Oregon Water Conditions Report July 15, 2019



Oregon statewide water year precipitation at NRCS SNOTEL sites is currently 92 percent of normal. The highest percent of normal values for water year precipitation have been in the Owyhee at 118 percent, while the lowest value is in the Hood, Sandy, and Lower Deschutes Basin at 81 percent of normal for the water year.

Precipitation over the <u>past two weeks</u> has ranged from mostly below-normal for much of the state with areas of above-normal amounts in central Oregon and coastal regions. 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.

Temperatures over the <u>past two weeks</u> were normal to cooler than normal for most of the state. Exceptions were areas in the coastal regions and eastern Oregon where temperatures were warmer than normal. 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.

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 is for below-normal precipitation for the northwest corner of the state with equal chances of above or below normal precipitation across all but a narrow band along the eastern border where there are increased odds of above-normal precipitation. The most recent <u>three month</u> <u>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 regions of state. The next long-term outlook will be issued on July 18, 2019.

A transition from <u>El Niño</u> to ENSO-neutral is expected in the next month or two, with ENSO-neutral most likely to continue through Northern Hemisphere fall and winter. During June, El Niño was reflected in the continued presence of above average sea surface temperatures (SSTs) across the central equatorial Pacific Ocean. For a more complete report, refer to the July 11 2019 <u>diagnostic discussion</u> issued by the Climate Prediction Center. The next diagnostics discussion is scheduled for August 8, 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. Recent weather has helped to slow the decline of streamflows in western Oregon

USACE Reservoirs: Rogue: Currently the system is at 73 percent of capacity and 27 percent below rule curve. The Lost Creek project is 72 percent full and 28 percent below rule curve with outflows of about 1,750 cfs and inflows close to 1,240 cfs. Applegate is at 77 percent of capacity and 22 percent below rule curve. Applegate outflows are 320 cfs with inflows at 73 cfs.

<u>Willow Creek:</u> The project is 87 percent full and 13 percent below rule curve. Project outflows are currently about 10 cfs; inflows are close to 4 cfs.

<u>Willamette:</u> The project is currently at 65 percent of capacity and 35 percent below rule curve. Detroit and Fern Ridge are the closest to normal for this time of year at 88 and 92 percent of capacity and 12 to 8 percent below normal. The flows in the Willamette River at Albany are about 4,750 cfs and flows at Salem are about 7,200 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 82 percent of capacity. Inflows are currently about 5 cfs with outflows at about 190 cfs.

<u>Deschutes River Basin</u>: Ochoco and Prineville reservoirs are at 72 percent and 90 percent full respectively. Ochoco reservoir is releasing close to 15 cfs while Prineville reservoir is currently releasing over 225 cfs with inflows about 17 cfs.

Crescent Lake is at 73 percent, Wickiup is at 34 percent and Crane Prairie is at 85 percent of capacity.

<u>Malheur River Basin</u>: Warm Springs, Beulah, and Bully Creek reservoirs range from 84 to 77 percent full.

<u>Owyhee River Basin:</u> Owyhee reservoir is 92 percent full with inflows of about 420 cfs.

<u>Burnt and Powder River Basins:</u> Phillips and Unity reservoirs are at 63 percent and 77 percent full. Philips is releasing about 240 cfs with inflows below 30 cfs while Unity is releasing 90 cfs.

<u>Tualatin River Basin</u>: Scoggins reservoir is at 82 percent of capacity and releasing over 130 cfs.

The most recent update to the <u>US Drought Monitor</u> is showing continued degradation in conditions in the North Coast, Willamette Valley, Mid Coast, and Umpqua. The report now indicates that 34 percent of the state is listed as in D0 (Abnormally Dry) with almost 11 percent listed as D1 (Moderate Drought). Degradation is expected to slow slightly across western Oregon in response to the cooler weather seen in the past week.

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:

Page:

Precipitation (Mountain) - Percent of Normal	1
Femperature – (1 Month) Departure from Normal	5
Precipitation – (1 Month) Percent of Normal	3
Three Month Temperature and Precipitation Outlook	7
Total Moisture - Percentile	3
J.S. Drought Monitor for Oregon)
Streamflow Conditions by County – June10)
Streamflow Conditions – Malheur Lake Basin (Harney County))
Streamflow Conditions – Umatilla Basin (Umatilla County)	l
Streamflow Conditions – Umpqua Basin (Douglas County)	l



year -



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

PRISM > Temperature Anomaly 1 Month > Oregon



Oregon - Mean Temperature

Page 5

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

PRISM > Precipitation Anomaly 1 Month > Oregon



Oregon - Precipitation

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 Lake Basin (Harney County)



Streamflow Conditions – Umatilla Basin (Umatilla County)



Streamflow Conditions – Umpqua Basin (Douglas County)

