# Oregon Water Conditions Report June 17, 2019



**Mountain snowpack at NRCS SNOTEL sites has melted out** in all basins on a close to normal schedule, with the exception of a few sites that melted up to 2 weeks earlier than normal.

**Oregon statewide water year precipitation at NRCS SNOTEL sites** is currently 94 percent of normal. The highest percent of normal values for water year precipitation have been in the Owyhee at 121 percent of normal, while the lowest value is in the Hood, Sandy, and Lower Deschutes basin at 80 percent of normal for the water year.

The final NRCS <u>Basin Outlook Report</u> for the water year is 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: <a href="https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/or/snow/?cid=nrcseprd854607">https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/or/snow/?cid=nrcseprd854607</a>

**Temperatures over the** <u>past two weeks</u> were above normal for this time of year across much of the state. The exceptions were areas along the coast, and parts of Grant and Malheur Counties where temperatures were normal to slightly below normal. For the <u>month of May</u>, temperatures were below-normal in the southeast corner of the state transitioning to well above normal for large areas of northwest Oregon.

Precipitation over the <u>past two weeks</u> has been below normal for this time of year. The exception was in Malheur County where precipitation was over two inches abovenormal. For the <u>month of May</u>, precipitation was normal to well above normal for regions east of the cascades and well below normal to the west.

**Over the next** 8 to 14 days, the NOAA Climate Prediction Center is forecasting belownormal temperatures with the highest probability in the southeast corner of the state. The temperature outlook for the same period is for above-normal precipitation probability across the state, with the highest likelihood in the eastern third 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.

<u>El Niño</u> conditions are predicted to persist through the summer and fall of 2019. During May, El Niño was reflected in the continued presence of above-average sea surface temperatures (SSTs) across most of the equatorial Pacific Ocean. For a more complete report, refer to the June 13, 2019 <u>diagnostic discussion</u> issued by the Climate Prediction

Center. The next diagnostics discussion is scheduled for July 11, 2019. Another source of information is the latest <u>ENSO blog</u> on the climate.gov website.

Statewide streamflows for May were over 90 percent of normal. This is significantly less than the 200 percent seen in April. Regionally for May, streamflow conditions were about 118 percent of normal east of the Cascades but only 54 percent to the west. Flows in the North Coast and Sandy were the lowest at about 48 percent of normal while the highest flows were in the Malheur at almost 160 percent of normal for the month. More recent data indicate a similar pattern where flows have dropped rapidly to very low levels in the North Coast, Mid Coast and Willamette Basins. For example, flows in the Siletz River in Lincoln County are similar to those typically found in late July. While to the east of the Cascades, streams continue to flow at close to normal.

<u>USACE Reservoirs:</u> Rogue: Currently the system is at 89 percent of capacity and 11 percent below rule curve. The Lost Creek project is 87 percent full and 13 percent below rule curve with outflows close to 2,870 cfs and inflows at about 1,600 cfs. Applegate is at 95 percent, 5 percent below rule curve. Applegate outflows are 350 cfs with inflows at 180 cfs.

<u>Willow Creek:</u> The project is almost full and just slightly below rule curve. Project outflows are currently about 8.7 cfs; inflows are close to 21 cfs.

<u>Willamette:</u> The project is currently at 75 percent of capacity and 25 percent below rule curve. Detroit and Fern Ridge are the closest to normal for this time of year at 97 percent of capacity and only 3 percent lower than normal. The flows in the Willamette River at Albany are about 7,950 cfs and flows at Salem are about 11,000 cfs.

<u>USBR Reservoirs:</u> <u>Umatilla River Basin:</u> McKay reservoir is at 96 percent of capacity. Inflows are currently about 5 cfs with outflows at about 200 cfs.

<u>Deschutes River Basin:</u> Ochoco and Prineville reservoirs are at 85 percent and 98 percent full respectively. Ochoco reservoir is still releasing minimum flows close to 10 cfs while Prineville reservoir is currently releasing about 200 cfs with inflows about 50 cfs. Crescent Lake is at 84 percent, Wickiup is at 52 percent and Crane Prairie is at 84 percent of capacity.

Malheur River Basin: Warm Springs, Beulah, and Bully Creek reservoirs range from 98 to 96 percent full.

Owyhee River Basin: Owyhee reservoir is currently full and releasing almost 300 cfs with inflows of about 1,450 cfs.

<u>Burnt and Powder River Basins:</u> Phillips and Unity reservoirs are at 71 percent and 94 percent full. Philips is releasing over 180 cfs with inflows of about 140 cfs while Unity is releasing 115 cfs. Unity is currently undergoing space and refill management measures due to elevated inflows and shrinking storage space.

<u>Tualatin River Basin:</u> Scoggins reservoir is at 94 percent of capacity and releasing over 140 cfs.

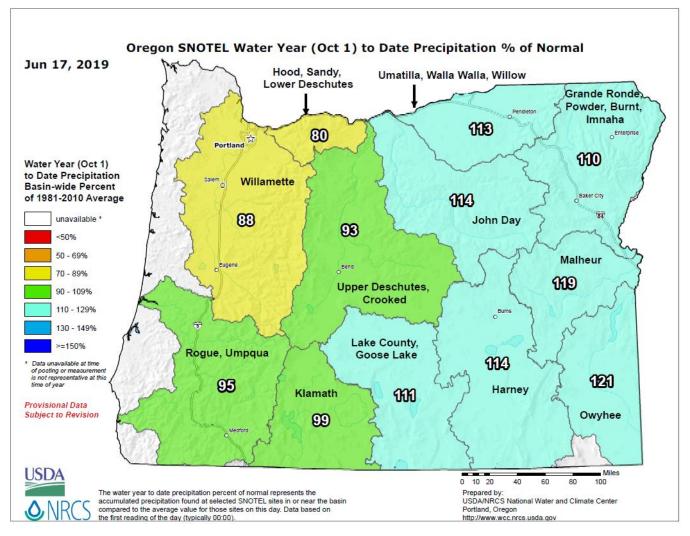
The most recent update to the <u>US Drought Monitor</u> is showing continued degradation in conditions in the North Coast, Willamette Valley and Mid Coast. The report now indicates that 17 percent of the state is listed as in D0 (Abnormally Dry) with just under 2 percent listed as D1 (Moderate Drought).

Wildfire potential through September is predicted to be above normal across western Oregon. 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 September where Above Normal significant large fire potential is expected.

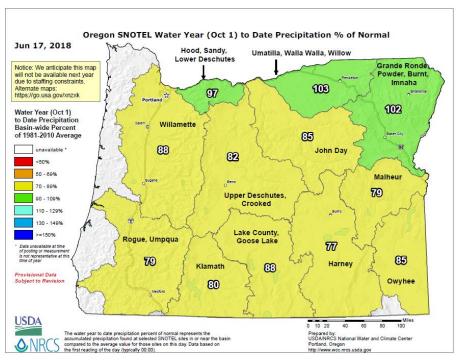
Long-range outlooks suggest fire danger will rise to be above-average during the summer, particularly west of the Cascades where outlooks suggest a warmer than average summer. Fire season will likely begin sooner than average in June for areas west of the Cascades.

More information can also be accessed through the Northwest Interagency Coordination Center <u>website</u>. Another recommended resource is the Oregon Office of Emergency Management's <u>RAPTOR</u> 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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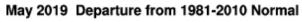
## Compared to this time last year -

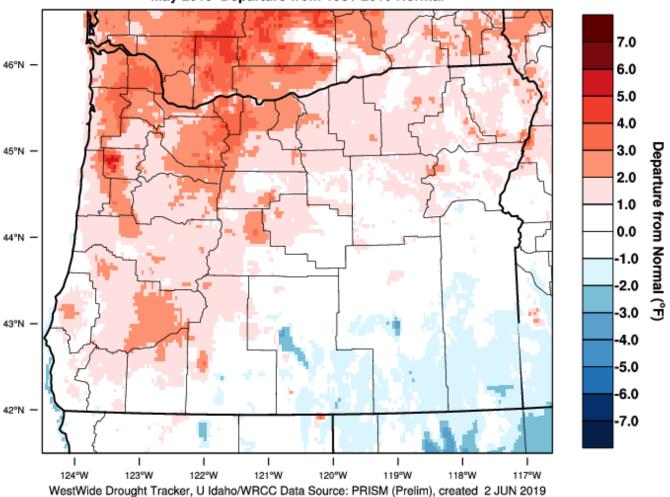


Website: <a href="https://wrcc.dri.edu/wwdt/index.php?region=or">https://wrcc.dri.edu/wwdt/index.php?region=or</a>

#### PRISM > Temperature Anomaly 1 Month > Oregon

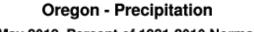
#### Oregon - Mean Temperature

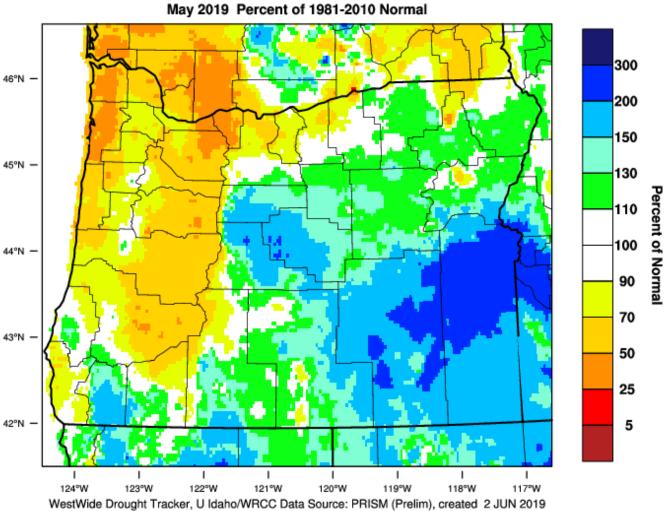




Website https://wrcc.dri.edu/wwdt/index.php?folder=pon1

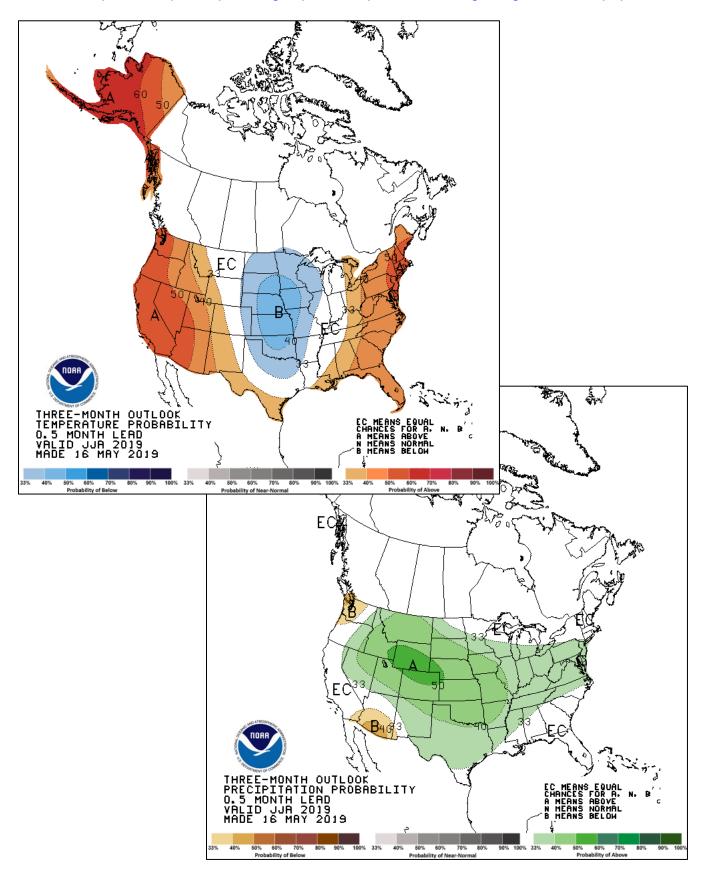
#### PRISM > Precipitation Anomaly 1 Month > Oregon





#### **June through August**

Website: <a href="http://www.cpc.ncep.noaa.gov/products/predictions/long\_range/seasonal.php?lead=1">http://www.cpc.ncep.noaa.gov/products/predictions/long\_range/seasonal.php?lead=1</a>

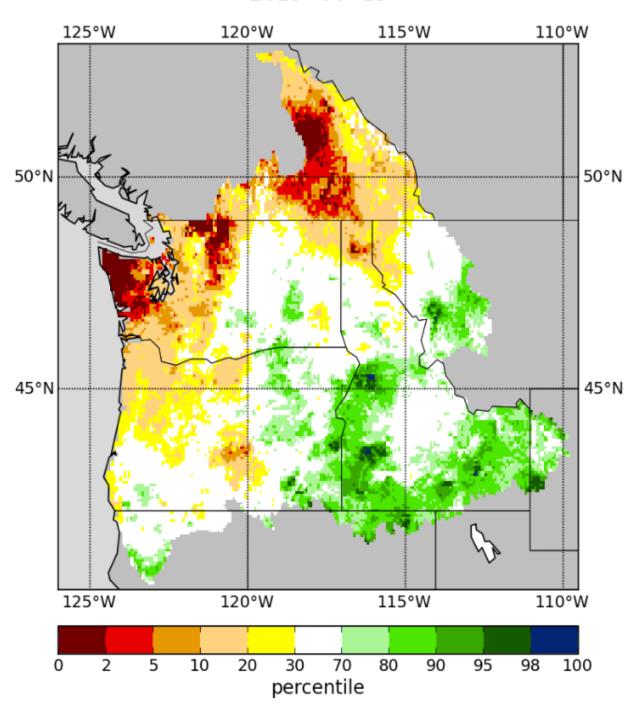


Total Moisture (STOT) is a moisture index calculated by adding Soil Moisture and Snow Water Equivalent. STOT represents the total water content of a region.

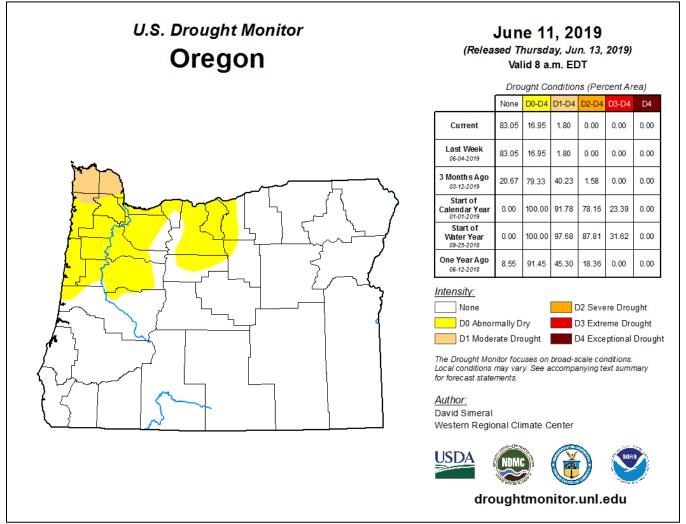
Website: <a href="http://www.hydro.ucla.edu/SurfaceWaterGroup/forecast/monitor">http://www.hydro.ucla.edu/SurfaceWaterGroup/forecast/monitor</a> pnw/index.shtml

#### **Total Moisture Percentile**

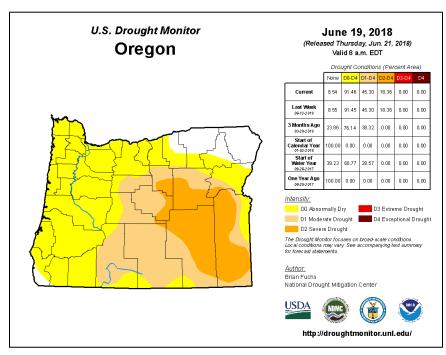
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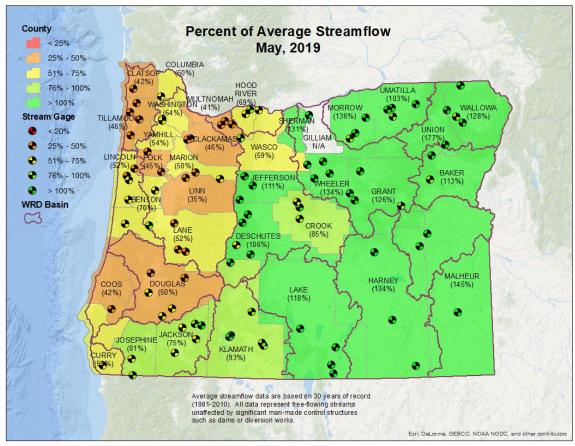
Website: <a href="https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?OR">https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?OR</a>



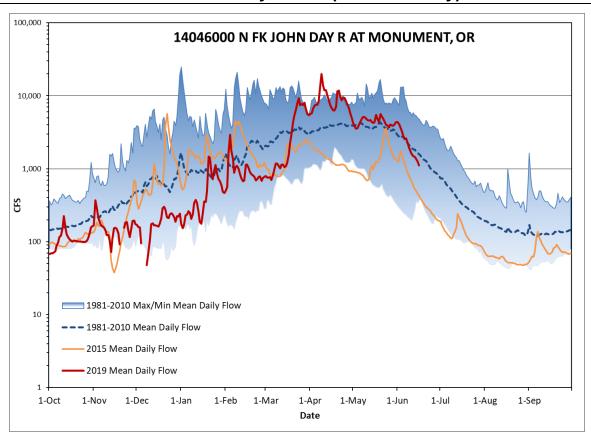
Compared to this time last year:



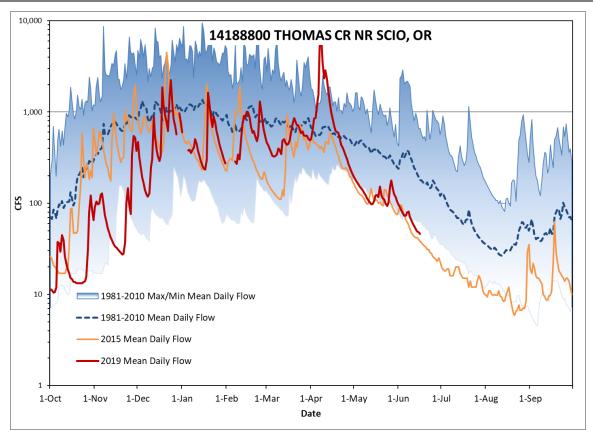
#### **Streamflow Conditions by County - May**



### Streamflow Conditions - John Day Basin (Grant County)



#### **Streamflow Conditions – Willamette Basin (Linn County)**



#### **Streamflow Conditions – Mid Coast Basin (Lincoln County)**

