

Oregon

Water Conditions Report

December 2, 2019



Current Oregon statewide water year precipitation at NRCS SNOTEL sites is 47 percent of normal. Basin precipitation values range from 38 percent in the Lake County, Goose Lake basin and Klamath basin, to 65 percent of normal in the Grand Ronde, Powder, Burnt, Imnaha basin.

Current Oregon statewide snow water equivalent (SWE) is 61 percent of normal, with most basins reporting values below 60 percent. The values vary from the Willamette basin at 41 percent of normal to the Malheur basin at 114 percent of normal SWE. The majority of SNOTEL sites are reporting values less than 5.0 inches SWE.

In spite of recent weather events, precipitation over the [past two weeks](#) has been well below-normal, especially west of the Cascades where precipitation ranged from 2 to over 5 inches below normal in parts of southwestern Oregon. For the [month of November](#), precipitation was below-normal across much of the state. In areas west of the Cascades and southeast Oregon anomalies ranged between 5 and 25 percent of normal. In the northwest corner of the state November 2019 was one of the top 5 driest months of record.

Temperatures over the [past two weeks](#) have been below-normal across much of central and eastern Oregon. West of the Cascades, temperatures ranged from up to 6 degrees above normal in Jackson County to almost six degrees cooler than normal in parts of the mid coast and western Willamette Valley. For the [month of November](#), temperatures were above-normal across most of the state. Especially in the southern Cascades and southwest Oregon where temperatures were up to 7 degrees warmer than normal for this time of year.

Over the next [8 to 14 days](#), the NOAA Climate Prediction Center is forecasting an increased probability of above-normal temperatures along with above-normal precipitation across most of 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 probability across southwestern Oregon with above-normal probability for the rest of the state. The next long-term outlook will be issued on December 19, 2019.

[ENSO-neutral](#) is favored during the Northern Hemisphere winter 2019-20 (~70 percent chance), continuing through spring 2020 (60 to 65 percent chance). Near-to-above average sea surface temperatures (SSTs) were observed in the east-central tropical Pacific Ocean during October. For a more complete report, refer to the November 14, 2019 [diagnostic discussion](#) issued by the Climate Prediction Center. The next diagnostic discussion is scheduled for December 12, 2019. Another source of information is the latest [ENSO blog](#) on the climate.gov website.

Statewide streamflows for November were 49 percent of normal. This is considerably lower than the 107 percent seen in October. Regionally for November, streamflow conditions were about 70 percent of normal east of the Cascades and only about 15 percent to

the west. Flows in the South Coast were the lowest at well below 10 percent of normal while the highest flows were in the Owyhee and Malheur Lake at 95 and 97 percent of normal respectively. In response to the recent pattern of dry weather, flows in many streams in western Oregon have continued to experience extremely low flow conditions over the past two weeks. In some areas of the Willamette Valley and southwestern Oregon stream flows are less than 10 percent of normal.

USACE Reservoirs:

Rogue: The Rogue system is currently 30 percent full and 6 percent below rule curve. Lost Creek is 37 percent full and 6 percent below rule curve. Inflows are around 950 cfs with outflows of about 1,150 cfs. Applegate is at 1 percent of capacity and 9 percent below rule curve. Inflows are close to 45 cfs while outflows are holding at about 130 cfs. Fishery goals continue to focus on 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 31 percent full and 15 percent below rule curve. Current project inflow is at 5.4 cfs with outflow at 3.1 cfs.

Willamette: The Willamette system is 0 percent full and 3 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 4,200 cfs with flows at [Salem](#) at 7,790 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.

Umatilla River Basin: McKay reservoir is at 20 percent of capacity. Outflows are close to 10 cfs with inflows of about 11 cfs.

Deschutes River Basin: Ochoco and Prineville reservoirs are at 45 percent and 58 percent full respectively. Ochoco reservoir is releasing less than 5 cfs while Prineville reservoir is currently releasing just under 95 cfs with inflows of about 45 cfs.

Crescent Lake is at 51 percent, Wickiup is at 35 percent and Crane Prairie is at 72 percent of capacity.

Malheur River Basin: Warm Springs, Beulah, and Bully Creek reservoirs are at 53, 32, and 47 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 64 percent. Inflows are currently about 200 cfs.

Burnt and Powder River Basins: Phillips and Unity reservoirs are at 22 percent and 35 percent full respectively. Phillips is releasing about 16 cfs with inflows around 10 cfs while Unity is releasing about 13 cfs.

[Tualatin River Basin](#): Scoggins reservoir is at 32 percent of capacity and releasing 34 cfs.

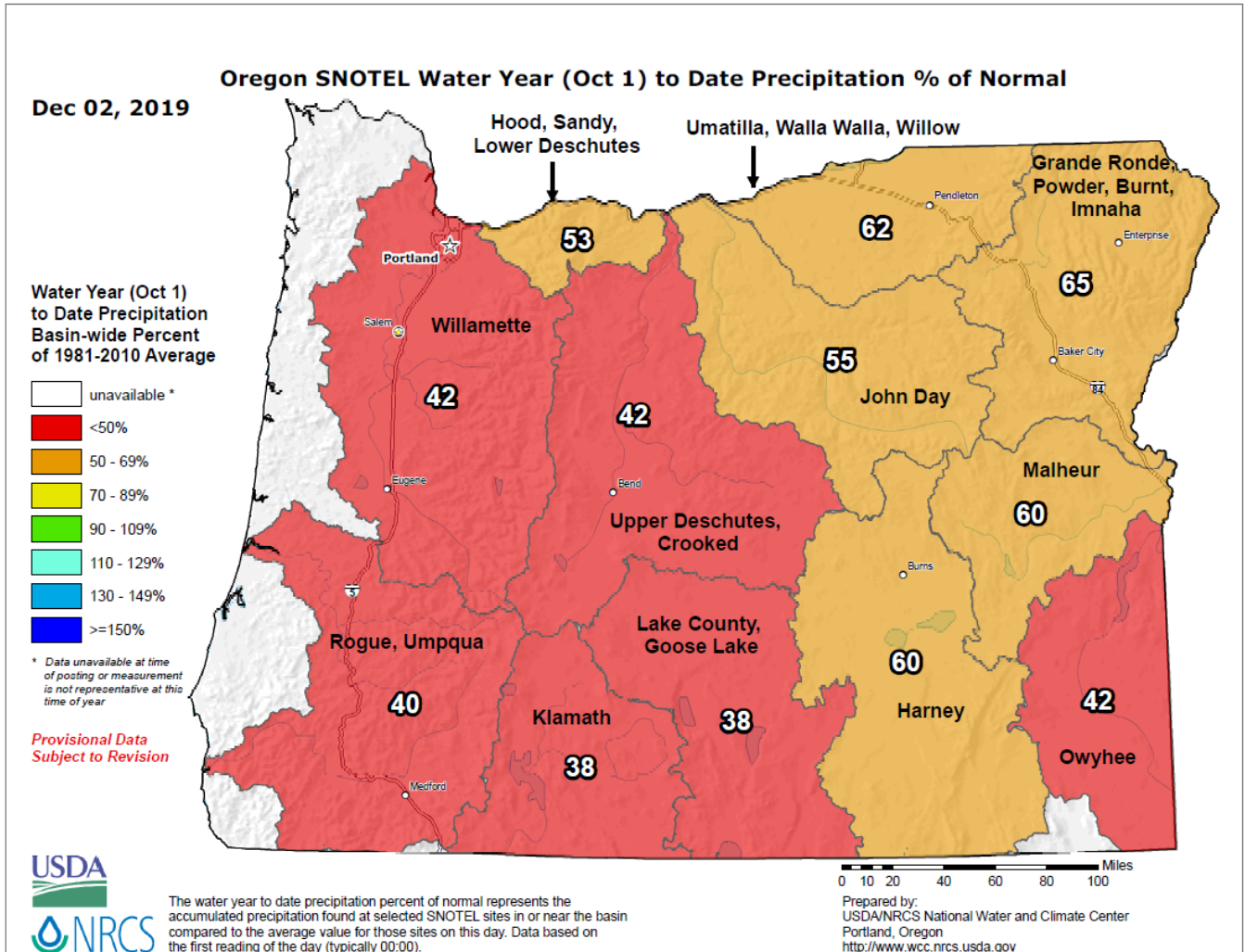
The most recent update to the [US Drought Monitor](#) has recently changed and now indicates that 55 percent of the state is in D0 (abnormally dry) conditions. If there is no marked change in weather patterns in the coming weeks, this may continue to change.

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.

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Precipitation (Mountain) - Percent of Normal

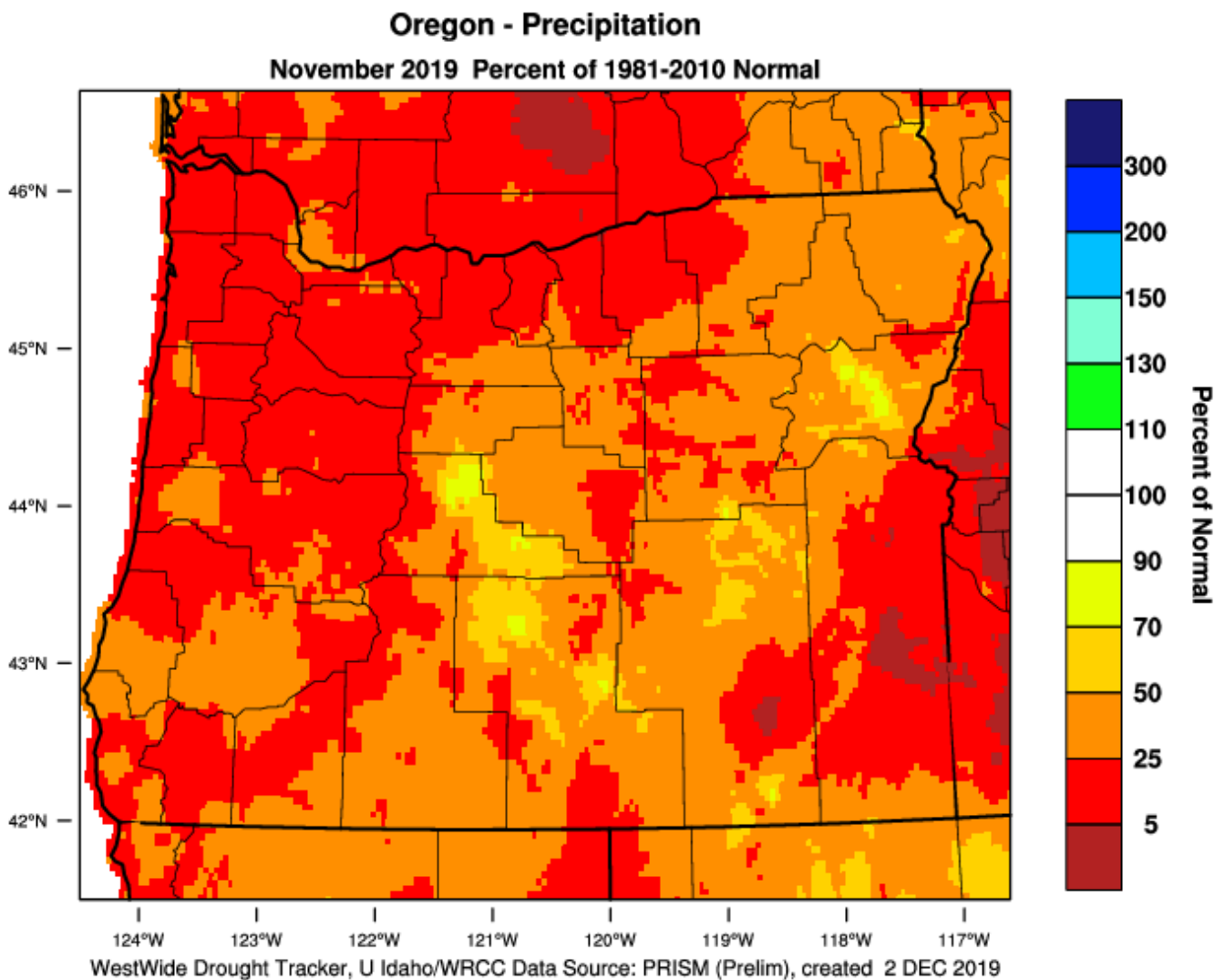


See the [NRCS website](http://www.nrcs.usda.gov) for updated information on snowpack conditions.

Precipitation – (1 Month) Percent of Normal

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

PRISM > Precipitation Anomaly 1 Month > Oregon



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

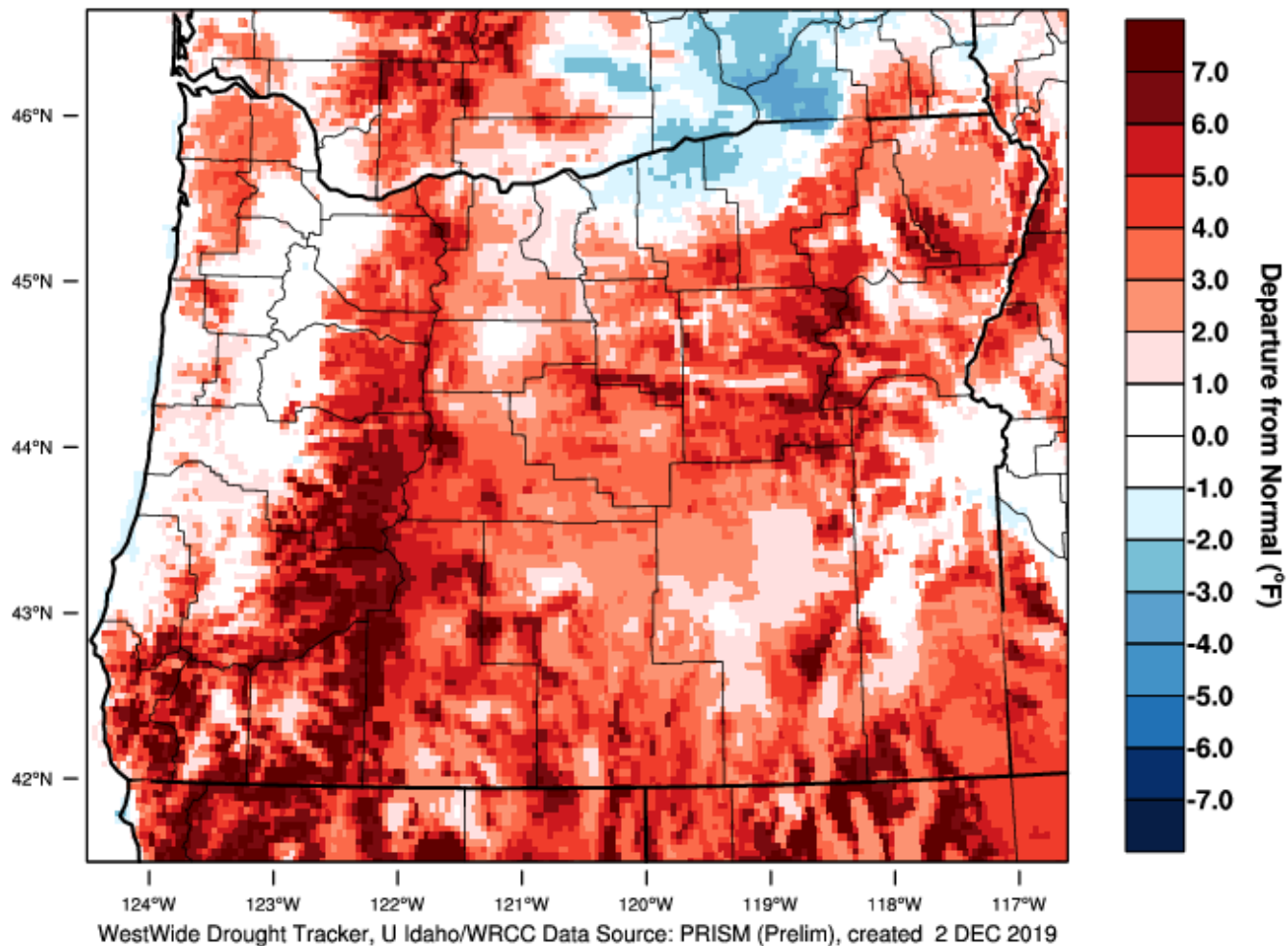
Temperature – (1 Month) Departure from Normal

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

PRISM > Temperature Anomaly 1 Month > Oregon

Oregon - Mean Temperature

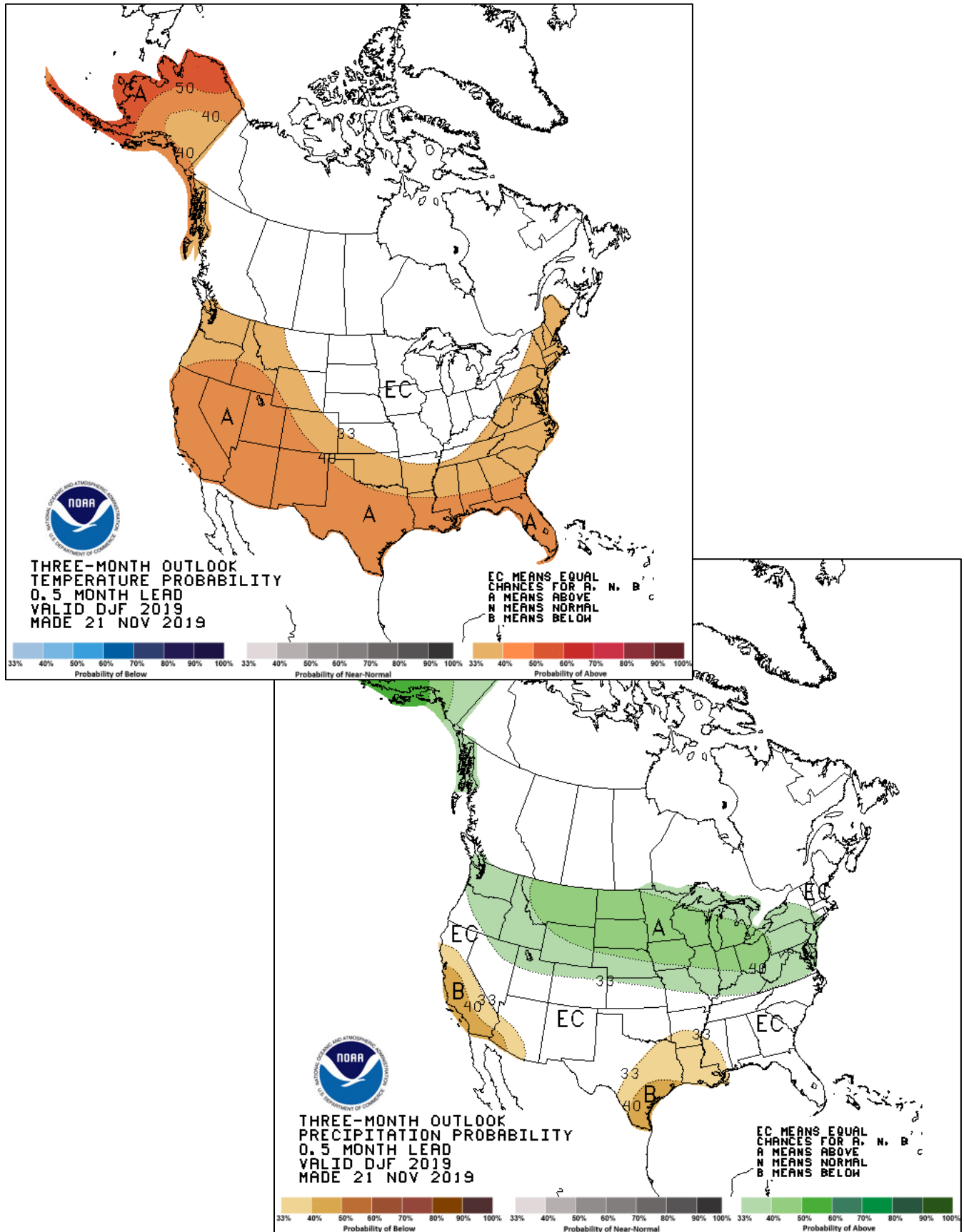
November 2019 Departure from 1981-2010 Normal



Three Month Temperature and Precipitation Outlook

December through February

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



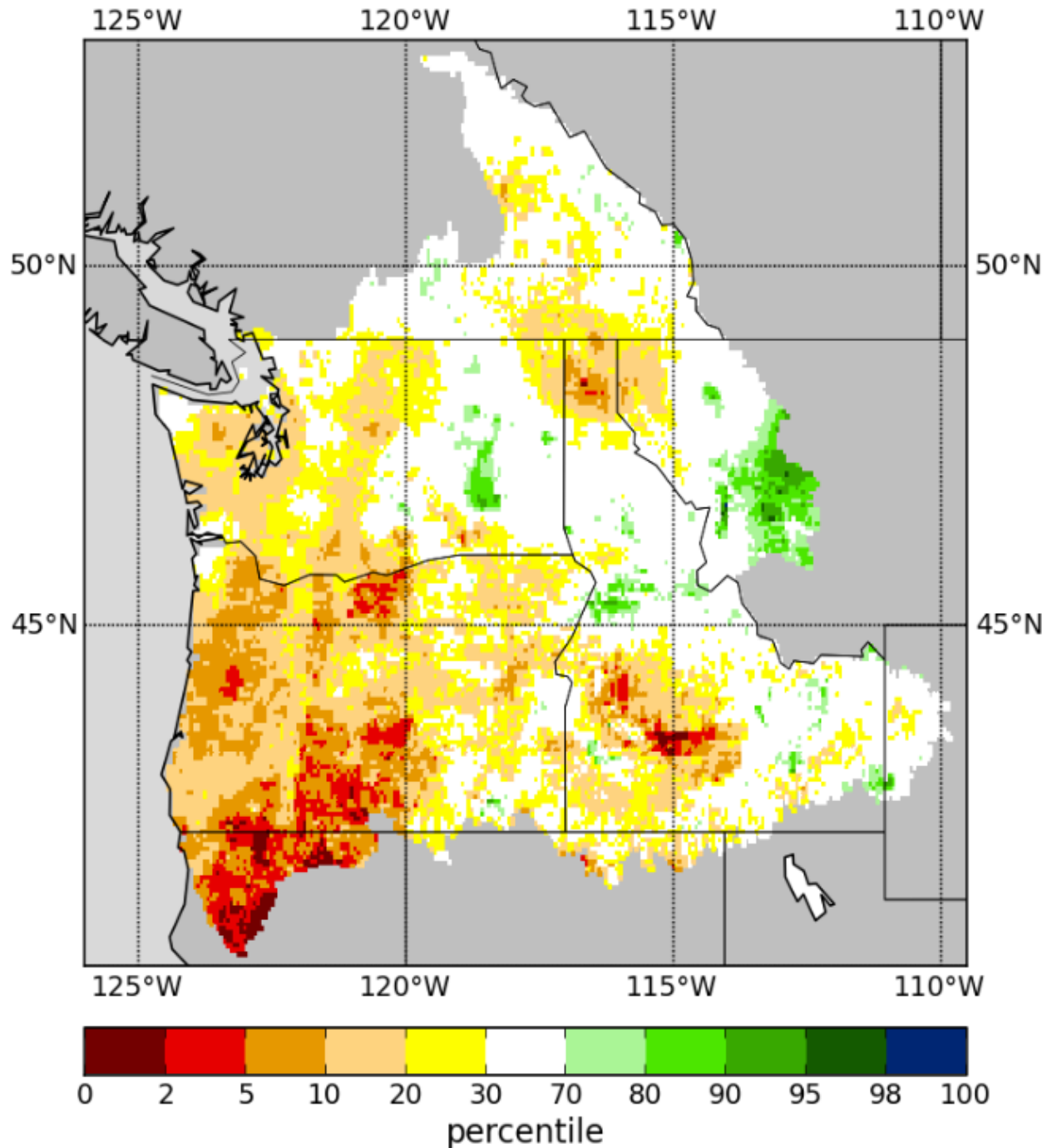
Total Moisture - Percentile

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--11--30

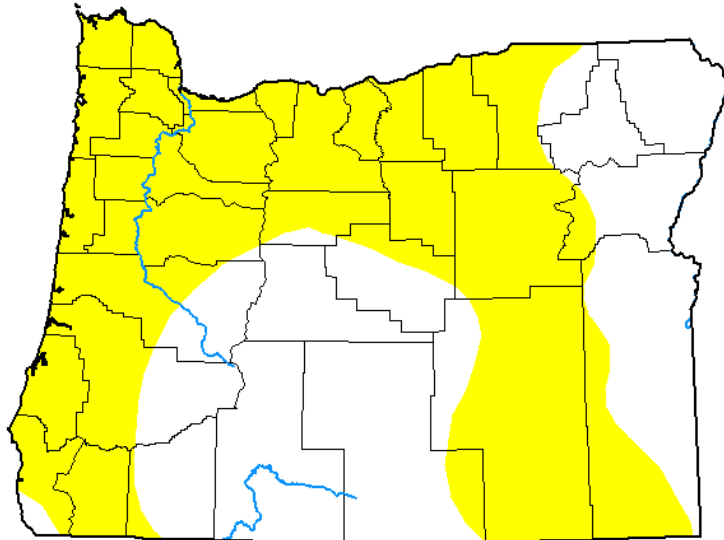


U.S. Drought Monitor for Oregon

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

U.S. Drought Monitor Oregon

November 26, 2019
(Released Wednesday, Nov. 27, 2019)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	44.34	55.66	0.00	0.00	0.00	0.00
Last Week 11-19-2019	100.00	0.00	0.00	0.00	0.00	0.00
3 Months Ago 08-27-2019	67.61	32.39	10.83	0.00	0.00	0.00
Start of Calendar Year 01-01-2019	0.00	100.00	91.78	78.16	23.39	0.00
Start of Water Year 10-01-2019	88.54	11.46	0.00	0.00	0.00	0.00
One Year Ago 11-27-2018	0.00	100.00	98.65	86.21	34.26	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

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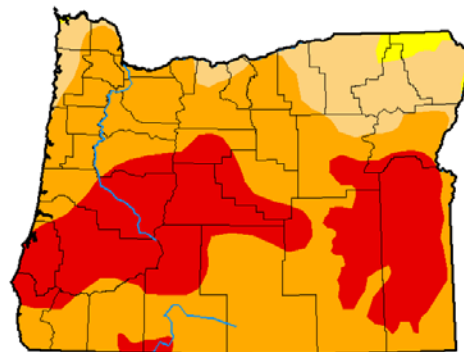


droughtmonitor.unl.edu

Compared to this time last year:

U.S. Drought Monitor Oregon

November 27, 2018
(Released Thursday, Nov. 29, 2018)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	98.65	86.21	34.26	0.00
Last Week 11-20-2018	0.00	100.00	98.65	86.21	34.26	0.00
3 Months Ago 09-28-2018	0.00	100.00	93.05	79.13	6.18	0.00
Start of Calendar Year 01-01-2018	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year 09-25-2018	0.00	100.00	97.68	87.81	31.62	0.00
One Year Ago 11-28-2017	100.00	0.00	0.00	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

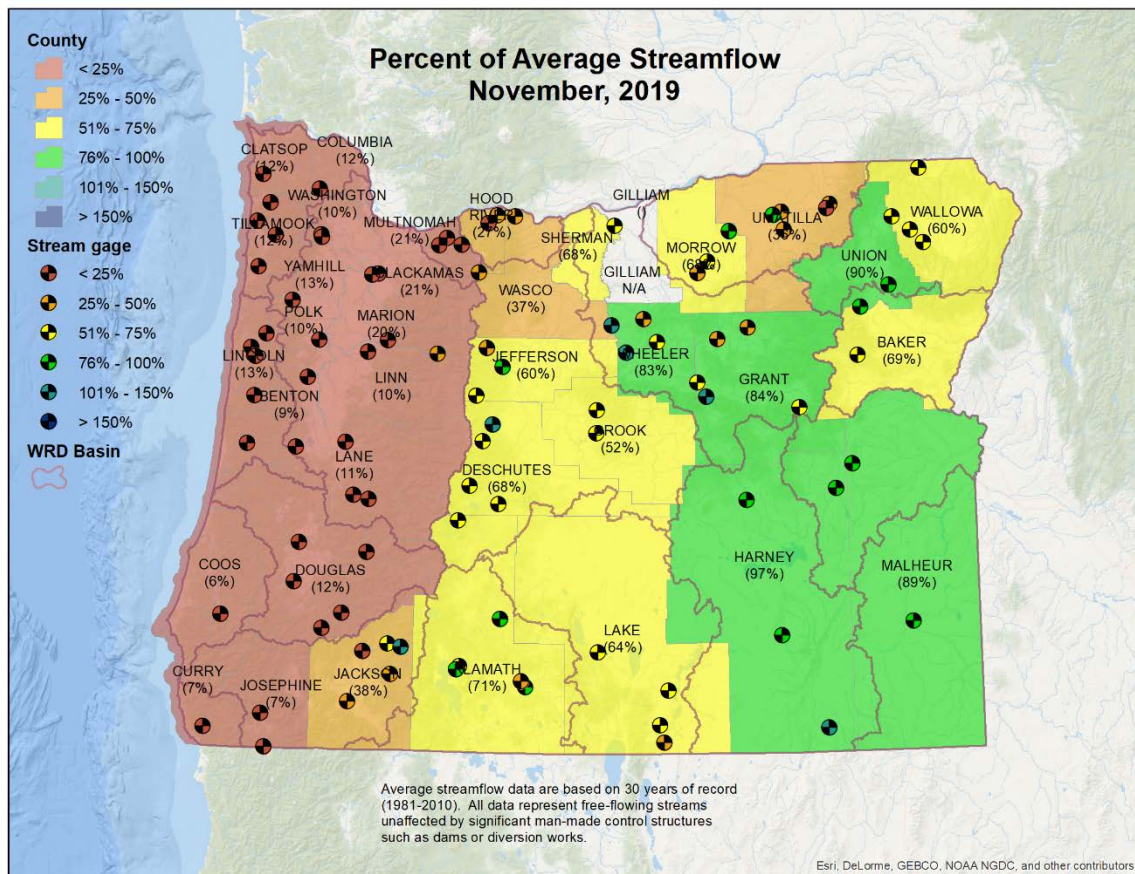
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<http://droughtmonitor.unl.edu/>

Streamflow Conditions by County – November



Streamflow Conditions – Rogue Basin (Josephine County)

