Oregon Water Conditions Report

January 25th, 2021

HIGHLIGHTS

Statewide snow water equivalent (SWE) is measuring 69% of the median at NRCS SNOTEL sites, representing an 18% reduction over the past two weeks. Snowpack has declined in all basins, such that each basin is measuring below to well below normal. Basin values range from a high of 88% of median in the John Day basin and a low of 58% in the Rogue-Umpqua basin.

Precipitation over the water year-to-date has seen a slight reduction over recent weeks, currently measuring at 86% of the long-term average. Nearly all basins have seen reductions, with the exception of the Hood-Sandy-Lower Deschutes which has seen a near 20% increase in precipitation over the past two weeks. Although the overall precipitation has increased in this basin, much of the increase is due to rain-on-snow events which have significantly reduced the snowpack by 16% over the same time period.

Recent precipitation has contributed to slight improvements in drought conditions for some areas of the state, offering some temporary relief. Conditions for nearly all of Coos and Curry counties have seen improvements, along with portions of the Willamette Valley and Harney County. Just over 91% of the state is classified as experiencing some form of drought.

Temperatures over recent weeks have been above average for much of the state. Many areas were at least 2° F above average, while some portions were up to 6° F - 10° F above average. Increased temperatures coupled with below average precipitation have contributed to the declining snowpack.

Streamflows over the past 28- and 7-day periods highlight the varying precipitation patterns experienced throughout the state (see below for more). Coastal streams as well as those along and to the west of the Cascade Crest responded strongly to precipitation events earlier in the month. Near-normal precipitation has sustained streamflows in the northeastern corner of the state. However, southern and eastern Oregon continue to measure below to well-below normal streamflows over the same time periods. More recently, 7-day average streamflows indicate lack of precipitation influxes over the short-term.

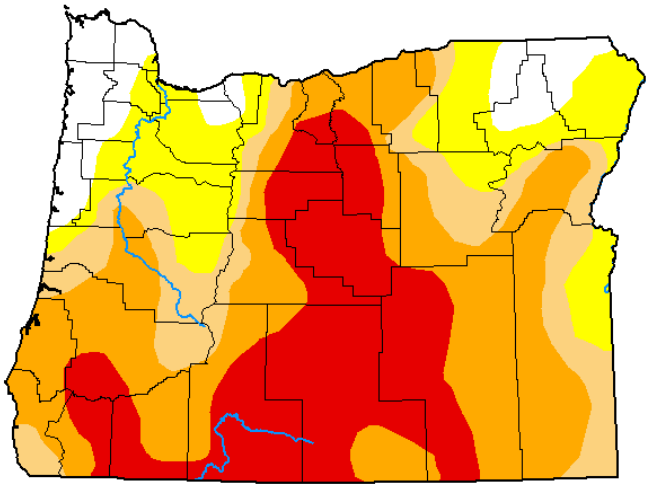
Seasonal and near-term climate outlooks project varying conditions throughout the state. Equal chances of above or below normal temperatures and above normal precipitation are project for the month of February for nearly all of Oregon. Temperature forecasts show a clear delineation in conditions represented by a southwestern to northeastern swath, while precipitation forecasts show a clear distinction between northern and southern Oregon. The 8 – 14 day forecast projects both below-normal temperatures and precipitation to varying degrees statewide.

DROUGHT CONDITIONS

The US Drought Monitor indicates just over 91% of the state is classified as experiencing some form of drought. Major changes include reductions in D3 coverage in Coos and Curry Counties, as well as the western portion of Josephine County, which have been upgraded from D3 (extreme drought) to D2 (severe drought). Portions of the Willamette Valley have also seen slight improvements due to recent precipitation events.

U.S. Drought Monitor

Oregon



January 19, 2021

(Released Thursday, Jan. 21, 2021)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	8.48	91.52	75.08	60.36	26.81	0.00
Last Week *01-12-2021*	8.91	91.09	75.17	60.94	25.97	0.00
3 Months Ago *10-20-2020*	6.89	93.11	86.44	70.73	39.05	0.00
Start of Calendar Year *12-29-2020*	8.57	91.43	83.53	68.71	27.74	0.00
Start of Water Year *09-29-2020*	6.50	93.50	84.77	65.53	33.59	0.00
One Year Ago *01-21-2020*	2.81	97.19	32.87	0.00	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

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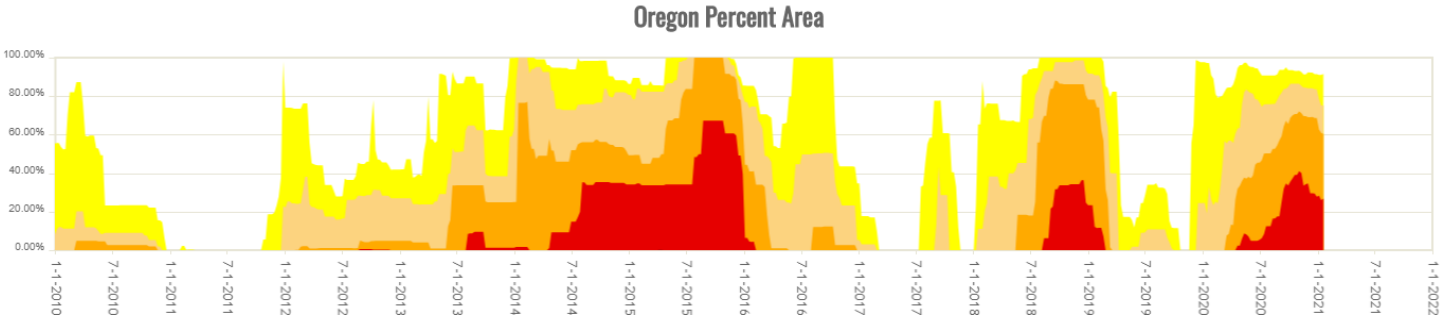
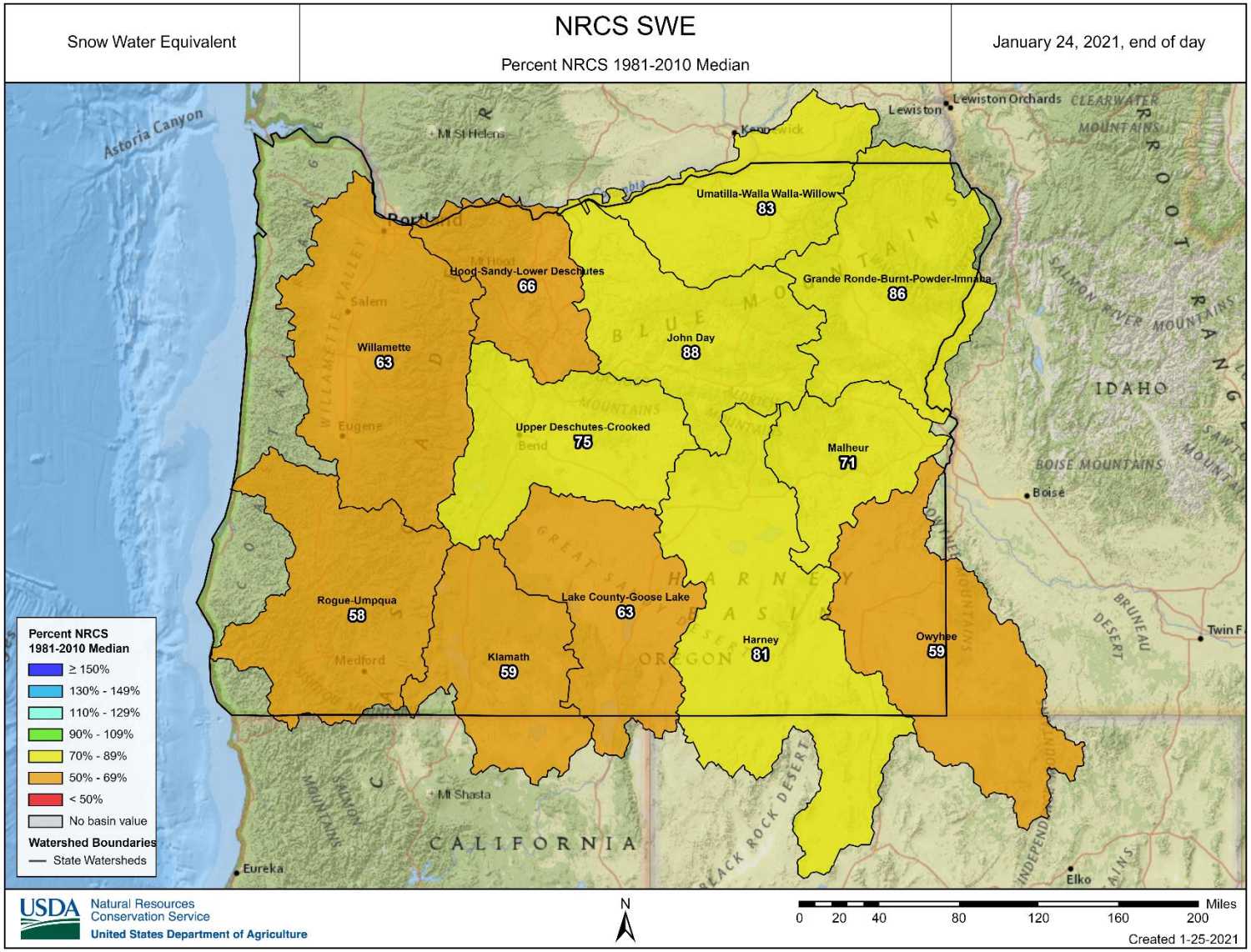
CPC/NOAA/NWS/NCEP

droughtmonitor.unl.edu

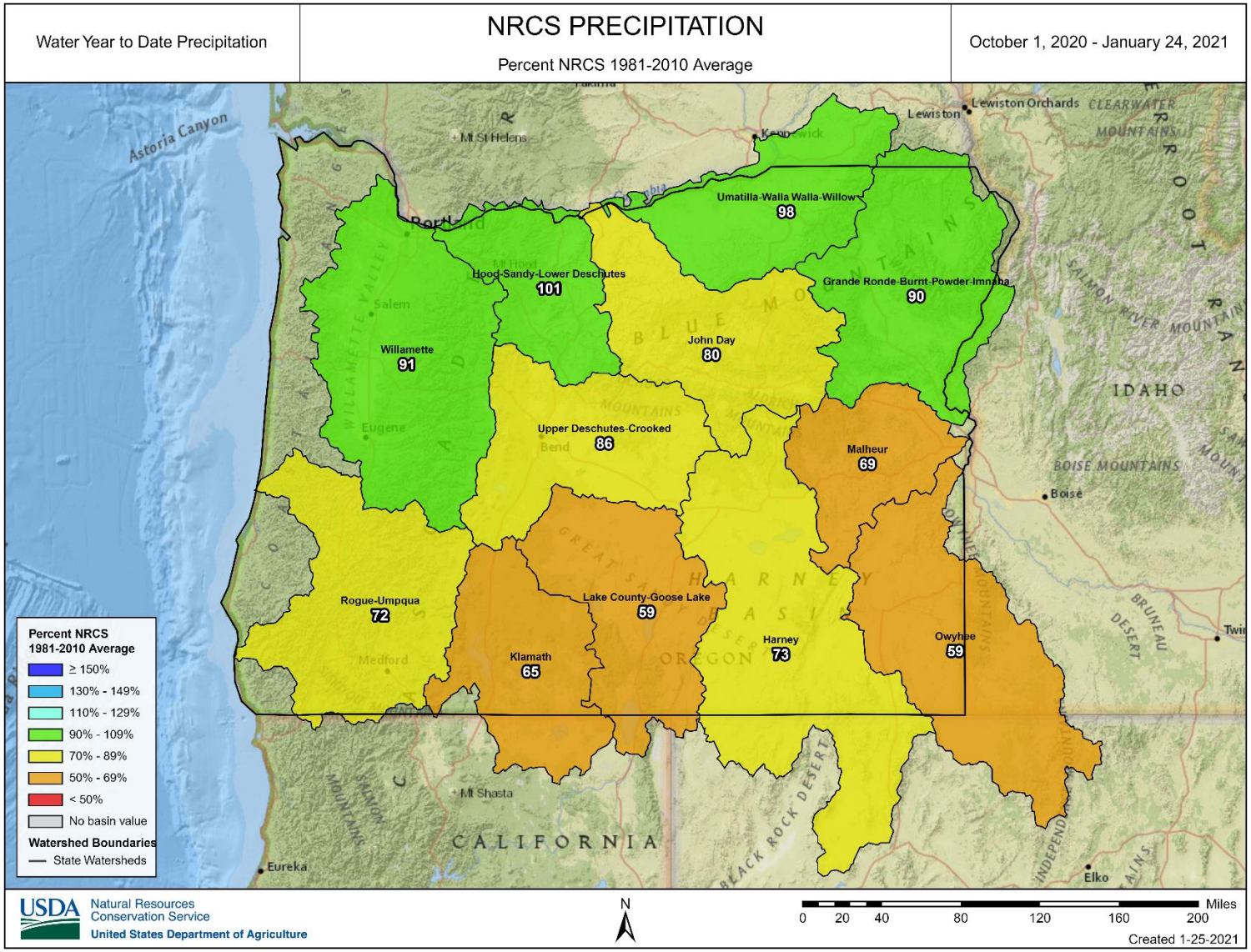


CLIMATE CONDITIONS

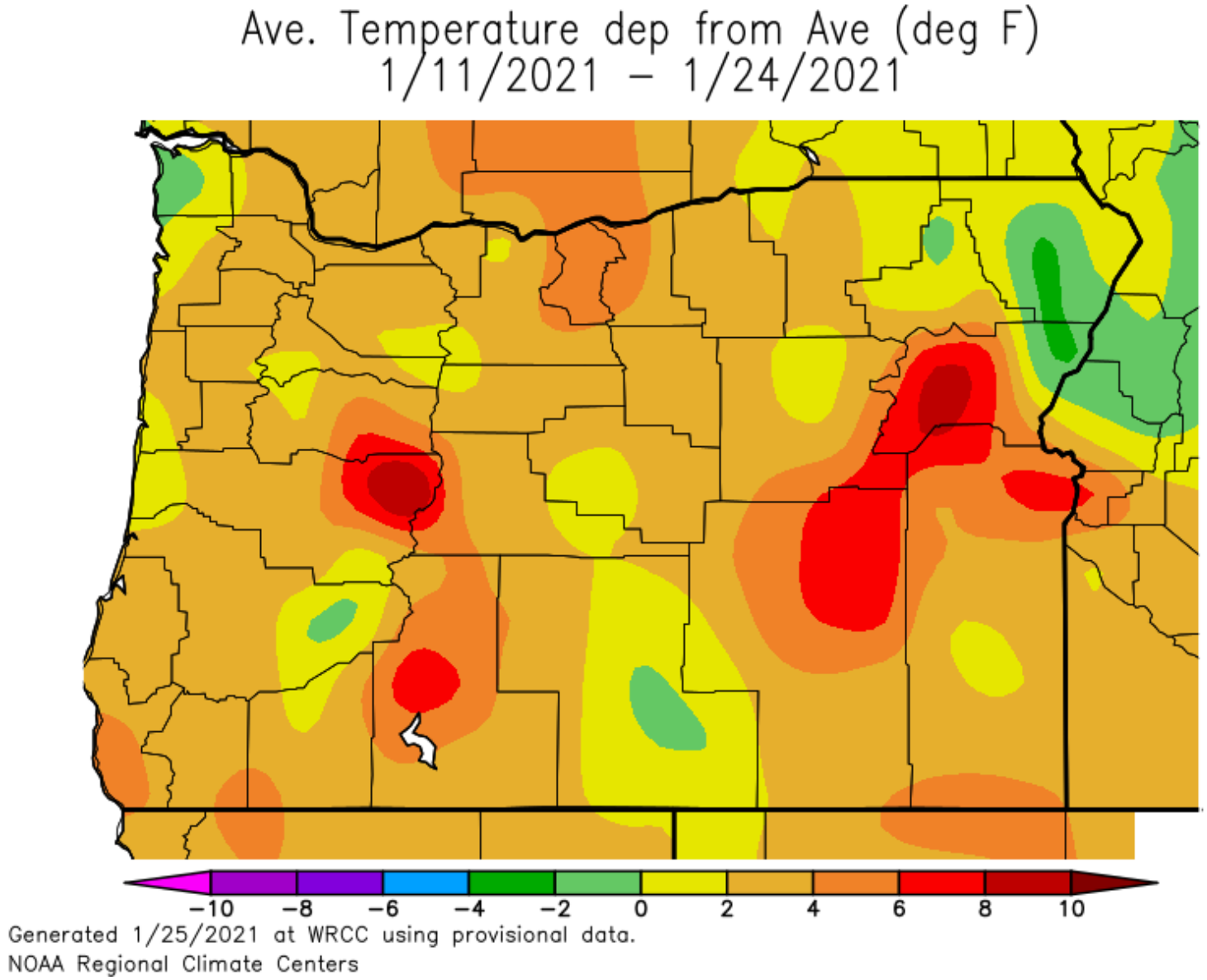
SNOW WATER EQUIVALENT



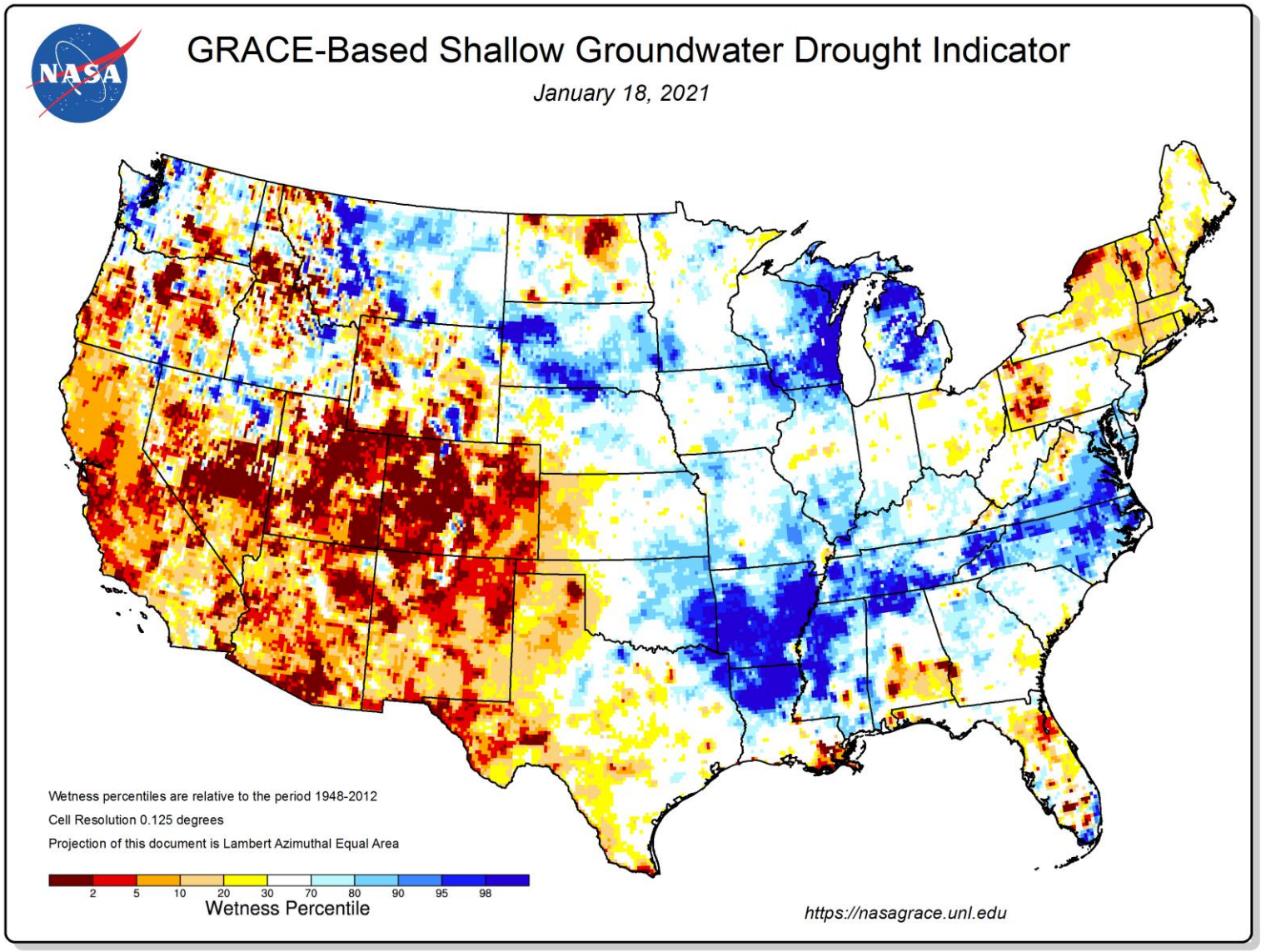
PRECIPITATION



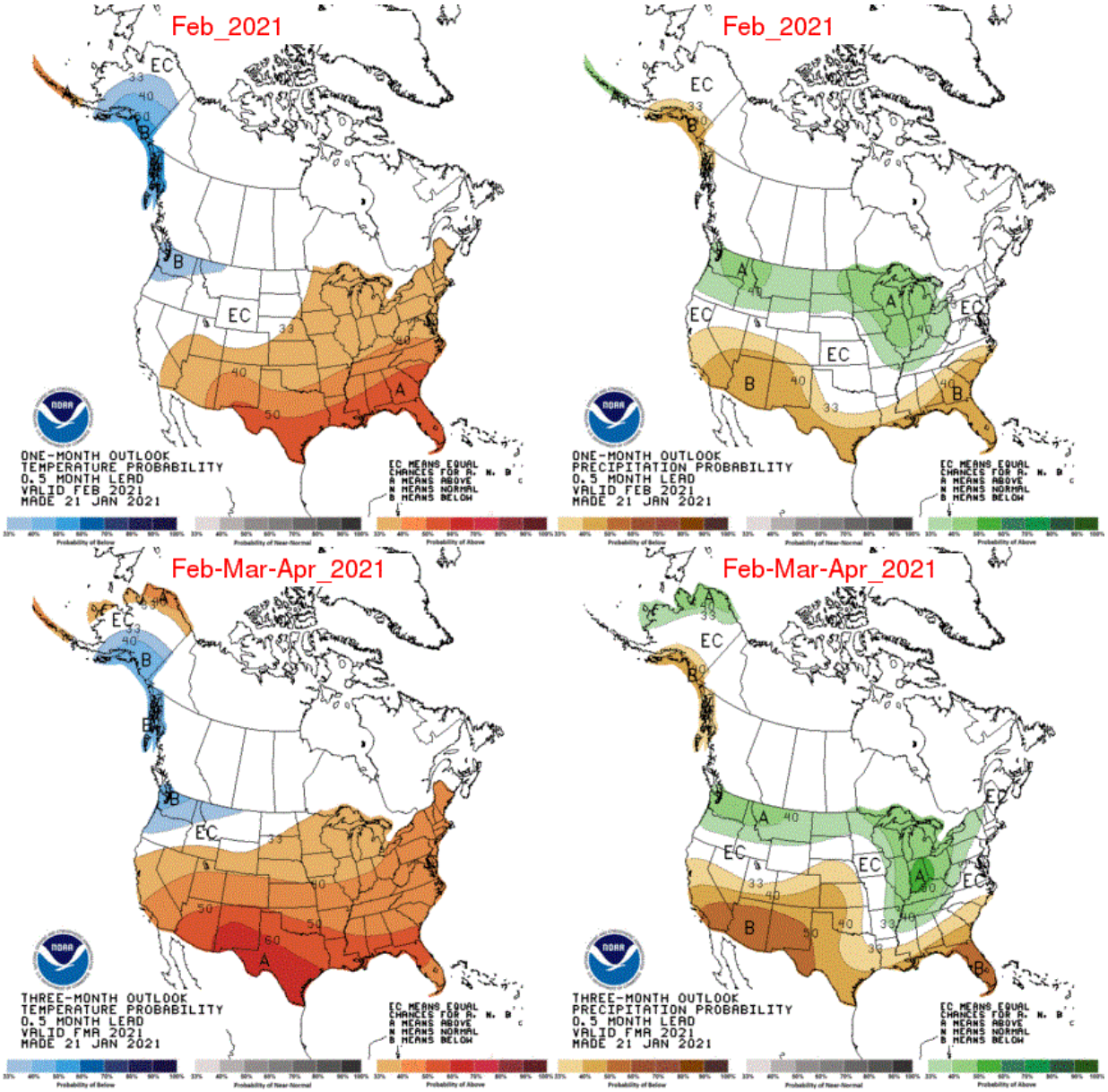
TEMPERATURE



SOIL MOISTURE

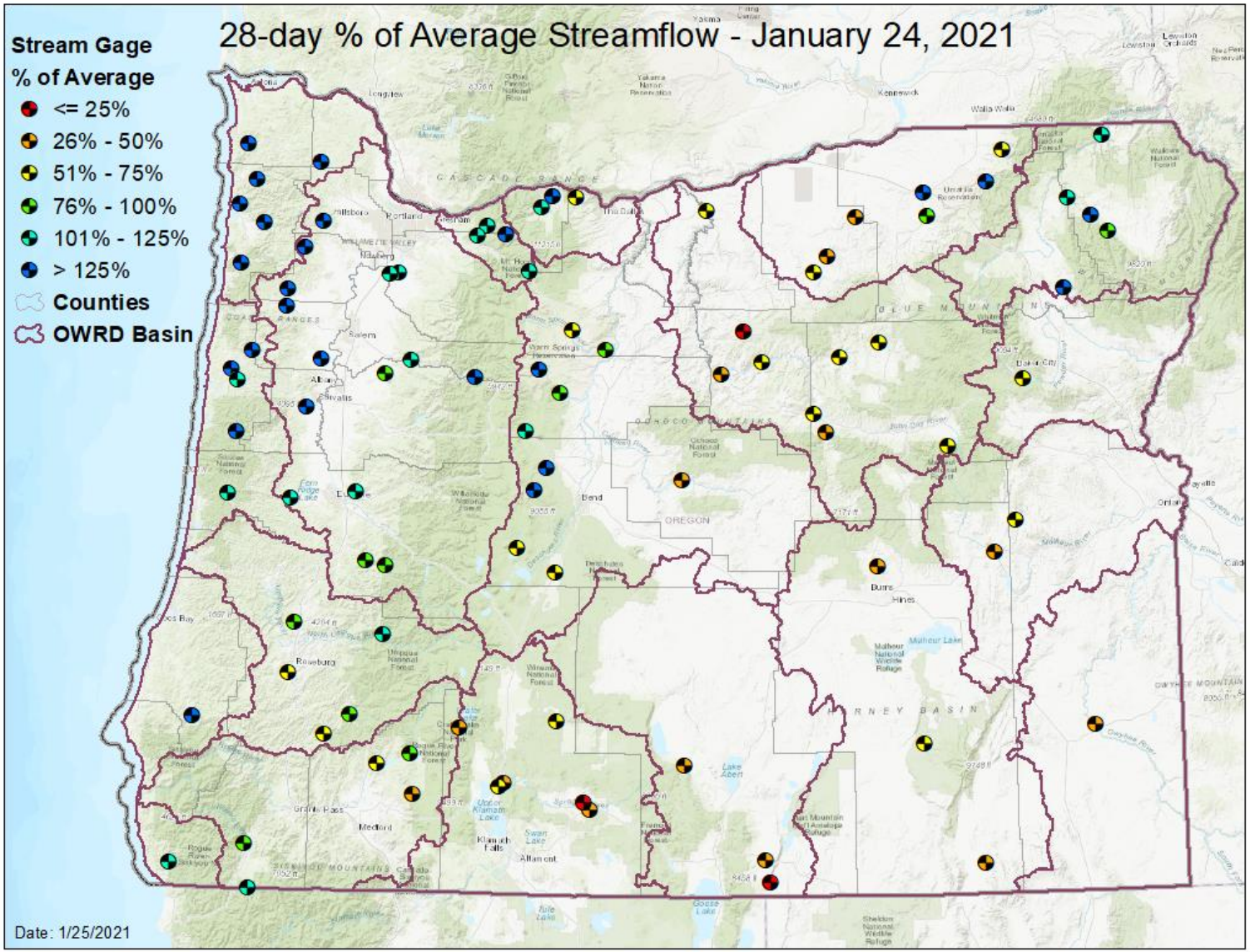


CLIMATE OUTLOOK

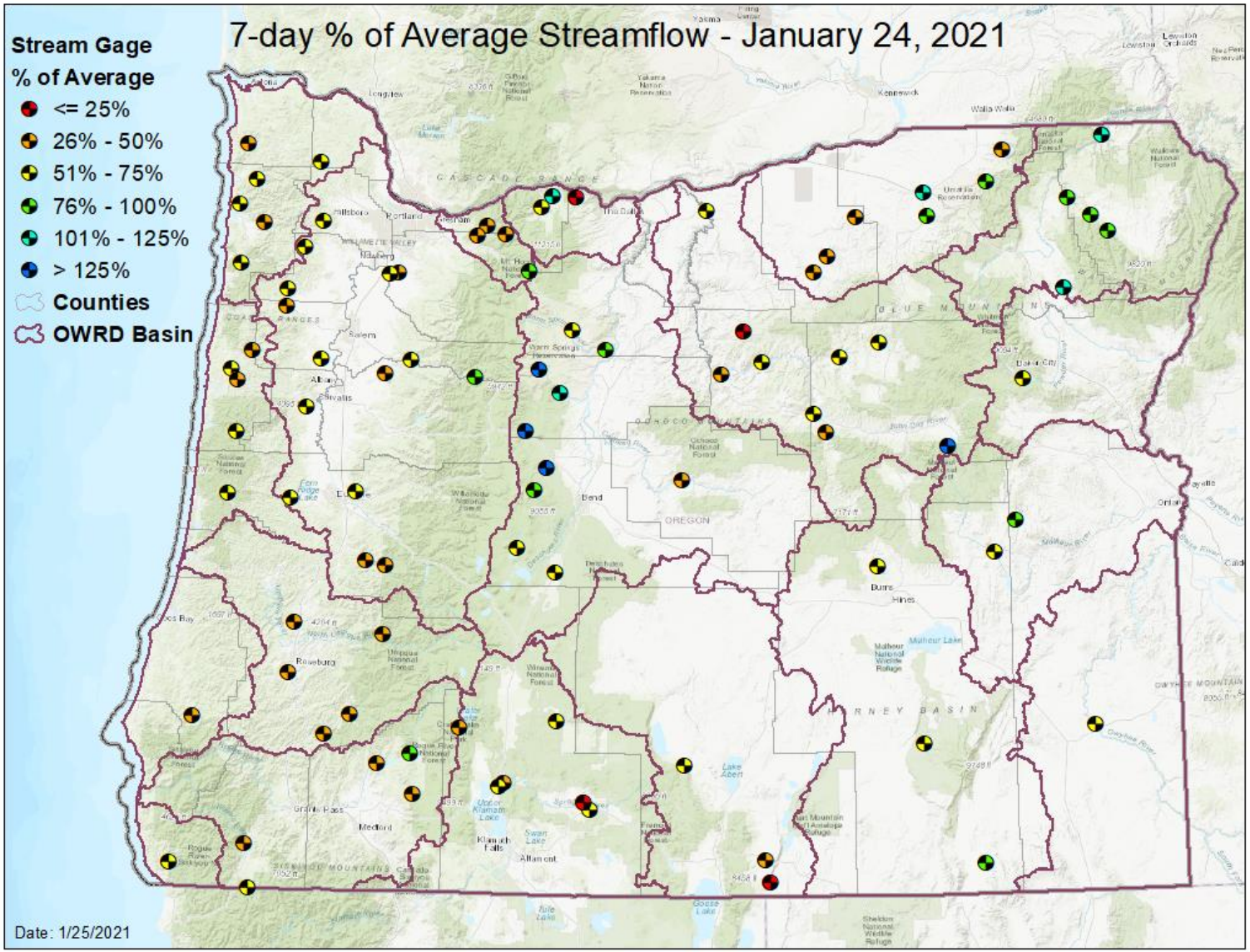


STREAMFLOW

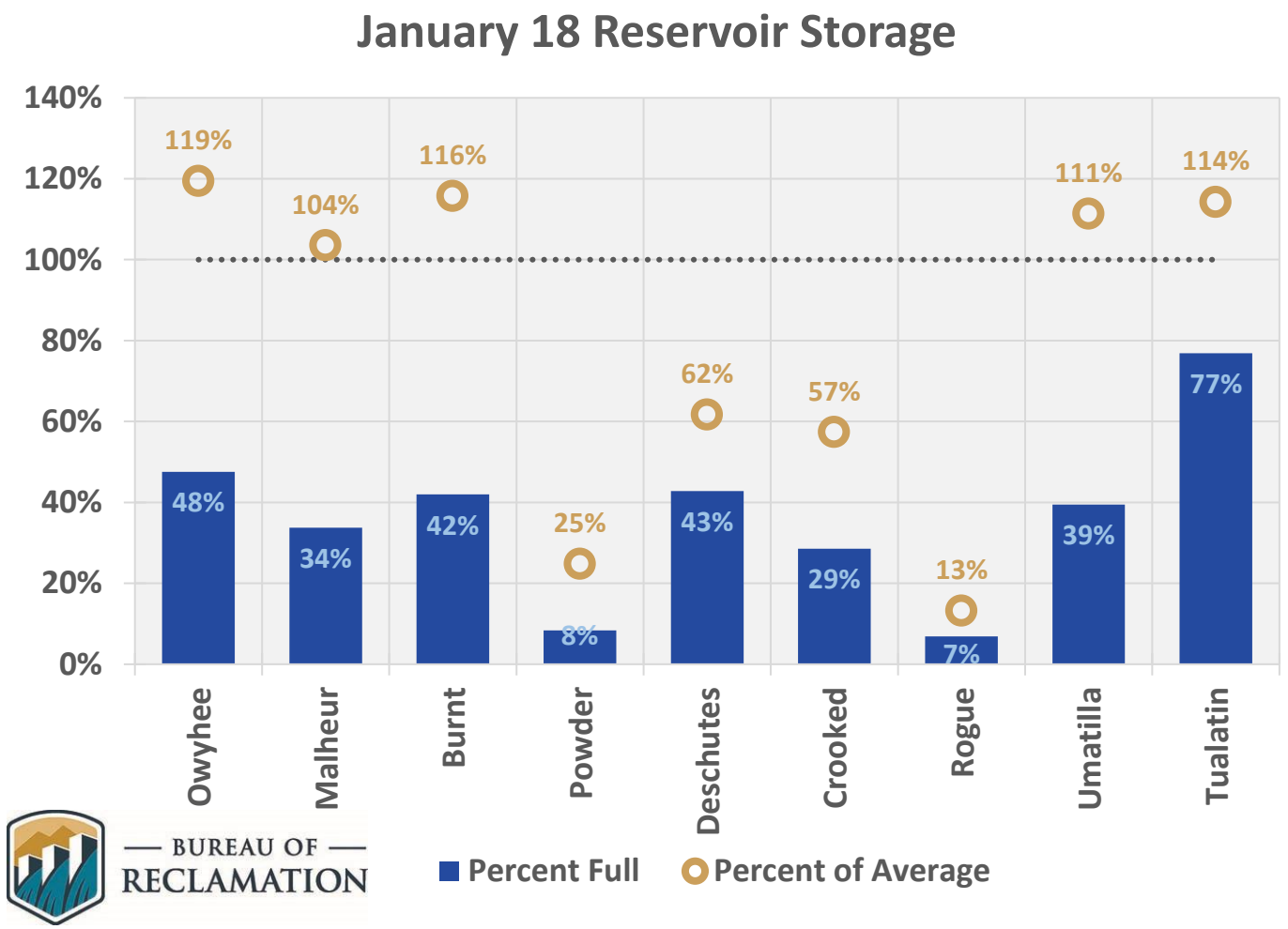
28-DAY



7-DAY


7-day % of Average Streamflow - January 24, 2021
Stream Gage
% of Average
<= 25%
26% - 50%
51% - 75%
76% - 100%
101% - 125%
> 125%
Counties
OWRD Basin
Date: 1/25/2021

STORAGE


January 18 Reservoir Storage
140%
120%
100%
80%
60%
40%
20%
0%
119%
104%
116%
25%
62%
57%
13%
111%
114%
48%
34%
42%
8%
43%
29%
7%
39%
77%
Owyhee
Malheur
Burnt
Powder
Deschutes
Crooked
Rogue
Umatilla
Tualatin
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.