Oregon
Water Conditions Report
August 26, 2019

OREGON
WATER RESOURCES
DEPARTMENT

Oregon statewide water year precipitation at NRCS SNOTEL sites has been holding steady over the past two weeks at 93 percent of normal. The highest percent of normal values for water year precipitation have been in the Owyhee at 117 percent, while the lowest value is in the Hood, Sandy, and Lower Deschutes Basin at 81 percent of normal for the water year.

Precipitation over the past two weeks has ranged from below-normal across much of the state to localized areas of normal to well above-normal in central and southwest Oregon. For the month of July, precipitation was well below-normal across most of the state with the exception of northwest and coastal regions where precipitation was normal to above-normal. In parts of the Rogue Basin precipitation was only 5 percent of normal.

Temperatures over the past two weeks ranged from cooler than normal in north central Oregon to warmer than normal along the coast and southern Willamette Valley. For the month of July, temperatures were normal to below-normal across most of the state.

Over the next 8 to 14 days, the NOAA Climate Prediction Center is forecasting above-normal temperatures across Oregon. The precipitation outlook is for equal chances of above or below-normal precip 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 equal chances of above or below normal precipitation for the state. The next long-term outlook will be issued on September 19, 2019.

El Niño has transitioned to ENSO-neutral, which is most likely to continue through the 2019-2020 winter (50-55% chance). During July, ENSO-neutral conditions were reflected by the combination of below-average sea surface temperatures in the eastern equatorial Pacific Ocean and above-average SSTs in the central Pacific. For a more complete report, refer to the August 8, 2019 diagnostic discussion issued by the Climate Prediction Center. The next diagnostic discussion is scheduled for September 12, 2019. Another source of information is the latest ENSO blog on the climate.gov website.

Statewide streamflows for July were 81 percent of normal. This is only slightly lower than the 82 percent seen in June. Regionally for July, streamflow conditions were about 97 percent of normal east of the Cascades and 61 percent to the west. Flows in the Powder Basin were the lowest at about 40 percent of normal while the highest flows were in the Owyhee at about 170 percent of normal for the month. More recent data indicate a continued pattern where flows have dropped to below-normal levels in the North Coast, Mid Coast, Willamette, Sandy, and Umpqua Basins. To the east of the Cascades, streams continue to flow at close to normal rates. Recent weather appears to have helped to slow the decline of streamflows in parts of western Oregon.

USACE Reservoirs: **Rogue:** The system is currently 57 percent full and 43 percent below rule curve. Lost Creek will continue to follow the conservation plan by maintaining flows at 2,100 cfs. Applegate will continue to increase releases to 350 cfs due to the anticipated temperatures forecasted to exceed 100 degrees this week. Current fisheries goals are the enhancement of rearing conditions for juvenile salmonids, and minimizing pre-spawn mortality of adult Spring Chinook salmon, while increasing summer rearing area for juvenile Coho salmon, juvenile steelhead, and cutthroat trout. In addition the reduction in flows is to help minimize the spawning above the Ray Gold Dam site.

Willow Creek: The Willow Creek Project is currently 49 percent full and 51 percent below rule curve. The current project objectives are to pass inflow, as well as to meet the current irrigation demand of 17 cfs. The project has a planned inspection scheduled this week. This inspection will require the project to reduce flows to 0 cfs for approximately 4 hours. When the inspection is complete, the project will ramp flows back up to the previous releases plus an additional 5 cfs for 2 hours. Once the stream bed has reached antecedent conditions flows will return to where they were prior to the inspection.

Willamette: The Willamette system is 45 percent full with system wide inflow of 2,380 cfs and outflow of 5,975 cfs. Projects are drafting to meet minimum mainstem and tributary flows required by the BiOp. Hills Creek releases have been ramped down to minimum (~400 cfs) in order to accommodate ODOT requests for a bridge inspection below the project. Fall Creek releases have been ramped up to ~650 cfs to aid in augmenting mainstem flow and meet Albany targets.

USBR Reservoirs: Most reservoirs filled to capacity to start the irrigation season with the exception of Ochoco Reservoir on the Crooked River, Phillips Reservoir on the Powder River, and reservoirs in the Upper Deschutes and Rogue River basins. All reservoirs have started drafting as demand for stored water has increased with the seasonal decrease in natural stream flows. The reservoirs that filled continue to have above average storage levels as compared to the historical average. Water Managers will be watching these reservoirs closely over the next month to determine whether additional releases would be necessary in order to meet storage space requirements for the upcoming water year. Most reservoirs are currently better positioned this year as compared to last year in terms of carry-over storage.

Umatilla River Basin: McKay reservoir is at 57 percent of capacity. Outflows are close to 160 cfs with inflows of about 2 cfs.

Deschutes River Basin: Ochoco and Prineville reservoirs are at 54 percent and 74 percent full respectively. Ochoco reservoir is releasing close to 13 cfs while Prineville reservoir is currently releasing about 290 cfs with inflows about 2 cfs.

Crescent Lake is at 63 percent, Wickiup is at 15 percent and Crane Prairie is at 69 percent of capacity.

Malheur River Basin: Warm Springs, Beulah, and Bully Creek reservoirs range from 59 to 45 percent full. 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 75 percent full which is well above normal with inflows of about 155 cfs.

Burnt and Powder River Basins: Phillips and Unity reservoirs are at 33 percent and 42 percent full. Philips is releasing about 200 cfs with inflows around 2 cfs while Unity is releasing 107 cfs.

Tualatin River Basin: Scoggins reservoir is at 55 percent of capacity and releasing over 170 cfs.

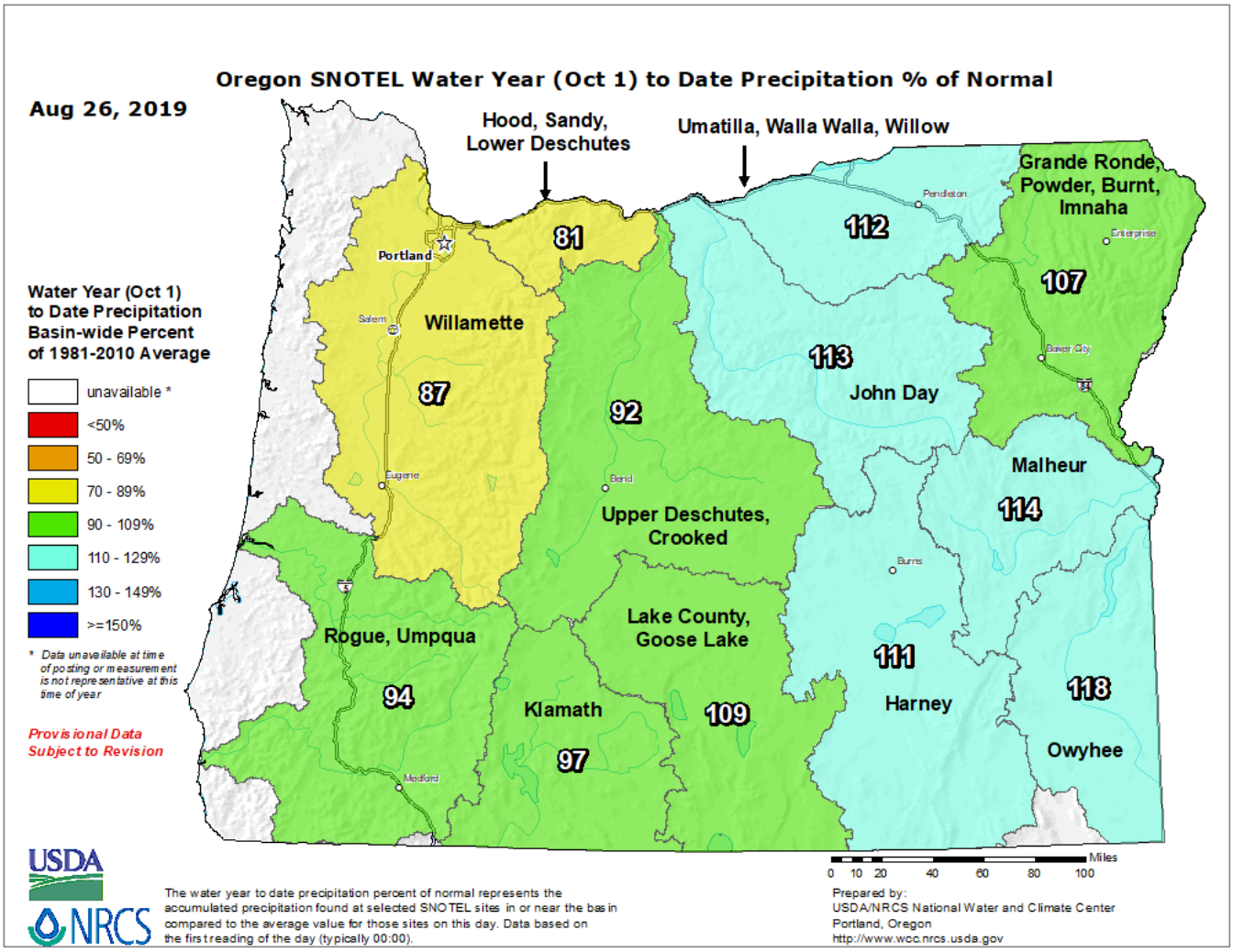
The most recent update to the US Drought Monitor has been holding steady over the past two weeks. The most recent report indicates that 32 percent of the state is listed as D0 (Abnormally Dry), with almost 11 percent listed as D1 (Moderate Drought). Degradation has slowed across western Oregon in response to the cooler weather seen in the past month.

Wildfire potential through September is predicted to be above normal across western Oregon. According to the National Significant Wildland Fire Potential Outlook, above-normal significant large fire potential is expected in southwestern Oregon in August and September while other locations can expect normal significant large fire potential. Normal significant large fire potential is expected in all areas in October and November.

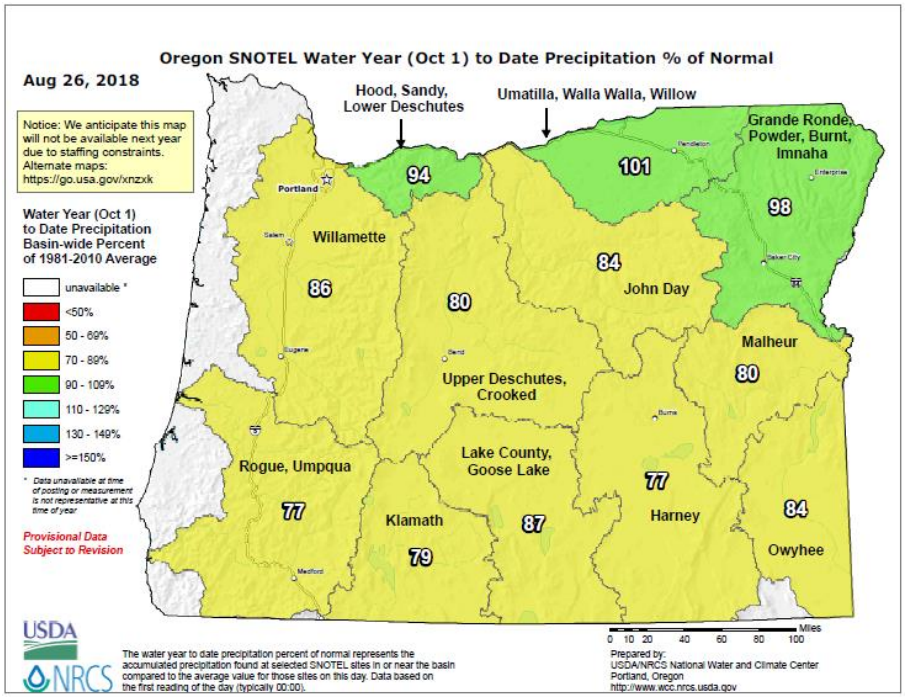
More information can also be accessed through the Northwest Interagency Coordination Center website. Another recommended resource is the Oregon Office of Emergency Management's RAPTOR incident mapping program which includes current situational information, such as wildfire perimeters, thermal satellite, fire evacuation boundaries, and air quality info.

Data & Products: Page:

Precipitation (Mountain) - Percent of Normal



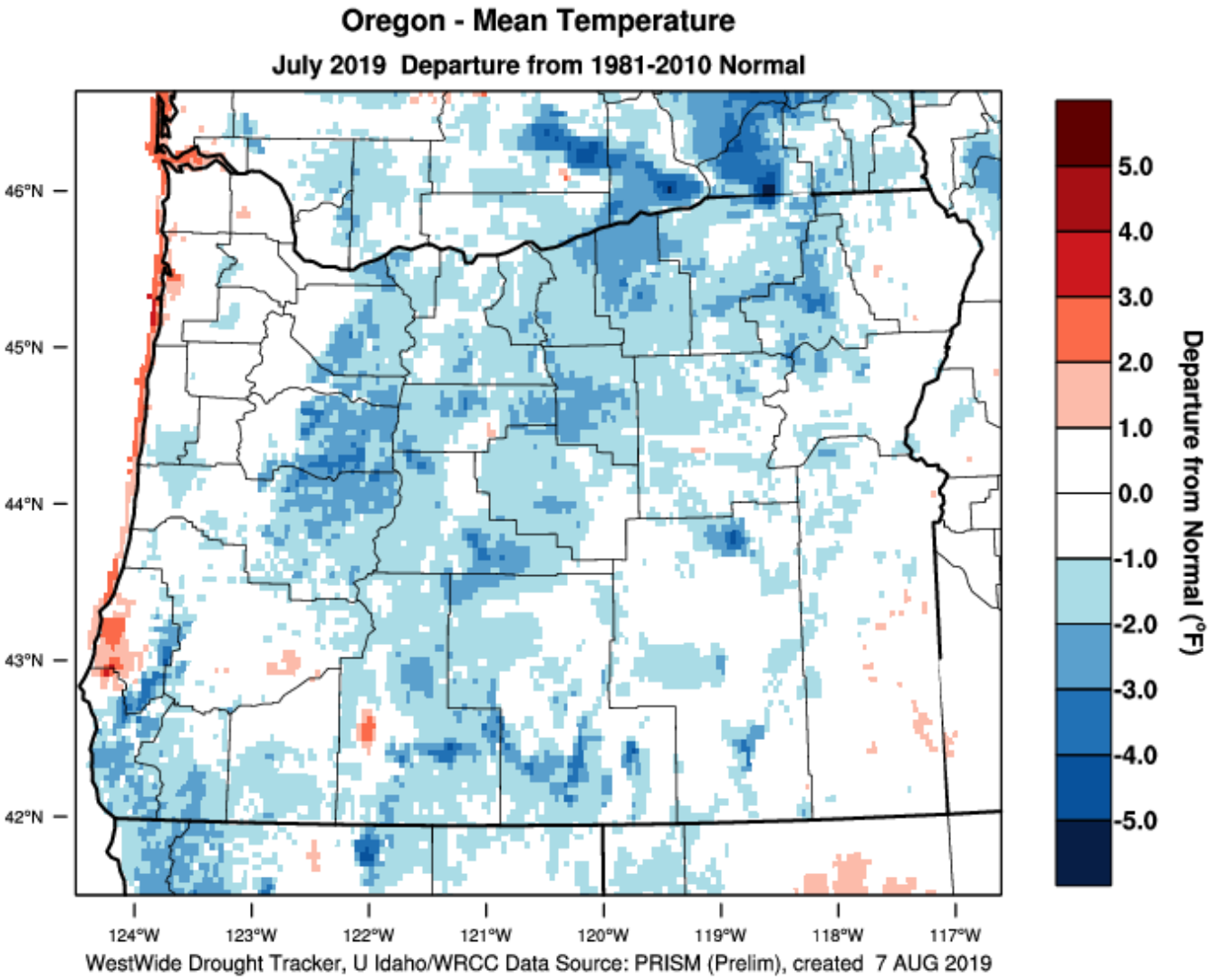
Compared to this time last year –



Temperature – (1 Month) Departure from Normal

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

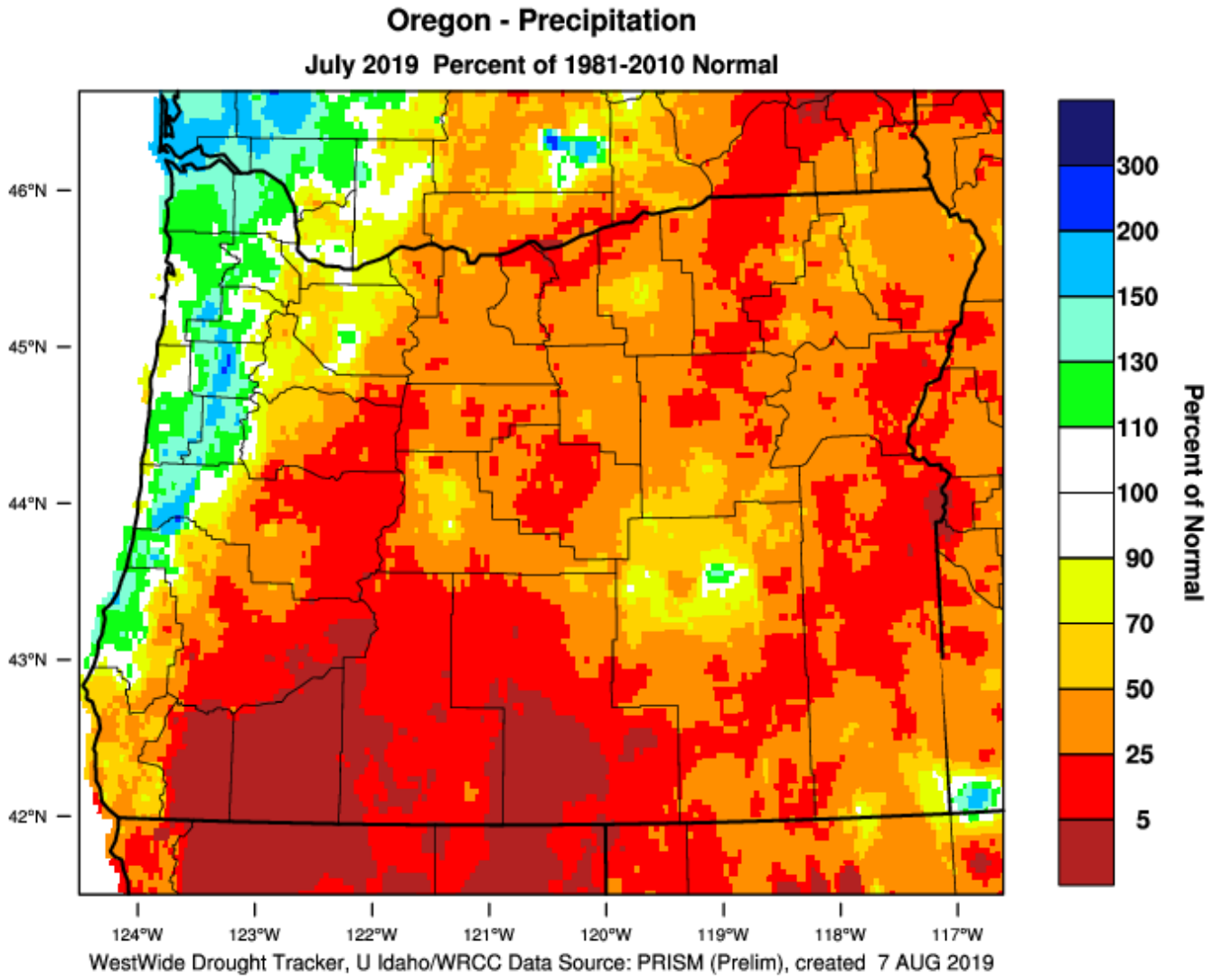
PRISM > Temperature Anomaly 1 Month > Oregon



Precipitation – (1 Month) Percent of Normal

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

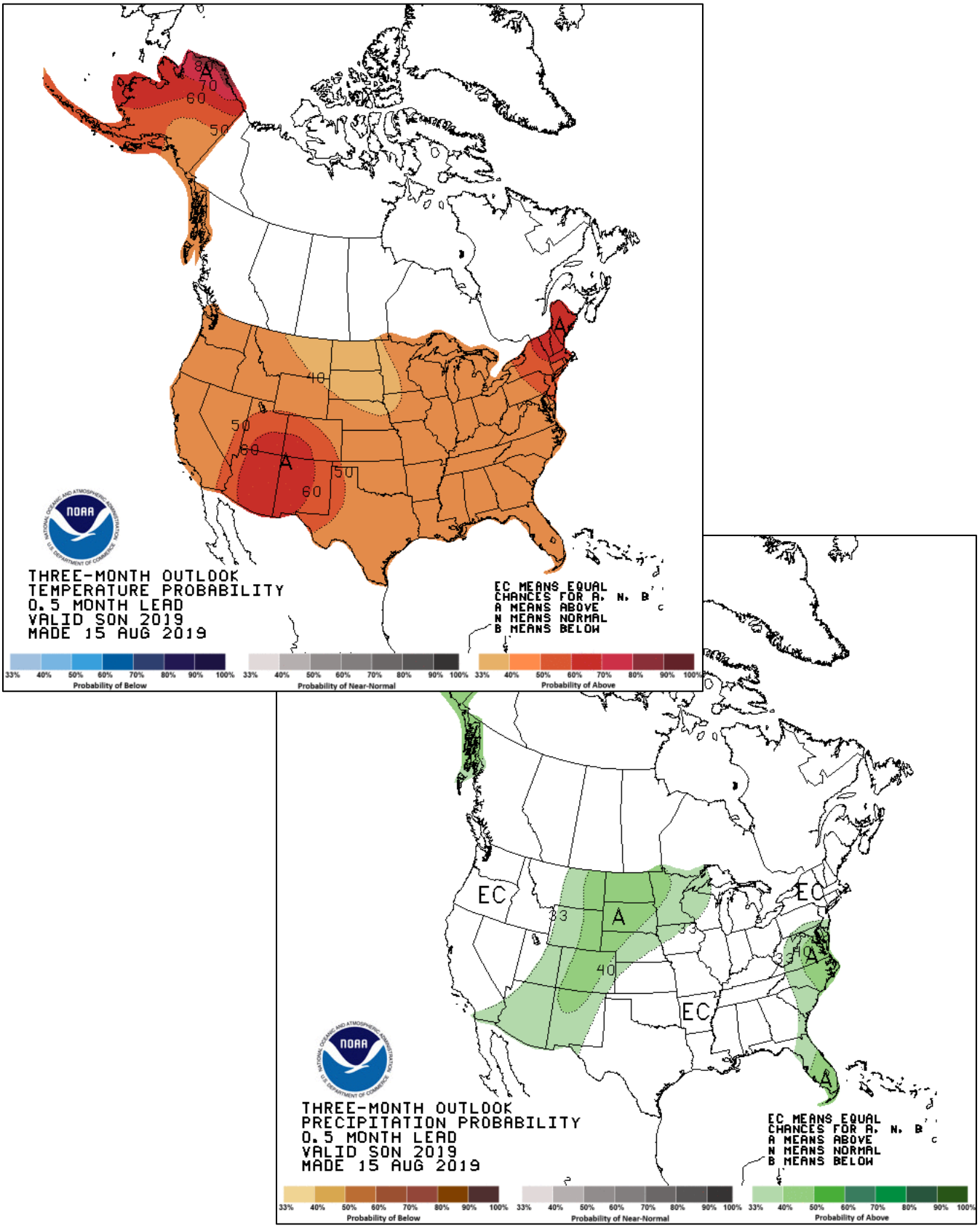
PRISM > Precipitation Anomaly 1 Month > Oregon



Three Month Temperature and Precipitation Outlook

September through November

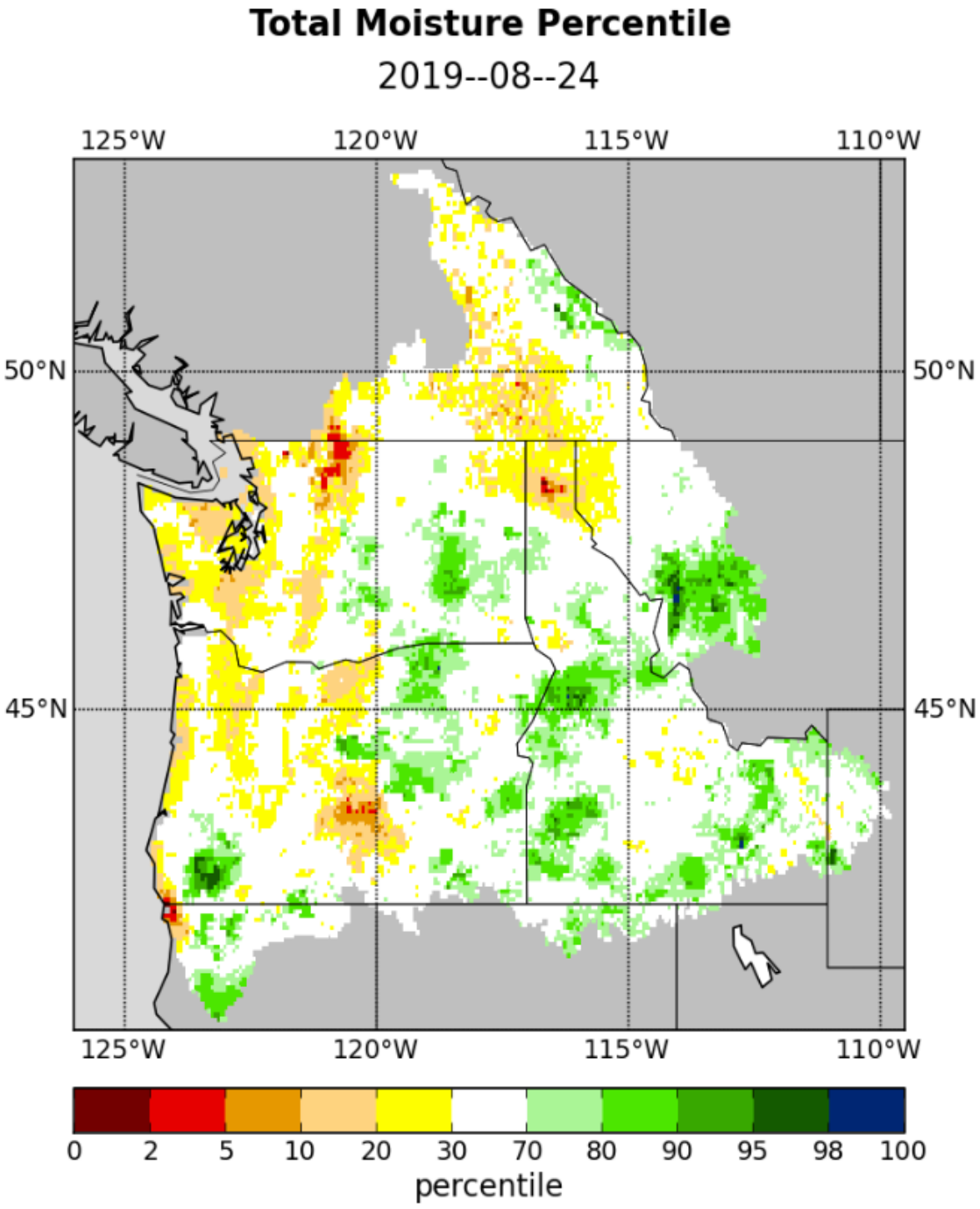
Website: http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1



Total Moisture - Percentile

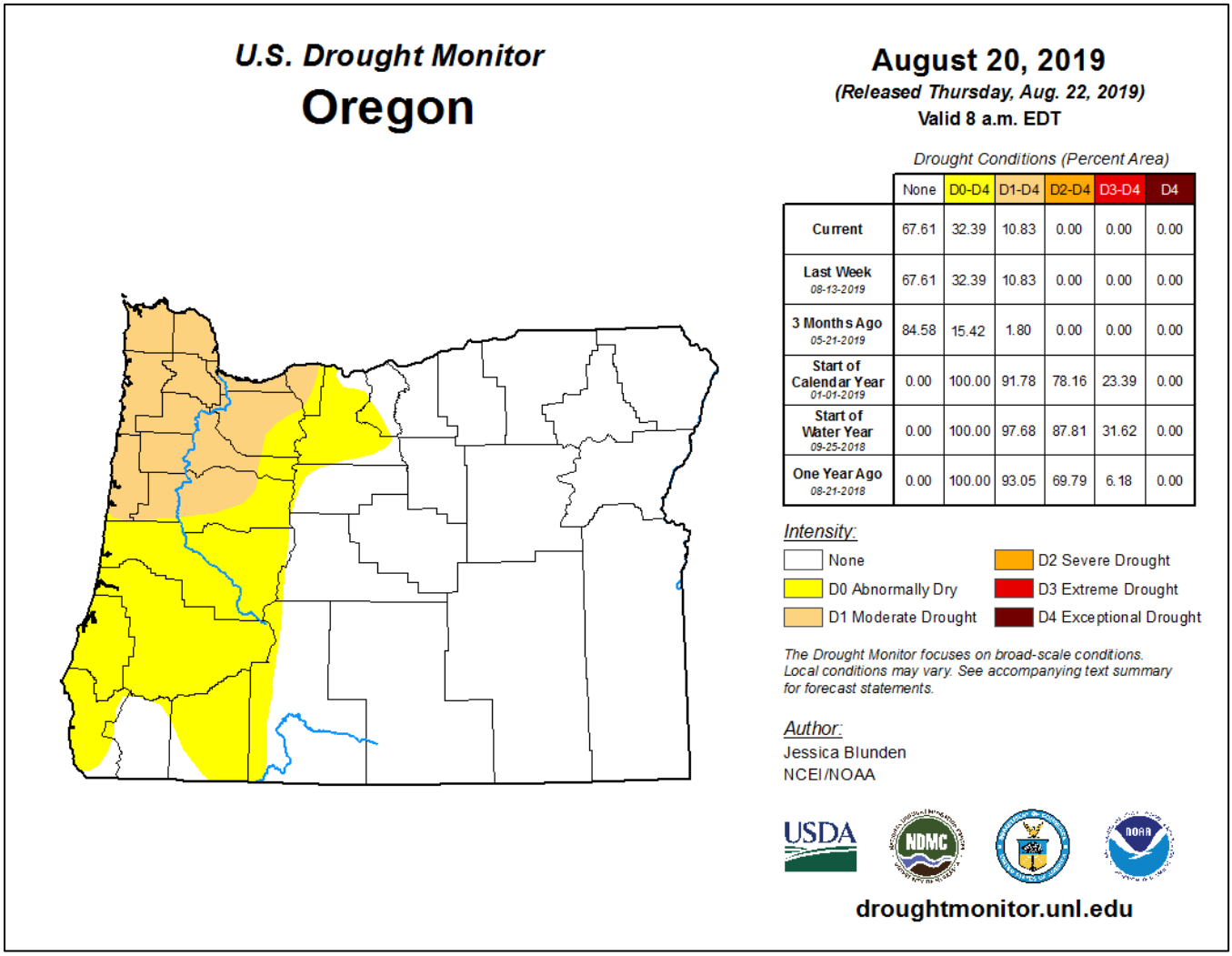
Total Moisture (STOT) is a moisture index calculated by adding Soil Moisture and Snow Water Equivalent. STOT represents the total water content of a region.

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

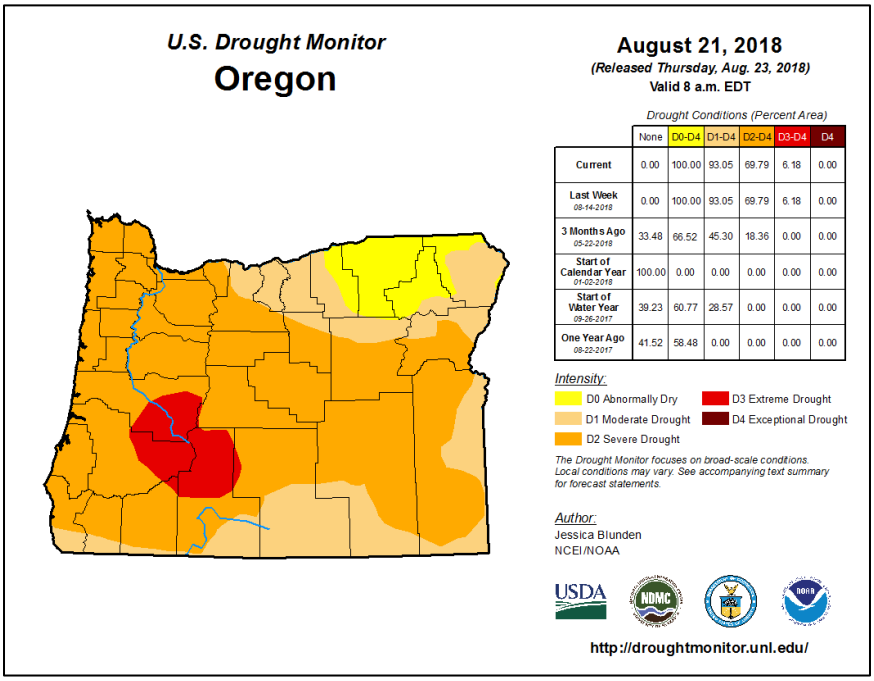


U.S. Drought Monitor for Oregon

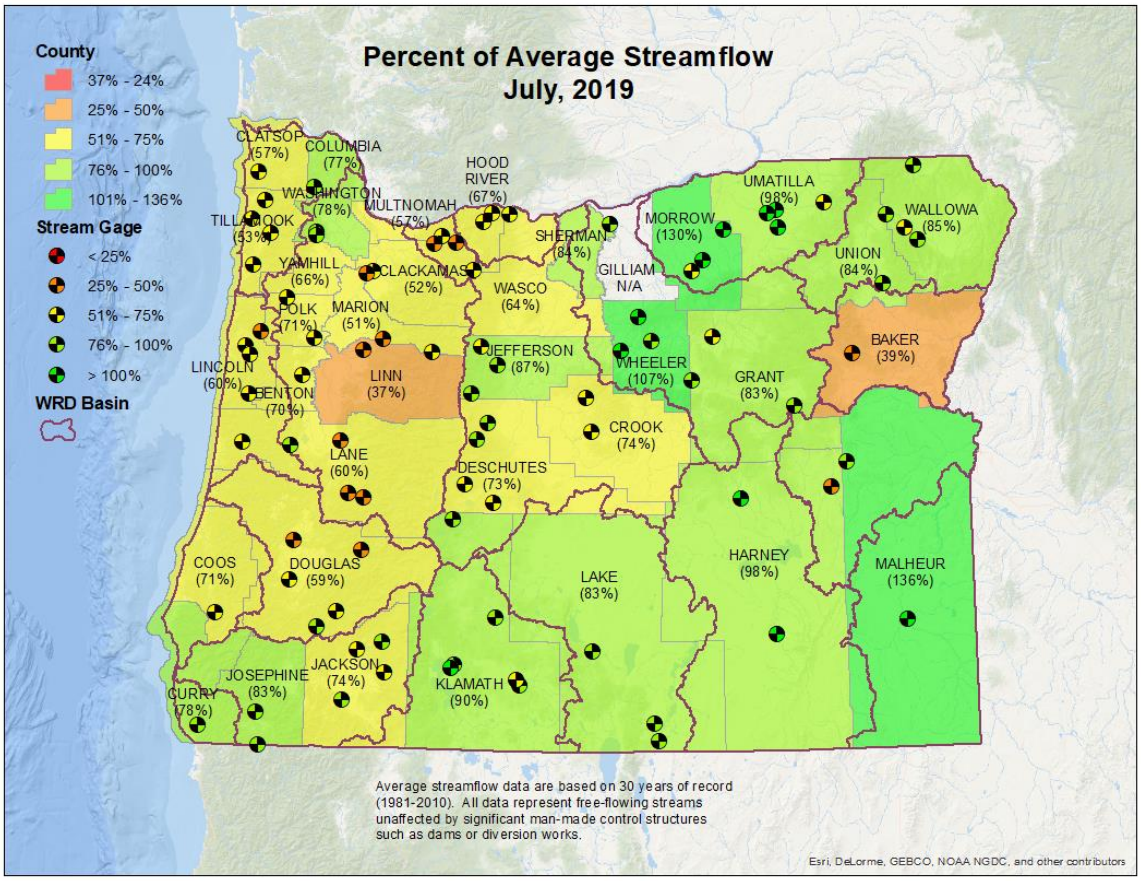
Website: https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?OR



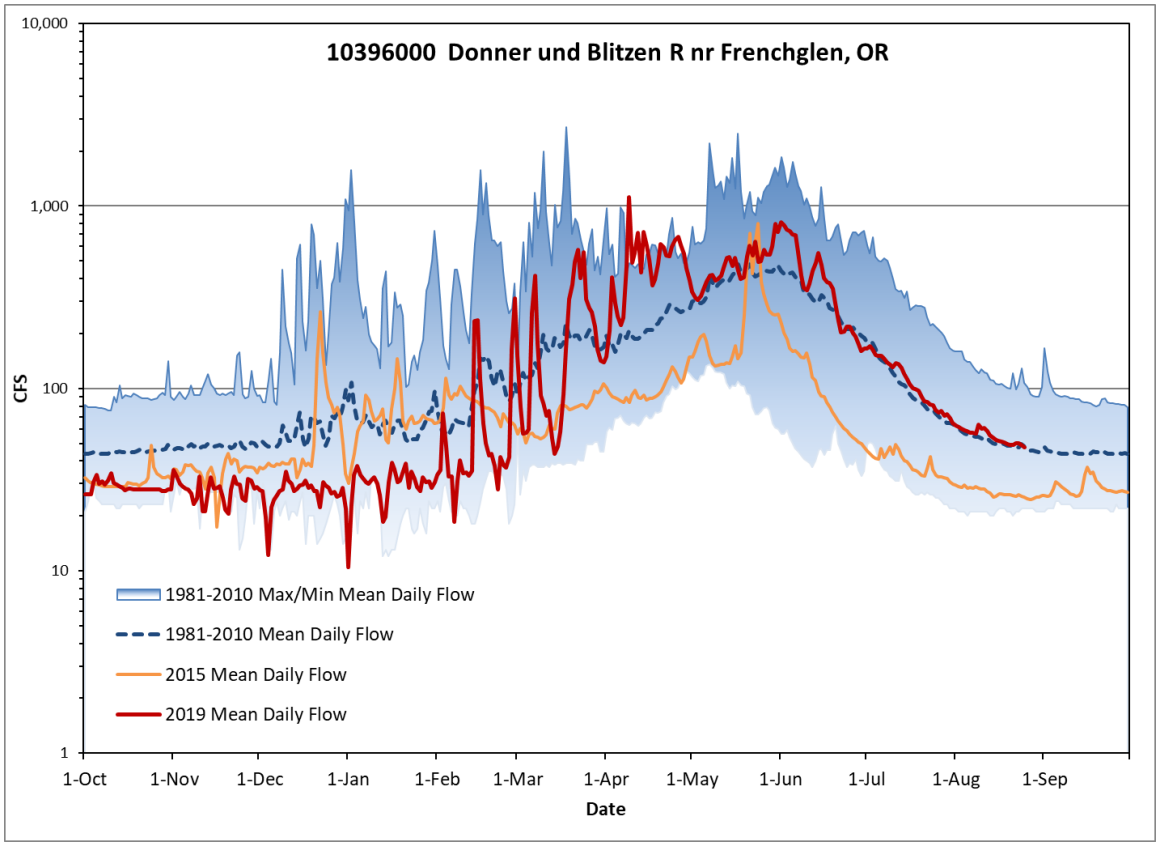
Compared to this time last year:



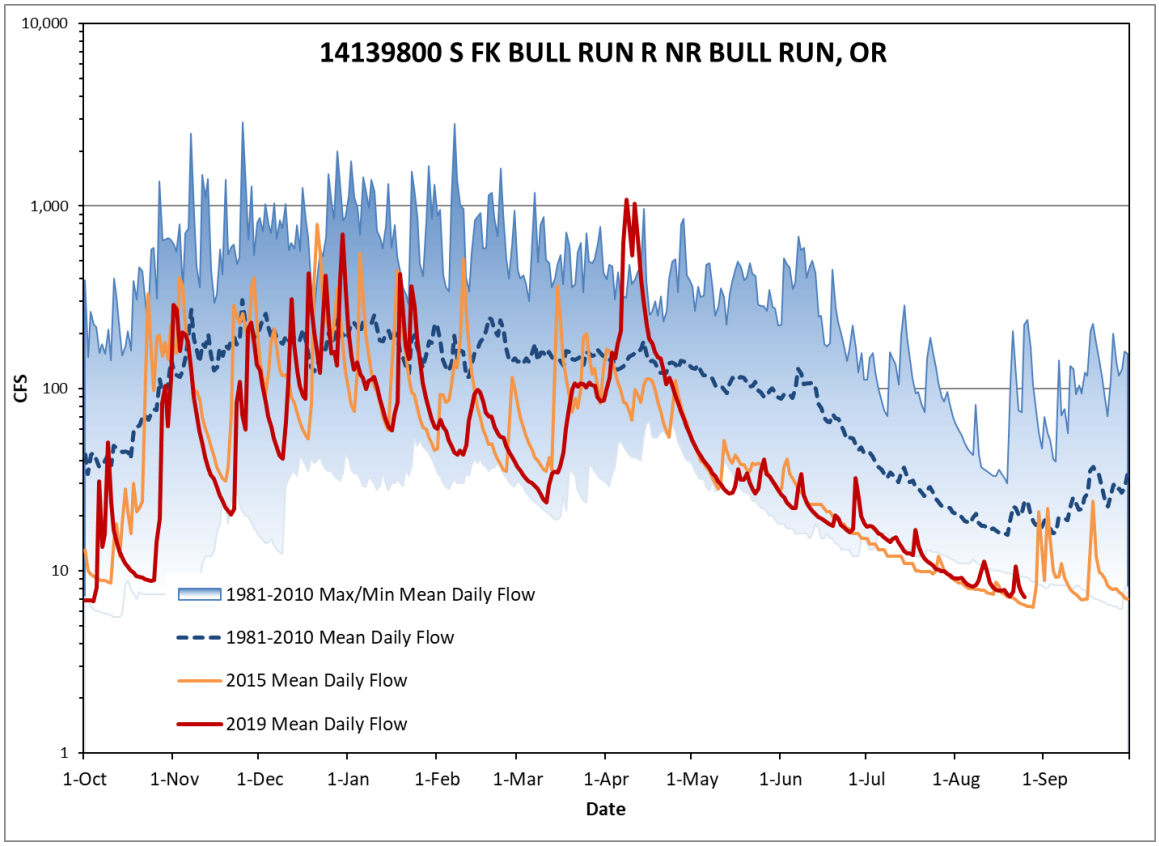
Streamflow Conditions by County – July



Streamflow Conditions – Malheur Lake Basin (Harney County)



Streamflow Conditions – Sandy Basin (Clackamas County)



Streamflow Conditions – North Coast Basin (Tillamook County)