Oregon
Water Conditions Report
November 4, 2019

OREGON
WATER RESOURCES
DEPARTMENT

Current Oregon statewide water year precipitation at NRCS SNOTEL sites is 73 percent of normal. NRCS Basin precipitation values vary from 34 percent of normal in the Lake County, Goose Lake basin to 112 percent of normal in the Umatilla, Walla Walla, Willow Creek basin. The wide variability is due to the limited days in the water year and the localized effects of storm impacts on specific SNOTEL sites.

Minor snow water equivalent values (SWE) are currently measured at some higher elevation SNOTEL sites across the state, however values are generally less than 1 inch of SWE.

Precipitation over the past two weeks has been mostly below normal, ranging from 0.5 above to over 2.5 inches below-normal in parts of western Oregon. For the month of September, precipitation was well above normal across much the state. In areas of southwest and south central Oregon anomalies ranged up to 300 percent of normal. Statistics for October are not available at this time but are expected to be available soon.

Temperatures over the past two weeks have been below-normal across almost all of the state. Temperatures across a large portion of central and eastern Oregon have been 8 to 10 degrees below normal for this time of year. For the month of September, temperatures were generally normal to below-normal across the state.

Over the next 8 to 14 days, the NOAA Climate Prediction Center is forecasting an increased probability of above-normal temperatures along with below-normal precipitation across the state. The most recent three month outlook indicates increased probability of above-normal temperatures across the state. The precipitation outlook for the same period is for below-normal precipitation in the southwest corner of the state with equal chances of above or below normal probability for the rest of the state. The next long-term outlook will be issued on November 21, 2019.

ENSO-neutral is favored during the Northern Hemisphere fall 2019 (~85 percent chance), continuing through spring 2020 (55-60 percent chance). Near-average sea surface temperatures (SST) were evident in the east-central Pacific Ocean during most of September, though SST anomalies increased during the past couple of weeks. For a more complete report, refer to the October 10, 2019 diagnostic discussion issued by the Climate Prediction Center. The next diagnostic discussion is scheduled for November 14, 2019. Another source of information is the latest ENSO blog on the climate.gov website.

Statewide streamflows for October were 107 percent of normal. This is somewhat lower than the 114 percent seen in September. Regionally for October, streamflow conditions were about 105 percent of normal east of the Cascades and about 110 percent to the west. Flows in the South Coast were the lowest at about 53 percent of normal while the highest flows were in the Sandy, North Coast, Mid Coast, and Umatilla basins at a little over 130 percent of normal for the month. Streamflows for the 2019 water year ended up right

at 100 percent of normal for the state. In response to recent dry weather, flows in many streams in western Oregon have declined significantly over the past two weeks.

USACE Reservoirs:

Rogue: The Rogue system is currently 35 percent full and 4 percent below rule curve. Lost Creek will continue holding flows close to 1,150 cfs.

Lost Creek is 41 percent full and 2 percent below rule curve. Inflows are around 920 cfs with outflows of about 1,170 cfs. Applegate is at 8 percent of capacity and 15 percent below rule curve. Inflows are close to 50 cfs while outflows are holding at about 150 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. Along with increasing summer rearing area for juvenile Coho salmon, juvenile steelhead, and cutthroat trout.

Willow Creek: The Willow Creek Project is currently 29 percent full and 44 percent below rule curve. Current project inflow is at 5.8 cfs with outflow at 3.6 cfs. The Oregon Health Authority health advisory listed on October 11 has been lifted. Water quality monitoring has confirmed that the level of cyanotoxins (harmful algae toxins) in Willow Creek Reservoir are now below recreational guideline values for human exposure. However, officials advise recreational visitors to be alert to signs of cyanobacterial (harmful algae) blooms, because blooms can develop and disappear on any lake through the season.

Willamette: The Willamette system is 12 percent full and 18 percent below rule curve. Operations are transitioning from spawning to incubation flows on the North and South Santiam Rivers. Flows in the Willamette River at Albany are 5,430 cfs with flows at Salem at 9,640 cfs.

USBR Reservoirs: Most reservoirs started the current Water Year with above average carry-over storage primarily due to a late start in the previous Water Year's irrigation season and higher than average inflows especially for the Central and Eastern Oregon river basins. Reclamation water managers will be watching the Oregon projects closely over the winter to ensure that minimum winter space requirements are maintained for flood control considerations.

Eastern Oregon reservoirs have started refill immediately after irrigation releases ended in early October. Irrigation in the Deschutes, Crooked, and Umatilla River basins also ended in early October and storage levels continue to decrease as reservoirs meet downstream ecological flow targets. The Rogue River basin is the outlier having started the Water Year with below average carry-over storage. Storage levels have remained somewhat static with typical refill starting in December and January that coincides with the rainy season for this region of Oregon. Since Rogue basin projects failed to fill this last Water Year, a good Water Year is sorely needed to allow the basin to catch up.

Umatilla River Basin: McKay reservoir is at 26 percent of capacity. Outflows are close to 135 cfs with inflows of about 12 cfs.

Deschutes River Basin: Ochoco and Prineville reservoirs are at 45 percent and 59 percent full respectively. Ochoco reservoir is releasing close to 5 cfs while Prineville reservoir is currently releasing just under 95 cfs with inflows about 44 cfs.

Crescent Lake is at 52 percent, Wickiup is at 23 percent and Crane Prairie is at 69 percent of capacity.

Malheur River Basin: Warm Springs, Beulah, and Bully Creek reservoirs are at 51, 26, and 46 percent full respectively. All three are above normal for this time of year, increasing the chance of available carryover for next year.

Owyhee River Basin: Owyhee reservoir is well above normal at 62 percent. Inflows are currently about 190 cfs.

Burnt and Powder River Basins: Phillips and Unity reservoirs are at 22 percent and 30 percent full respectively. Phillips is releasing about 13 cfs with inflows around 7 cfs while Unity is also releasing about 13 cfs.

Tualatin River Basin: Scoggins reservoir is at 37 percent of capacity and releasing 58 cfs.

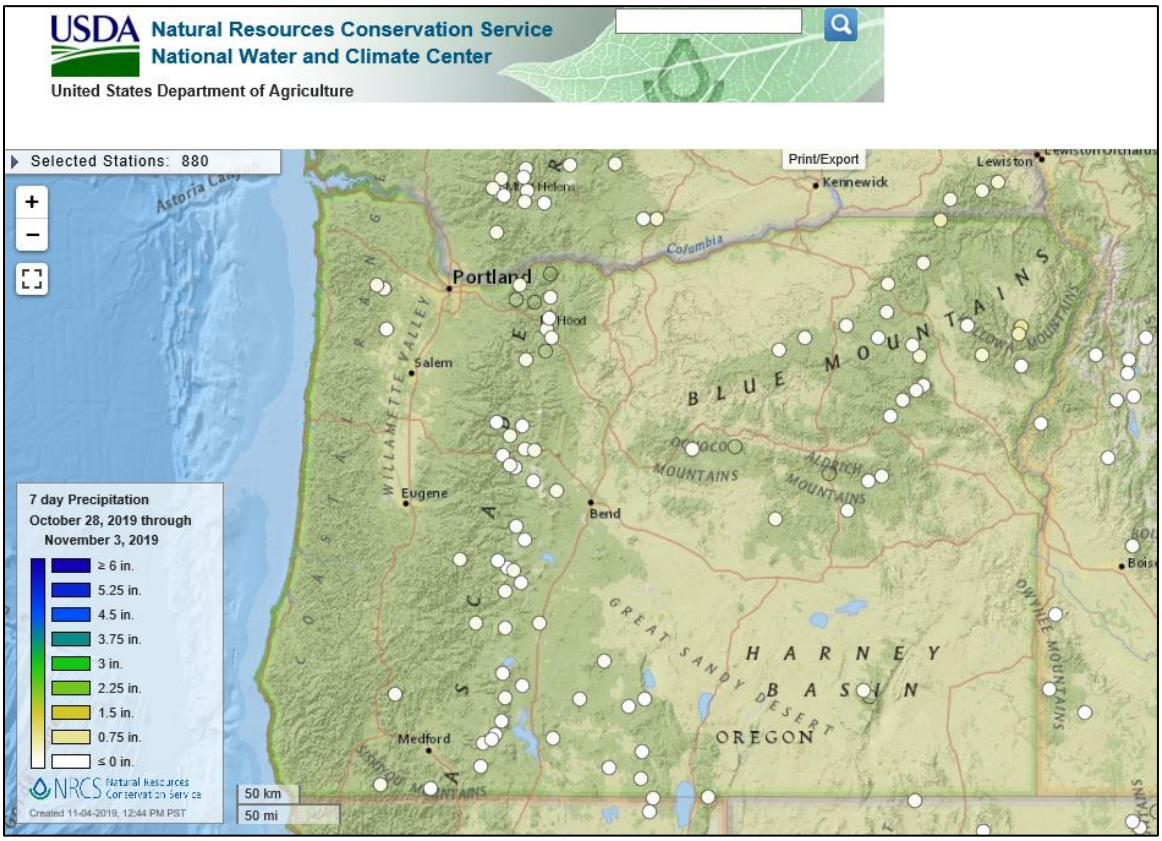
The most recent update to the US Drought Monitor now indicates that there are no longer any areas of the state listed in any drought category.

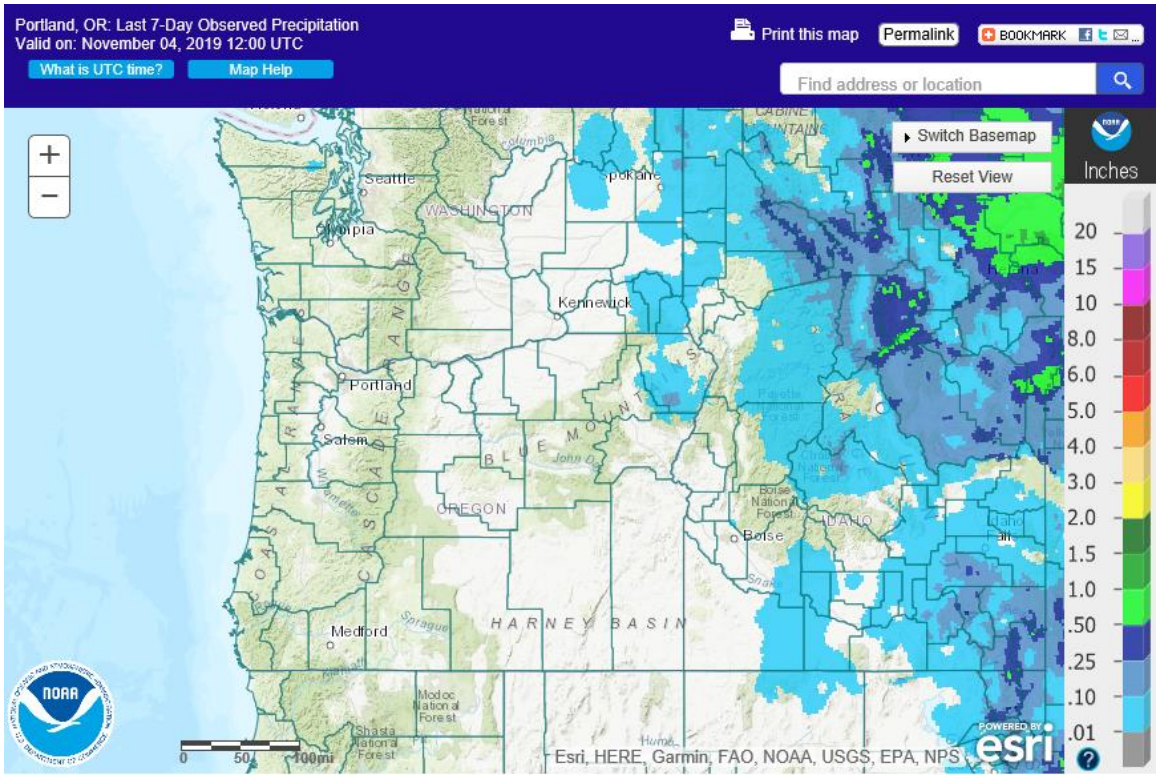
Wildfire potential through December is predicted to be normal across Oregon.
According to the National Significant Wildland Fire Potential Outlook, large fire activity has been limited across the Northwest Geographic Area this fire season and should continue to be limited the rest of 2019. At the current time, there are no large fires ongoing in the region. 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.

Data & Products: Page:

Precipitation – 7 Day

7-day precipitation (inches) – October 28, 2019 through November3, 2019

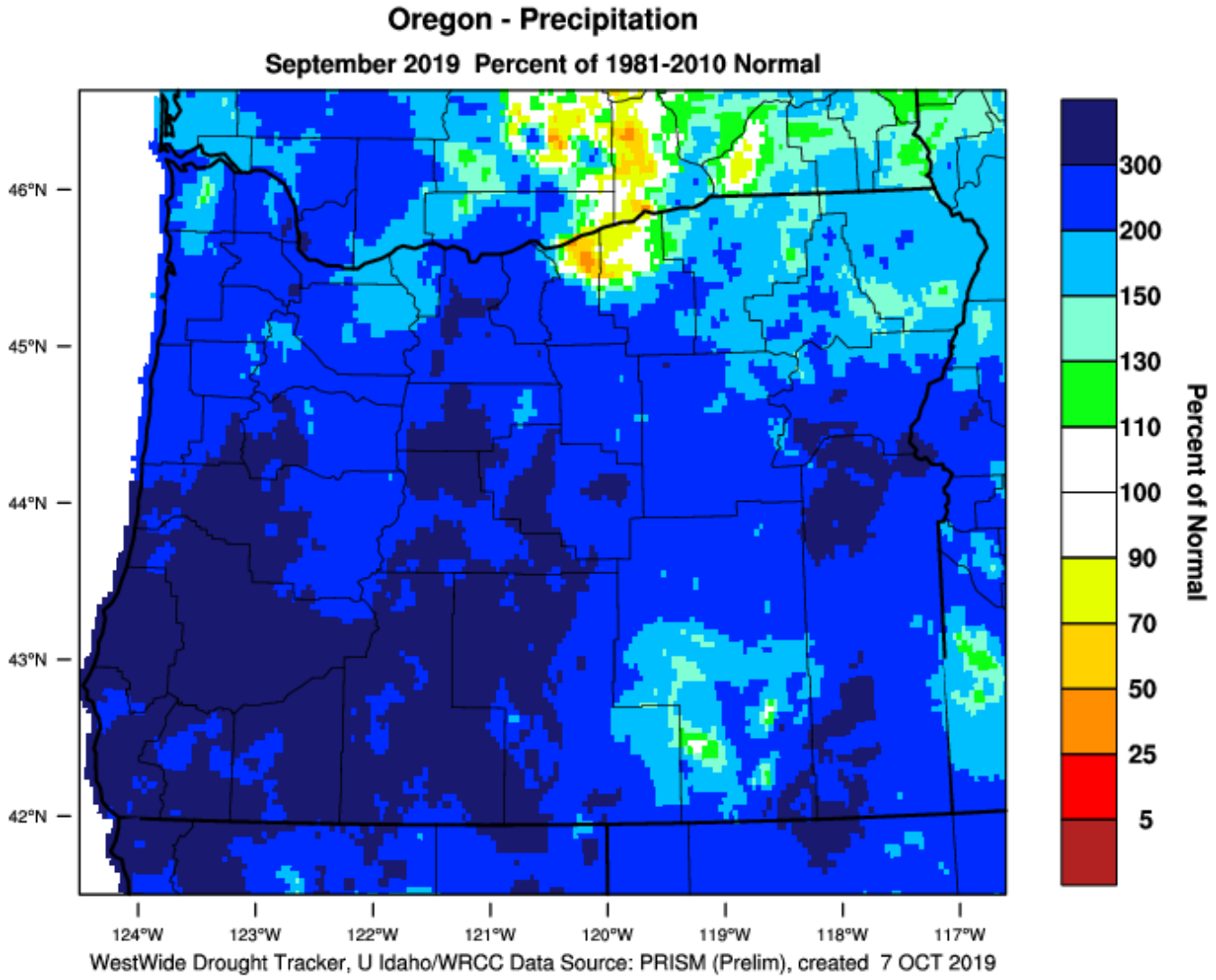




Precipitation – (1 Month) Percent of Normal

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

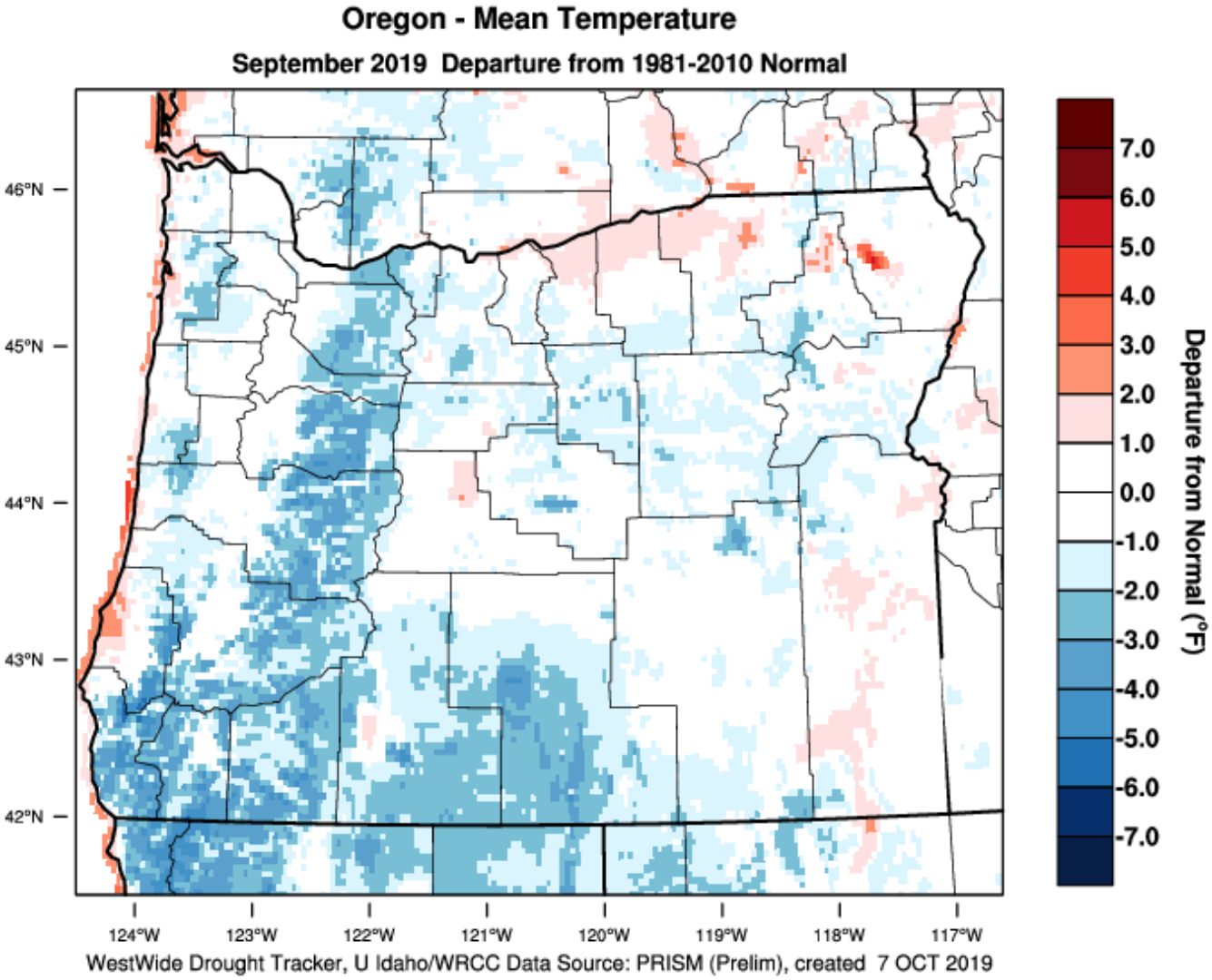
PRISM > Precipitation Anomaly 1 Month > Oregon



Temperature – (1 Month) Departure from Normal

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

PRISM > Temperature Anomaly 1 Month > Oregon

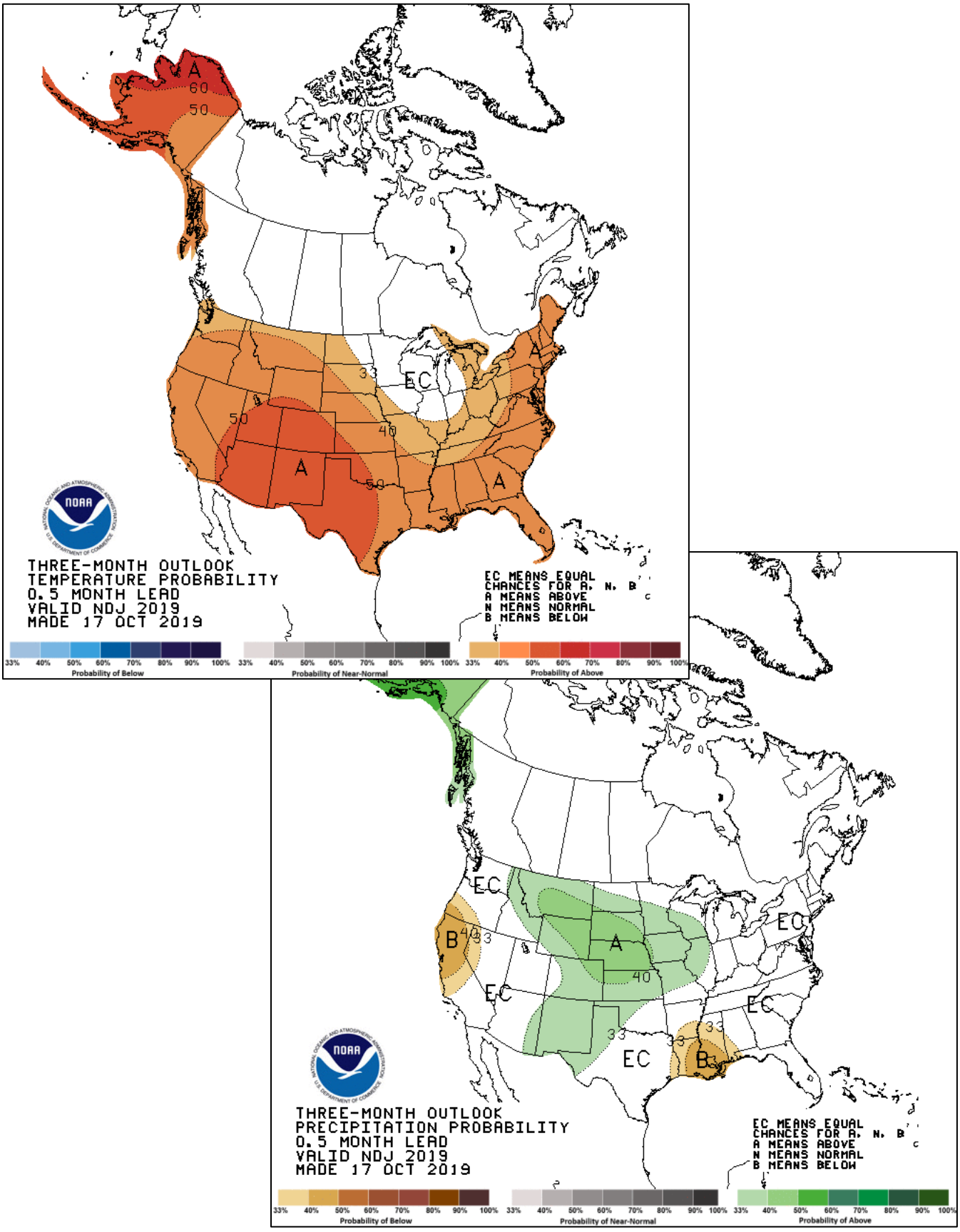


Download PRISM Temperature Anomaly 1 Month NETCDF Data for United States

Three Month Temperature and Precipitation Outlook

November through January

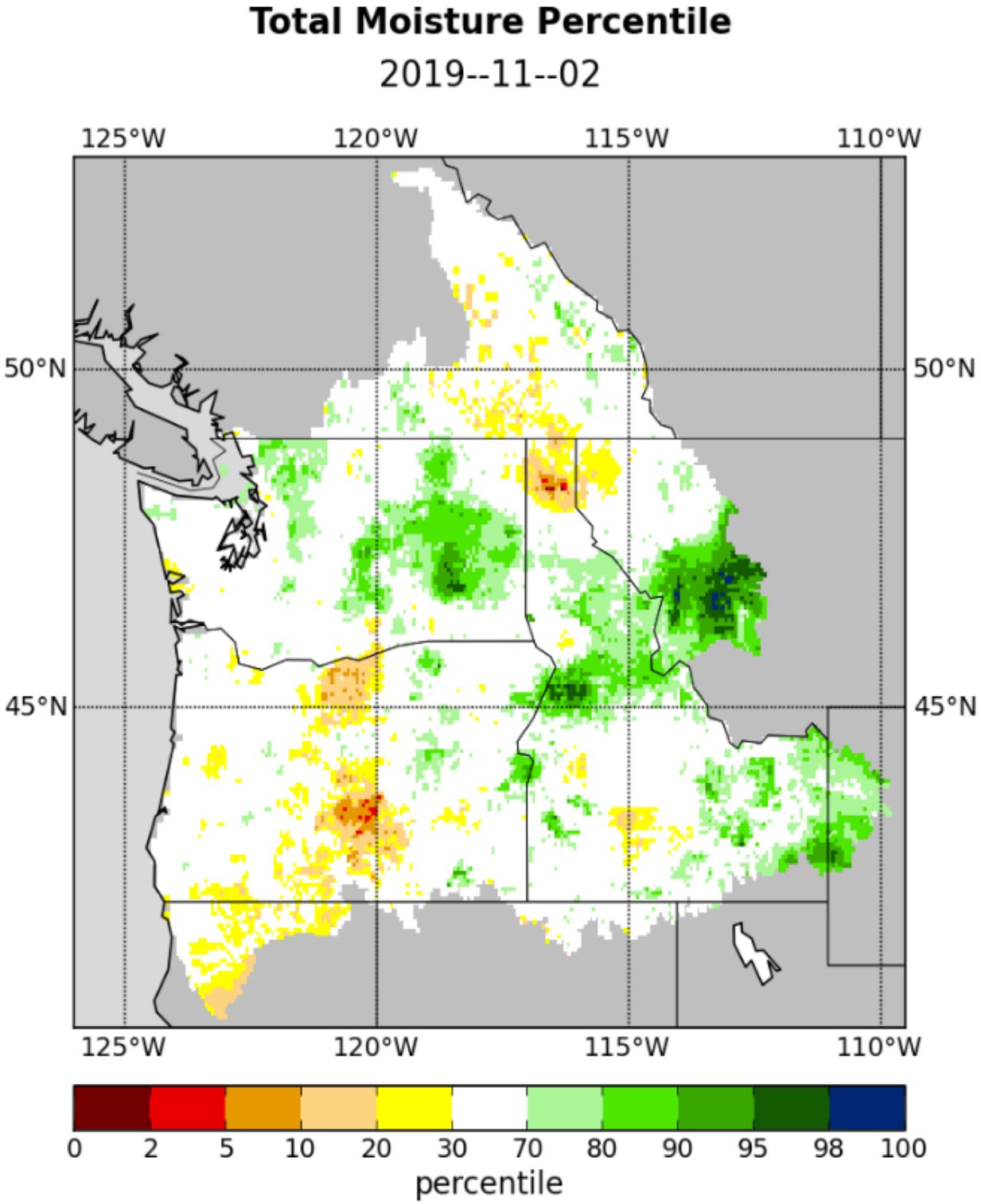
Website: http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1



Total Moisture - Percentile

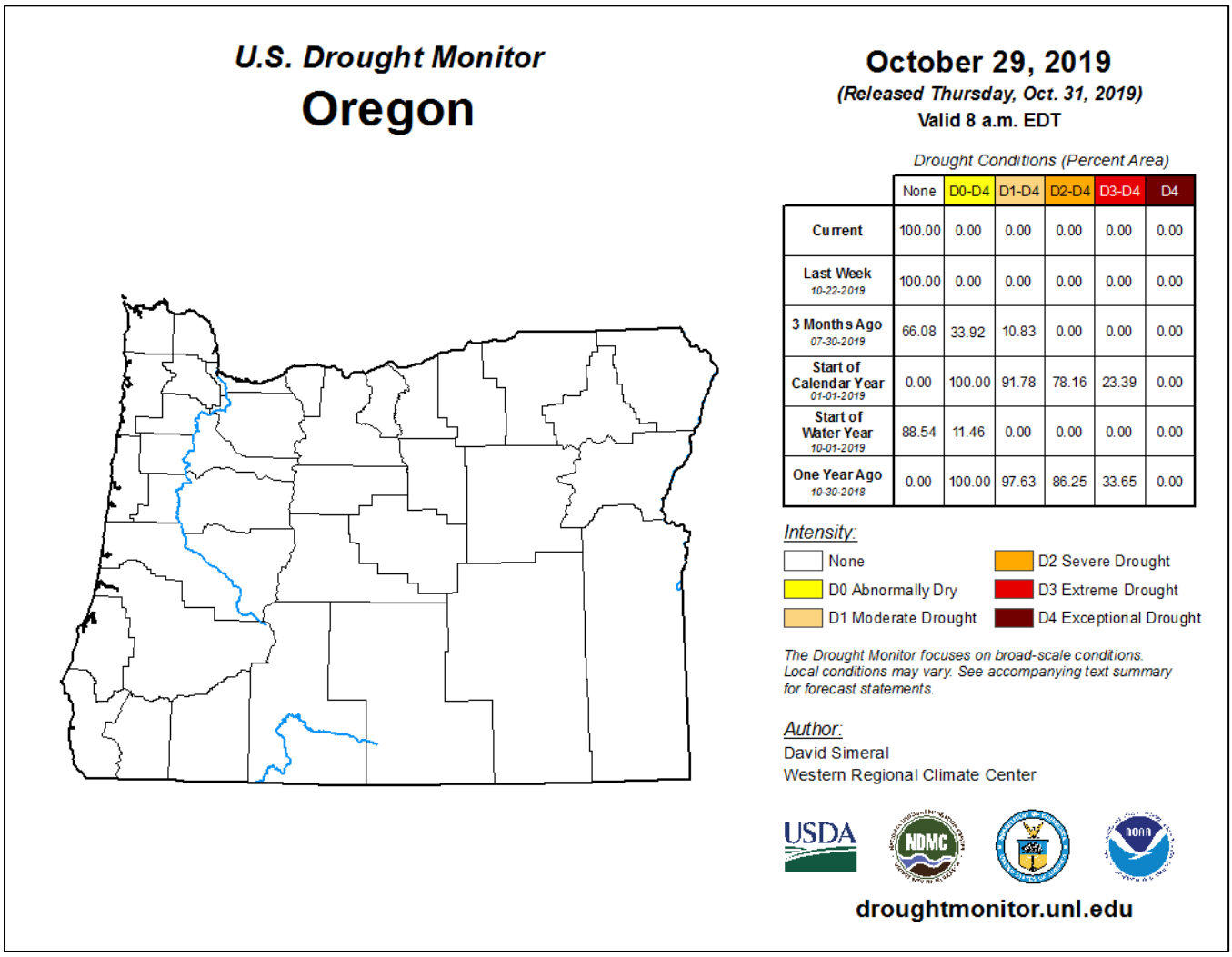
Total Moisture (STOT) is a moisture index calculated by adding Soil Moisture and Snow Water Equivalent. STOT represents the total water content of a region.

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

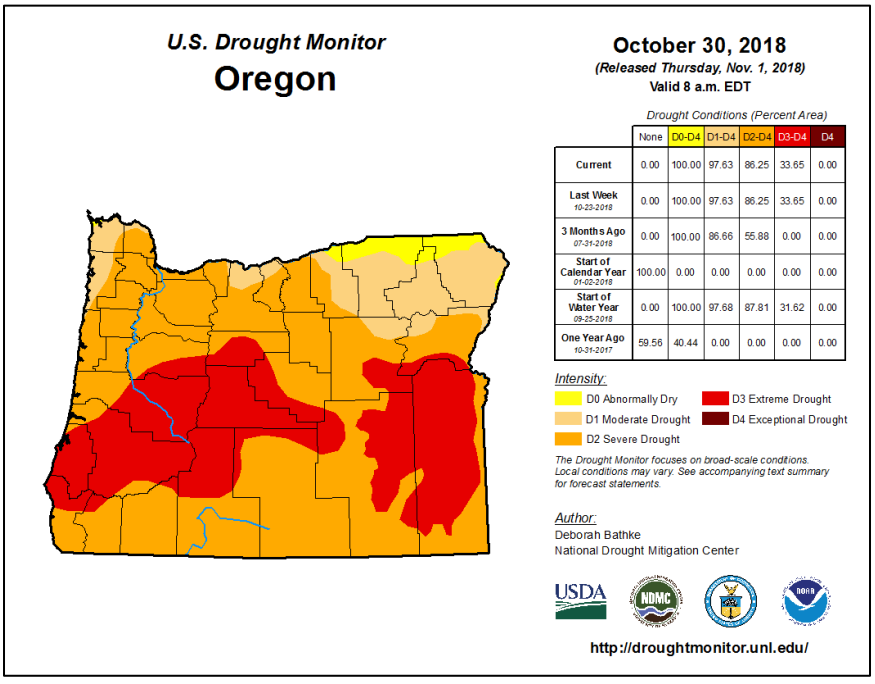


U.S. Drought Monitor for Oregon

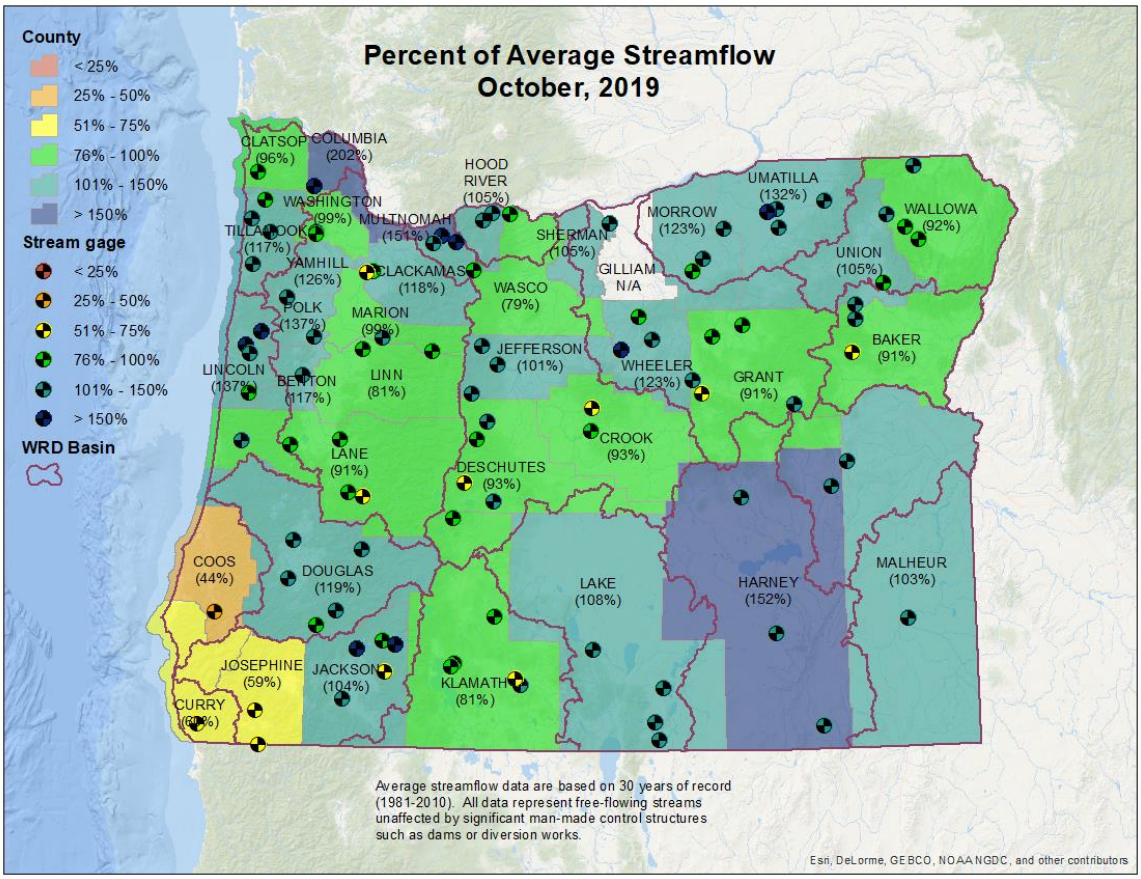
Website: https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?OR



Compared to this time last year:



Streamflow Conditions by County – October



Streamflow Conditions – South Coast Basin (Coos County)