Oregon Water Conditions Report August 10, 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 and 69 percent of average in the Klamath and Lake County, Goose basin to a high of 103 and 104 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 slightly below average across most the state. The most noteworthy areas were parts of Wallowa County where precipitation was almost an inch below normal. For the <u>month of July</u>, precipitation was well below normal across much of Oregon. Most noteworthy were areas in Malheur County where precipitation was close to 300 percent of normal.

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. The precipitation forecast is for equal chances of above or below normal precipitation in the western half of the state with below normal precipitation to the east. The most recent <u>three-month outlook</u> (August through October) indicates an increased probability of above-normal temperatures. For the same period, equal chances of above or below-normal precipitation is forecast for the entire state. The next long-term outlook is scheduled to be issued on August 20, 2020.

ENSO-neutral is favored to continue through the summer, with a 50-55 percent chance of La Niña development during Northern Hemisphere fall 2020 and continuing through winter 2020-21 (~50 percent chance). During June 2020, sea surface temperatures (SST) were near average in the east-central equatorial Pacific and below average in the eastern Pacific. For a more complete update, refer to the July 9, 2020 diagnostic discussion issued by the Climate Prediction Center. The next diagnostic discussion is scheduled for August 13, 2020. Another source of information is the latest ENSO blog 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 58 percent full and 42 percent below rule curve. Lost Creek is 62 percent full, 38 percent below rule curve and releasing close to 1,600 cfs. Applegate is only 40 percent full, 60 percent below rule curve and releasing a minimum flow of close to 150 cfs. Applegate did not fill this year, and will probably be on or close to minimum flow for most of the summer.

<u>Willamette:</u> The Willamette system is 76 percent full and 24 percent below rule curve. Milder weather has helped to lessen demand on several project reservoirs. The projects within 5 percent of full are Foster, Dorena, and Blue River. The flow in the Willamette River at Salem is 7,700 cfs and 5,650 cfs at Albany.

<u>Willow Creek</u>: Willow Creek is 57 percent full, 43 percent below rule curve. Inflow is currently close to 0 cfs with outflow close to 21 cfs.

USBR Reservoirs:

<u>Tualatin River Basin</u>: Scoggins Reservoir is at 72 percent of capacity and drafting with inflows around 6 cfs and outflows around 144 cfs.

<u>Umatilla River Basin</u>: McKay Reservoir is at 69 percent of capacity and drafting with inflows around 2 cfs and outflows around 180 cfs.

<u>Deschutes River Basin</u>: Prineville Reservoir is at 46 percent of capacity and drafting with inflows around 1 cfs and outflows around 215 cfs. Ochoco Reservoir is at 27 percent of capacity and drafting with inflows around 0 cfs and outflows around 10 cfs. Crescent Lake is at 41 percent, Wickiup reservoir is at 15 percent and Crane Prairie reservoir is at 73 percent of capacity.

<u>Malheur River Basin</u>: Warm Springs Reservoir is at 45 percent of capacity and drafting with inflows around 2 cfs and outflows of around 600 cfs. Beulah Reservoir is at 38 percent of capacity and drafting with inflows around 46 cfs and outflows around 240 cfs. Bully Creek Reservoir is at 52 percent of capacity and drafting with inflows close to 0 cfs and outflows around 15 cfs.

<u>Owyhee River Basin</u>: Owyhee Reservoir is at 59 percent of capacity and drafting with current inflows around 107 cfs and outflows around 206 cfs.

<u>Burnt and Powder River Basins</u>: Unity Reservoir is at 54 percent of capacity and drafting with inflows around 7 cfs and outflows around 125 cfs. Phillips Reservoir is at 31 percent of capacity and drafting with inflows around 1 cfs and outflows around 376 cfs.

The most recent update to the <u>US Drought Monitor</u> has been holding steady 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), 50 percent is listed as in D2 (severe drought) and 12.5 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

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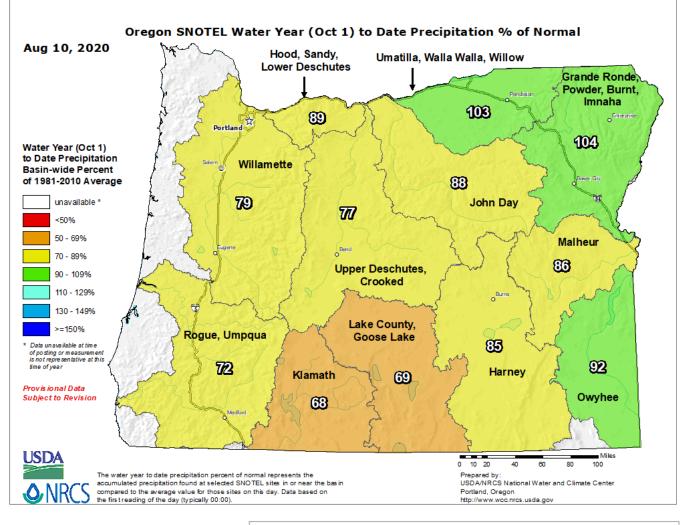
emergencies in Crook, Deschutes, Douglas, Gilliam, Jefferson, Josephine, Lake, Morrow Wasco and Wheeler counties.

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. The lightning-caused Neals Hill fire was reported on Wednesday, August 5. Located approximately 25 miles southeast of Princeton, Oregon, near Folly Farm and Hwy 78/East Steens Road, the fire is burning in mostly in short grass and juniper. 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.

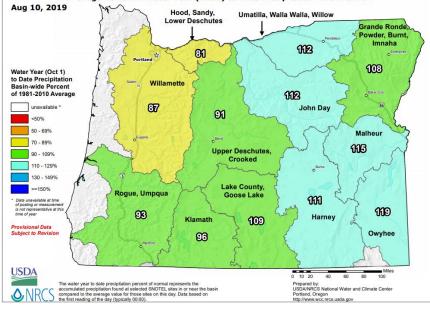
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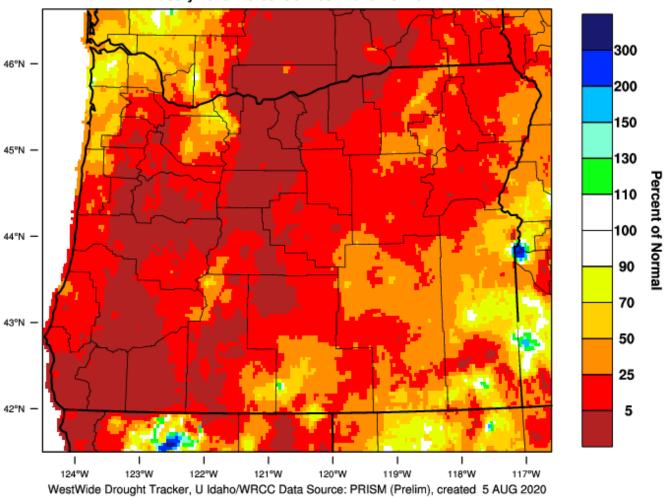
Compared to this time <u>last</u> <u>vear</u>:

Oregon SNOTEL Water Year (Oct 1) to Date Precipitation % of Normal



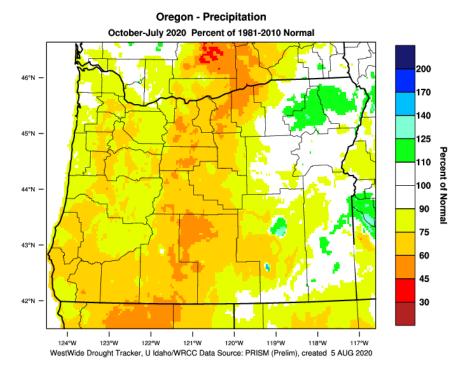
Precipitation – (1 Month) Percent of Normal

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



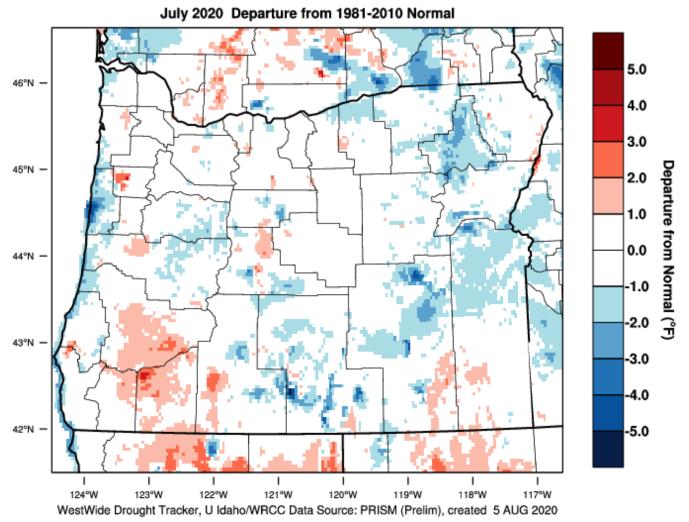
Oregon - Precipitation July 2020 Percent of 1981-2010 Normal

Precipitation anomaly since the beginning of the water year:



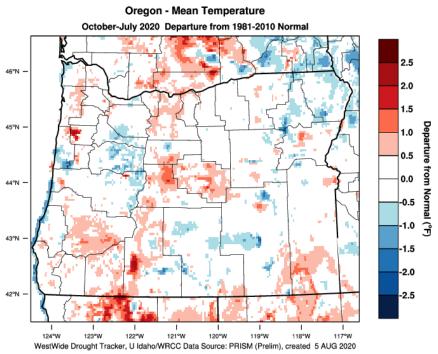
Temperature – (1 Month) Departure from Normal

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



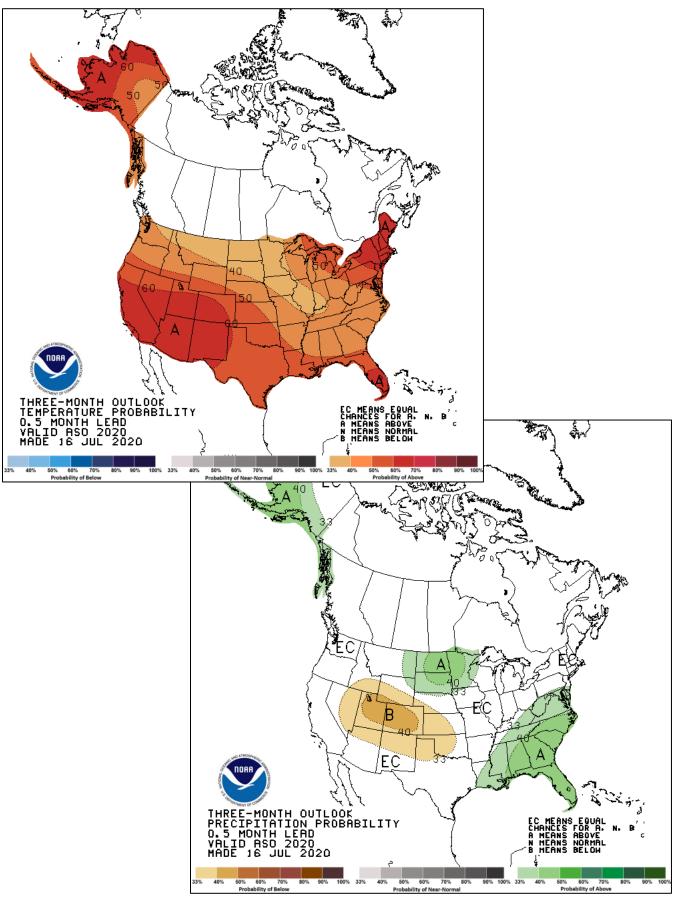
Oregon - Mean Temperature

Temperature anomaly since the beginning of the water year:



August through October

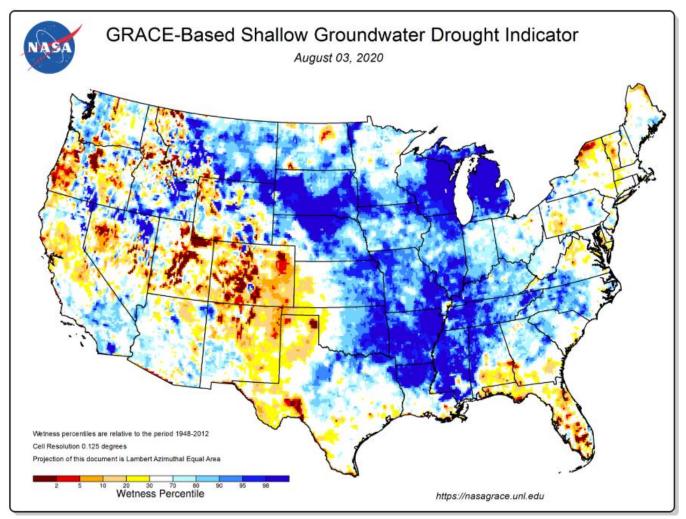
Website: http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1



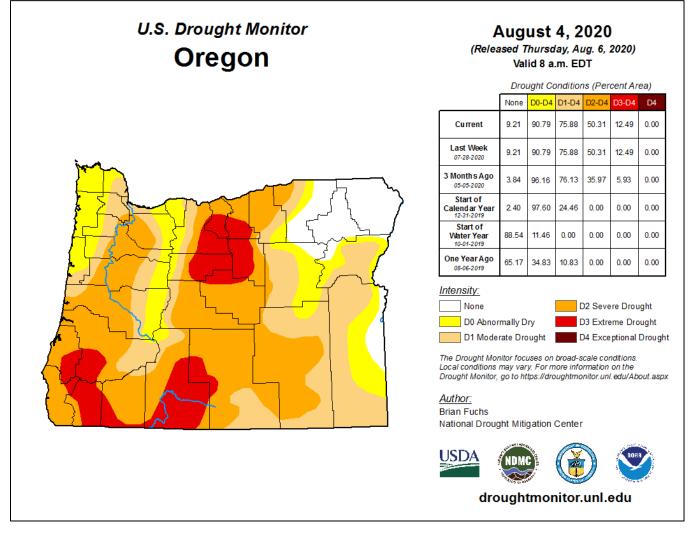
Satellite-Based Soil Moisture Percentile

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.

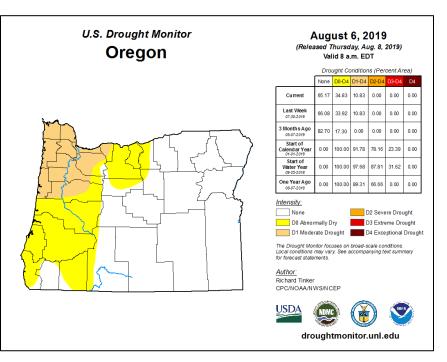
Website: <u>https://nasagrace.unl.edu/Default.aspx</u>



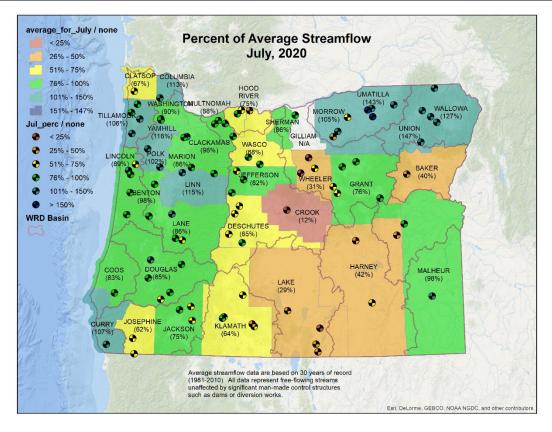
Website: https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?OR



Compared to this time last year:

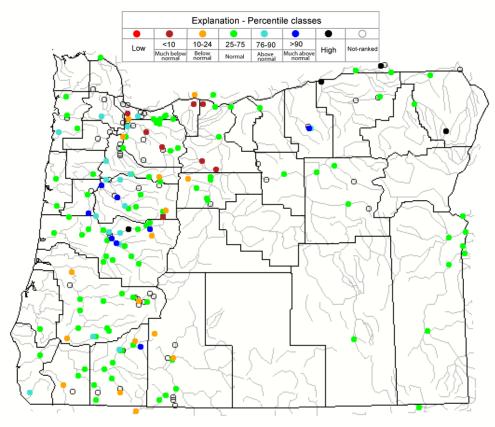


Streamflow Conditions by County – July, 2020



Streamflow Conditions – 7-day average (USGS)

Website: <u>https://waterwatch.usgs.gov/index.php?m=pa07d&r=or&w=map</u>



Sunday, August 09, 2020