# Oregon Water Conditions Report

## December 28th, 2021

## HIGHLIGHTS

Over 93% of Oregon is classified as experiencing moderate (D1) to exceptional (D4) drought conditions according to the US Drought Monitor. Spatial coverage of all drought categories has been reduced over recent weeks, leading to a number of improvements throughout the state. See below for more information.

Statewide snow water equivalent is measuring 126% of the long-term median. Nearly all basins are measuring above normal, with the exception of John Day (83%) and Malheur (89%). The basin snowpack graphs below show significant build-up in snowpack over recent weeks.

Precipitation over the past two weeks has been variable throughout the state. Although much of Oregon experienced average to well above average precipitation, large portions of central and eastern Oregon measured up to four inches below the long-term average. Statewide water year precipitation at NRCS SNOTEL sites is measuring 107% of the long-term median.

Temperatures over the past two weeks have also been variable throughout the state. Temperatures were generally cooler at higher elevations along the Cascade Crest, as well as northeastern and southern Oregon.

Shallow groundwater profiles continue to lag behind in terms of wetness. However, the root zone and surface soil moisture profiles have shown some improvements following recent precipitation events.

The near-term climate outlook for the next 8 – 14 days indicates probabilities favoring above average precipitation and below average temperatures statewide.

Streamflows are measuring above to well above average in western Oregon over the past 7-day period, while those in southern and eastern Oregon continue to lag behind (see below for more information).

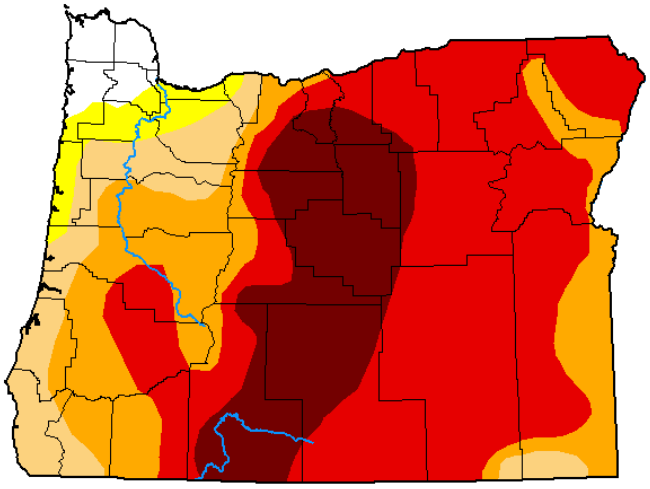
Storage contents in almost all reservoir systems are measuring below to well below average in both USBR (including Klamath) and USACE systems. One exception is Scoggins Reservoir which is measuring well above average storage contents.

## DROUGHT CONDITIONS

The US Drought Monitor indicates over 93% of Oregon is experiencing drought conditions. Improvements throughout the state are attributed to persistent precipitation over recent weeks and building snowpack throughout the state. Portions of northwestern Oregon have been removed from drought monitor classification. Slight reduction in coverage of exceptional drought (D4) is due to modest improvements in soil moisture and the standardized precipitation-evapotranspiration index.

***U.S. Drought Monitor***

**Oregon**



**December 21, 2021**

***(Released Thursday, Dec. 23, 2021)***

**Valid 7 a.m. EST**

*Drought Conditions (Percent Area)*

| | None | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
|---|---|---|---|---|---|---|
| **Current** | 2.96 | 97.04 | 93.63 | 83.75 | 63.14 | 18.61 |
| **Last Week** *12-14-2021* | 1.39 | 98.61 | 96.78 | 90.05 | 66.97 | 20.35 |
| **3 Months Ago** *09-21-2021* | 0.00 | 100.00 | 100.00 | 96.47 | 72.10 | 26.59 |
| **Start of Calendar Year** *12-29-2020* | 8.57 | 91.43 | 83.53 | 68.71 | 27.74 | 0.00 |
| **Start of Water Year** *09-28-2021* | 0.00 | 100.00 | 100.00 | 96.47 | 72.10 | 26.59 |
| **One Year Ago** *12-22-2020* | 8.57 | 91.43 | 83.53 | 68.71 | 29.42 | 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:*
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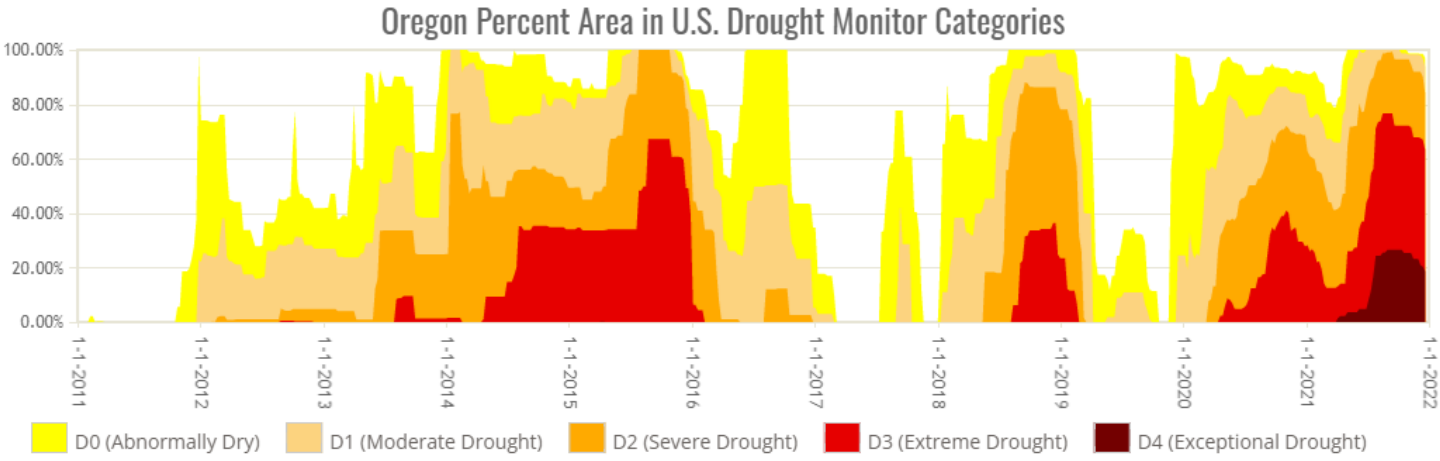
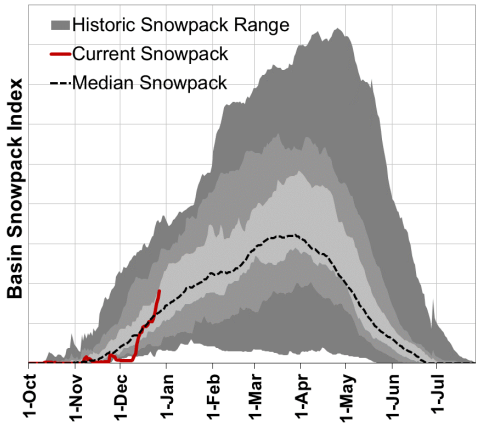
CPC/NOAA

**droughtmonitor.unl.edu**

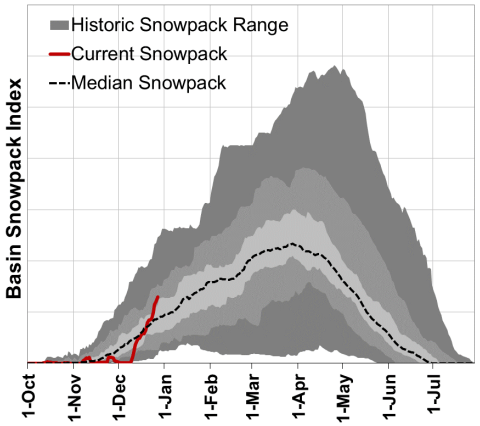


## SNOWPACK

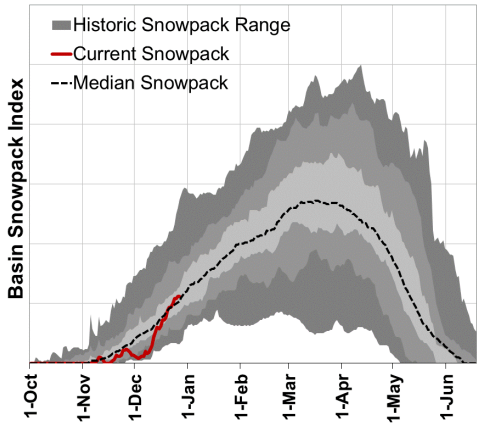
### Willamette



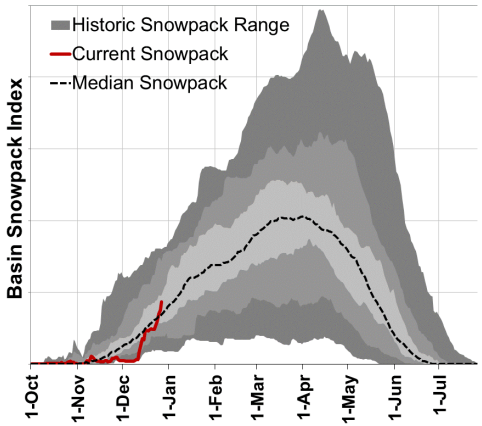

### Hood-Sandy-Lower Deschutes



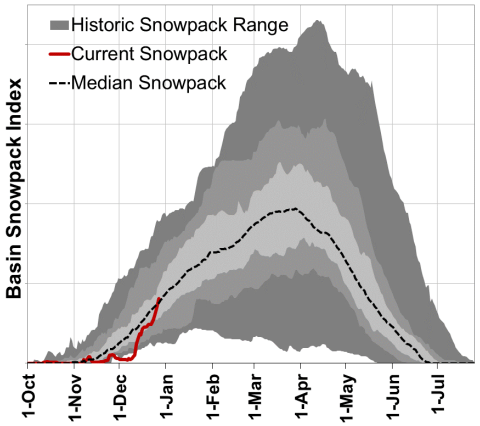

### Umatilla-Walla Walla-Willow



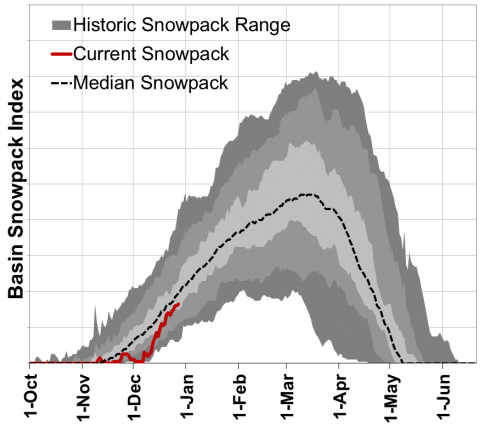

### Rogue-Umpqua




### Upper Deschutes-Crooked

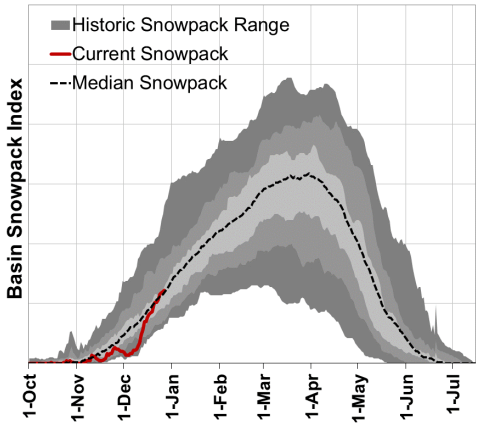



### John Day

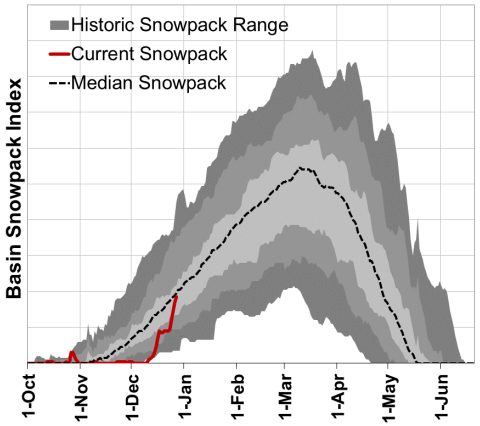


## SNOWPACK

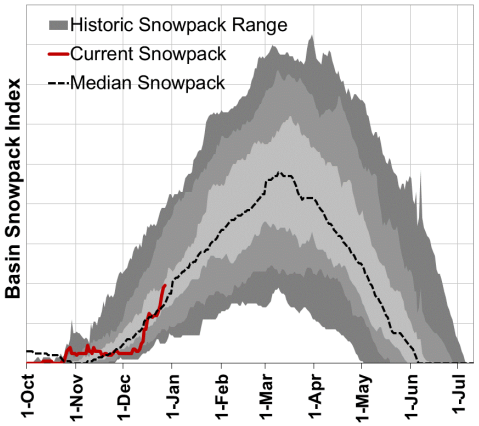
### Grande Ronde-Burnt-Powder-Imnaha



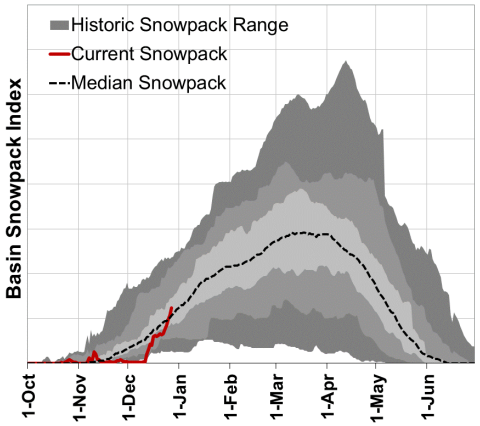

### Owyhee-Malheur



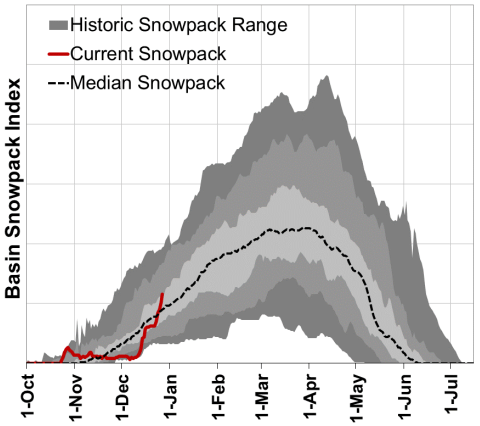

### Harney




### Klamath

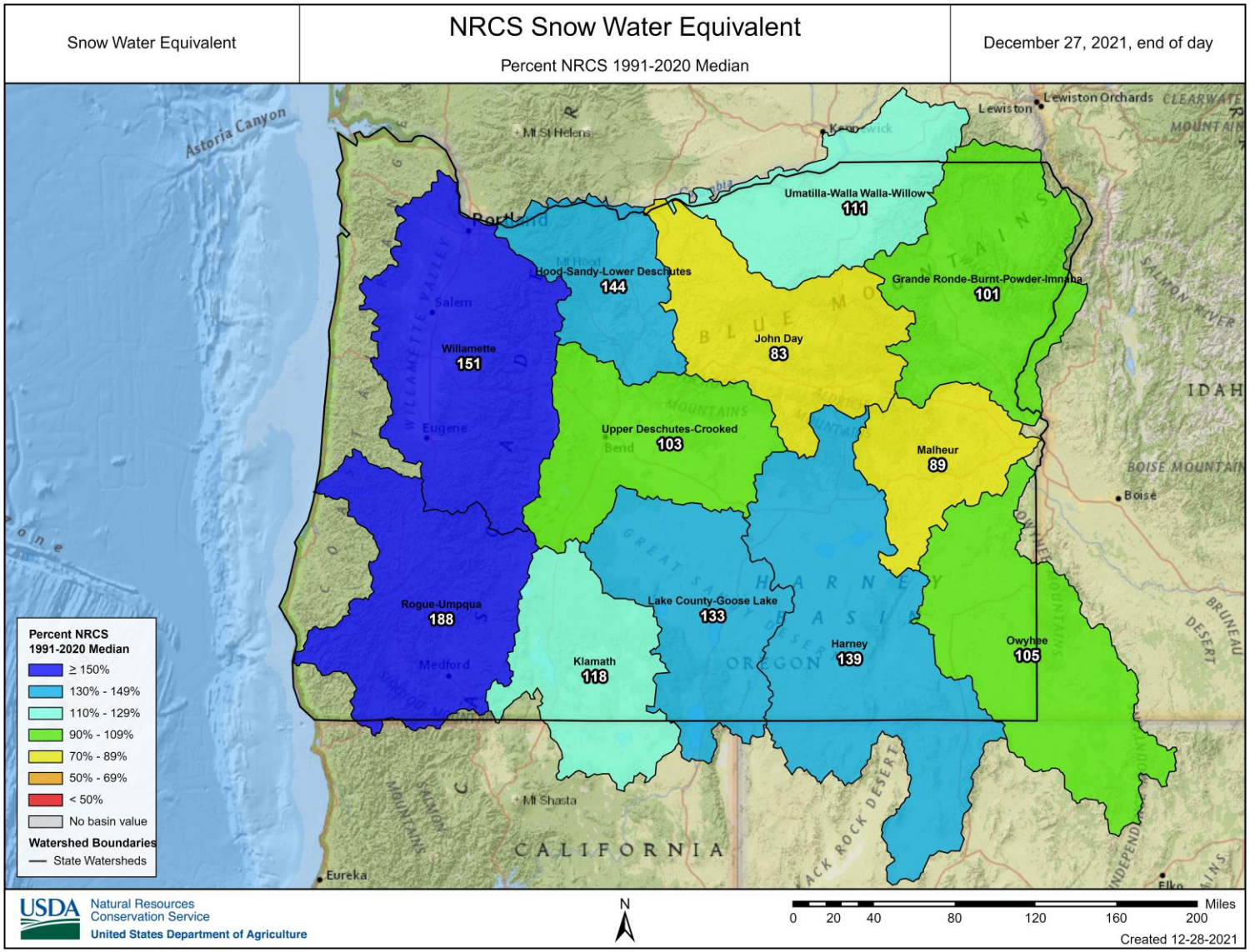



### Lake County-Goose Lake

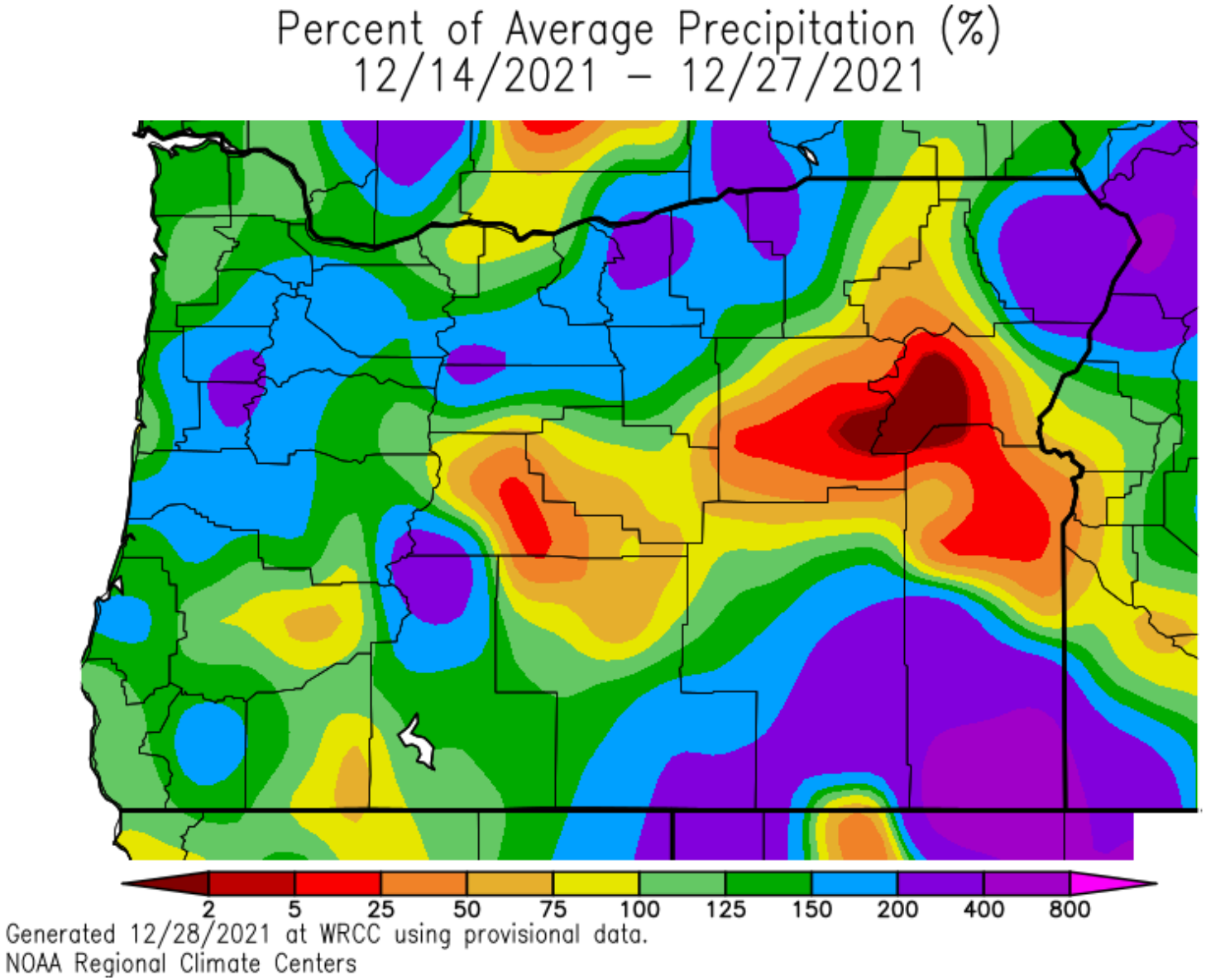


## CLIMATE CONDITIONS

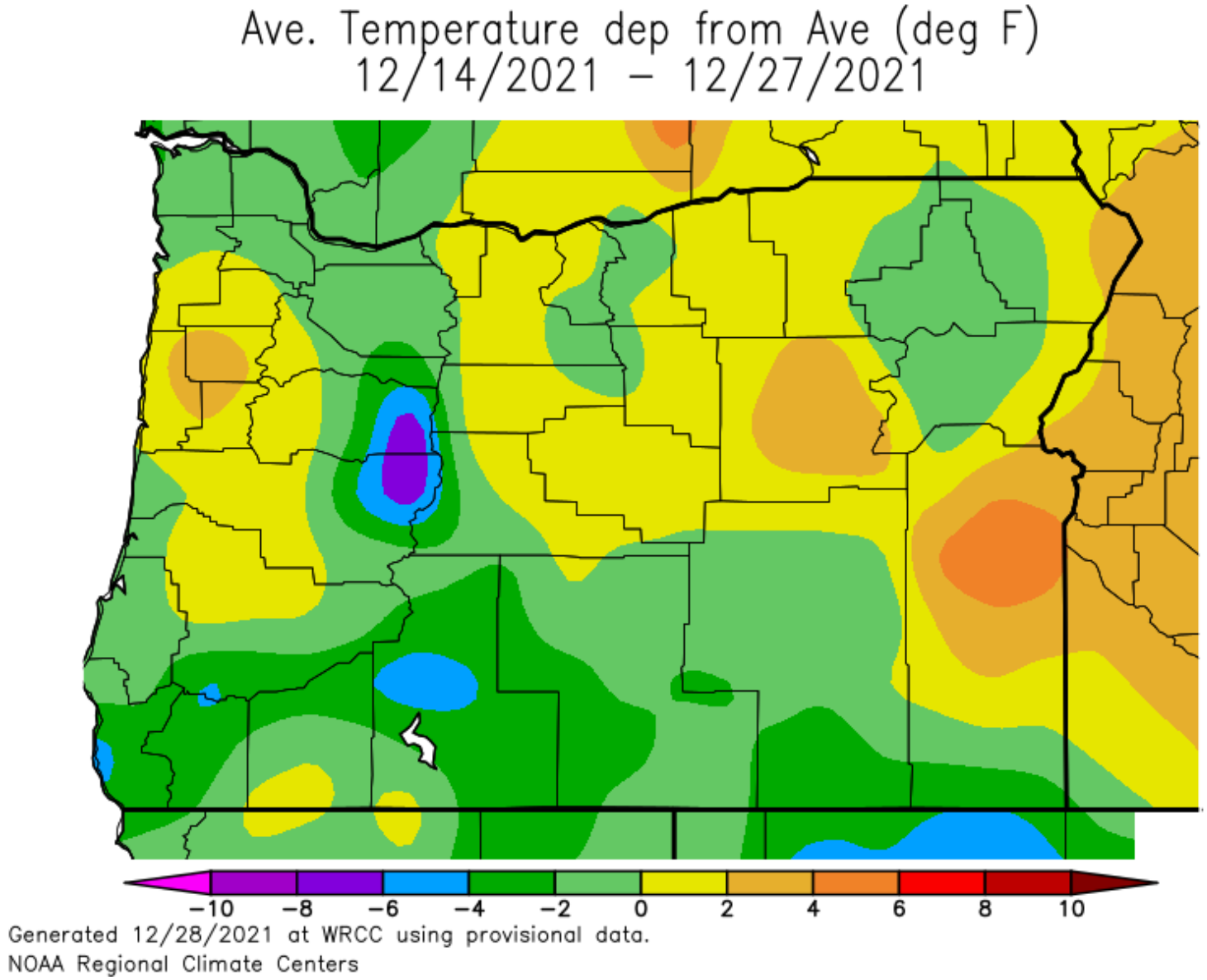
### SNOW WATER EQUIVALENT



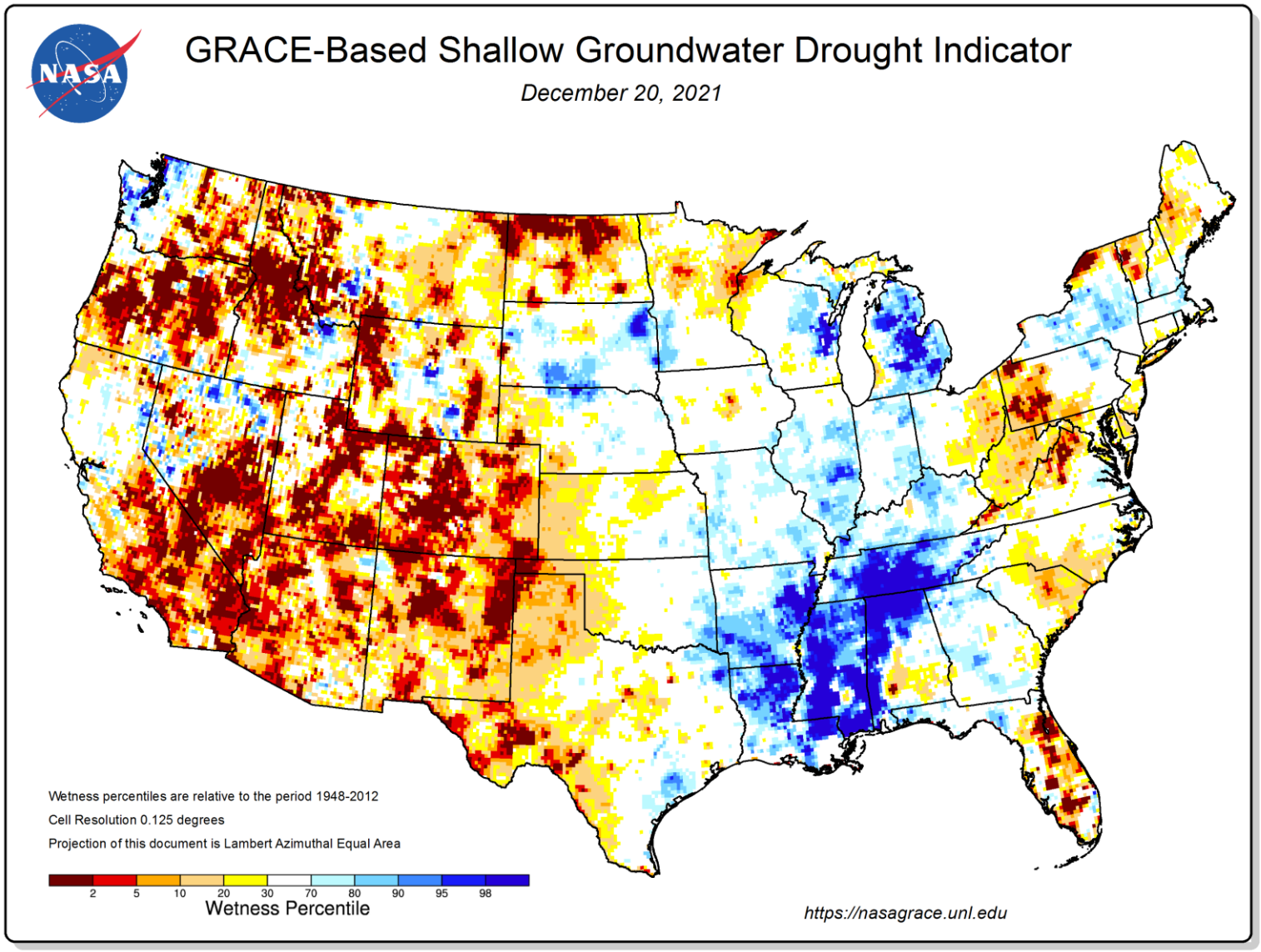
## PRECIPITATION



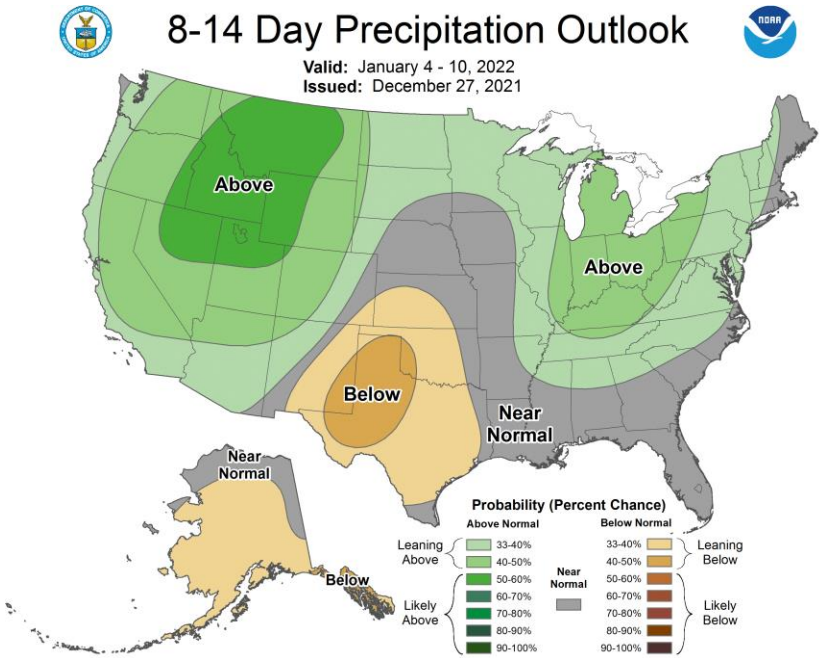
## TEMPERATURE

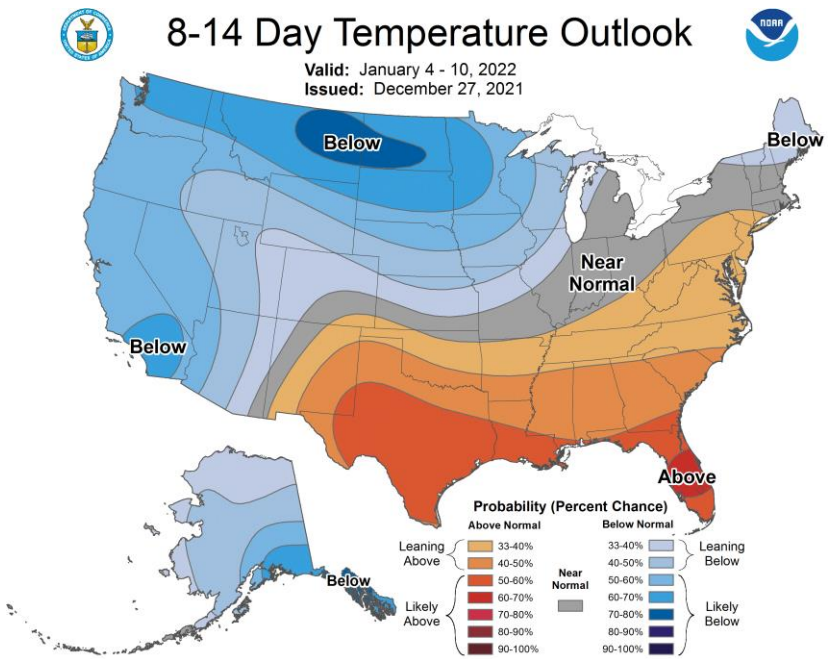


## SOIL MOISTURE



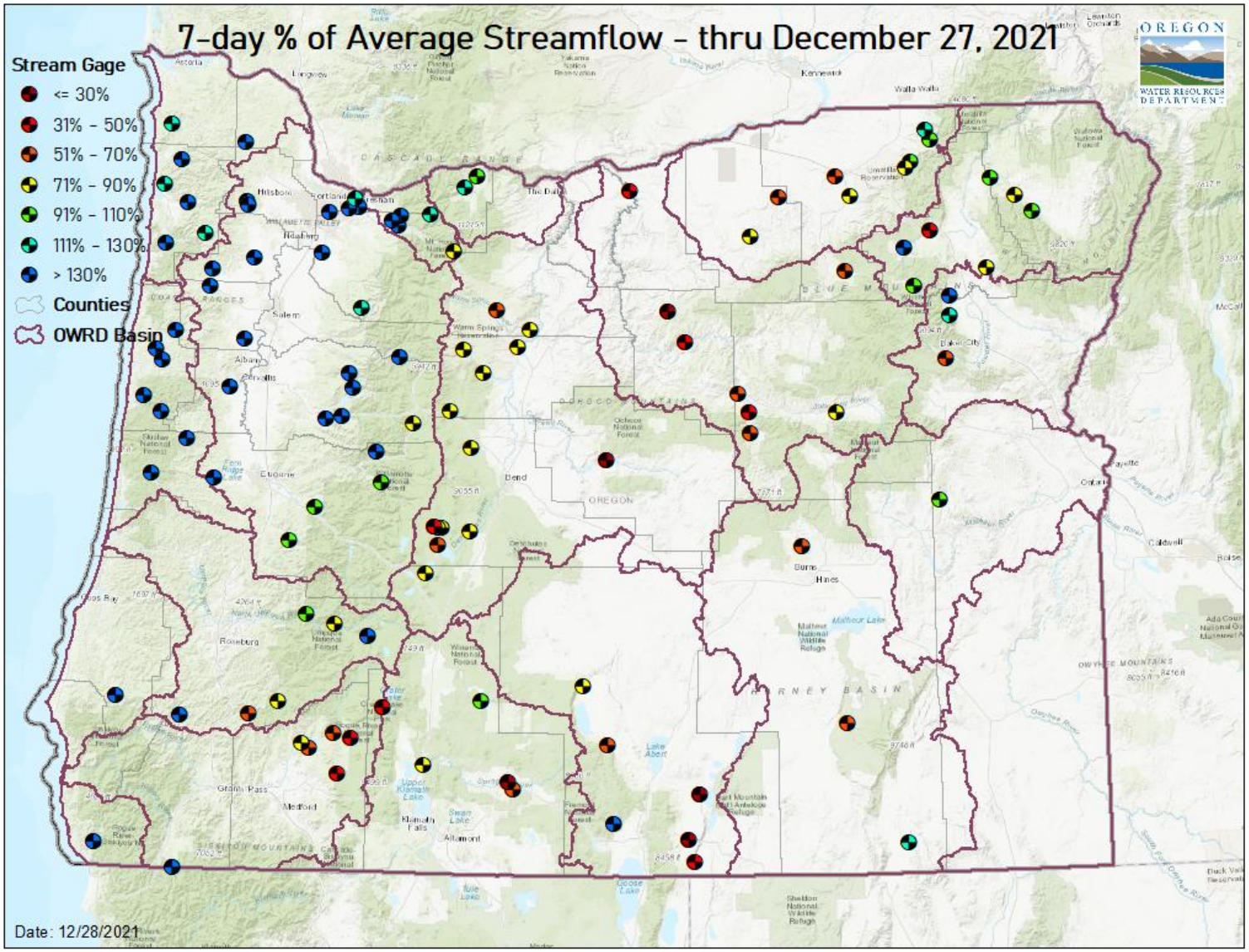
## CLIMATE OUTLOOK



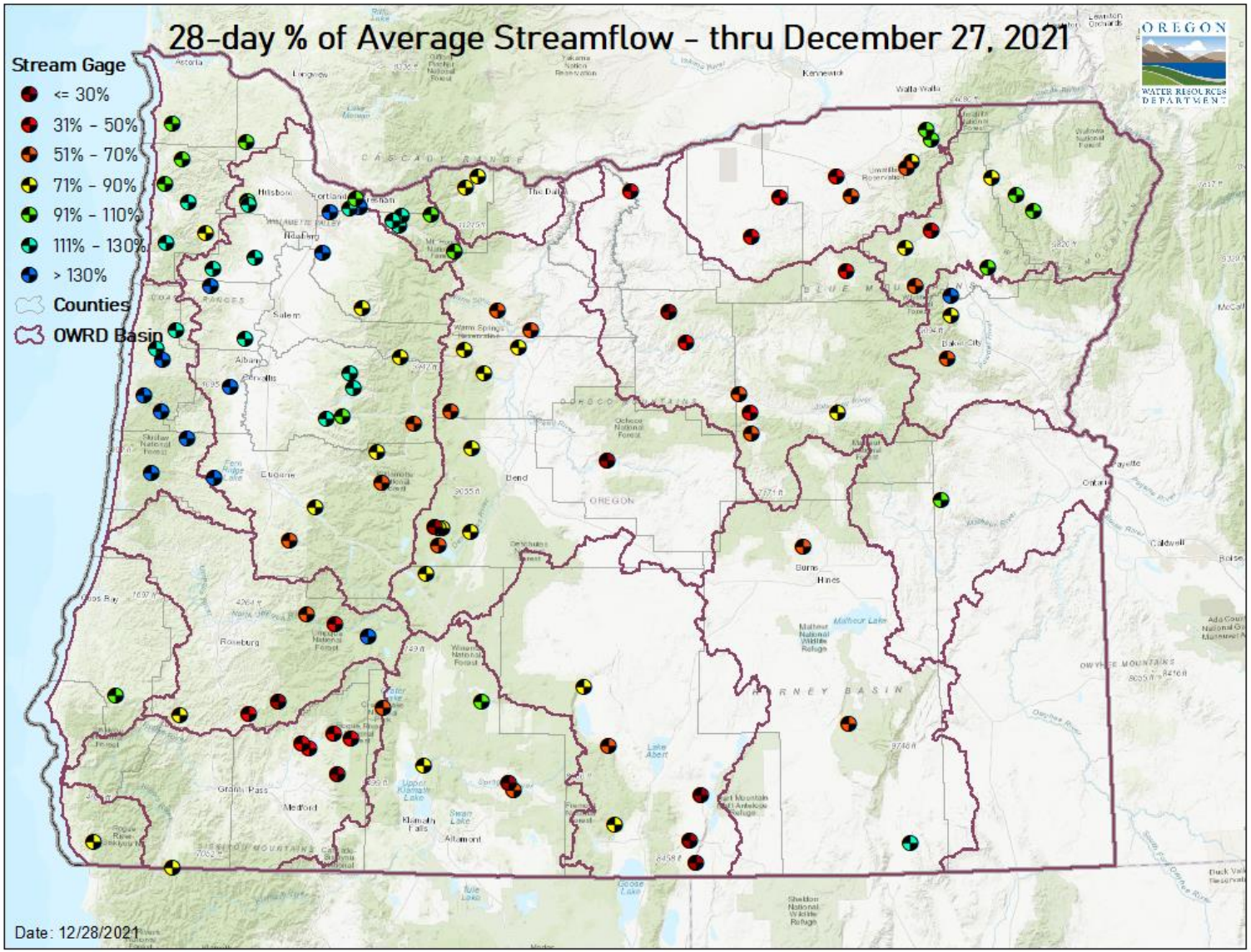



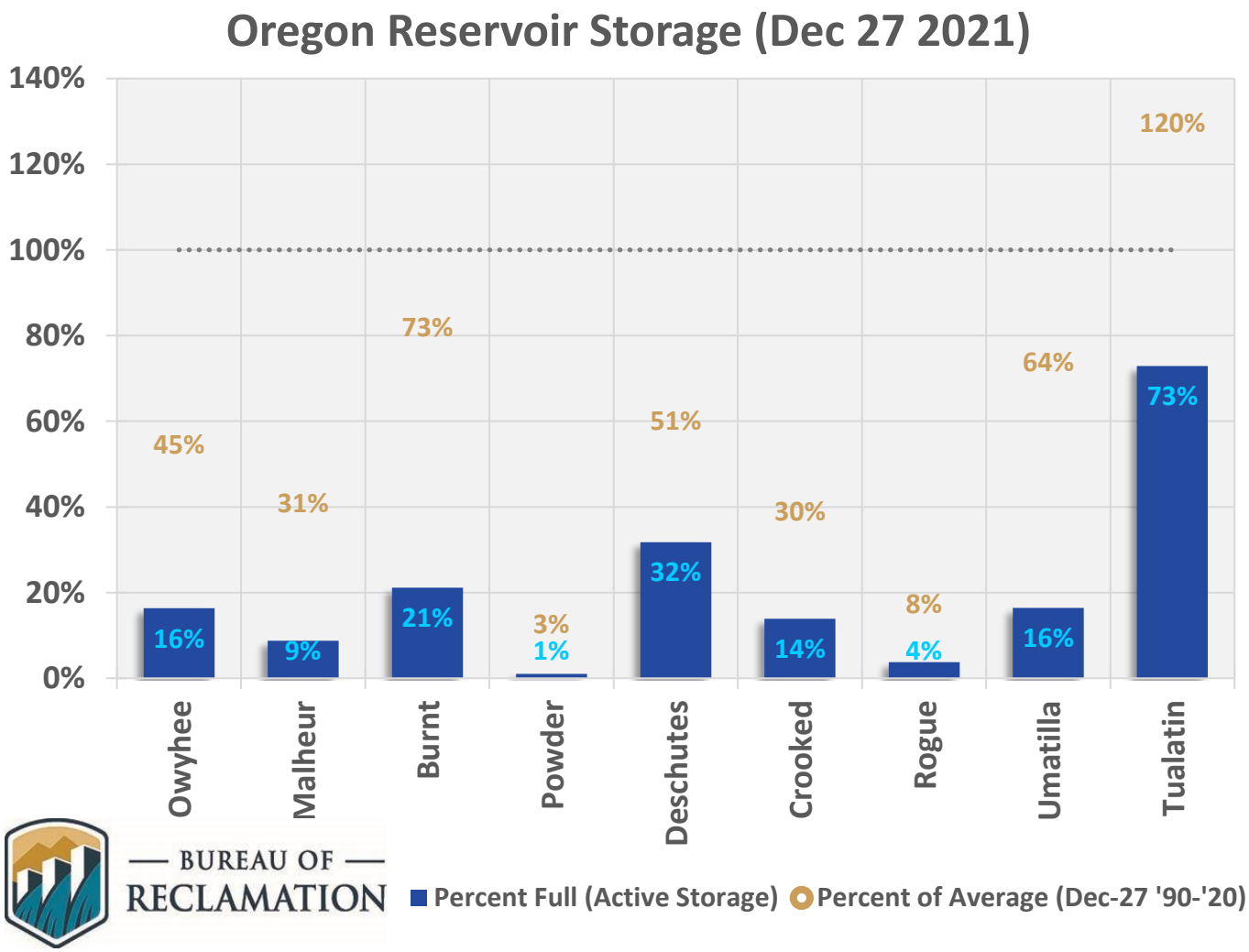
## STREAMFLOW

### 7-DAY



## 28-DAY


28-day % of Average Streamflow - thru December 27, 2021
OREGON
WATER RESOURCES DEPARTMENT
Stream Gage
<= 30%
31% - 50%
51% - 70%
71% - 90%
91% - 110%
111% - 130%
> 130%
Counties
OWRD Basin
Date: 12/28/2021


Oregon Reservoir Storage (Dec 27 2021)
140%
120%
100%
80%
60%
40%
20%
0%
45%
16%
31%
9%
73%
21%
3%
1%
51%
32%
30%
14%
8%
4%
64%
16%
120%
73%
Owyhee
Malheur
Burnt
Powder
Deschutes
Crooked
Rogue
Umatilla
Tualatin
BUREAU OF RECLAMATION
Percent Full (Active Storage)
Percent of Average (Dec-27 '90-'20)

## 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.