

Oregon Water Conditions Report May 20, 2019



Snow water equivalent (SWE) values at NRCS SNOTEL sites continue to decrease with snowmelt across the state. The current statewide SWE value is 67 percent of normal. Warm temperatures have resulted in several basins melting out up to 2 weeks earlier than normal.

Oregon statewide water year precipitation at NRCS SNOTEL sites is currently 96 percent of normal. The highest percent of normal values for water year precipitation have been in the Umatilla, Walla Walla, and Willow Creek basin, and the John Day basin at 117 percent of normal, while the lowest value is in the Hood, Sandy, and Lower Deschutes basin at 82 percent of normal for the water year.

The NRCS [Basin Outlook Report](#) for May is now available. The report is published monthly from January through June.

The NRCS Snow Survey also continues to publish weekly condition reports on three areas affected by wildfire in eastern Oregon. After exposure to high heat, soils in these burned areas can't absorb as much water. As a result, these watersheds can experience a higher risk for flash flooding. The reports can be accessed at:

<https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/or/snow/?cid=nrcseprd854607>

Temperatures over the [past two weeks](#) have been warmer than normal across most of the state. The exceptions were small areas along the South and North Coast where temperatures were normal to slightly below normal. For the [month of April](#), temperatures were well above normal for most of the state.

Precipitation over the [past two weeks](#) has been drier than normal. This was especially evident in western Oregon where precipitation was over two inches lower than normal. For the [month of April](#), precipitation was well above normal for most of the state with the exception of the North Coast, where precipitation was below normal.

Over the next [8 to 14 days](#), the NOAA Climate Prediction Center is forecasting above-normal temperatures along with below-normal precipitation probability across most of the state. The most recent [three month outlook](#) indicates increased chances of above-normal temperatures. The precipitation outlook for the same period is for drier than normal probabilities in the northwest corner of the state with equal chances of above or below normal precipitation for the southwest and central regions of state. For eastern Oregon the outlook is for above-normal precipitation. The next long-term outlook will be issued on June 20, 2019.

[El Niño](#) conditions are likely to continue through the summer and fall of 2019. During April, above-average sea surface temperatures persisted across most of the equatorial Pacific Ocean, reflecting the ongoing El Niño. For a more complete report, refer to the May 9, 2019 [diagnostic discussion](#) issued by the Climate Prediction Center. The next

diagnostics discussion is scheduled for June 13, 2019. Another source of information is the latest [ENSO blog](#) on the climate.gov website.

Statewide streamflows for April were over 200 percent of normal. It goes without saying that this is a significant increase from the 83 percent seen in March. Regionally for April, streamflow conditions were about 215 percent of normal east of the Cascades and 190 percent to the west. Flows in the North Coast were the lowest at about 98 percent of normal while the highest flows were in the Umatilla at 375 percent of normal for the month. More recent data indicate that flows have dropped rapidly to very low levels in basins west of the Cascades. Recent cool, showery weather has helped slow the decline but a return to warm and dry weather will likely contribute to unseasonably low streamflow conditions in western Oregon. Flows east of the Cascades are generally much closer to normal.

USACE Reservoirs: Rogue: Currently the system is at 97 percent full and 3 percent below rule curve. The Lost Creek project is 98 percent full and 2 percent below rule curve with outflow at 2,200 cfs and inflow at about 2,500cfs. Applegate is at 95 percent, 5 percent below rule curve. Applegate outflows are 500 cfs with inflows at 500 cfs.

Willow Creek: The project is full and just above rule curve. Project outflows are currently about 67 cfs; inflows are almost 73 cfs.

Willamette: The project is currently at 91 percent of capacity and 9 percent below rule curve. The flows in the Willamette River at Albany are about 10,200 cfs and flows at Salem are about 14,700 cfs. With the exception of Green Peter, the larger storage projects that provide summer flow augmentation are now close to rule curve while still providing minimum outflow.

USBR Reservoirs: Umatilla River Basin: McKay reservoir is at 97 percent of capacity. Average inflows this past April were 1,090 cfs.

Deschutes River Basin: Ochoco and Prineville reservoirs are at 85 percent and 100 percent full respectively. Ochoco reservoir is still releasing minimum flows close to 15 cfs while Prineville reservoir is currently releasing inflows. Average inflows this past April were 366 cfs for Ochoco and 2,190 cfs for Prineville. Crescent Lake is at 74 percent, Wickiup is at 61 percent and Crane Prairie is at 85 percent of capacity.

Malheur River Basin: Warm Springs, Beulah, and Bully Creek reservoirs are at 92 percent, 96 percent, and 97 percent full respectively. Average inflows this past April were 1,470 cfs for Warm Springs, and 735 cfs for Beulah.

Owyhee River Basin: Owyhee reservoir is currently 92 percent full. Owyhee reservoir is currently releasing over 200 cfs with average inflows this past April coming in at 3,960 cfs.

Burnt and Powder River Basins: Philips and Unity reservoirs are at 59 percent and 100 percent full. Philips is releasing 230 cfs with April average inflows of 230 cfs while Unity is releasing 165 cfs. Unity is currently undergoing space and refill management measures due to elevated inflows and shrinking storage space.

Tualatin River Basin: Scoggins reservoir is full and releasing 54 cfs.

The most recent update to the [US Drought Monitor](#) is holding steady with no change over the past two weeks. The report indicates that 17 percent of the state is listed as in D0 (Abnormally Dry). D1 (Moderate Drought), D2 (Severe Drought) and D3 (Extreme Drought) are no longer present anywhere in the state.

Wildfire potential for May is predicted to be above normal across the northwest corner of the state. According to the [National Significant Wildland Fire Potential Outlook](#), Normal significant large fire potential is expected across the region during the outlook period except west of the Cascade crest in Washington and Oregon through August where Above Normal significant large fire potential is expected.

Long-range outlooks suggest fire danger will rise to be above-average during the summer, particularly west of the Cascades where outlooks suggest a warmer than average summer. Fire season will likely begin sooner than average in June for areas west of the Cascades.

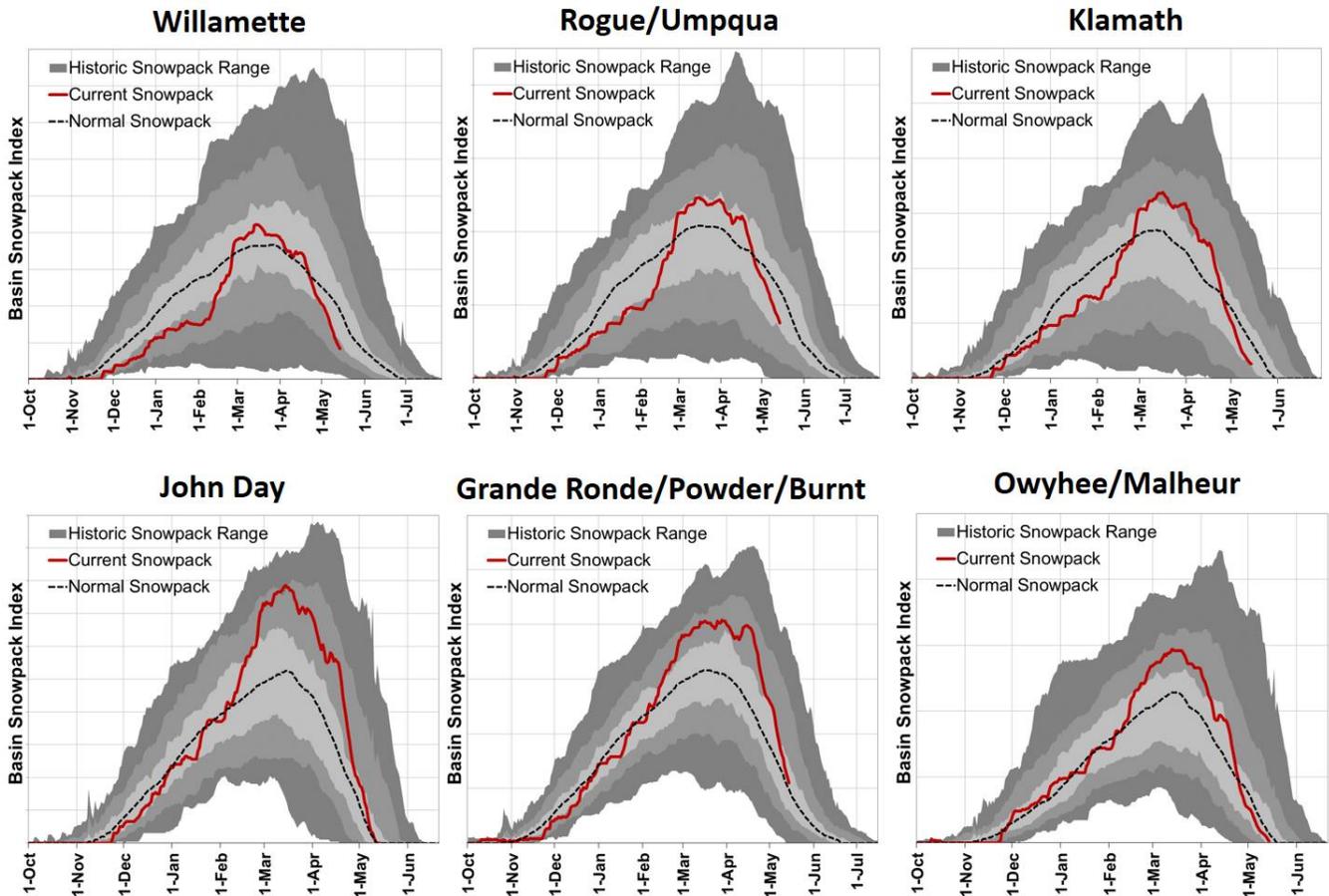
Large fire risk is expected to become higher than average and spread to Oregon and central Washington as the summer progresses. The next update is scheduled for June 1, 2019.

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.

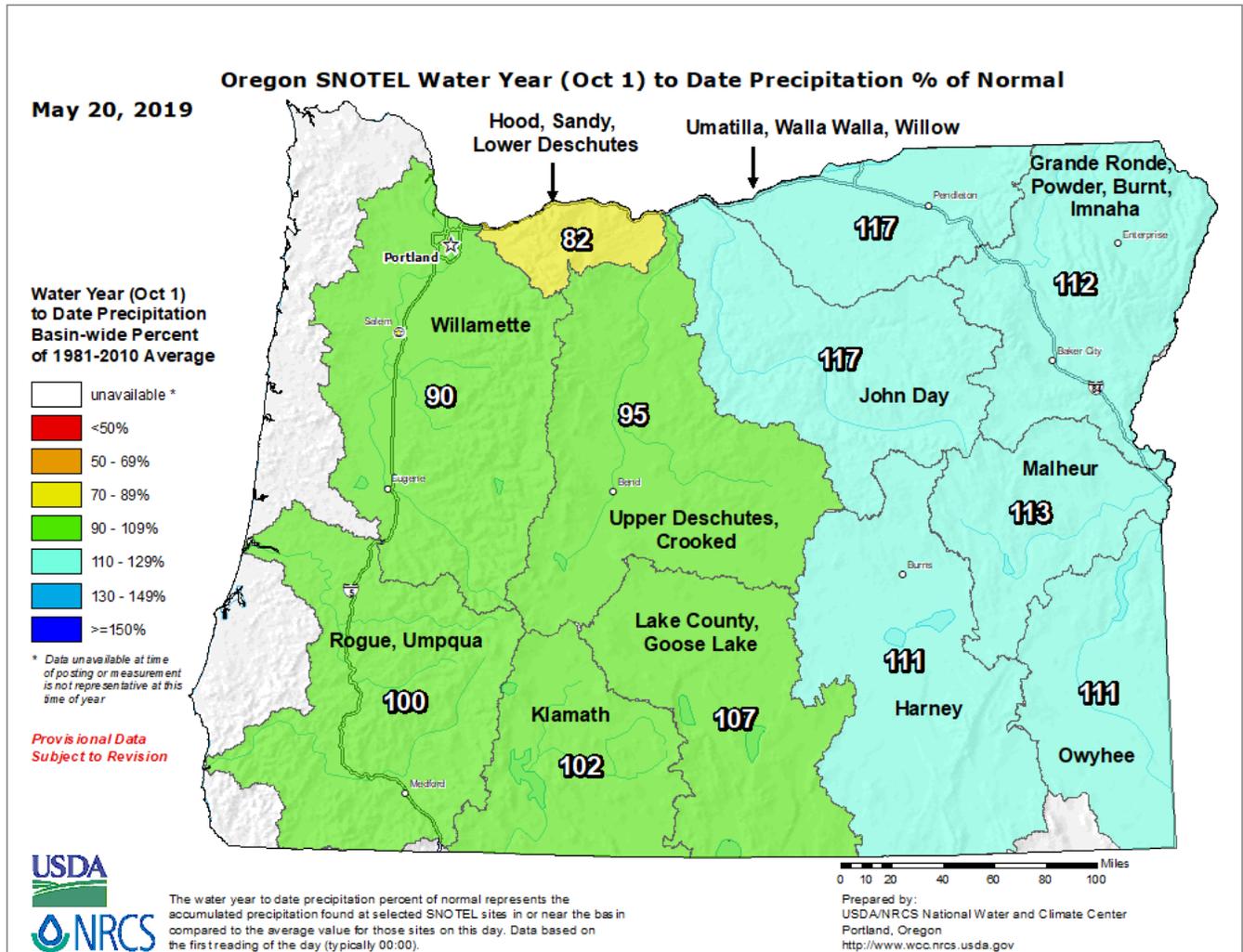
Snowpack Graphs – May, 20194
 Precipitation (Mountain) - Percent of Normal5
 Temperature – (1 Month) Departure from Normal.....6
 Precipitation – (1 Month) Percent of Normal7
 Three Month Temperature and Precipitation Outlook8
 Total Moisture - Percentile9
 U.S. Drought Monitor for Oregon10
 Streamflow Conditions by County - April.....11
 Streamflow Conditions by County – for May 13, 201911
 Streamflow Conditions – John Day Basin (Grant County).....12
 Streamflow Conditions – Grande Ronde Basin (Wallowa County).....12
 Streamflow Conditions – Willamette Basin (Linn County)13
 Streamflow Conditions – South Coast Basin (Coos County).....13

Snowpack Graphs – May, 2019

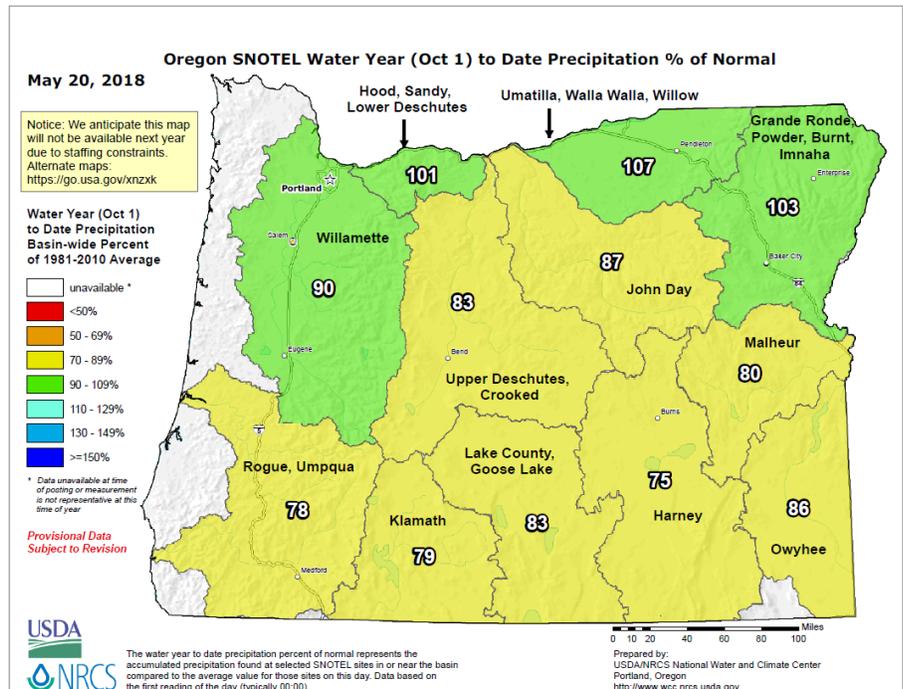
Water Year 2019 – May 14th



Precipitation (Mountain) - Percent of Normal



Compared to this time last year -

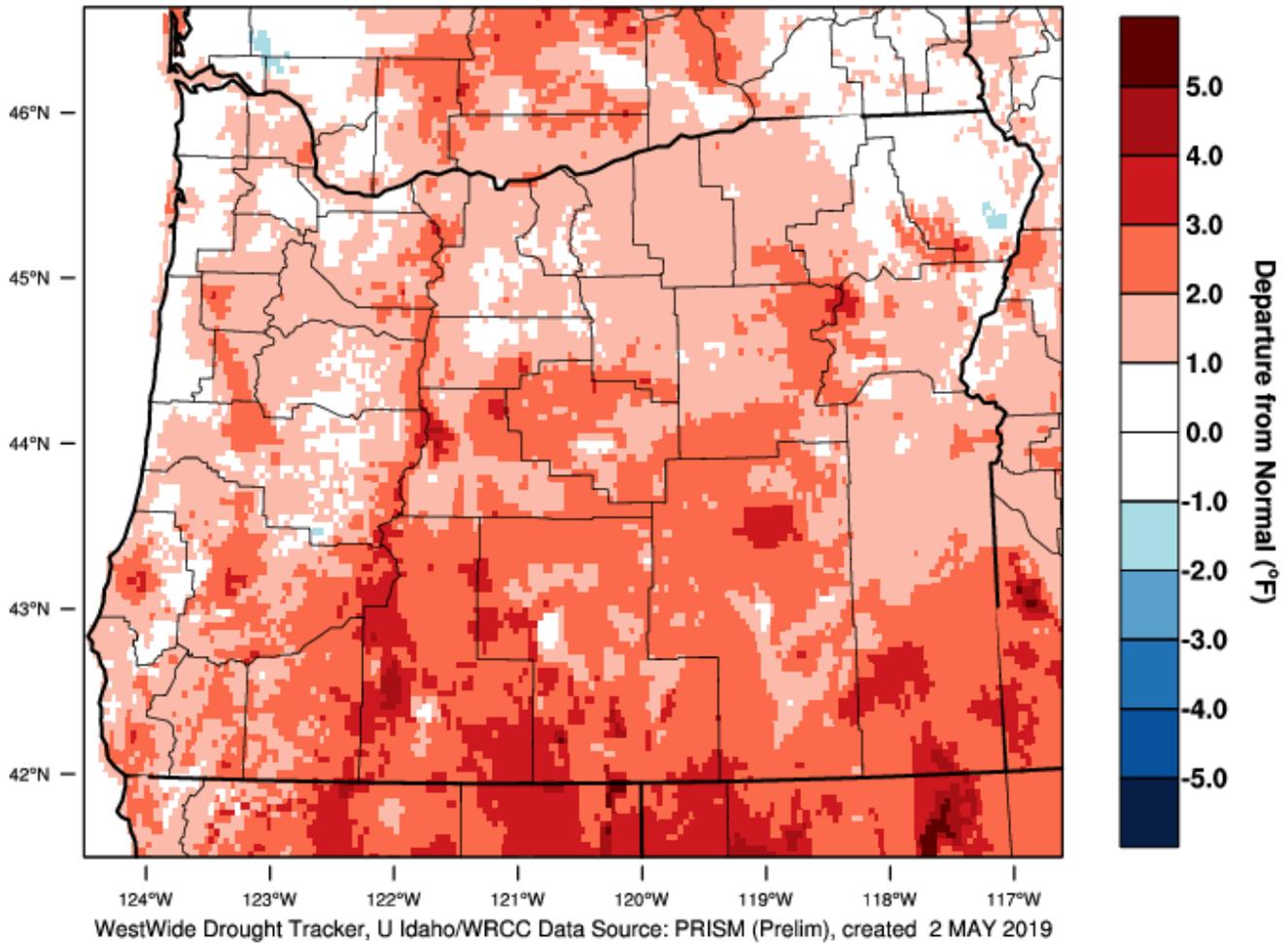


Temperature – (1 Month) Departure from Normal

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

PRISM > Temperature Anomaly 1 Month > Oregon

Oregon - Mean Temperature
April 2019 Departure from 1981-2010 Normal



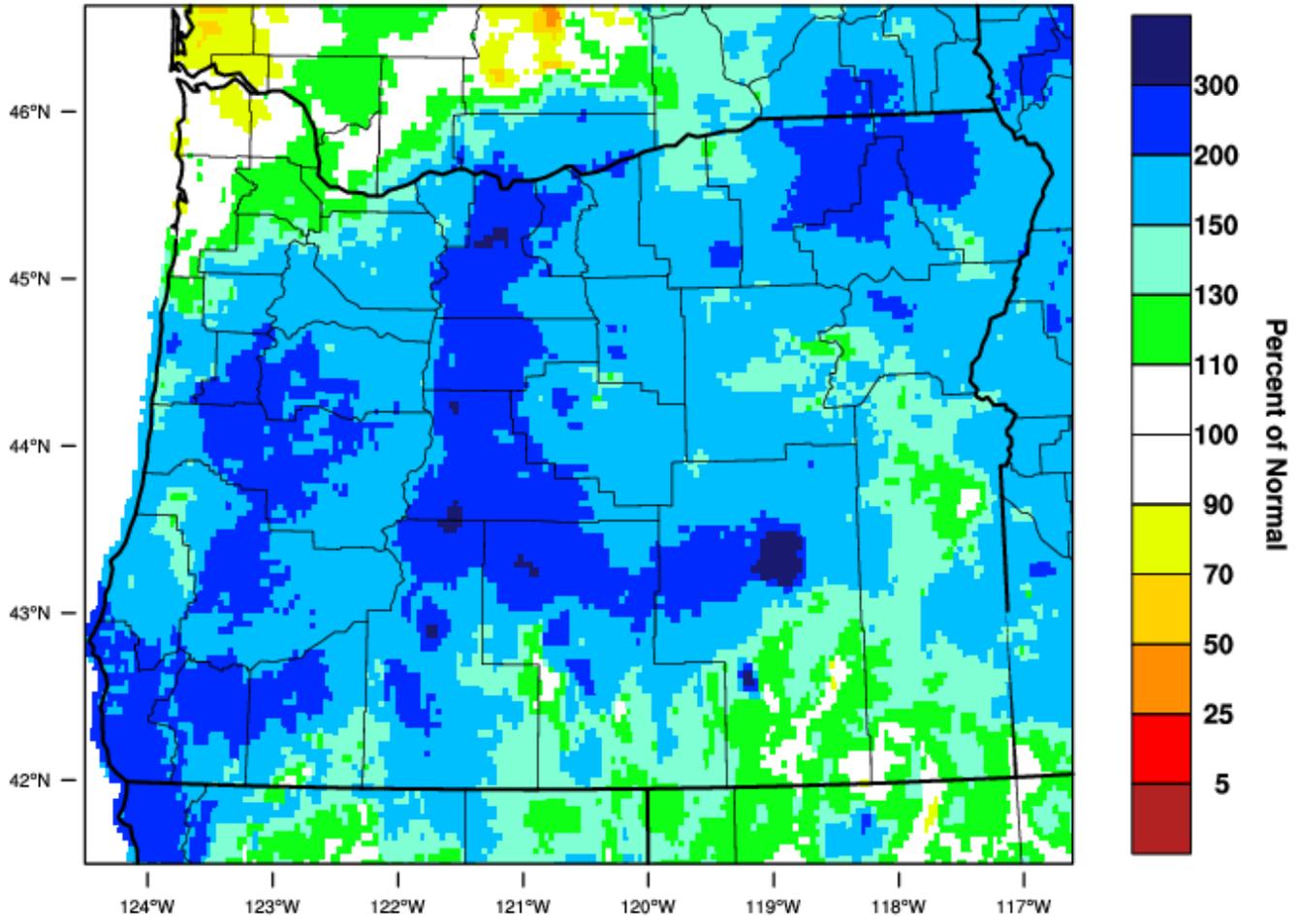
Precipitation – (1 Month) Percent of Normal

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PRISM > Precipitation Anomaly 1 Month > Oregon

Oregon - Precipitation

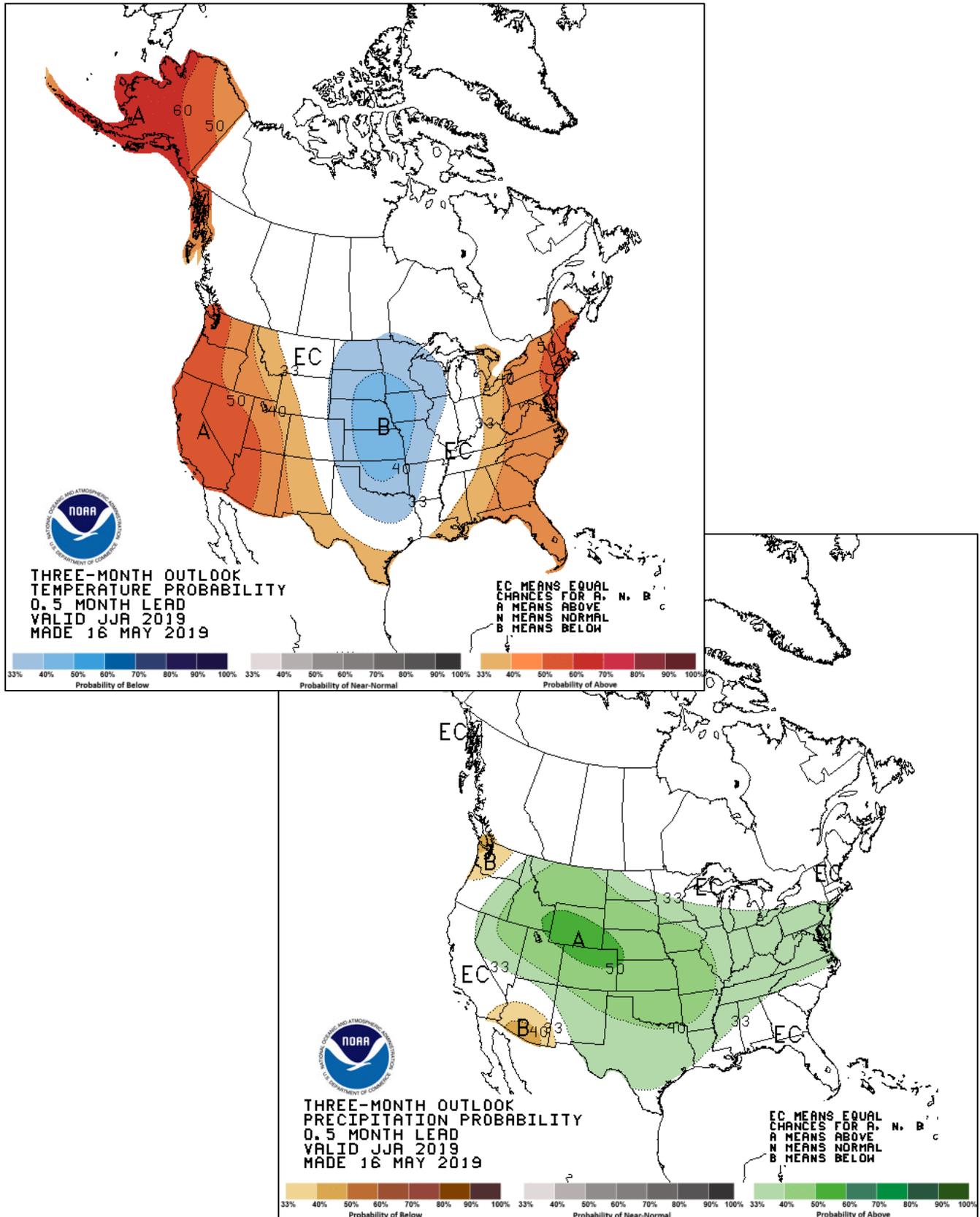
April 2019 Percent of 1981-2010 Normal



Three Month Temperature and Precipitation Outlook

June through August

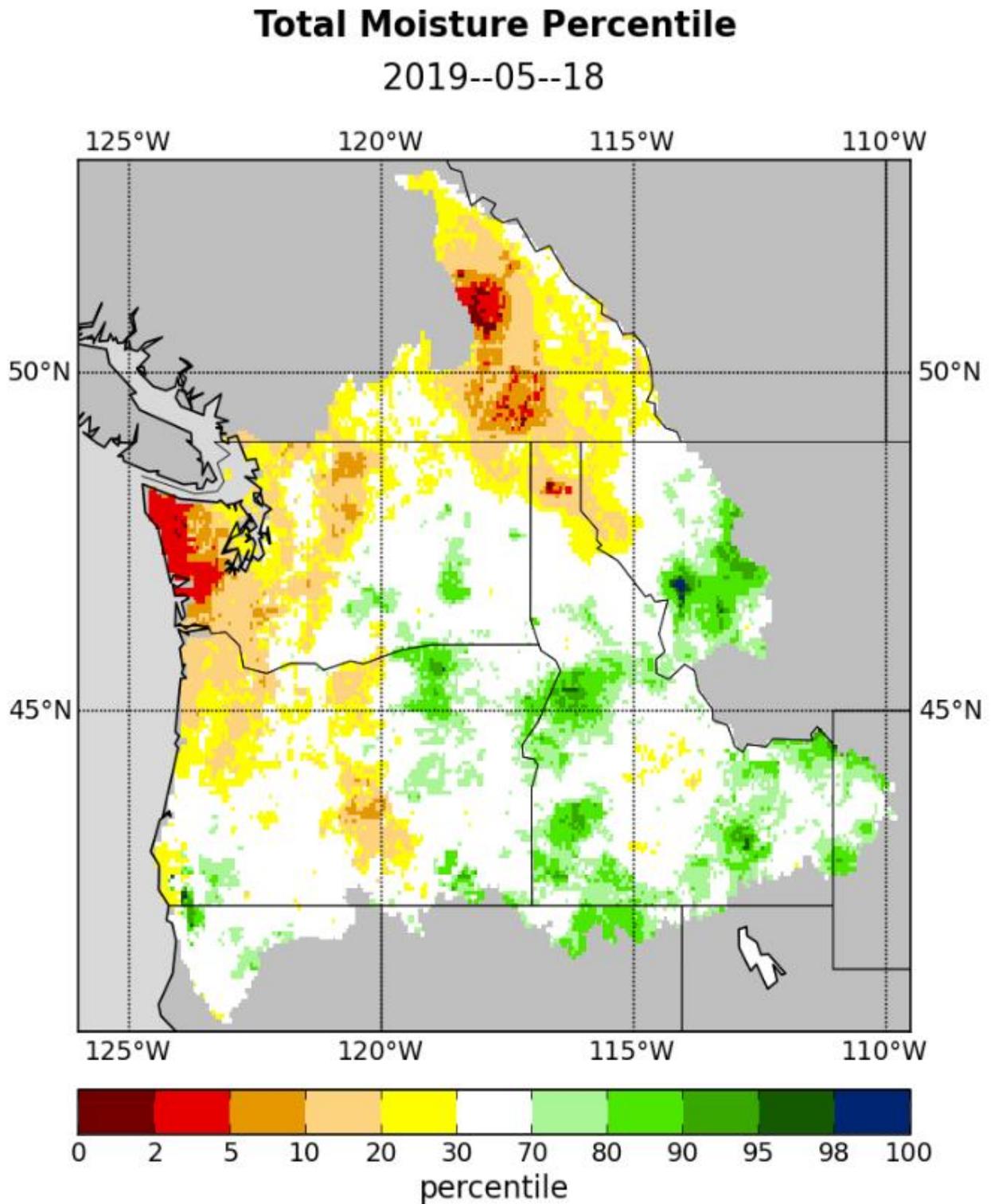
Website: http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1



Total Moisture - Percentile

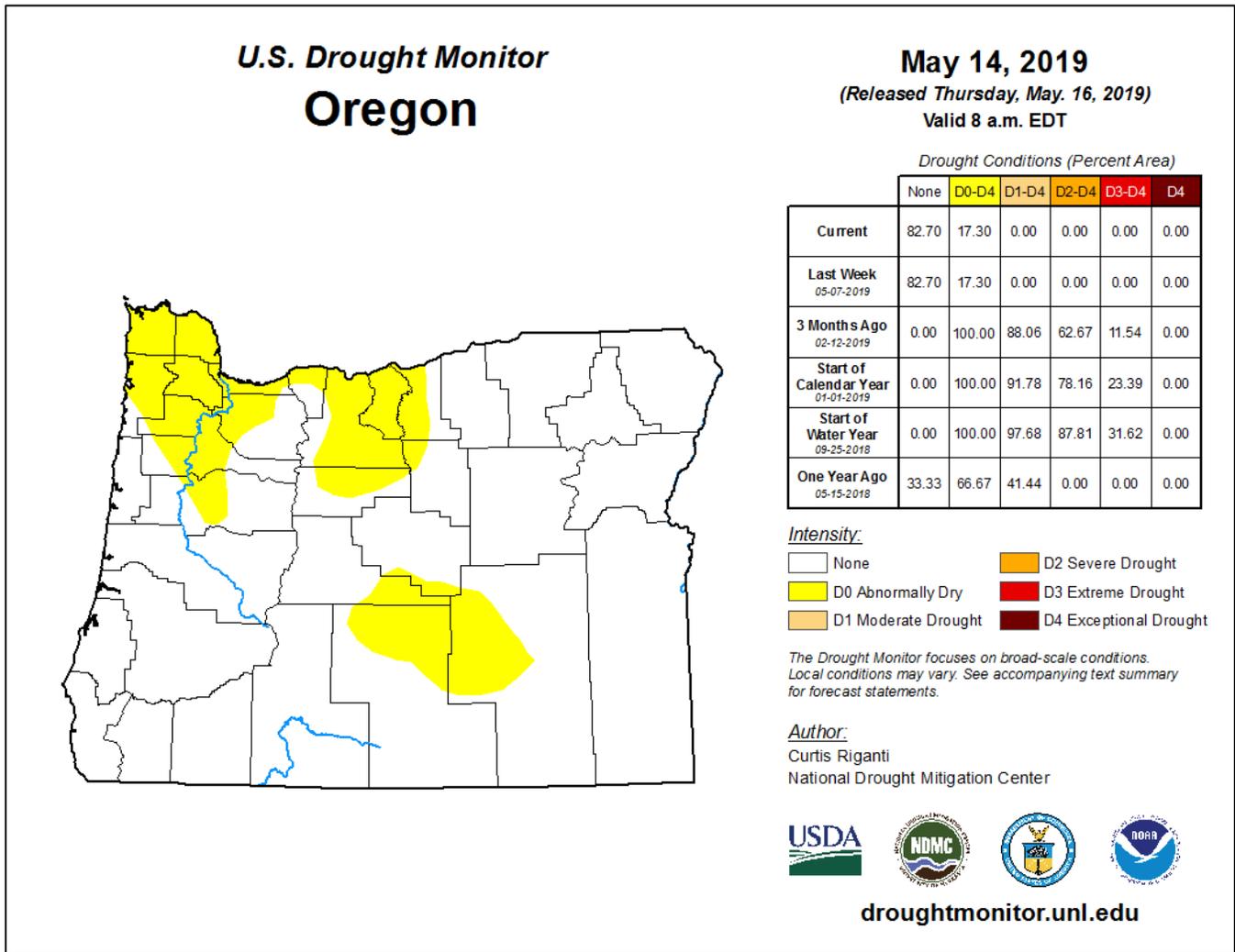
Total Moisture (STOT) is a moisture index calculated by adding Soil Moisture and Snow Water Equivalent. STOT represents the total water content of a region.

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

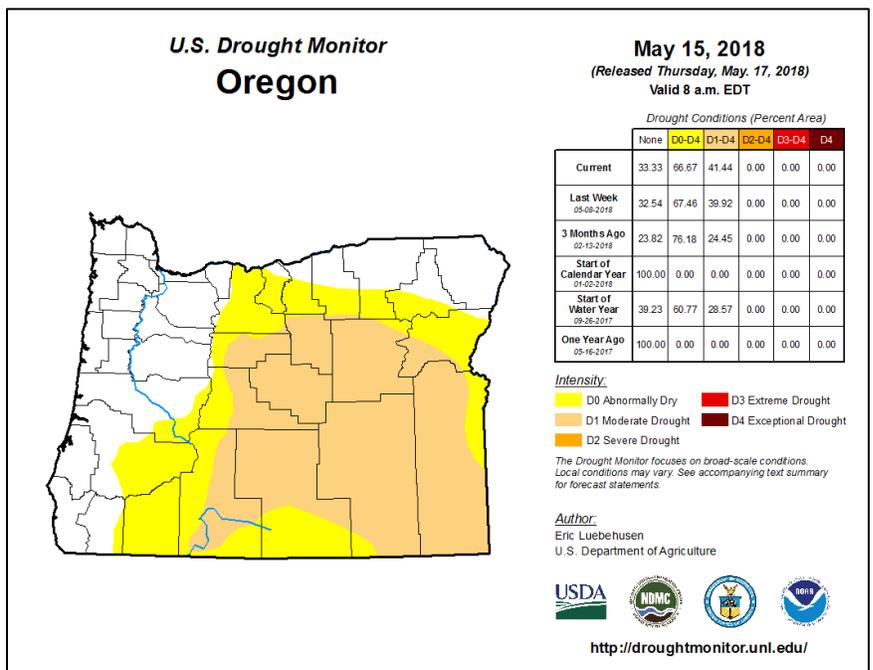


U.S. Drought Monitor for Oregon

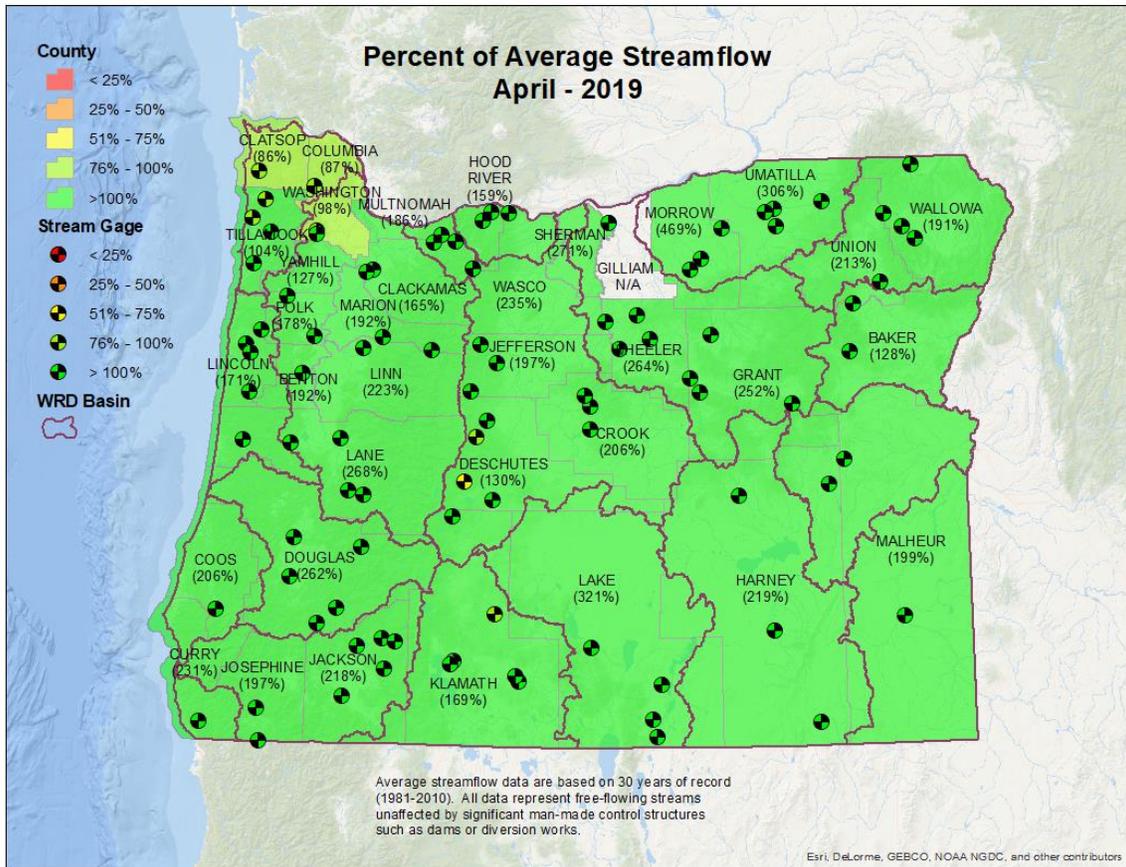
Website: <https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?OR>



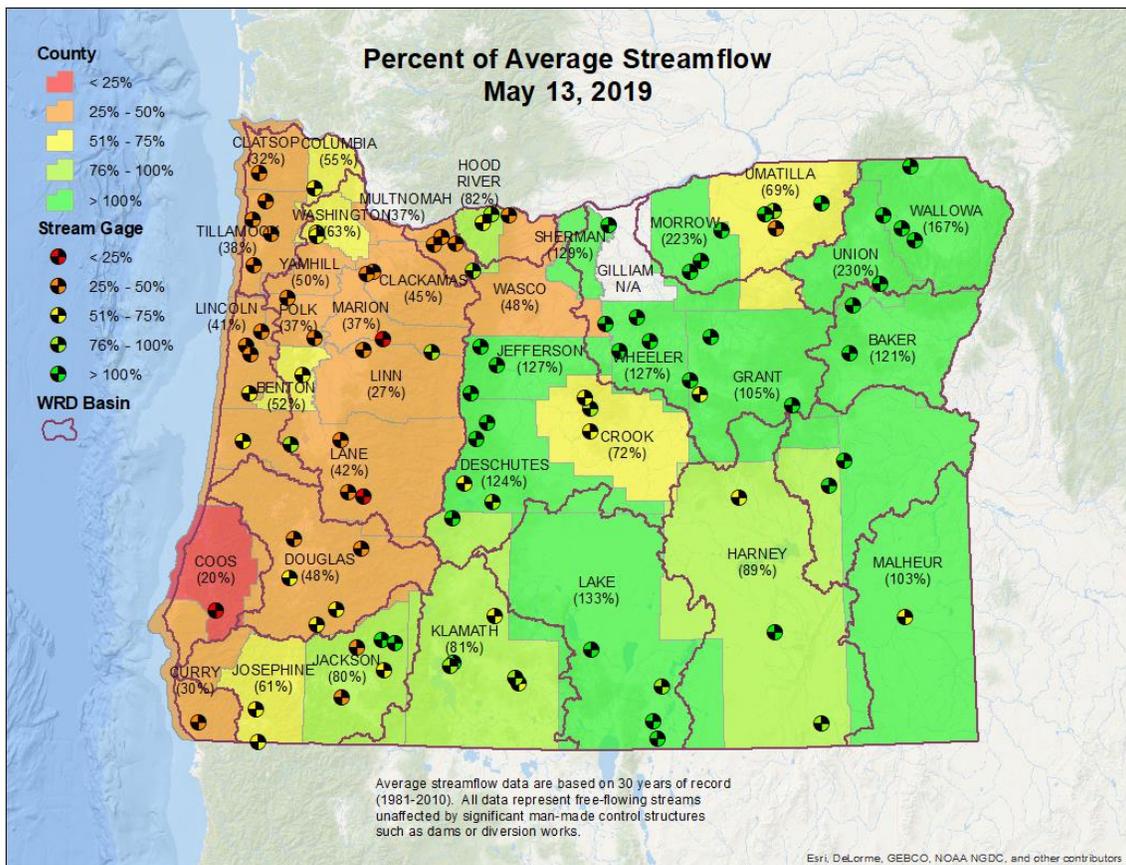
Compared to this time last year:



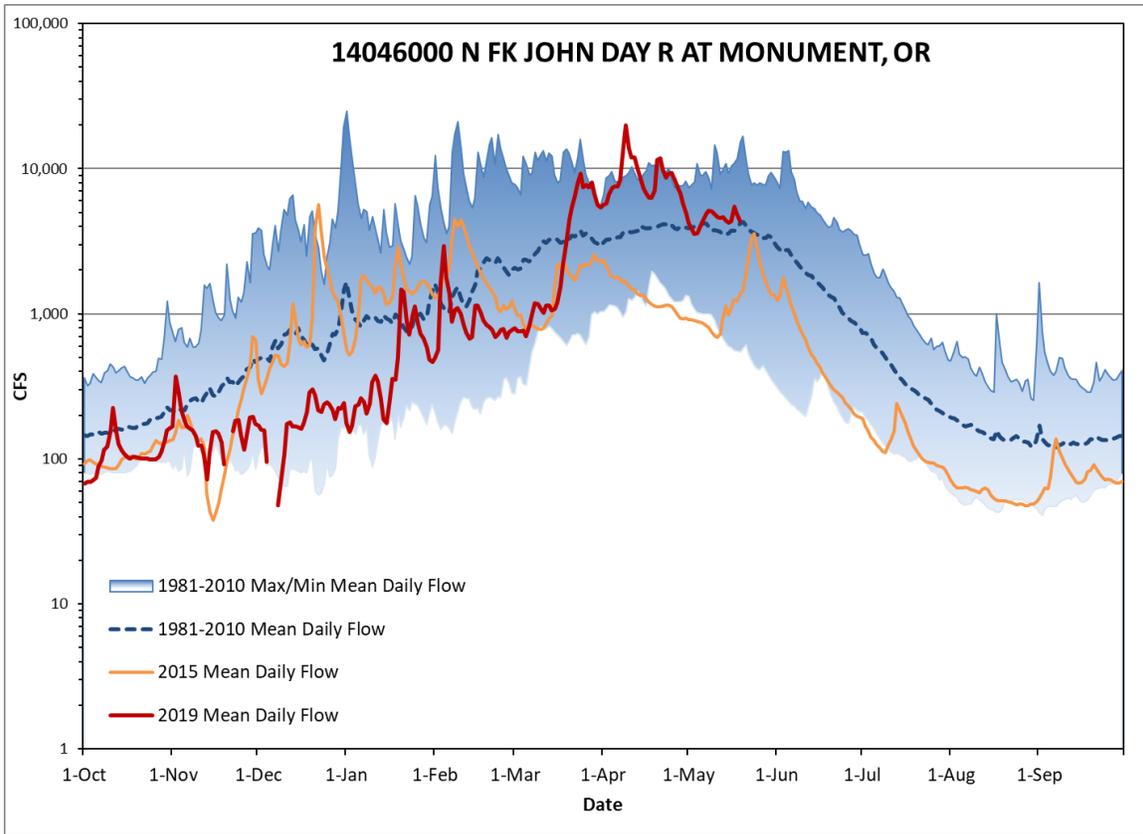
Streamflow Conditions by County - April



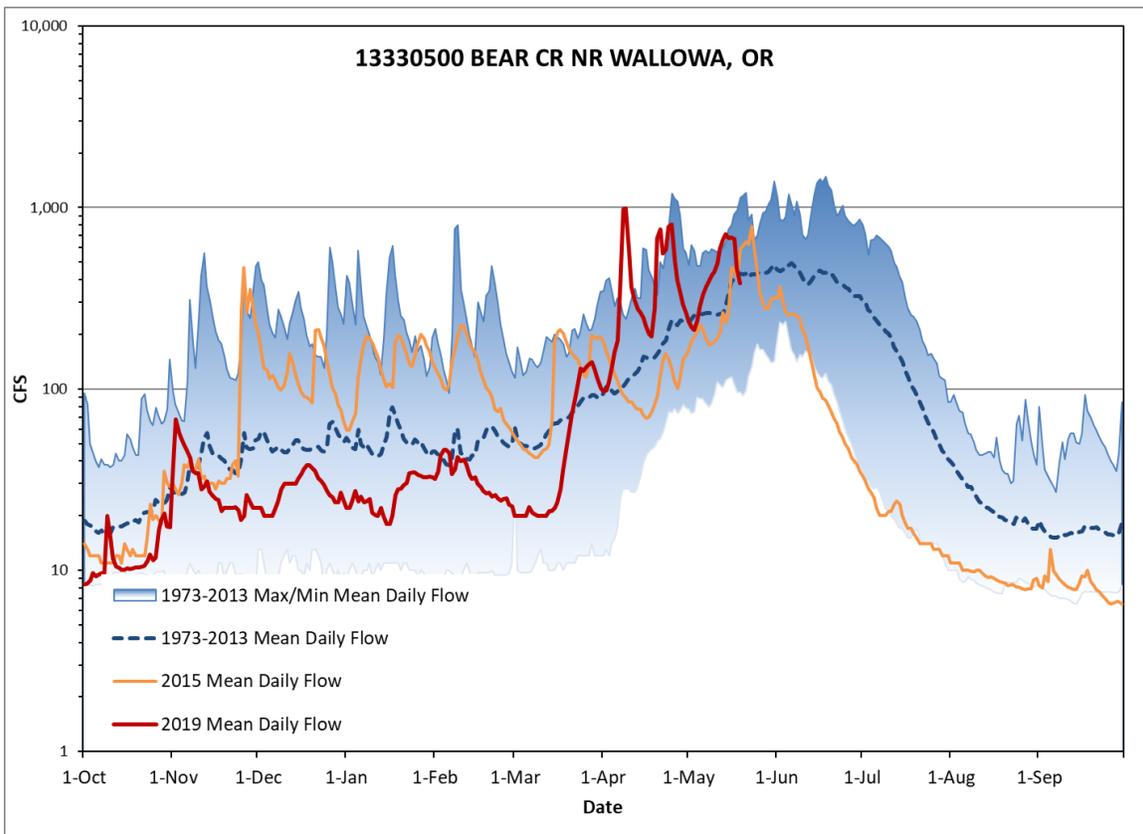
Streamflow Conditions by County – for May 13, 2019



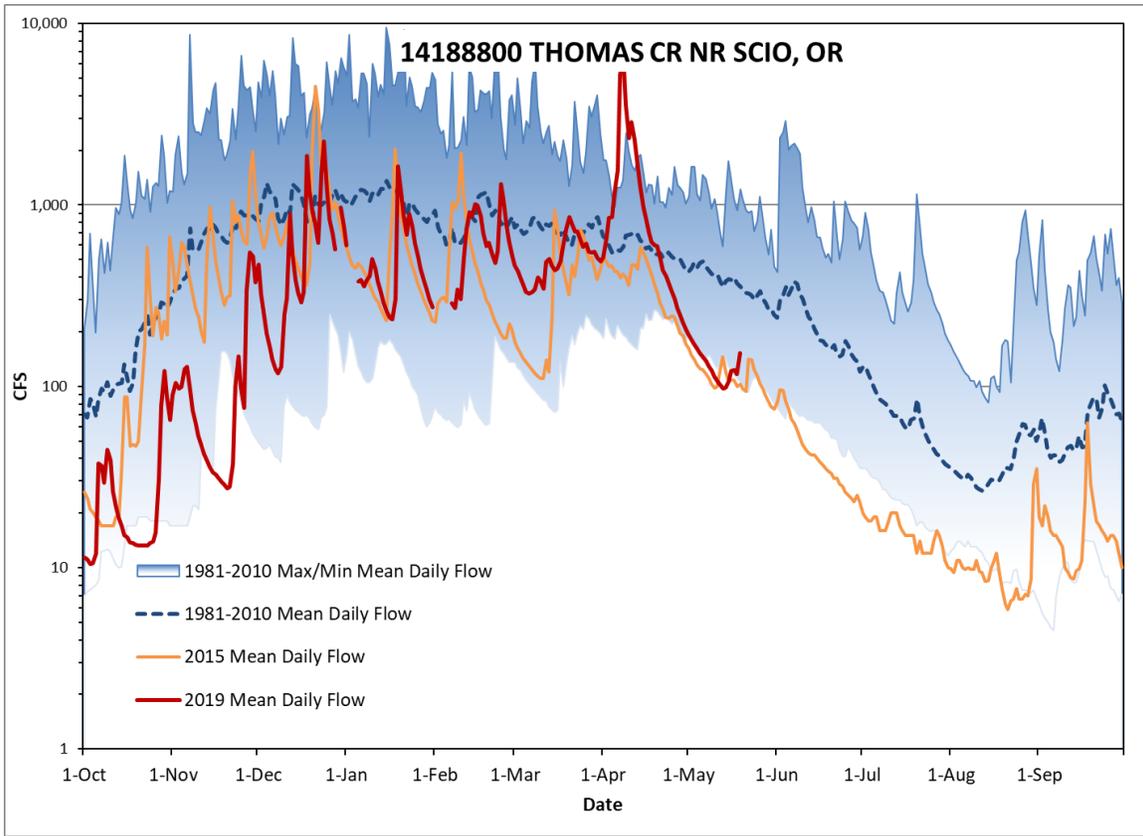
Streamflow Conditions – John Day Basin (Grant County)



Streamflow Conditions – Grande Ronde Basin (Wallowa County)



Streamflow Conditions – Willamette Basin (Linn County)



Streamflow Conditions – South Coast Basin (Coos County)

