

Oregon Water Conditions Report



December 28th, 2022

HIGHLIGHTS

In 2022, [17 counties](#) received Governor's drought declarations under ORS 536. Drought declarations are set to expire at the end of the calendar year.

Nearly 60% of Oregon is experiencing drought conditions, according to the [US Drought Monitor](#). There has been little change in conditions over recent weeks, as long-term drought persists in much of eastern and southern Oregon. Abnormally dry conditions remain west of the Cascades.

Snow water equivalent is measuring near to well above normal throughout the state at [NRCS SNOTEL](#) sites (min = Rogue-Umpqua @ 99%; max = Harney @ 157%). While values remain above the long-term median, accumulation has stagnated throughout most basins in the state.

Overall precipitation [over the past two weeks has been well below average](#) nearly statewide. Much of eastern Oregon received [less than an inch of total precipitation](#), while much of western Oregon measured between 0.75 and 3.75 inches below average.

[Temperatures were cooler than average](#) throughout the state over the past two weeks. Temperatures ranged between 3 and 12 °F below the long-term average in eastern Oregon.

While [soil moisture conditions](#) remain below to well below average throughout the state, surface and root zone profiles have recently improved somewhat due to recent precipitation and snowmelt.

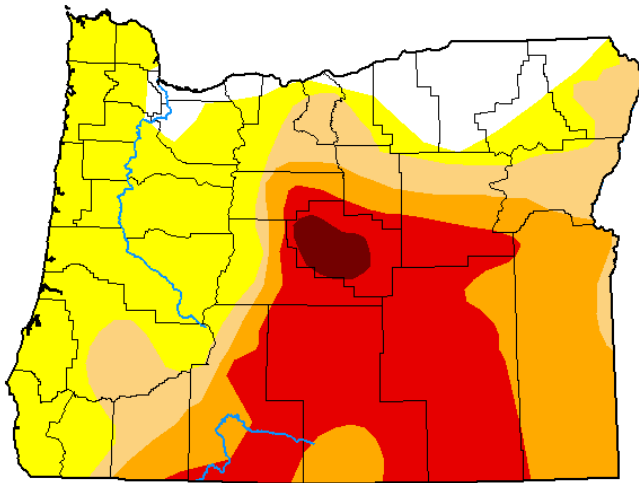
The [8-14-day climate outlook](#) reflects probabilities favoring above average precipitation and near average temperatures.

[Streamflows over the past 7-day period](#) have been highly variable throughout the state. Regional patterns reflect similarities to recent precipitation maps. Relatively higher flows along the Cascades are potentially due to recent rain-on-snow events. Flows over the water year to date are well below average statewide, outside of the Umatilla and Malheur Basins. See below for more information.

Reservoir storage is well below average in [USBR](#) (including [Klamath](#)) storage projects outside of the Tualatin and Umatilla Basins and reflects similarities to last year at this time. Inflows are well below average. Some systems, including [USACE projects](#) in the Willamette, are releasing minimum flows for fish passage and other.

**U.S. Drought Monitor
Oregon**

December 20, 2022
(Released Thursday, Dec. 22, 2022)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	8.58	91.42	59.76	46.04	26.18	1.40
Last Week <i>12-13-2022</i>	8.61	91.39	59.76	46.04	26.18	1.40
3 Months Ago <i>09-20-2022</i>	11.67	88.33	68.05	52.22	30.73	1.40
Start of Calendar Year <i>01-04-2022</i>	4.16	95.84	89.75	75.37	50.84	17.27
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>12-21-2021</i>	2.96	97.04	93.63	83.75	63.14	18.61

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>

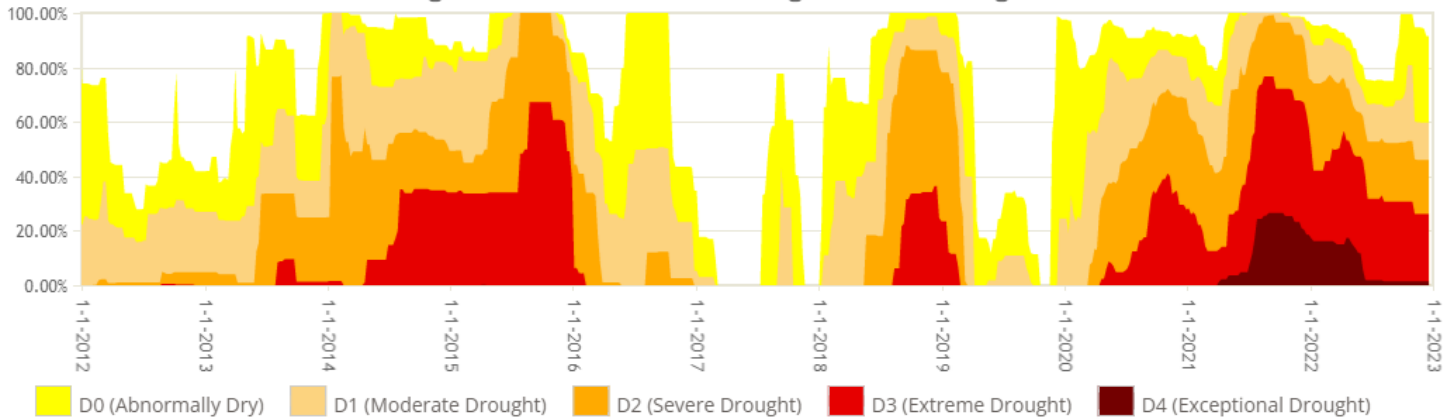
Author:

Curtis Riganti
National Drought Mitigation Center

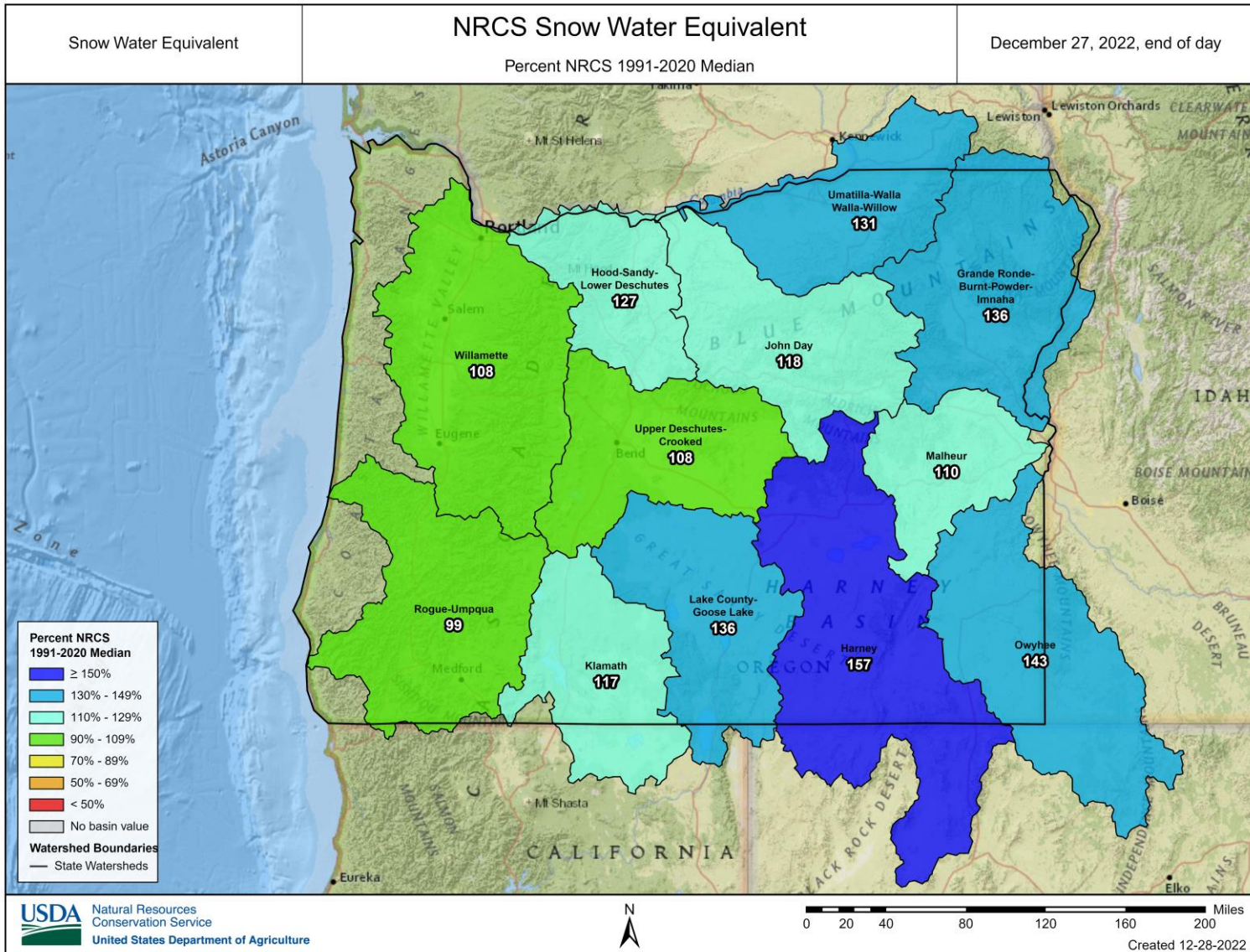


droughtmonitor.unl.edu

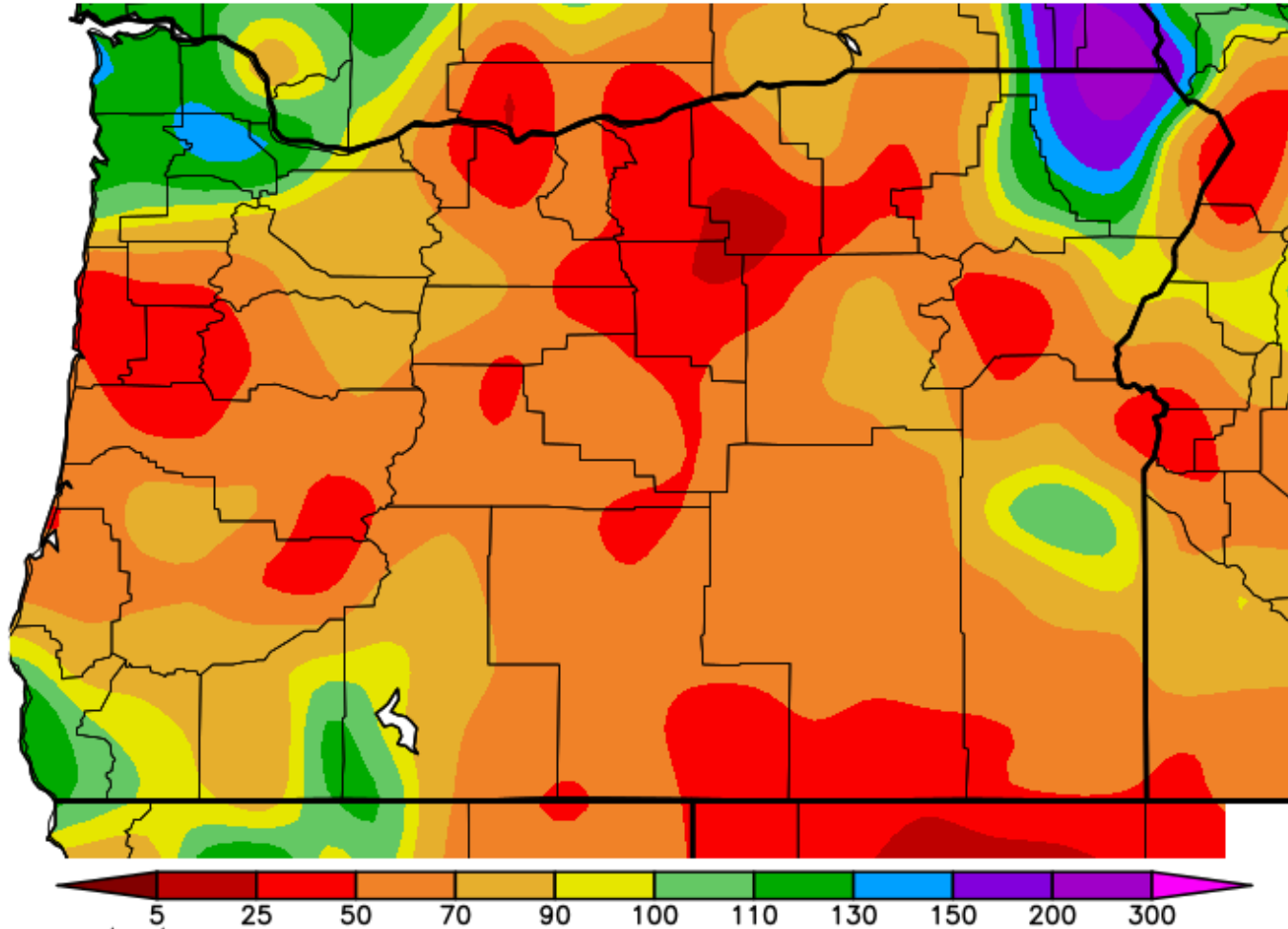
Oregon Percent Area in U.S. Drought Monitor Categories



CLIMATE CONDITIONS
SNOW WATER EQUIVALENT

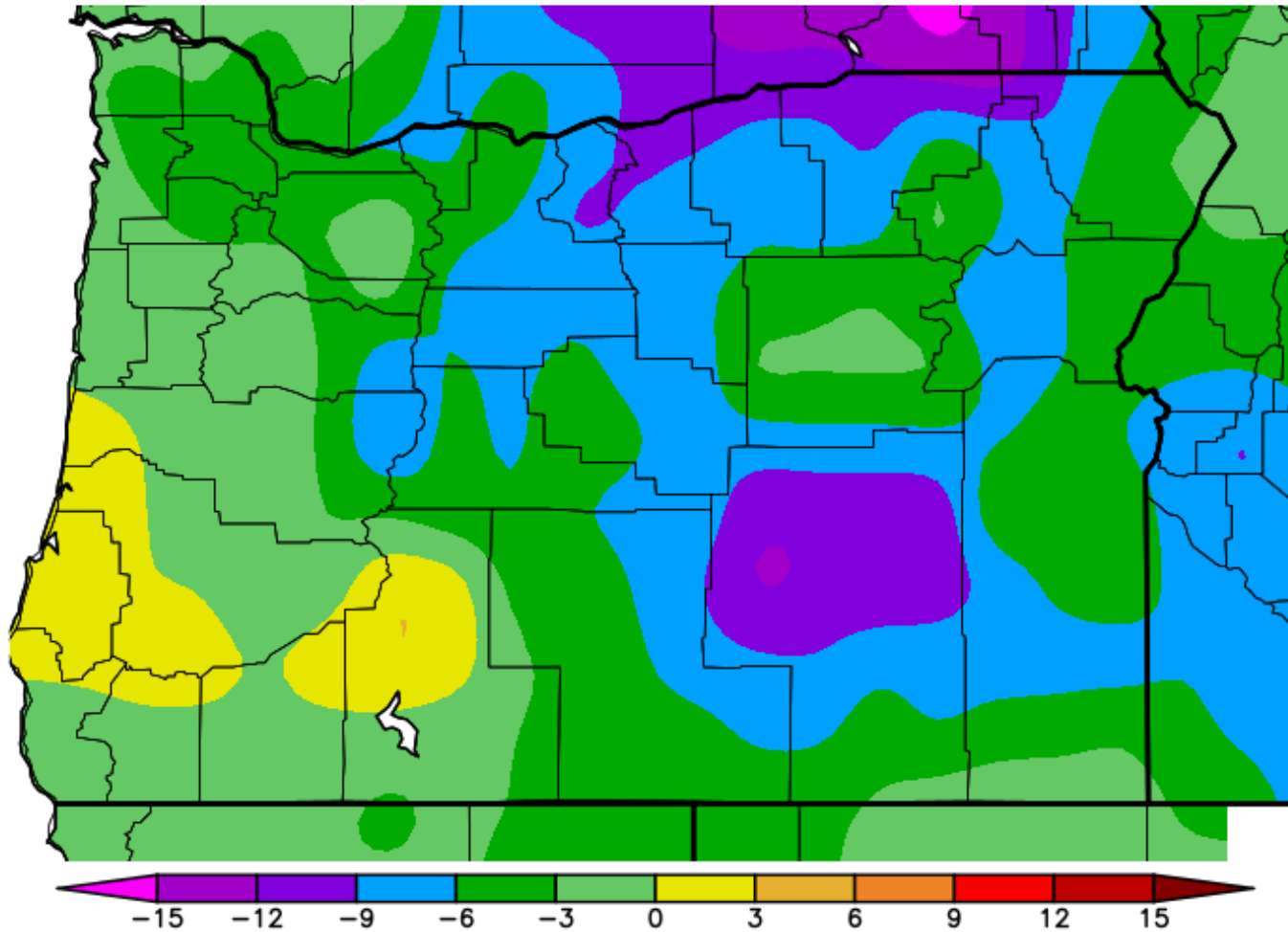


Percent of Average Precipitation (%) 12/14/2022 – 12/27/2022



Generated 12/28/2022 at WRCC using provisional data.
NOAA Regional Climate Centers

Ave. Temperature dep from Ave (deg F)
12/14/2022 – 12/27/2022

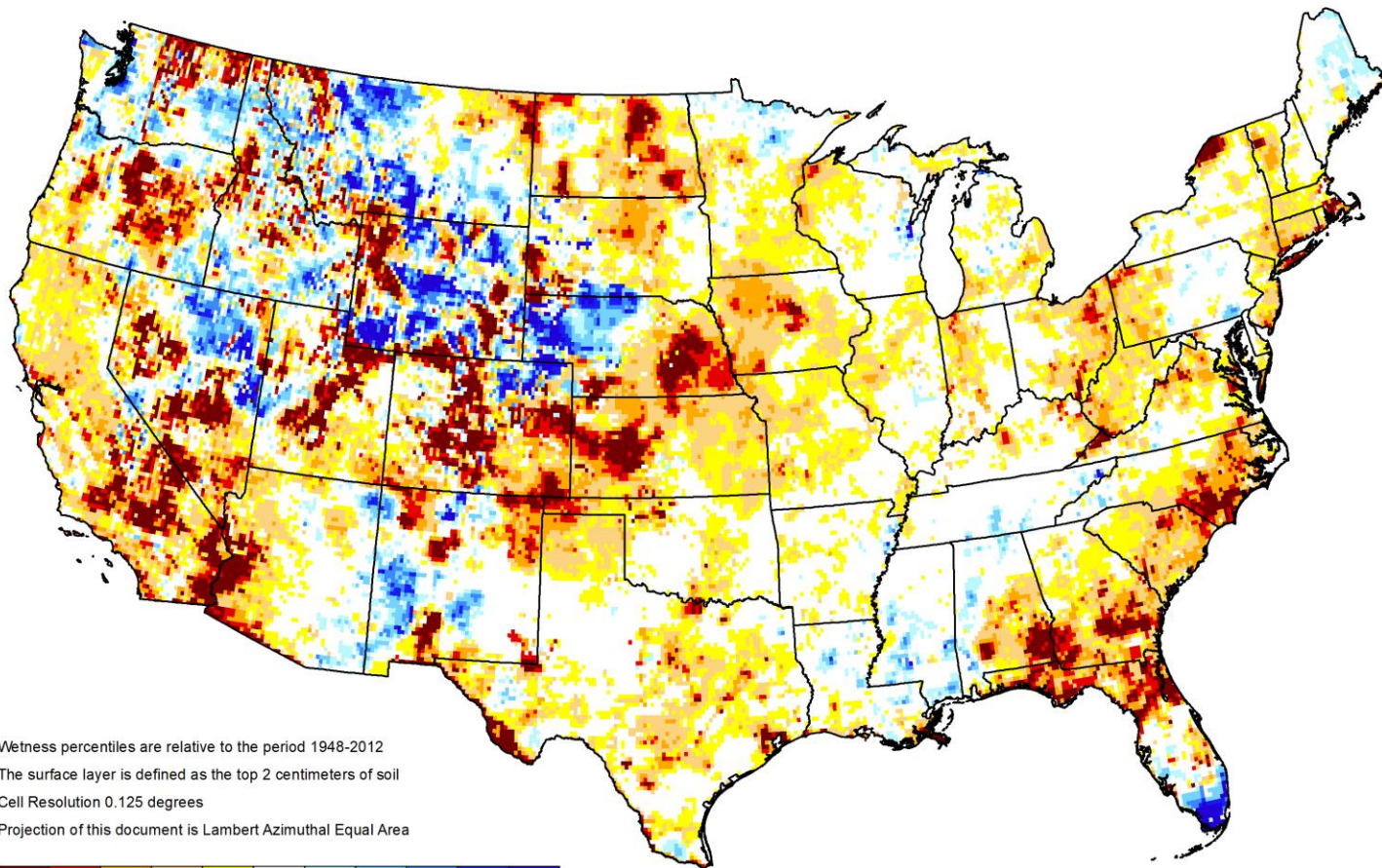


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NOAA Regional Climate Centers

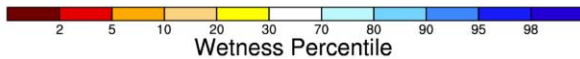


GRACE-Based Surface Soil Moisture Drought Indicator

December 26, 2022



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



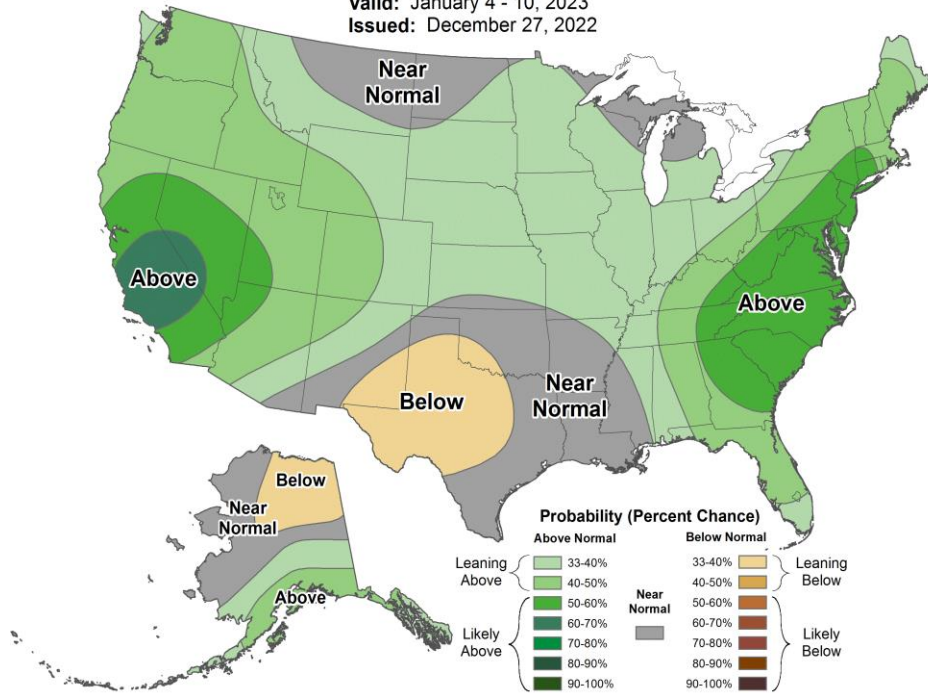
<https://nasagrace.unl.edu>



8-14 Day Precipitation Outlook



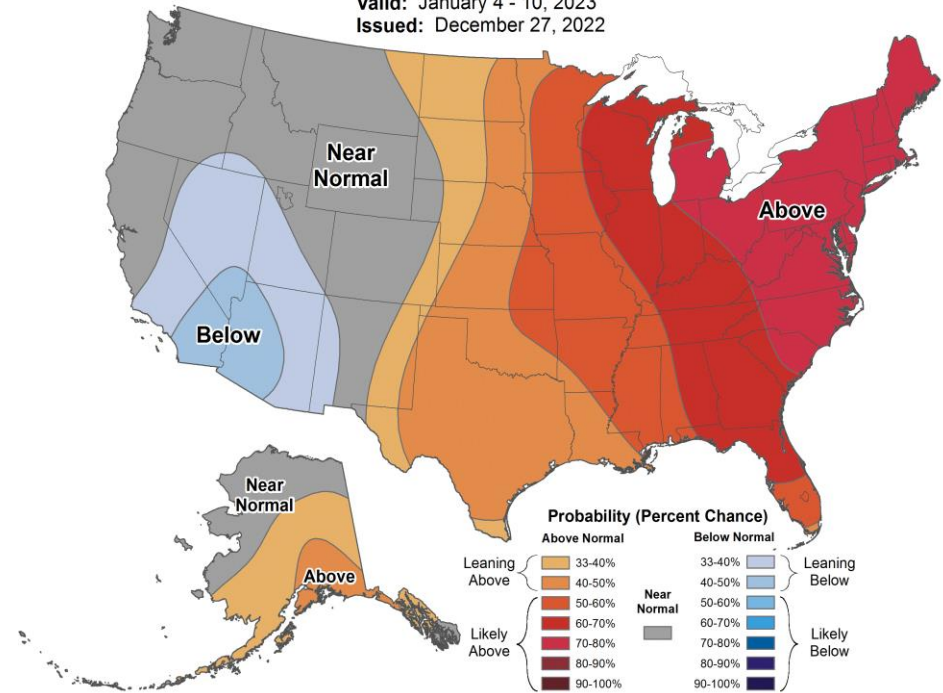
Valid: January 4 - 10, 2023
 Issued: December 27, 2022



8-14 Day Temperature Outlook

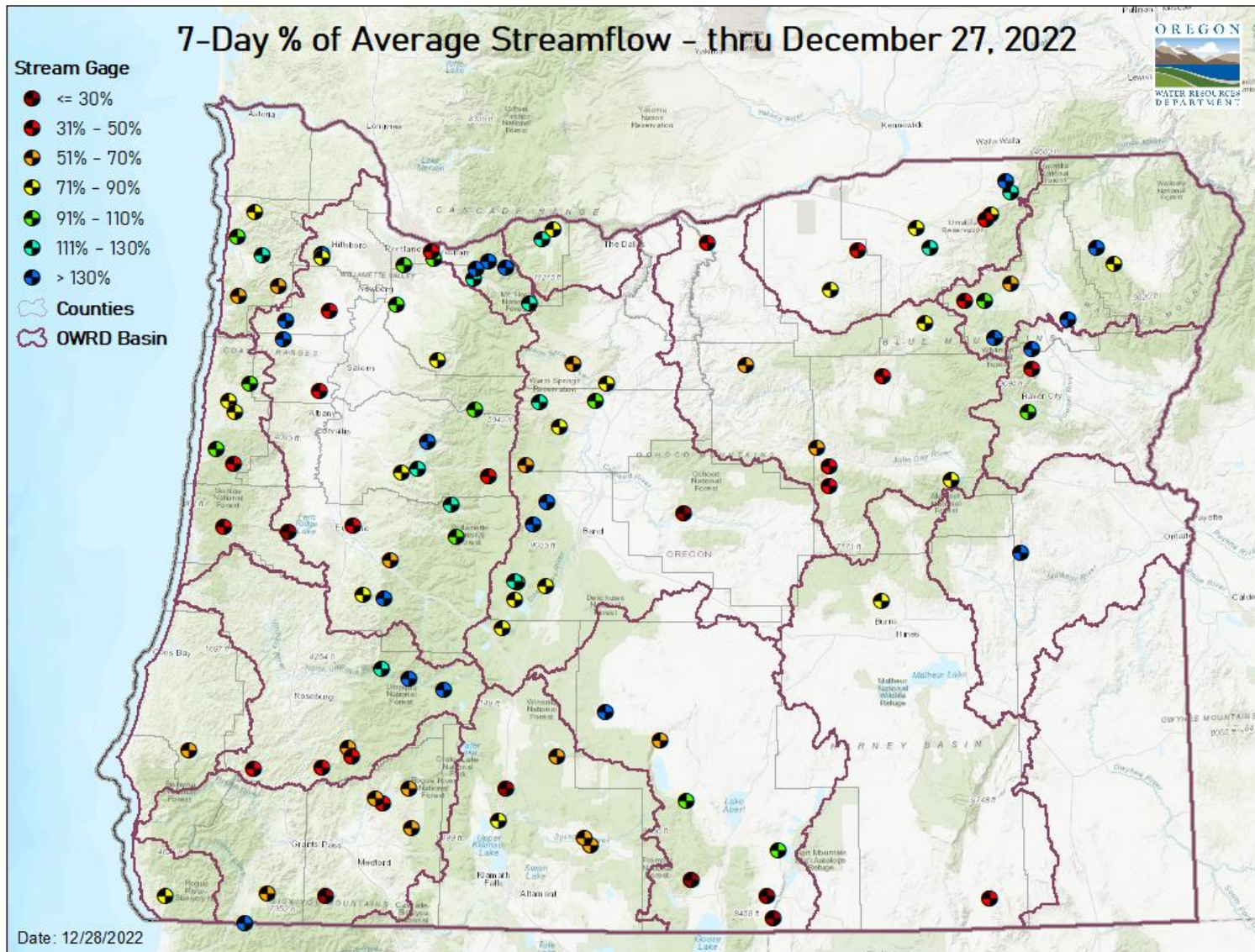


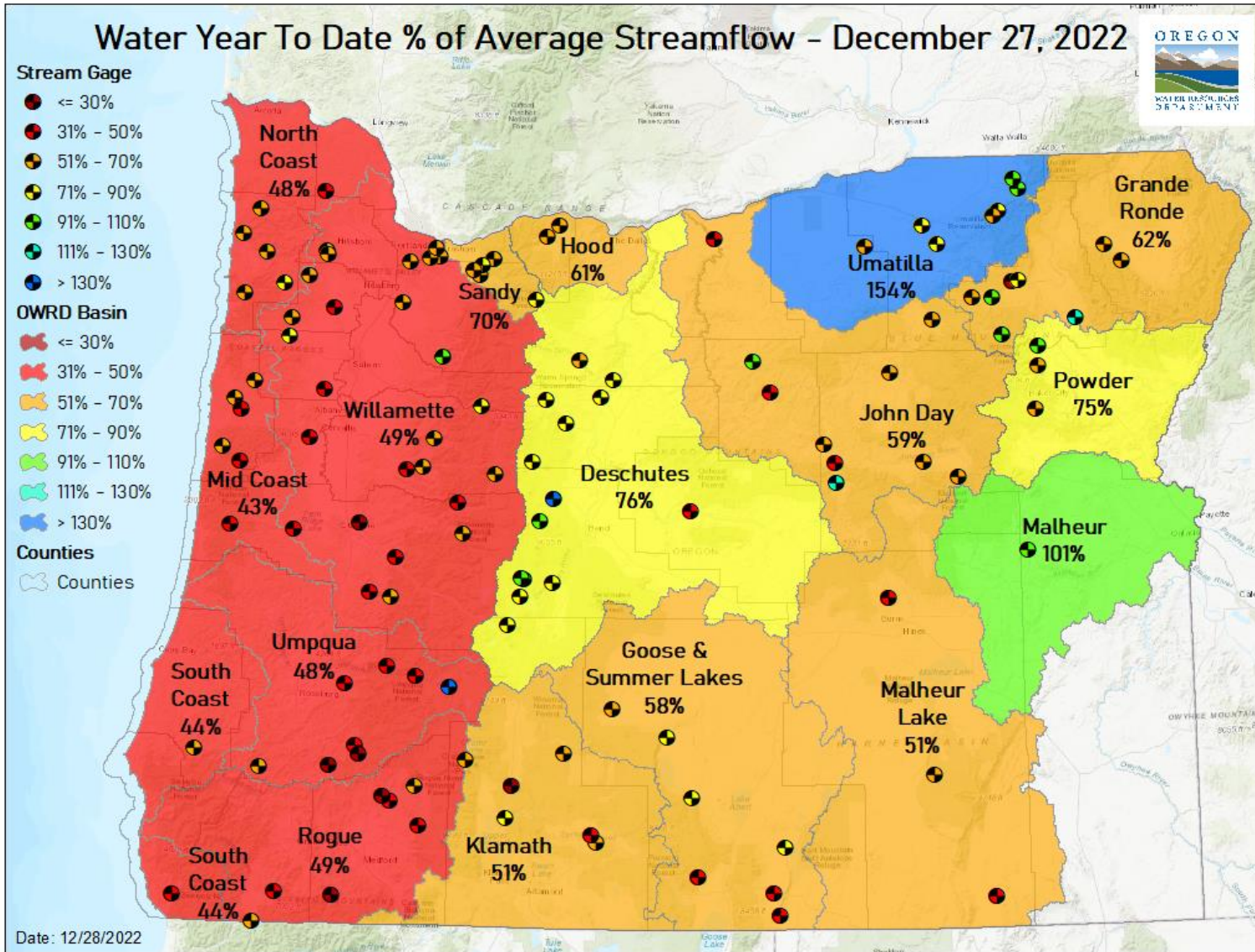
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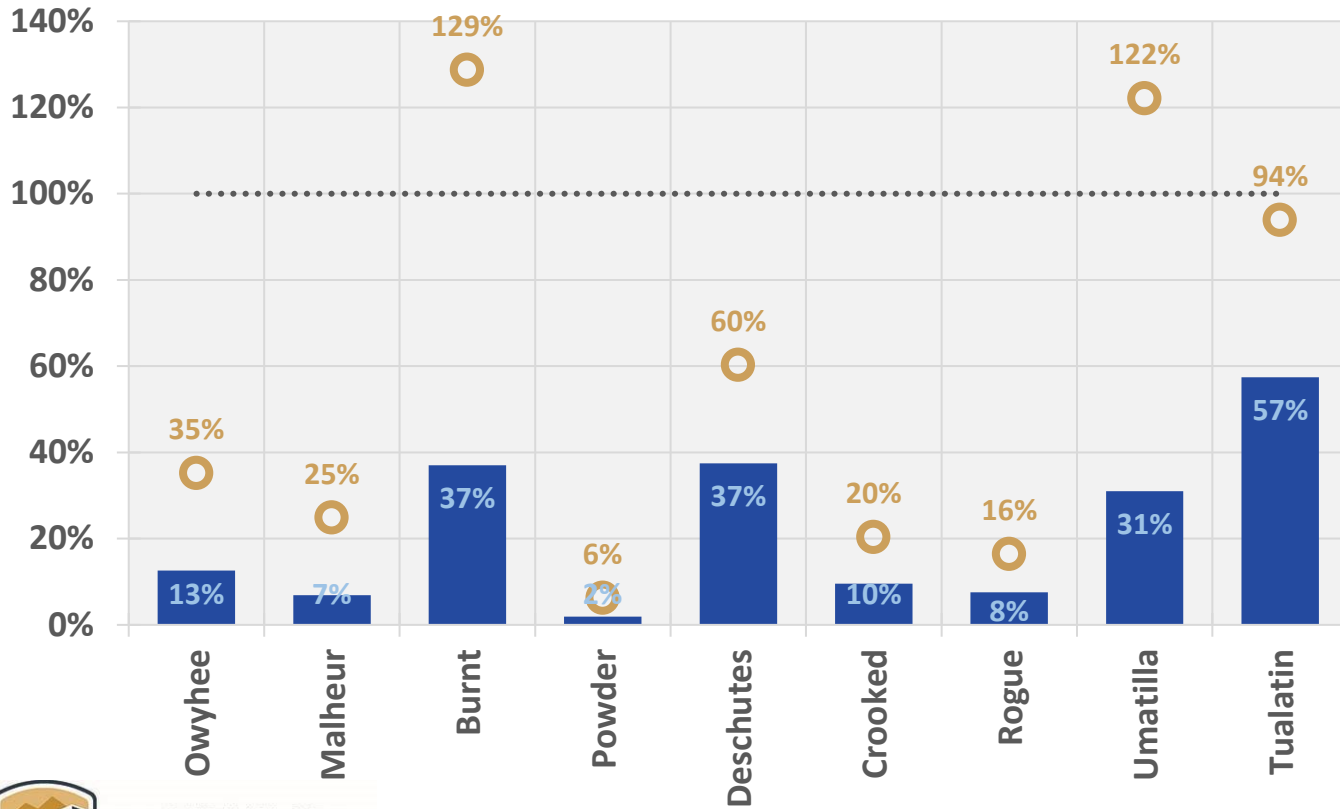
STREAMFLOW

7-DAY





December 27 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.