Oregon Water Conditions Report August 24, 2020



Current Oregon statewide water year precipitation at NRCS SNOTEL sites remains below average at 82 percent. Basin precipitation values range from a low of 68 percent of average in the Klamath Basin to a high of 101 and 102 percent of average in the Umatilla, Walla Walla, Willow, and Grande Ronde, Powder, Burnt, Imnaha basins.

Precipitation over the <u>past two weeks</u> has been below average across most the state. The most noteworthy areas were parts of Wallowa, Klamath and Hood River counties where precipitation was up to 0.6 inches below normal. For the <u>month of July</u>, precipitation was well below normal across much of Oregon.

Temperatures over the <u>past two weeks</u> have been warmer than normal across most of the state. For the <u>month of July</u>, temperatures were close to normal with the exception of areas in southwest Oregon where temperatures were 2 to 3 degrees above normal.

Over the next <u>8 to 14 days</u>, the NOAA Climate Prediction Center is forecasting abovenormal temperatures along with below-normal precipitation. The most recent <u>three-</u> <u>month outlook</u> (September through November) indicates an increased probability of abovenormal temperatures. Above-normal precipitation is forecast for the northern third of the state with equal chances of above or below-normal precipitation in the southern two thirds. The next long-term outlook is scheduled to be issued on September 17, 2020.

There is a ~60% chance of <u>La Niña</u> **development during Northern Hemisphere fall** 2020 and continuing through winter 2020-21 (~55% chance). The models are split between La Niña and ENSO-neutral during the fall and winter, but slightly favor La Niña from the August-October through the November-January seasons. For a more complete update, refer to the August 13, 2020 <u>diagnostic discussion</u> issued by the Climate Prediction Center. The next diagnostic discussion is scheduled for September 10, 2020. Another source of information is the latest <u>ENSO blog</u> on the climate.gov website.

Statewide streamflow conditions for July were lower than normal at 80 percent.

Values for July ranged from a high of close to 130 percent of normal in the Umatilla and Grande Ronde basins to a low of only 30 and 40 percent in the Goose and Summer Lakes and Powder basins respectively. Recent data indicates that flows are trending even lower with flows in western Oregon at 88percent of average, and 60 percent of average east of the Cascades. The exceptions continue to be parts of the Umatilla and Grande Ronde basins where flows remain above normal for this time of year.

USACE Reservoirs:

<u>Rogue:</u> The Rogue system is 50 percent full and 50 percent below rule curve. Lost Creek is 53 percent full, 37 percent below rule curve, releasing close to 2,030 cfs with inflow of around 950 cfs. Applegate is only 35 percent full, 65 percent below rule curve and releasing a minimum flow of close to 150 cfs.

<u>Willamette:</u> The Willamette system is 68 percent full and 32 percent below rule curve. Only Blue River and Foster projects are within 5 percent of full. The flow in the Willamette River at Salem is 7,720 cfs and 5,800 cfs at Albany.

<u>Willow Creek</u>: Willow Creek is 39 percent full, 61 percent below rule curve. Inflow is currently close to 0 cfs with outflow close to 21 cfs.

<u>USBR Reservoirs:</u> Refer to <u>graphic</u> on page 11.

The most recent update to the <u>US Drought Monitor</u> has shown some degradation in conditions over the past two weeks. Ninety one (91) percent of the state is in D0 (abnormally dry) conditions, 76 percent listed as in D1 (moderate drought), 53 percent is listed as in D2 (severe drought) and over 16 percent is in D3 (extreme drought).

Governor Brown declared <u>drought emergencies</u> in 14 counties so far this year. Klamath County was declared in early March, followed by Curry County in April, Jackson County in early May and later by Coos County. Most recently, Governor Brown has declared drought emergencies in Crook, Deschutes, Douglas, Gilliam, Jefferson, Josephine, Lake, Morrow Wasco and Wheeler counties.

An above average risk of large fires is expected in central, southwest, and southeast Oregon through August. By September, large fire potential will fall back to normal across the northwest geographic area. For more detail, see the latest report from the <u>National</u> <u>Interagency Fire Center</u> for the August through September outlooks. Refer the <u>InciWeb</u> incident reporting system for the latest news and updates. The Oregon Department of Forestry's <u>Wildfire News</u> page also features news and updates on ODF managed lands.

The Oregon Office of Emergency Management has assembled a <u>hydrology/meteorology</u> <u>dashboard</u> featuring many of the data sources used to generate this report. Use the selection arrows at the bottom of your browser to navigate to the various data sources.

Data & Products:

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Compared to this time <u>last year</u>:



Precipitation – (1 Month) Percent of Normal

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



Oregon - Precipitation July 2020 Percent of 1981-2010 Normal

Precipitation anomaly since the beginning of the water year:



Temperature – (1 Month) Departure from Normal

Website: https://wrcc.dri.edu/wwdt/index.php?folder=mdn1



Oregon - Mean Temperature

Temperature anomaly since the beginning of the water year:



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September through November

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



Satellite-Based Soil Moisture Percentile

The maps are based on data from NASA's Gravity Recovery and Climate Experiment (GRACE; 2002-2017) and GRACE Follow On (GRACE-FO; 2018-present) satellites, which detect small changes in the Earth's gravity field caused by the redistribution of water on and beneath the land surface.

Website: <u>https://nasagrace.unl.edu/Default.aspx</u>



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



Compared to this time last year:



Streamflow Conditions by County for the month of July, 2020



Streamflow Conditions – 7-day average





August 23 Reservoir Storage