

Oregon Water Conditions Report



February 22nd, 2021

HIGHLIGHTS

[Statewide snowpack](#) is currently measuring 106% of the long-term median. Many basins are measuring near or above normal. All basins benefitted from an influx of snow water equivalent (SWE) over recent weeks (see basin snowpack graphs below), pushing most eastern basins above normal, with the exception of Owyhee (84%), Lake County-Goose Lake (84%), and Klamath (86%).

[Statewide precipitation](#) is currently measuring 96% of the long-term average, with the northern half of the state faring closer to average overall and several basins above average. While basins in southern Oregon continue to measure below normal precipitation, they have received significant gains over the [past two weeks](#). Areas along the Cascade Crest benefitted particularly well, with some areas receiving a surplus between 3 in. - 7.5 in. of precipitation.

Streamflows in western Oregon have responded well to recent precipitation, such that most gages west of the Cascades measured above to well above average streamflow over the past 7 days. Streamflows in eastern Oregon have continued to lag behind over the past 28-day and 7-day periods ([see USGS gages here](#)).

[Temperatures over the past two weeks](#) varied throughout the state. Temperatures were below average for much of the state, with the exception of SE Oregon and a small area in the central Cascades which were between 0 °F - 6 °F above average. Much of northern Oregon experienced temperatures well below average, with portions of NE Oregon reaching between 9 °F - 15 °F below average.

The [US Drought Monitor](#) indicates that nearly 88% of Oregon is experiencing some form of drought. There has been little change in areal coverage of drought; however, drought severity has changed in some locations. [Condition Monitoring Observer Reports](#) highlight localized pockets of extremely dry conditions in eastern Oregon. More information can be found on how to submit and review [CMO reports here](#).

NOAA's [three-month seasonal outlook](#) has been updated to represent March through May. Conditions for March are projected to consist of below-normal temperatures and equal chances of above-, below-, or near-normal temperatures statewide. The three-month outlook is less clear, with only a marginal probability favoring above-normal precipitation along the Columbia River corridor.

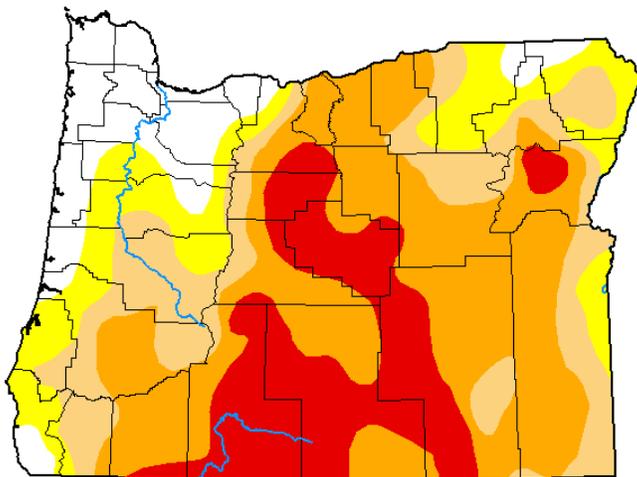
Reservoir storage conditions are variable throughout the state (see below). [USBR Systems](#) in the Tualatin, Malheur, Owyhee, Burnt, and Umatilla Basins are near normal or above, while others lag behind well below normal. Scoggins Dam is the only USBR dam performing flood control operations. Refill in [USACE reservoir systems](#) in the Willamette and Rogue Basins began February 1st, while also meeting minimum flow requirements.

DROUGHT CONDITIONS

Coverage of extreme drought (D3) has been extended to include Baker City after all-time low measurements of water year precipitation, while severe drought classification (D2) has been expanded in Grant County to include the John Day River due to well below normal streamflows and soil moisture. Drought severity has been reduced in the southern Willamette Valley, Douglas County, northern Harney County, and the Steens Mountains.

U.S. Drought Monitor Oregon

February 16, 2021
(Released Thursday, Feb. 18, 2021)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	12.02	87.98	73.84	54.56	19.39	0.00
Last Week 02-09-2021	11.55	88.45	75.70	55.26	22.23	0.00
3 Months Ago 11-17-2020	8.67	91.33	84.36	69.68	33.39	0.00
Start of Calendar Year 12-29-2020	8.57	91.43	83.53	68.71	27.74	0.00
Start of Water Year 09-29-2020	6.50	93.50	84.77	65.53	33.59	0.00
One Year Ago 02-18-2020	20.86	79.14	24.28	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>

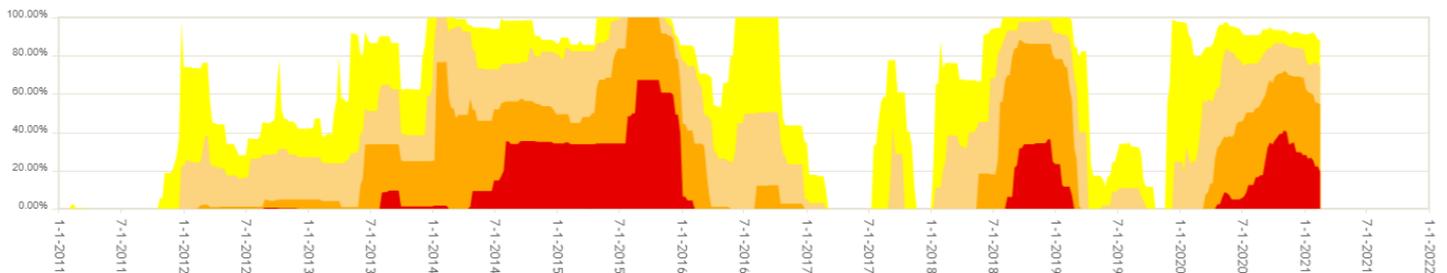
Author:

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NOAA/NWS/NCEP/CPC

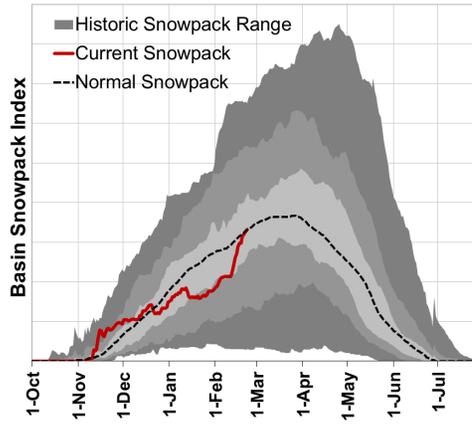


droughtmonitor.unl.edu

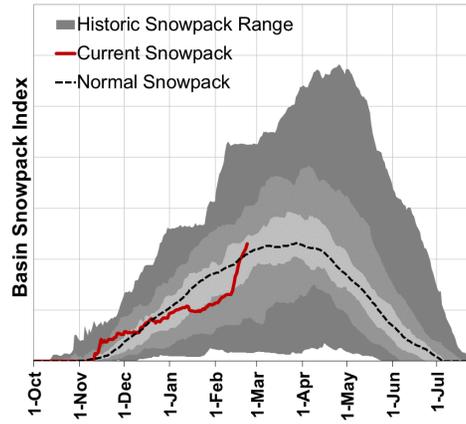
Oregon Percent Area



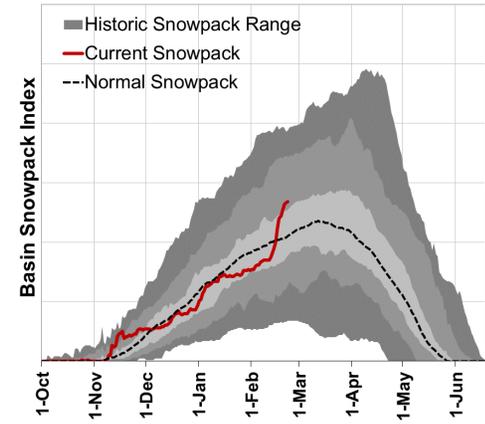
Willamette



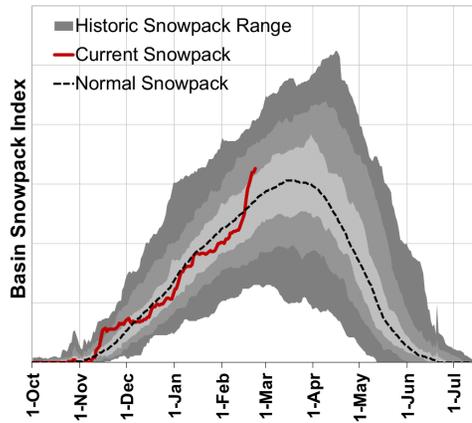
Hood-Sandy-Lower Deschutes



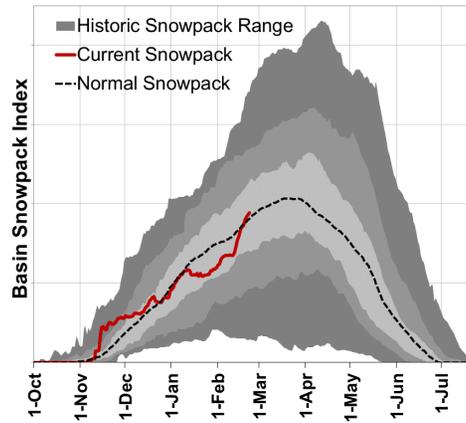
Umatilla-Walla Walla-Willow



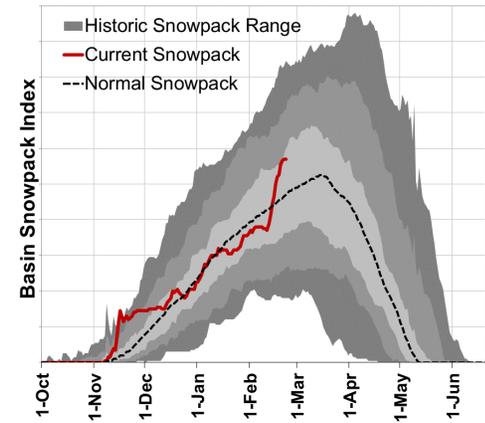
Grande Ronde-Burnt-Powder-Imnaha

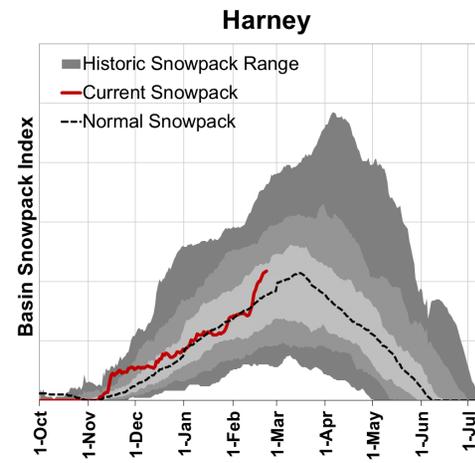
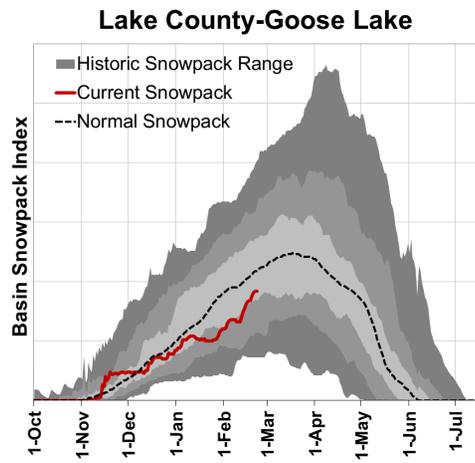
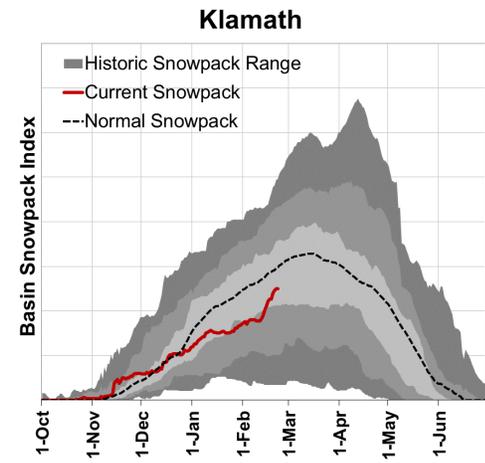
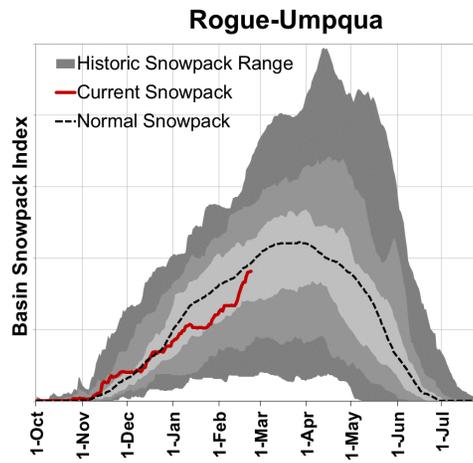
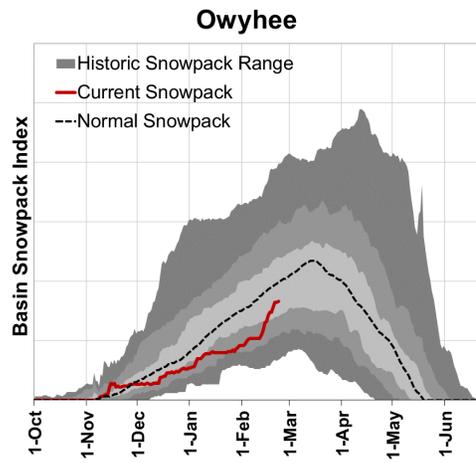


Upper Deschutes-Crooked

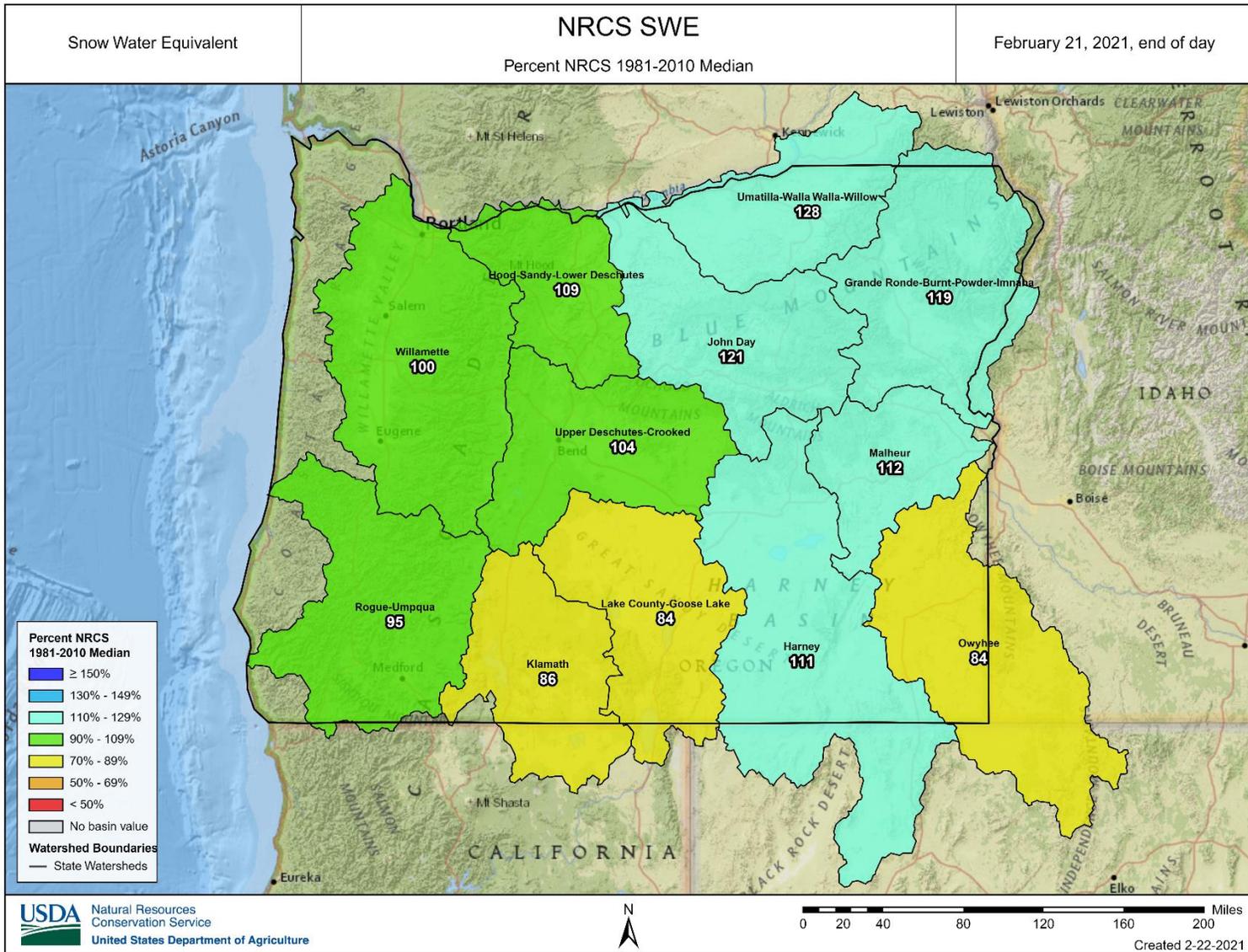


John Day

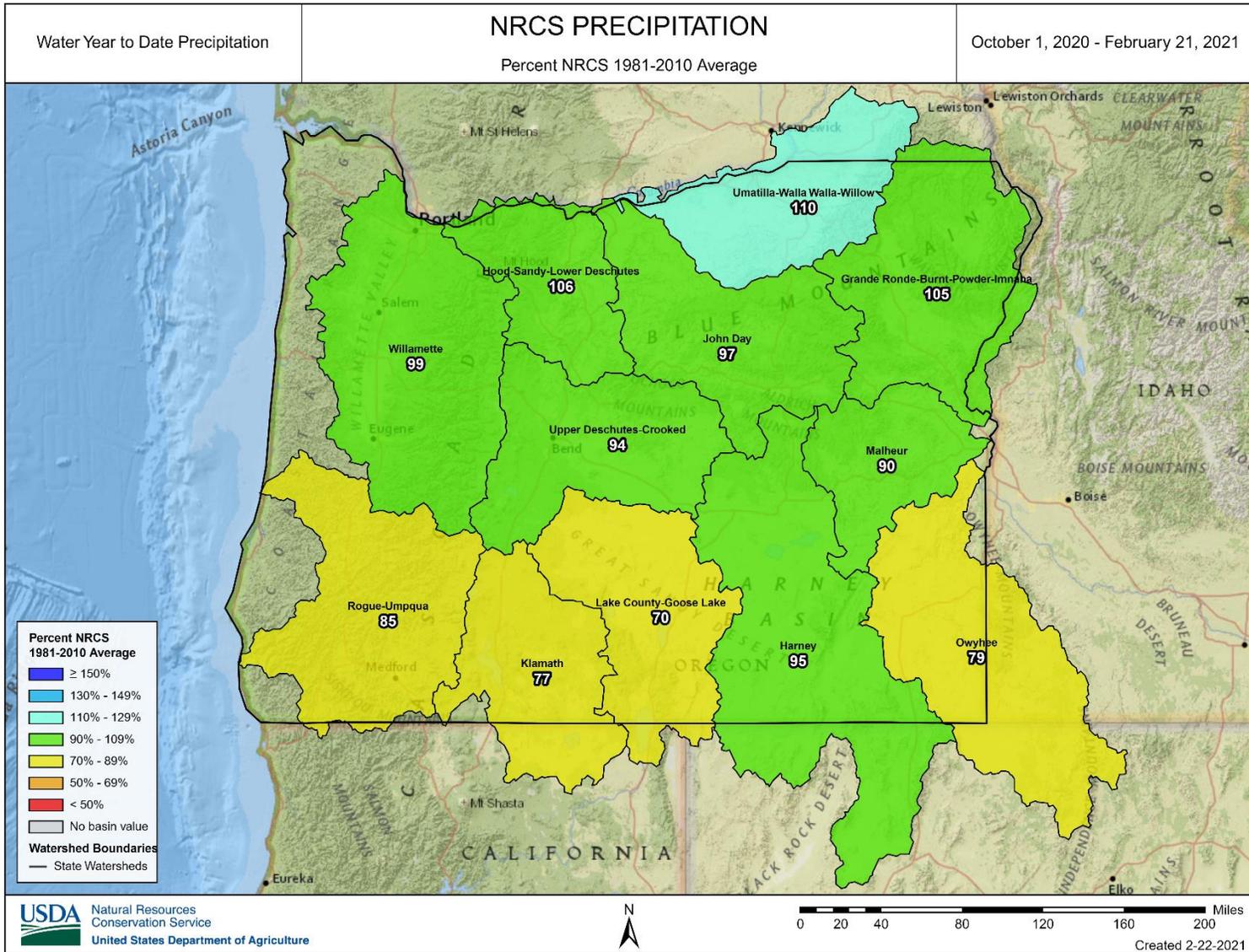




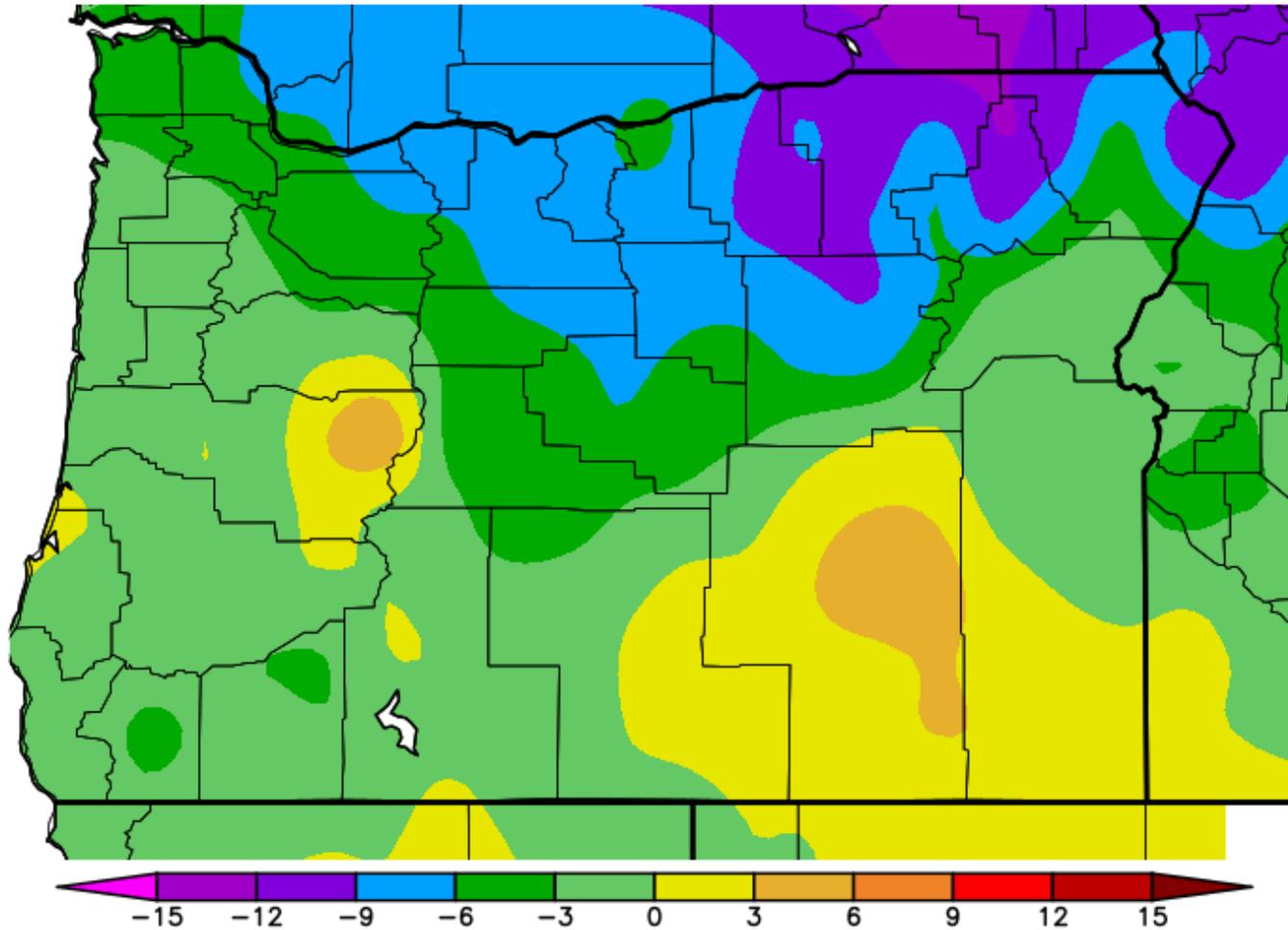
CLIMATE CONDITIONS
SNOW WATER EQUIVALENT



PRECIPITATION



Ave. Temperature dep from Ave (deg F)
2/8/2021 – 2/21/2021

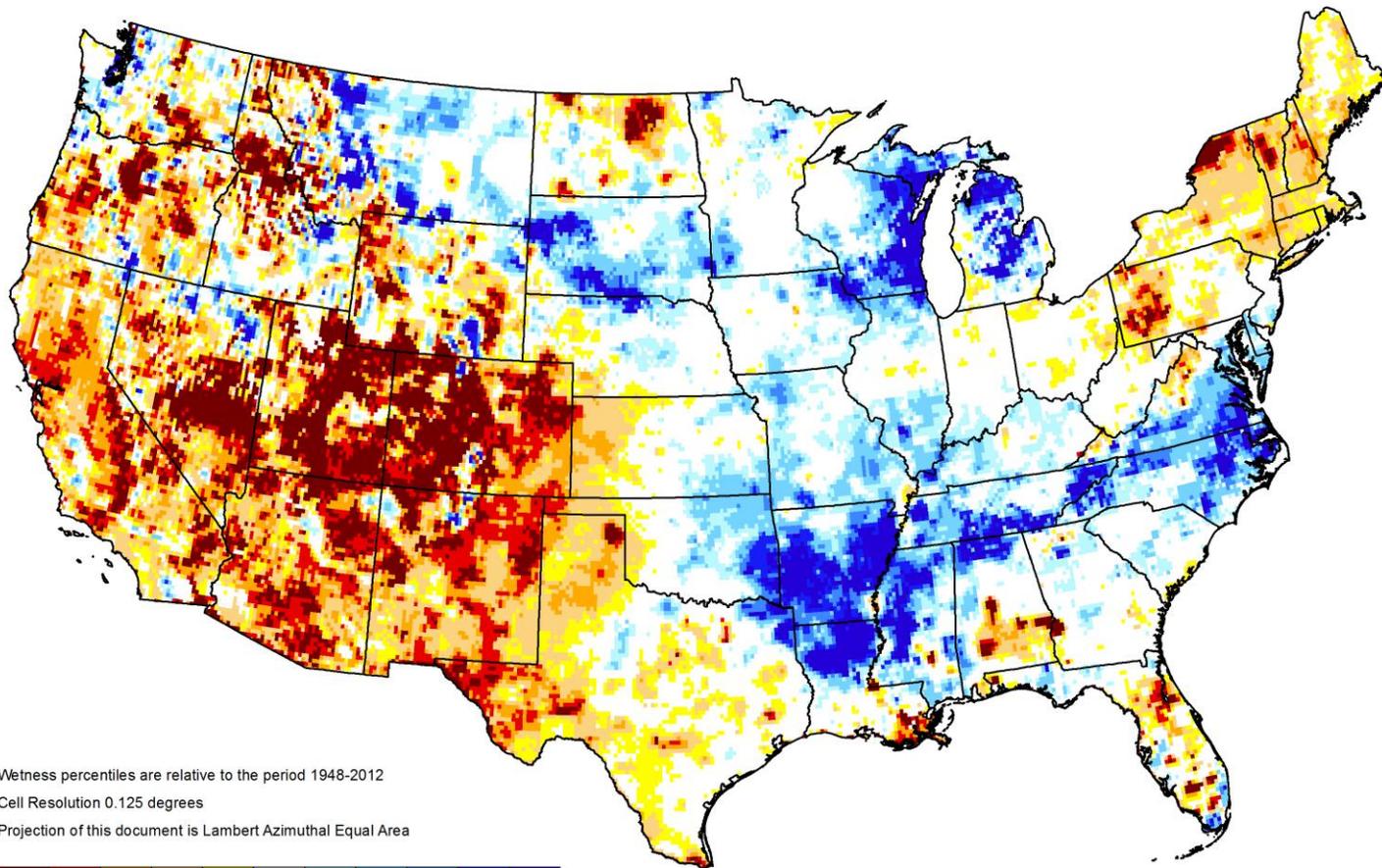


Generated 2/22/2021 at WRCC using provisional data.
NOAA Regional Climate Centers

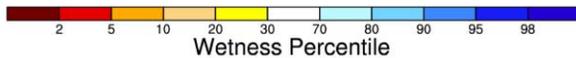


GRACE-Based Shallow Groundwater Drought Indicator

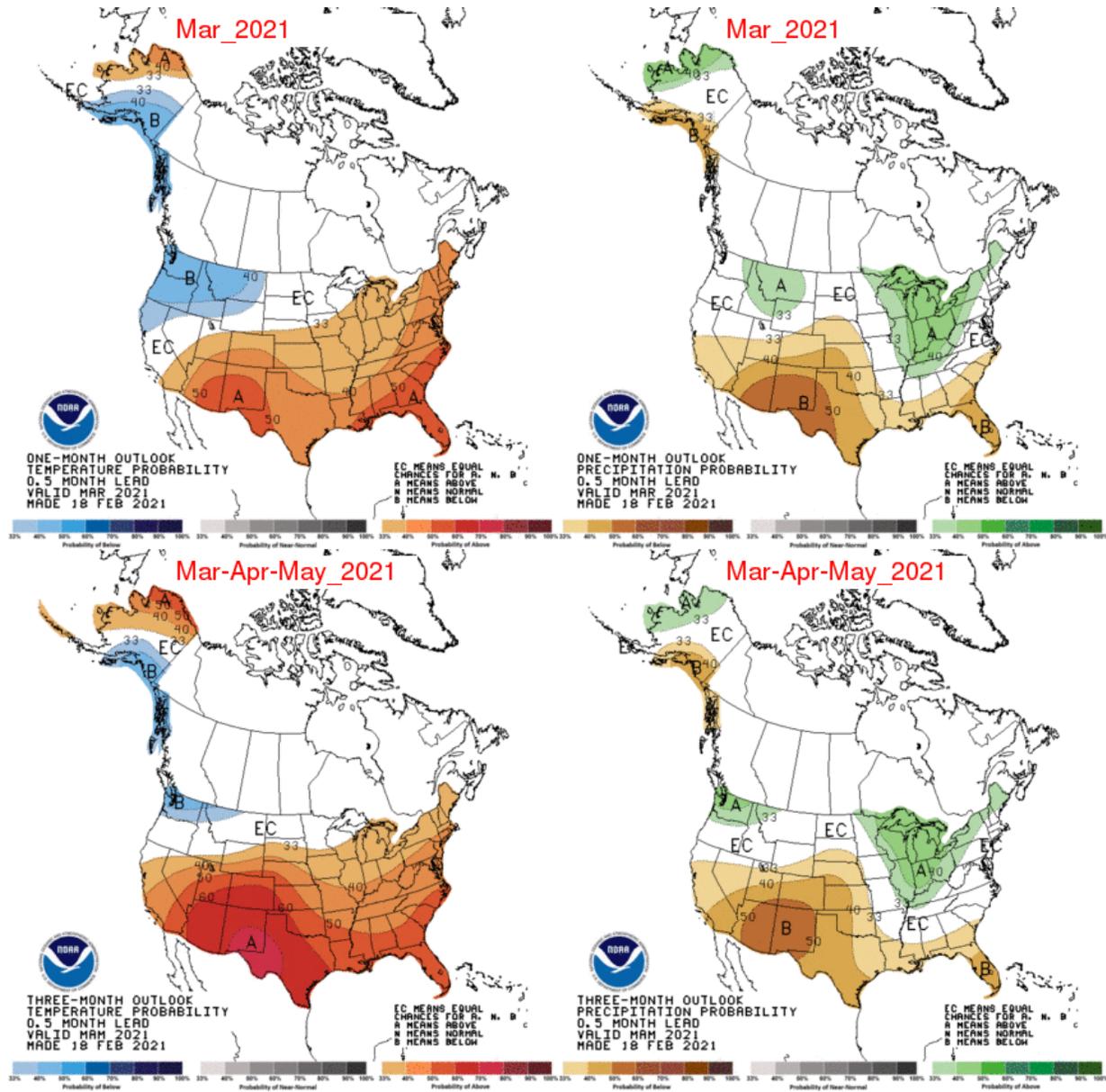
February 15, 2021



Wetness percentiles are relative to the period 1948-2012
Cell Resolution 0.125 degrees
Projection of this document is Lambert Azimuthal Equal Area

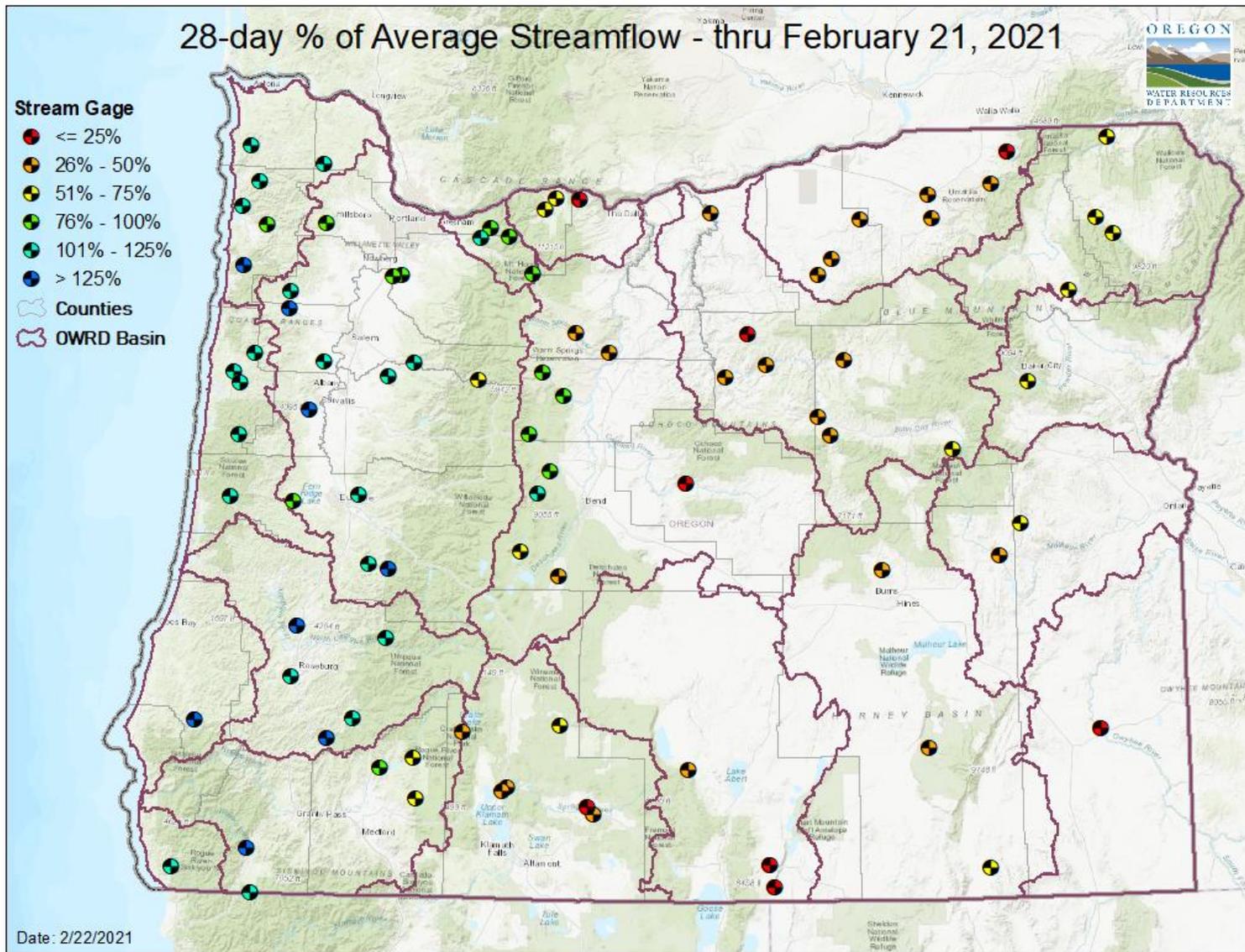


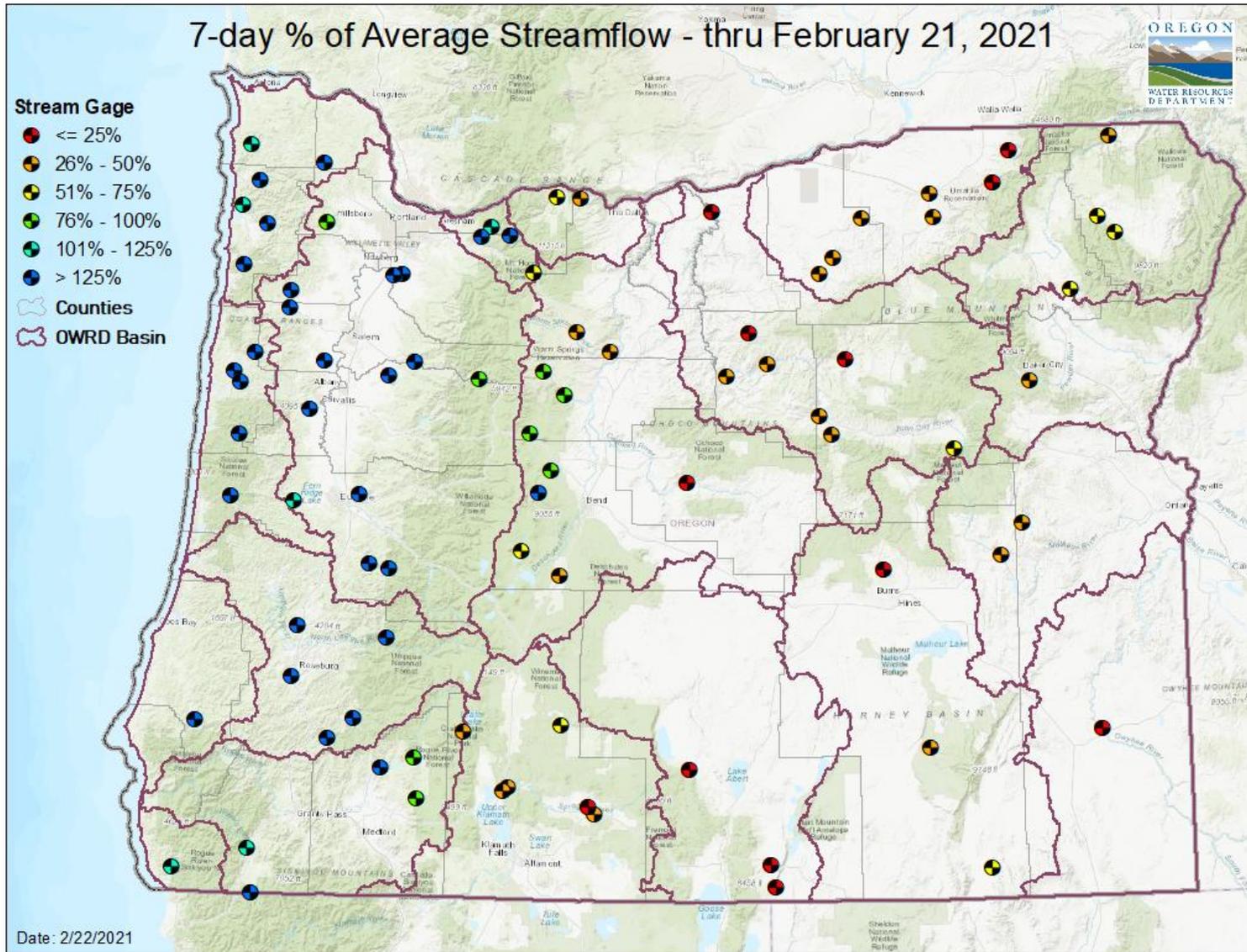
<https://nasagrace.unl.edu>



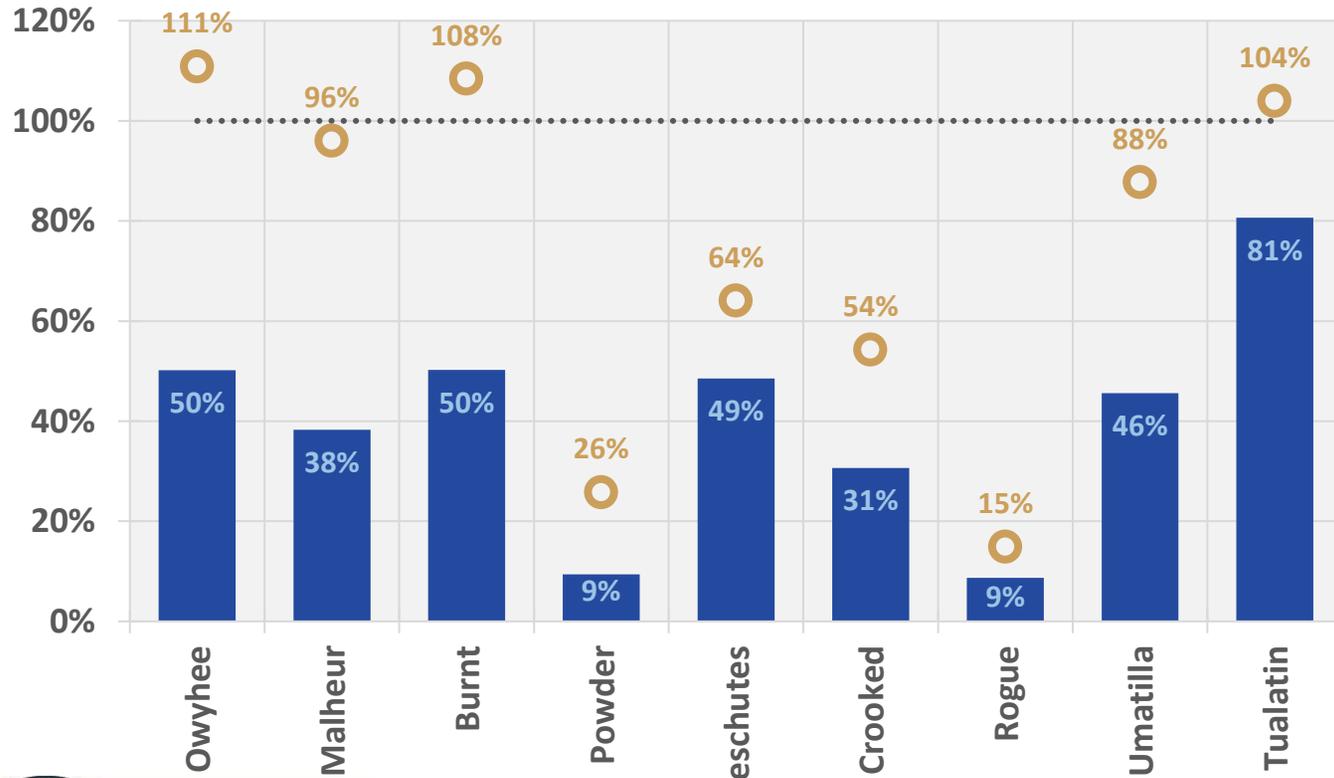
STREAMFLOW

28-DAY





February 17 Reservoir Storage



BUREAU OF RECLAMATION

■ Percent Full

● Percent of Average

RESOURCES/REFERENCES

Released every Thursday, the [US Drought Monitor](#) provides a weekly assessment of drought conditions. The USDM provides a [network infographic](#) which depicts the network of observers who gather and report information about conditions and drought impacts.

The [NRCS Snow Survey](#) Program provides mountain snowpack data and streamflow forecasts for Oregon and the western United States.

The [WestWide Drought Tracker](#) uses data from [PRISM](#) to provide easy access to fine-scale drought monitoring and climate products, such as the figures depicting climate conditions within this report.

The National Weather Service's [Climate Prediction Center](#) offers [weekly](#), [monthly](#), and [seasonal](#) climate outlooks illustrating the probabilities of temperatures and precipitation.

The [Regional Climate Centers](#) (RCC) working with NOAA partners, deliver climate services at national, regional, and state levels. Climate [anomaly maps of Oregon](#) are updated daily at around noon PST.

NASA's [Gravity Recovery and Climate Experiment](#) (GRACE) provide satellite-based observations of soil moisture conditions that are useful as drought indicators, helpful in describing current wet or dry soil conditions.

USGS [Water Watch](#) provides maps of real-time and average streamflow conditions at USGS sites throughout the state.

Reservoir storage "teacup" diagrams are offered by both the [US Bureau of Reclamation](#) and [US Army Corps of Engineers](#). The diagrams represent the level of fill in the reservoirs as both percent full and as a ratio of volume of water currently in the reservoir to the volume of water in the reservoir when it is full.

Oregon wildfire information can be found through [InciWeb](#) and the Oregon Department of Forestry's [Wildfire News](#), along with the [National Interagency Fire Center](#) which offers outlooks on the significant wildland fire potential.

Oregon Office of Emergency Management maintains a [hydrology/meteorology dashboard](#) which shows state and local drought declarations, as well as hosts many of the data sources to generate this report. Use the selection arrows at the bottom of your browser to navigate through the various sources.

US Department of Agriculture provides the [Weekly Weather and Crop Bulletin](#) as a vital source of information on US and global weather, climate, and agricultural developments, along with seasonally appropriate agrometeorological charts and tables. USDA's [Drought Programs and Assistance](#) offers links to programs and resources to help those struggling with persistent drought.