Oregon
Water Conditions Report
September 23, 2019

OREGON
WATER RESOURCES
DEPARTMENT

Oregon statewide water year precipitation at NRCS SNOTEL sites is currently 98 percent of normal. The highest percent of normal values for water year precipitation have been in the Owyhee at 122 percent of normal, while the lowest value is in the Hood, Sandy, and Lower Deschutes basin at 83 percent of normal for the water year. Over the last 7 days, sites in the western Oregon Cascades received 2-3 inches of precipitation (with locally higher amounts) while eastern and central Oregon generally varied from 1-2 inches.

Precipitation over the past two weeks has ranged from just above normal across most of eastern Oregon to areas west of the Cascades where precipitation was well above normal including areas along the north and central coast where precipitation was 4 to 8 inches above normal. For the month of August, precipitation was varied across the state. Anomalies ranged from below-normal in most of western Oregon, to above-normal in central and southwest Oregon, and back to below-normal in eastern Oregon.

Temperatures over the past two weeks have been normal to above-normal along the coast and areas in central, north central and eastern Oregon. In Klamath and parts of Lake and Harney County temperatures have been well below-normal. For the month of August, temperatures were also above-normal across the state.

Over the next 8 to 14 days, the NOAA Climate Prediction Center is forecasting an increased probability of below-normal temperatures across the state. The precipitation outlook is for above normal chances across all but the northwest corner of the state where there is an equal chance of above or below normal precipitation. 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 for all but northeast and eastern Oregon where there are equal chances of above or below normal precipitation. The next long-term outlook will be issued on October 17, 2019.

ENSO-neutral is favored during the Northern Hemisphere fall 2019 (~75 percent chance), continuing through spring 2020 (55-60 percent chance). During August, ENSO-neutral continued as reflected by near-average sea surface temperatures across most of the central and eastern equatorial Pacific Ocean. For a more complete report, refer to the September 12, 2019 diagnostic discussion issued by the Climate Prediction Center. The next diagnostic discussion is scheduled for October 10, 2019. Another source of information is the latest ENSO blog on the climate.gov website.

Statewide streamflows for August were 84 percent of normal. This is only slightly higher than the 81 percent seen in July. Regionally for August, streamflow conditions were about 91 percent of normal east of the Cascades and 73 percent to the west. Flows in the Sandy Basin were the lowest at about 55 percent of normal while the highest flows were in the Owyhee and Umatilla basins at about 120 percent of normal for the month. More recent data indicate that streams across the state, especially in western Oregon, have responded

to recent rain events, elevating flows to normal and in some instances higher than normal levels.

USACE Reservoirs: **Rogue:** The system is currently 42 percent full and 35 percent below rule curve. Lost Creek is 45 percent full and 33 percent below rule curve. Inflows are around 1,070cfs with outflows of about 1,300 cfs. Applegate is at 26 percent of capacity and 46 percent below rule curve. Inflows are at 77 cfs while outflows are holding at a under 300 cfs. 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.

Willow Creek: The Willow Creek Project is currently 29 percent full and 71 percent below rule curve. Inflows are currently 4.5 cfs with outflows just under 0.20 cfs.

Willamette: The Willamette system is 30 percent full and 46 percent below rule curve. Projects are drafting to meet minimum mainstem and tributary flows required by the BiOp. Flows in the Willamette River at Albany are 5,960 cfs with flows at Salem at 9,710 cfs.

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 been drafting as demand for stored water 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 continue to be better positioned this year as compared to last year in terms of carry-over storage.

Umatilla River Basin: McKay reservoir is at 43 percent of capacity. Outflows are close to 118 cfs with inflows of about 6 cfs.

Deschutes River Basin: Ochoco and Prineville reservoirs are at 47 percent and 64 percent full respectively. Ochoco reservoir is releasing close to 12 cfs while Prineville reservoir is currently releasing about 240 cfs with inflows about 23 cfs.

Crescent Lake is at 55 percent, Wickiup is at 9 percent and Crane Prairie is at 65 percent of capacity.

Malheur River Basin: Warm Springs, Beulah, and Bully Creek reservoirs range from 50 to 26 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 66 percent full which is well above normal with inflows of about 165 cfs.

Burnt and Powder River Basins: Phillips and Unity reservoirs are at 23 percent and 28 percent full respectively. Philips is releasing about 28 cfs with inflows around 2 cfs while Unity is releasing just over 50 cfs.

Tualatin River Basin: Scoggins reservoir is at 43 percent of capacity and releasing 43 cfs.

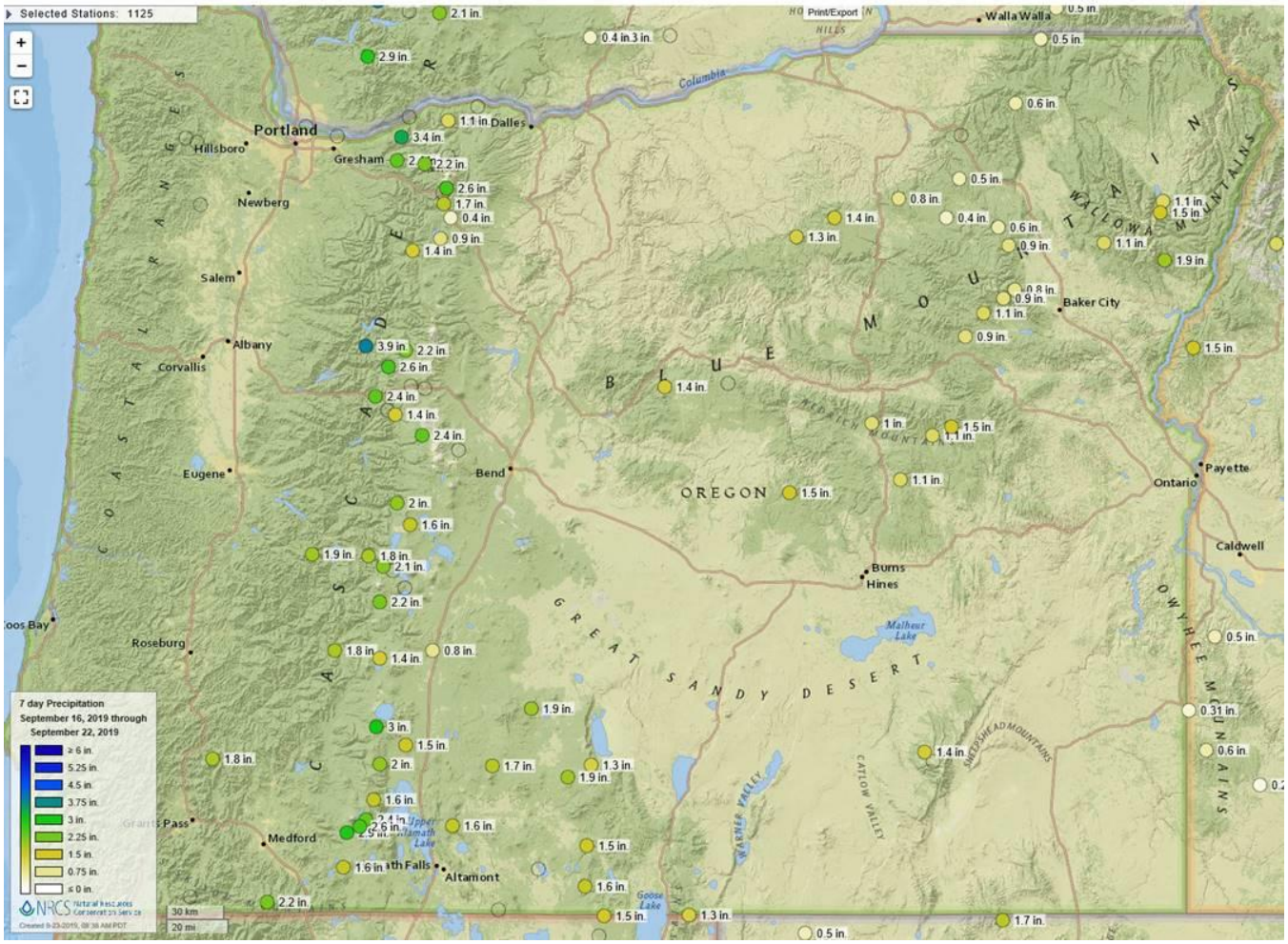
The most recent update to the US Drought Monitor shows a marked improvement in conditions over the past two weeks. The most recent report indicates that just over 15 percent of the state is listed as D0 (Abnormally Dry), with 4.2 percent listed as D1 (Moderate Drought).

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 only three large fires ongoing in the region, two in Oregon and one in Washington.
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

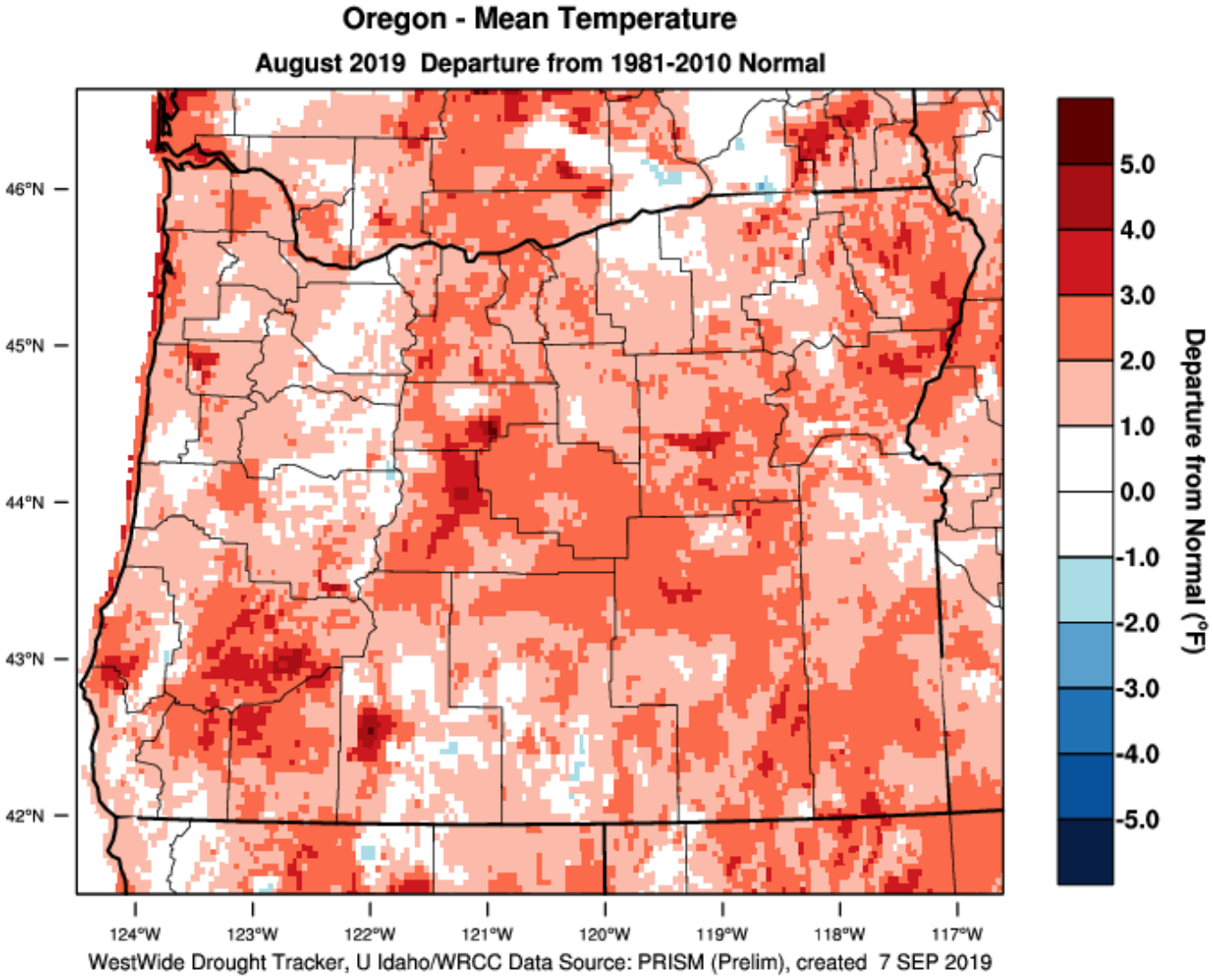
7-day precipitation – September 16, 2019 through September 22, 2019



Temperature – (1 Month) Departure from Normal

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

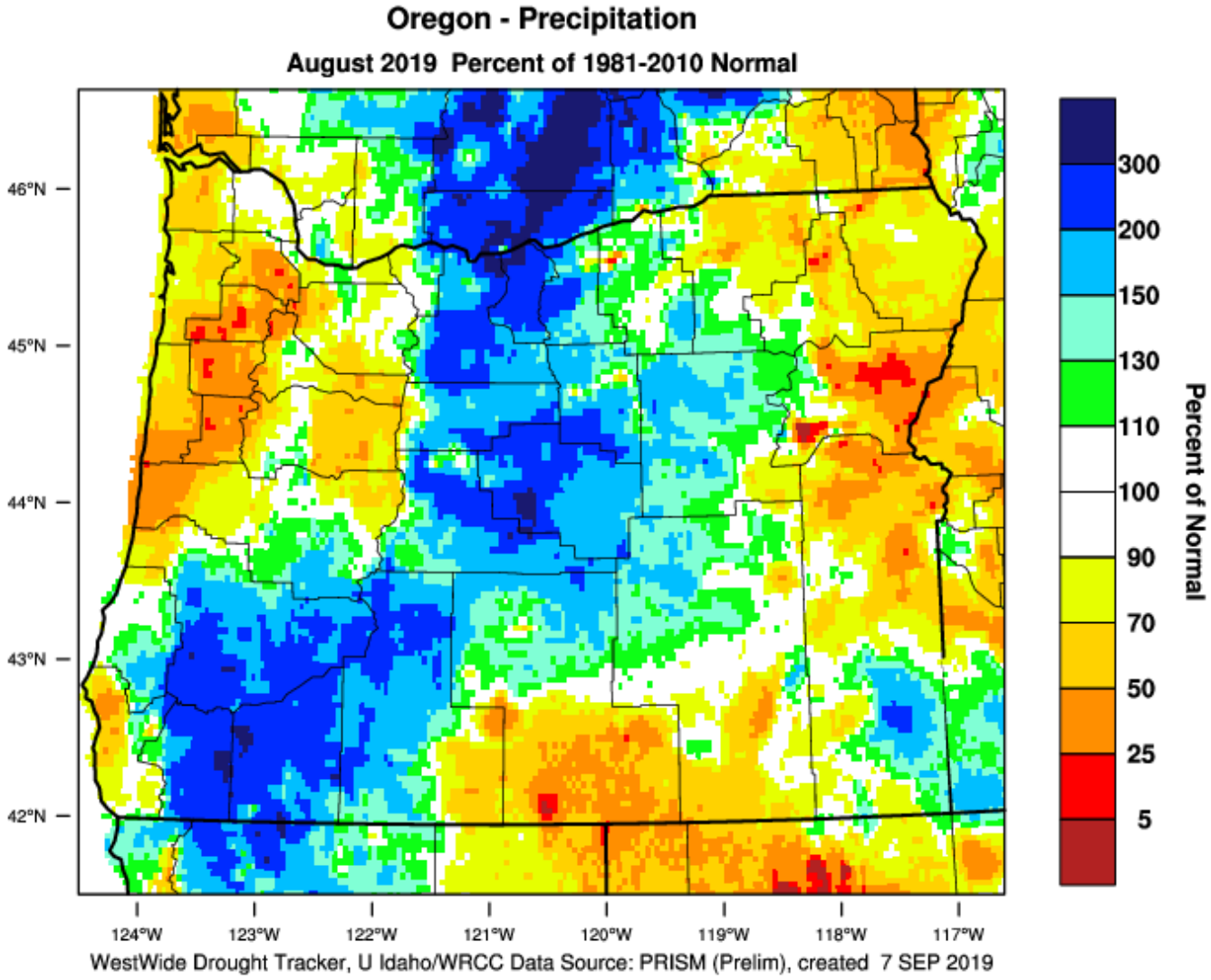
PRISM > Temperature Anomaly 1 Month > Oregon



Precipitation – (1 Month) Percent of Normal

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

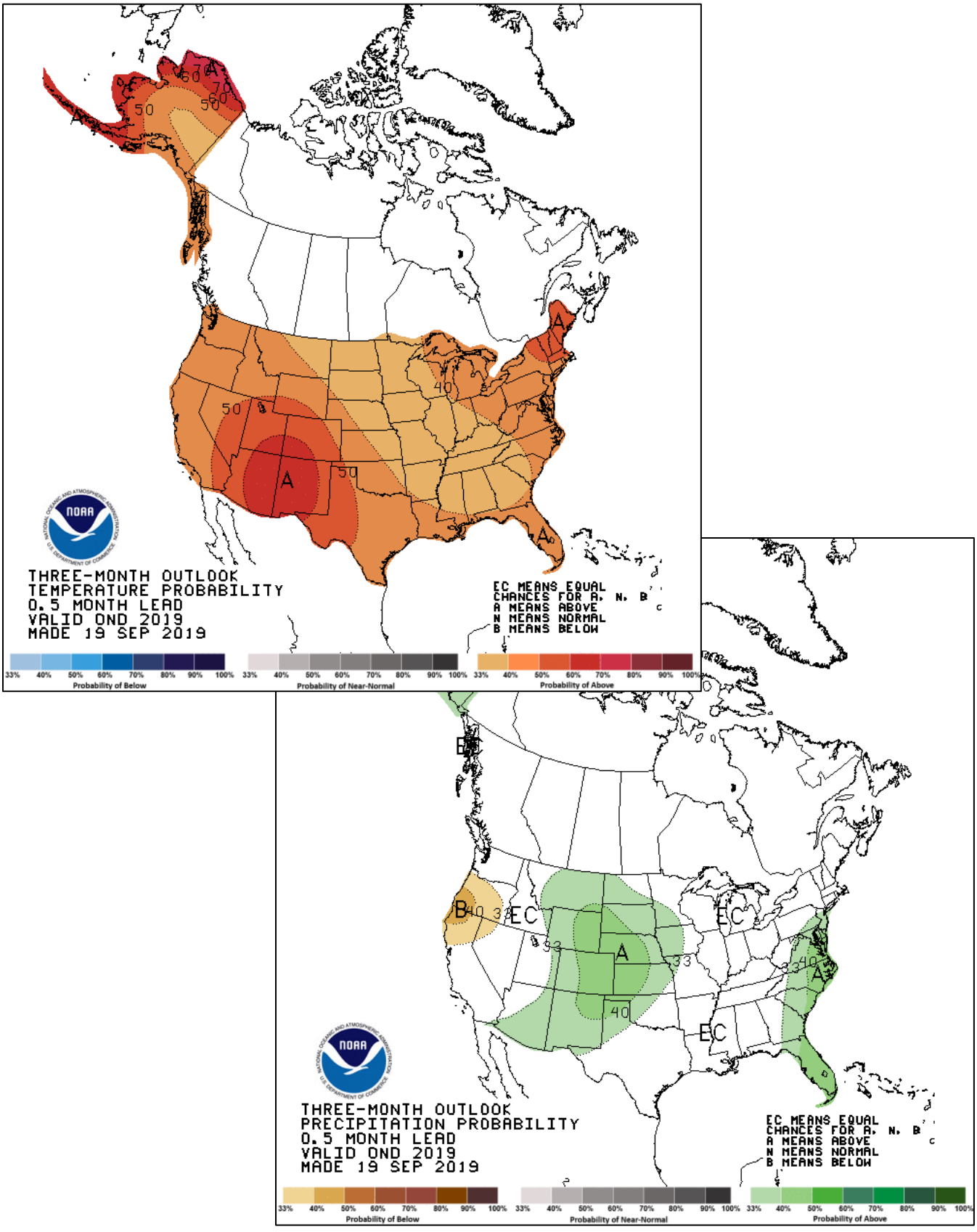
PRISM > Precipitation Anomaly 1 Month > Oregon



Three Month Temperature and Precipitation Outlook

October through December

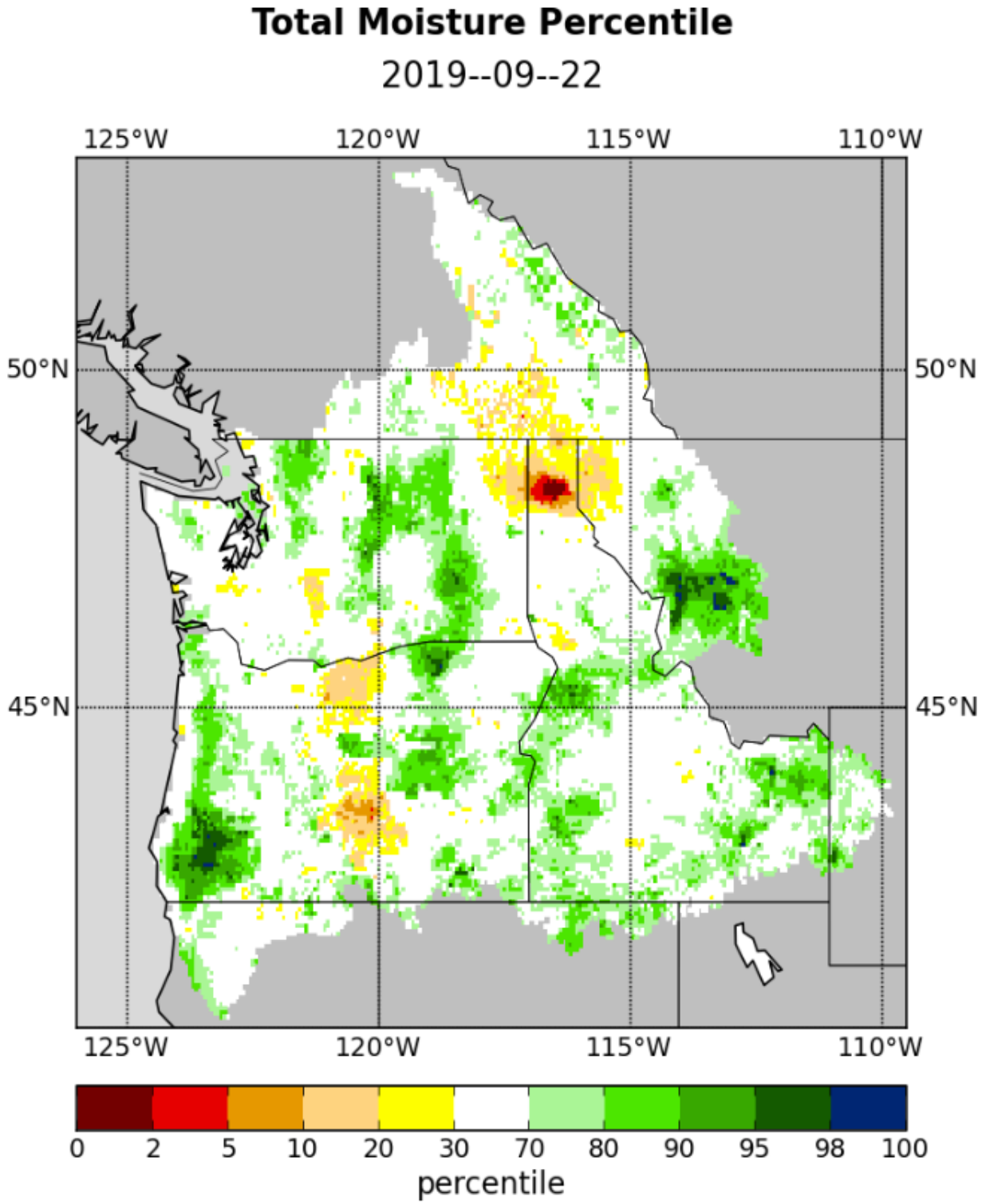
Website: http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1



Total Moisture - Percentile

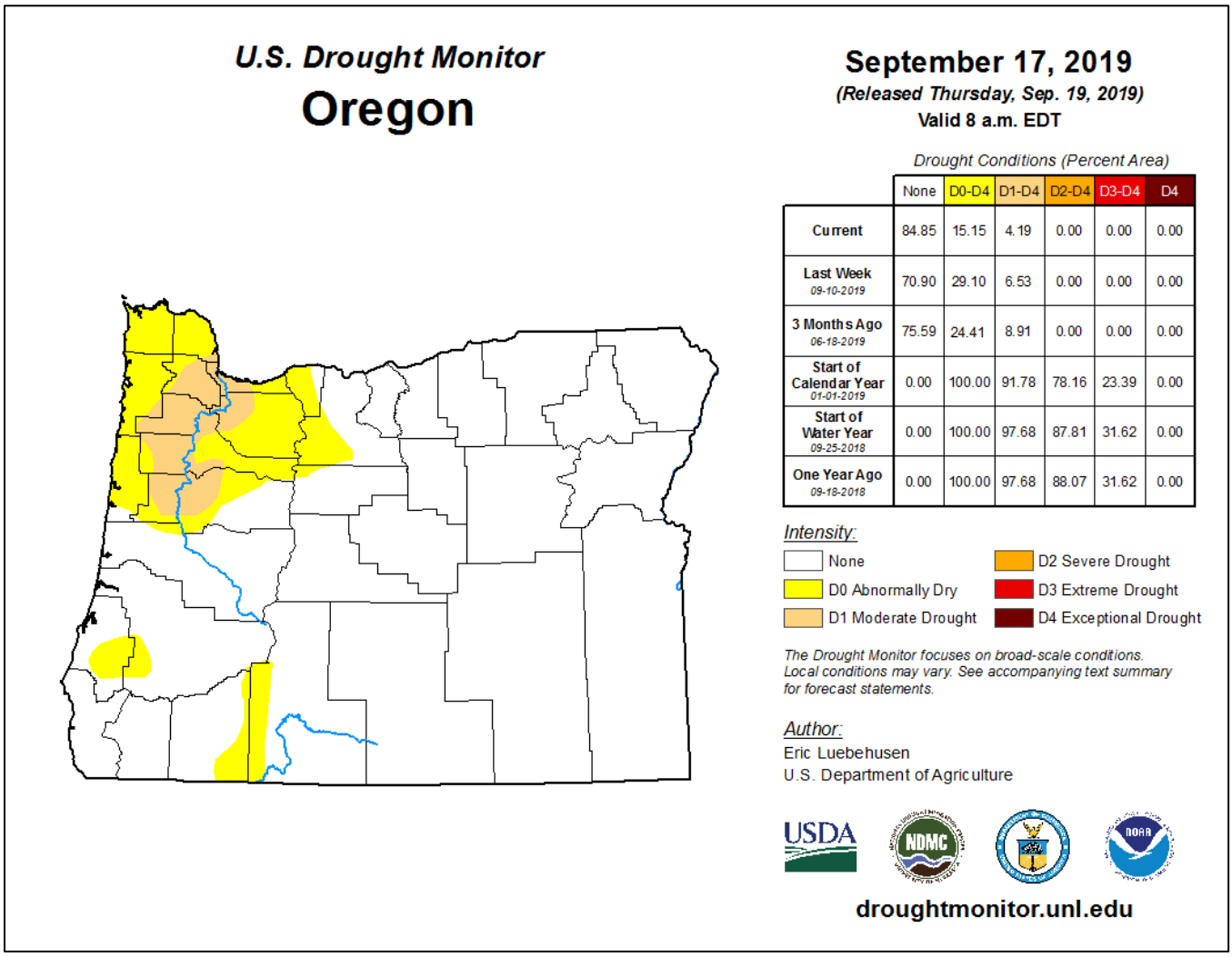
Total Moisture (STOT) is a moisture index calculated by adding Soil Moisture and Snow Water Equivalent. STOT represents the total water content of a region.

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

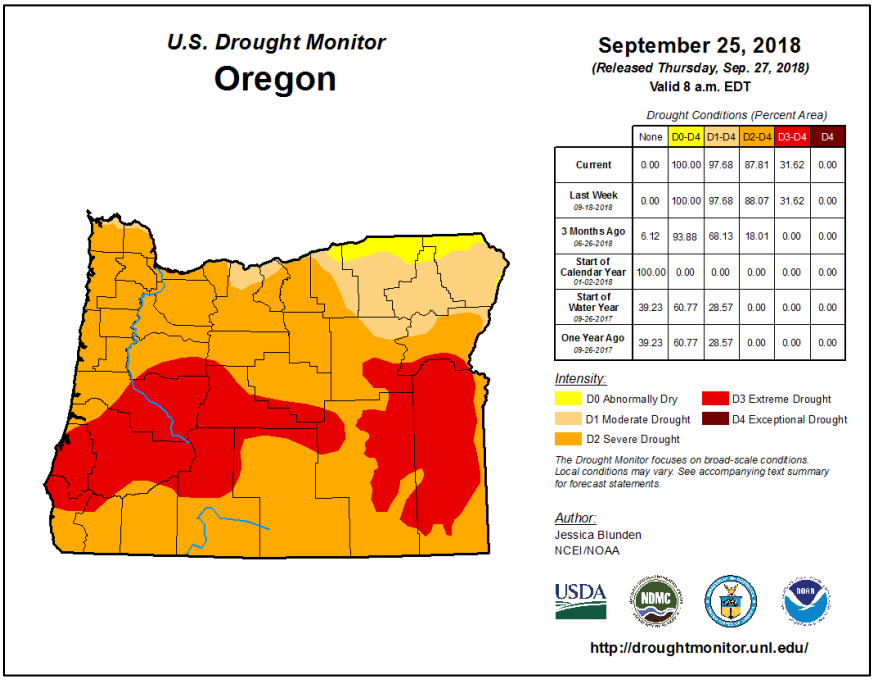


U.S. Drought Monitor for Oregon

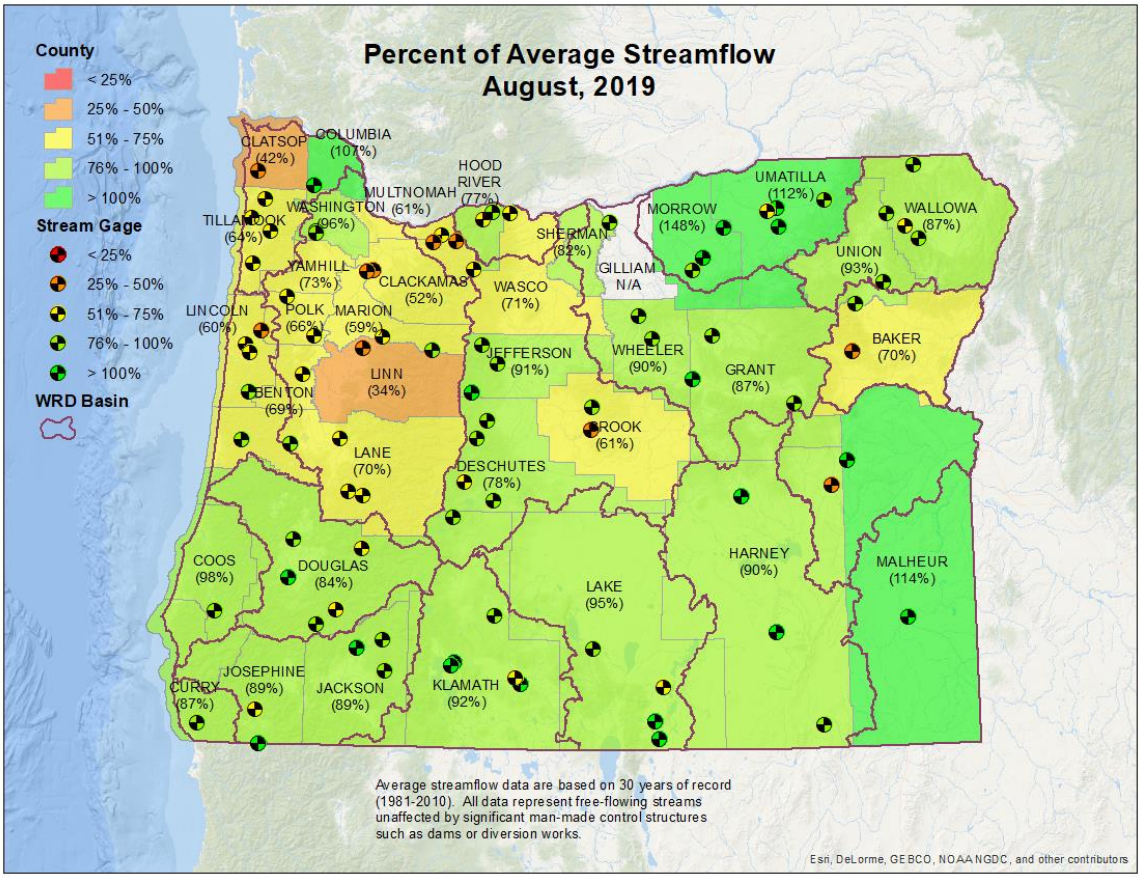
Website: https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?OR



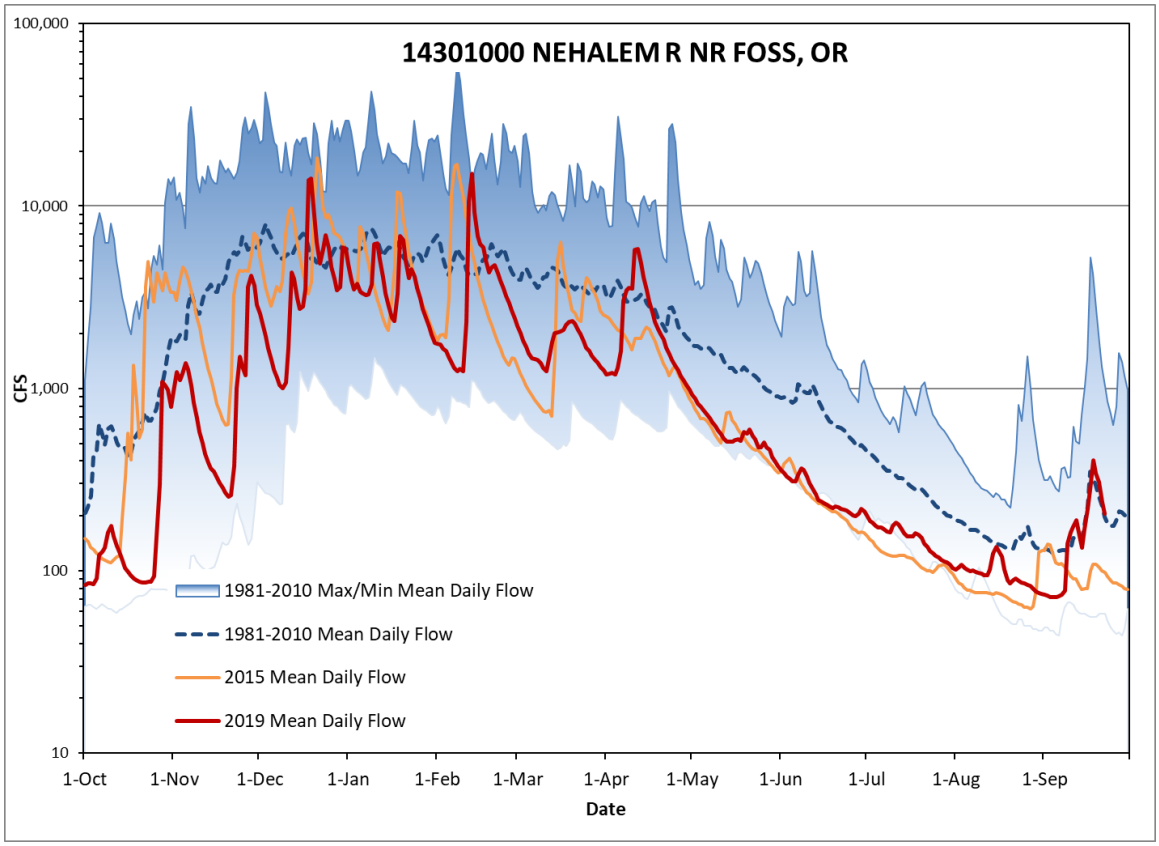
Compared to this time last year:



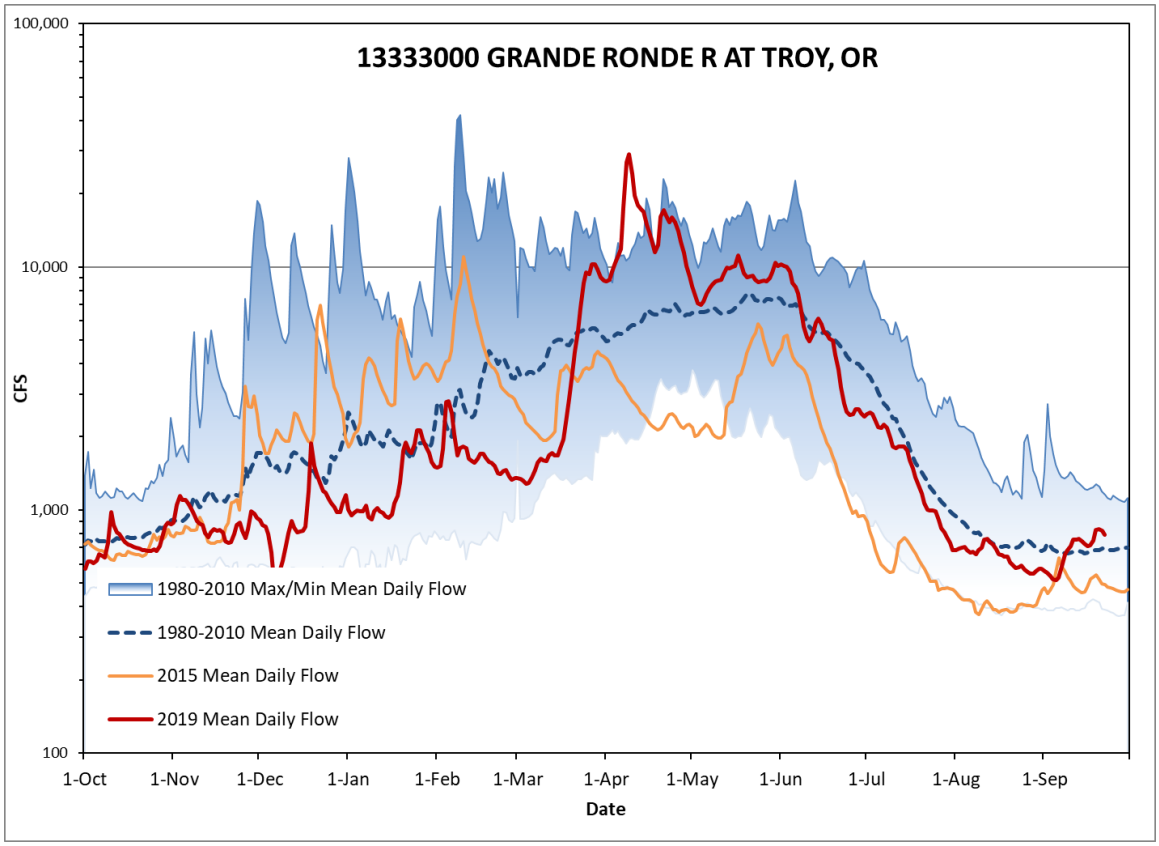
Streamflow Conditions by County – August



Streamflow Conditions – North Coast Basin (Tillamook County)



Streamflow Conditions – Grande Ronde Basin (Wallowa County)



Streamflow Conditions – Willamette Basin (Polk County)