# Oregon Water Conditions Report June 18, 2018



**As of today, only one NRCS SNOTEL site** have any measurable snow water equivalent; Aneroid Lake in Wallowa County with a little over 2 inches. This site, situated at over 7400 feet in elevation, should be measuring over 3 inches for this time of year. In most areas measured by the NCRS, snowpack has melted out between 1 to 3 weeks earlier than normal. As noted in the June <a href="NRCS Snow Survey Basin Outlook Report">NRCS Snow Survey Basin Outlook Report</a>, the snowmelt rates observed during May were significantly higher than normal because of the warm temperatures.

**Oregon statewide water year precipitation** at NRCS SNOTEL sites is 88 percent of average. The highest amounts of water year precipitation are currently in the Umatilla, Walla Walla, and Willow basins with 103 percent of average, while the lowest values are in the Harney and Rogue/Umpqua basins at 78 percent of average for the water year.

**Temperatures over the** past two weeks have been cooler than normal. The exception was in southern Malheur County where temperatures were between 3 and 4 degrees warmer than normal. Over the next 8 to 14` days, the NOAA Climate Prediction Center is forecasting an increased probability of above-average temperatures in the south and southeast of the state along with below-normal precipitation for the entire state.

**Precipitation over the** <u>past two weeks</u> has been below normal for many regions east of the Cascades. Above normal precipitation in parts of western Oregon has temporarily helped to slow early season water demands.

**The Climate Prediction Center's most recent** three month outlook favors increased chances of above-normal temperatures along with below-normal precipitation across the entire state. The next long-term outlook will be issued on June 21, 2018.

<u>ENSO</u>-Neutral conditions are expected through September-November. For more insight, refer to the June 14, 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 July 12, 2018.

**Statewide streamflows for May were 60 percent of normal**. This is down from the 96 percent seen for the month of April. Regionally for May, streamflow conditions were at 63 percent east of the Cascades and 55 percent to the west. Recent dry conditions across the northwest has contributed to declining streamflows that are now less than 20 percent in the Owyhee to just over 60 percent in the Grande Ronde. Streamflow forecasts for the summer season continue to 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 increasingly warm weather is forecasted over the next 10+ days basin-wide, which will result in inflows at both projects to continue to recede. Lost Creek outflow is currently 2,625 cfs, and with extremely warm weather in the forecast it may be necessary to increase outflows to help mitigate the impact of the warm temperatures downstream. Currently the project is 16 percent below rule curve. Applegate outflows are currently 280 cfs and are expected to maintain these outflows based on the current forecast. Currently the project is 10 percent below rule curve. Current fisheries goal is to maintain temperatures in the Rogue River at Agness below 68 degrees to minimize pre-spawning mortality among adult spring chinook.

<u>Willow Creek:</u> Willow Creek inflow is 6.4 cfs and outflows is 20 cfs. The project is currently 12 percent below rule curve. There is currently 9.5 cfs of irrigation demand and releases will be reduced to 18 cfs due to receding inflows, reducing the amount of live flow required to pass for senior water users.

<u>Willamette:</u> The Willamette system is 69 percent full and 31 percent below rule curve. Detroit and Fern Ridge reservoirs are full and passing inflow. Increased releases continue to be utilized from Hills Creek, Lookout Point/Dexter, Cougar, Blue River, Green Peter/Foster, Fall Creek and Cottage Grove in order to augment Willamette main stem flow. This was required to continue meeting Salem minimum flow targets (10,500 cfs instantaneous and 13,000 cfs transitioning to 8,700 cfs by mid-June). Outflow from Detroit and Foster were reduced to incubation flow levels on June 1.

<u>USBR Reservoirs</u>: In north central Oregon, <u>McKay Reservoir</u> is at 83 percent of capacity and has been releasing water since late May. In the Willamette, <u>Scoggins Reservoir</u> remains very close to its fill curve and is currently just below capacity at 96 percent. <u>Central Oregon</u> reservoirs are between 53 and 93 percent of capacity. <u>Eastern Oregon</u> reservoirs (not considering Thief Valley) are now at 47 to 75 percent of capacity. <u>Rogue Basin</u> reservoirs are between 49 and 84 percent of capacity. <u>Upper Klamath Lake</u> is currently at 82 percent of capacity.

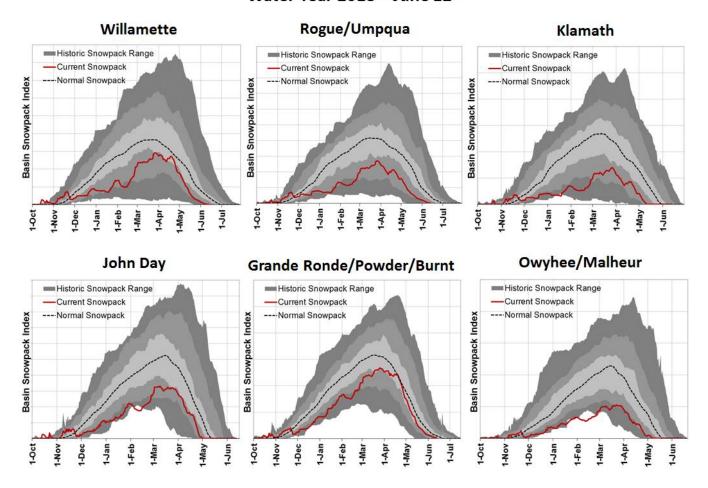
**The <u>US Drought Monitor</u>** indicates worsening conditions over the past few weeks. The June 12, 2018 report indicates that 91 percent of Oregon is now listed as "Abnormally Dry" (D0). Over 45 percent of the state is listed as in "Moderate Drought" (D1). In addition, over 18 percent of the state is now listed as in "Severe Drought" (D2).

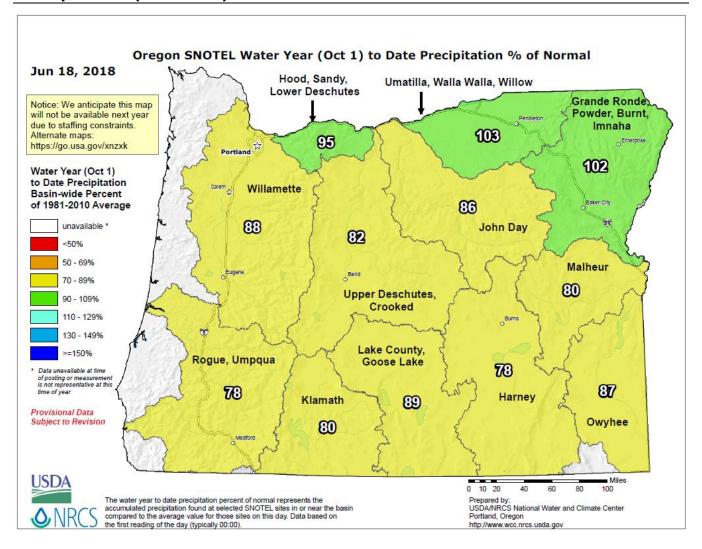
Wildfire conditions and <u>forecasts</u> for the upcoming season are now being posted. The Oregon Department of Forestry has commented that as recent sunny and dry conditions continue this week, fire risk will increase across the state. Visit the Oregon Department of Forestry's <u>wildfire blog</u> for the latest updates. More information will be made available as the season progresses.

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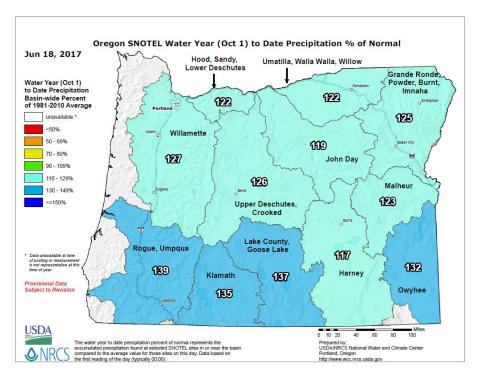
# Snowpack - 2018 Water Year

#### Water Year 2018 - June 12th





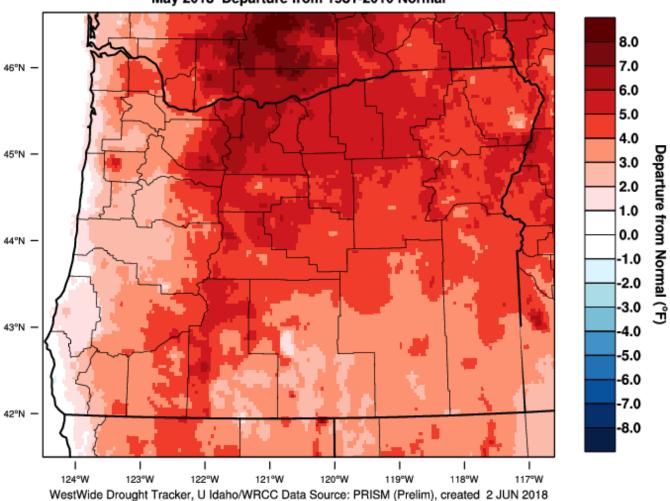
# Compared to this time last year -



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

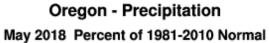
# PRISM > Temperature Anomaly 1 Month > Oregon

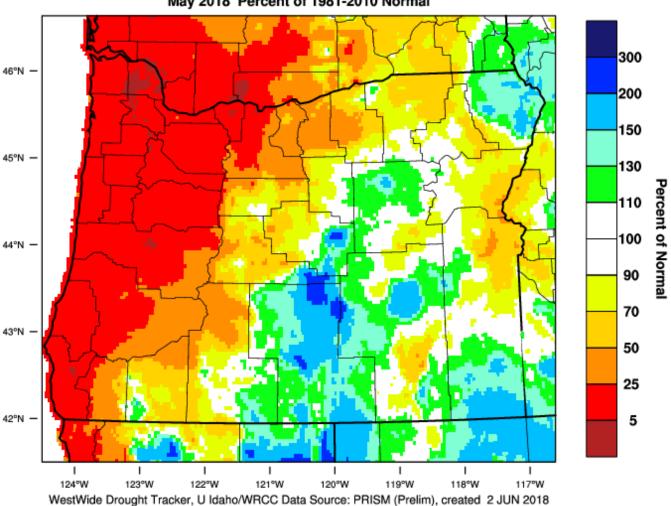
# Oregon - Mean Temperature May 2018 Departure from 1981-2010 Normal



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

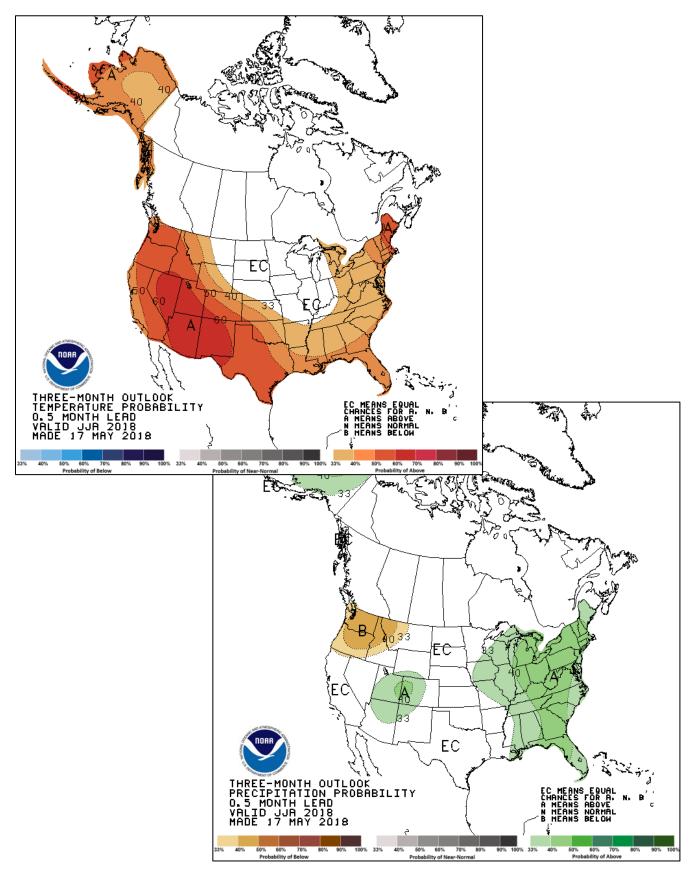
# PRISM > Precipitation Anomaly 1 Month > Oregon





### June through August Outlook - Follow link for the latest information.

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

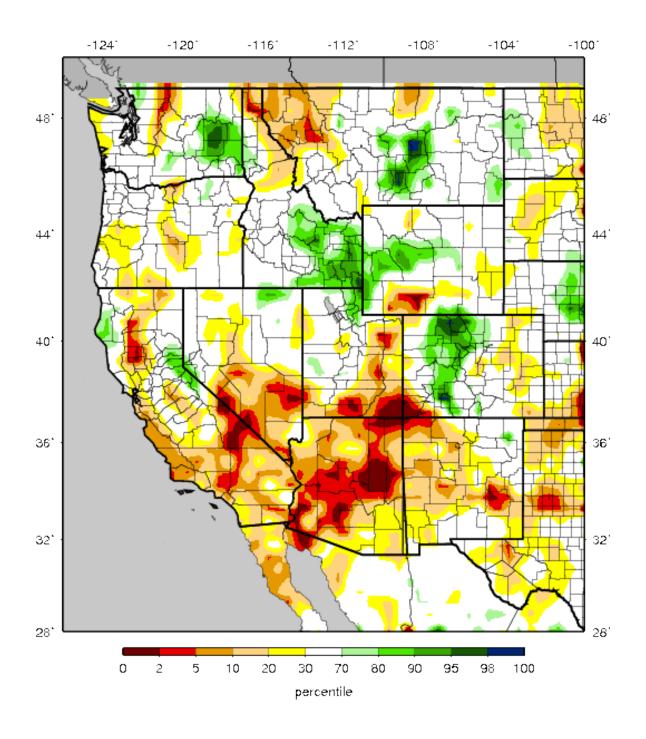


#### Website:

http://www.hydro.washington.edu/forecast/monitor/curr/conus.mexico/west.vic.sm\_qnt.gif

Note: Latest data not currently available, check back later.

VIC Soil Moisture Percentiles (wrt/ 1916-2004)
Western United States - 20180529



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

# U.S. Drought Monitor Oregon

#### June 12, 2018 (Released Thursday, Jun. 14, 2018) Valid 8 a.m. EDT

Drought Conditions (Percent Area)

		None	D0-D4	D1-D4	D2-D4	D3-D4	D4
	Current	8.55	91.45	45.30	18.36	0.00	0.00
	Last Week 06-05-2018	9.50	90.50	45.30	18.36	0.00	0.00
	3 Month's Ago 03-13-2018	23.86	76.14	38.32	0.00	0.00	0.00
	Start of Calendar Year 01-02-2018	100.00	0.00	0.00	0.00	0.00	0.00
	Start of Water Year 09-26-2017	39.23	60.77	28.57	0.00	0.00	0.00
	One Year Ago 06-13-2017	100.00	0.00	0.00	0.00	0.00	0.00

# Intensity: D0 Abnormally Dry D1 Moderate Drought D2 Severe Drought D2 Severe Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<u>Author:</u> Brian Fuchs National Drought Mitigation Center









http://droughtmonitor.unl.edu/

### Compared to this time last year:

U.S. Drought Monitor

Oregon



June 20, 2017 (Released Thursday, Jun. 22, 2017) Valid 8 a.m. EDT

| None | OP-04 | OP-04

One Year Ago 06-21-2016	0.00	100.00	44.55	0.00	0.00	0.00		
Intensity:								
D0 Abnor	mally D	ry	D	3 Extre	me Dro	ught		
D1 Mode	rate Dro	ught	D4 Exceptional Drough					
D2 Sever	e Droug	ght						
The Drought Mor Local conditions for forecast state	may var							

Author: David Miskus NOAA/NWS/NCEP/CPC

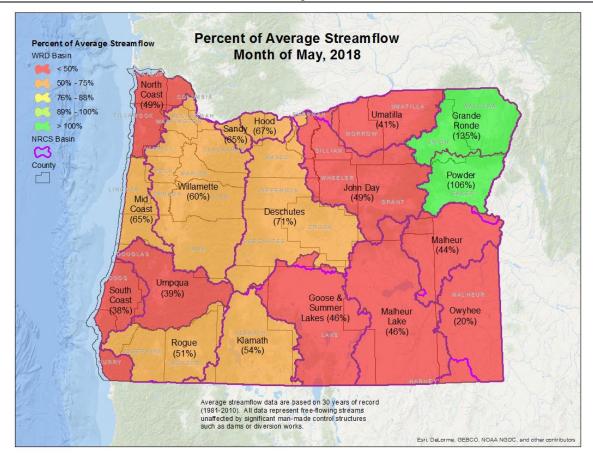




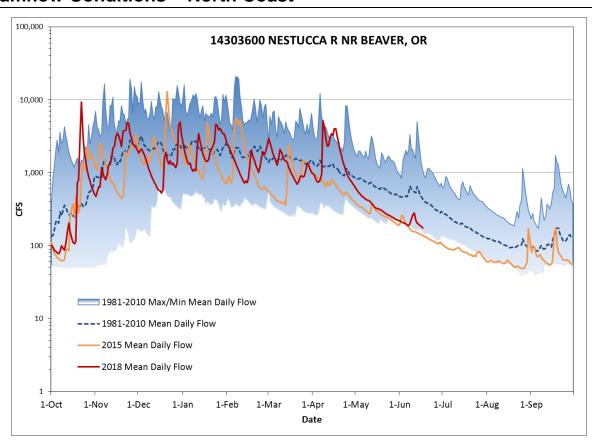




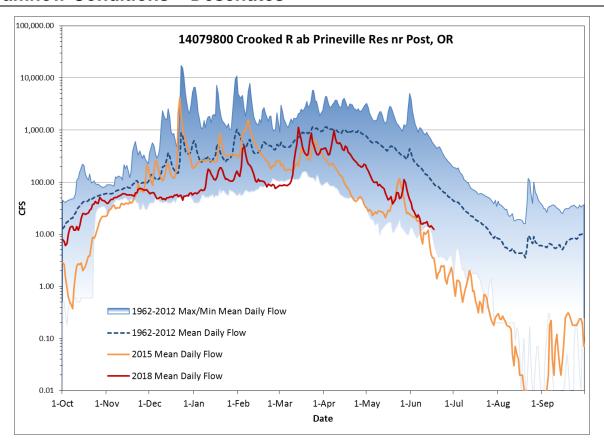
http://droughtmonitor.unl.edu/



### **Streamflow Conditions - North Coast**



### **Streamflow Conditions - Deschutes**



### **Statewide Reservoir Conditions - May**

