

Oregon Water Conditions Report



January 23rd, 2023

HIGHLIGHTS

According to the [US Drought Monitor](#), nearly 64% of Oregon is experiencing moderate (D1) to exceptional (D4) drought conditions. [Changes over recent weeks](#) include a number of improvements and degradations. See below for more information.

[Snow water equivalent at NRCS SNOTEL sites](#) is variable throughout the state (min = Willamette @ 93%; max = Harney @ 170%). Accumulation has stagnated at sites along the Cascade Range, while most basins east of the Cascades continue to trend above the long-term median.

[Precipitation over the past two weeks](#) has been below average throughout much of the state, with exceptions along the coast and in southeastern Oregon. A [notable deficit of 2 - 5 inches](#) has driven drought development throughout much of the Willamette Valley.

[Temperatures over the past two weeks](#) are somewhat variable between northern and southern Oregon, although most of the state was warmer than usual. Temperatures in northern Oregon mostly ranged 2 - 6 °F above average while southern Oregon varied from below to above average.

[Soil moisture profiles](#) have shown changes in response to both rain events and lack of precipitation over recent time periods. Some improvement in shallow groundwater conditions in Malheur and Harney Counties have led to less severe drought conditions.

The [8 - 14-day climate outlook](#) indicates probabilities favoring below average temperatures and above average precipitation throughout the entire state.

Comparison of 28-day and 7-day average streamflows indicates a downward trend over recent weeks due to below average precipitation. Much of the state is experiencing below to well below average streamflow compared to the period of record (1991-2020). See below for more information.

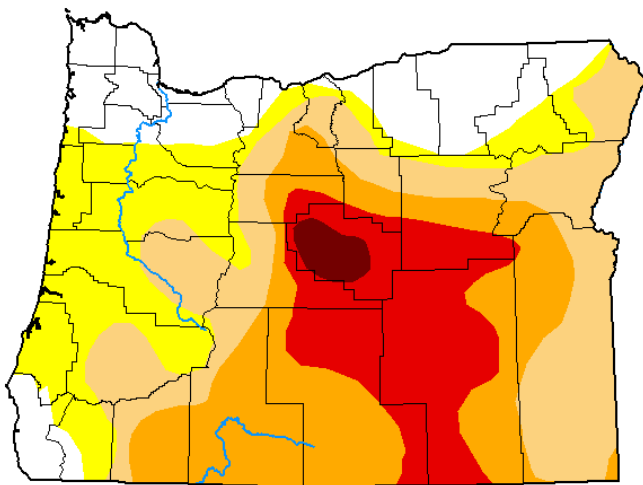
Reservoir storage contents in most [USBR](#) (including [Klamath](#)) projects are measuring well below average, with many showing similarities to the past couple water years. [USACE projects](#) in the Willamette Basin are not storing any water for storage purposes, but some had been performing flood control operations in response to precipitation events around the new calendar year.

DROUGHT CONDITIONS

The southern Willamette Valley and central Cascades were downgraded to moderate drought (D1) due to below average water year precipitation and low streamflows. Portions of southcentral and southeast Oregon saw improvements due to improved soil moisture and streamflows.

U.S. Drought Monitor Oregon

January 17, 2023
(Released Thursday, Jan. 19, 2023)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	16.06	83.94	63.82	40.09	17.07	1.40
Last Week <i>01-10-2023</i>	13.69	86.31	59.60	45.94	25.89	1.40
3 Months Ago <i>10-18-2022</i>	0.44	99.56	80.77	52.92	30.73	1.40
Start of Calendar Year <i>01-03-2023</i>	13.46	86.54	59.75	46.03	26.18	1.40
Start of Water Year <i>09-27-2022</i>	0.42	99.58	68.05	52.42	30.73	1.40
One Year Ago <i>01-18-2022</i>	4.68	95.32	88.23	74.05	42.05	16.22

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>

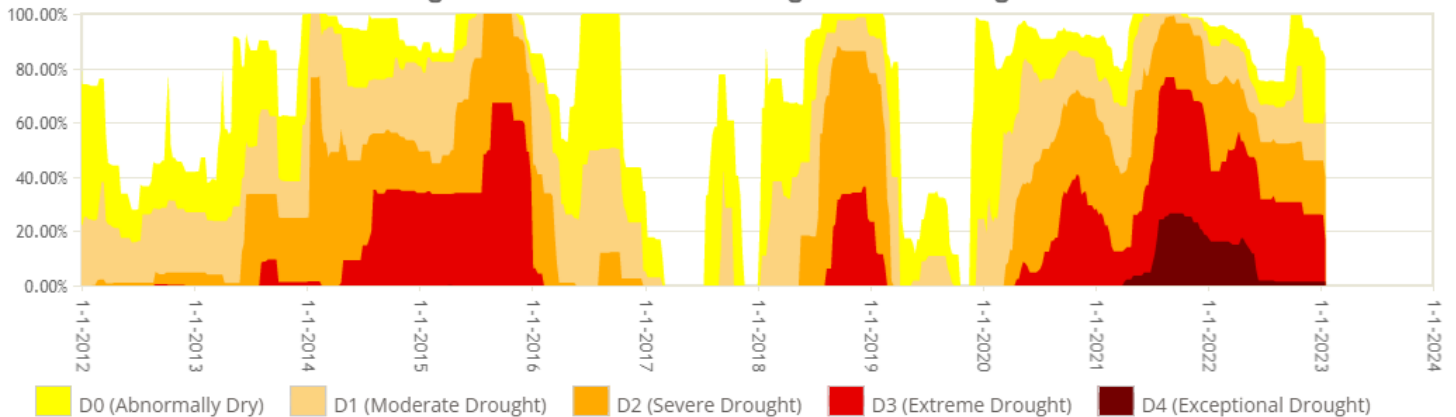
Author:

Deborah Bathke
National Drought Mitigation Center

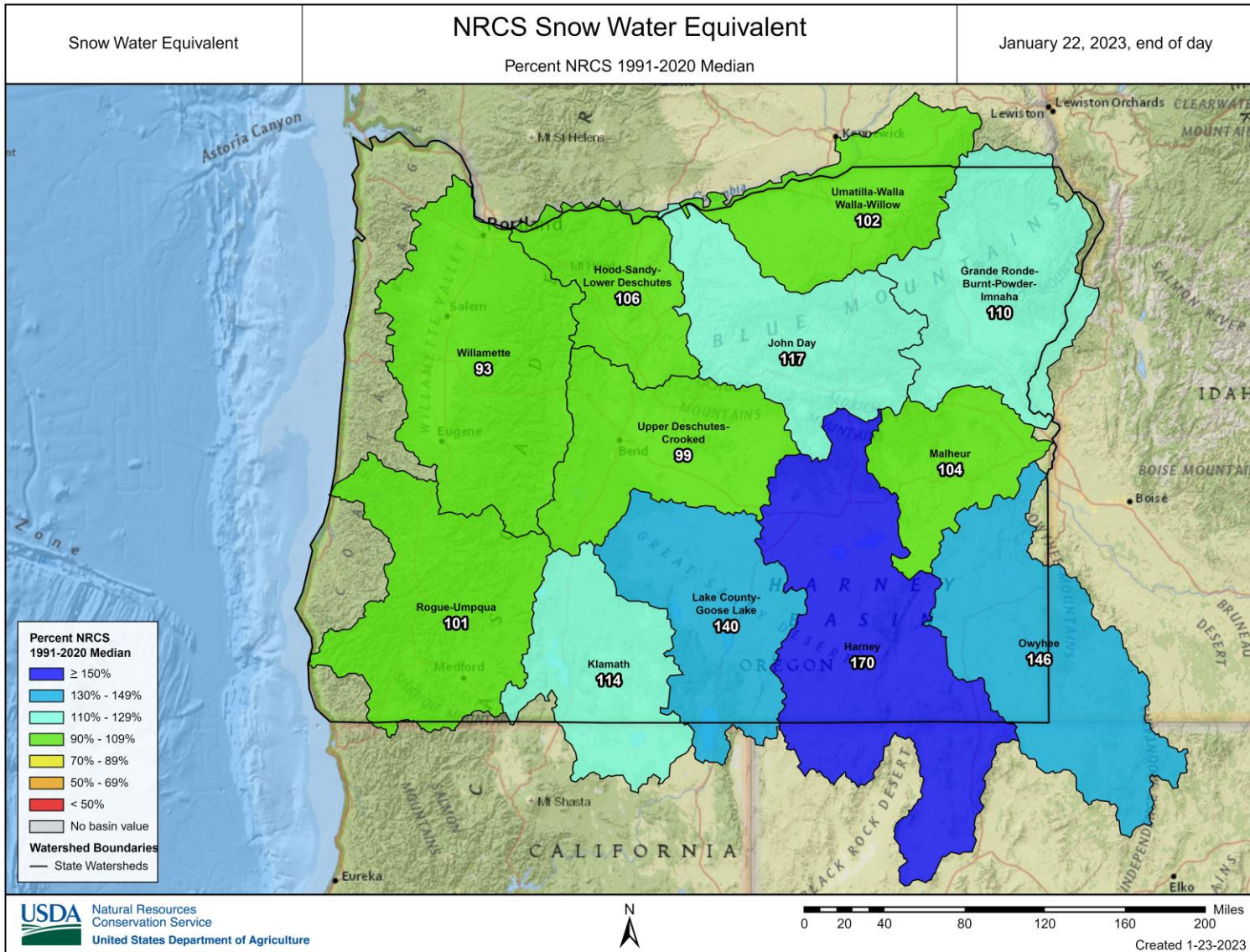


droughtmonitor.unl.edu

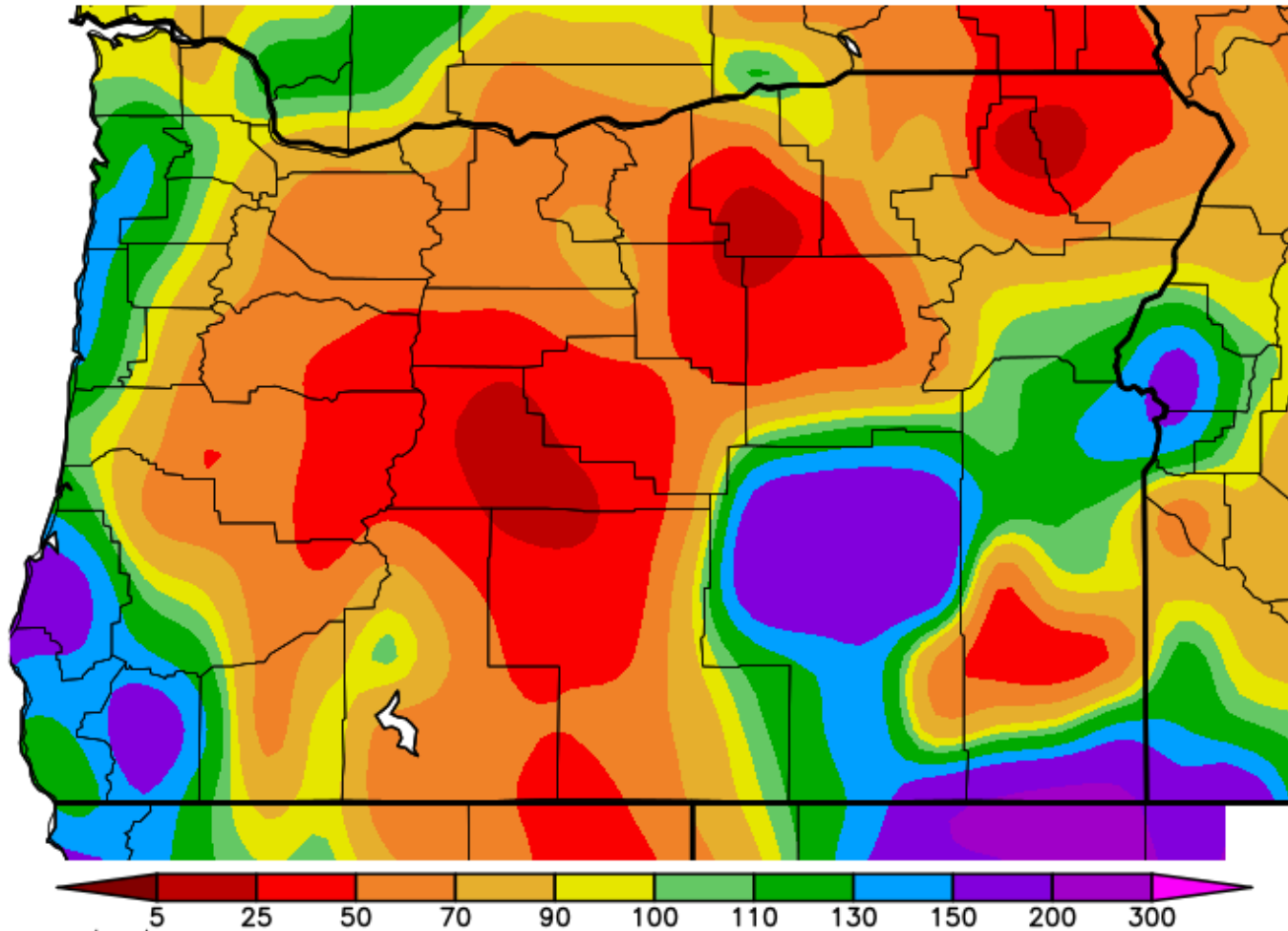
Oregon Percent Area in U.S. Drought Monitor Categories



CLIMATE CONDITIONS
SNOW WATER EQUIVALENT

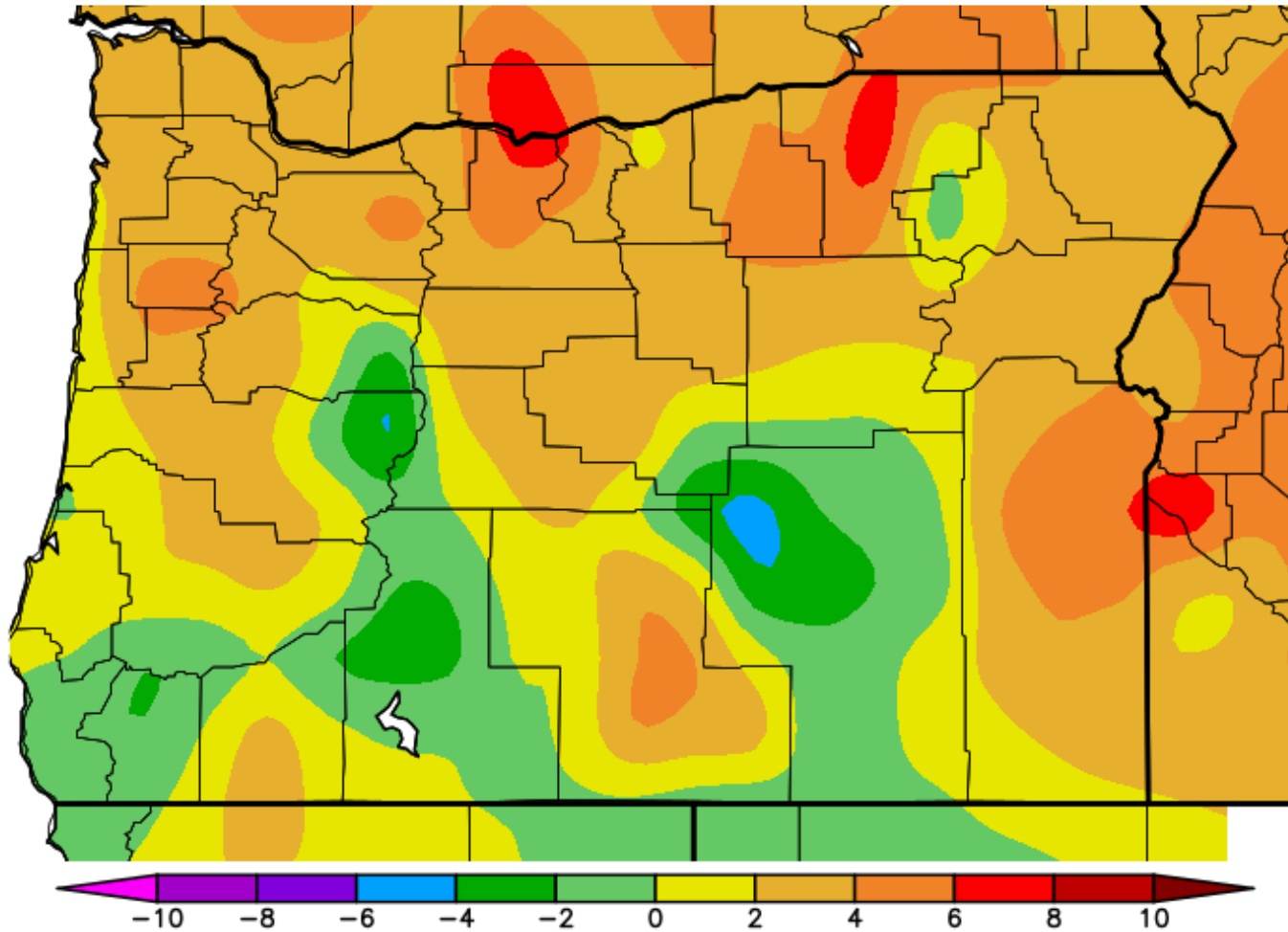


Percent of Average Precipitation (%) 1/9/2023 – 1/22/2023



Generated 1/23/2023 at WRCC using provisional data.
NOAA Regional Climate Centers

Ave. Temperature dep from Ave (deg F)
1/9/2023 - 1/22/2023

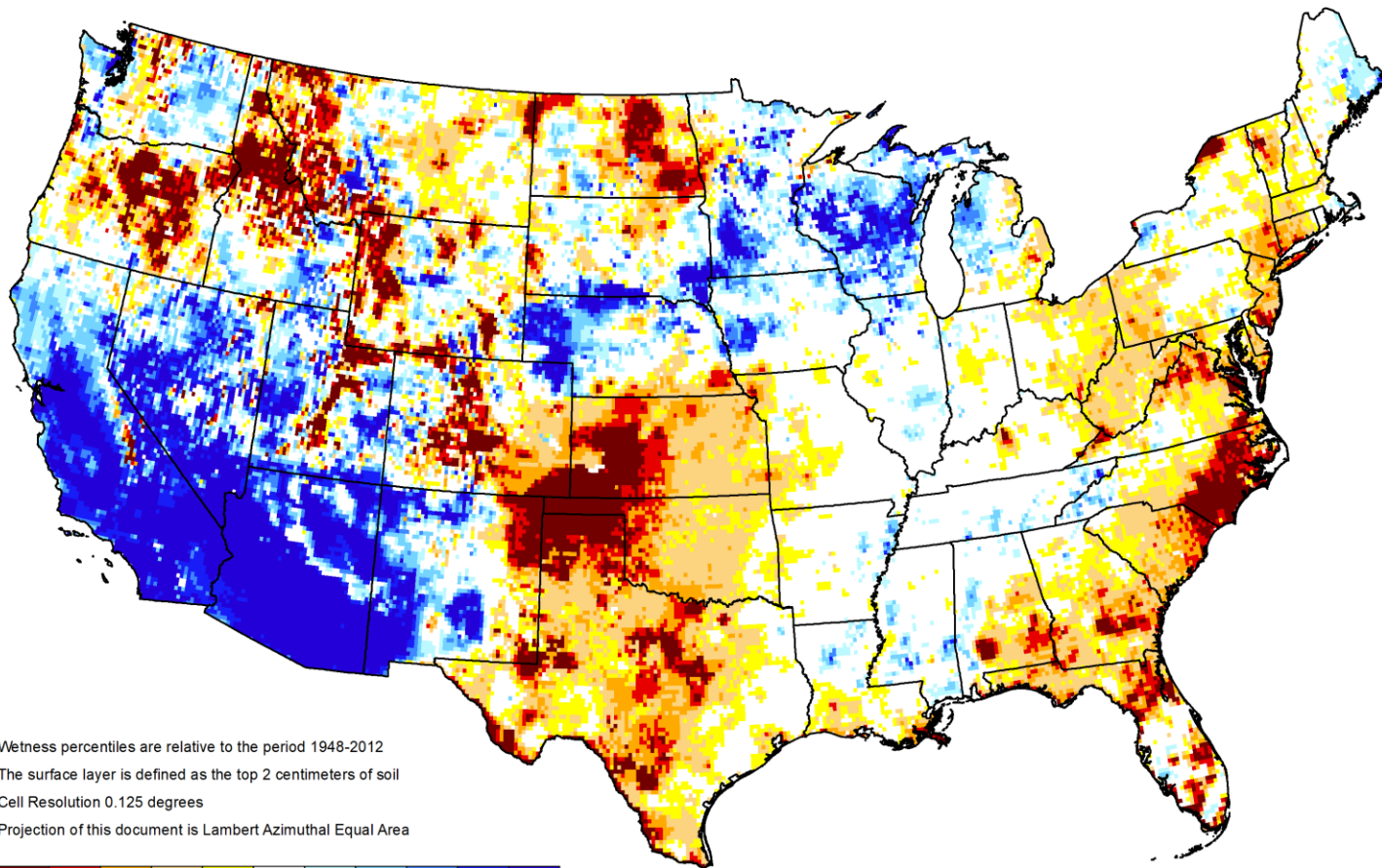


Generated 1/23/2023 at WRCC using provisional data.
NOAA Regional Climate Centers

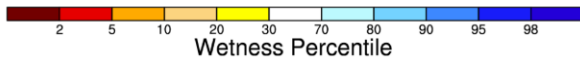


GRACE-Based Surface Soil Moisture Drought Indicator

January 16, 2023



Wetness percentiles are relative to the period 1948-2012
The surface layer is defined as the top 2 centimeters of soil
Cell Resolution 0.125 degrees
Projection of this document is Lambert Azimuthal Equal Area



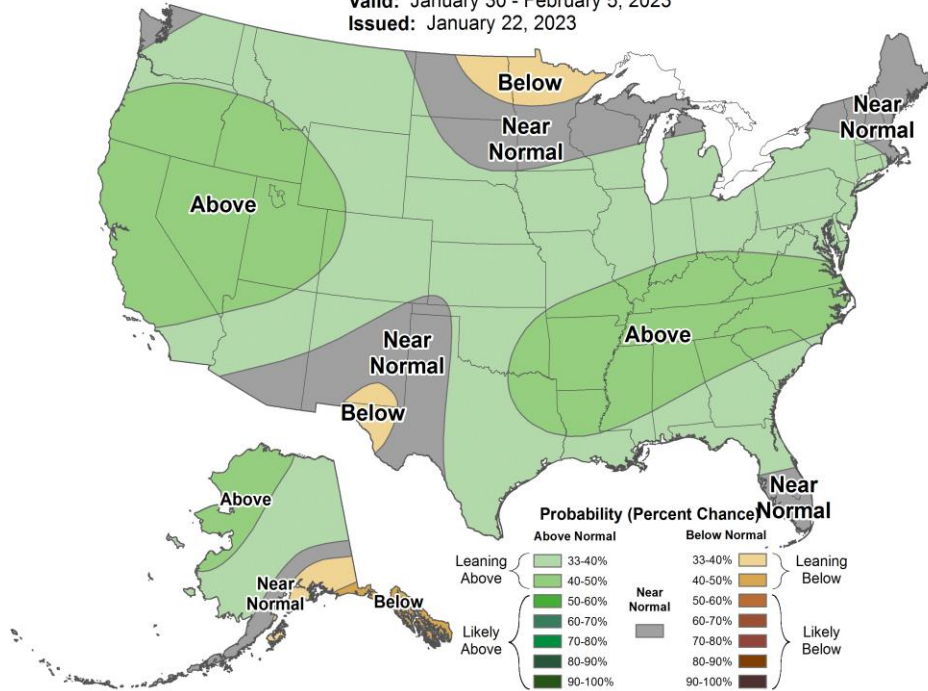
<https://nasagrace.unl.edu>



8-14 Day Precipitation Outlook



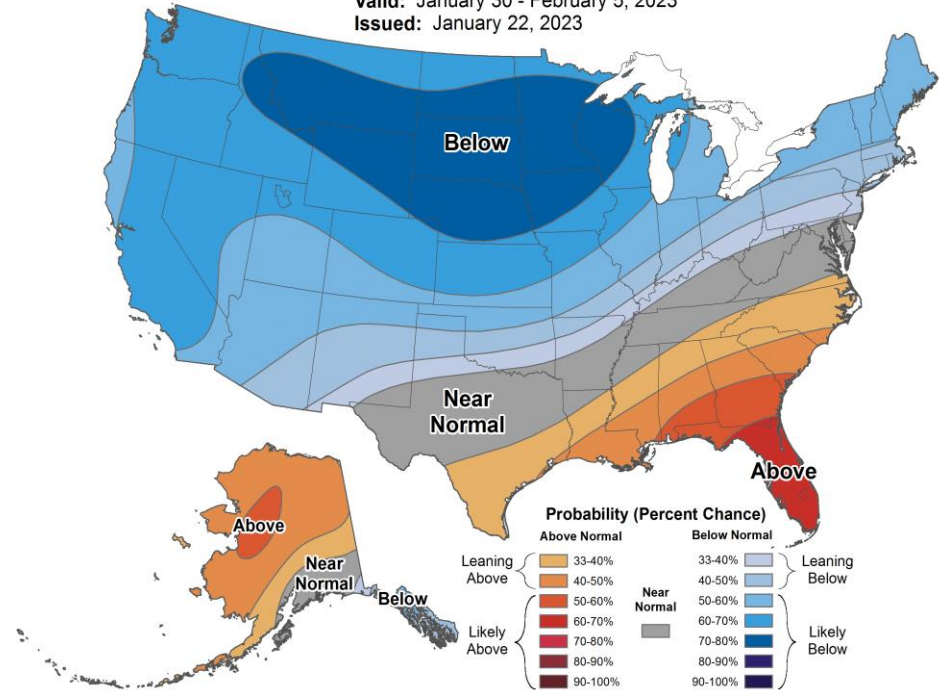
Valid: January 30 - February 5, 2023
 Issued: January 22, 2023



8-14 Day Temperature Outlook

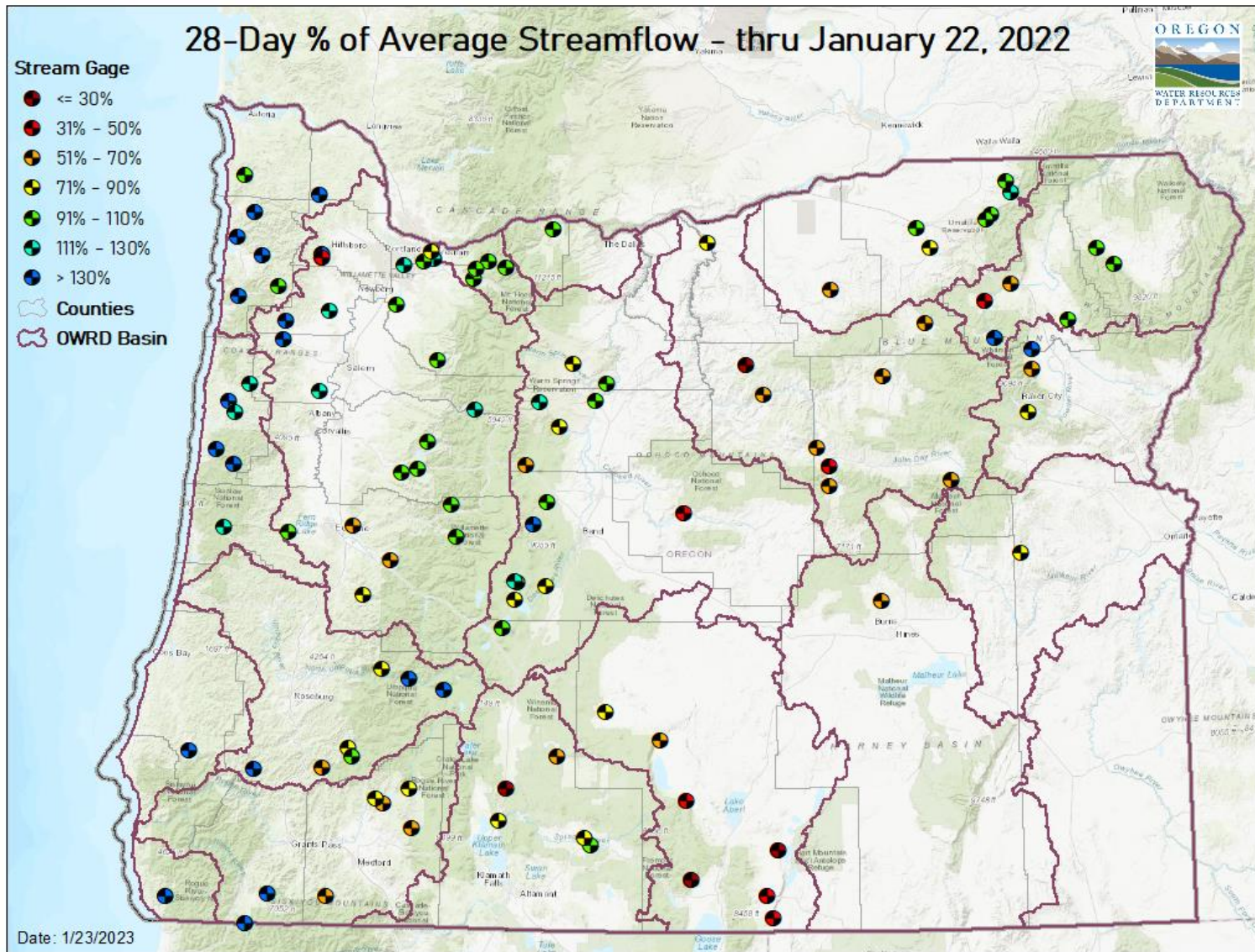


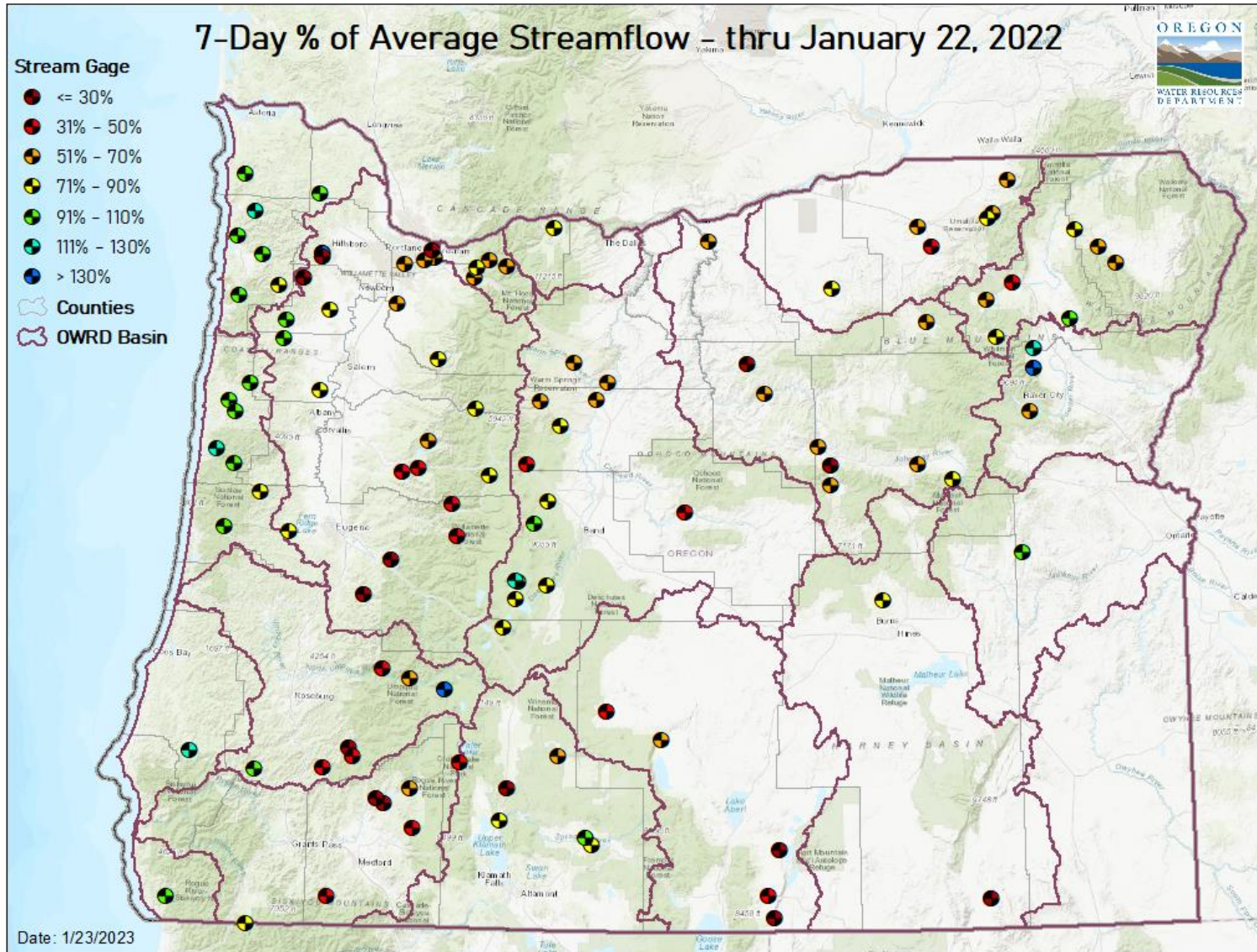
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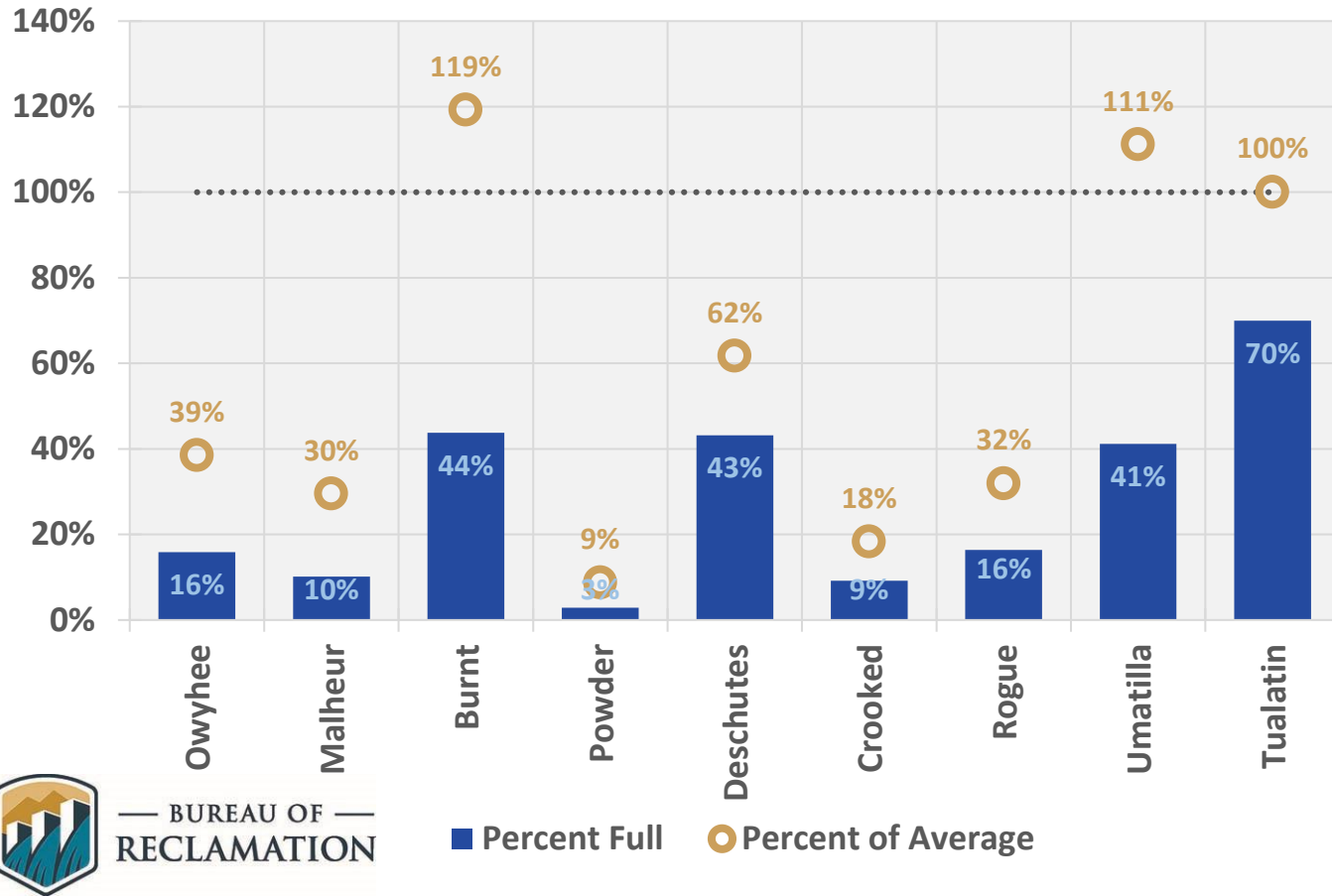
STREAMFLOW

28-DAY





January 22 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.