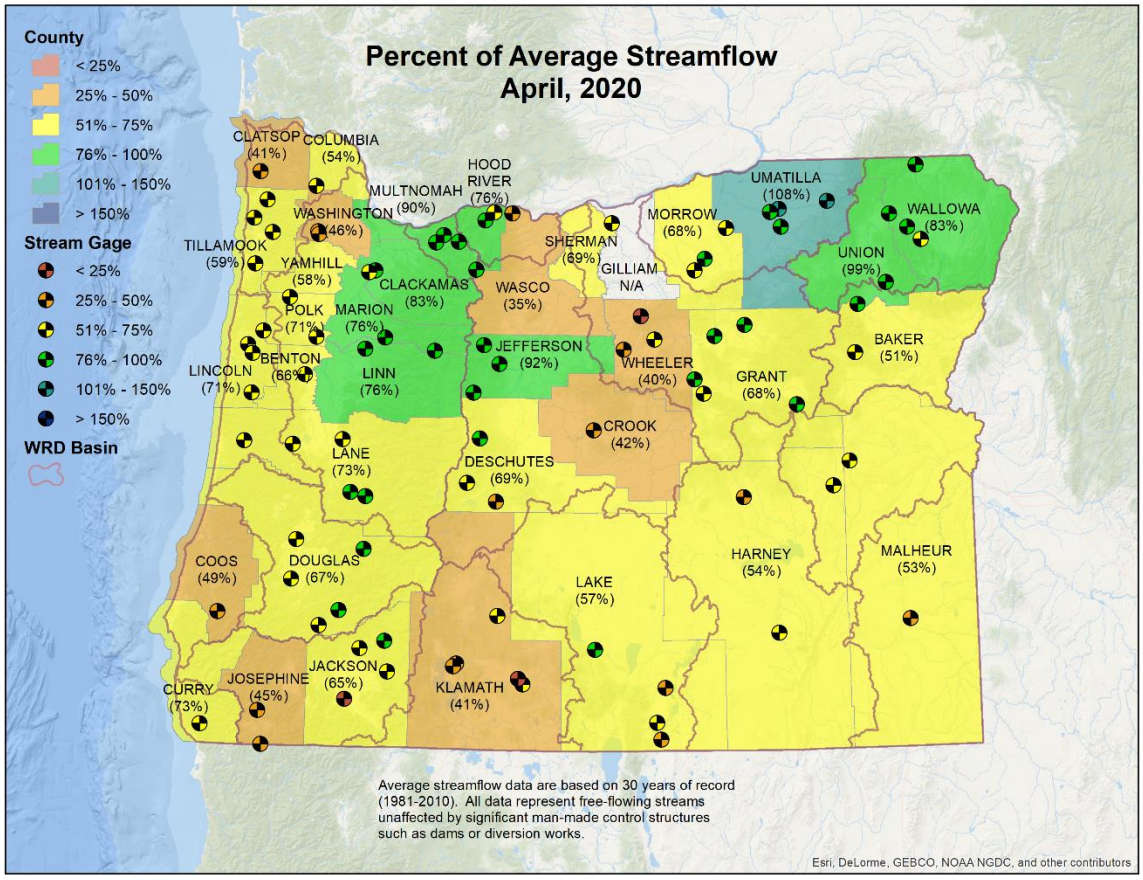


## Streamflow Conditions by County – April, 2020




## Streamflow Conditions – Deschutes Basin (Crook County)