

Oregon

Water Conditions Report

October 21, 2019



Current Oregon statewide water year precipitation at NRCS SNOTEL sites is 149 percent for the first 20 days of water year 2020. Basin precipitation values vary from 75 percent of normal in the Lake County, Goose Lake basin to 218 percent of normal in the Umatilla, Walla Walla, Willow Creek basin. The wide variability is due to the limited days in the water year (October 1) and the localized effects of storm impacts on specific SNOTEL sites.

Precipitation over the [past two weeks](#) has ranged from 0.5 to over 5 inches above-normal across the northwest region of the state. 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.

Temperatures over the [past two weeks](#) have been below-normal across almost all of the state. Temperatures across a large portion of central and south central Oregon have been close to 8 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 below-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 September were 114 percent of normal. This is notably higher than the 84 percent seen in August. Regionally for September, streamflow conditions were about 100 percent of normal east of the Cascades and almost 130 percent to the west. Flows in the Hood and Malheur basins were the lowest at about 84 percent of normal while the highest flows were in the Umpqua and South Coast basins at just over 190 percent of normal for the month. Streamflows for the water year ended up right at 100 percent of normal for the state. Recent rain events have increased streamflows most notably from the Umpqua basin north to the Willamette, Mid and North Coast basins where streams are flowing at rates well above normal for this time of year.

USACE Reservoirs:

Rogue: The Rogue system is currently 37 percent full and 13 percent below Rule curve. Lost Creek will continue holding flows at 1,150 cfs.

Lost Creek is 43 percent full and 22 percent below rule curve. Inflows are around 1,000 cfs with outflows of about 1,200 cfs. Applegate is at 18 percent of capacity and 38 percent below rule curve. Inflows are close to 70 cfs while outflows are holding at 200 cfs.

Applegate will began to reduce releases to 200 cfs over the next week. 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 28 percent full and 60 percent below Rule Curve. Current project inflow is at 4 cfs with outflow also at 4 cfs. The Oregon Health Authority issued a recreational use [health advisory](#) on October 11 due to the presence of a cyanobacterial (harmful algae) bloom and cyanotoxin (harmful algae toxins) above recreational guideline values for human exposure. The reservoir will stay under a health advisory until results show that algal toxin levels have decreased below state standards.

Willamette: The Willamette system is 18 percent full and 27 percent below rule curve. Operations are transitioning from spawning flow to incubation flow on the North and South Santiam Rivers. Temperature operations are being conducted out of Detroit with 50/50 operational spill to generation ratio. Foster has started spilling at night for downstream juvenile fish passage. Project outflows have been adjusted in light of recent rain to stay below rule curve. Cougar is ready for the Portable Floating Fish Collector removal to start (the crane pad is exposed). Fall Creek is getting to the right elevation for the fish horn pipe repair work (<745 ft by Oct 21). Flows in the Willamette River at [Albany](#) are 8,200 cfs with flows at [Salem](#) at 14,300 cfs.

USBR Reservoirs: 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 32 percent of capacity. Outflows are close to 135 cfs with inflows of about 12 cfs.

Deschutes River Basin: Ochoco and Prineville reservoirs are at 46 percent and 60 percent full respectively. Ochoco reservoir is releasing close to 6 cfs while Prineville reservoir is currently releasing just under 100 cfs with inflows about 40 cfs.

Crescent Lake is at 52 percent, Wickiup is at 17 percent and Crane Prairie is at 66 percent of capacity.

Malheur River Basin: Warm Springs, Beulah, and Bully Creek reservoirs range from 50 to 24 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 well above normal at 62 percent. Inflows are currently about 180 cfs.

[Burnt and Powder River Basins](#): Phillips and Unity reservoirs are at 22 percent and 29 percent full respectively. Phillips is releasing about 12 cfs with inflows around 13 cfs while Unity is releasing just over 17 cfs.

[Tualatin River Basin](#): Scoggins reservoir is at 38 percent of capacity and releasing 54 cfs.

The most recent update to the [US Drought Monitor](#) remains unchanged over the past two weeks. The most recent report indicates that just under 11.5 percent of the state is listed as D0 (Abnormally Dry), with no area listed as D1 (Moderate Drought). This is likely to change for the better in the coming week.

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.

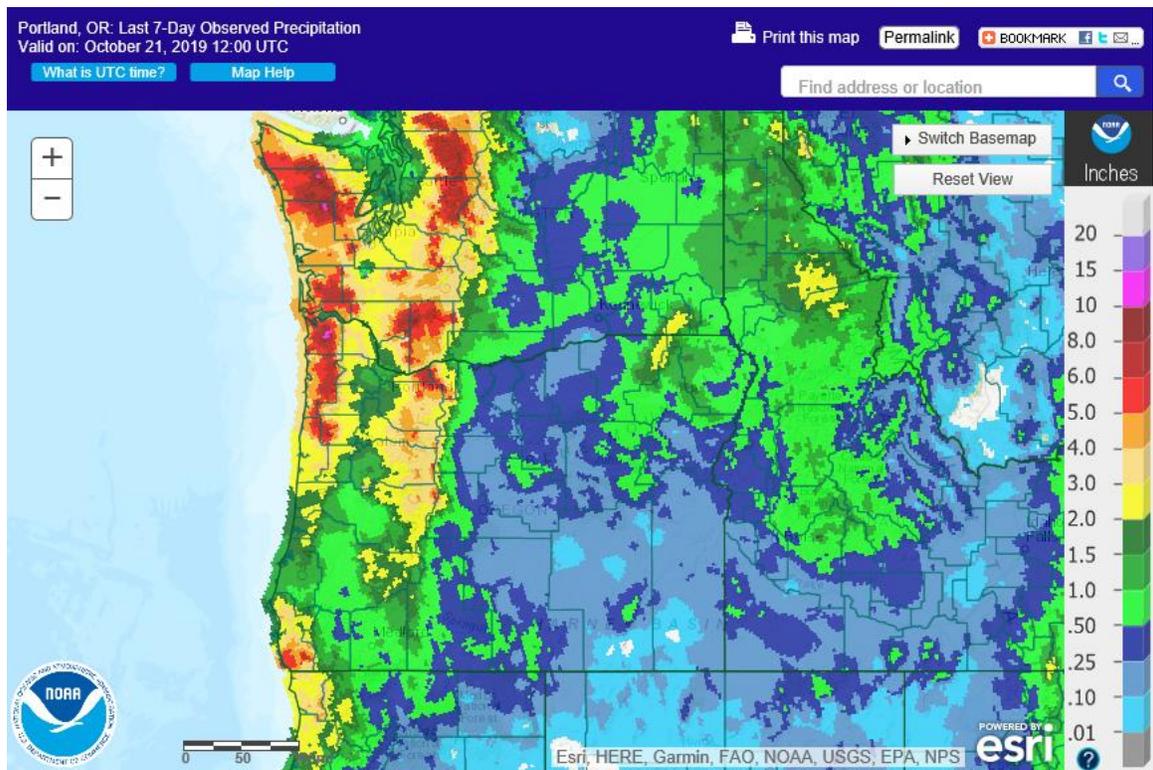
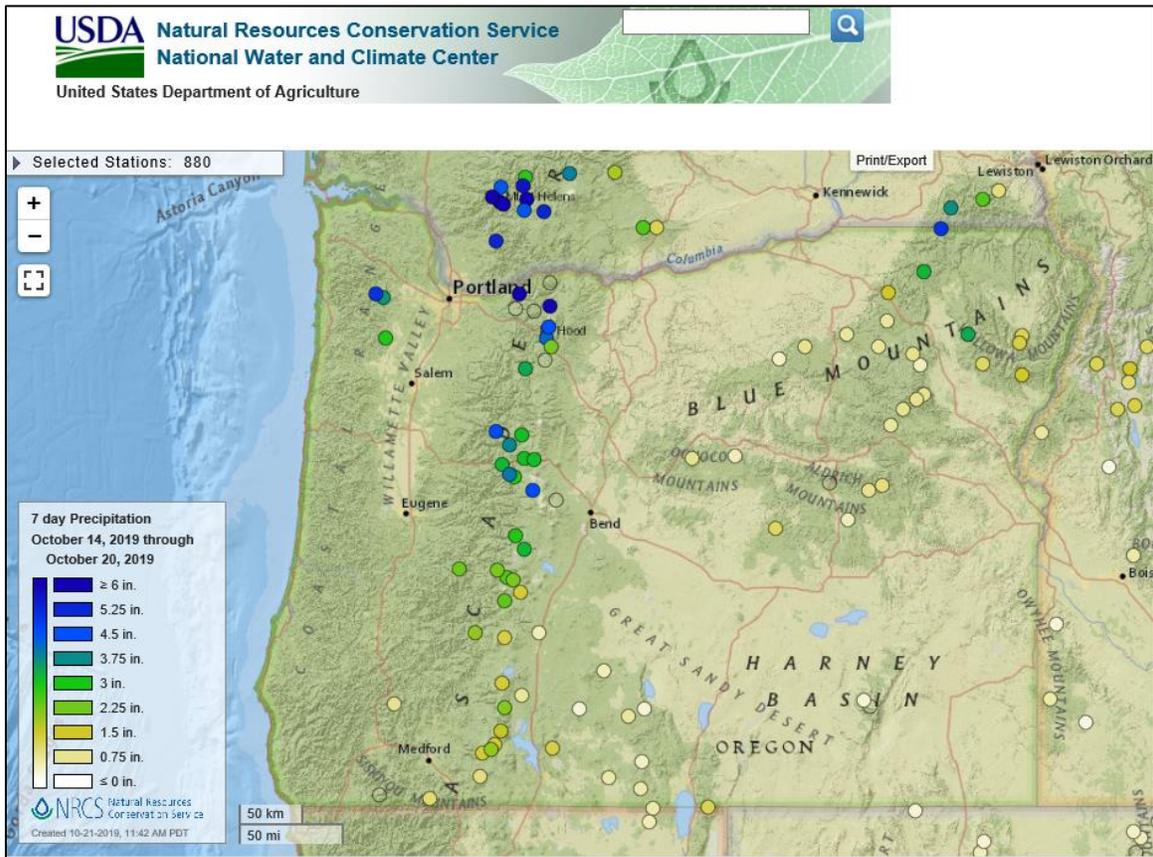
Data & Products:

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Precipitation – 7 Day

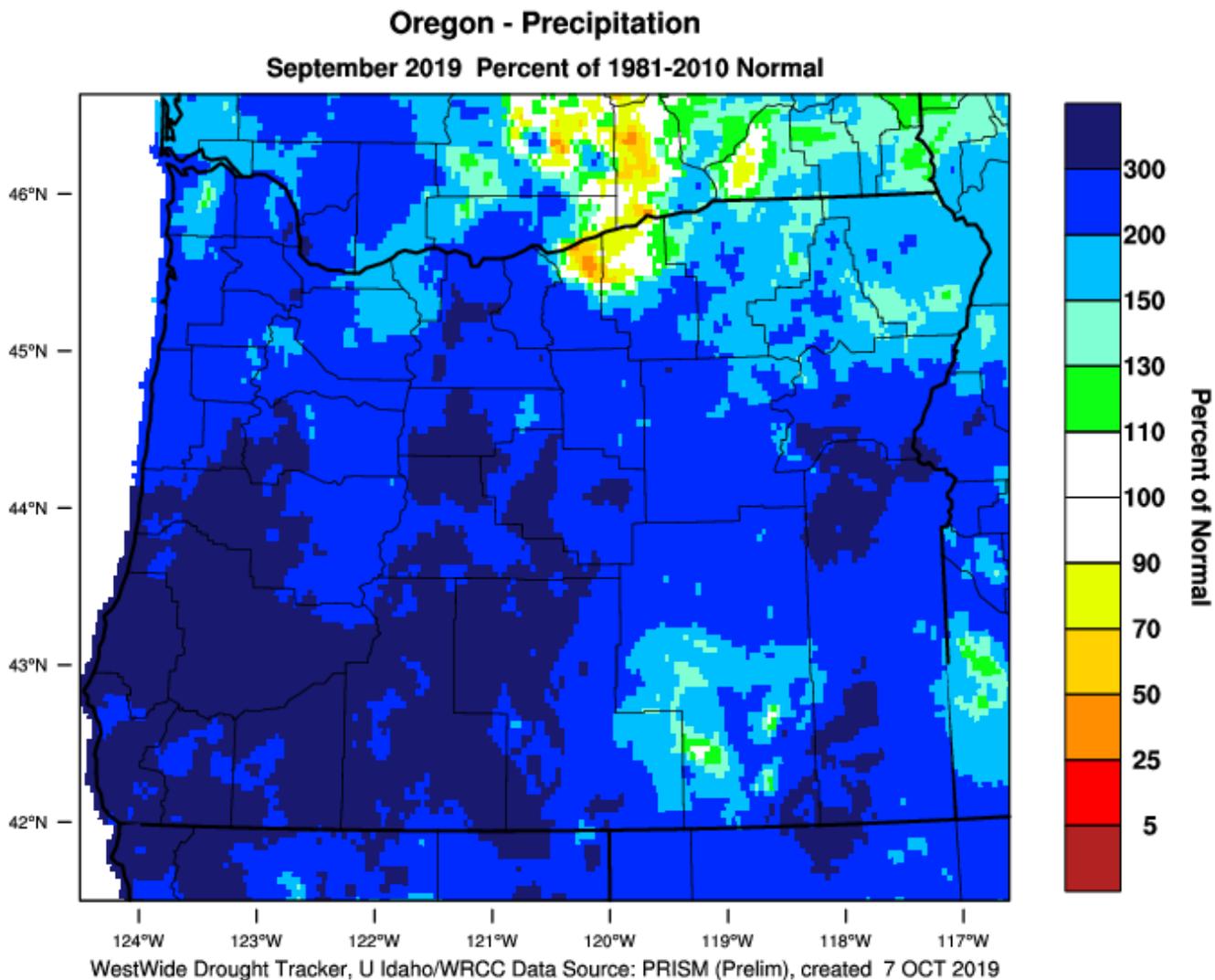
7-day precipitation (inches) – October 14, 2019 through October 20, 2019



Precipitation – (1 Month) Percent of Normal

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

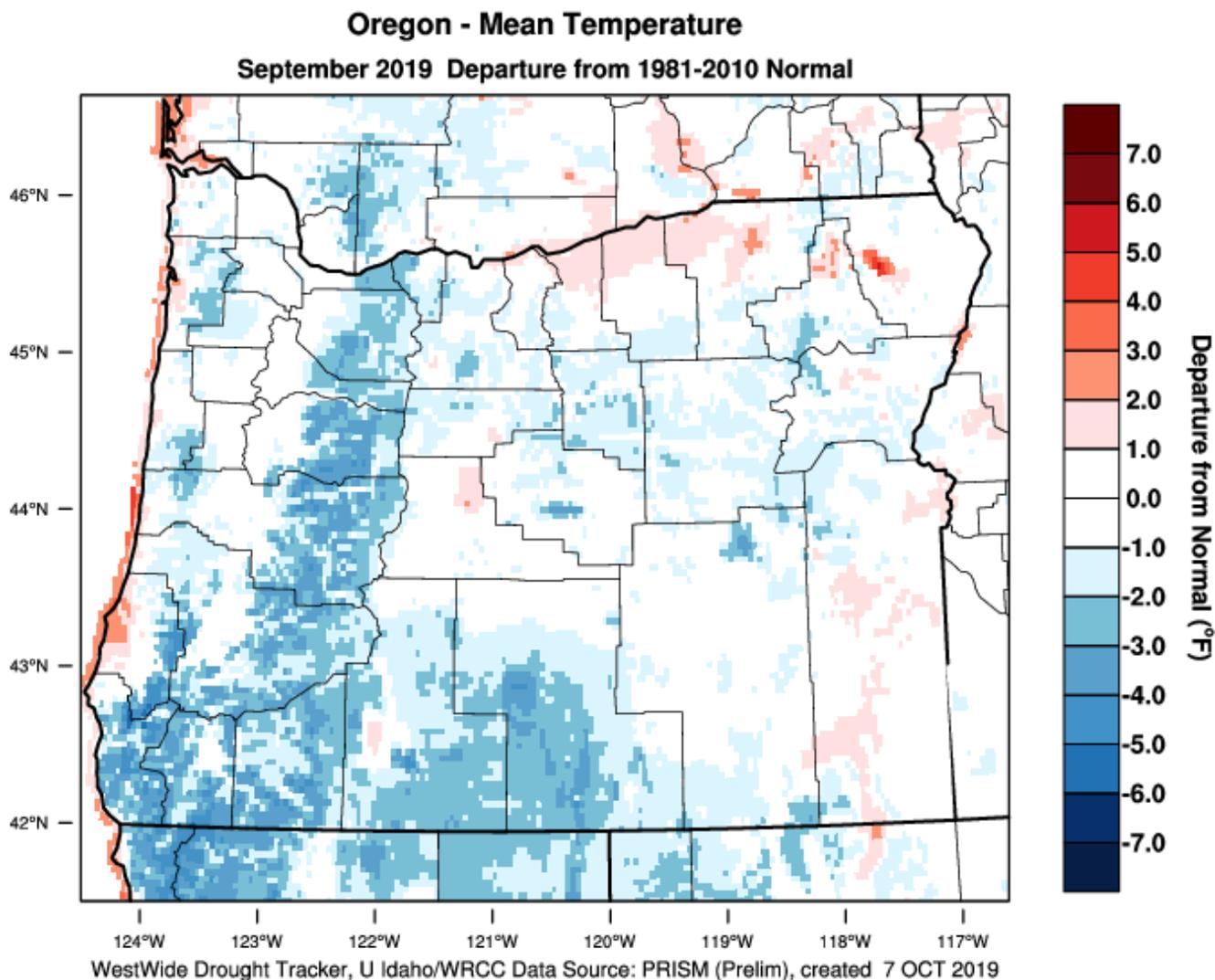
PRISM > Precipitation Anomaly 1 Month > Oregon



Temperature – (1 Month) Departure from Normal

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

PRISM > Temperature Anomaly 1 Month > Oregon

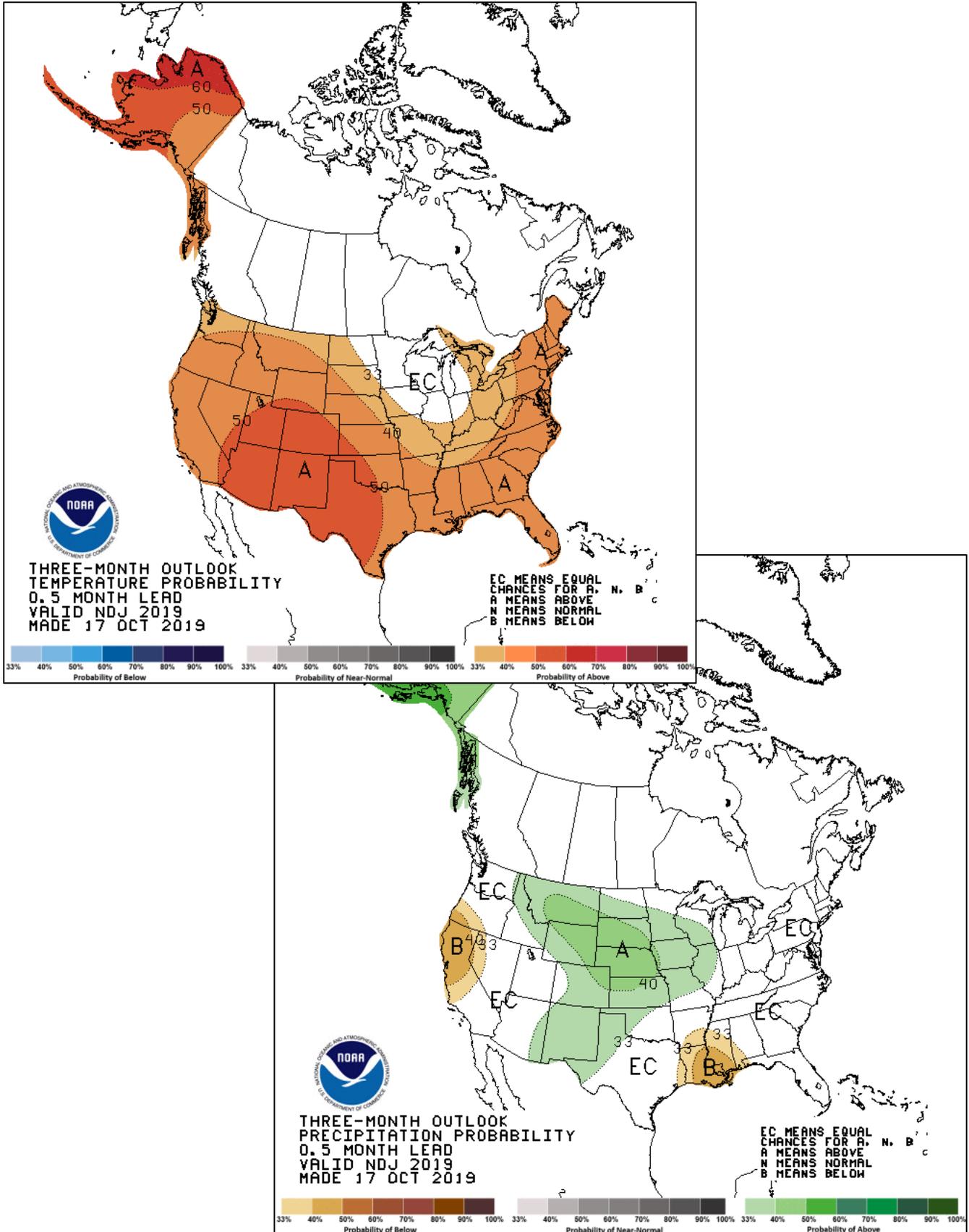


[Download PRISM Temperature Anomaly 1 Month NETCDF Data for United States](#)

Three Month Temperature and Precipitation Outlook

November through January

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



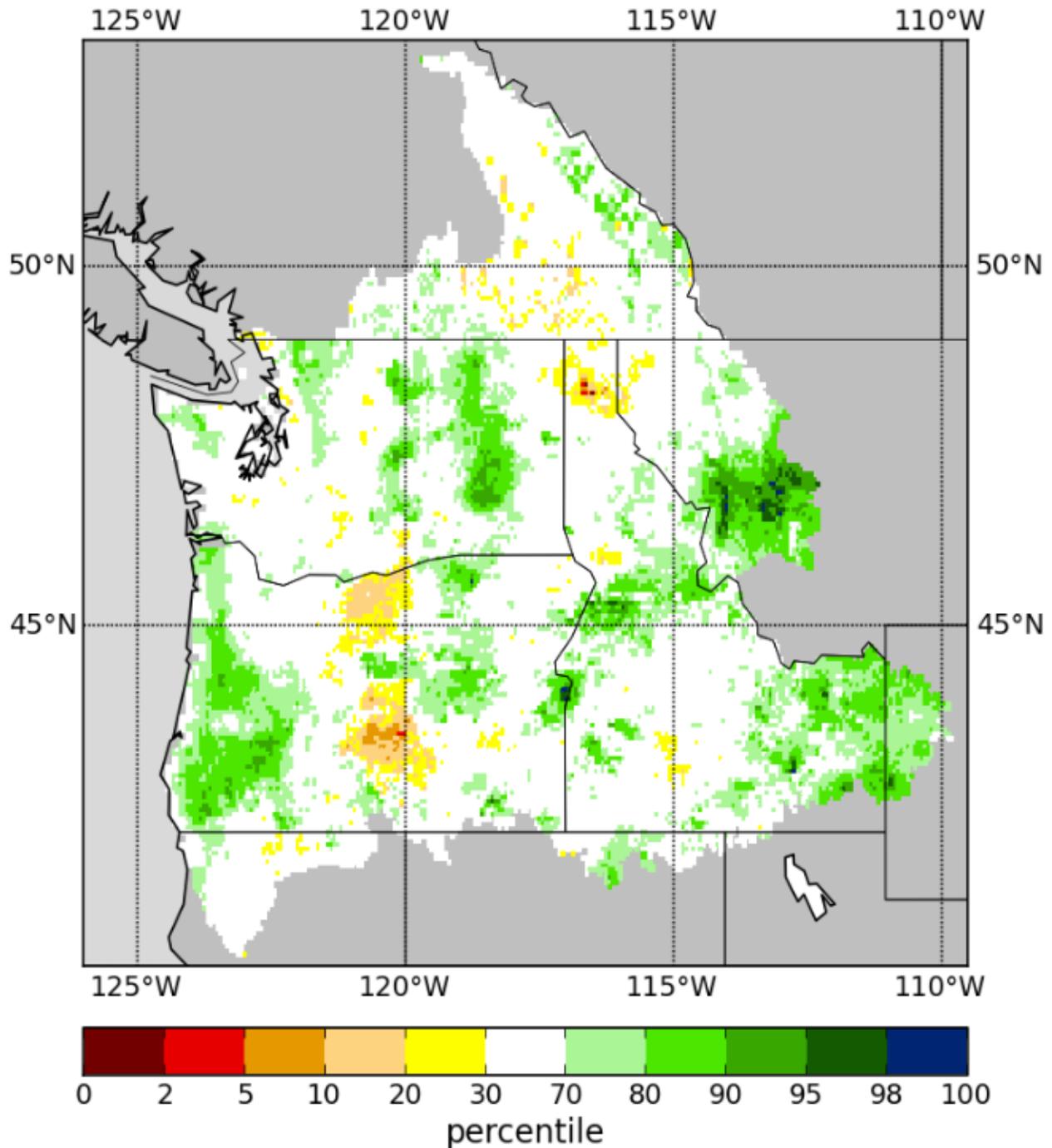
Total Moisture - Percentile

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

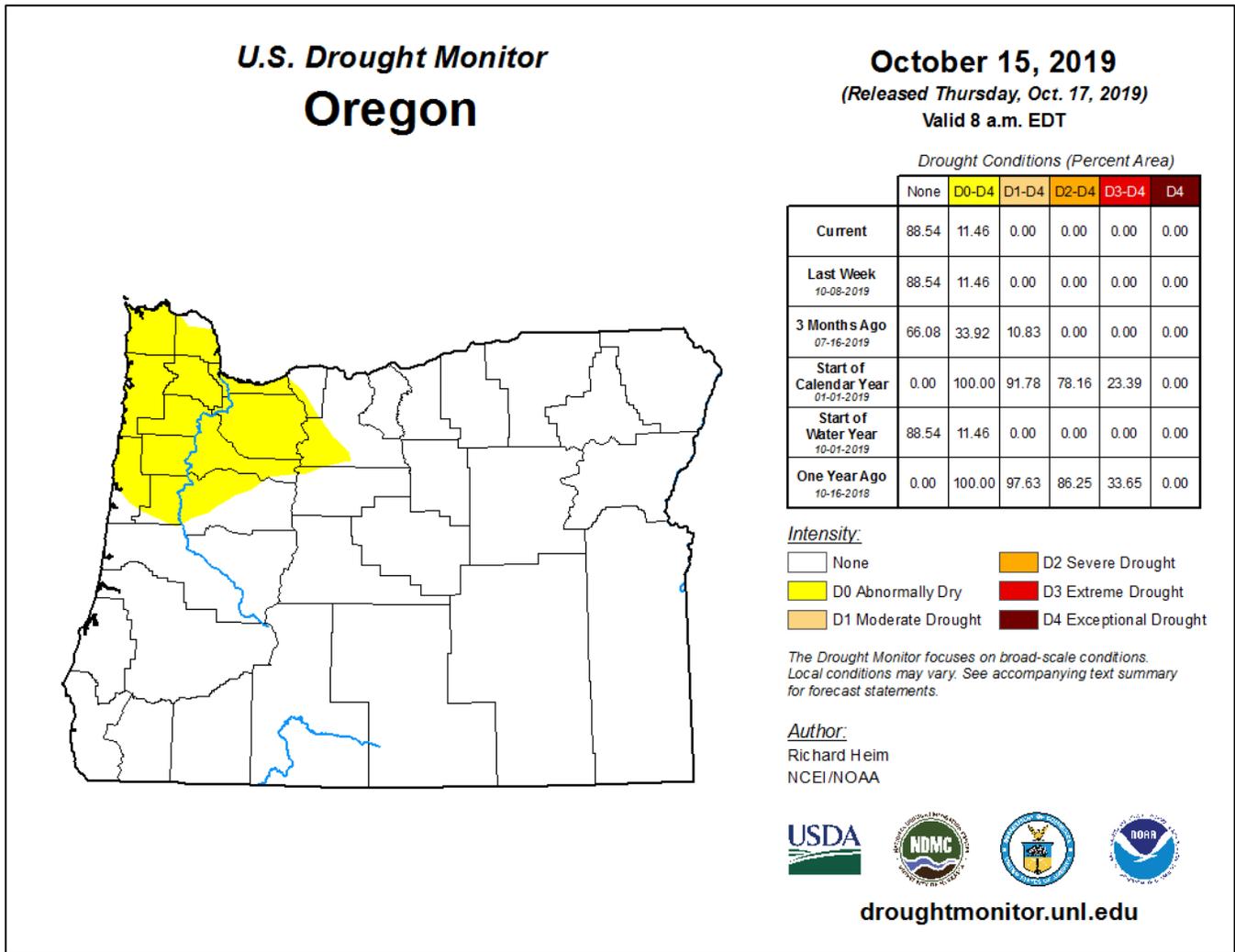
Total Moisture Percentile

2019--10--19

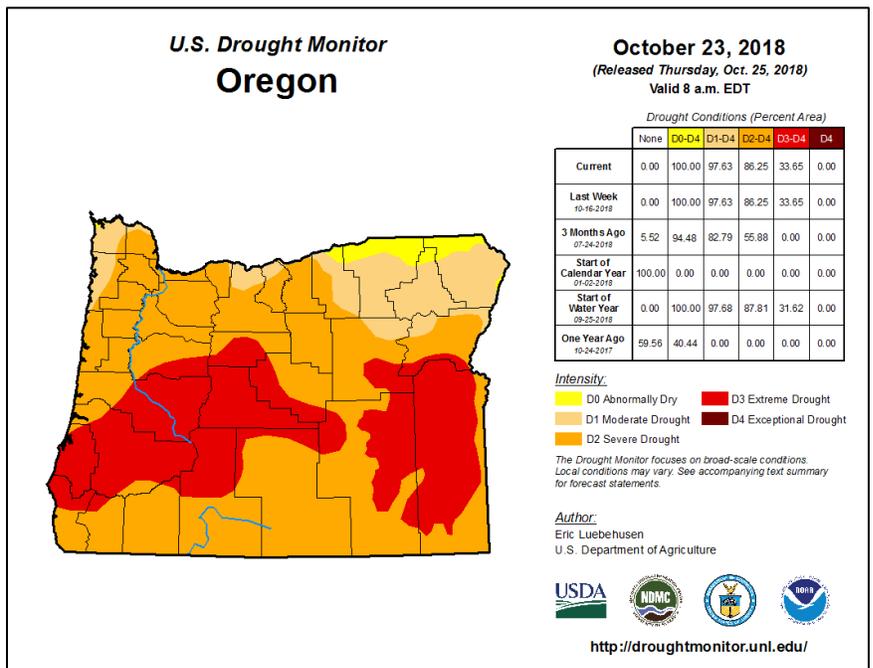


U.S. Drought Monitor for Oregon

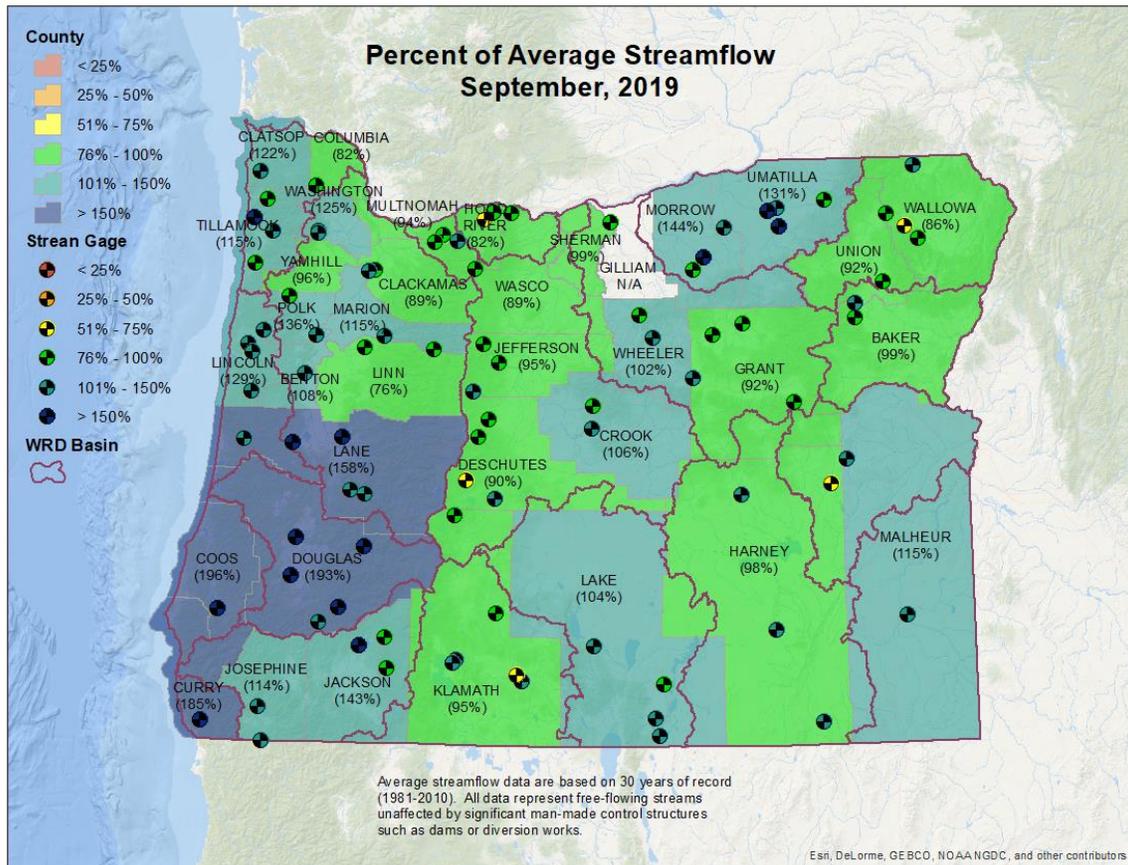
Website: <https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?OR>



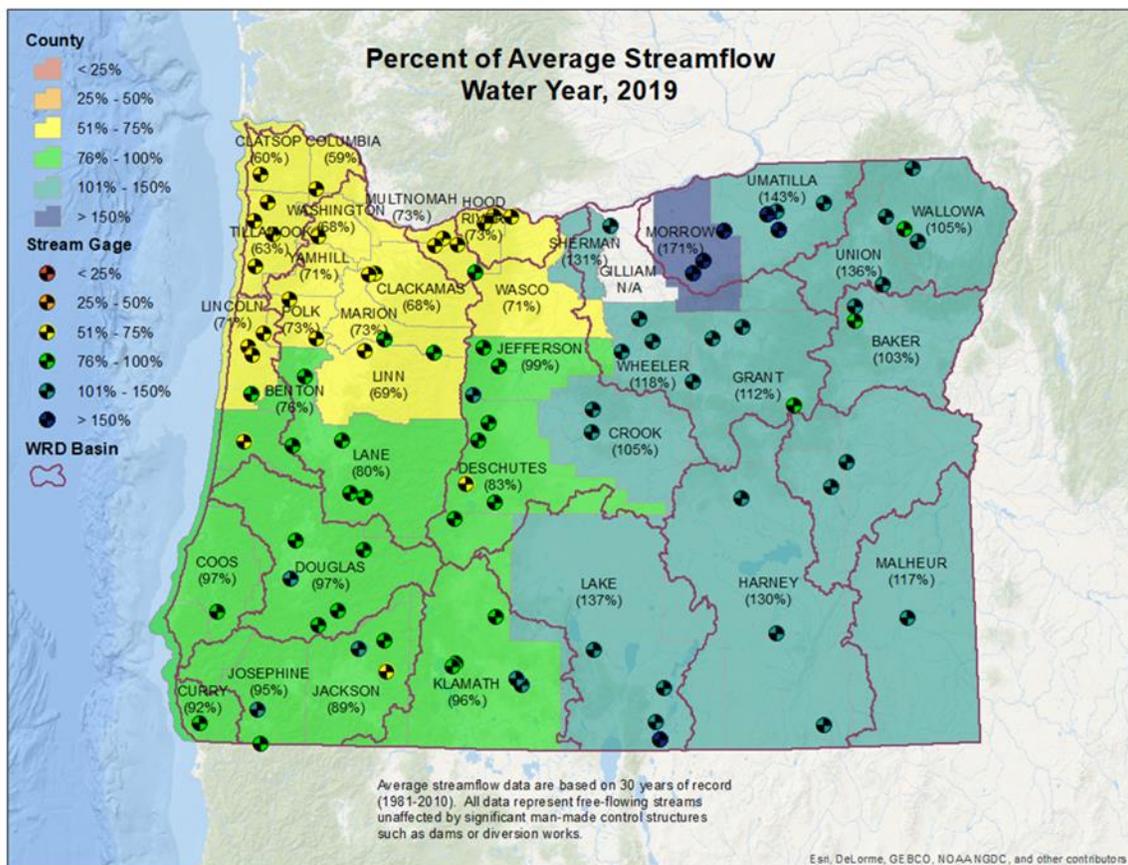
Compared to this time last year:



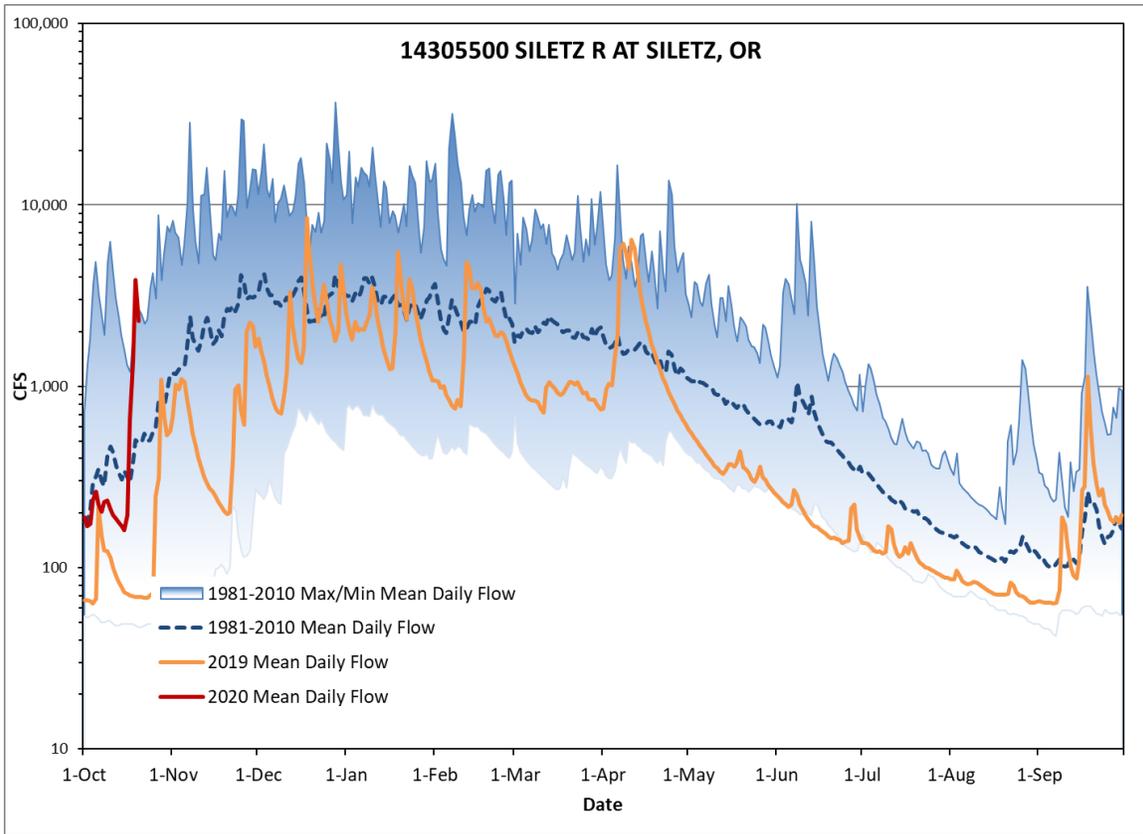
Streamflow Conditions by County – September



Streamflow Conditions by County – 2019 Water Year



Streamflow Conditions – Mid Coast Basin (Lincoln County)



Streamflow Conditions – John Day Basin (Grant County)

