Oregon Water Conditions Report

February 8th, 2021

HIGHLIGHTS

The US Drought Monitor indicates nearly 91% of the state is classified as experiencing some form of drought. Although there was little change in areal coverage of drought statewide, current conditions suggest some improvement in drought severity throughout much of Oregon. See below for more details regarding drought conditions.

Snow water equivalent (SWE) is measuring at 79% of the statewide median at NRCS SNOTEL sites. With the exception of near-normal conditions in the John Day and Grande Ronde-Burnt-Powder-Imnaha Basins, all basins are measuring below- to well-below normal snowpack. The basin snowpack plots below provide a more detailed look at snowpack accumulation throughout the water year.

Water year precipitation to date is measuring 88% of the statewide long-term average, with northern basins faring better at near normal and a decreasing trend towards southern basins. Several basins are measuring below 70% of average, including the Klamath, Goose Lake-Lake County, and Owyhee Basins.

Recent precipitation over the past two weeks delivered a surplus of nearly 4" in the southwestern corner of the state, while the rest of the west side was more variable. Much of Harney County also benefitted from recent precipitation, but the rest of eastern Oregon experienced a deficit.

Temperatures for the month of January were above normal for nearly all of Oregon, ranging from about 1°F - 6°F above average. Recent two-week temperatures were much more variable, where much of southwestern Oregon experienced temperatures up to 6°F below normal. Much of eastern Oregon experienced above-normal temperatures, with some regions potentially over 10°F of the long-term average.

Statewide streamflows measured over 95% of the long-term January average, although there was a clear delineation between eastern (67%) and western (117%) Oregon (see below for more). Many streams in western Oregon responded strongly to precipitation events throughout January, with coastal streams benefitting significantly and some reaching over 150% of the long-term January average. However, many streams in eastern Oregon measured below to well-below normal at less than 50%. Recent 7-day streamflows show similar trends, with southwestern streams responding strongly to much-needed precipitation.

US Bureau of Reclamation and US Army Corps of Engineers storage contents of reservoirs vary throughout the state. Several systems are measuring normal to above-normal contents at this point of the year; however, storage contents of several systems are notably low, including the Powder, Deschutes, Crooked, and Rogue (see below).

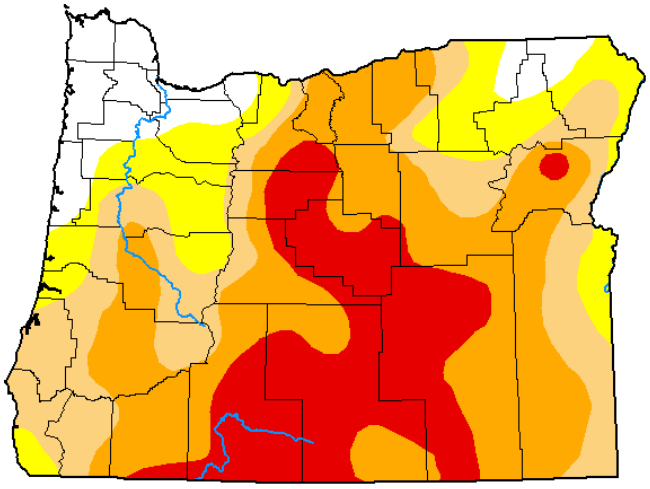
The climate outlook for the month of February indicates the probability of below-normal temperatures throughout the state. In the more near term, the 8 – 14 day climate outlook indicates high likelihood of below-normal temperatures, as well as probabilities favoring above-normal precipitation for much of the state.

DROUGHT CONDITIONS

Major changes include improvements in the SW region due to improved streamflows resulting from January storms. The northern portion of the Willamette Valley has been removed from drought classification. Portions of the Ochoco Mountains and Wheeler and Lake Counties benefitted from improved soil moisture and shallow groundwater conditions, improving from D3 (extreme drought) to D2 (severe drought). Alternatively, parts of Wallowa and Baker Counties experienced categorical degradations, partly due to low SWE values in the Wallowas.

U.S. Drought Monitor

Oregon



February 2, 2021

(Released Thursday, Feb. 4, 2021)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	9.05	90.95	76.68	55.56	21.97	0.00
Last Week *01-26-2021*	7.72	92.28	75.90	59.80	25.52	0.00
3 Months Ago *11-03-2020*	6.81	93.19	86.44	72.12	41.05	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 *02-04-2020*	10.92	89.08	23.29	0.00	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

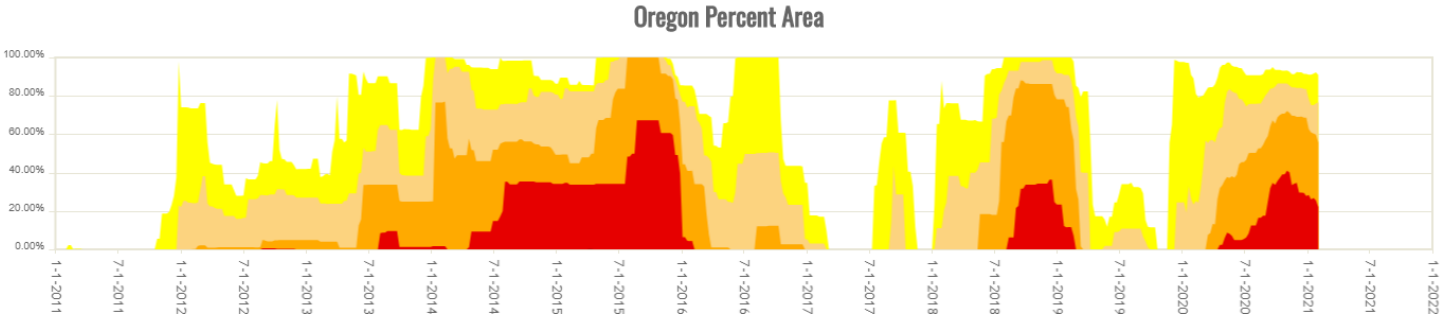
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

Author:

Brad Rippey

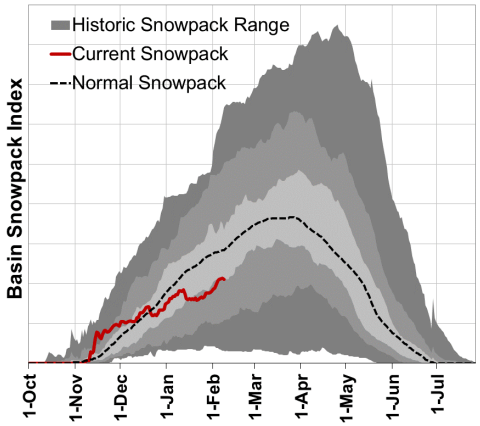
U.S. Department of Agriculture

droughtmonitor.unl.edu

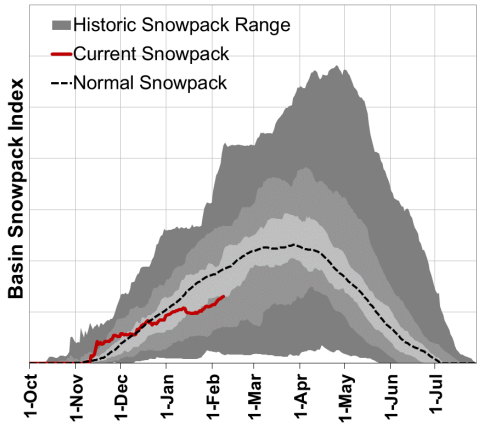


SNOWPACK

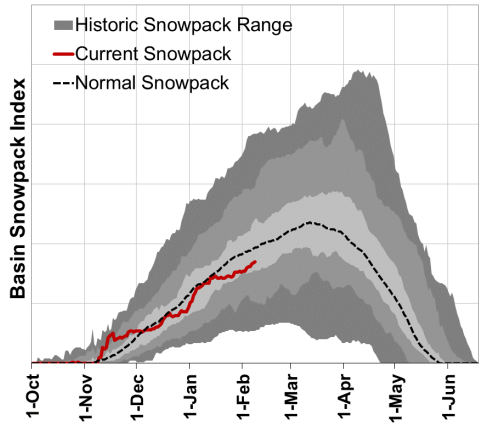
Willamette



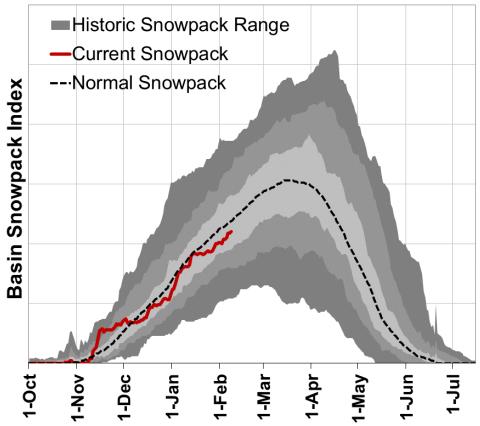
Hood-Sandy-Lower Deschutes



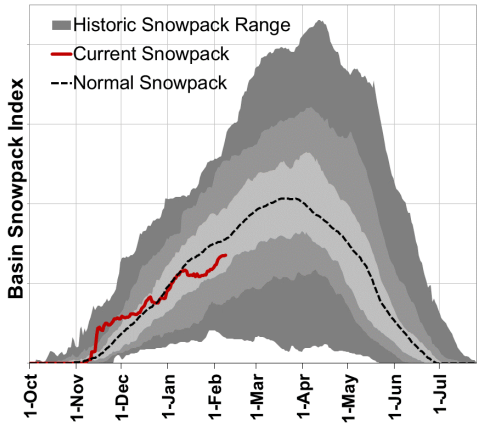
Umatilla-Walla Walla-Willow



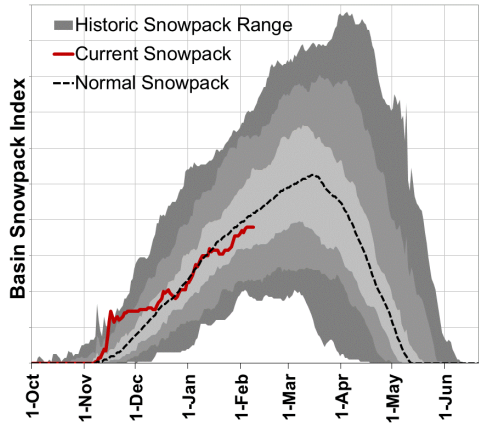
Grande Ronde-Burnt-Powder-Imnaha



Upper Deschutes-Crooked

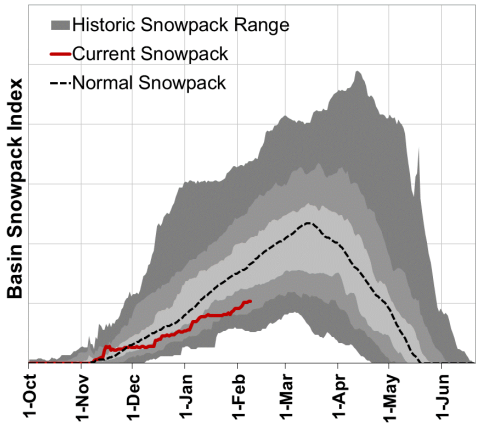


John Day

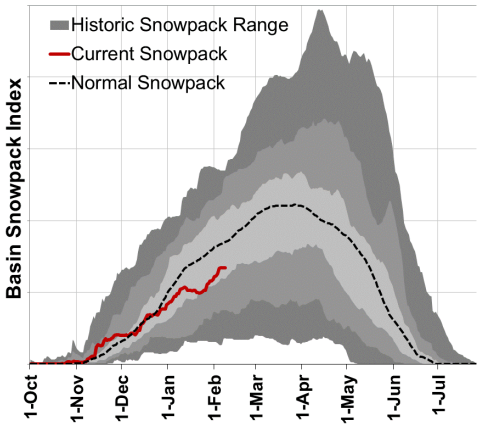


SNOWPACK

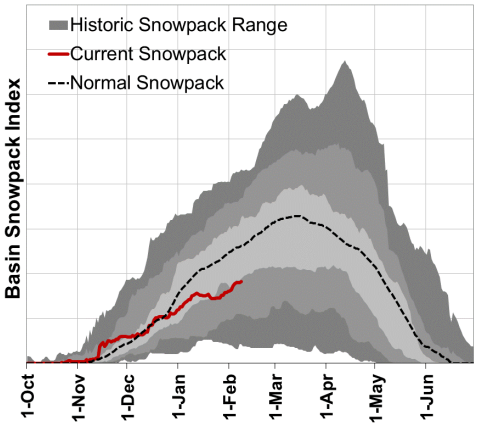
Owyhee



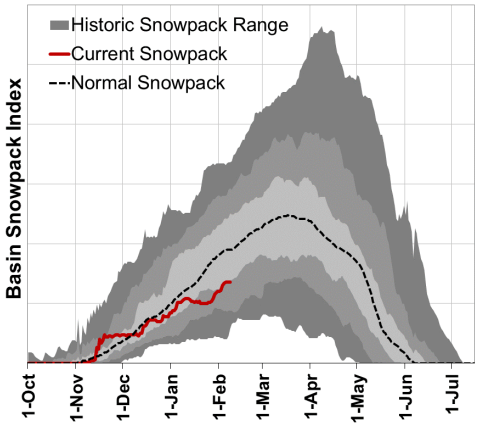
Rogue-Umpqua



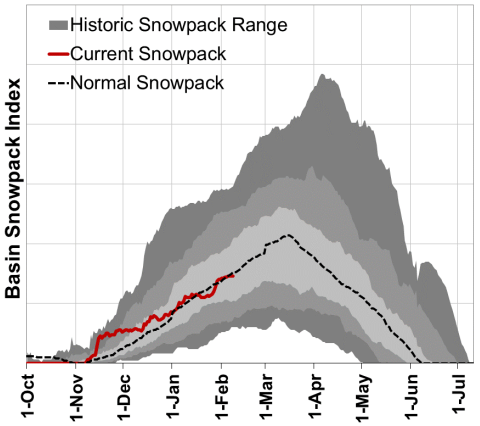
Klamath



Lake County-Goose Lake

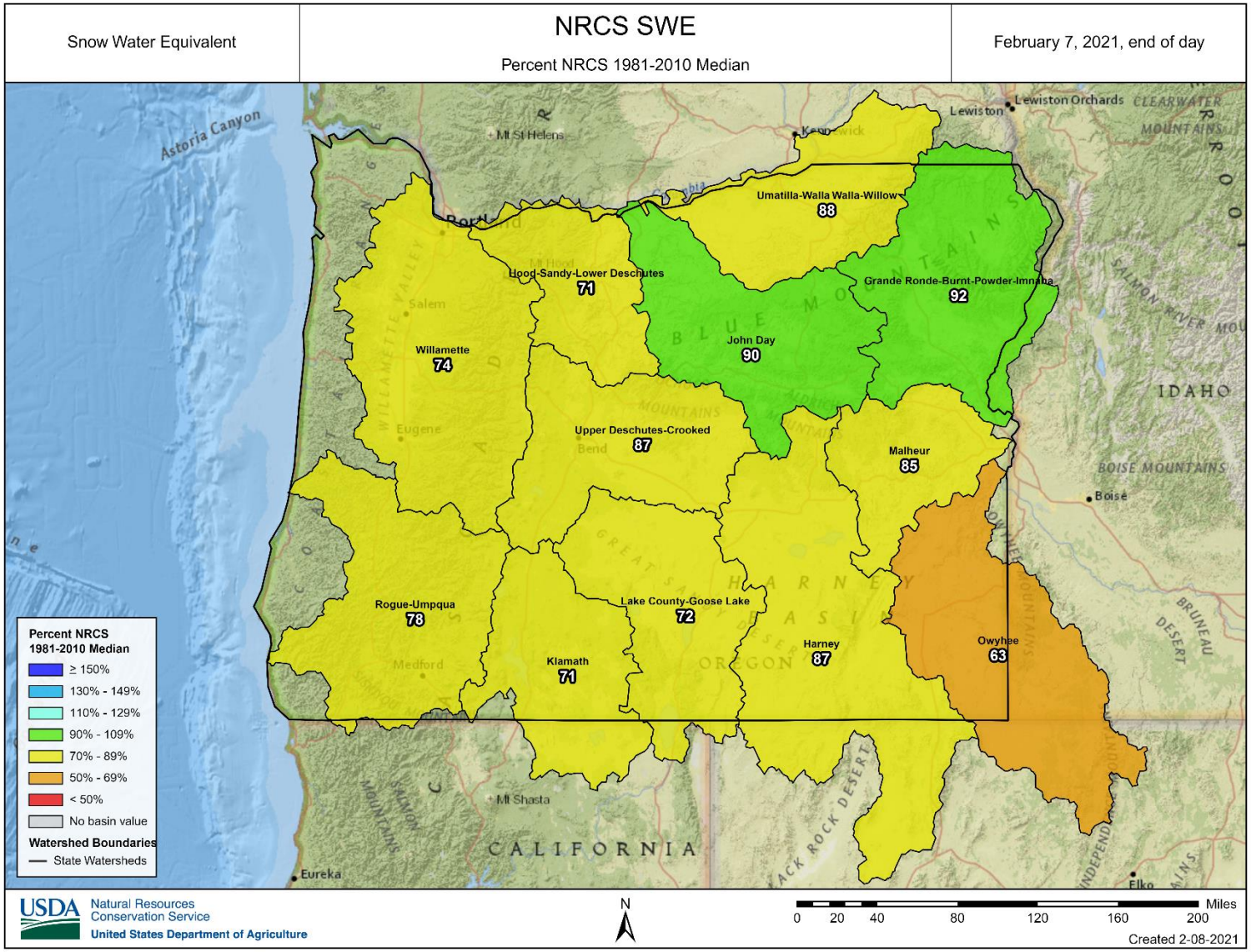


Harney

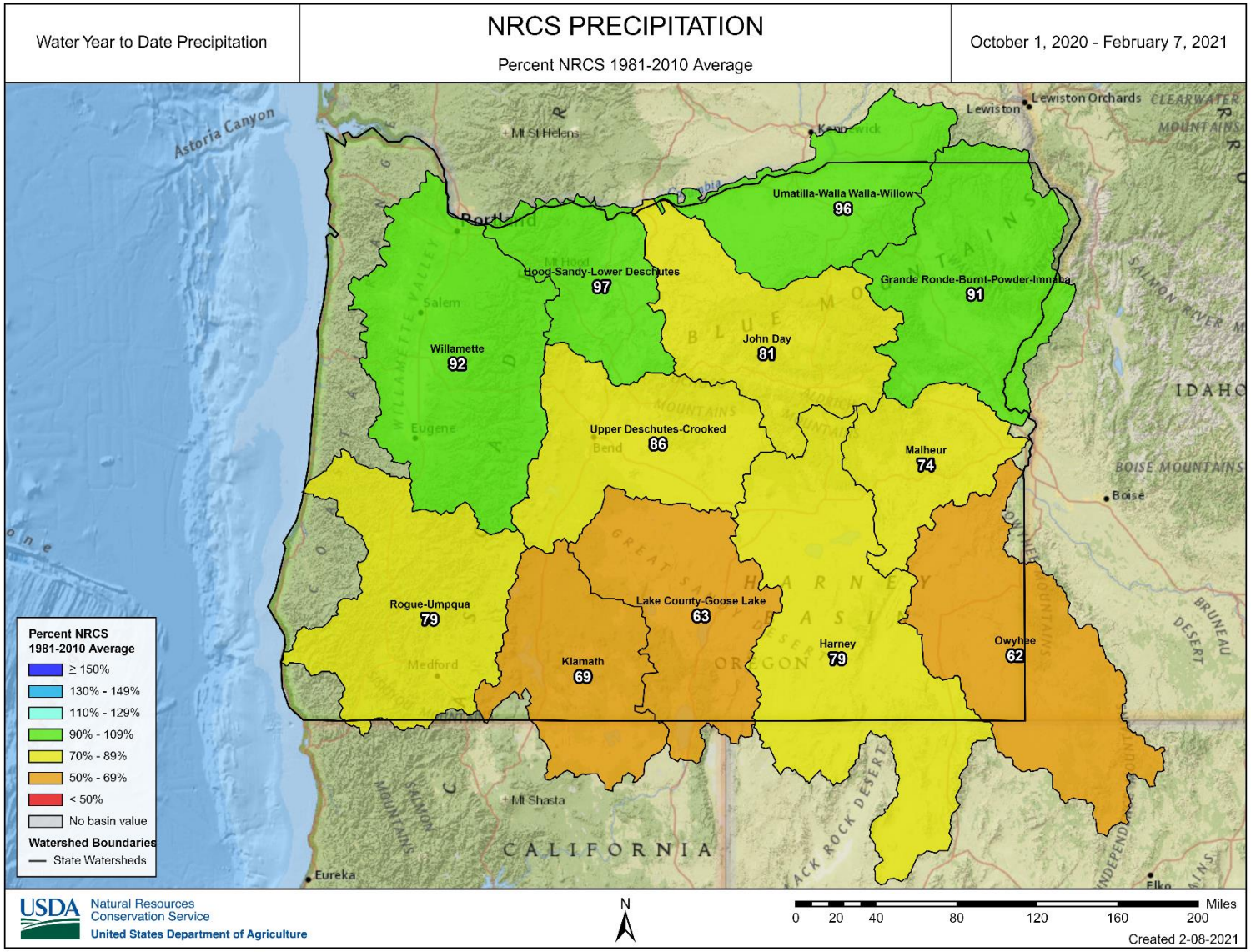


CLIMATE CONDITIONS

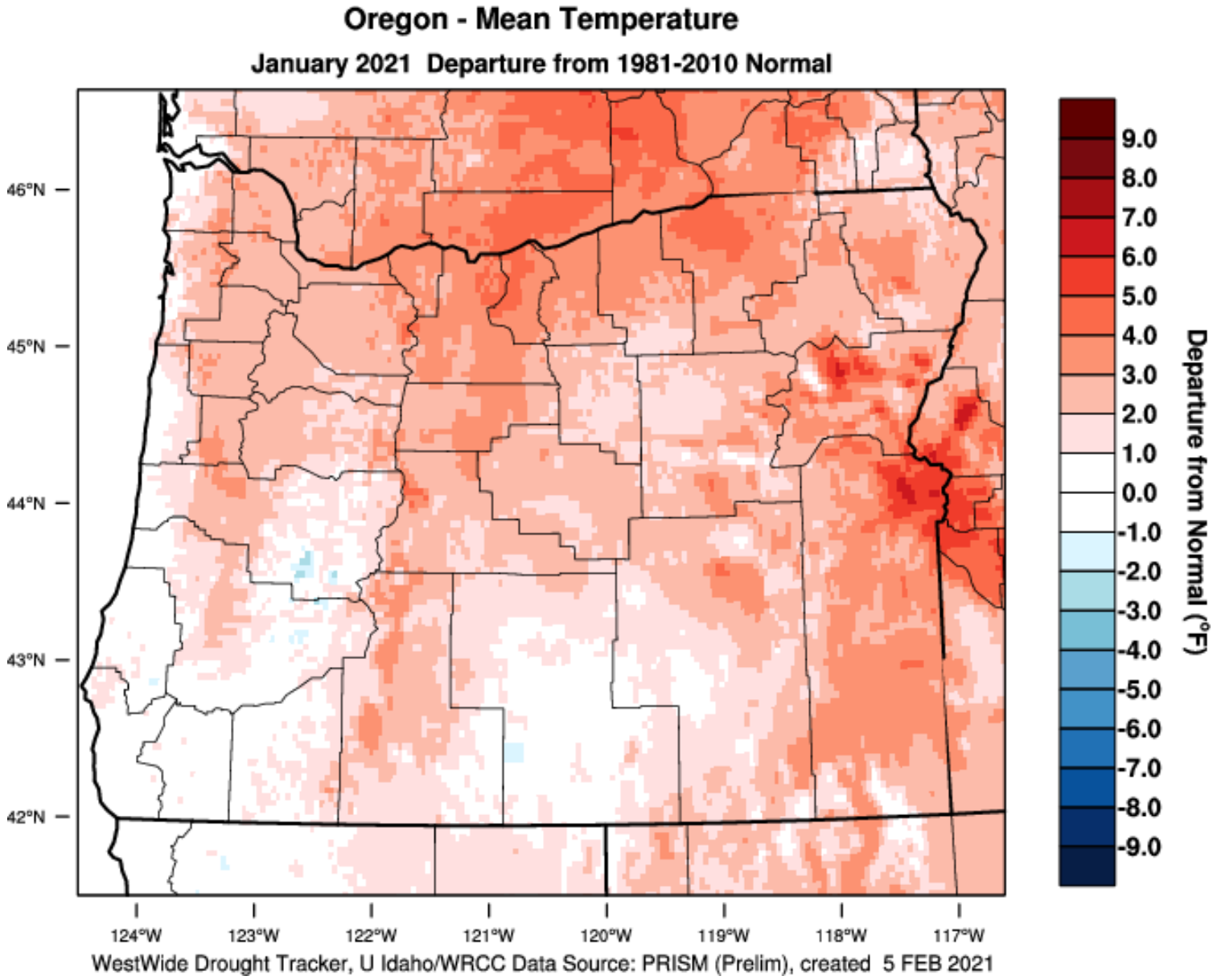
SNOW WATER EQUIVALENT



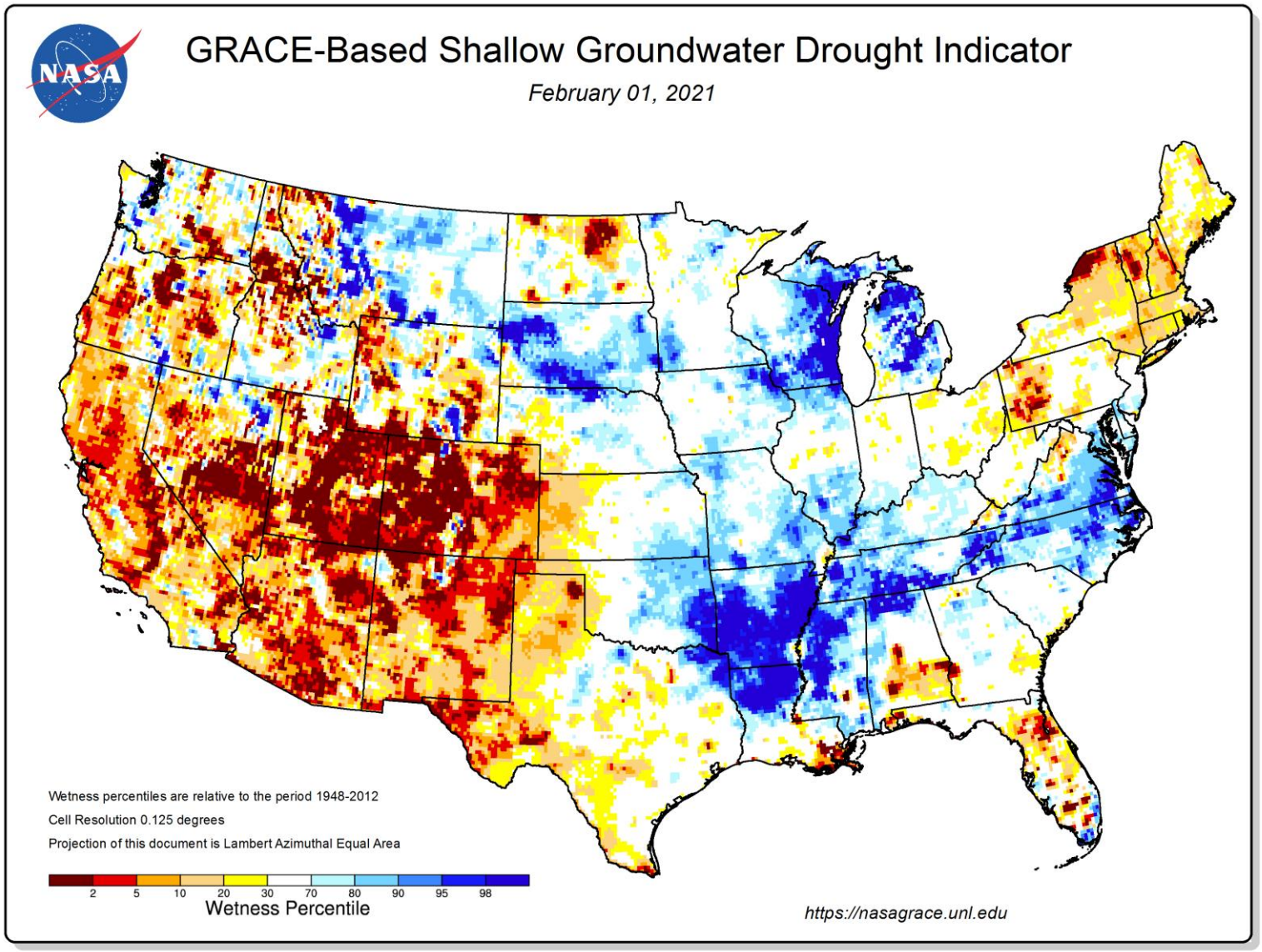
PRECIPITATION



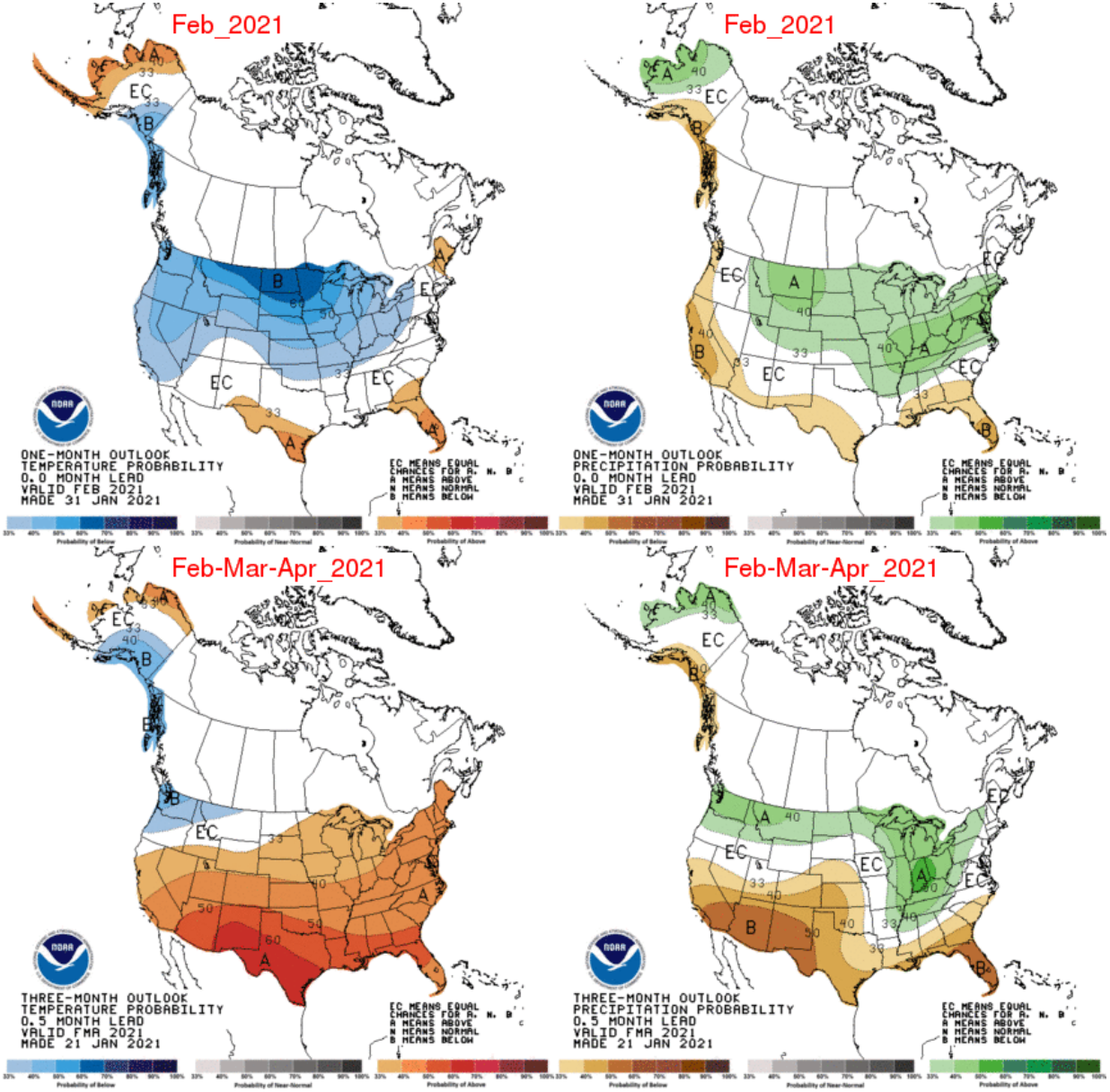
TEMPERATURE



SOIL MOISTURE

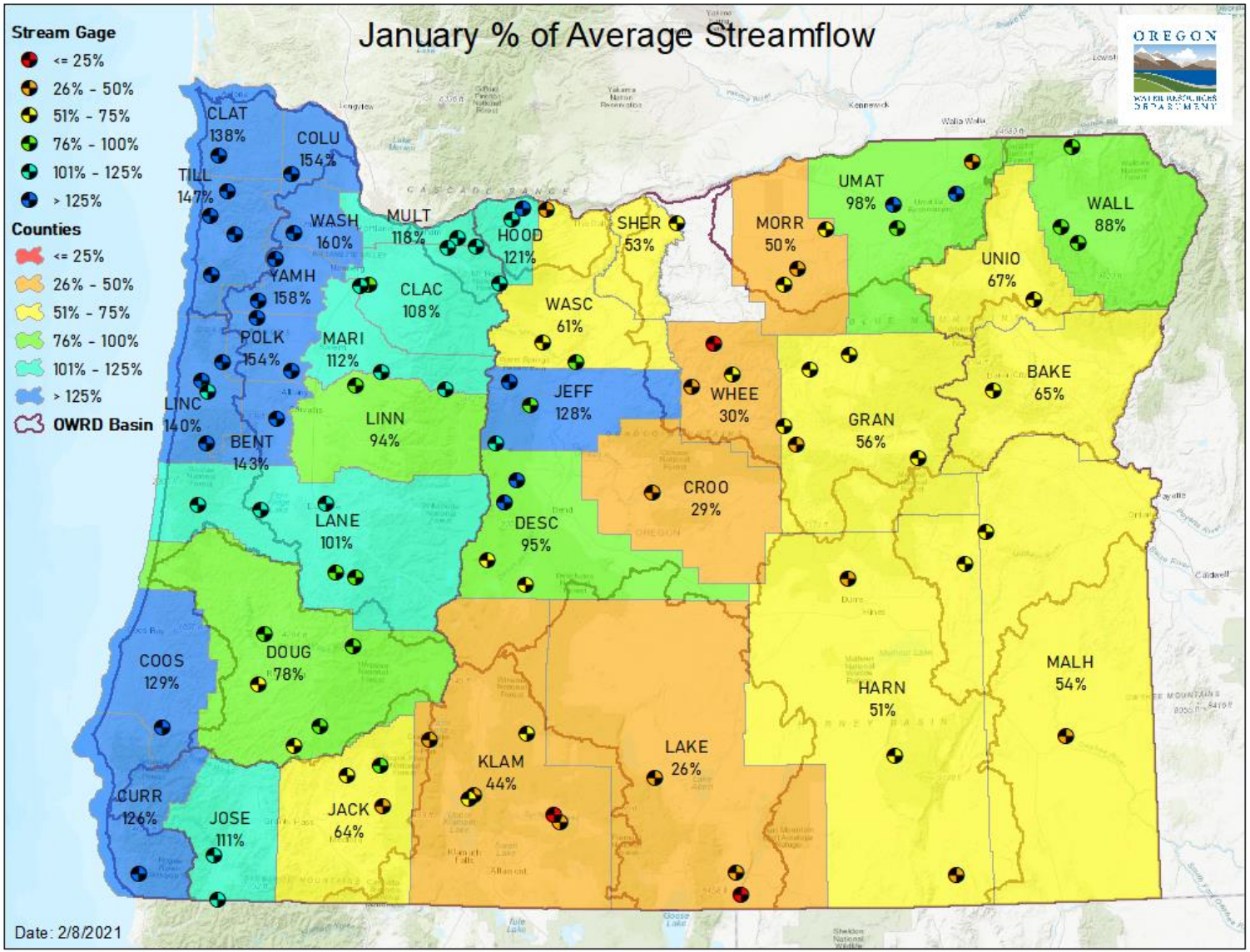


CLIMATE OUTLOOK

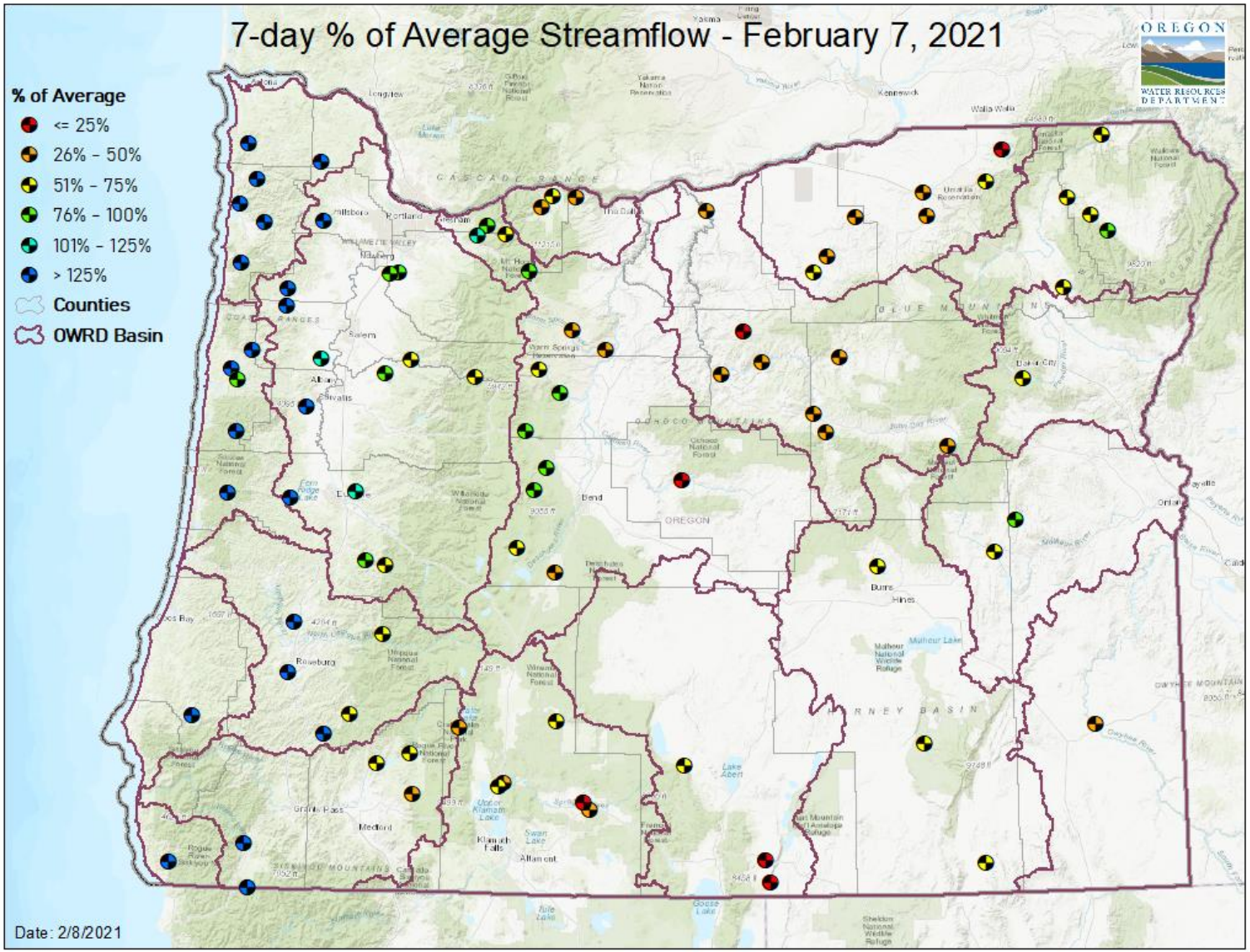


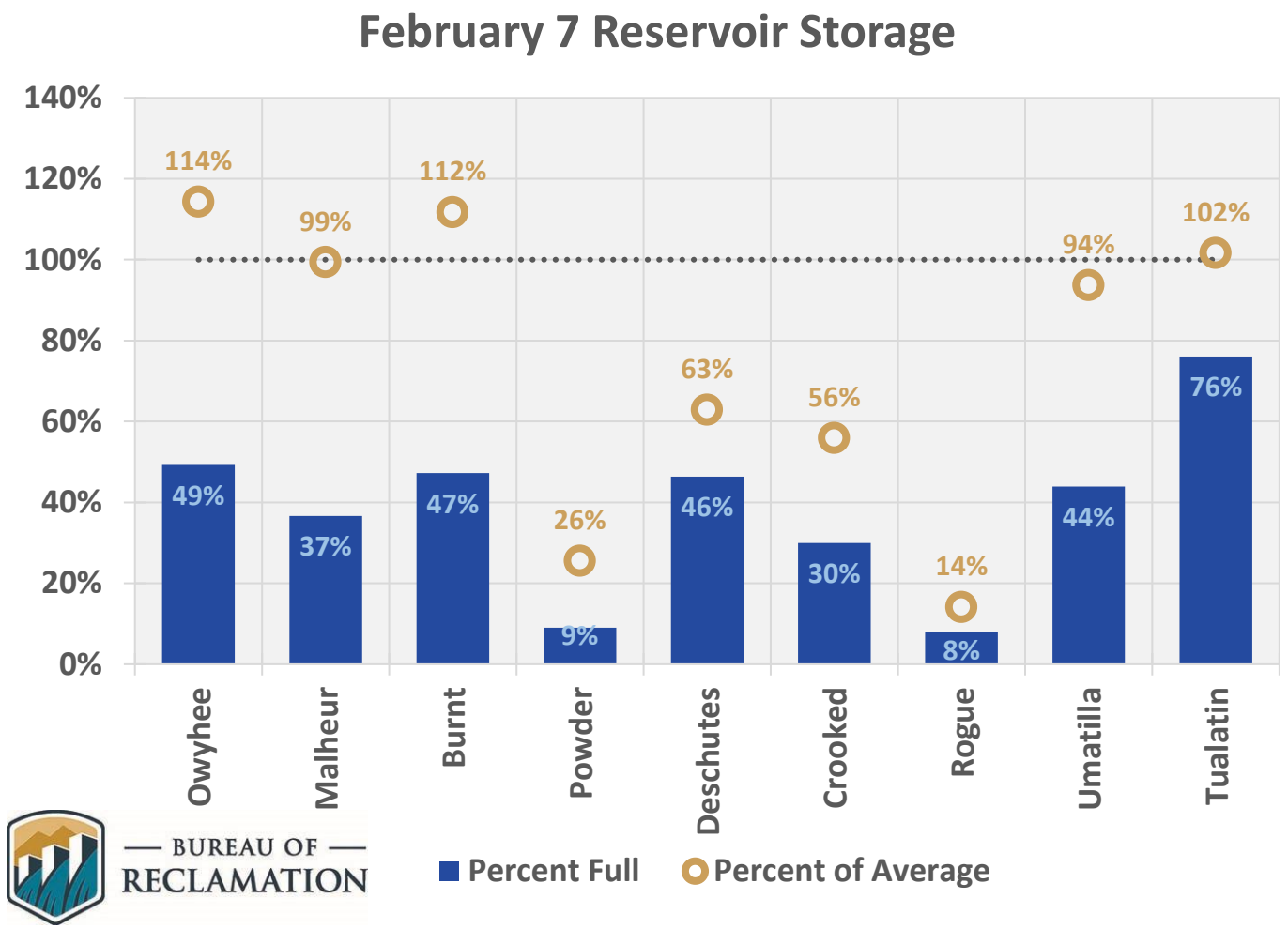
STREAMFLOW

JANUARY



7-DAY


7-day % of Average Streamflow - February 7, 2021
% of Average
<= 25%
26% - 50%
51% - 75%
76% - 100%
101% - 125%
> 125%
Counties
OWRD Basin
Date: 2/8/2021
OREGON
WATER RESOURCES DEPARTMENT


February 7 Reservoir Storage
140%
120%
100%
80%
60%
40%
20%
0%
114%
99%
112%
26%
63%
56%
14%
94%
102%
49%
37%
47%
9%
46%
30%
8%
44%
76%
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.