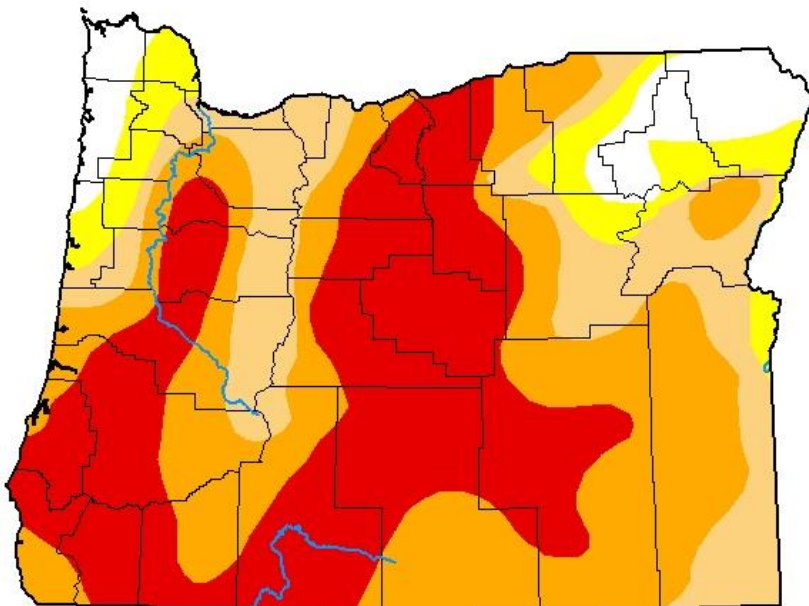


UPDATE ON DROUGHT CONDITIONS AND IMPACTS FOR OREGON AS OF OCTOBER 12th, 2020

Drought conditions intensified across most of Oregon from mid-August to mid-September, as depicted by the U.S. Drought Monitor. Drought or abnormally-dry conditions cover almost all of Oregon, apart from far-northwest and far-northeast Oregon. Areas of Extreme Drought (D3) increased significantly over the past 60 days across much of western and central Oregon, primarily due to hot, windy, and very dry conditions during the first half of September. Precipitation in late September provided some relief for northwest Oregon, with reductions in the drought areal coverage and severity compared to mid-September conditions. For the latest drought monitor depiction, visit droughtmonitor.unl.edu.

**U.S. Drought Monitor
 Oregon**

October 6, 2020
 (Released Thursday, Oct. 8, 2020)
 Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	6.51	93.49	86.44	68.84	35.63	0.00
Last Week <i>09-29-2020</i>	6.50	93.50	84.77	65.53	33.59	0.00
3 Months Ago <i>07-07-2020</i>	9.21	90.79	74.48	46.67	6.18	0.00
Start of Calendar Year <i>12-31-2019</i>	2.40	97.60	24.46	0.00	0.00	0.00
Start of Water Year <i>09-29-2020</i>	6.50	93.50	84.77	65.53	33.59	0.00
One Year Ago <i>10-08-2019</i>	88.54	11.46	0.00	0.00	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

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 National Drought Mitigation Center



droughtmonitor.unl.edu

What caused the drought? Above-average temperatures and below-average precipitation for most of the 2020 Water Year (Oct 1, 2019 – Sep 30, 2020) resulted in below-average mountain snowpack, low soil-moisture, and low streamflow, especially for central and southwest Oregon. Wet conditions in June notwithstanding, above-normal temperatures and below-average precipitation in spring and summer have exacerbated drought stress for central and southwest Oregon. Drought impacts, especially in terms of soil moisture and vegetation

stress, intensified from mid-August to mid-September due to very low humidity, wind, and hot temperatures for all of western Oregon.

What are the impacts of drought and abnormally-dry conditions around the state as of early October? The big impact was the explosive fire growth in September across much of western Oregon on a scale not seen in recent history. While the growth of the fires was caused by short-term weather factors (namely wind and low humidity), the stage was set by several months of below-average precipitation and above-average temperatures. Other drought impacts include 1) below-average streamflow, leading to supply shortages, increases in water temperature, and declines in water quality and in-stream habitat conditions, 2) low reservoir storage, especially in central and southwest Oregon, which will affect irrigation allotments and reduce recreational opportunities, 3) depleted or stressed groundwater aquifers due to more reliance on well water in areas with surface water deficits, and 4) stressed vegetation, both for rangeland and forest conditions, which reduces grazing availability and increases fire and insect-damage susceptibility. These impacts extend across much of the state but are most severe in the Owyhee, Klamath, Deschutes, Rogue, Coquille, Umpqua and Willamette watersheds.

What is the outlook for the fall and winter? With the development of La Niña conditions in the eastern tropical Pacific Ocean, there is an enhanced likelihood of above-average winter precipitation for northern Oregon. Typically, La Niña is associated with below-average winter temperatures, but due to recent winter temperature trends across North America, the temperature outlook highlights an enhanced likelihood of above-average temperature this winter. All that said, there is a lot of historical variability in both precipitation and temperature during La Niña winters, so stay tuned! For more details on monthly and seasonal outlooks, visit www.cpc.ncep.noaa.gov.

As of early October, the following counties have drought emergency declarations in effect from Oregon Governor Brown: Baker, Coos, Crook, Curry, Deschutes, Douglas, Gilliam, Jackson, Jefferson, Josephine, Klamath, Lake, Morrow, Wasco and Wheeler. For details on county declarations, visit apps.wrd.state.or.us/apps/WR/drought_dashboard/Default.aspx.

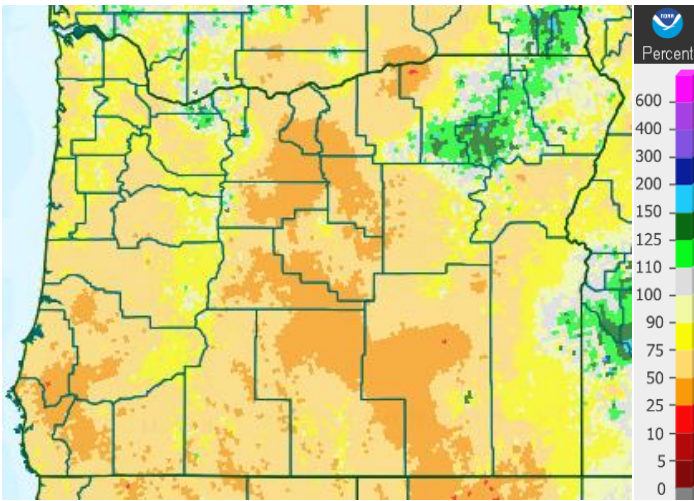
The next update of this Drought Information Statement will be issued by November 6, 2020.

Observed Precipitation and Temperatures

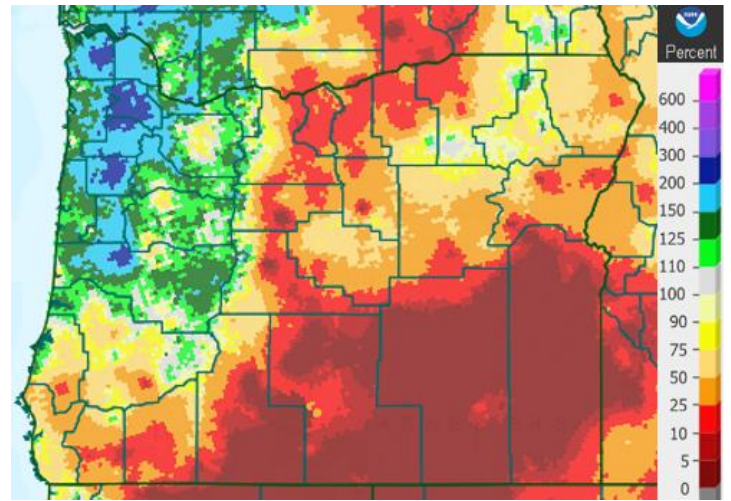
Water-year precipitation (October 2019 - September 2020) was lowest in southwest and central Oregon and highest in northeast Oregon. Values are 40 to 65 percent of normal for southwest Oregon, 50 to 75 percent of normal for north-central and south-central Oregon, 60 to 90 percent of normal for southeast Oregon, 70 to 100 percent of normal for northwest Oregon, and 90 to 120 percent of normal for northeast Oregon.

The Oregon monthly mean temperature for September 2020 broke the previous September record. It would have been even hotter if not for two weeks mid-month of dense smoke, which dampened daytime high temperatures by 10 to 20 degrees in western Oregon valleys. This was the exclamation mark on a warm water year, in which most months had above-average temperatures.

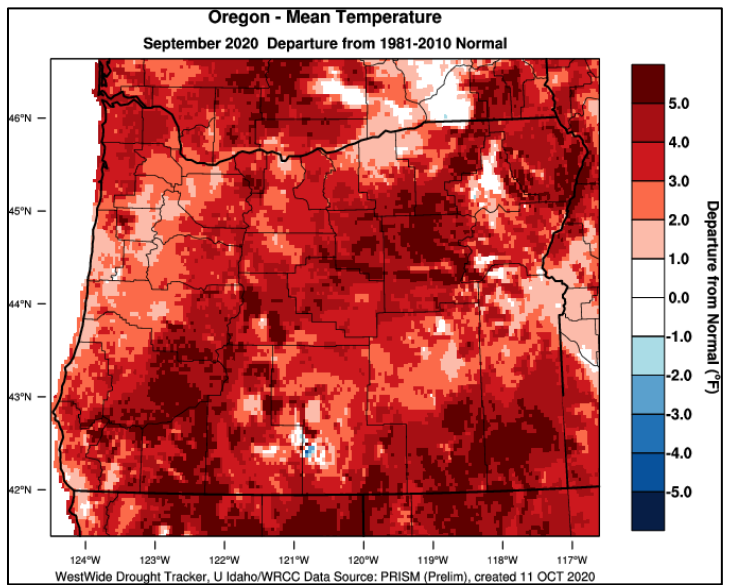
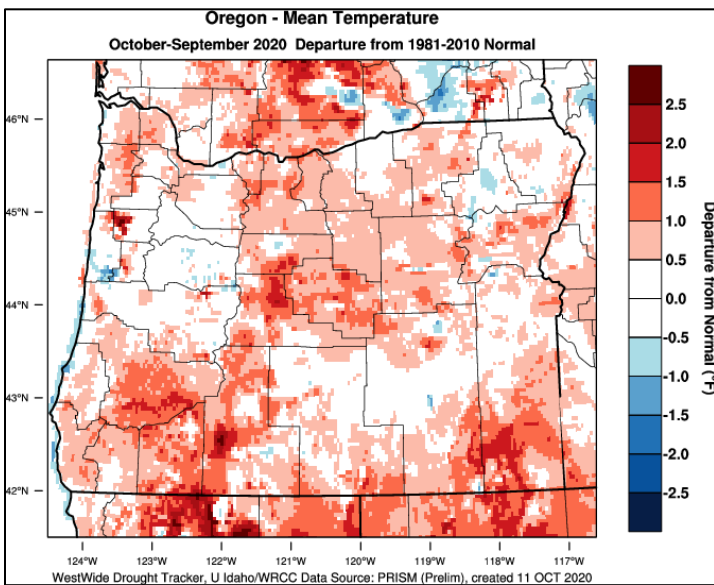
Visit www.nwrfc.noaa.gov/water_supply/wy_summary/wy_summary.php and wrcc.dri.edu/wwdt/ for more details on observed precipitation and temperatures.



Water Year Precipitation % of Average



September 2020 Precipitation % of Average



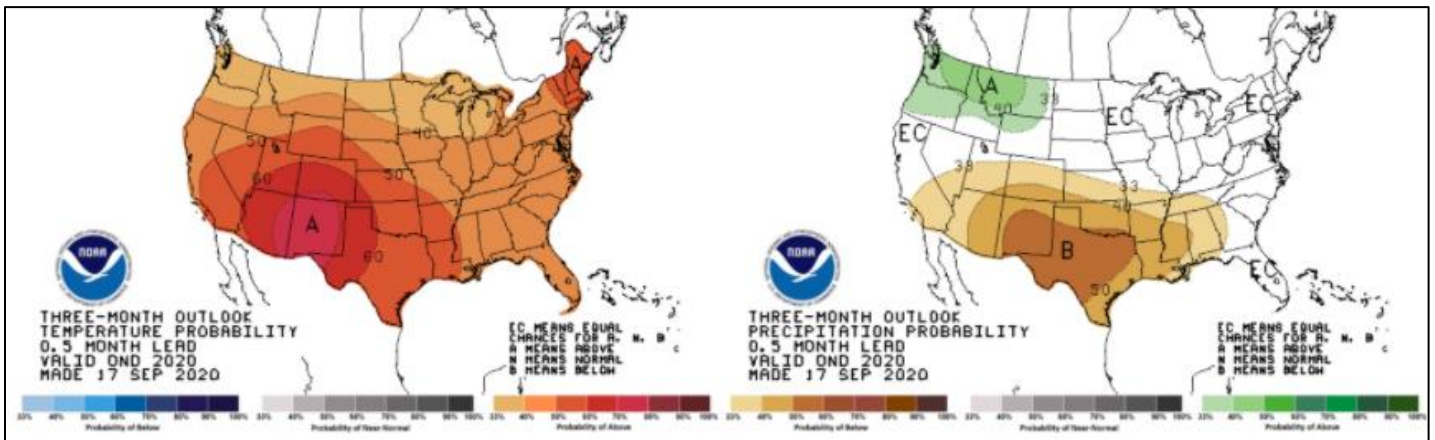
Precipitation and Temperature Outlook

The Climate Prediction Center produces monthly and seasonal outlooks, in which there is a weighing of the odds of near-normal, above-normal, or below-normal temperatures and precipitation.

For October through December, there is an enhanced likelihood of both above-average precipitation and above-average temperatures across most of Oregon. La Niña conditions in the tropical Pacific are likely to affect large-scale patterns across North America and typically mean wetter conditions for the Pacific Northwest.

Temperatures for the mid and late August are expected to be above-average, with strong high pressure over much of the western U.S. Looking into the late summer and early fall, the three-month temperature outlook for July through September calls for an enhanced likelihood of above-average temperatures across Oregon. For precipitation, there are equal chances of above, below, or near average conditions.

Visit www.cpc.ncep.noaa.gov for details about monthly and seasonal outlooks.



Reservoir Conditions

Reservoir conditions are highly variable around the state, but overall reservoir storage is lower than usual for this time of year. The combination of below-average runoff in the winter and spring and above-average demand during the summer due to hot, dry conditions. Several irrigation-supply reservoirs have storage levels less than 10 percent of capacity, as of early October, including Emigrant, Howard Prairie, Hyatt, and Fourmile Lake in southwest Oregon; Wickiup in central Oregon; and Phillips and Thief Valley in eastern Oregon.

Visit www.usbr.gov/pn/hydromet/select.html and www.nwd-wc.usace.army.mil/nwp/wm/teacups.html for more information.

Streamflow Conditions

Streamflow in September was below-average in central and southwest Oregon and near-average elsewhere. Water-year 2020 runoff was 40 to 80 percent of average, lowest in southwest and central Oregon.

For recent streamflow and water year runoff data, visit waterwatch.usgs.gov, www.nwrfc.noaa.gov/ws/index.html and www.cnrfc.noaa.gov/water_resources_update.php.

