Oregon Water Conditions Report

January 2nd, 2024

HIGHLIGHTS

According to the US Drought Monitor, over 18% of Oregon is experiencing moderate (D1) to severe (D2) drought conditions. Conditions have not changed over the past two weeks with severe drought conditions persisting in northcentral Oregon.

Snow water equivalent (SWE) in all basins across the state is currently measuring well below to just below the historical median (min = 19%, max = 92%).

Precipitation over the past 30 days has varied statewide. Much of northeast, central, and southwest Oregon received well below average precipitation, ranging from 1.5 to 4.5 inches below average. The southern Cascade Range and parts of the northern and southern coast received well above average precipitation, ranging from 3 to 7.5 inches above average.

Over the past 30 days, temperatures have varied between western and eastern Oregon. Average temperatures in western Oregon ranged from 2°F below average to 8°F above average. In eastern Oregon, average temperatures ranged from 2°F to 10°F above average.

Root zone soil and surface soil moisture profiles show a decline over recent weeks due to below average precipitation across much of the state.

The three-month seasonal climate outlook indicates probabilities showing equal chances of above/below average precipitation for much of the state and below average precipitation for parts of northeast Oregon. The seasonal outlook for temperature indicates probabilities favoring above average temperatures statewide.

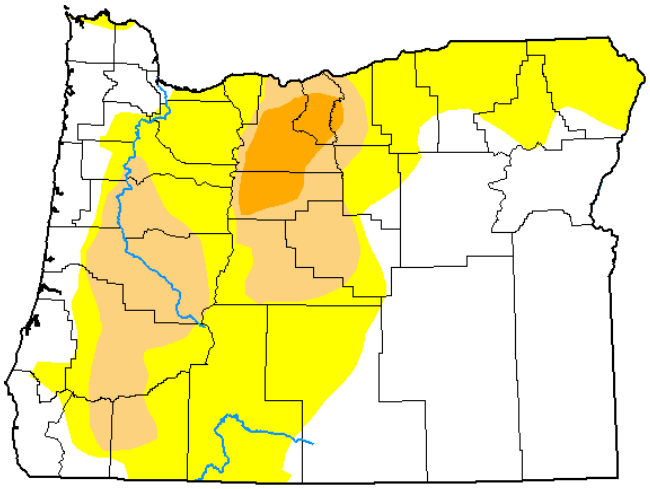
Streamflows in December varied across Oregon. In northwest and eastern Oregon streamflows were near to well above average. Streamflows in southwest and central Oregon were well below to well above average. Over the water year to date, streamflows generally show similar patterns of dryness to streamflows in December especially in southwest and central Oregon.

Reservoir storage in many basins continues to measure near to above average. However, projects in the Deschutes and Rogue basins are measuring below average storage contents. See USBR (including Klamath) and USACE teacup diagrams for more information.

DROUGHT CONDITIONS

U.S. Drought Monitor

Oregon



December 26, 2023

(Released Thursday, Dec. 28, 2023)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	47.04	52.96	18.85	3.12	0.00	0.00
Last Week *12-19-2023*	47.09	52.91	18.85	3.12	0.00	0.00
3 Months Ago *09-26-2023*	24.13	75.87	54.18	27.06	6.40	0.00
Start of Calendar Year *01-03-2023*	13.46	86.54	59.75	46.03	26.18	1.40
Start of Water Year *09-26-2023*	24.13	75.87	54.18	27.06	6.40	0.00
One Year Ago *12-27-2022*	8.58	91.42	59.76	46.04	26.18	1.40

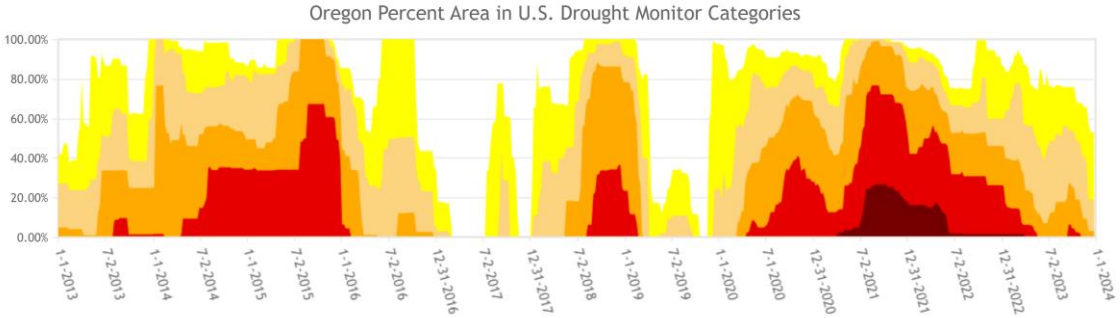
Intensity:

- 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:
Rocky Bilotta
NCEI/NOAA

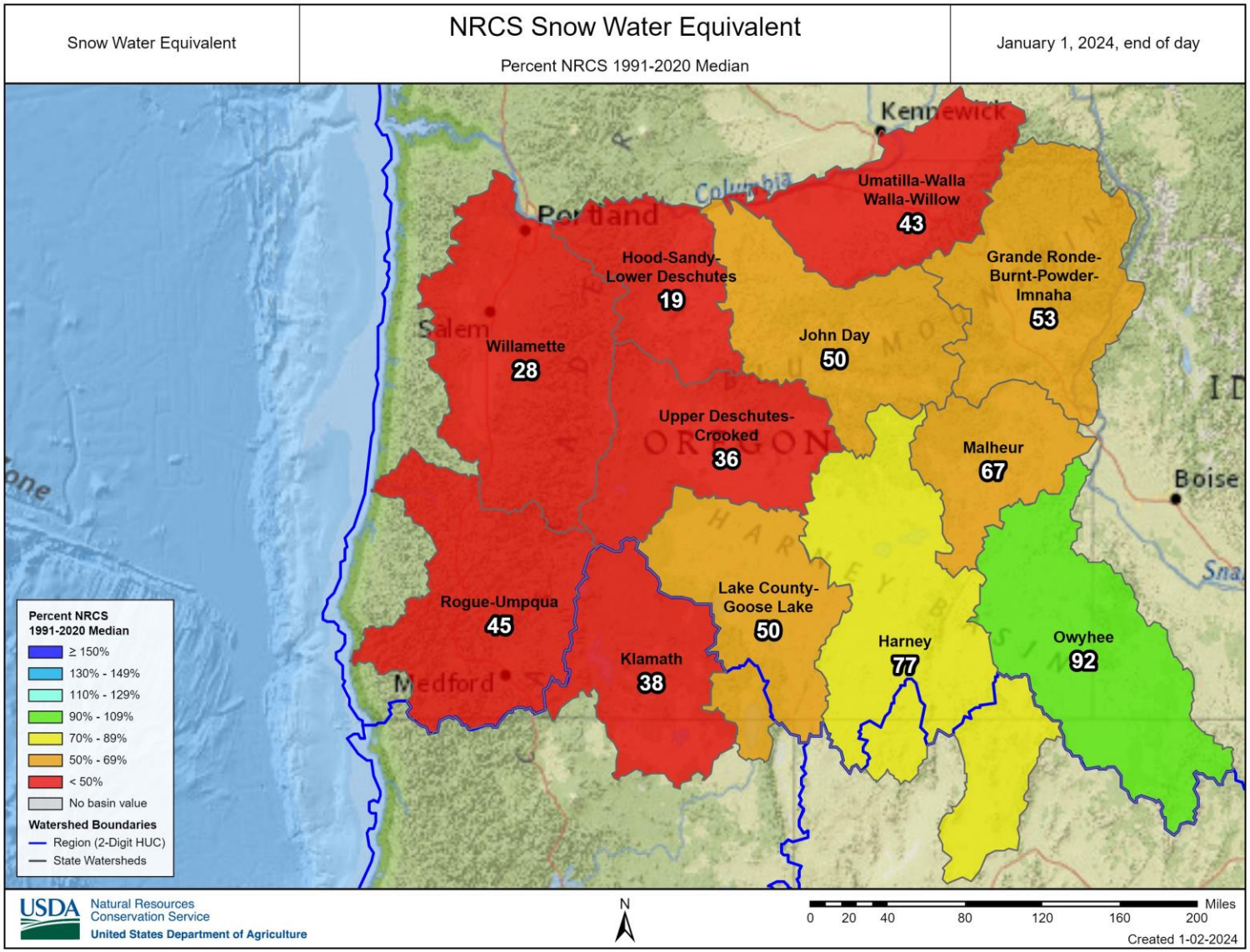
droughtmonitor.unl.edu



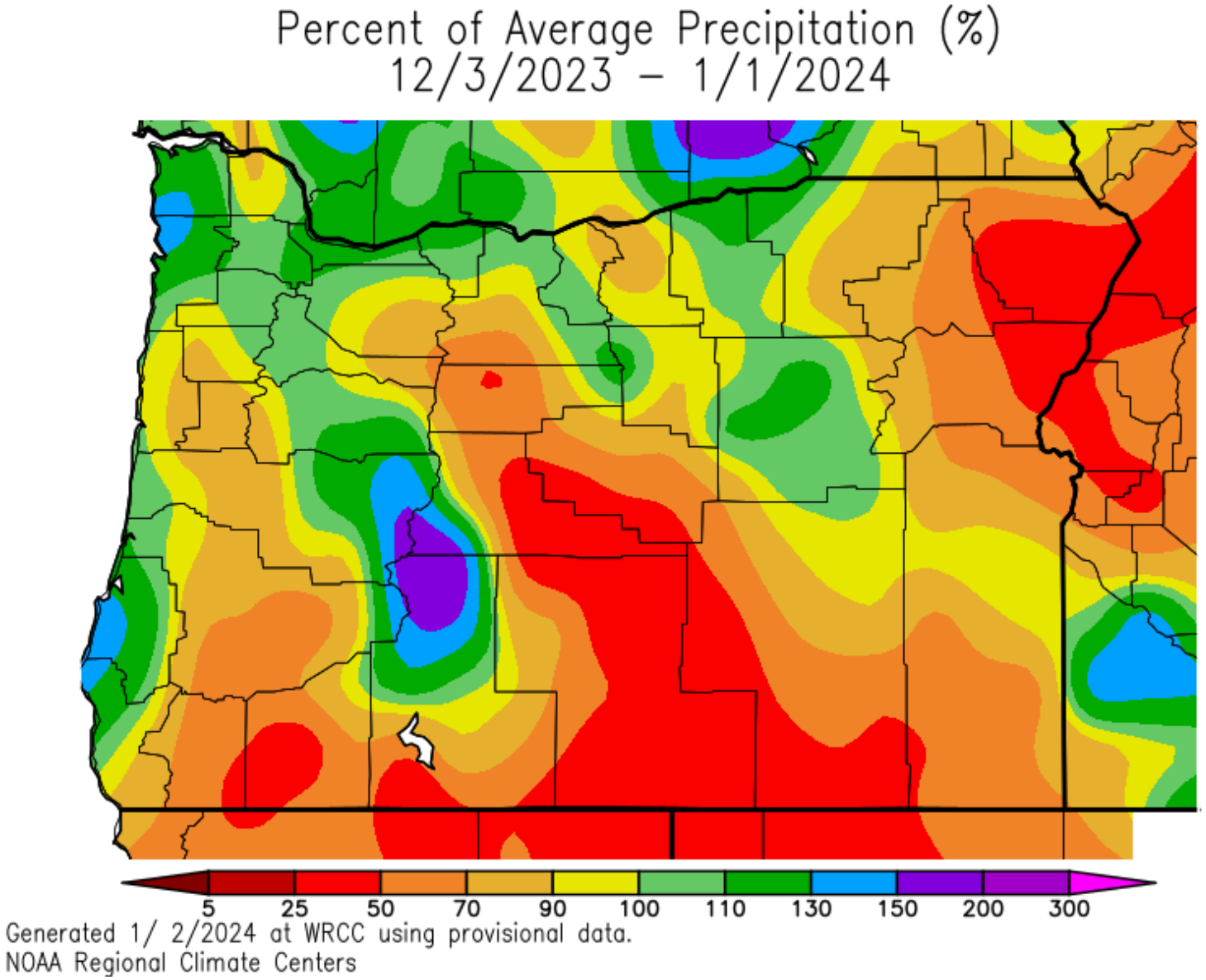
From the U.S. Drought Monitor website, https://droughtmonitor.unl.edu/DmData/TimeSeries.aspx, 1-2-2024

CLIMATE CONDITIONS

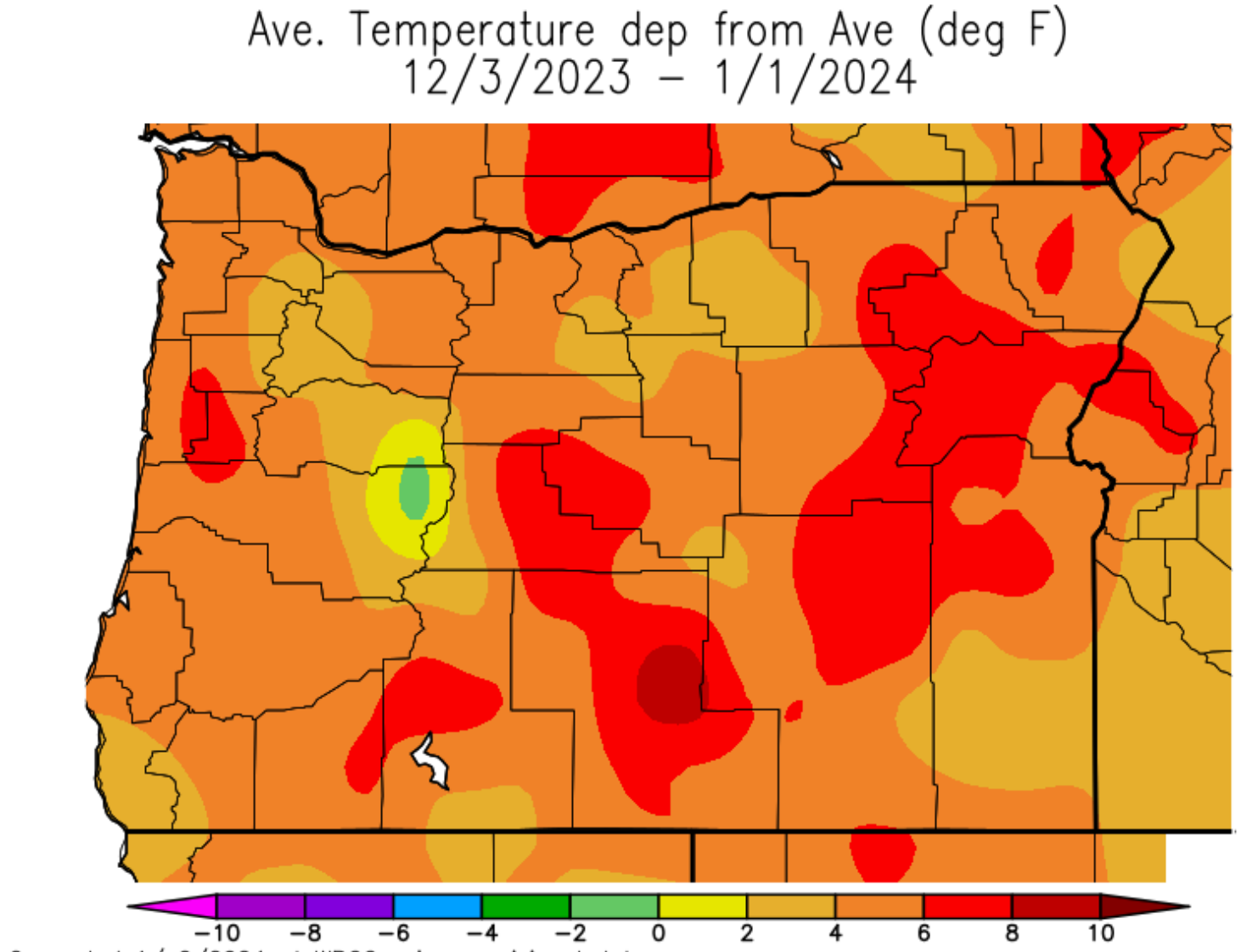
SNOW WATER EQUIVALENT



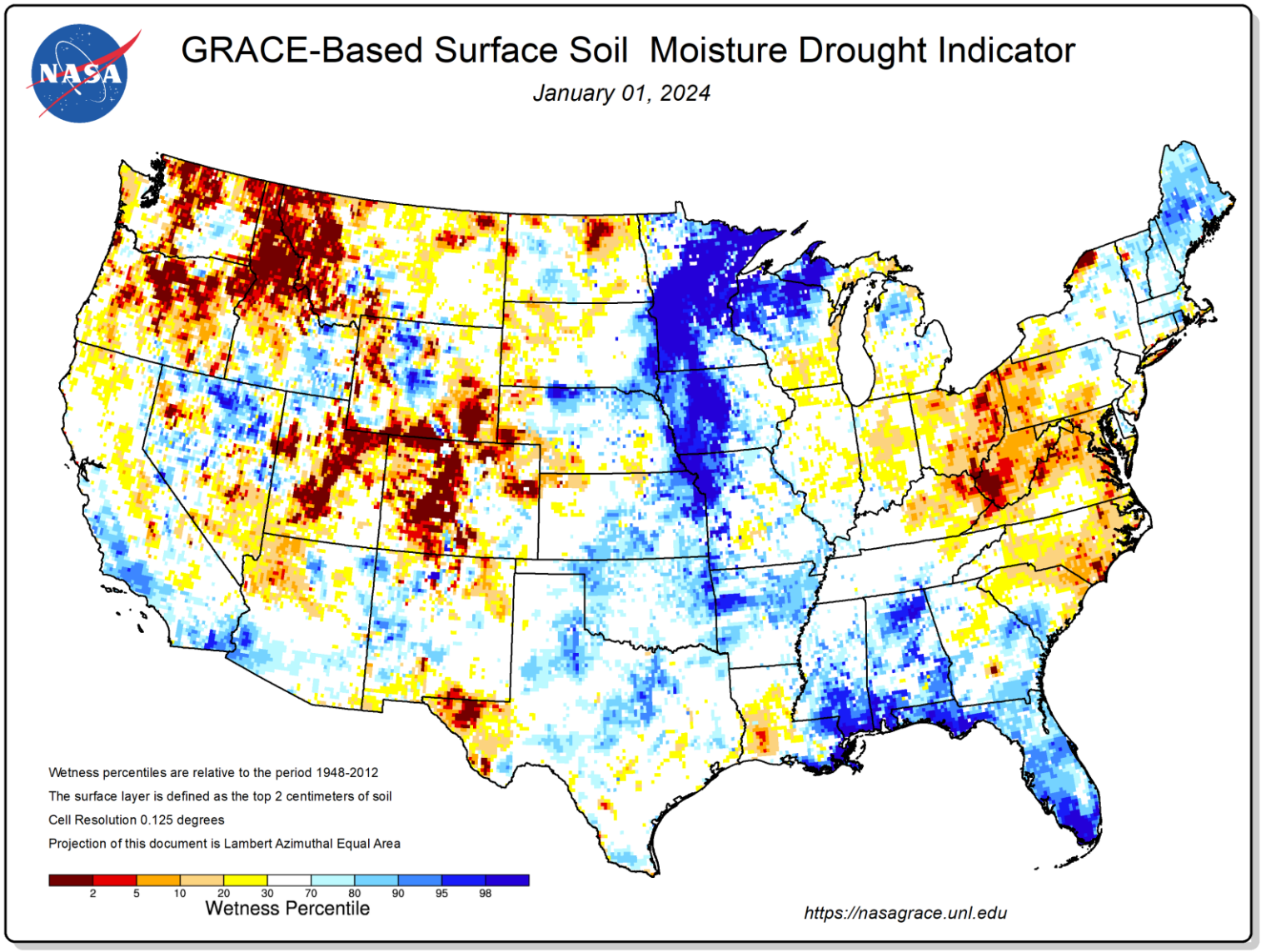
PRECIPITATION



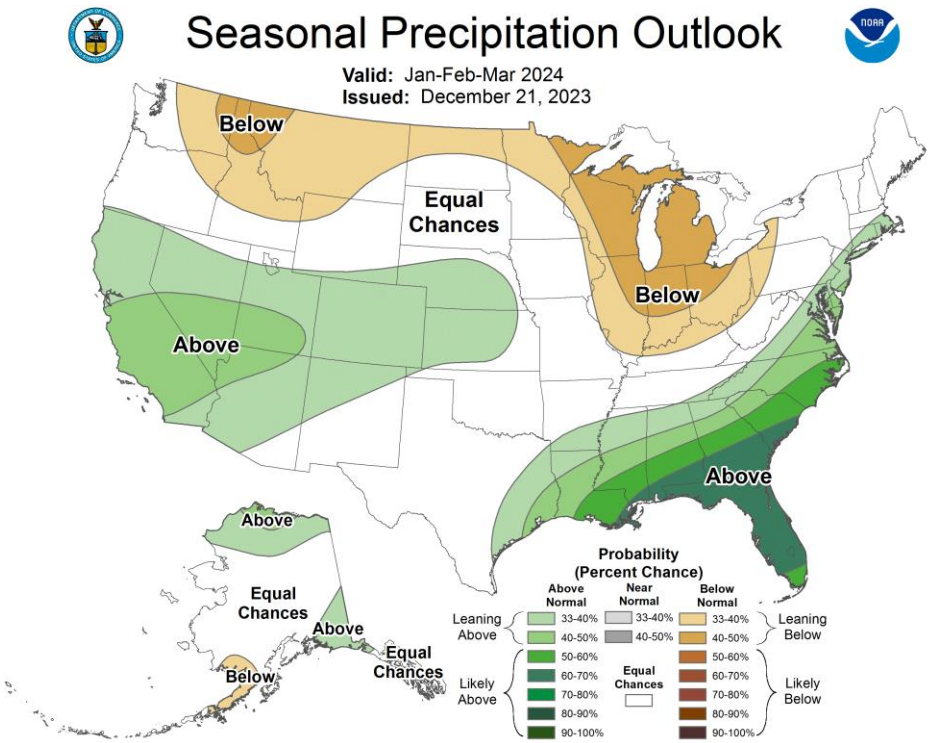
TEMPERATURE

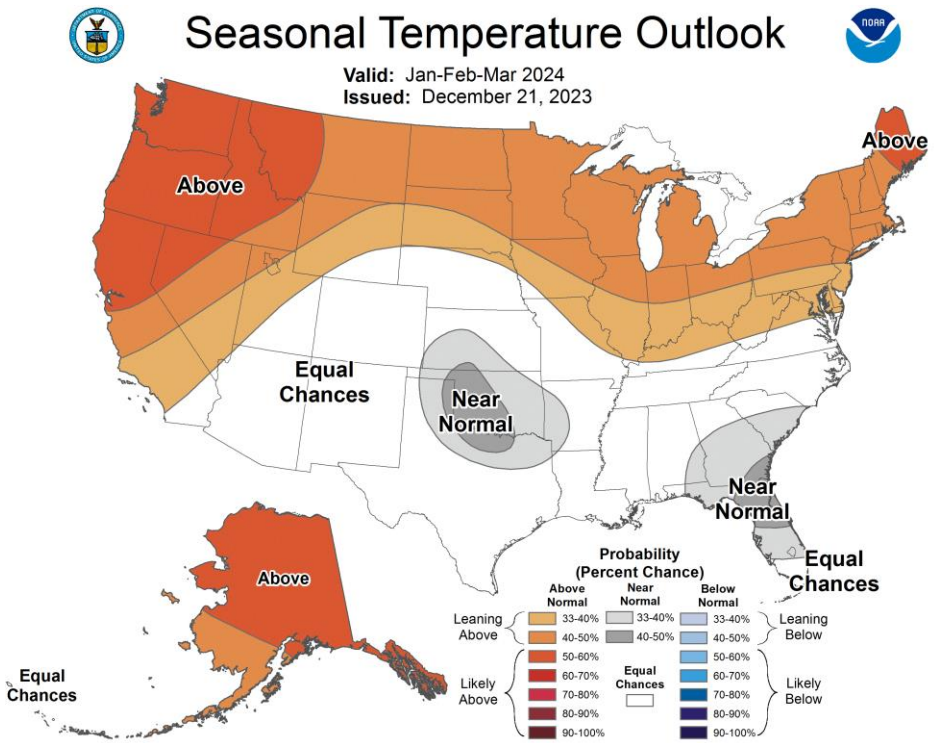


SOIL MOISTURE

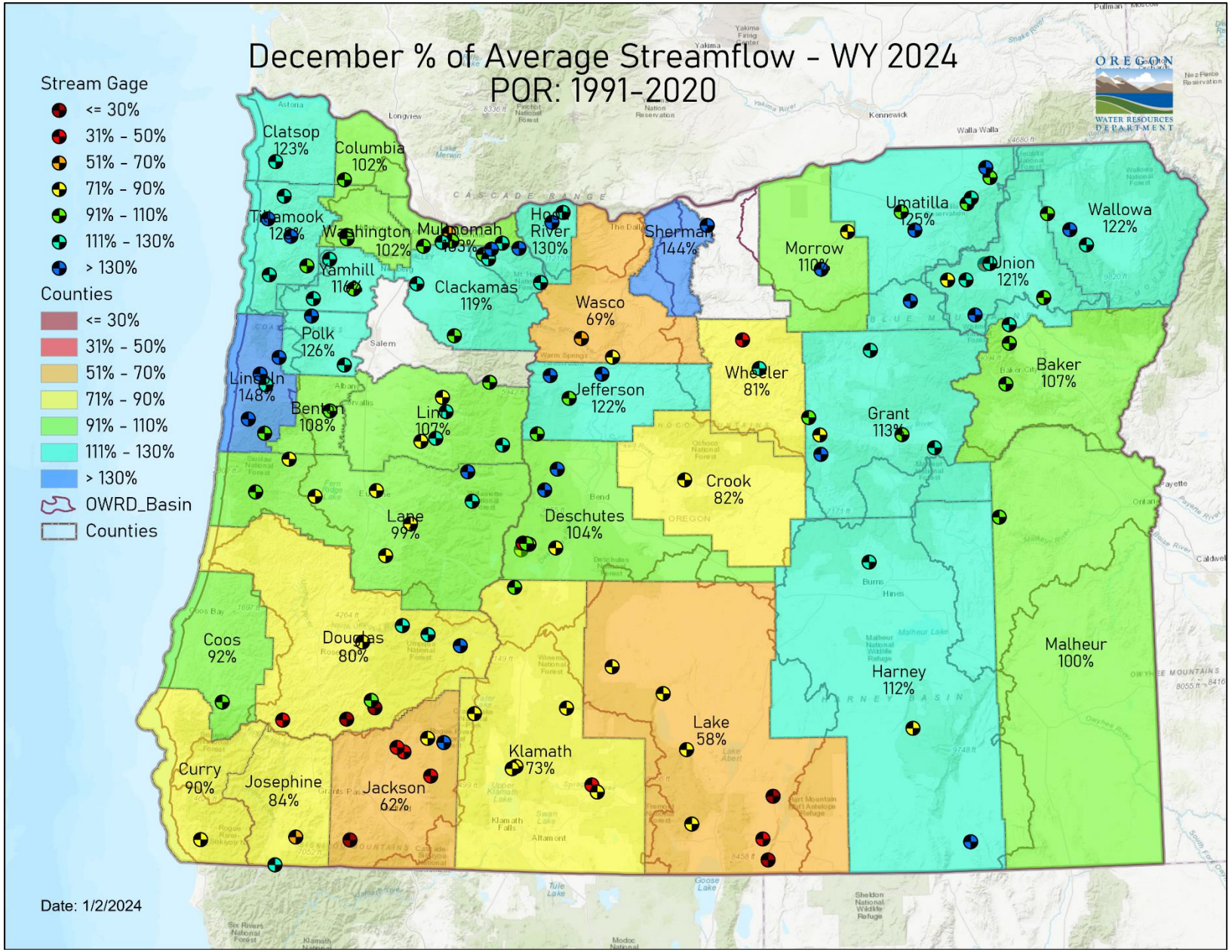


CLIMATE OUTLOOK

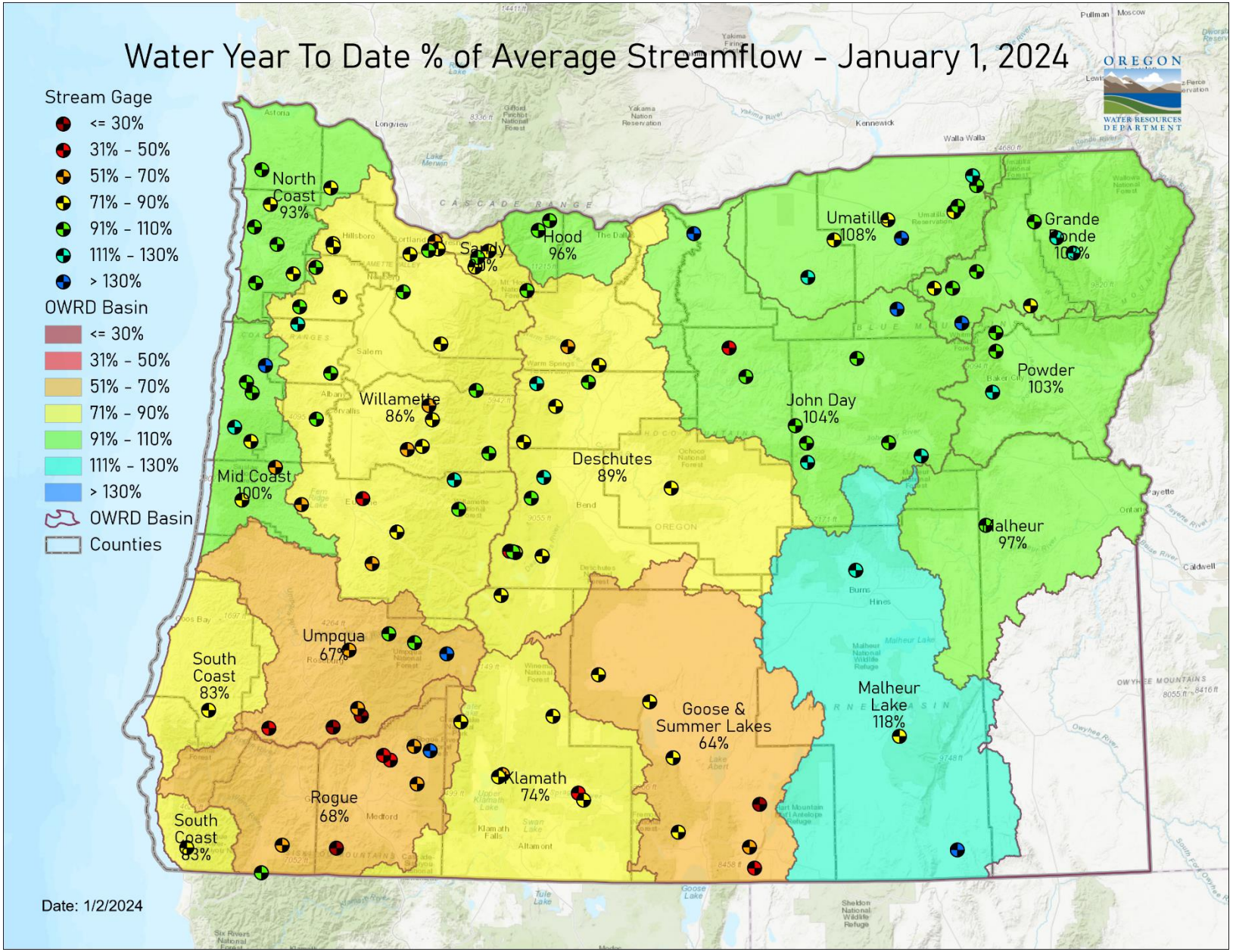


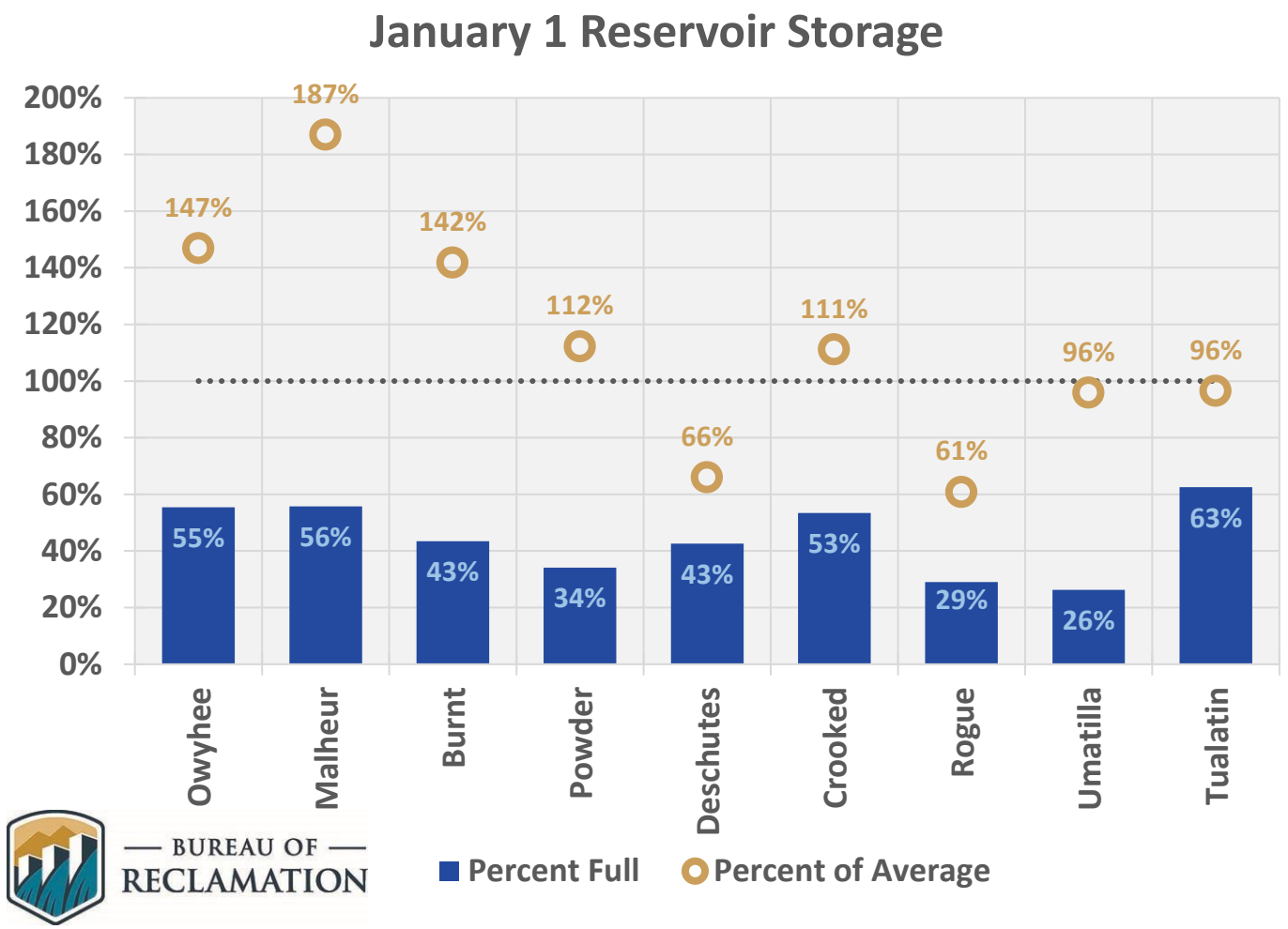


STREAMFLOW


December % of Average Streamflow - WY 2024
POR: 1991-2020
Stream Gage
<= 30%
31% - 50%
51% - 70%
71% - 90%
91% - 110%
111% - 130%
> 130%
Counties
<= 30%
31% - 50%
51% - 70%
71% - 90%
91% - 110%
111% - 130%
> 130%
OWRD_Basin
Counties
Clatsop 123%
Columbia 102%
Tillamook 128%
Washington 102%
Multnomah 103%
Hood River 130%
Sherman 144%
Umatilla 125%
Morrow 110%
Wallowa 122%
Union 121%
Yamhill 116%
Clackamas 119%
Wasco 69%
Polk 126%
Lincoln 148%
Benton 108%
Linn 107%
Jefferson 122%
Wheeler 81%
Baker 107%
Grant 113%
Crook 82%
Lane 99%
Deschutes 104%
Coos 92%
Douglas 80%
Harney 112%
Malheur 100%
Lake 58%
Klamath 73%
Curry 90%
Josephine 84%
Jackson 62%
Date: 1/2/2024

STREAMFLOW


Water Year To Date % of Average Streamflow - January 1, 2024
Stream Gage
<= 30%
31% - 50%
51% - 70%
71% - 90%
91% - 110%
111% - 130%
> 130%
OWRD Basin
<= 30%
31% - 50%
51% - 70%
71% - 90%
91% - 110%
111% - 130%
> 130%
OWRD Basin
Counties
North Coast 93%
Hood 96%
Sandy 90%
Umatilla 108%
Grande Ronde 103%
Powder 103%
John Day 104%
Willamette 86%
Deschutes 89%
Mid Coast 100%
Malheur 97%
Umpqua 67%
South Coast 83%
Goose & Summer Lakes 64%
Malheur Lake 118%
Klamath 74%
Rogue 68%
South Coast 83%
Date: 1/2/2024


January 1 Reservoir Storage
200%
180%
160%
140%
120%
100%
80%
60%
40%
20%
0%
147%
187%
142%
112%
66%
111%
61%
96%
96%
55%
56%
43%
34%
43%
53%
29%
26%
63%
Owyhee
Malheur
Burnt
Powder
Deschutes
Crooked
Rogue
Umatilla
Tualatin
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.