

# Oregon Water Conditions Report



March 21<sup>st</sup>, 2022

## HIGHLIGHTS

Just over 89% of Oregon is classified as experiencing moderate (D1) to exceptional (D4) drought conditions according to the [US Drought Monitor](#). There has been a mix of intensification and reduction in drought severity throughout the state in recent weeks. See below for more information.

[Statewide snow water equivalent](#) is now measuring 80% of the long-term median. Meltout has begun in the John Day and Malheur basins, and continues in both Klamath and Lake County-Goose Lake basins.

[Precipitation over the past two weeks](#) has been well below average throughout a majority of the state. Much of central and eastern Oregon received [less than half an inch of precipitation](#) during this time. Precipitation in western Oregon was more variable, although still well below average.

[Recent temperatures were within 2° F of the long-term average](#) throughout much of Oregon. There were several pockets of localized cooling in some parts of the state.

While precipitation throughout the wet season has benefitted [surface and root zone soil moisture](#) in parts of western Oregon, much of central and eastern Oregon is still lagging behind. Shallow groundwater profiles continue to experience historical dryness in a large portion of the state.

The [near-term climate outlook](#) depicts probabilities favoring above average precipitation statewide and above average temperatures in eastern and northcentral Oregon over the next 8 to 14 days. Temperatures elsewhere in the state are expected to be closer to average.

Streamflows over the past [7-day](#) and [28-day](#) periods are variable within and between different regions the state. For example, streams along the coast range from below to well above average and those in southern Oregon are well below average. See below for more information.

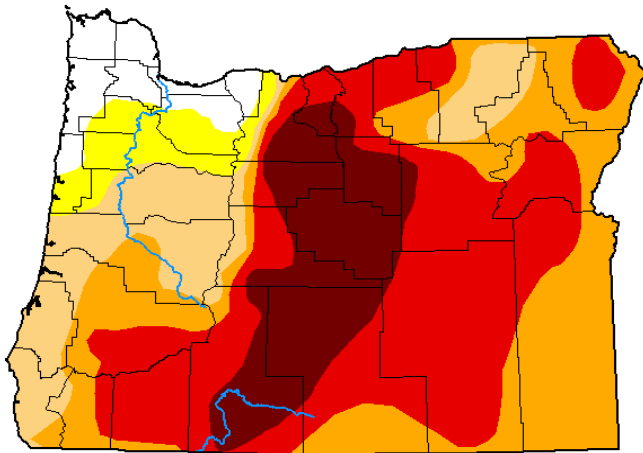
Reservoir storage contents in both [USBR](#) (including [Klamath](#)) and [USACE](#) systems continues to measure well below average, with exceptions in the Umatilla and Tualatin basins. Many reservoirs are not expected to fill, and some are expected to reach a lower peak volume compared to last year.

## DROUGHT CONDITIONS

The US Drought Monitor indicates 89% of Oregon is experiencing drought conditions. Drought intensity has increased to extreme (D3) in Douglas, Jackson, and Josephine Counties due to warm temperatures and near historical dryness. Drought conditions in parts of Harney and Lake Counties have also intensified due to precipitation deficits and dry soil conditions. Several counties in northeastern Oregon and the Willamette Valley saw one-category improvements, while the Portland metro area was removed from drought classification.

### U.S. Drought Monitor Oregon

**March 15, 2022**  
(Released Thursday, Mar. 17, 2022)  
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	5.66	94.34	89.04	75.03	49.69	15.73
<b>Last Week</b> 03-08-2022	5.66	94.34	90.01	76.16	50.07	16.22
<b>3 Months Ago</b> 12-14-2021	1.39	98.61	96.78	90.05	66.97	20.35
<b>Start of Calendar Year</b> 01-04-2022	4.16	95.84	89.75	75.37	50.84	17.27
<b>Start of Water Year</b> 09-28-2021	0.00	100.00	100.00	96.47	72.10	26.59
<b>One Year Ago</b> 03-16-2021	19.32	80.68	67.32	43.99	12.53	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>

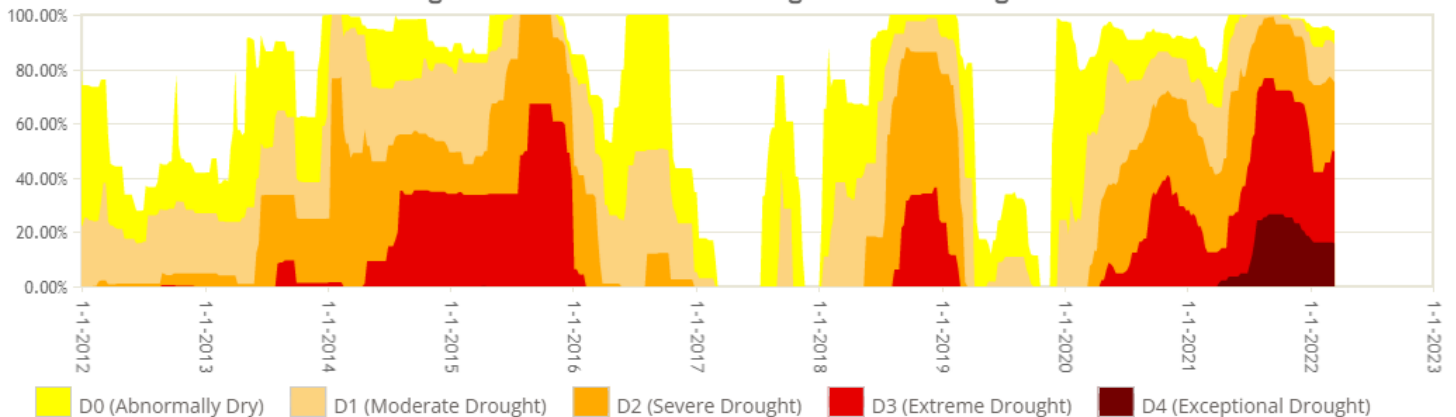
Author:

Adam Hartman  
NOAA/NWS/NCEP/CPC

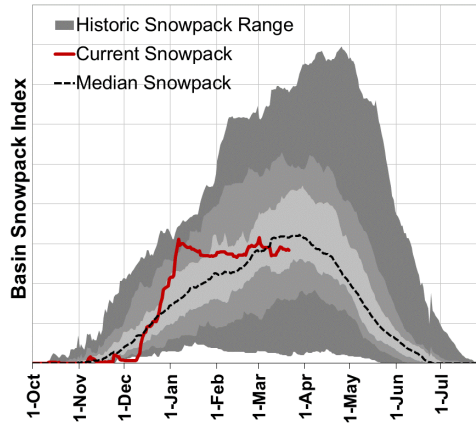


[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

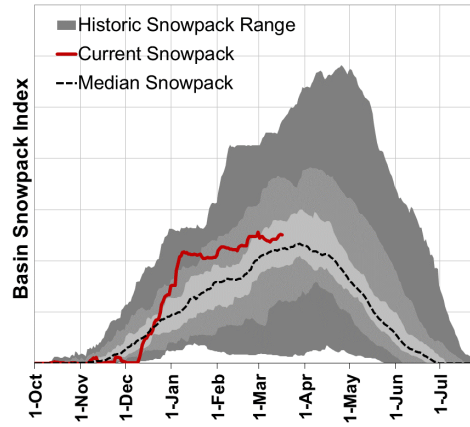
### Oregon Percent Area in U.S. Drought Monitor Categories



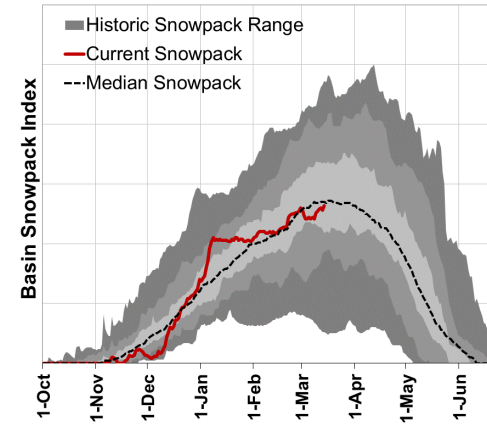
**Willamette**



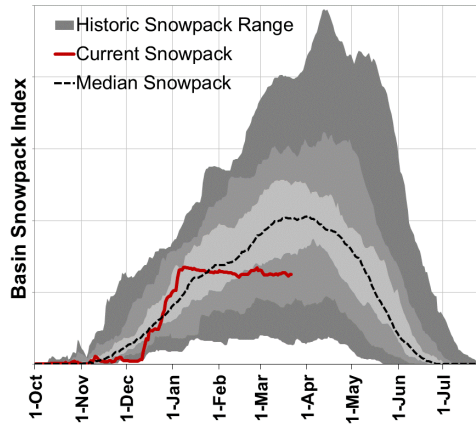
**Hood-Sandy-Lower Deschutes**



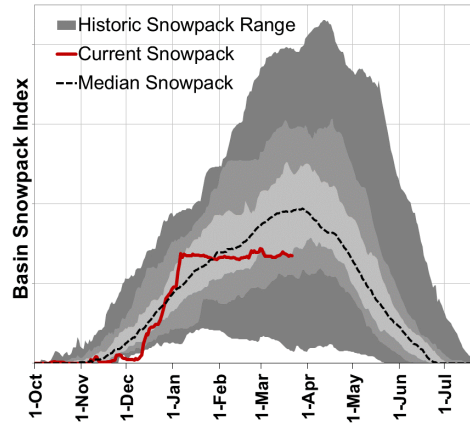
**Umatilla-Walla Walla-Willow**



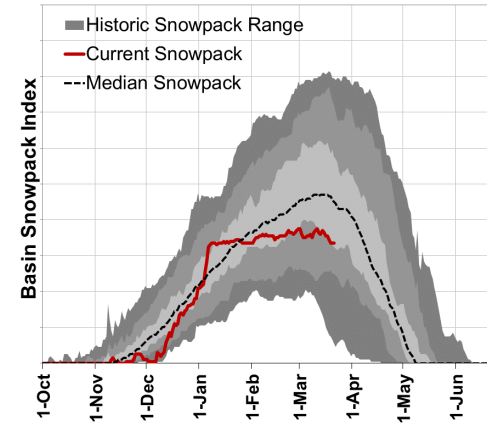
**Rogue-Umpqua**



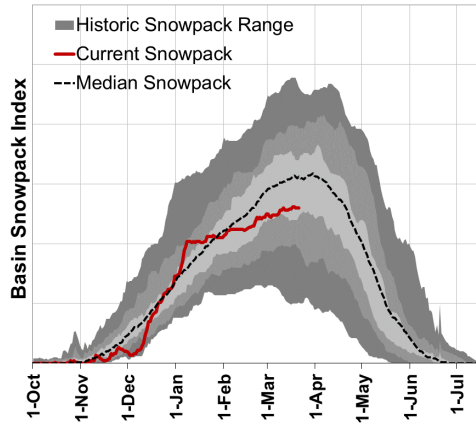
**Upper Deschutes-Crooked**



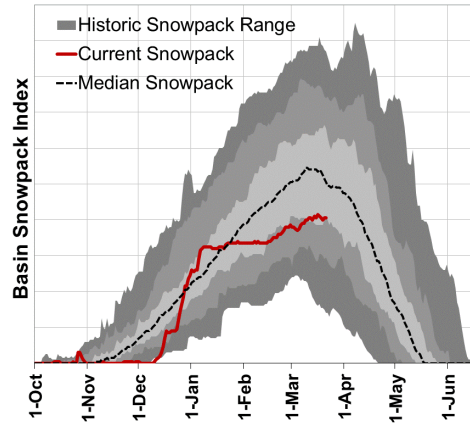
**John Day**



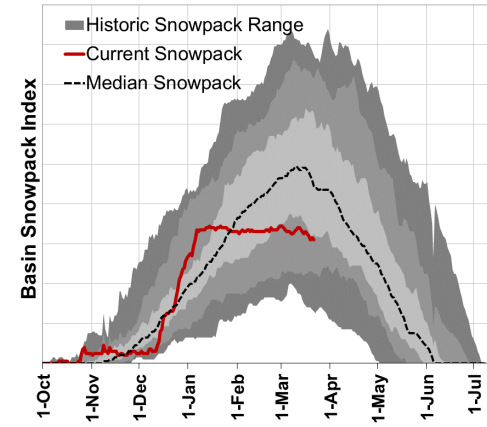
Grande Ronde-Burnt-Powder-Imnaha



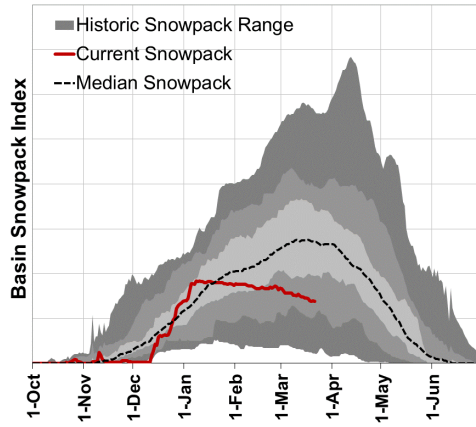
Owyhee



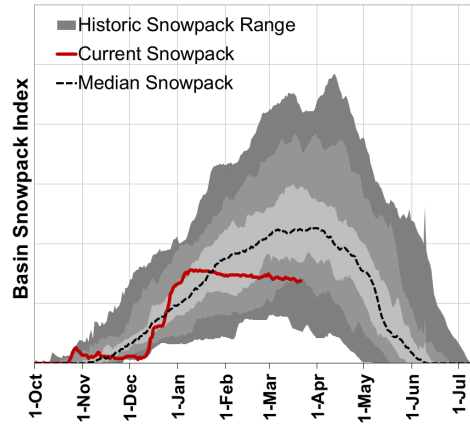
Harney



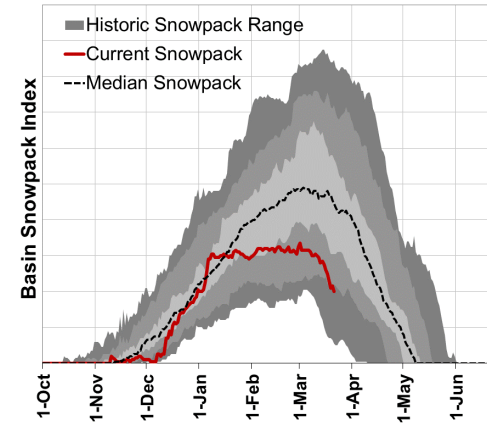
Klamath



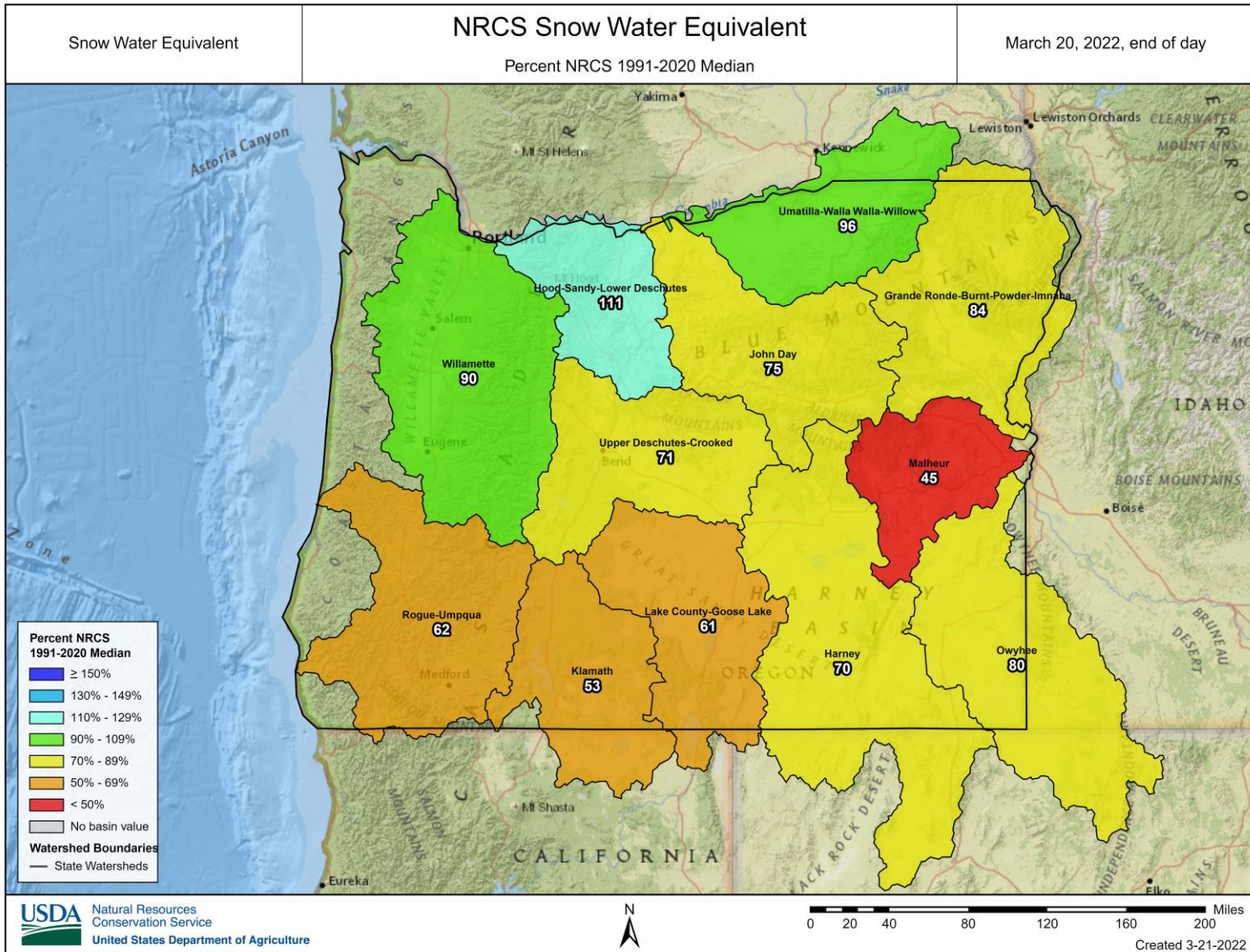
Lake County-Goose Lake



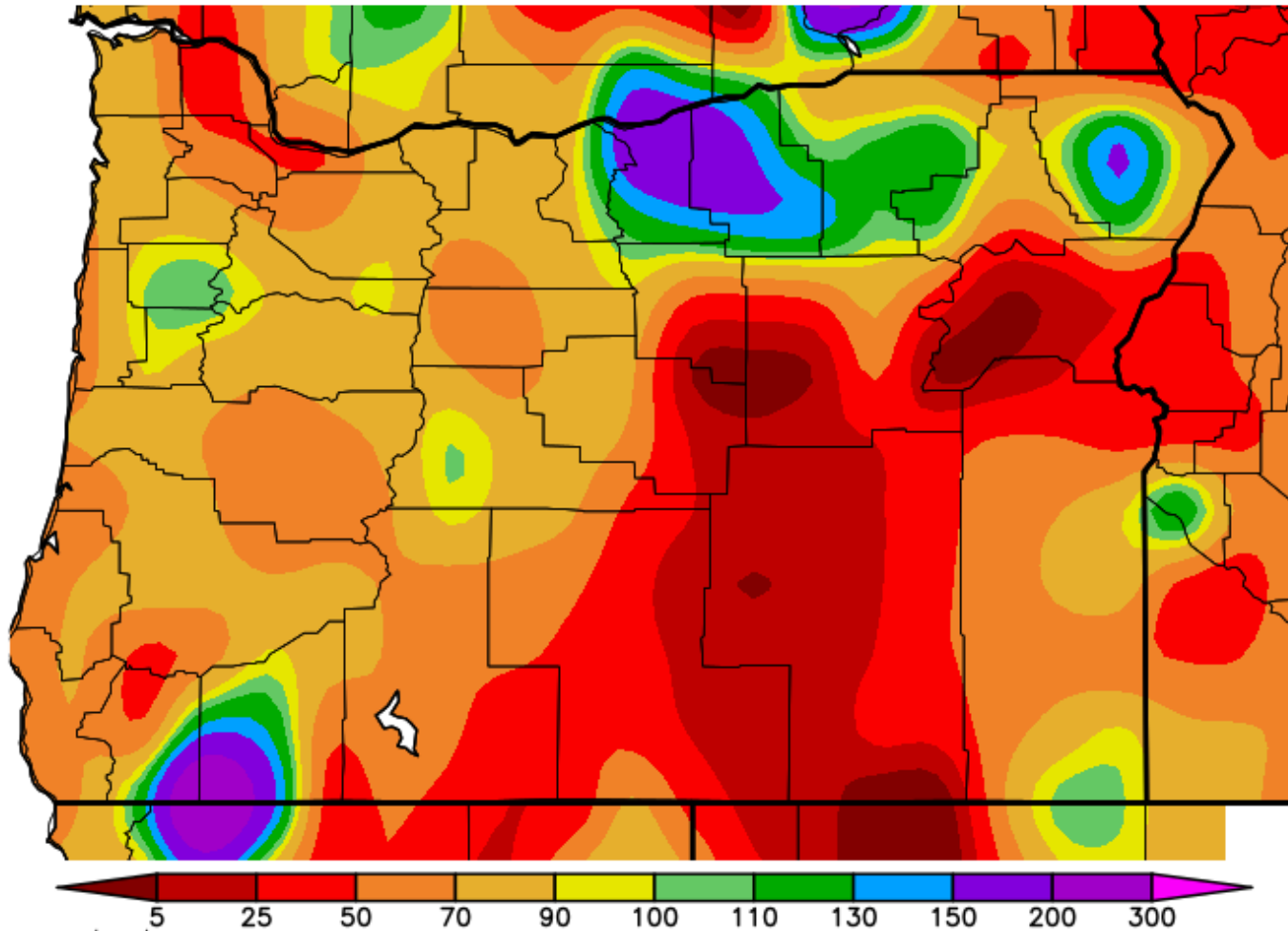
Malheur



**CLIMATE CONDITIONS**  
**SNOW WATER EQUIVALENT**

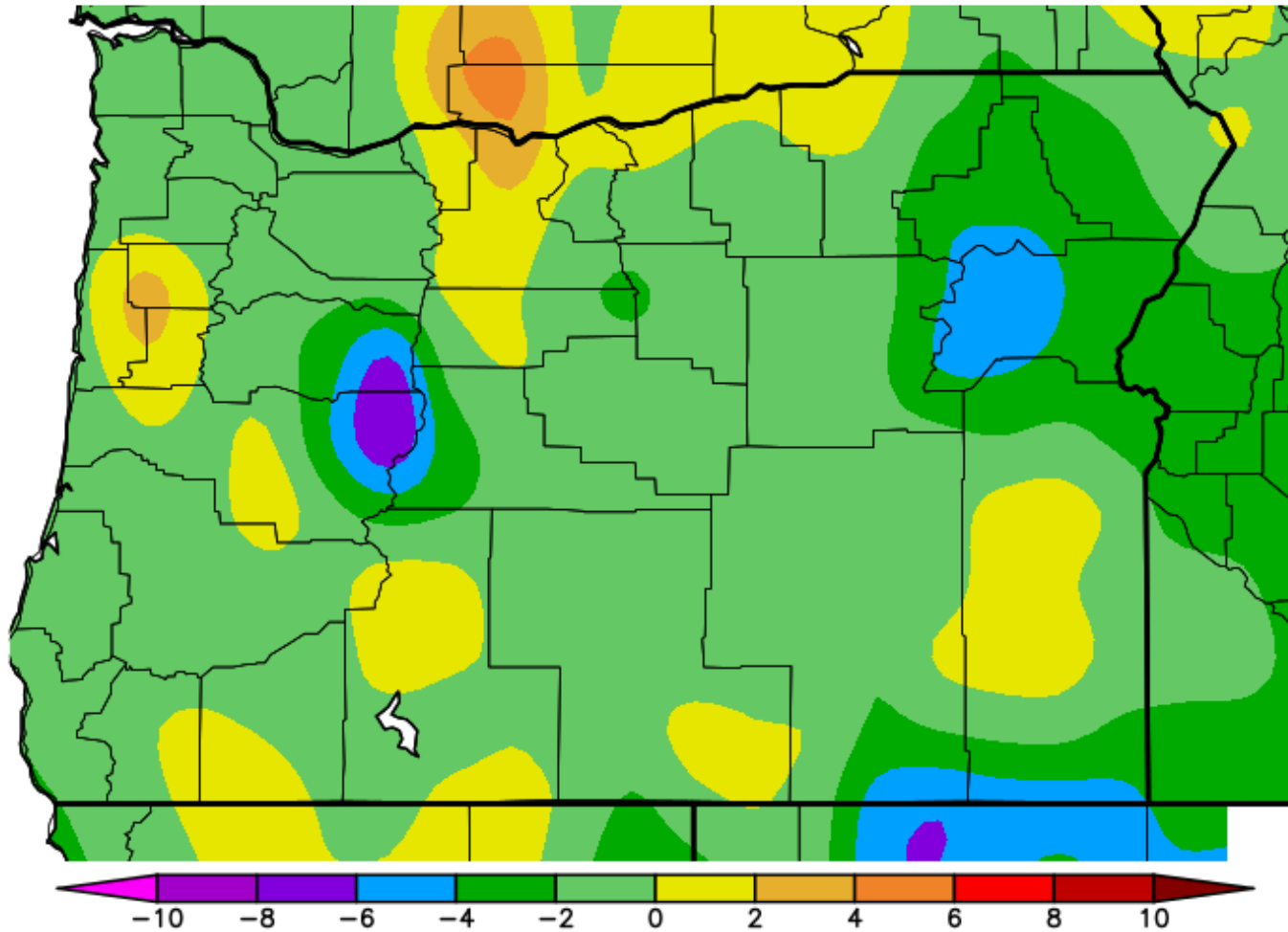


# Percent of Average Precipitation (%) 3/7/2022 – 3/20/2022



Generated 3/21/2022 at WRCC using provisional data.  
NOAA Regional Climate Centers

Ave. Temperature dep from Ave (deg F)  
3/7/2022 - 3/20/2022

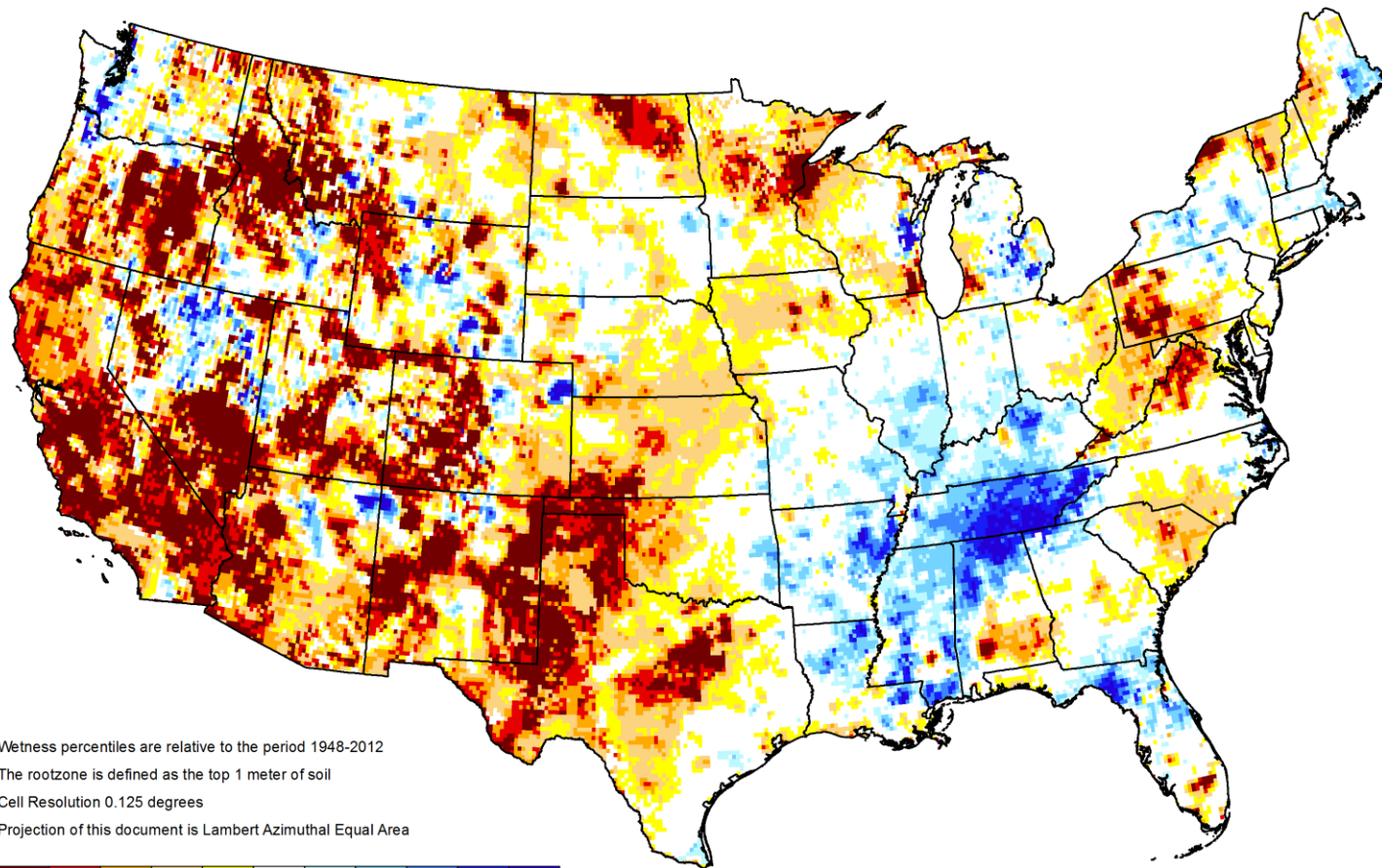


Generated 3/21/2022 at WRCC using provisional data.  
NOAA Regional Climate Centers

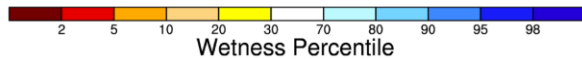


# GRACE-Based Root Zone Soil Moisture Drought Indicator

March 14, 2022



Wetness percentiles are relative to the period 1948-2012  
The rootzone is defined as the top 1 meter of soil  
Cell Resolution 0.125 degrees  
Projection of this document is Lambert Azimuthal Equal Area



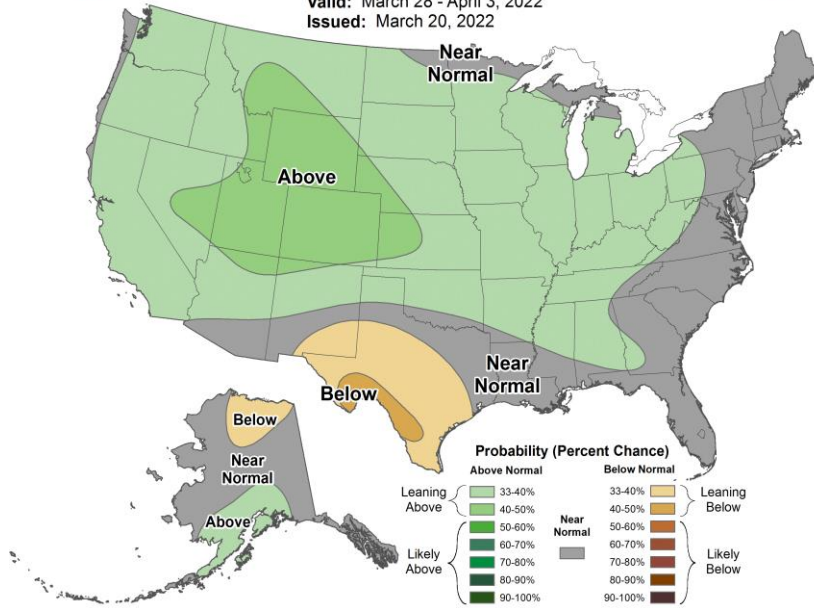
<https://nasagrace.unl.edu>





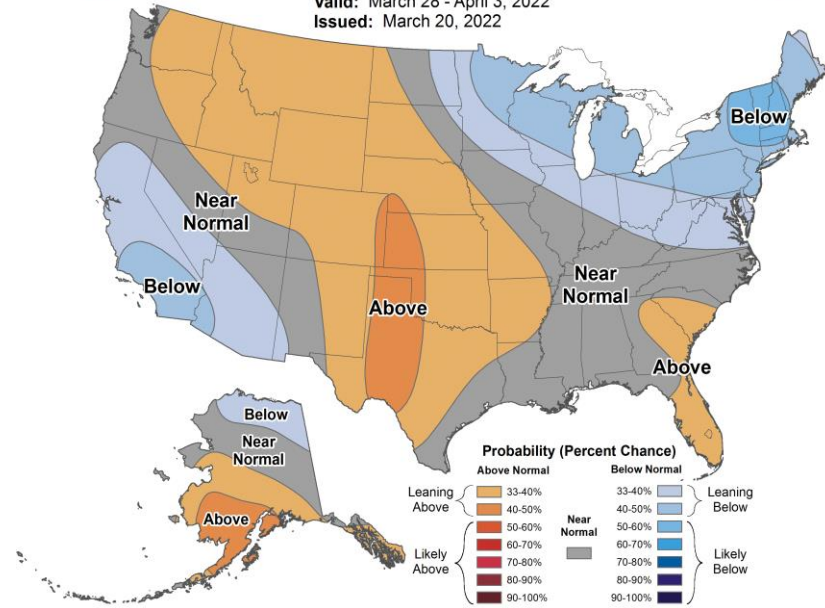
### 8-14 Day Precipitation Outlook

Valid: March 28 - April 3, 2022  
 Issued: March 20, 2022



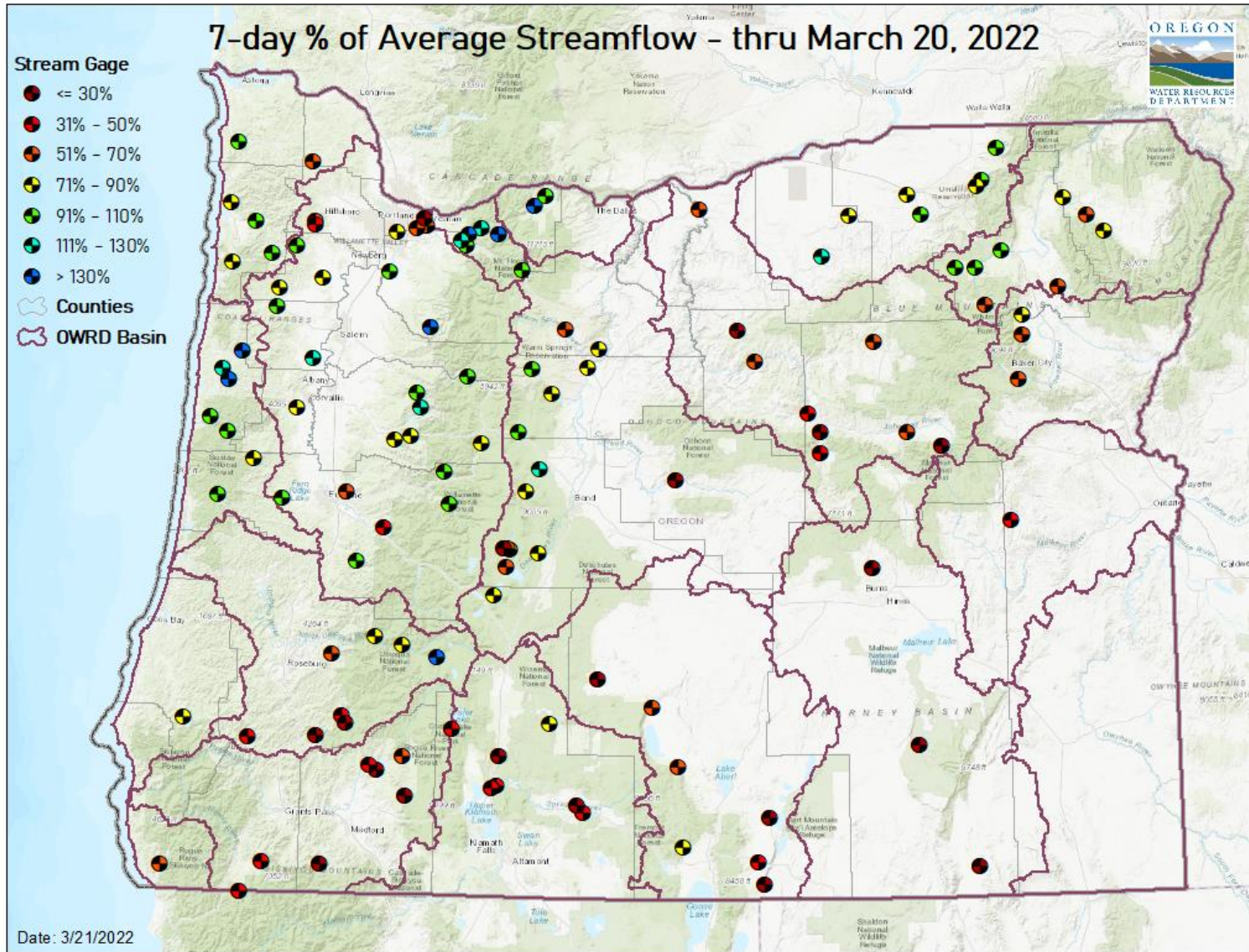
### 8-14 Day Temperature Outlook

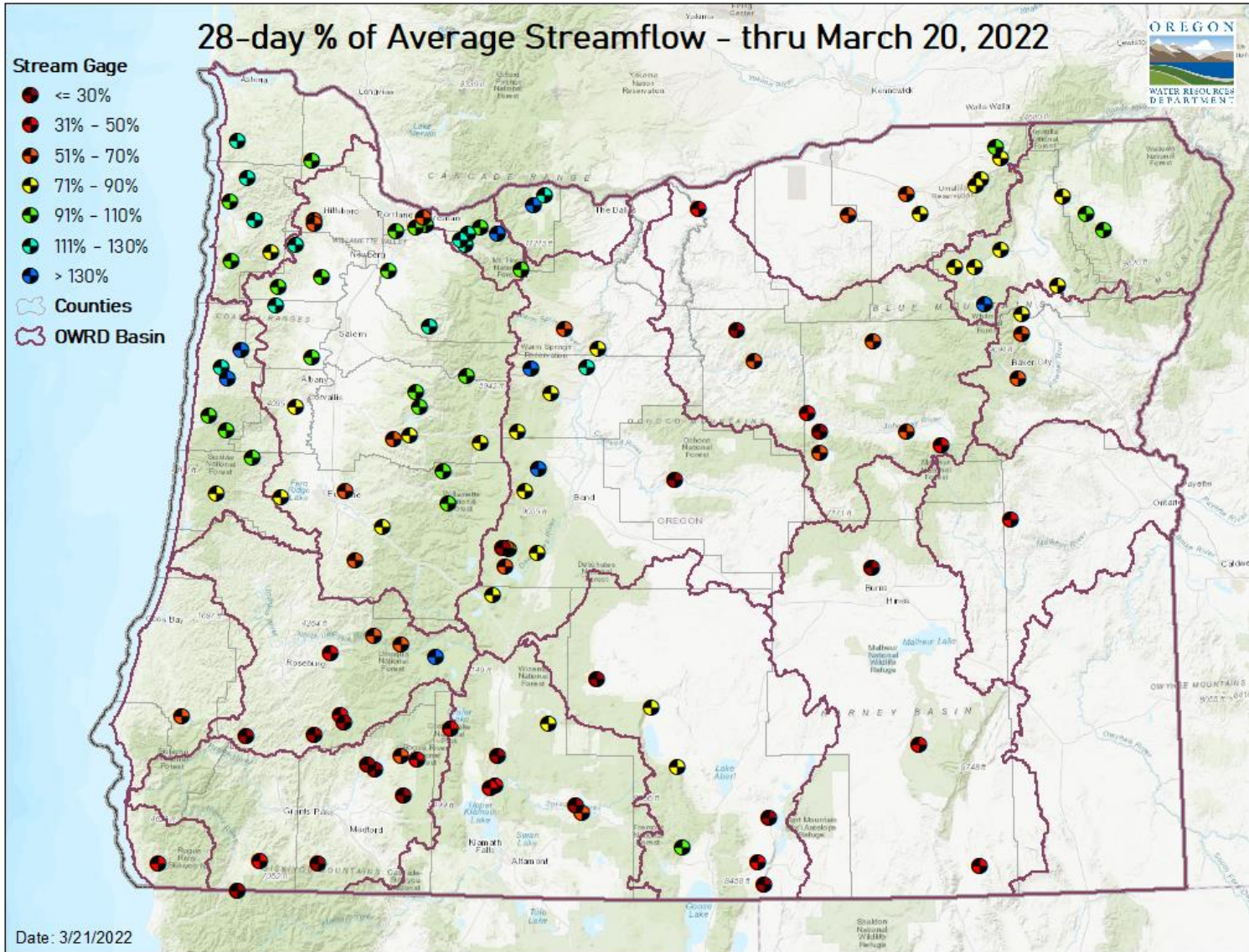
Valid: March 28 - April 3, 2022  
 Issued: March 20, 2022



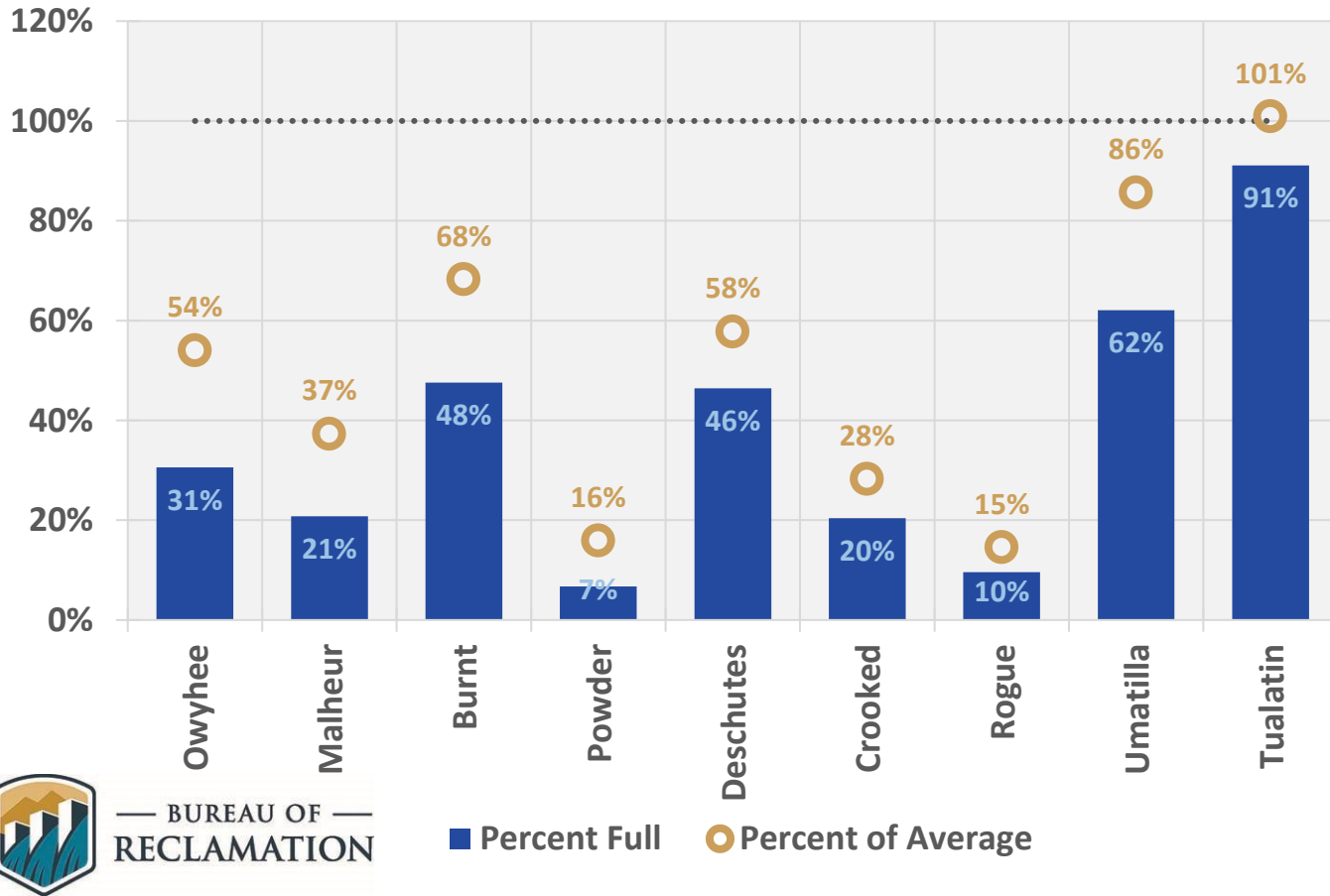
STREAMFLOW

7-DAY





### March 20 Reservoir Storage



## RESOURCES/REFERENCES

Please visit [Oregon Water Resources Department's drought information page](#) to learn about current drought conditions, assistance programs, and potential drought tools.

If you are interested in submitting local drought-related conditions and impacts, please visit the [drought impacts toolkit](#) to learn more. [Click here](#) to visit the map of condition monitoring observer reports.

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 [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.