Oregon Water Conditions Report April 9, 2018



Snow water equivalent values at NRCS SNOTEL sites continued to show some improvement over the past two weeks. While still below normal, the statewide average is now at 71 percent. The Hood, Sandy, and Lower Deschutes basins have received the highest amounts of snowpack recently and are now measuring 91 percent of normal. The Malheur and Owyhee basins are measuring the least amount of snowpack and stand at 43 and 39 percent of normal, respectively.

Statewide water year precipitation at NRCS SNOTEL sites is 92 percent of normal, remaining fairly steady over the past month. The highest amounts of precipitation for the water year have been in the Umatilla, Walla Walla, and Willow basins with 110 percent of normal, while the lowest values are in the Rogue, Umpqua, and Harney basins at 79 percent.

For more region specific details, the most recent <u>NRCS Snow Survey Basin Outlook</u> <u>Report</u> is now available and will continue to be published monthly until June, 2018. The Snow Survey also publishes weekly condition reports on three areas affected by wildfire in eastern Oregon. After exposure to high heat, soils in these burned areas can't absorb as much water. As a result, these watersheds can experience a higher risk for flash flooding. The reports can be accessed at:

https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/or/snow/?cid=nrcseprd854607

Temperatures over the <u>past two weeks</u> have been warmer than normal in the southern half of the state. Of note, areas in southwest, southeast, and eastern Oregon have seen temperatures 3 to 5 degrees warmer than normal. In contrast, over the past <u>month</u> temperatures have been generally below-normal throughout most of the state. Over the next <u>8 to 14 days</u>, the NOAA Climate Prediction Center is forecasting an increased probability of below-normal temperatures along with above-normal precipitation for most of the state.

The Climate Prediction Center's most recent <u>three month outlook</u> favors increased chances of above-normal temperatures in the southern third of Oregon with equal chances of above or below-normal temperatures for the rest of the state. The precipitation outlook for the same period indicates below-normal precipitation for most of the state. The next long-term outlook will be issued on April 19, 2018.

La Niña conditions are expected to transition to ENSO-Neutral conditions most likely early this spring (~55 percent chance). For more insight, refer to the March 8, 2018 <u>diagnostic discussion</u> issued by the Climate Prediction Center. For the latest discussion on the spring outlook, refer to the latest <u>ENSO blog</u> on the climate.gov website. The situation continues to be monitored and updated by the Climate Prediction Center. The next ENSO Diagnostics Discussion is scheduled for April 12, 2018.

Statewide streamflows for March were at 75 percent of normal. This is up from the 63 percent seen for the month of February. Regionally for March, streamflow conditions were at 63 percent east of the Cascades and 92 percent to the west. Weather events in March contributed to a rise in flows for most of the month, especially the northern and coastal areas of the state. Streamflow forecasts for the approaching spring and summer seasons continue to predict that streamflows will be much lower than normal.

Most of the state's water supply reservoirs are at near-normal levels for this time of year. The <u>Willamette</u> System is currently 67 percent full and 10 percent below rule curve. Most projects are on minimum flow except <u>Dorena</u> and <u>Foster</u>, which are releasing a higher flow rate to stay on rule curve. USACE reservoir simulation models indicate that there is still a reasonable probability that Detroit, Cottage Grove, Dorena and Fern Ridge will fill by the summer recreation season.

With low flow conditions prevalent in the <u>Rogue</u> basin, <u>Lost Creek</u> releases have been reduced to sustain refill efforts, relying on local inflow below the project to maintain flows downstream. Currently the basin projects are only slightly below rule curve. <u>Applegate</u> continues to release minimum outflow to sustain refill efforts. Currently the project is 14 percent below rule curve.

All of the USBR Oregon projects are well below any flood control requirements and continue to pass minimum flows, storing as much water as possible ahead of the start of irrigation season. A bright spot is <u>McKay Reservoir</u> which looks to have a good chance of filling. <u>Scoggins</u> is close to its fill curve and should also fill this spring. A wet spring will be needed to fill the other projects.

<u>Central Oregon</u> reservoirs are between 60 and 100 percent of capacity. <u>Eastern Oregon</u> reservoirs (not considering Thief Valley) are now at 59 to 81 percent of capacity. Reservoirs in <u>North Central Oregon</u> are at 94 and 96 percent. For the most recent near real-time, site-specific reservoir conditions (teacup diagrams) visit the <u>USBR</u> or <u>USACE</u> websites.

The <u>US Drought Monitor</u> has changed slightly over the past two weeks. The April 5, 2018 report indicates that 68 percent of Oregon is now listed as "Abnormally Dry" (D0). In addition, 33 percent of the state is now listed as in "Moderate Drought" (D1).

Data & Products:

Snow Water Equivalent – Percent of Normal4Precipitation (Mountain) - Percent of Normal5Temperature – (1 Month) Departure from Normal6Precipitation – (1 Month) Percent of Normal7Three Month Temperature and Precipitation Outlook8Soil Moisture - Percentile9U.S. Drought Monitor for Oregon10Statewide Streamflow Conditions - March11Streamflow Conditions – Malheur Lake12Statewide Reservoir Conditions - March12





Page:



Compared to this time last year -





Compared to this time last year -



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

PRISM > Temperature Anomaly 1 Month > Oregon



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

PRISM > Precipitation Anomaly 1 Month > Oregon



April through June Outlook - Follow link for the latest information.

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



Soil Moisture - Percentile

Website:

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



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

U.S. Drought Monitor Oregon

April 3, 2018 (Released Thursday, Apr. 5, 2018)

Valid 8 a.m. EDT



Drought Conditions (Percent Area)						
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	32.44	67.56	32.89	0.00	0.00	0.00
Last Week 03-27-2018	32.44	67.56	32.89	0.00	0.00	0.00
3 Month s Ago 01-02-2018	100.00	0.00	0.00	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 04-04-2017	100.00	0.00	0.00	0.00	0.00	0.00

Intensity:

D0 Abnormally Dry D1 Moderate Drought

D3 Extreme Drought D4 Exceptional Drought

D2 Severe Drought The Drought Monitor focuses on broad-scale conditions.

Local conditions may vary. See accompanying text summary for forecast statements.

Author: David Miskus

NOAA/NWS/NCEP/CPC



http://droughtmonitor.unl.edu/

Compared to this time last year:

U.S. Drought Monitor Oregon

April 4, 2017 (Released Thursday, Apr. 6, 2017) Valid 8 a.m. EDT



<u>Author:</u> Anthony Artusa NOAA/NWS/NCEP/CPC



http://droughtmonitor.unl.edu/





Streamflow Conditions – Grande Ronde



Streamflow Conditions – Malheur Lake



Statewide Reservoir Conditions - March

