

Oregon Water Conditions Report



April 4th, 2022

HIGHLIGHTS

Thus far in 2022, four counties have received [Executive Orders](#) issuing [state drought declarations](#). Three additional counties have requested drought declarations.

According to the [US Drought Monitor](#), over 88% of Oregon is classified as experiencing moderate (D1) to exceptional (D4) drought conditions. There has been minor change in drought conditions over recent weeks. See below for more details.

[Statewide snow water equivalent](#) continues to trend downward over recent weeks due to elevated temperatures and early, rapid snowmelt. Statewide SWE is currently measuring 57% of the long-term median at NRCS SNOTEL sites. Snowpack in nearly all basins has begun melting (see below).

[Precipitation in the month of March](#) was below to well below average throughout much of the state. Portions of south and southeast Oregon received less than 25% of the average precipitation, [including some areas in Lake and Harney Counties measuring the driest March on record](#). Some portions of northwest Oregon and along the Columbia River corridor measured near normal precipitation.

[March temperatures were warmer than usual](#) across the state, with temperatures ranging from 1 - 3 °F above the long-term average. Warmer temperatures and below average precipitation led to [increased evaporative demand and severe drying](#).

[Soil moisture profiles](#) continue to show extremely dry conditions throughout much of Oregon.

The [three-month seasonal outlook for April through June](#) indicates probabilities favoring below average precipitation statewide. Temperatures are favored to be cooler than average in the northwest and northcentral portions of the state, and equal chances of above and below average elsewhere.

March streamflows were variable throughout the state, with a majority of counties measuring below to well below average flow. More recently, 7-day average streamflows are well below average statewide, [including several gages measuring record lows](#). Some streams along the Cascades and in northeast Oregon are measuring average to above average flow.

Reservoir storage contents in [USBR](#) (including [Klamath](#)) and [USACE](#) systems continue to measure below to well below average. Several reservoirs are measuring historically low contents for this time of year.

DROUGHT CONDITIONS

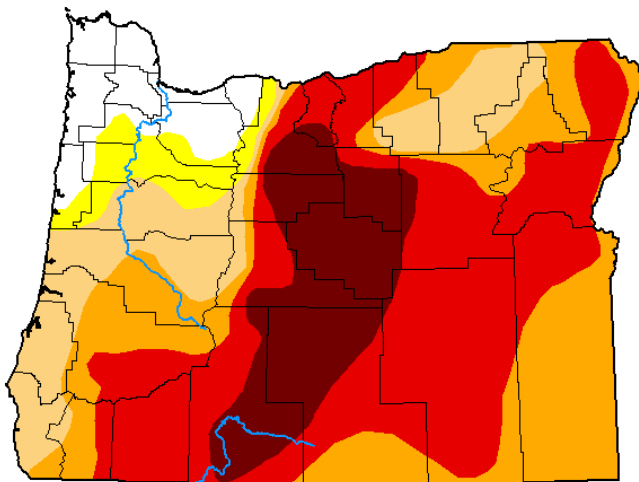
The US Drought Monitor indicates over 88% of Oregon is experiencing drought conditions. Extreme (D3) drought conditions have expanded slightly in parts of eastern Oregon including Baker, Malheur, and Wallowa Counties. There was reduction in drought severity in parts of Morrow and Umatilla Counties. There were also some slight modifications to drought coverage and severity in western Oregon over recent weeks.

U.S. Drought Monitor Oregon

March 29, 2022

(Released Thursday, Mar. 31, 2022)

Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	7.16	92.84	88.44	74.25	50.28	15.01
Last Week 03-22-2022	6.11	93.89	89.04	74.25	49.92	15.01
3 Months Ago 12-28-2021	2.95	97.05	93.89	75.89	57.92	18.52
Start of Calendar Year 01-04-2022	4.16	95.84	89.75	75.37	50.84	17.27
Start of Water Year 09-28-2021	0.00	100.00	100.00	96.47	72.10	26.59
One Year Ago 03-30-2021	21.14	78.86	66.00	41.25	12.55	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>

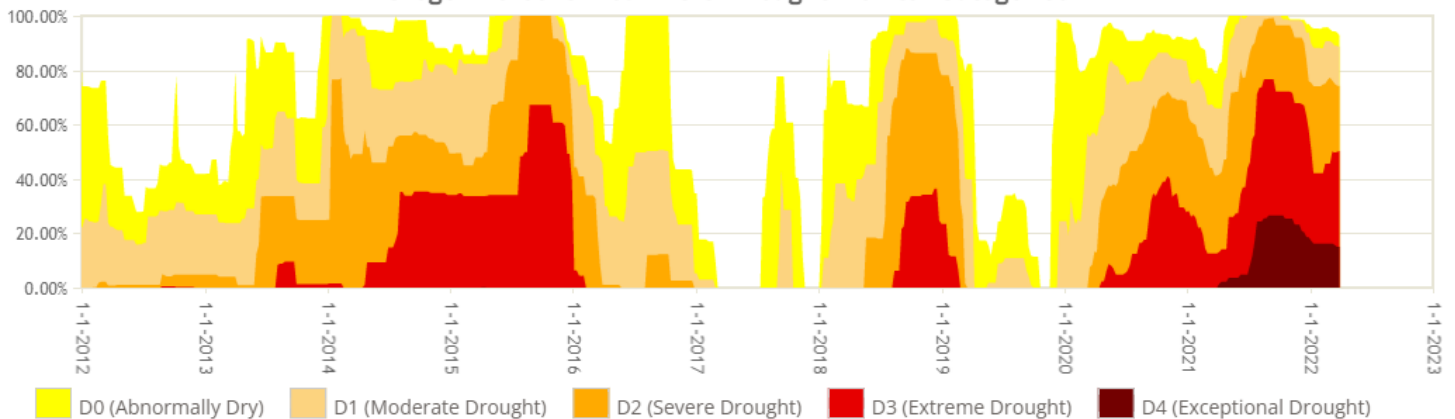
Author:

Deborah Bathke
National Drought Mitigation Center

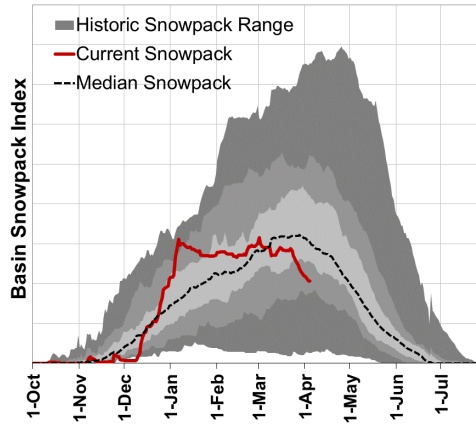


droughtmonitor.unl.edu

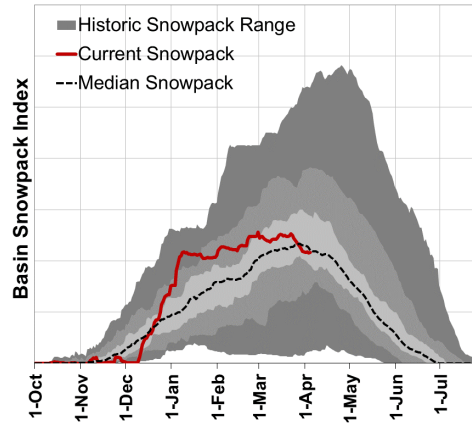
Oregon Percent Area in U.S. Drought Monitor Categories



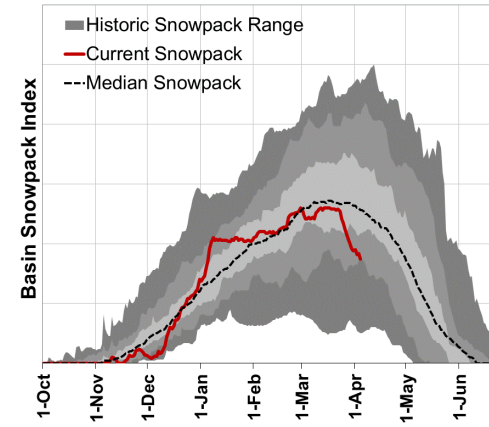
Willamette



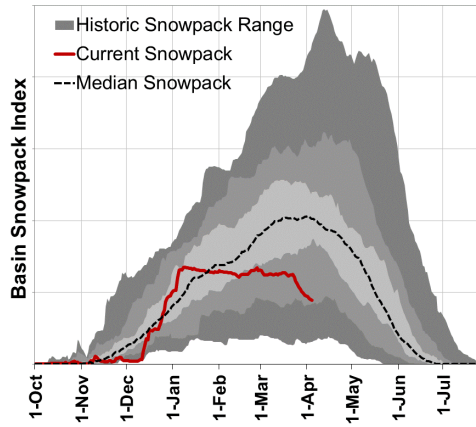
Hood-Sandy-Lower Deschutes



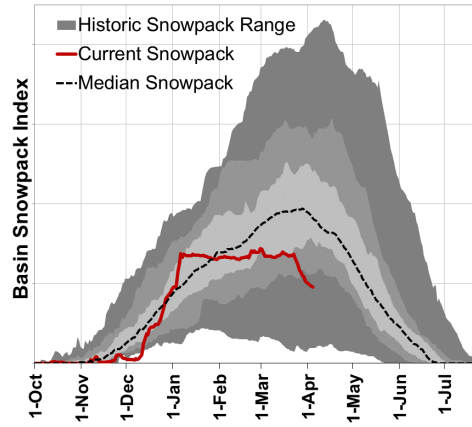
Umatilla-Walla Walla-Willow



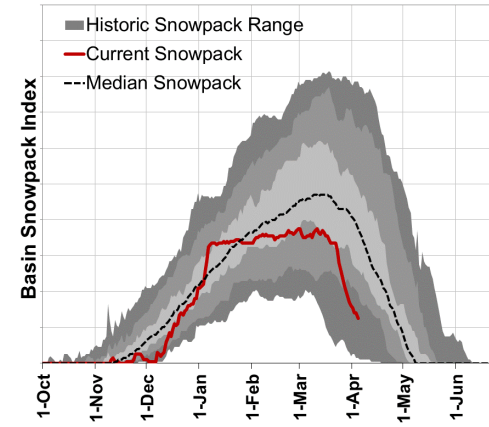
Rogue-Umpqua

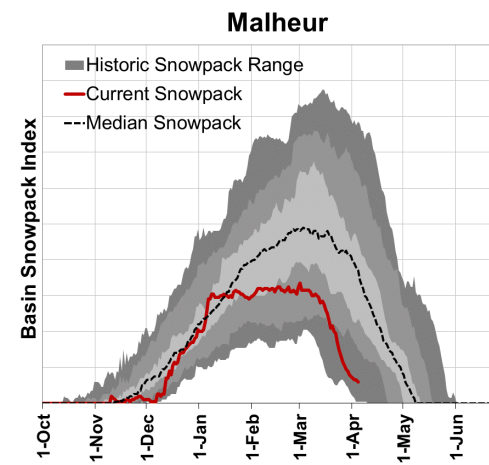
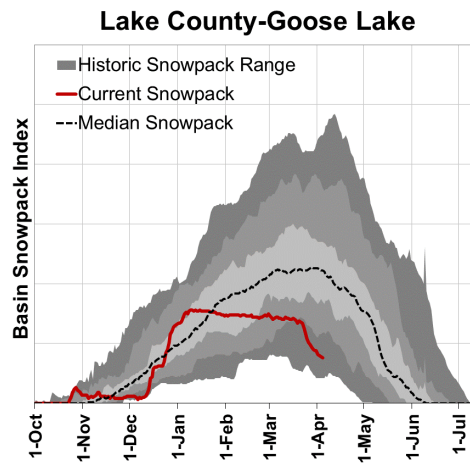
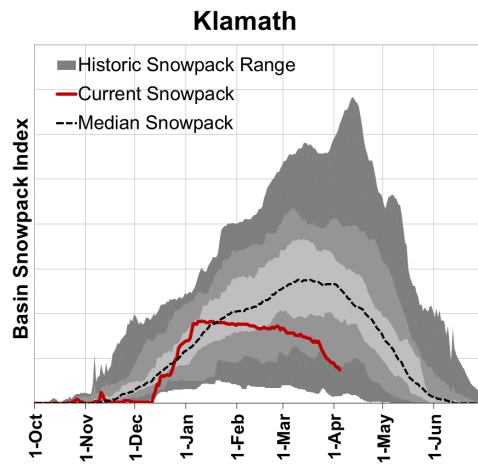
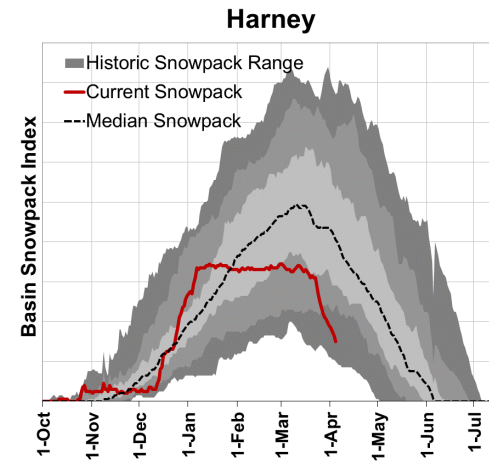
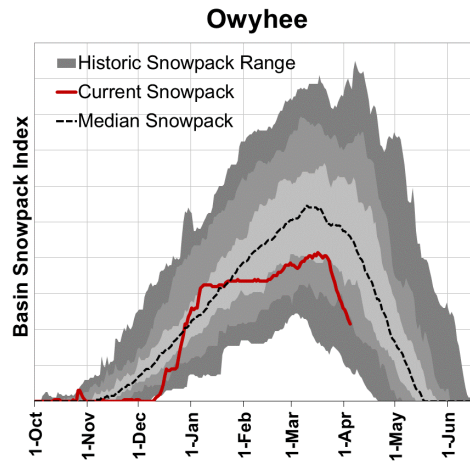
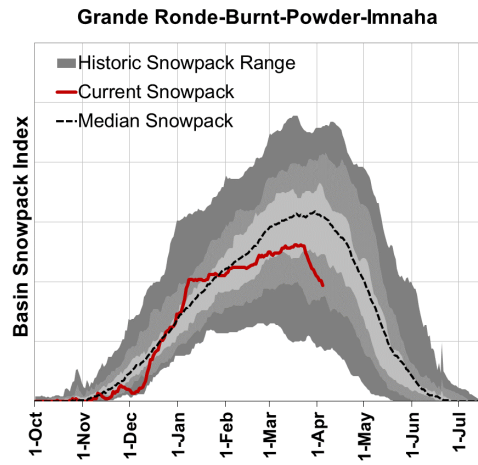


Upper Deschutes-Crooked

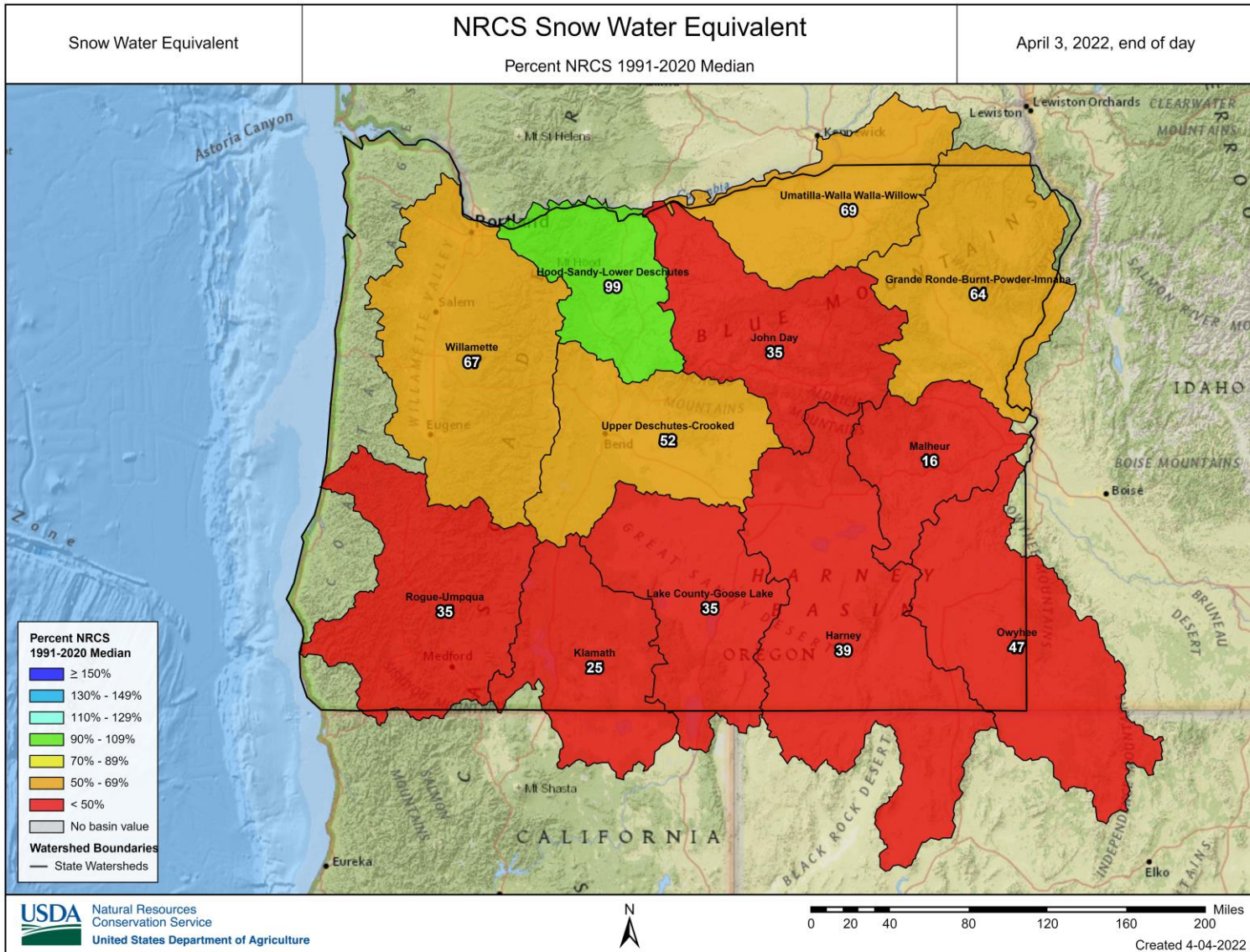


John Day



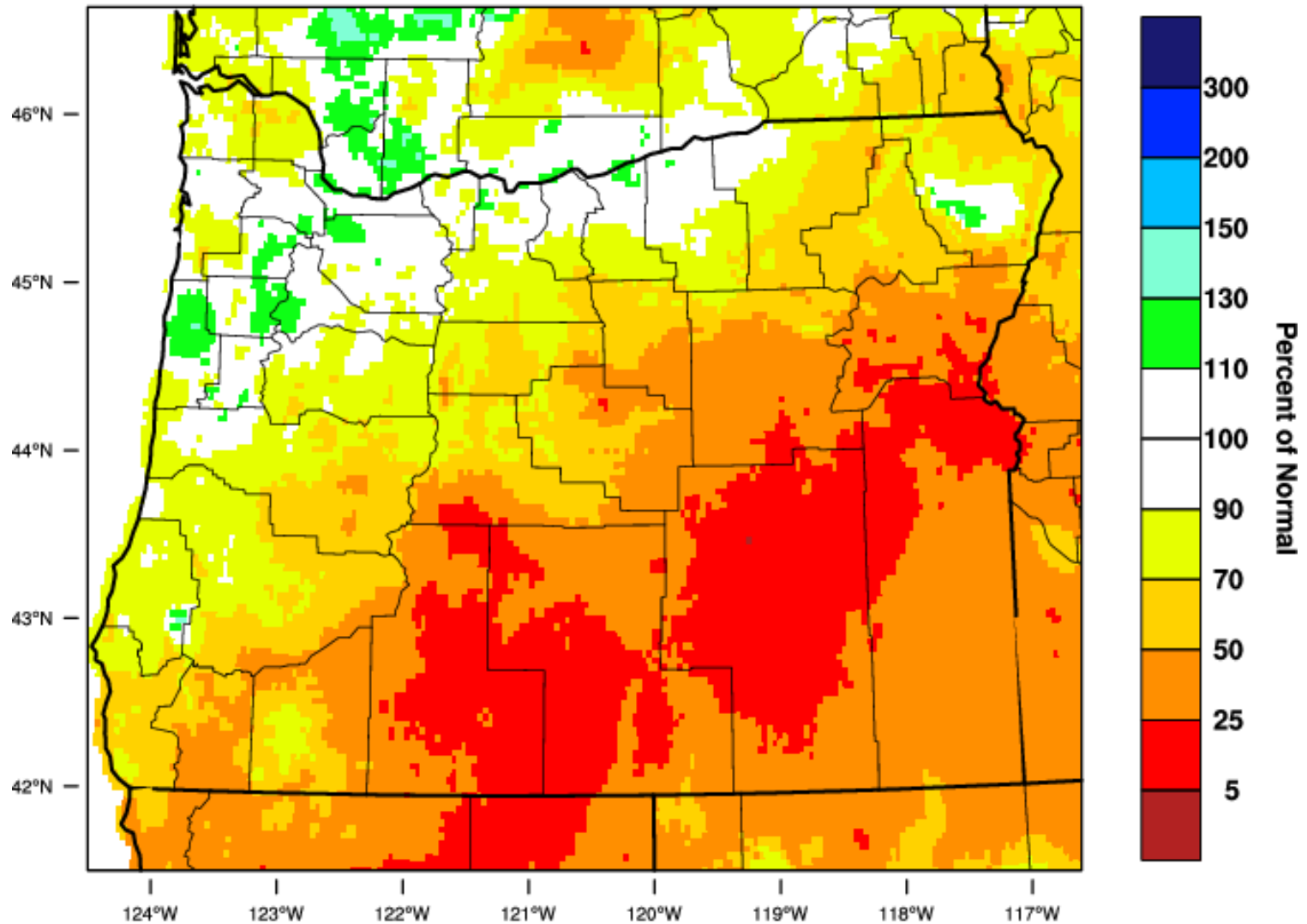


CLIMATE CONDITIONS
SNOW WATER EQUIVALENT



Oregon - Precipitation

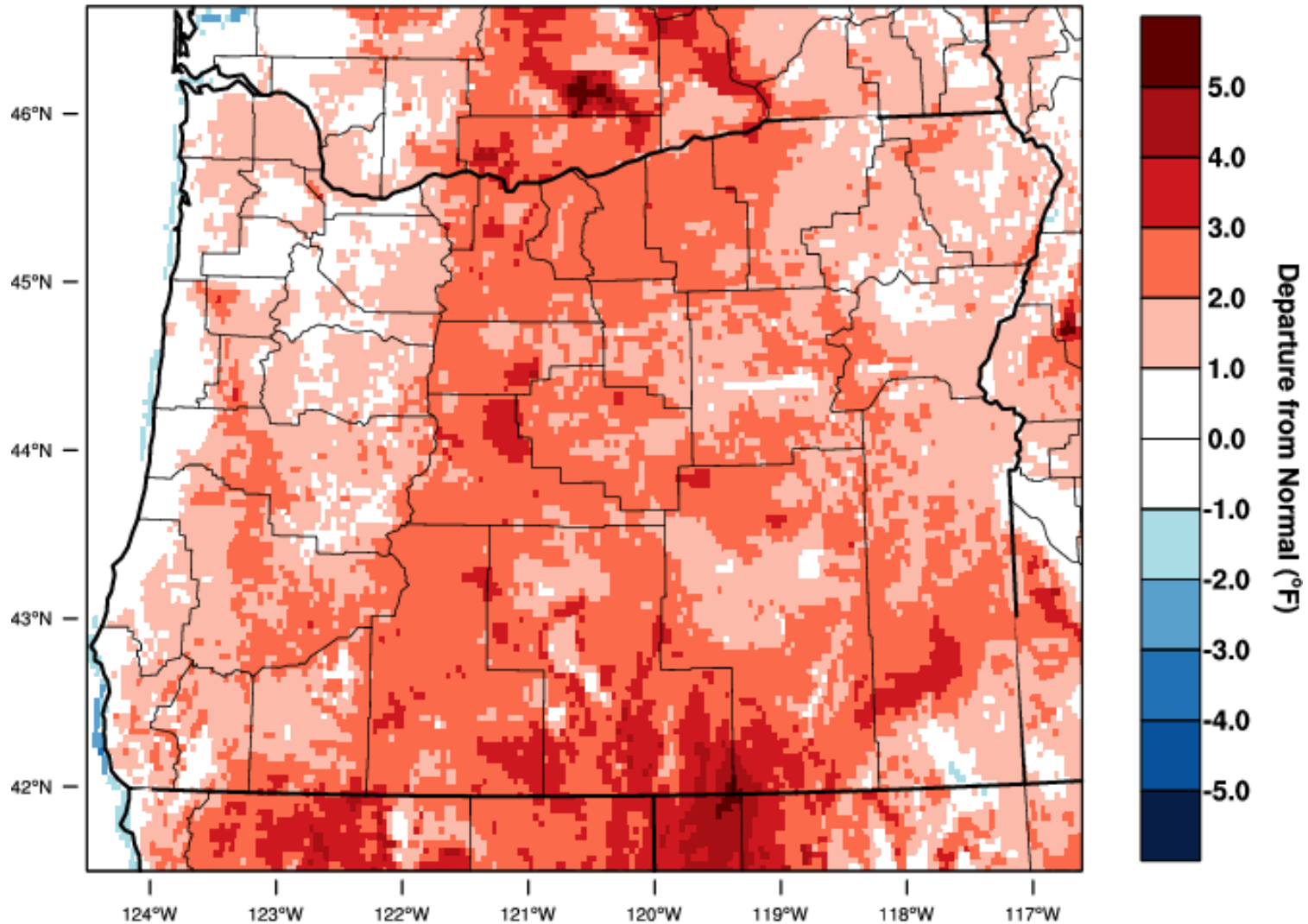
March 2022 Percent of 1981-2010 Normal



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 2 APR 2022

Oregon - Mean Temperature

March 2022 Departure from 1981-2010 Normal

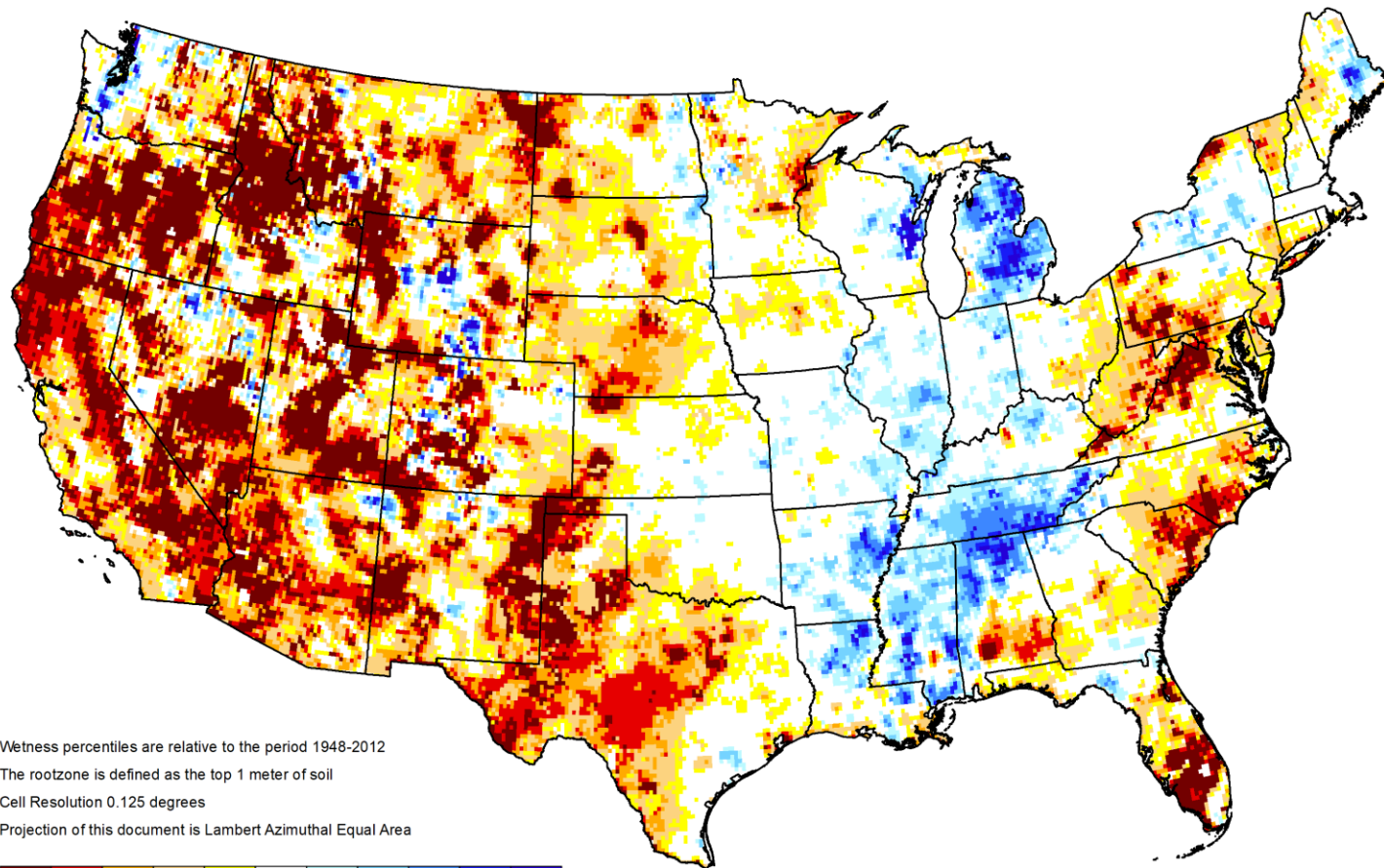


WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 2 APR 2022

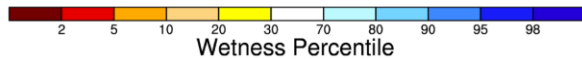


GRACE-Based Root Zone Soil Moisture Drought Indicator

March 28, 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



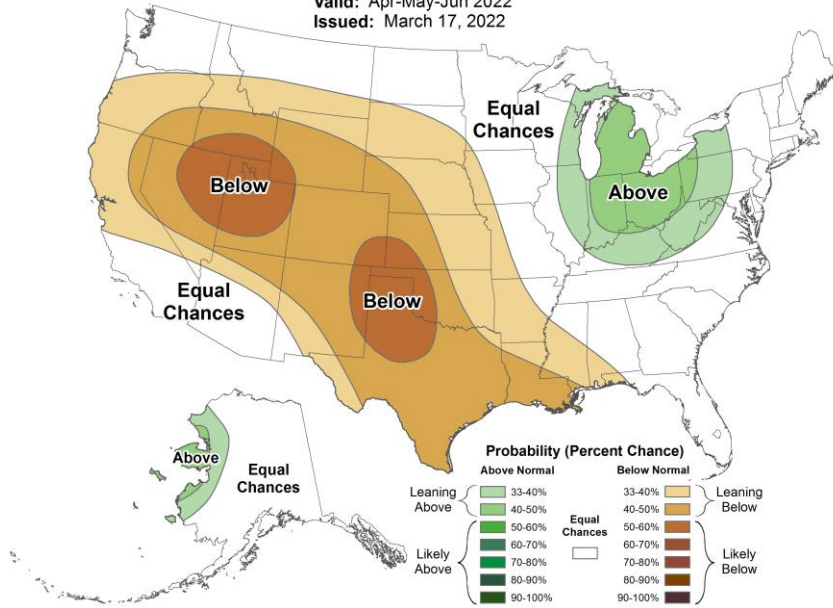
<https://nasagrace.unl.edu>



Seasonal Precipitation Outlook



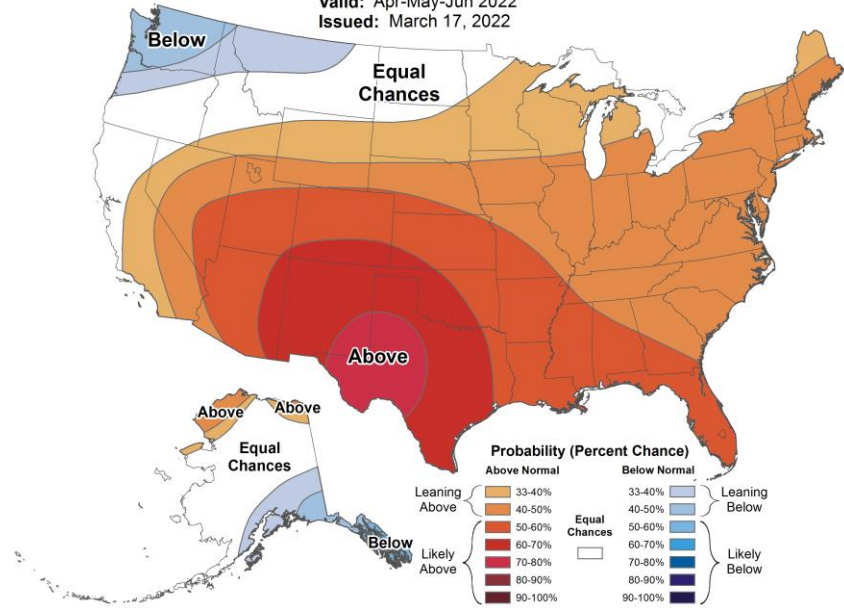
Valid: Apr-May-Jun 2022
 Issued: March 17, 2022



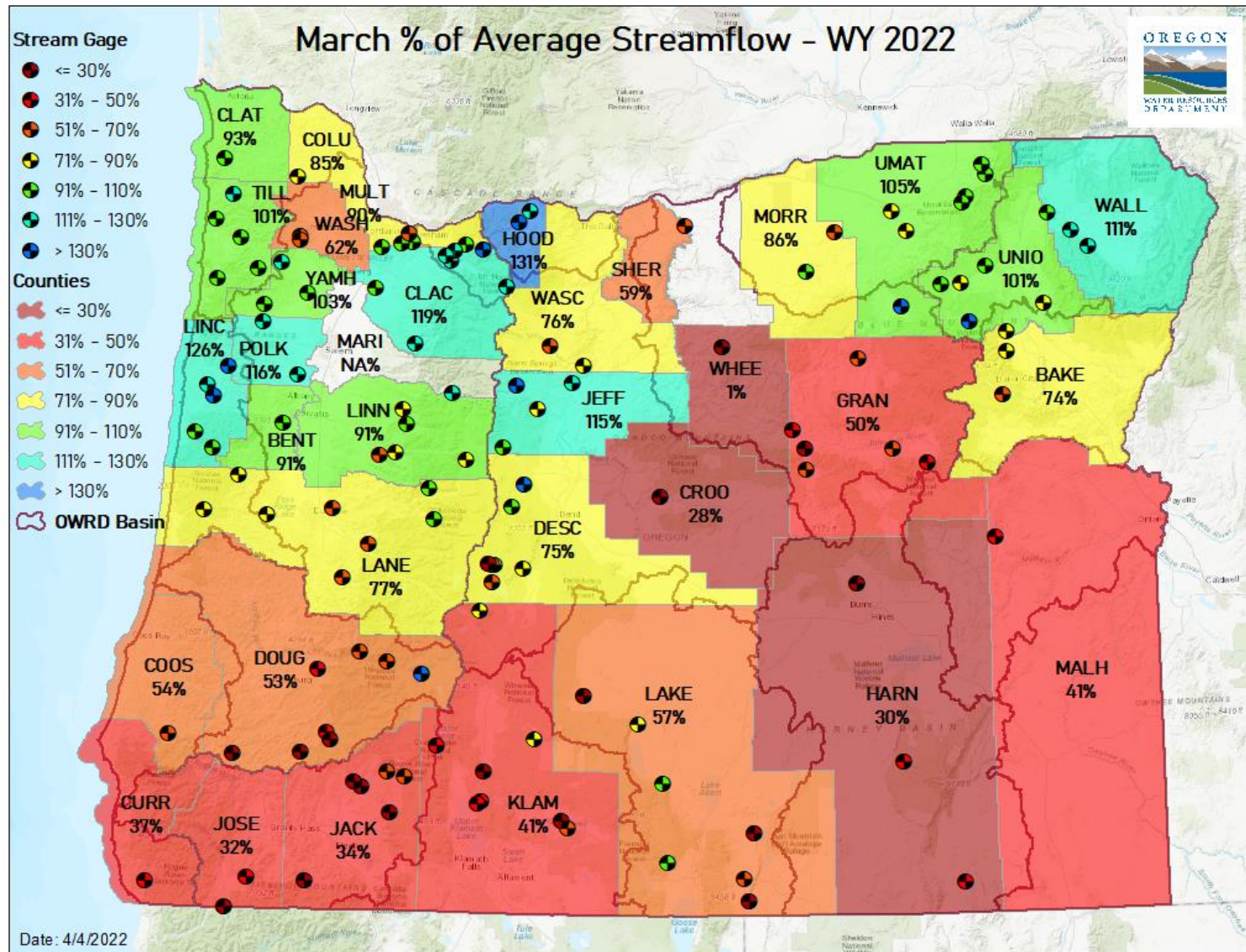
Seasonal Temperature Outlook

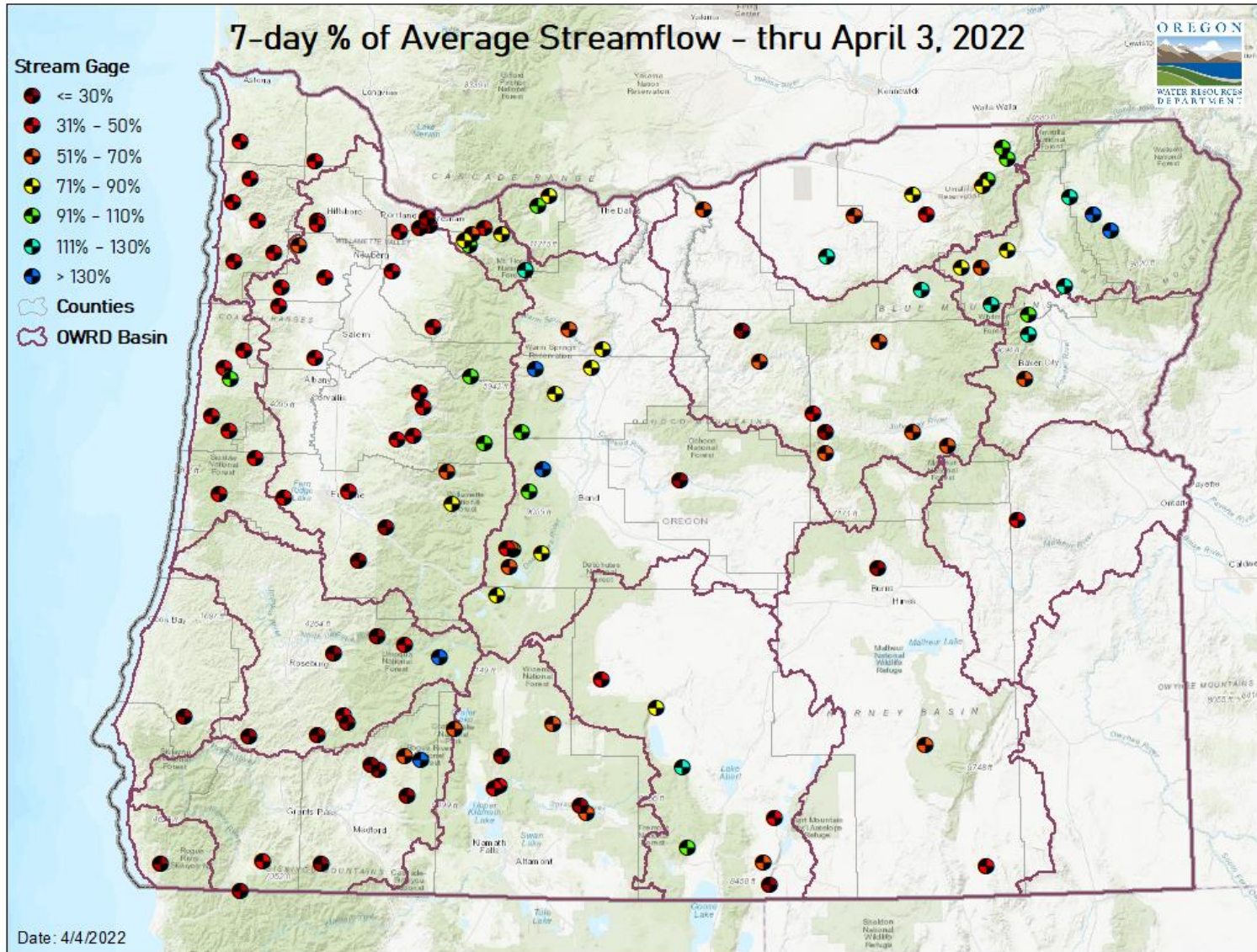


Valid: Apr-May-Jun 2022
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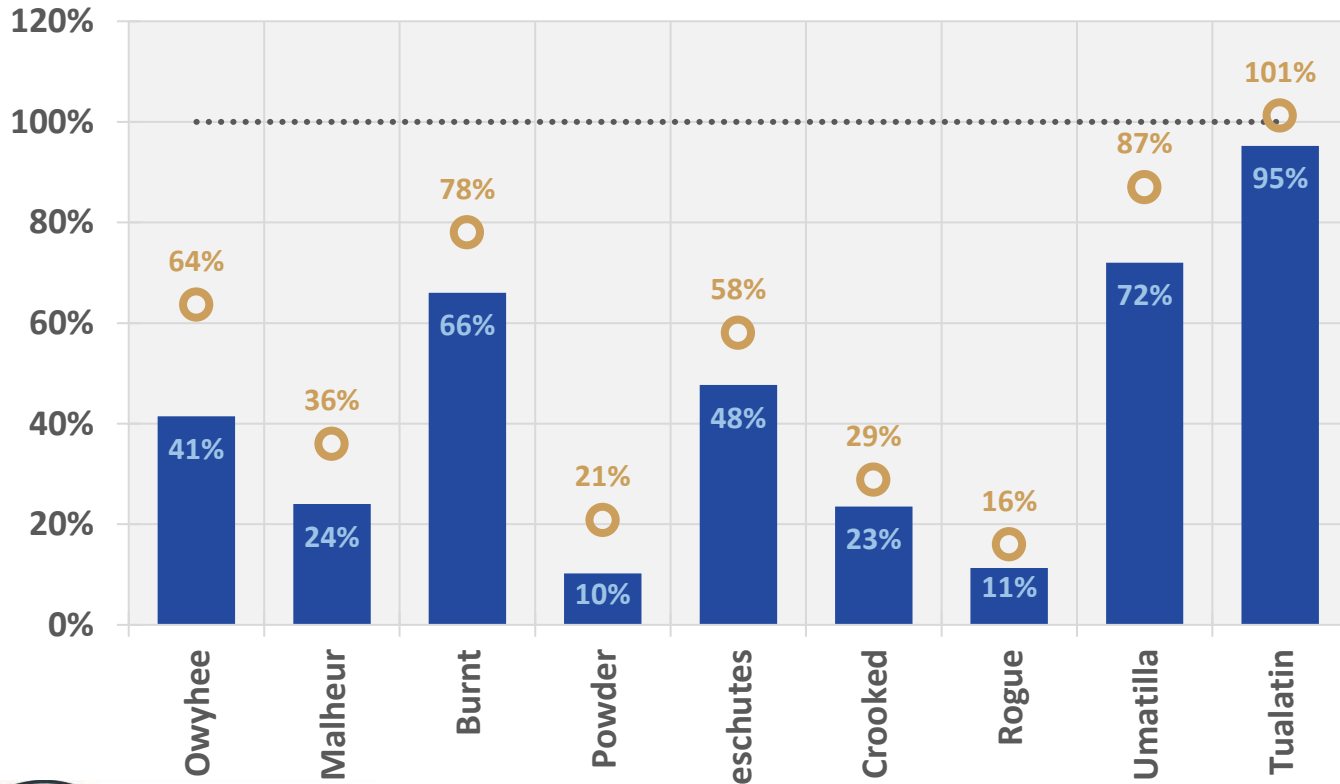


STREAMFLOW
MARCH





April 3 Reservoir Storage



BUREAU OF RECLAMATION

■ Percent Full

● Percent of Average

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.