Oregon
Water Conditions Report
February 24, 2020

OREGON
WATER RESOURCES
DEPARTMENT

Current Oregon statewide snow water equivalent is 94 percent of normal, down from 97 percent two weeks ago. Basin values vary from as low of 73 percent of normal in the Klamath basin, to a high of 131 percent of normal in the Umatilla, Walla Walla, and Willow basin.

Current Oregon statewide precipitation at NRCS SNOTEL sites is 83 percent of average, remaining below average for the water year. Basin precipitation values range from a low of 67 percent of average in the Klamath basin, to 112 percent of average in the Umatilla, Walla Walla, and Willow basin.

The recent weather pattern of dry weather coupled with warmer temperatures over the last two weeks has resulted in decreased snowpack and precipitation values with respect to normal.

The NRCS Basin Outlook Report for February is now available. This report is published monthly from January through June. The most recent edition underscores the significant increase in snowpack this past month.

Precipitation over the past two weeks has ranged from well below normal in southwest Oregon to above normal in the northeast corner of the state. Across much of western Oregon precipitation was over 1.5 inches below normal. For the month of January, precipitation was above-normal across much of the state with the exception of areas of central Oregon in the lower Deschutes and John Day basins where precipitation was below normal.

Temperatures over the past two weeks have varied widely, ranging from 5 degrees above normal to 5 degrees below normal. For the month of January, temperatures were above normal across most of the state, especially in north central and eastern Oregon where temperatures were up to 6 degrees warmer than normal for this time of year.

Over the next 8 to 14 days, the NOAA Climate Prediction Center is forecasting below normal temperature probability across all but the southeast third of the state where equal chances are forecast. The precipitation outlook is for from above normal probability across far eastern third of the state with normal probability forecast for the remainder. The most recent three month outlook indicates an increased probability of above normal temperatures across the state. The precipitation outlook for the same period is for below normal probability across most of western and south central Oregon with equal chances of above or below normal probability for the rest of the state. The next long-term outlook will be issued on March 19, 2020.

ENSO-neutral continues to be favored through Northern Hemisphere spring 2020 (~60 percent chance), continuing through summer 2020 (~50 percent chance). During January 2020, near- to above-average sea surface temperatures were evident across most of the equatorial Pacific Ocean. For a more complete report, refer to the February 13, 2020

diagnostic discussion issued by the Climate Prediction Center. The next diagnostic discussion is scheduled for March 12, 2020. Another source of information is the latest ENSO blog on the climate.gov website.

Thanks to persistent weather patterns January statewide streamflow ended up right at normal (100 percent) for this time of year. This is much higher than the 53 percent seen in December. Regionally for January, streamflow conditions were about 70 percent of normal east of the Cascades and over 140 percent to the west. Overall, flows in the John Day were the lowest at around 50 percent of normal while the highest flows were in the North Coast and Mid Coast at over 160 percent of normal.
Lately, streamflow is trending downward in western and south central Oregon, most noteworthy in parts of the Umpqua, South Coast, and Rogue.

USACE Reservoirs: **Willamette:** The Willamette system is 26 percent full and 12 percent below rule curve. While short-lived, recent weather helped to elevate inflows and bring some projects closer to rule curve. Flows in the Willamette River at Albany are 9,400 cfs with flows at Salem at 15,300 cfs.

Rogue: The Rogue system is currently 57 percent full and 10 percent below rule curve. Lost Creek is 64 percent full and 9 percent below rule. Outflows should continue holding at about 1,100 cfs and hopefully capture the majority of the forecasted inflows. Applegate is at 22 percent, 12 percent above rule. Releases are currently at 125 cfs. Current fisheries goals are minimizing the dewatering of spring chinook redds in 2019-2020, and minimizing early emergence by spring chinook in the spring of 2020.

Willow Creek: The Willow Creek Project is currently 60 percent full and 4 percent below rule curve. The current project objectives are to pass 5 cfs of the current inflow, as the project continues to slowly fill back to rule curve.

USBR Reservoirs: Reclamation reservoirs in Oregon continue to have higher than average storage levels thanks to higher than average carryover at the start of the Water Year. Most reservoirs have shown very little increase in storage over the past several weeks. Water Managers continue to actively monitor potential precipitation events since some reservoirs (Prineville, Bully Creek, Warm Springs, and Scoggins) are potentially a decent rainstorm away from exceeding maximum winter storage requirements as set by flood control regulations.

Umatilla River Basin: McKay reservoir is at 74 percent of capacity. Outflows are close to 12 cfs with inflows of about 250 cfs.

Deschutes River Basin: Ochoco and Prineville reservoirs are at 50 percent and 63 percent full respectively. Ochoco reservoir is releasing about 3 cfs while Prineville reservoir is currently releasing about 100 cfs with inflows of about 130 cfs. Crescent Lake is at 51 percent, Wickiup is at 62 percent and Crane Prairie is at 82 percent of capacity.

Malheur River Basin: Warm Springs, Beulah, and Bully Creek reservoirs are at 64, 53, and 71 percent full respectively. All three are above normal for this time of year, hopefully ensuring the chance of available carryover for next year.

Owyhee River Basin: Owyhee reservoir is well above normal at 75 percent of capacity. Inflows are currently about 360 cfs.

Burnt and Powder River Basins: Phillips and Unity reservoirs are at 26 percent and 59 percent full respectively. Phillips is releasing about 12 cfs with inflows around 18 cfs while Unity is releasing about 25 cfs.

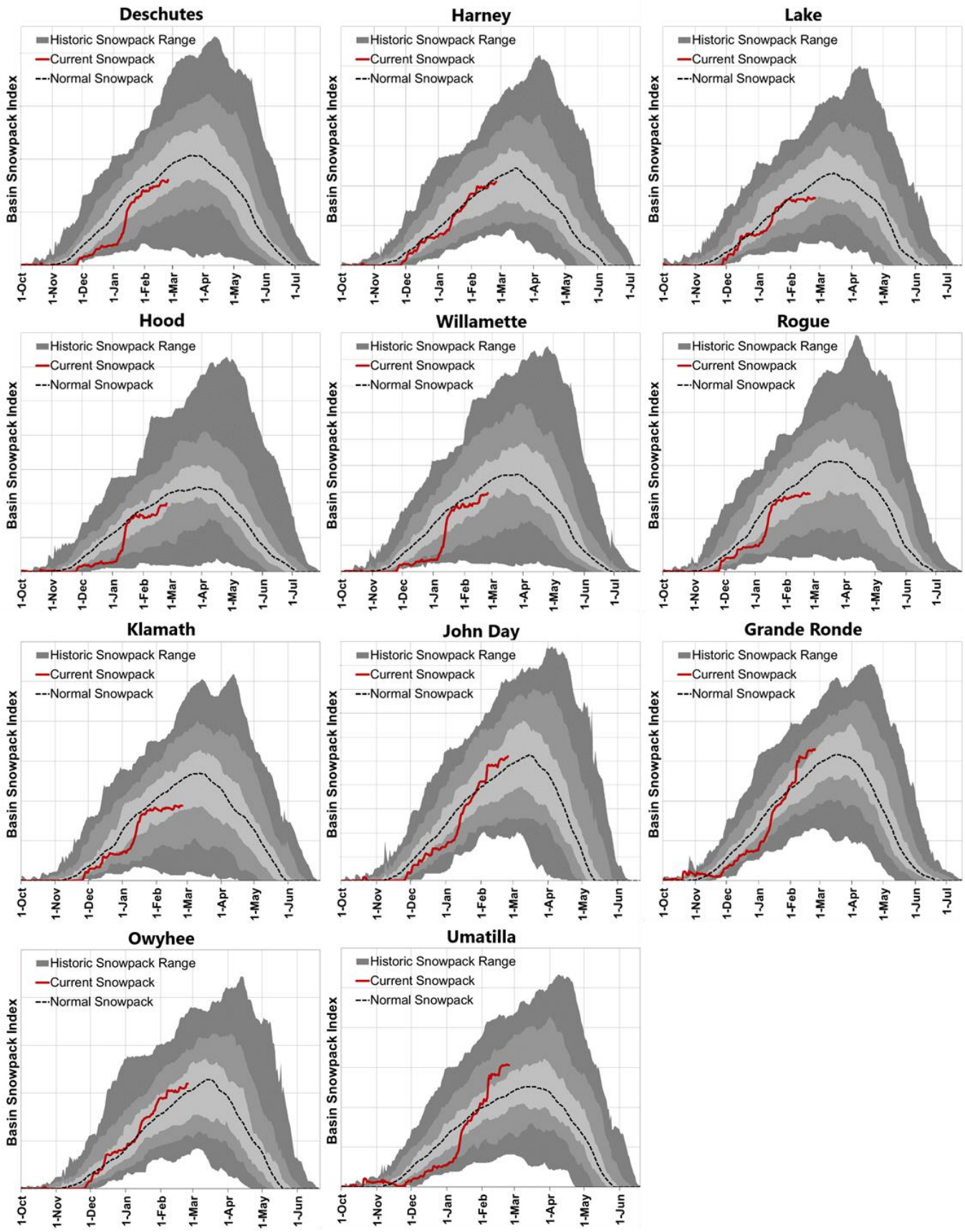
Tualatin River Basin: Scoggins reservoir is at 80 percent of capacity and releasing 20 cfs.

The most recent update to the US Drought Monitor indicates that almost 80 percent of the state is in D0 (abnormally dry) conditions, with just over 24 percent of the state listed as in D1 (moderate drought). This is a slight improvement over the past two weeks.

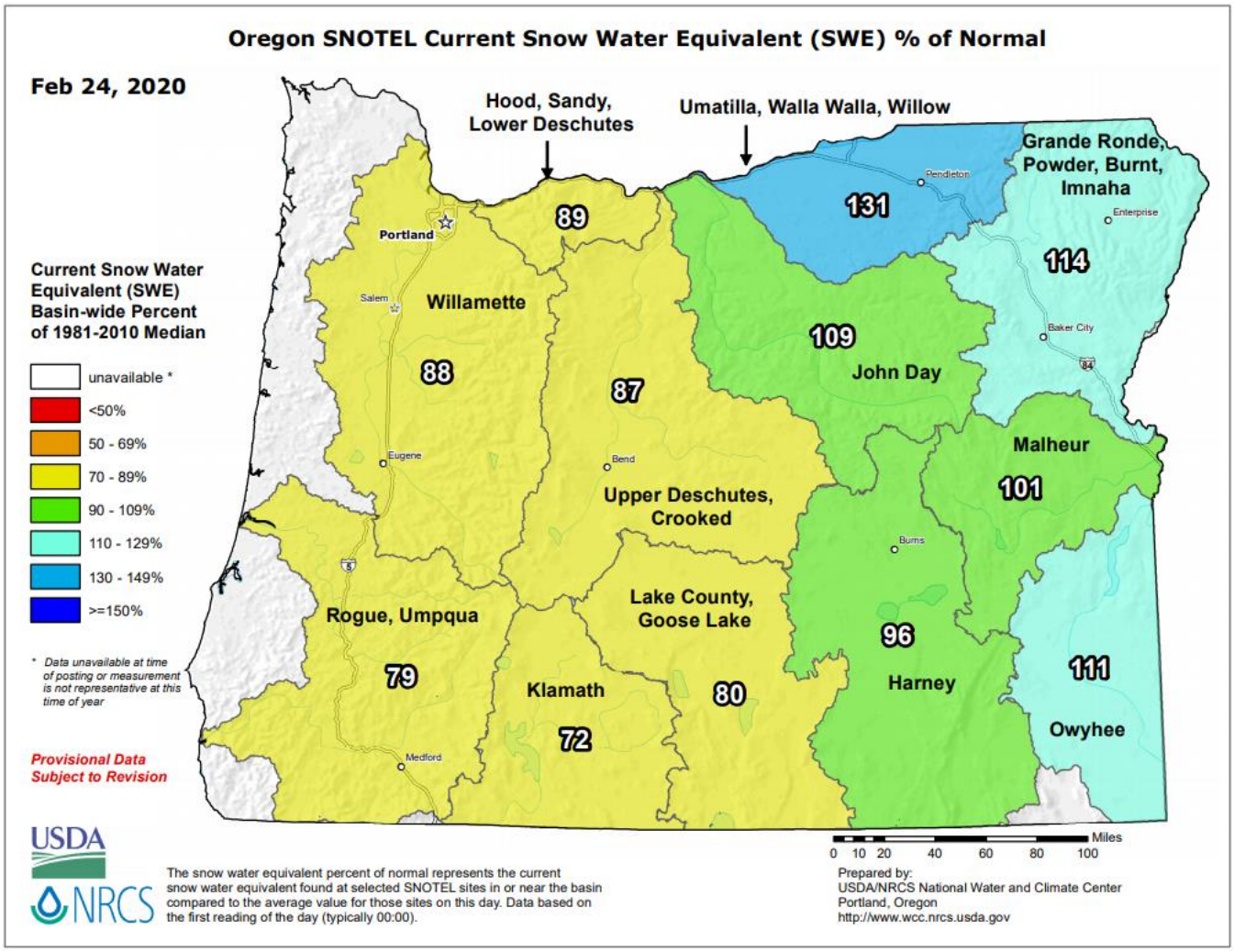
The Oregon Office of Emergency Management has assembled a new hydrology/meteorology dashboard featuring many of the data sources used to generate this report. Use the selection arrows at the bottom of your browser to navigate to the various data sources.

Data & Products: Page:

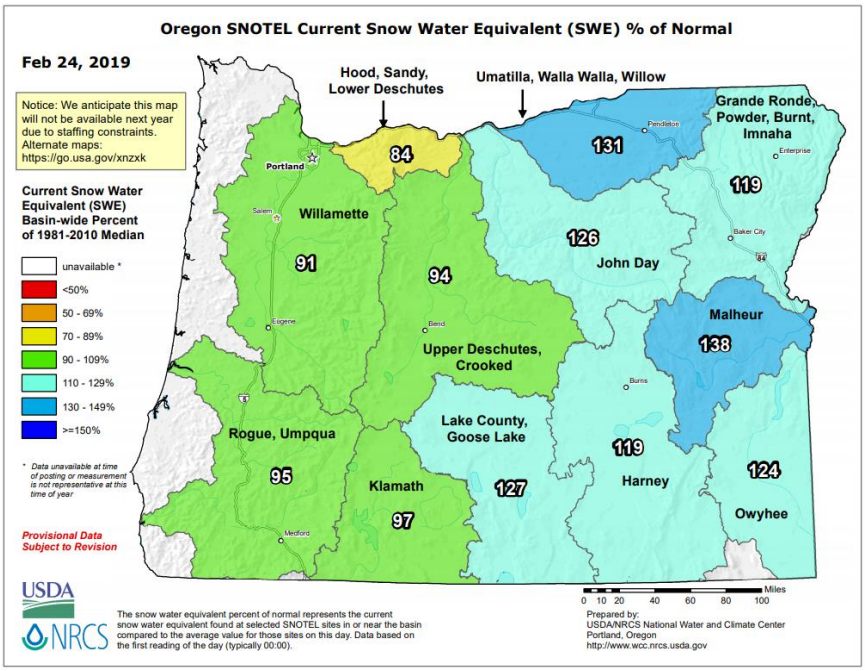
Snowpack Graphs – February 24, 2020



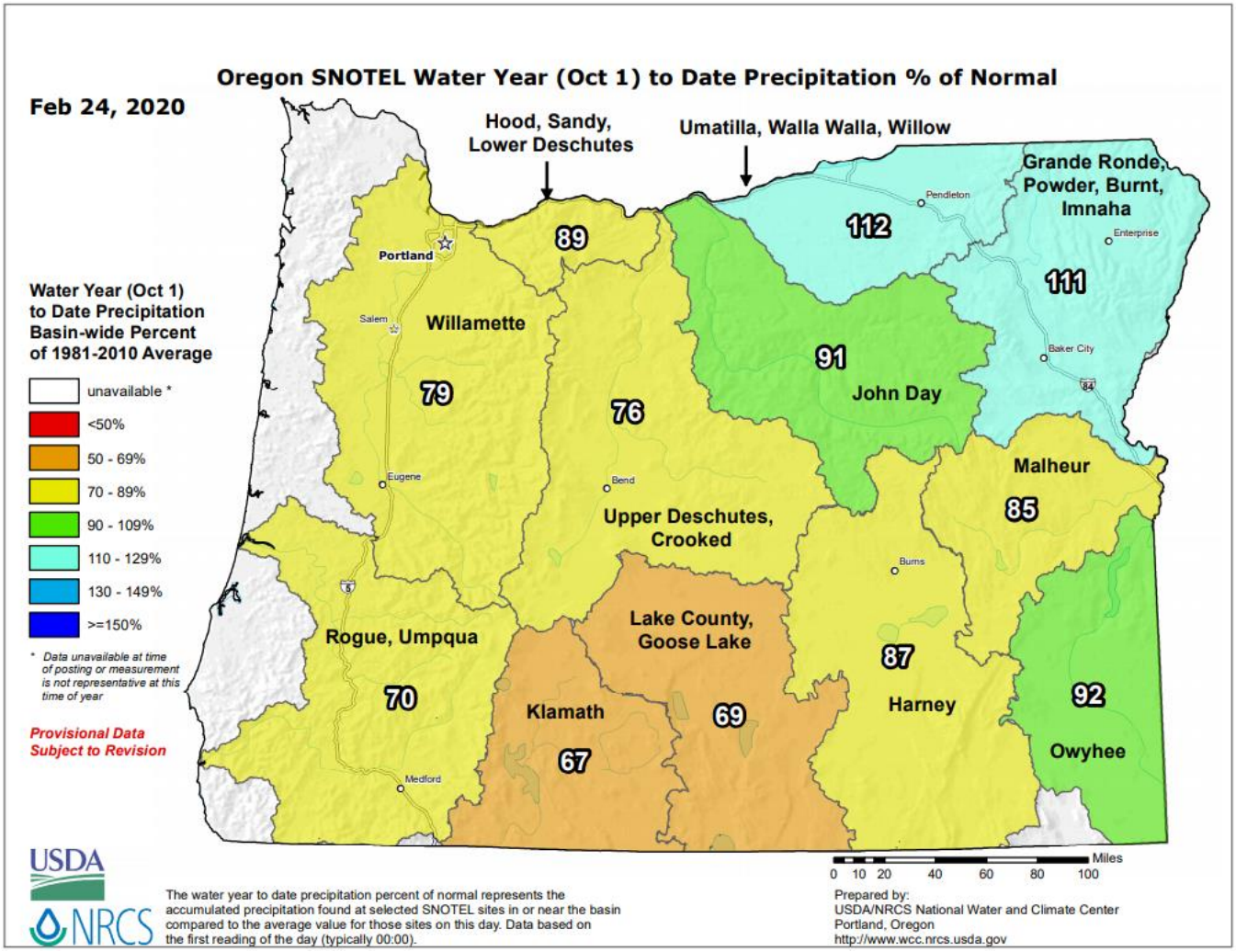
Snow Water Equivalent (SWE) - Percent of Normal



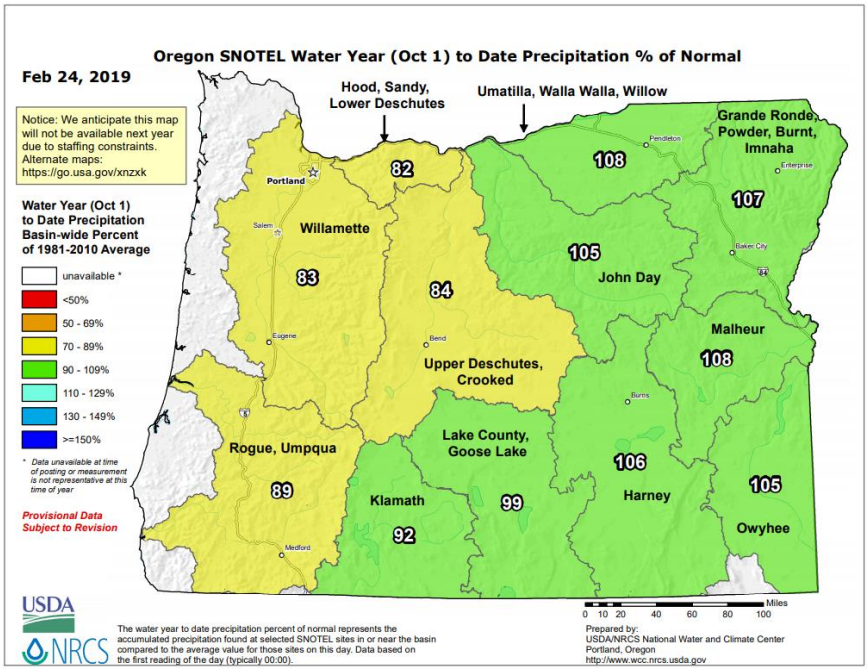
Compared to this time <u>last year</u>:



Precipitation (Mountain) - Percent of Normal



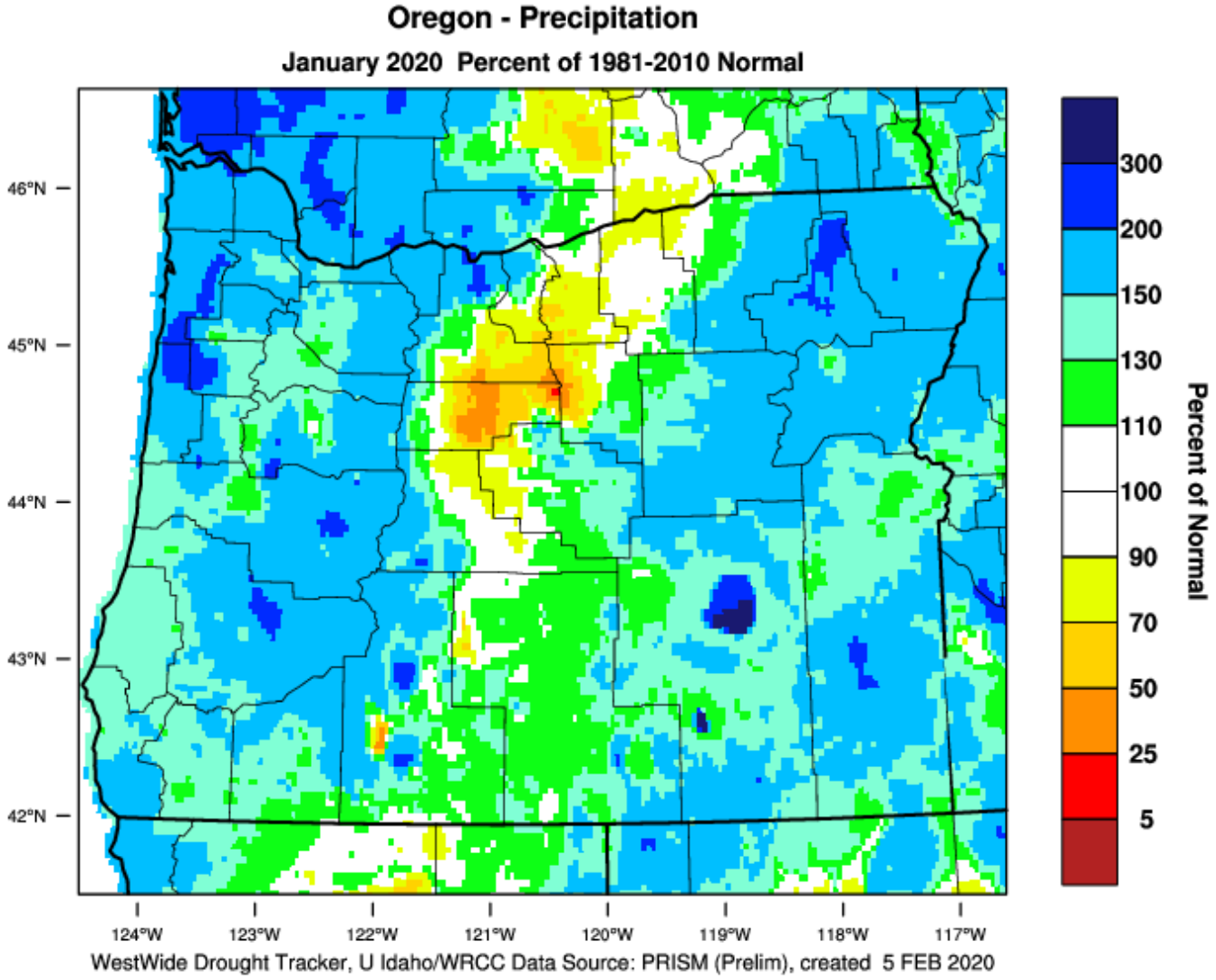
Compared to this time <u>last year</u>:



Precipitation – (1 Month) Percent of Normal

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

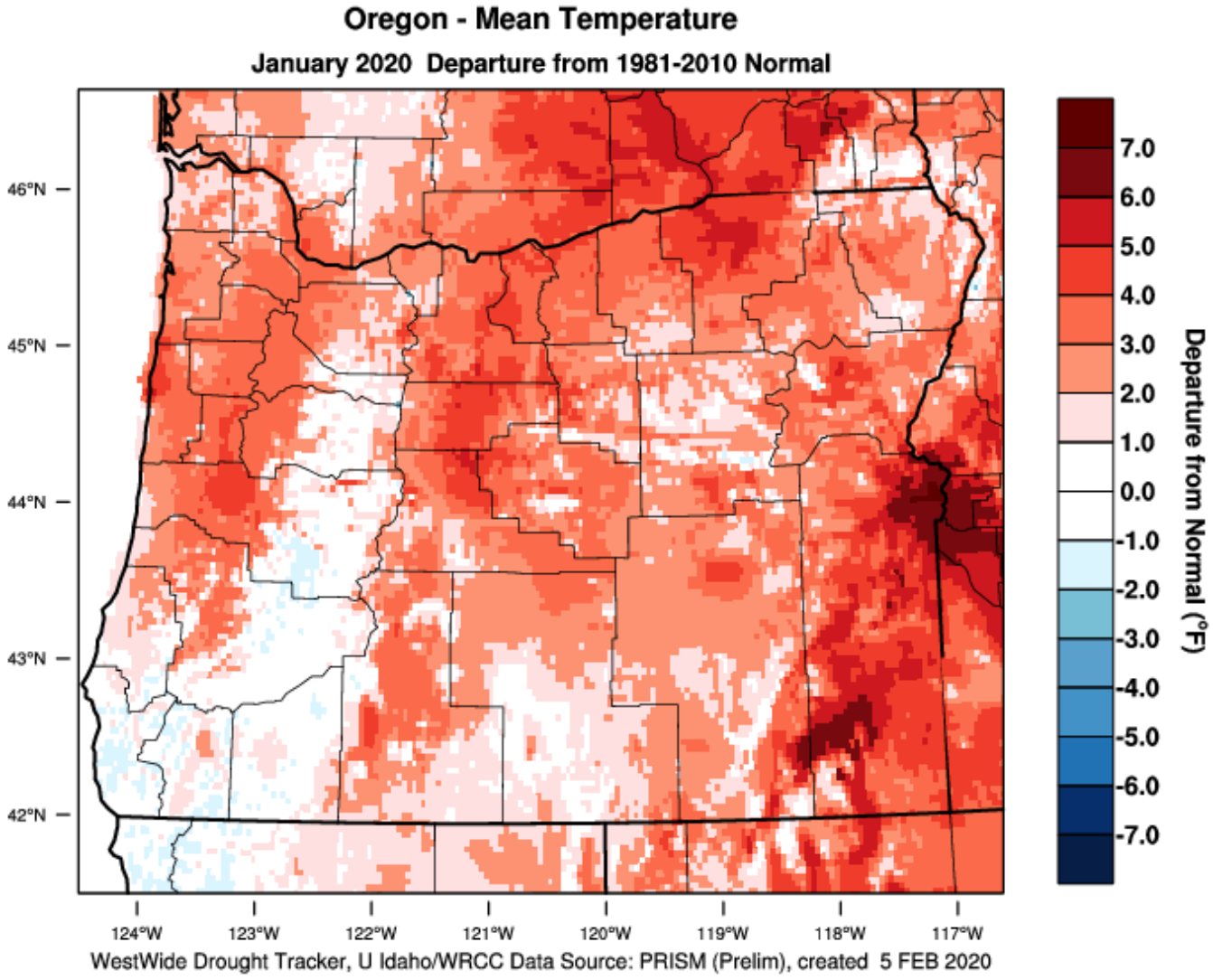
PRISM > Precipitation Anomaly 1 Month > Oregon



Temperature – (1 Month) Departure from Normal

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

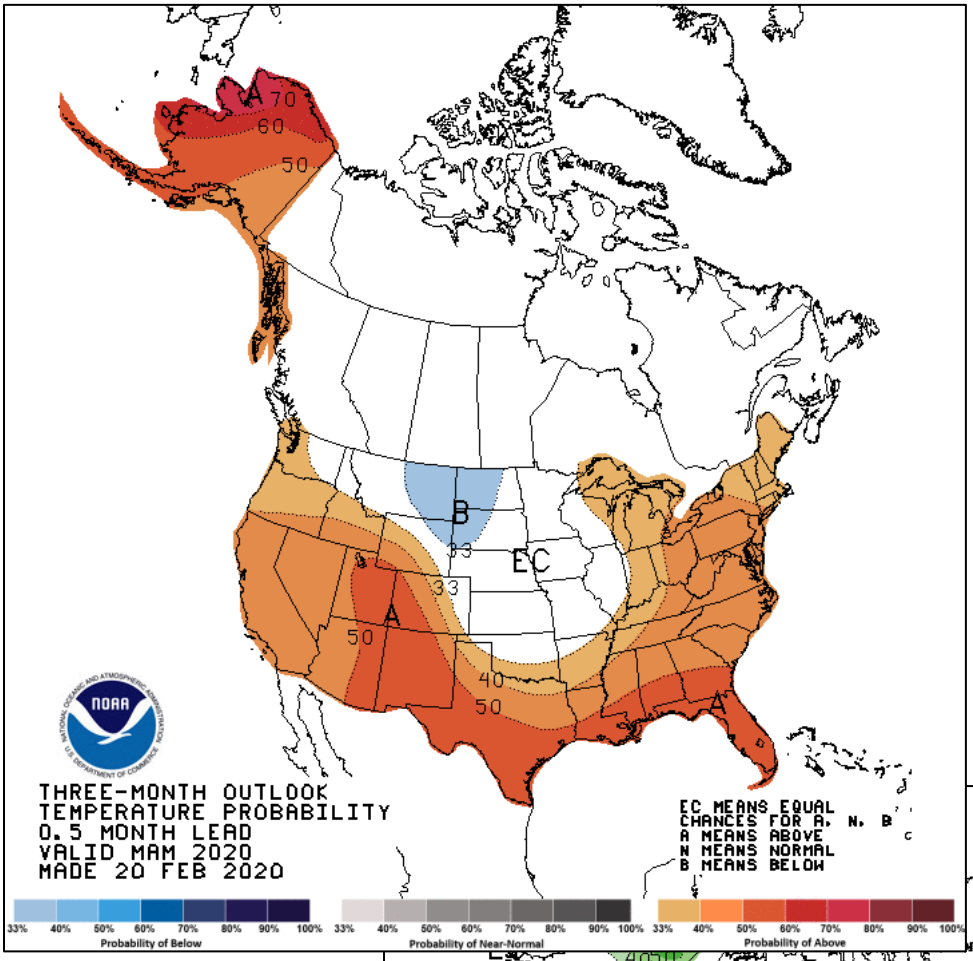
PRISM > Temperature Anomaly 1 Month > Oregon

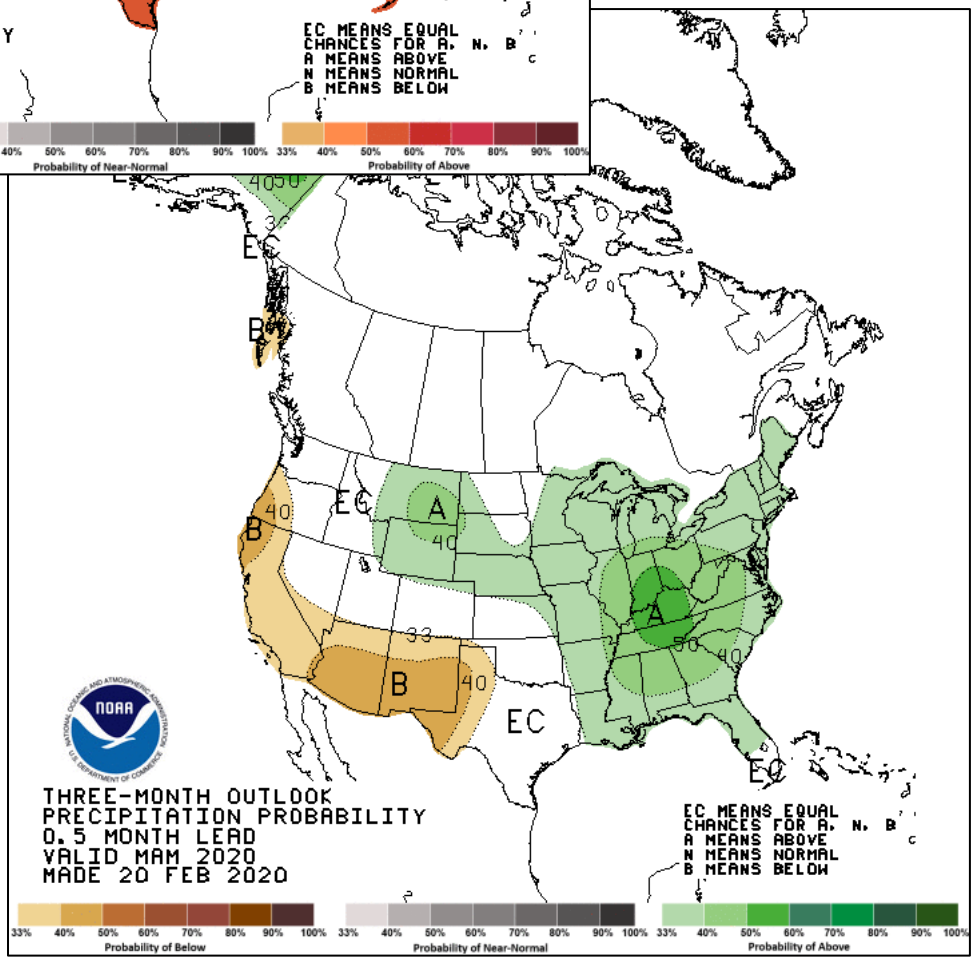


Three Month Temperature and Precipitation Outlook

March through May

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

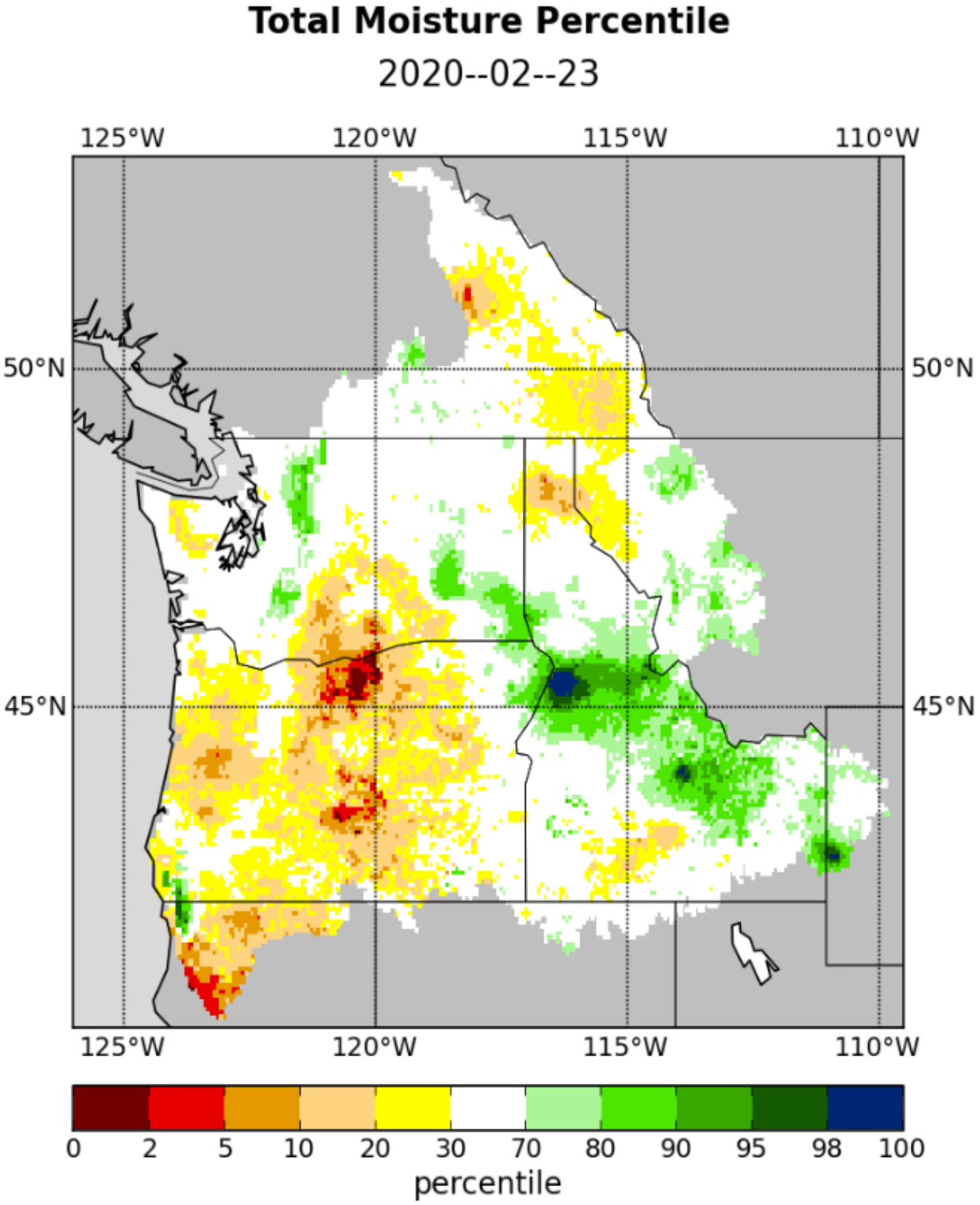




Total Moisture - Percentile

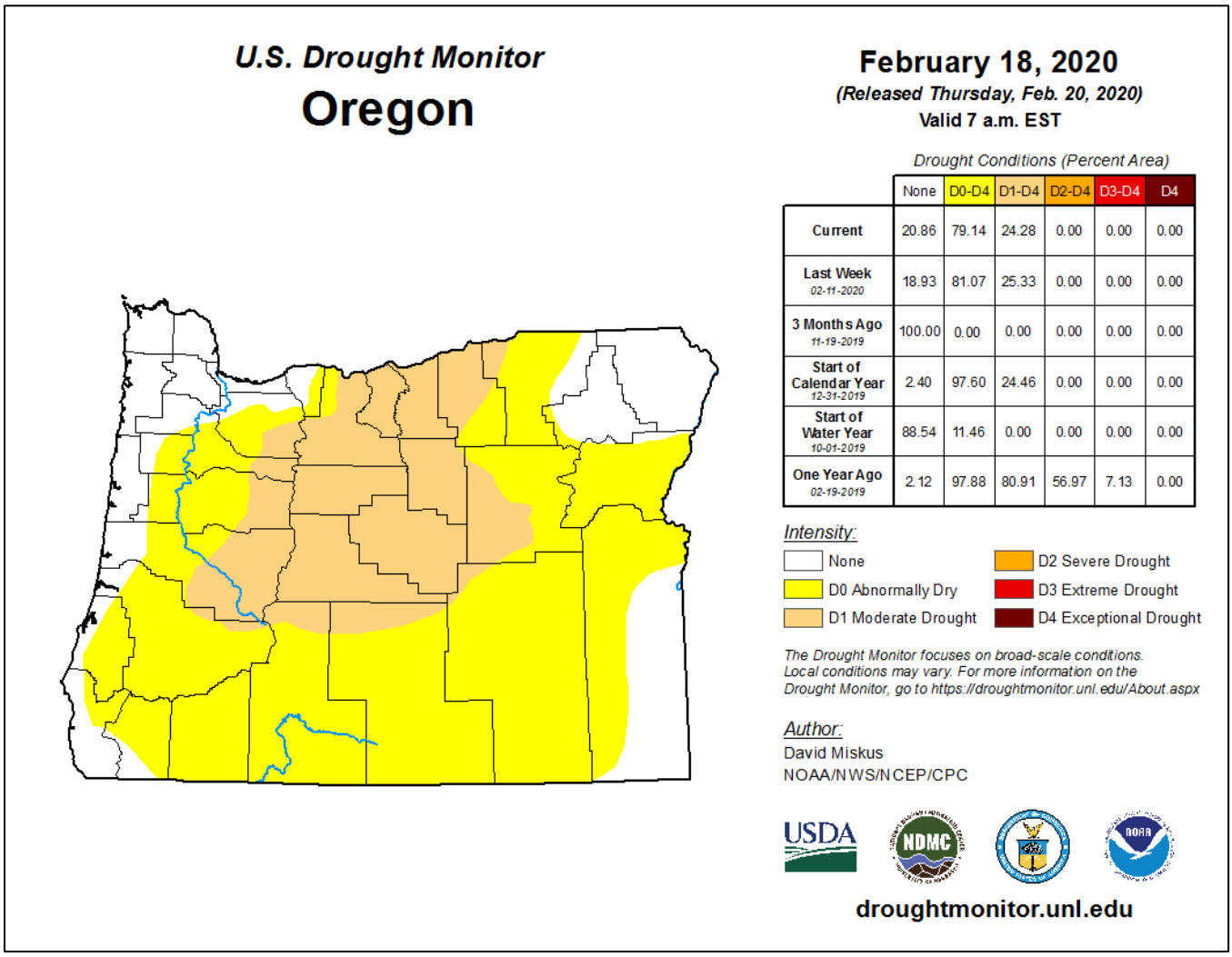
Total Moisture (STOT) is a moisture index calculated by adding Soil Moisture and Snow Water Equivalent. STOT represents the total water content of a region.

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

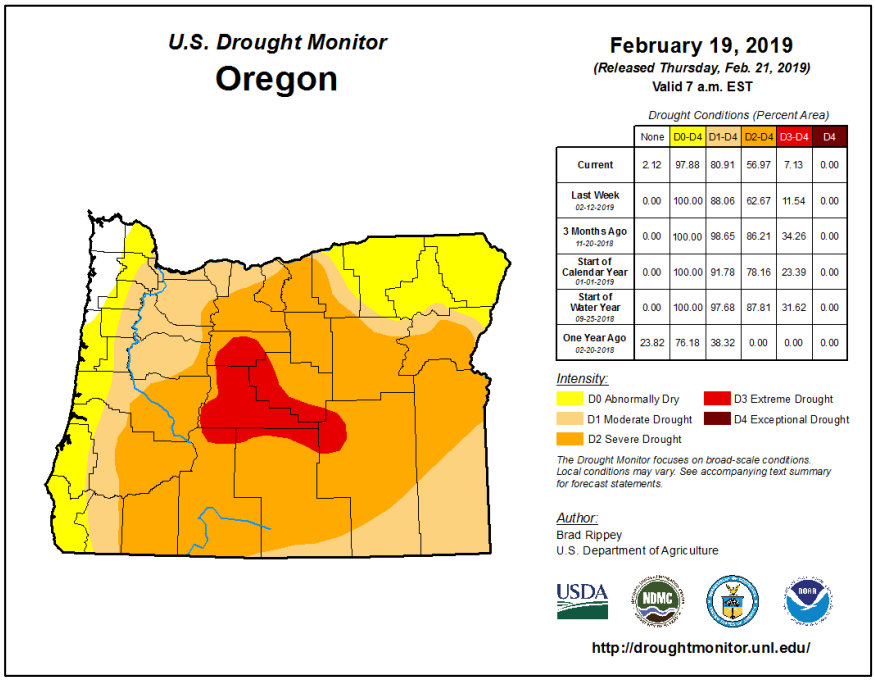


U.S. Drought Monitor for Oregon

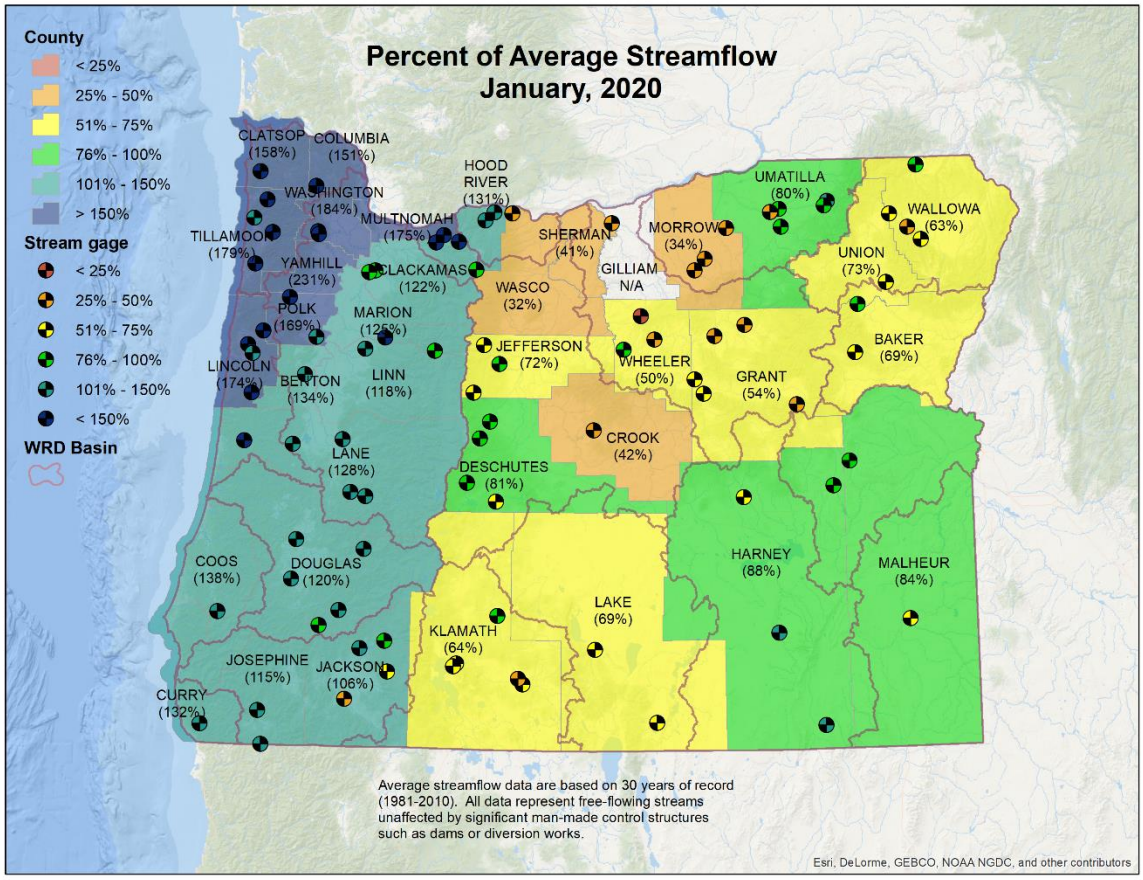
Website: https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?OR



Compared to this time last year:



Streamflow Conditions by County – January, 2020



Streamflow Conditions – South Coast Basin (Curry County)