

# Oregon Water Conditions Report



April 5<sup>th</sup>, 2021

## HIGHLIGHTS

There has been little change in drought coverage and severity over recent weeks, according to the US Drought Monitor. Drought conditions remain extreme in portions of southern Oregon. An [executive order](#) issuing a state of drought emergency in Klamath County has been released. Jackson County has recently submitted a drought declaration request - see Oregon Water Resources Department's [drought status dashboard](#) for more.

[Statewide snow water equivalent](#) (SWE) is currently measuring 112% of the long-term median at NRCS SNOTEL sites. Although snowpack melt-out has begun in most basins (see basin snowpack graphs below), some basins continue to measure above normal in northern Oregon (max = Umatilla-Walla Walla-Willow @ 140%).

[NRCS SNOTEL precipitation](#) is measuring 91% of the statewide long-term average over the water year to date. The downward trend continues after a [below-average March](#), where precipitation throughout the state was much below average. Some areas of central Oregon received less than 25% of the average March precipitation.

[Temperatures throughout the month of March](#) were cooler than average statewide. Areas along coastal Oregon were 4 °F - 5 °F below the long-term average for the month. Other areas including much of western and southeastern Oregon were notably cool as well. [Throughout the water year to date](#), temperatures have measured near average, with some areas east of the Cascades measuring 1 °F - 2 °F above normal.

The [climate outlook for the month of April](#) indicates probabilities favoring below-average temperatures for much of the state, with the exception of the eastern third of the state which shows equal chances of above- or below-average temperatures; probabilities indicate equal chances of above- or below-average precipitation. The [seasonal outlook](#) (April through June) indicates below-average precipitation is likely, while the southern third of Oregon is likely to experience above-average temperatures.

[Streamflows for the month of March](#) were below to well below average throughout the state, with exception in Umatilla (101%) and Coos Counties (102%). Many counties in southern and eastern Oregon measured below 50% of average streamflow for the month. This continues a trend of below average streamflow throughout the water year (see below), where many counties east of the Cascades have measured streamflow well below the long-term average. See USGS WaterWatch for more information about recent [7-day](#) and [28-day](#) streamflows.

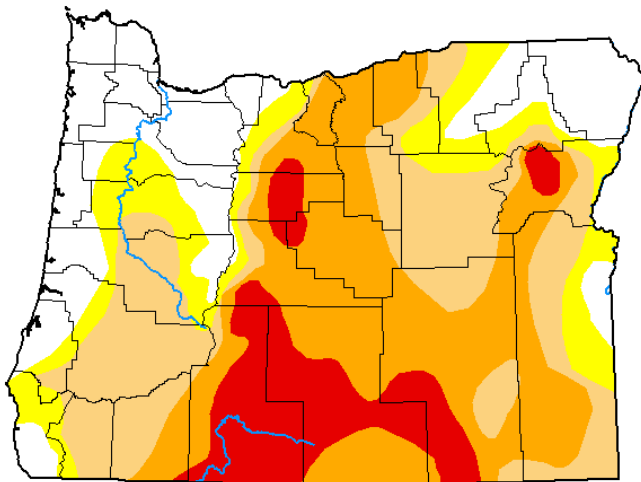
Reservoir storage conditions vary throughout the state. While contents in Owyhee, Umatilla, and Tualatin basin projects are measuring near normal, many other projects continue to measure below normal. Projects in the Rogue basin are of particular concern as storage contents are currently at historically low levels since the project became operational. See [USBR](#) and [USACE](#) teacup diagrams for more information.

## DROUGHT CONDITIONS

Over recent weeks there has been little change in the [US Drought Monitor](#), which indicates just under 80% of Oregon is experiencing some form of drought. Changes include minor expansion of D3 (extreme drought) coverage in southern Deschutes County and northern Lake County due to dry shallow groundwater and soil moisture profiles. Additionally, improvements in precipitation and SWE profiles suggest a one-class improvement from D2 (severe drought) to D1 (moderate drought) near the boundary of Grant and Wheeler Counties.

### U.S. Drought Monitor Oregon

**March 30, 2021**  
(Released Thursday, Apr. 1, 2021)  
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	21.14	78.86	66.01	41.25	12.55	0.00
<b>Last Week</b> 03-23-2021	21.09	78.91	66.01	41.25	12.55	0.00
<b>3 Months Ago</b> 12-29-2020	8.57	91.43	83.53	68.71	27.74	0.00
<b>Start of Calendar Year</b> 12-29-2020	8.57	91.43	83.53	68.71	27.74	0.00
<b>Start of Water Year</b> 09-29-2020	6.50	93.50	84.77	65.53	33.59	0.00
<b>One Year Ago</b> 03-31-2020	15.43	84.57	56.84	13.23	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>

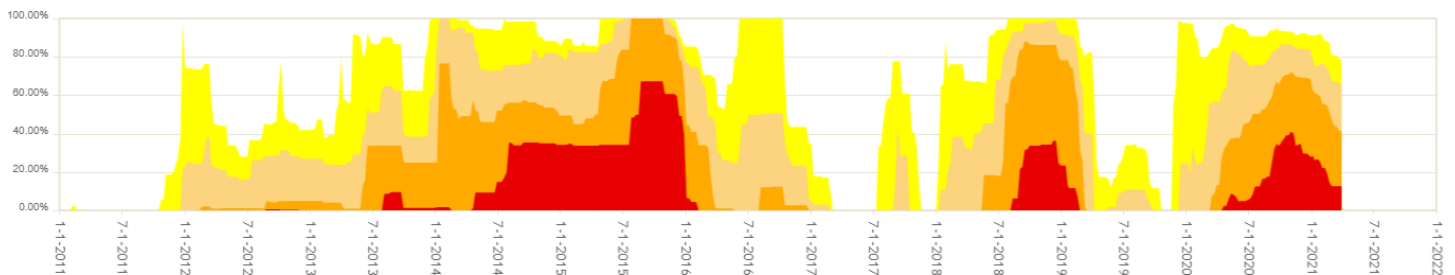
Author:

Brad Pugh  
CPC/NOAA

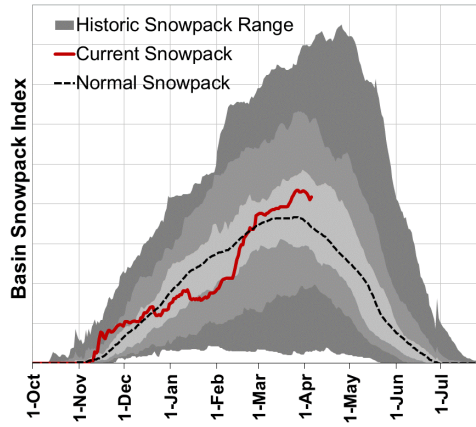


[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

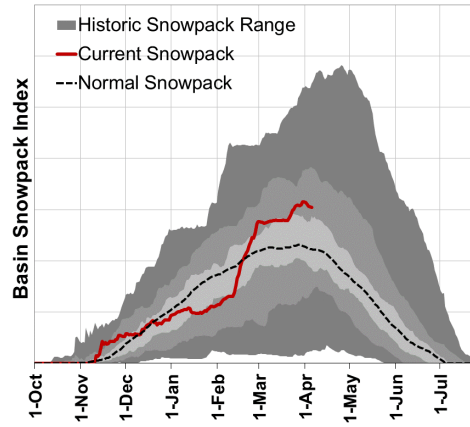
### Oregon Percent Area



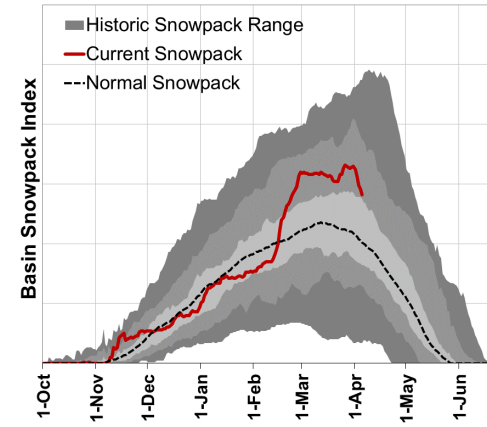
**Willamette**



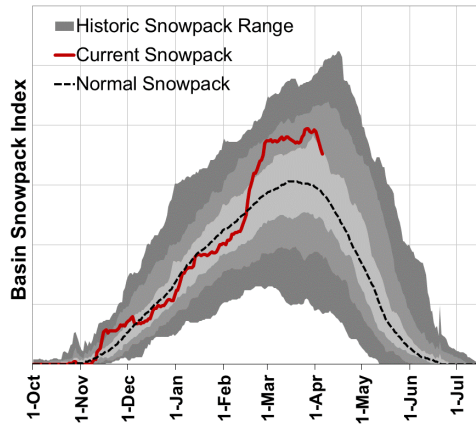
**Hood-Sandy-Lower Deschutes**



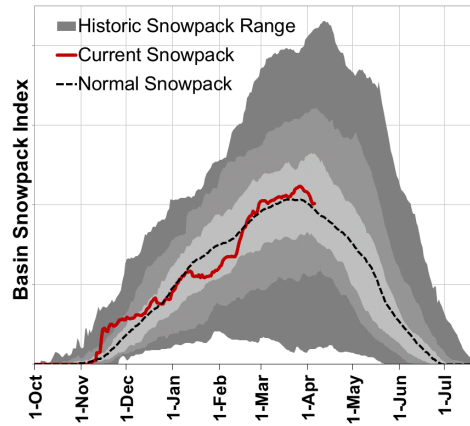
**Umatilla-Walla Walla-Willow**



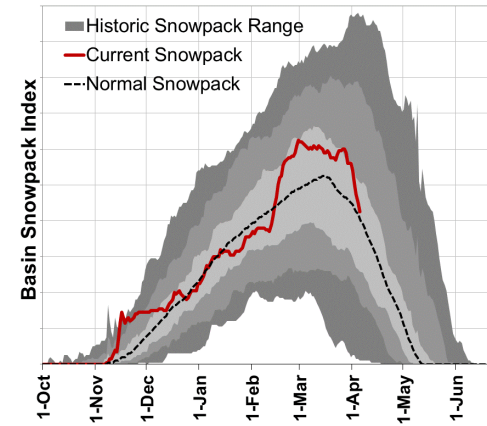
**Grande Ronde-Burnt-Powder-Imnaha**

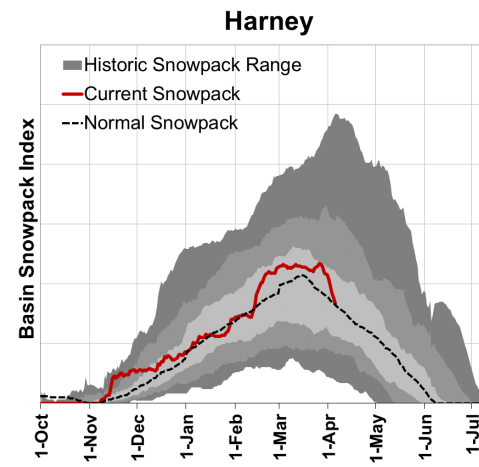
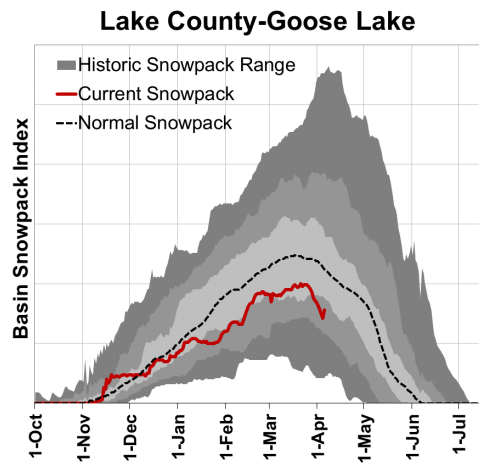
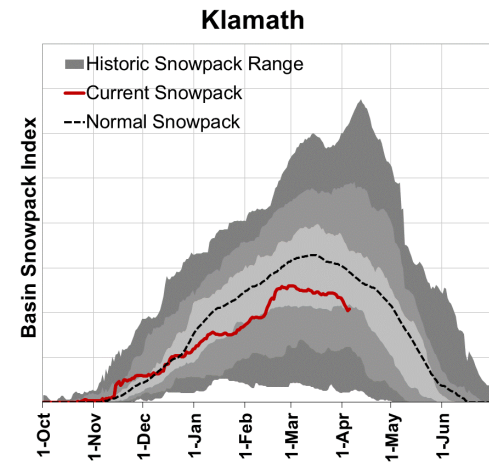
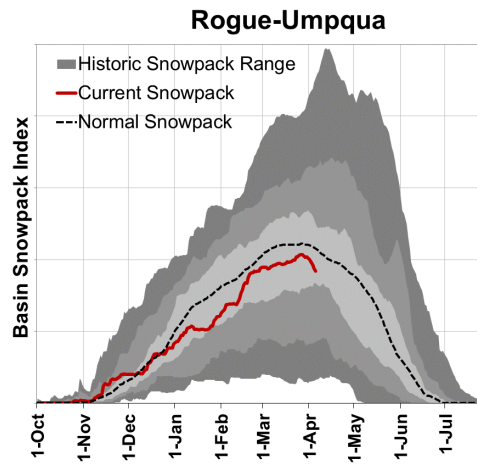
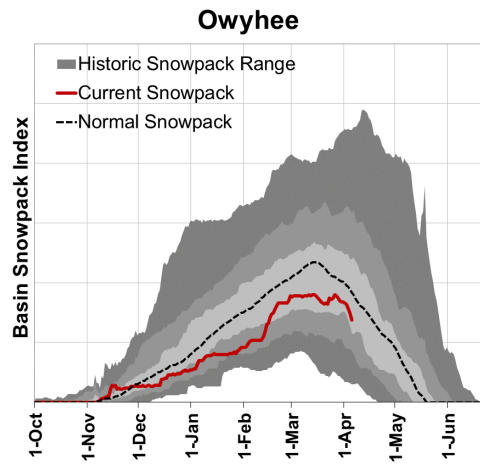


**Upper Deschutes-Crooked**

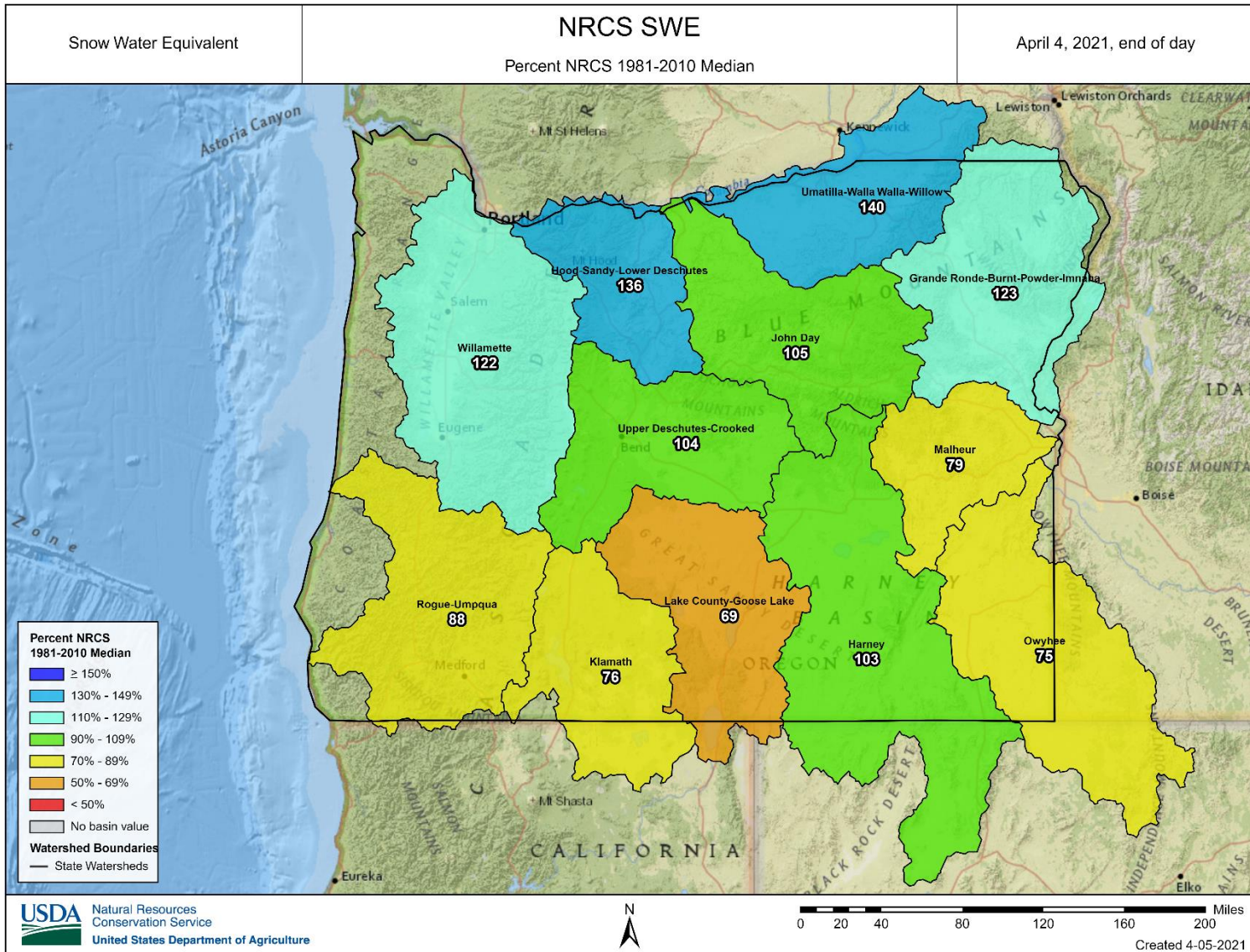


**John Day**



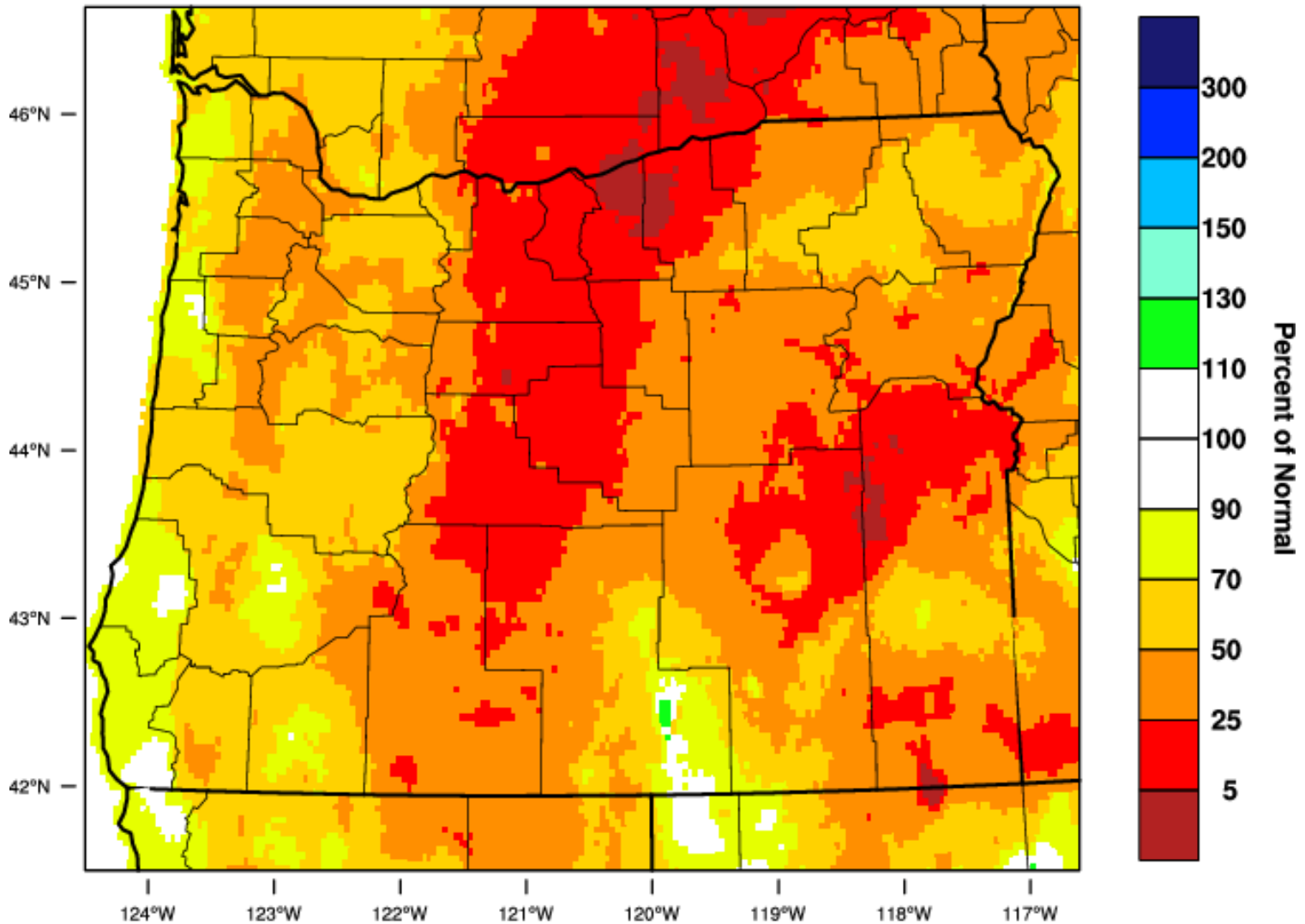


**CLIMATE CONDITIONS**  
**SNOW WATER EQUIVALENT**



### Oregon - Precipitation

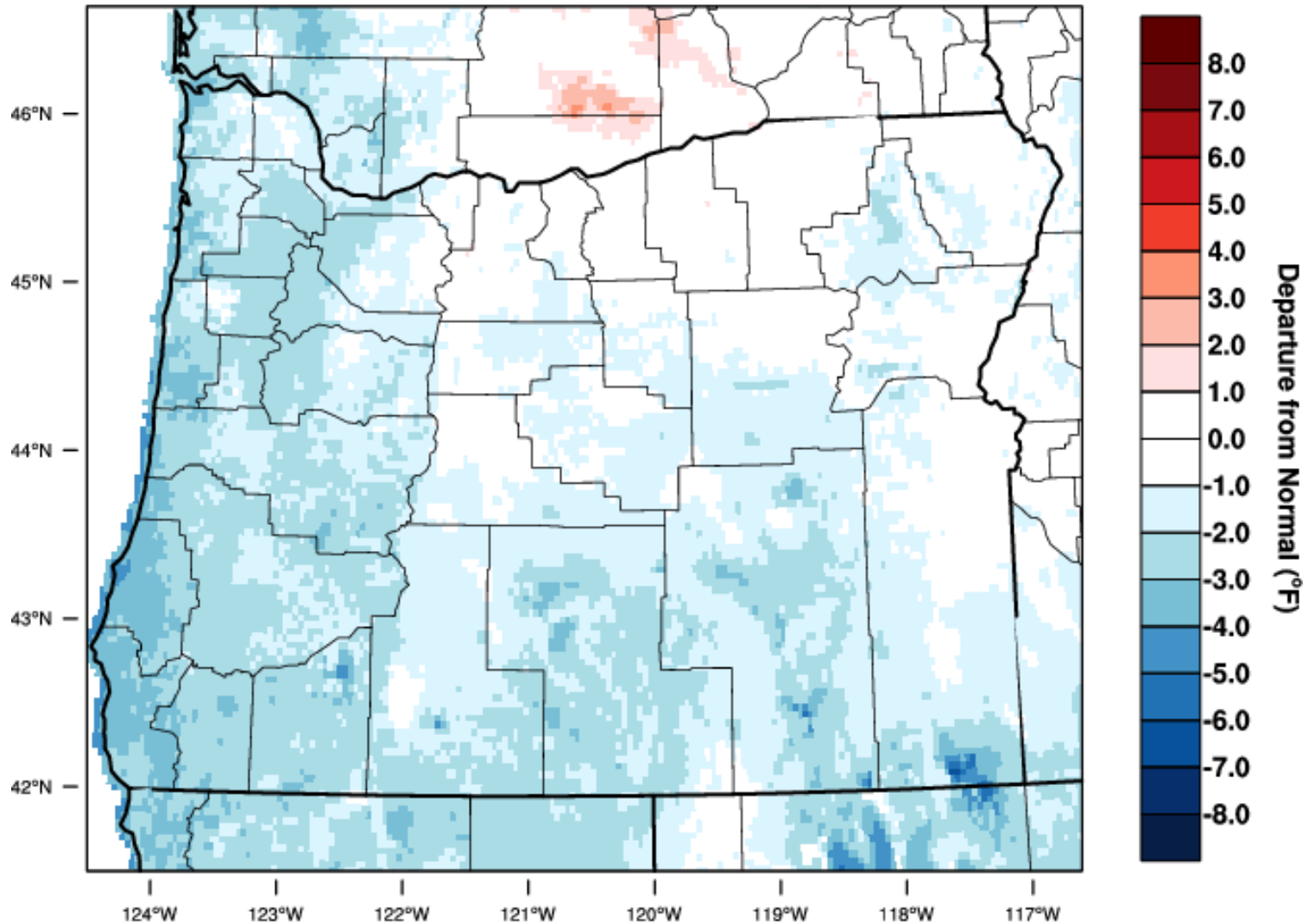
March 2021 Percent of 1981-2010 Normal



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 2 APR 2021

### Oregon - Mean Temperature

March 2021 Departure from 1981-2010 Normal

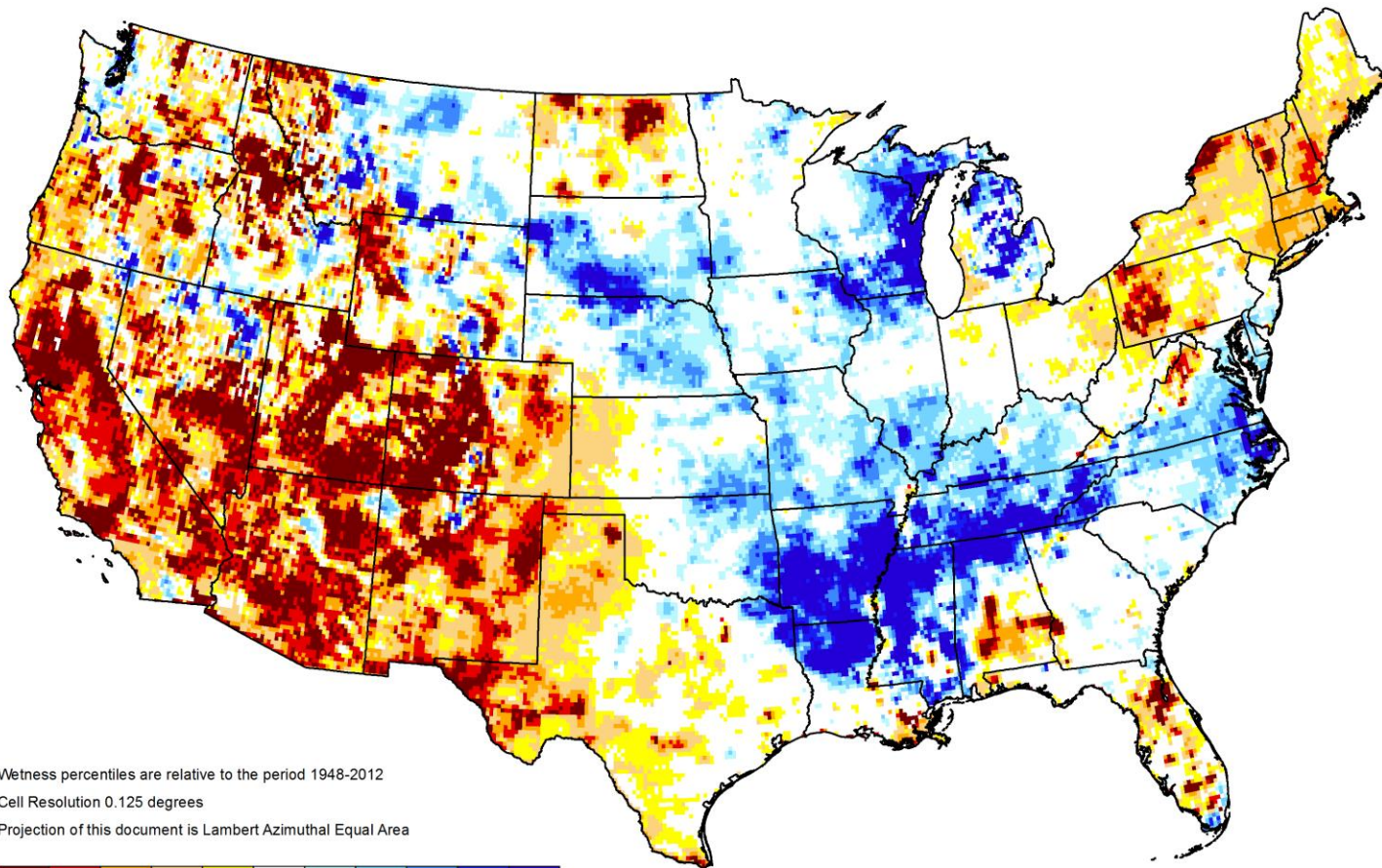


WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 2 APR 2021

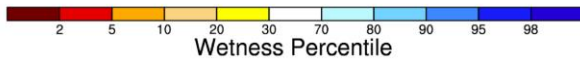


# GRACE-Based Shallow Groundwater Drought Indicator

March 29, 2021

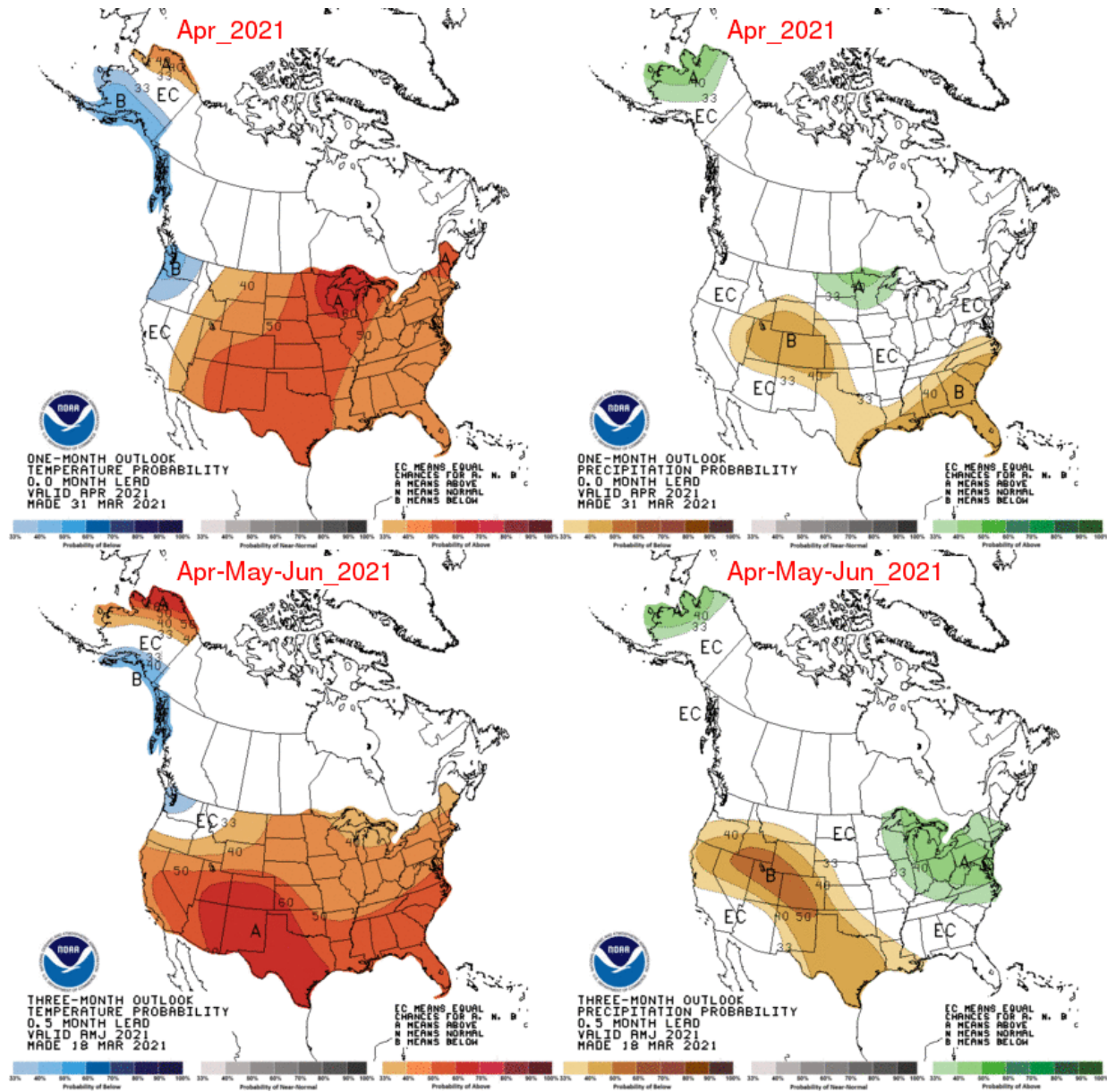


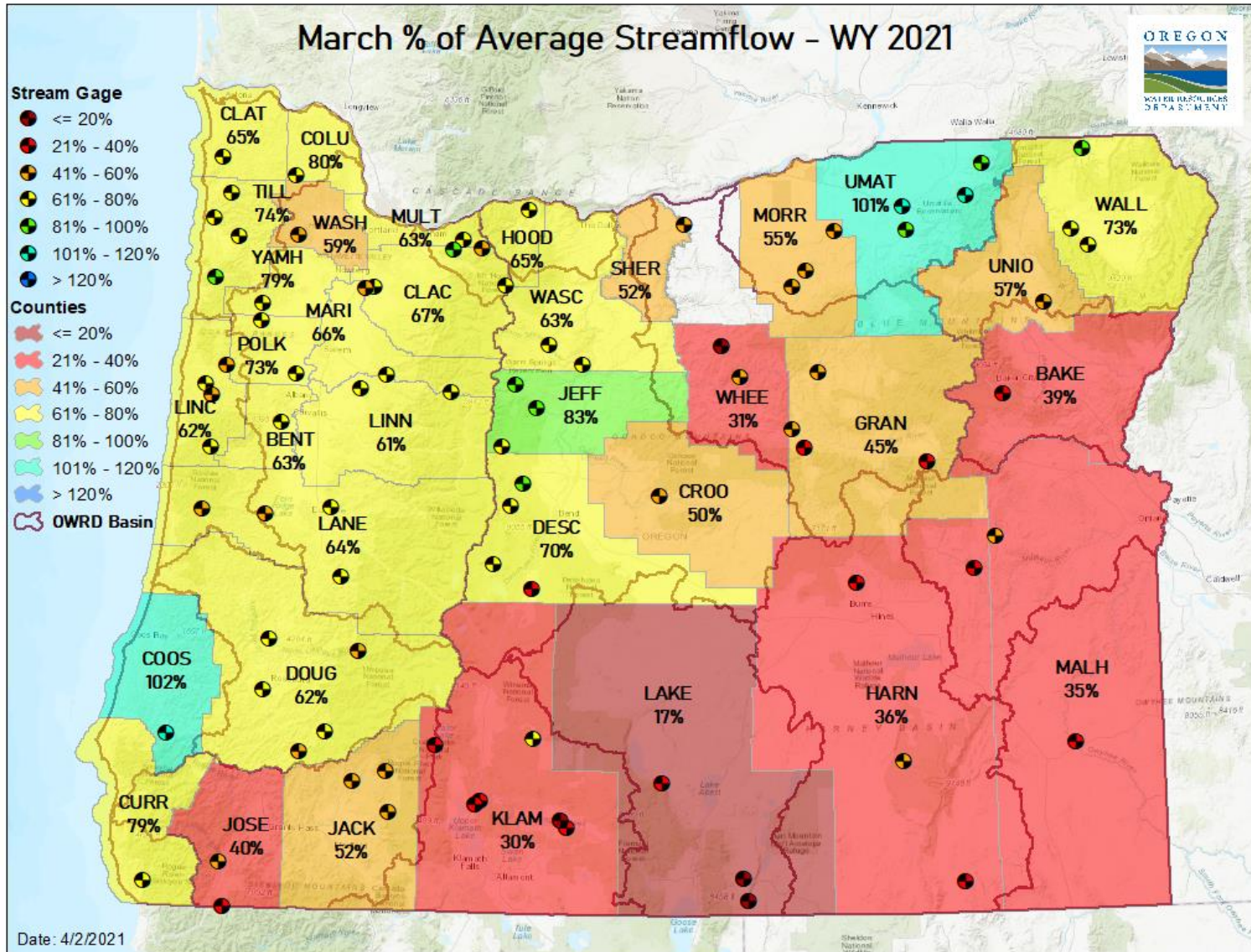
Wetness percentiles are relative to the period 1948-2012  
Cell Resolution 0.125 degrees  
Projection of this document is Lambert Azimuthal Equal Area

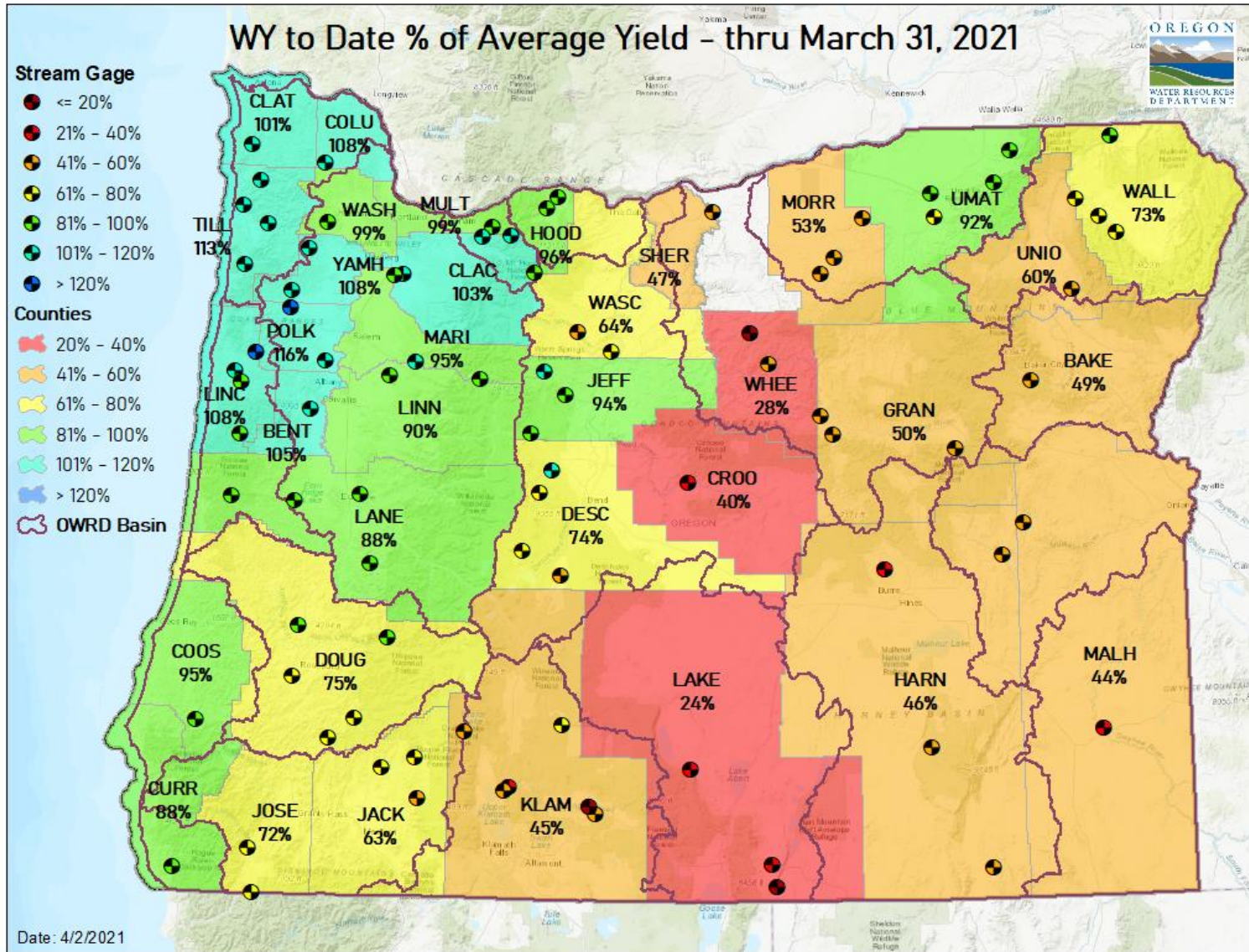


<https://nasagrace.unl.edu>

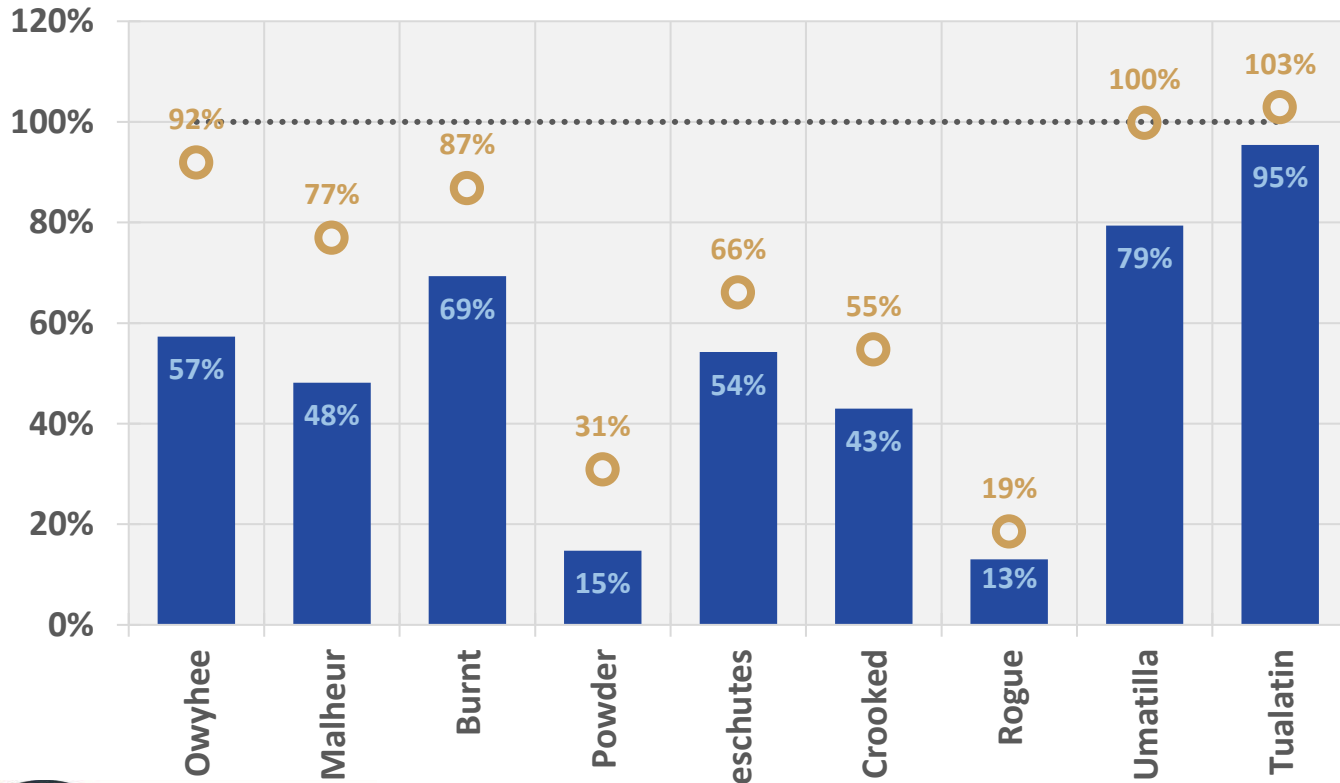








### March 29 Reservoir Storage



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.