Oregon Water Conditions Report July 2, 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 93 percent of normal. The highest percent of normal values for water year precipitation have been in the Owyhee at 119 percent of normal, while the lowest value is in the Hood, Sandy, and Lower Deschutes basin at 81 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.

Temperatures over the <u>past two weeks</u> were normal to cooler than normal west of the cascades and normal to warmer than normal to the west. For the <u>month of June</u>, temperatures were normal to below-normal in the southeast regions of the state transitioning to well above normal for large areas of western, central and north central Oregon.

Precipitation over the <u>past two weeks</u> has been below normal for this time of year. The exception was in central Oregon and a few isolated areas where precipitation was up to 6 tenths of an inch above-normal. For the <u>month of June</u>, precipitation was well below-normal across most of the state. In parts of the Rogue Basin precipitation was only 5 percent of normal.

Over the next <u>8 to 14 days</u>, the NOAA Climate Prediction Center is forecasting abovenormal temperatures across the state. The precipitation outlook for the same period ranges from above-normal probability in the southeast half of the state to below-normal in the northwest corner. The most recent <u>three month outlook</u> indicates increased probability of above-normal temperatures. The precipitation outlook for the same period is for equal chances of above or below normal precipitation for the most of the state with above normal probability in eastern region of state. The next long-term outlook will be issued on July 18, 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 June were 84 percent of normal. This is lower than the 92 percent seen in May. Regionally for June, streamflow conditions were about 110 percent of normal east of the Cascades but only 42 percent to the west. Flows in the Sandy Basin were

the lowest at about 36 percent of normal while the highest flows were in the Malheur at about 160 percent of normal for the month. More recent data indicate a continued pattern where flows have dropped to very low levels in the North Coast, Mid Coast, Willamette, Sandy, and Umpqua Basins. While to the east of the Cascades, streams continue to flow at close to normal rates.

USACE Reservoirs: Rogue: Currently the system is at 79 percent of capacity and 21 percent below rule curve. The Lost Creek project is 77 percent full and 23 percent below rule curve with outflows close to 2,000 cfs and inflows close to 1,300 cfs. Applegate is at 86 percent, 13 percent below rule curve. Applegate outflows are 325 cfs with inflows at 110 cfs.

<u>Willow Creek:</u> The project is 94 percent full and 6 percent below rule curve. Project outflows are currently about 14 cfs; inflows are close to 12 cfs.

<u>Willamette:</u> The project is currently at 69 percent of capacity and 31 percent below rule curve. Detroit and Fern Ridge are the closest to normal for this time of year at over 90 percent of capacity and 6 to 7 percent below normal. The flows in the Willamette River at Albany are about 4,500 cfs and flows at Salem are about 7,360 cfs.

USBR Reservoirs: Flood control operations ended in early June for most Reclamation reservoirs in Oregon. Most reservoirs filled to capacity 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 started drafting as demand for stored water has steadily increased with the warming temperatures. The reservoirs that filled remain to have storage levels in the upper quantile as compared to the historical average due in part to a late start in the irrigation season and relatively cooler temperatures.

<u>Umatilla River Basin</u>: McKay reservoir is at 89 percent of capacity. Inflows are currently about 10 cfs with outflows at about 150 cfs.

<u>Deschutes River Basin</u>: Ochoco and Prineville reservoirs are at 78 percent and 94 percent full respectively. Ochoco reservoir is releasing close to 15 cfs while Prineville reservoir is currently releasing over 220 cfs with inflows about 33 cfs.

Crescent Lake is at 75 percent, Wickiup is at 41 percent and Crane Prairie is at 85 percent of capacity.

<u>Malheur River Basin</u>: Warm Springs, Beulah, and Bully Creek reservoirs range from 91 to 87 percent full.

<u>Owyhee River Basin:</u> Owyhee reservoir is 97 percent full with inflows of about 670 cfs.

<u>Burnt and Powder River Basins</u>: Phillips and Unity reservoirs are at 69 percent and 85 percent full. Philips is releasing about 120 cfs with inflows below 70 cfs while Unity is releasing 93 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 88 percent of capacity and releasing over 100 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 24 percent of the state is listed as in D0 (Abnormally Dry) with almost 9 percent listed as D1 (Moderate Drought). Continued degradation is expected across western Oregon in the coming weeks.

Wildfire potential through September is predicted to be above normal across western Oregon. According to the <u>National Significant Wildland Fire Potential Outlook</u>, normal significant large fire potential is expected across the Northwest during the outlook period except west of the Cascade crest in Washington and Oregon where above-normal significant large fire potential is expected.

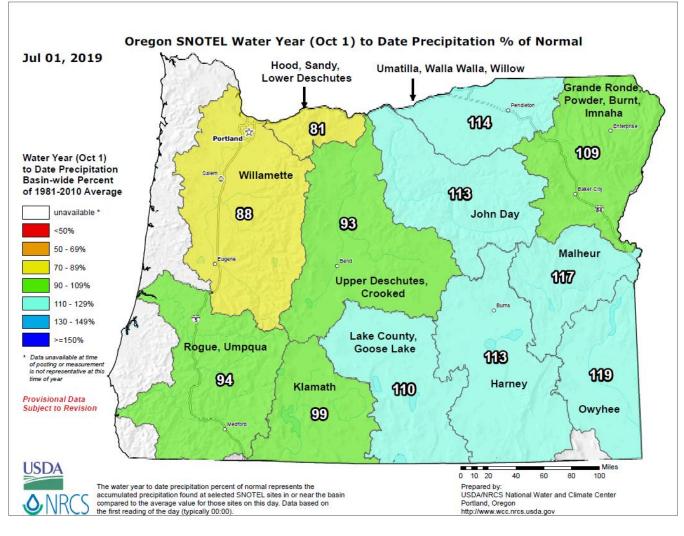
Long-range outlooks suggest fire danger will rise to be above-average during the summer, particularly west of the Cascades where outlooks suggest a warmer than average summer. Fire season will likely begin sooner than average for areas west of the Cascades.

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.

Data & Products:

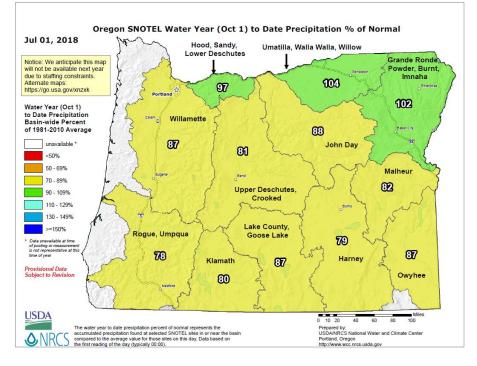
Precipitation (Mountain) - Percent of Normal	4
Temperature – (1 Month) Departure from Normal	
Precipitation – (1 Month) Percent of Normal	6
Three Month Temperature and Precipitation Outlook	
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U.S. Drought Monitor for Oregon	
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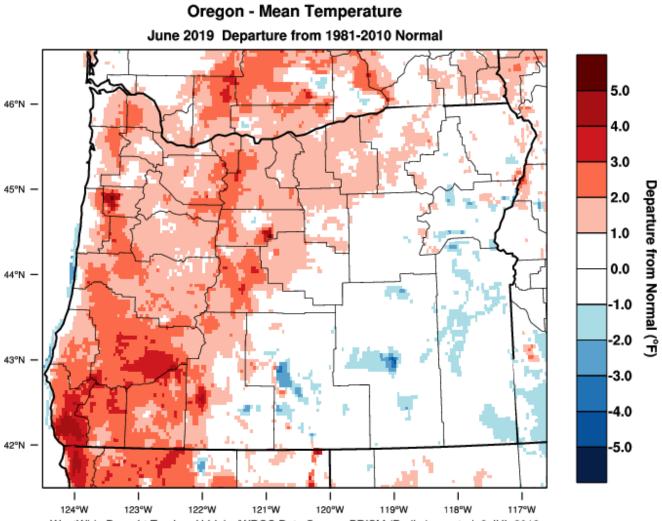
Compared to this time last

year -



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

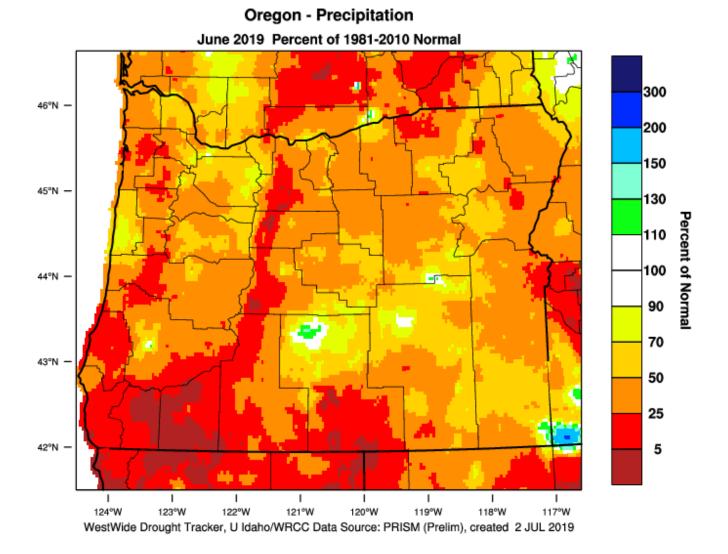
PRISM > Temperature Anomaly 1 Month > Oregon





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

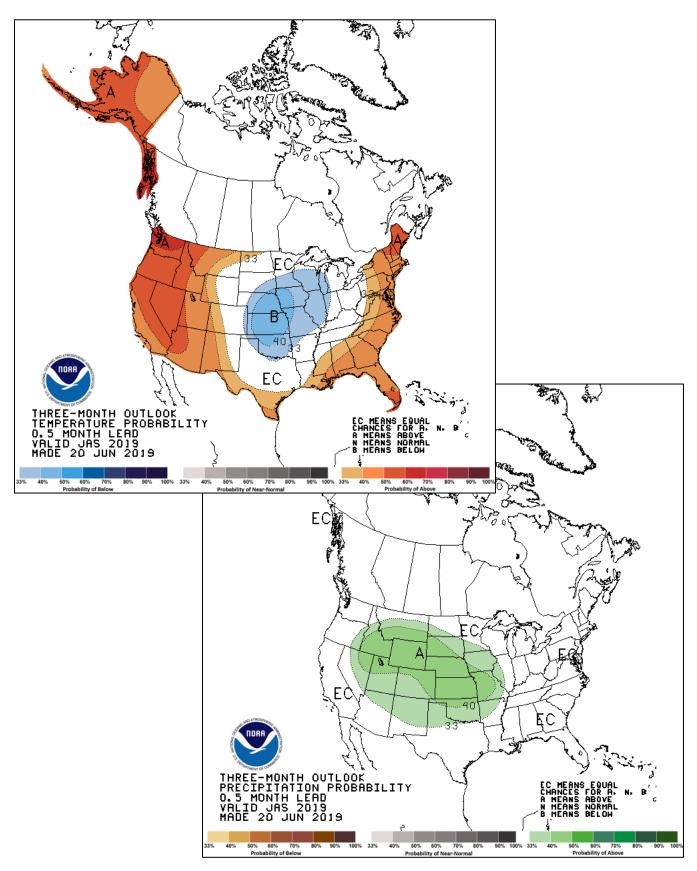
PRISM > Precipitation Anomaly 1 Month > Oregon



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July through September

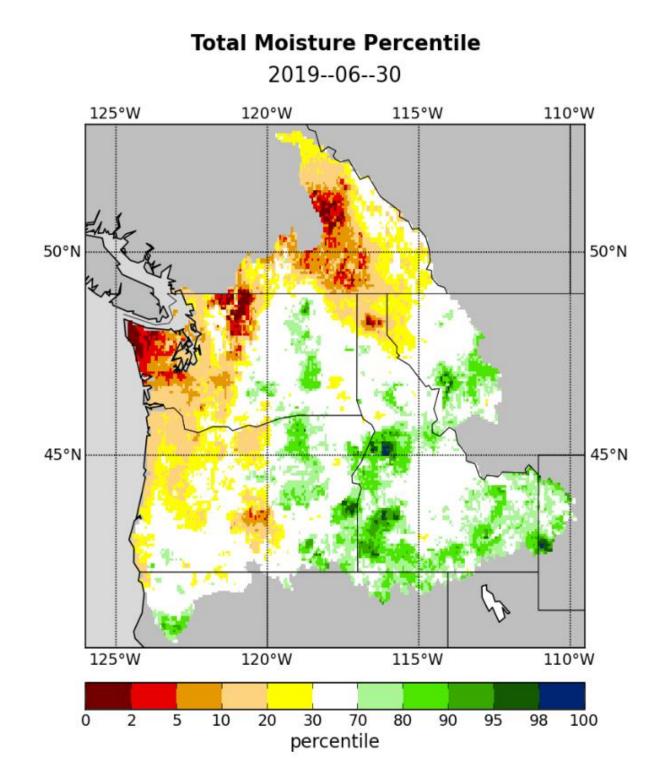
Website: http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1



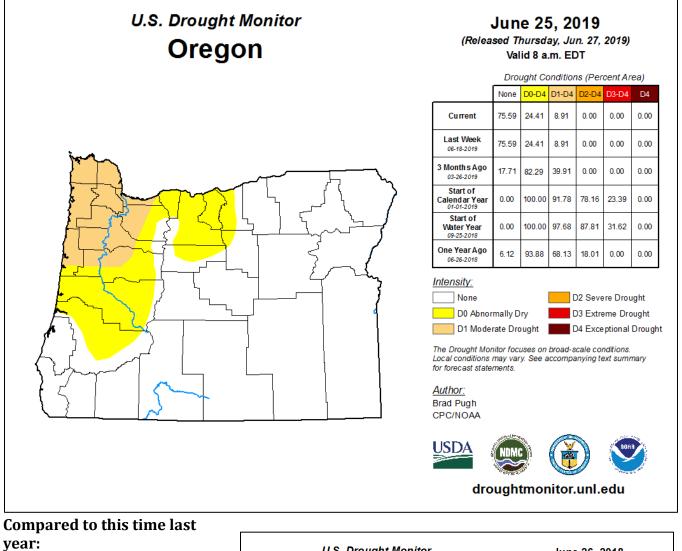
Total Moisture - Percentile

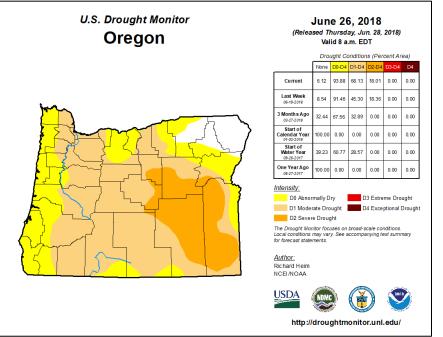
Total Moisture (STOT) is a moisture index calculated by adding Soil Moisture and Snow Water Equivalent. STOT represents the total water content of a region.

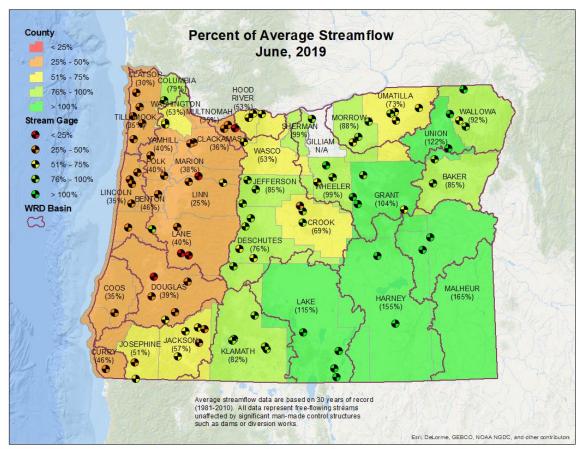
Website: http://www.hydro.ucla.edu/SurfaceWaterGroup/forecast/monitor pnw/index.shtml



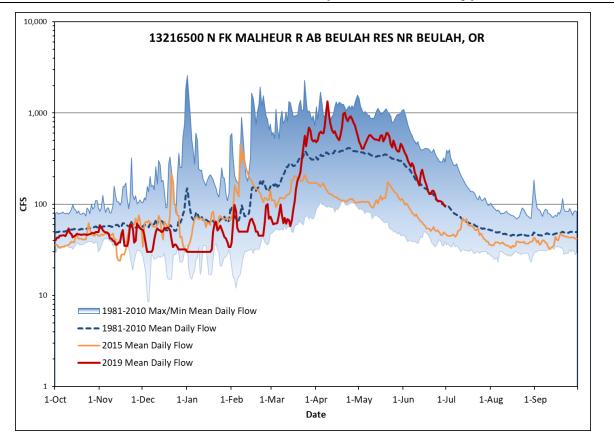




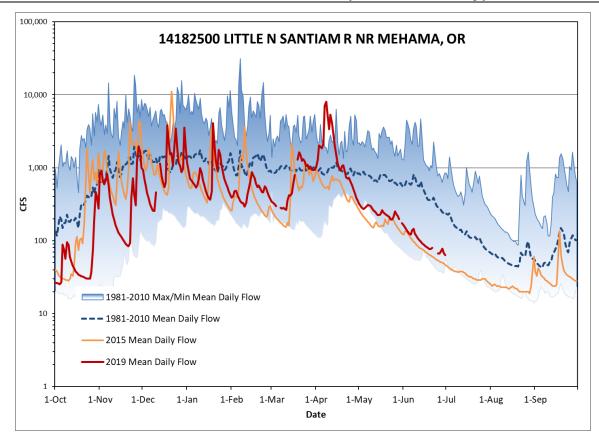




Streamflow Conditions – Malheur Basin (Malheur County)



Streamflow Conditions – Willamette Basin (Marion County)



Streamflow Conditions – North Coast Basin (Clatsop County)

