Oregon Water Conditions Report July 30, 2018



Temperatures over the past week have been warmer than normal across most of the state. The exception was along the coast where temperatures were cooler than normal for this time of year. Temperatures over the past two weeks have been similar in area and departure from normal. Temperatures for the month of June were for the most part about normal across the state for this time of year.

Oregon statewide water year precipitation at NRCS SNOTEL sites is holding at 87 percent of normal. The highest amounts of water year precipitation are currently in the Umatilla, Walla Walla, and Willow basins with 102 percent. The lowest values are in the Rogue/Umpqua basins at 77 percent with the Klamath and Harney basins not much better at 79 percent of normal for the water year.

Precipitation over the <u>past two weeks</u> has been below normal for most of the state. Recent warm temperatures and below normal precipitation have increased water demand across the state, contributing to water distribution activities one to three weeks earlier in the season than normal. Only in the northeast corner of the state are state officials seeing somewhat normal water distribution activities for this time of year. Precipitation for the <u>month of June</u> was below normal for most areas of the state. Statistics for the month of July are likely to be below normal as well.

Over the next <u>8 to 14 days</u>, the NOAA Climate Prediction Center is forecasting an increased probability of above-normal temperatures across the southeast corner of the state with equal chances of above or below normal temperatures across most of the rest of the state. The precipitation probability ranges from above-normal from the coast to the Cascades, equal chances for central Oregon and below-normal precipitation for far eastern Oregon. The most recent <u>three month outlook</u> indicates increased chances of above-normal temperatures statewide. Below-normal precipitation is forecast in the northwest corner of the state with equal chances of above or below normal precipitation the rest of Oregon. The next long-term outlook will be issued on August 16, 2018.

<u>ENSO</u>-Neutral conditions are expected to continue through the summer. There are increasing chances for El Niño conditions during the fall and winter. For more insight, refer to the July 12, 2018 <u>diagnostic discussion</u> issued by the Climate Prediction Center. For the latest discussion on the summer outlook, refer to the latest <u>ENSO blog</u> on the climate.gov website. The Climate Prediction Center will continue to monitor conditions and provide regular updates. The next ENSO Diagnostics Discussion is scheduled for August 9, 2018.

Statewide streamflows for July are likely to finish up at less than 50 percent of normal. This is up from the 40 percent seen for the month of June. Regionally for July, streamflow conditions were about 45 percent east of the Cascades and 50 percent to the west. More recent conditions indicate that flows are ranging from under 30 percent in the John Day Basin to almost 70 percent in the South Coast. <u>Streamflow forecasts</u> for the

summer season predict that streamflows will be much lower than normal, especially in the south central and southeastern regions of the state.

<u>USACE Reservoirs:</u> Rogue: Dry conditions and warm weather are forecast to continue, contributing to receding inflows. Lost Creek Reservoir outflow continues to be maintained at 1,600 cfs to augment mainstem flows for Juvenile rearing needs. Currently the project is 68 percent full and 32 percent (31') below rule curve while inflows are holding steady around 1,020 cfs. Applegate outflows continue to be approximately 275 cfs and currently the project is 64 percent full and 36 percent (29') below rule curve.

<u>Willow Creek</u>: Willow Creek inflow is ~ 0 cfs and outflow is 16 cfs. The project is currently at 47 percent of capacity and 53 percent (13') below rule curve. There is currently 15 cfs of irrigation demand.

Willamette: The Willamette system continues to draft while augmenting mainstem flow. The system is currently 53 percent full. System-wide inflow is 1,760 cfs and outflow is 4,700 cfs. The USACE continue to provide water temperature management below Detroit and Fall Creek Reservoirs. The flow in the Willamette River at Albany is 4,500 cfs and at Salem the flow is 6,200 cfs. The maximum temperature threshold at Detroit for temperature control was increased from 55 degrees (Fahrenheit) in July and August to 60 degrees through mid-August (or later) in coordination with NMFS and ODFW. Current temperature control operations at Detroit have been modified (spill/generation ratio increased) to reflect this.

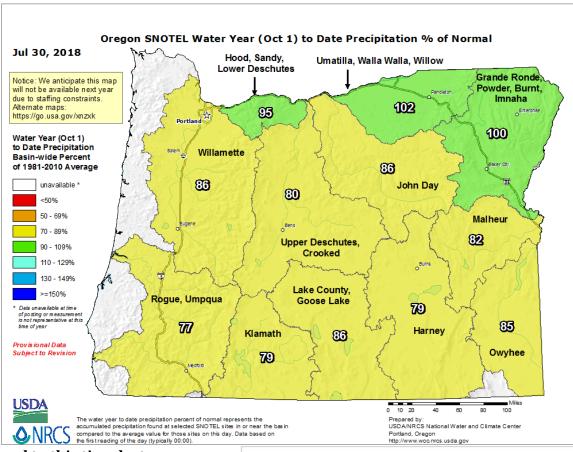
USBR Reservoirs: In north central Oregon, <u>McKay Reservoir</u> is at 56 percent of capacity and has been releasing water since late May. In the Willamette, <u>Scoggins Reservoir</u> remains close to its fill curve and is now at 70 percent of capacity. <u>Central Oregon</u> reservoirs are between 27 and 84 percent of capacity. Due to sustained water use demand, Wickiup Reservoir is now at only 27 percent. <u>Eastern Oregon</u> reservoirs (not considering Thief Valley) are now at 24 to 51 percent of capacity. <u>Rogue Basin</u> reservoirs are between 18 and 50 percent of capacity. <u>Upper Klamath Lake</u> is currently at 50 percent of useable capacity.

The most recent update to the <u>US Drought Monitor</u> indicates and expansion of drought conditions across the state. Indicators now point toward D2 (severe drought) for the north/mid coast, the Willamette Valley, and the Cascades. This is the most severe depiction of Oregon since summer 2015. The July 24, 2018 report now shows that 95 percent of Oregon is listed as "Abnormally Dry" (D0). Over 82 percent of the state is listed as in "Moderate Drought" (D1). In addition, 56 percent of the state is now listed as in "Severe Drought" (D2).

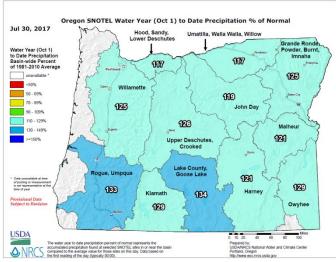
Wildfire season is in full swing and monthly <u>outlooks</u> are now being posted. The Oregon Department of Forestry has commented that, "Oregon has 16 active, large wildfires on the landscape, according to the Northwest Interagency Coordination Center. Several other states - in particular California - also face challenging fires and conditions." Visit the Oregon Department of Forestry's <u>wildfire blog</u> for the latest updates. More information can also be accessed through the Northwest Interagency Coordination Center website.

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Precipitation (Mountain) - Percent of Normal



Compared to this time last year -

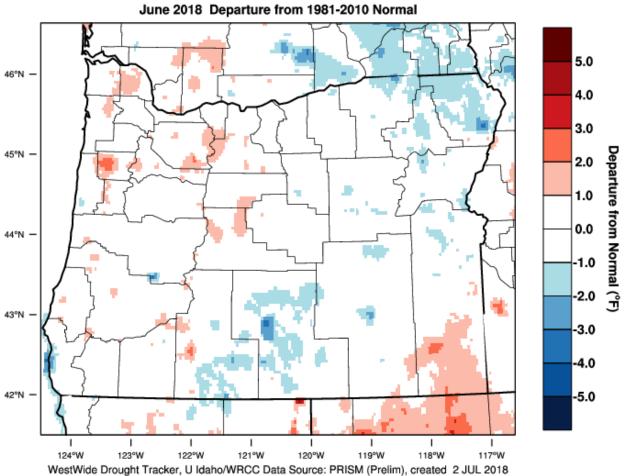


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Website: https://wrcc.dri.edu/wwdt/index.php?region=or

PRISM > Temperature Anomaly 1 Month > Oregon

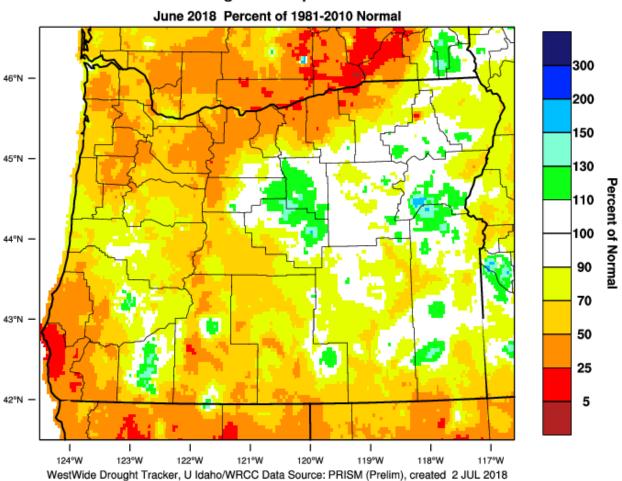
Oregon - Mean Temperature



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

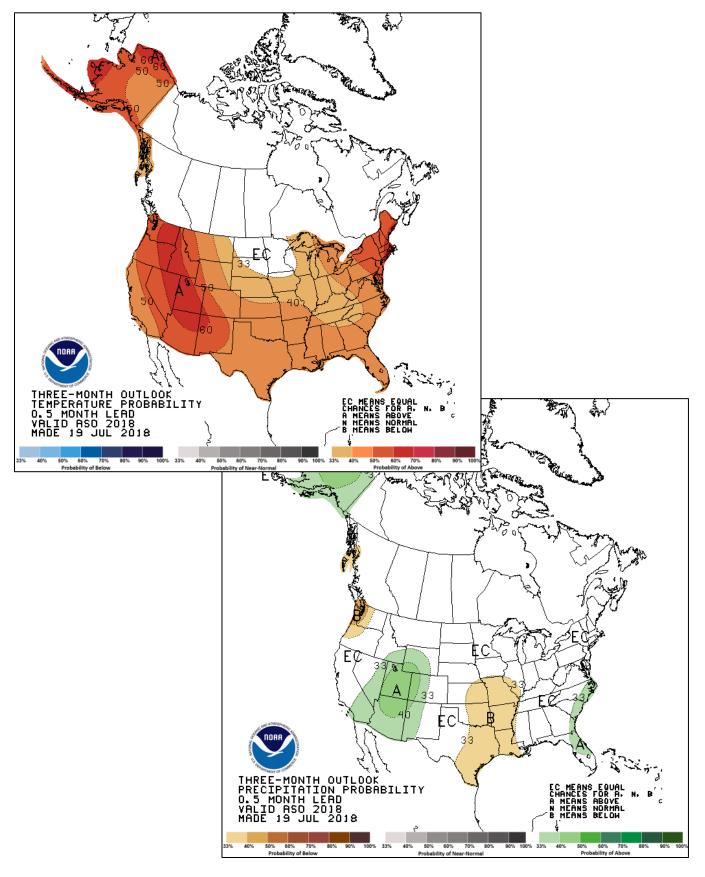
PRISM > Precipitation Anomaly 1 Month > Oregon

Oregon - Precipitation



August through October Outlook - Follow link for the latest information.

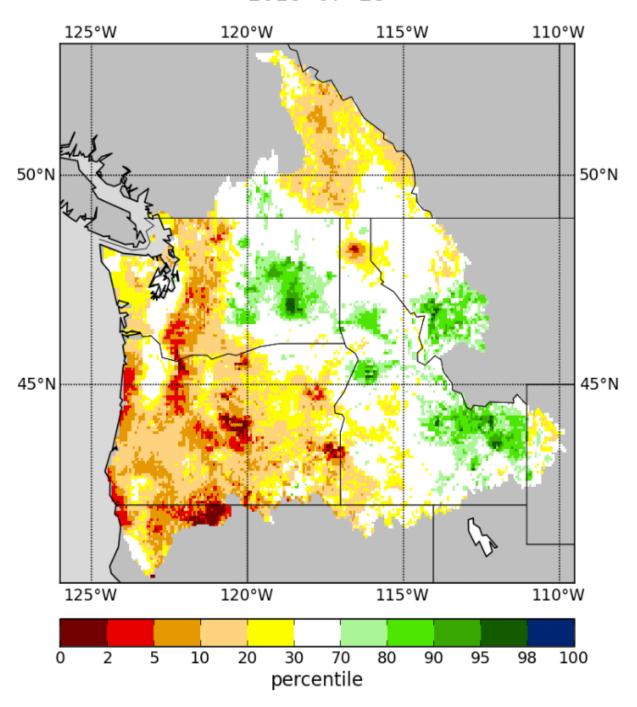
Website: http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1



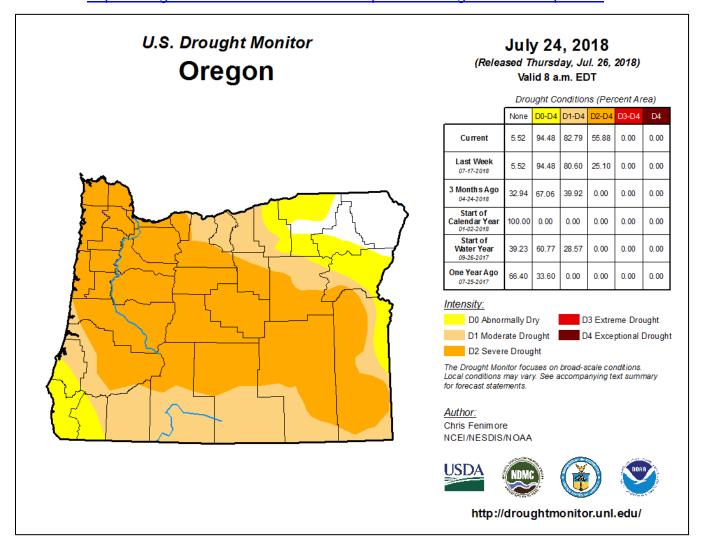
Website: http://www.hydro.ucla.edu/SurfaceWaterGroup/forecast/monitor pnw/index.shtml

Total Moisture Percentile

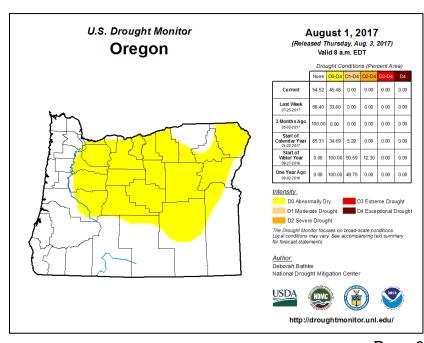
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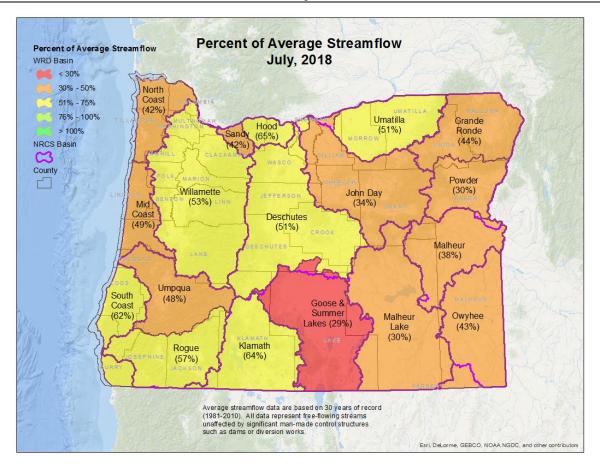


Website: http://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?OR

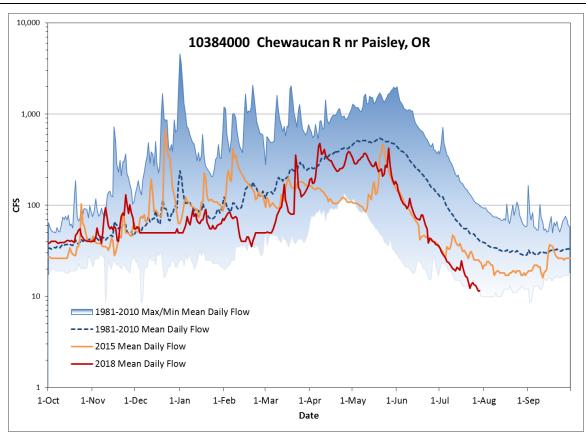


Compared to this time last year:

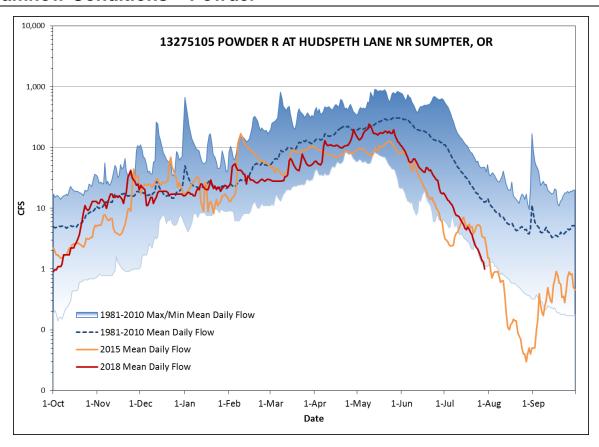




Streamflow Conditions - Goose & Summer Lakes



Streamflow Conditions - Powder



Streamflow Conditions - South Coast

