Oregon Water Conditions Report

October 18th, 2021

OREGON WATER RESOURCES DEPARTMENT

HIGHLIGHTS

In Oregon, 25 counties have received Executive Orders issuing state drought declarations. A recent local drought declaration was declared by Curry County.

Over 98% of Oregon is classified as experiencing moderate (D1) to exceptional (D4) drought conditions according to the US Drought Monitor. There has been little change in conditions over recent weeks (see below for more information).

Precipitation has been well below average throughout a majority of the state over the past two weeks, with exception of the southwestern corner which saw average to above average precipitation.

Temperatures over recent weeks were cooler than the long-term average throughout much of the state, with some exceptions in eastern Oregon. Temperatures ranged between 0 – 10 °F below average.

Surface soil moisture profiles (0 – 10 cm) are variable throughout the state. Profiles along the north and south coast are wetter than average. Much of eastern and central Oregon are experiencing drier than average surface soil profiles. Shallow groundwater profiles are much drier than the long-term average according to NASA GRACE satellite data.

Average streamflows over the past 7-day period have measured below to well below average throughout much of the state with relatively few exceptions (see below).

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

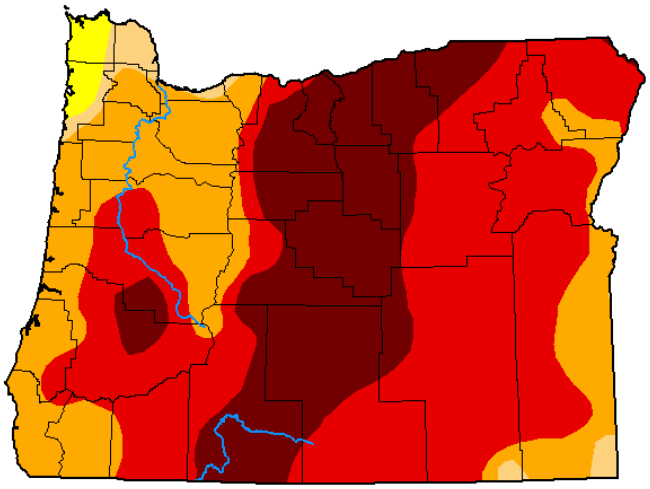
Reservoir storage contents are well below average in most systems throughout the state (see below). Some systems are measuring record or near-record low carryover contents to begin water year 2022.

DROUGHT CONDITIONS

The US Drought Monitor indicates over 98% of Oregon is experiencing drought conditions. Conditions in a small portion of northwestern Oregon have improved from moderate drought (D1) to abnormally dry (D0) over recent weeks.

U.S. Drought Monitor

Oregon



October 12, 2021

(Released Thursday, Oct. 14, 2021)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	98.64	96.47	72.10	26.59
Last Week *10-05-2021*	0.00	100.00	100.00	96.47	72.10	26.59
3 Months Ago *07-13-2021*	0.00	100.00	100.00	89.01	54.51	11.62
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 *10-13-2020*	6.51	93.49	86.44	69.99	37.31	0.00

Intensity:

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

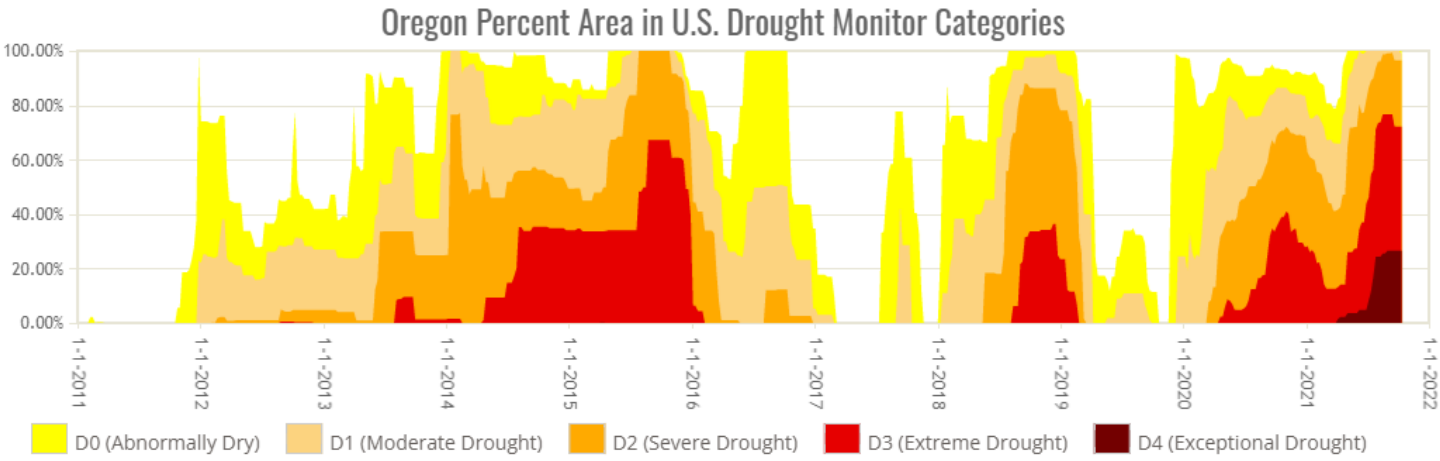
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

Author:

Adam Hartman

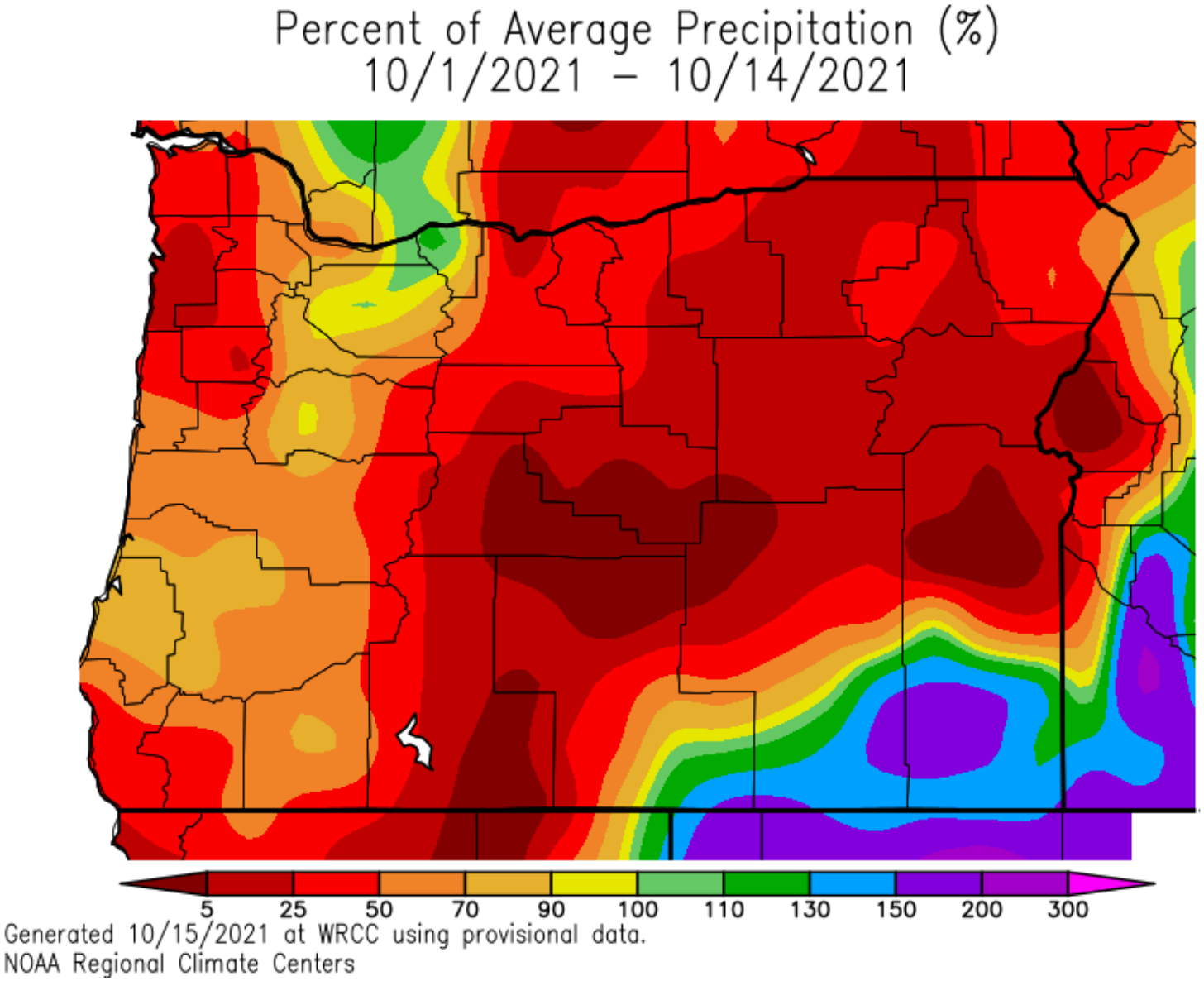
NOAA/NWS/NCEP/CPC

droughtmonitor.unl.edu

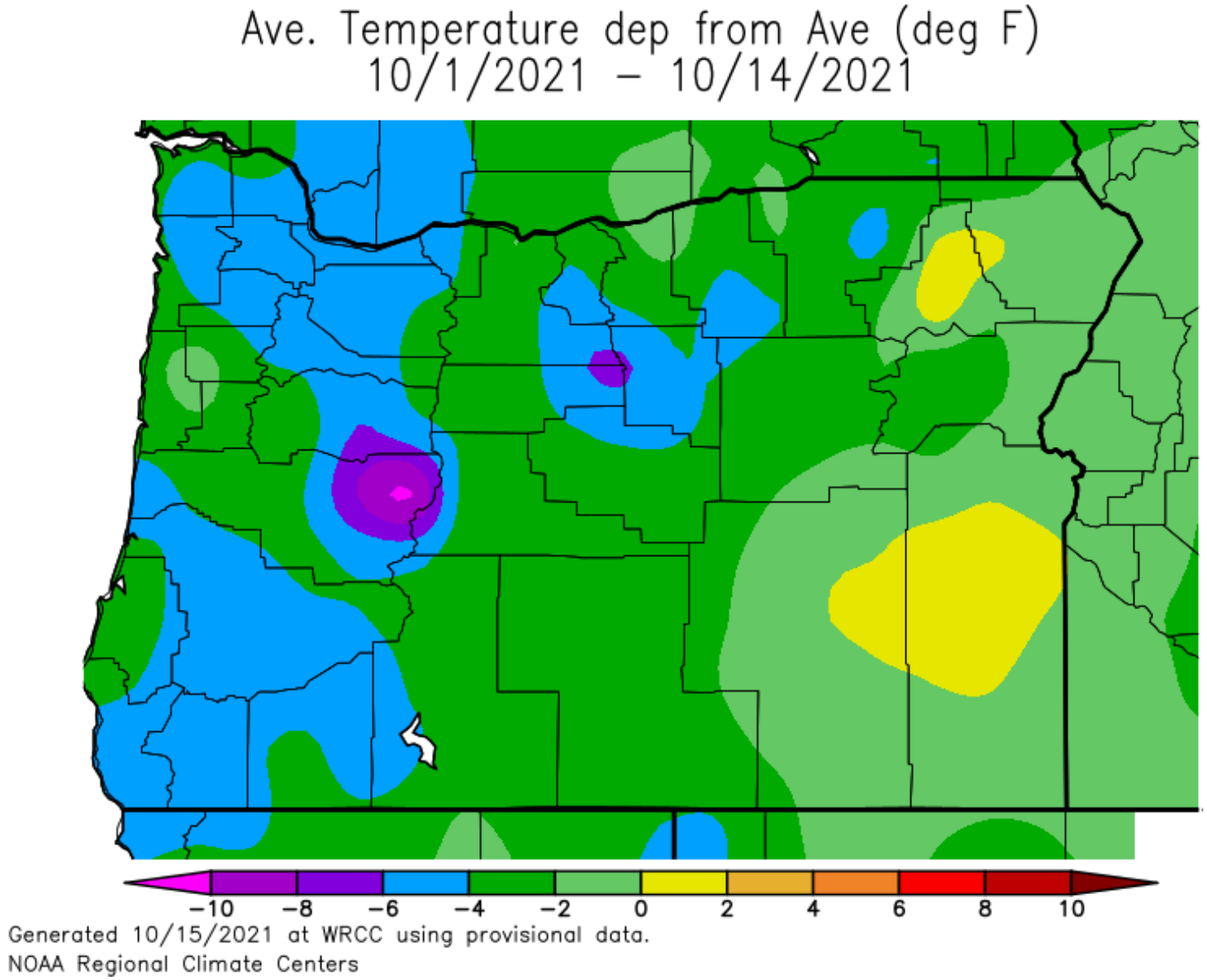


CLIMATE CONDITIONS

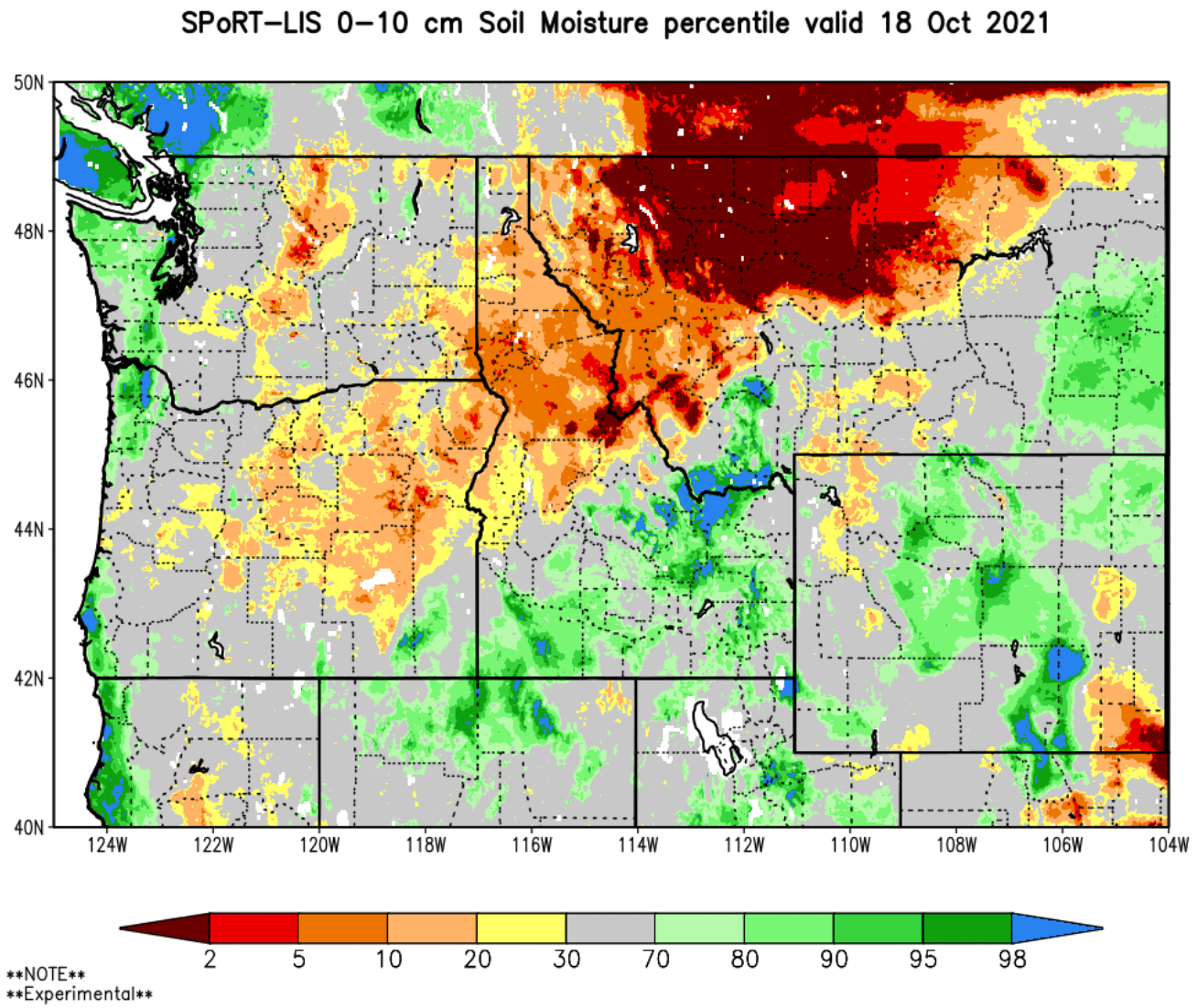
PRECIPITATION



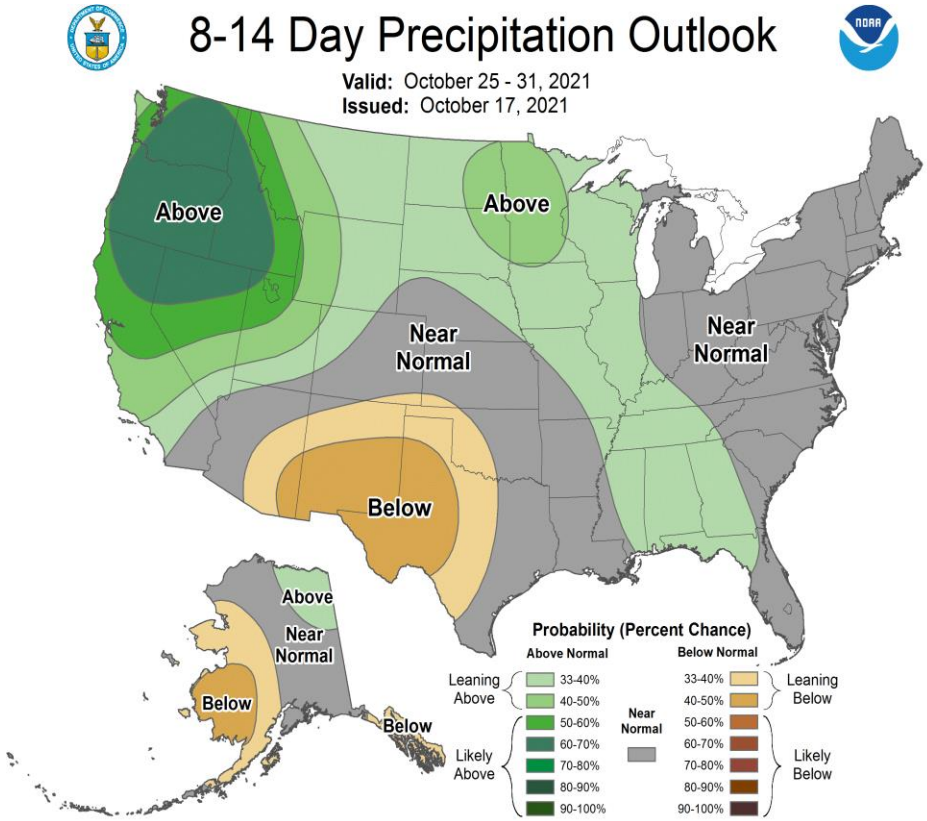
TEMPERATURE

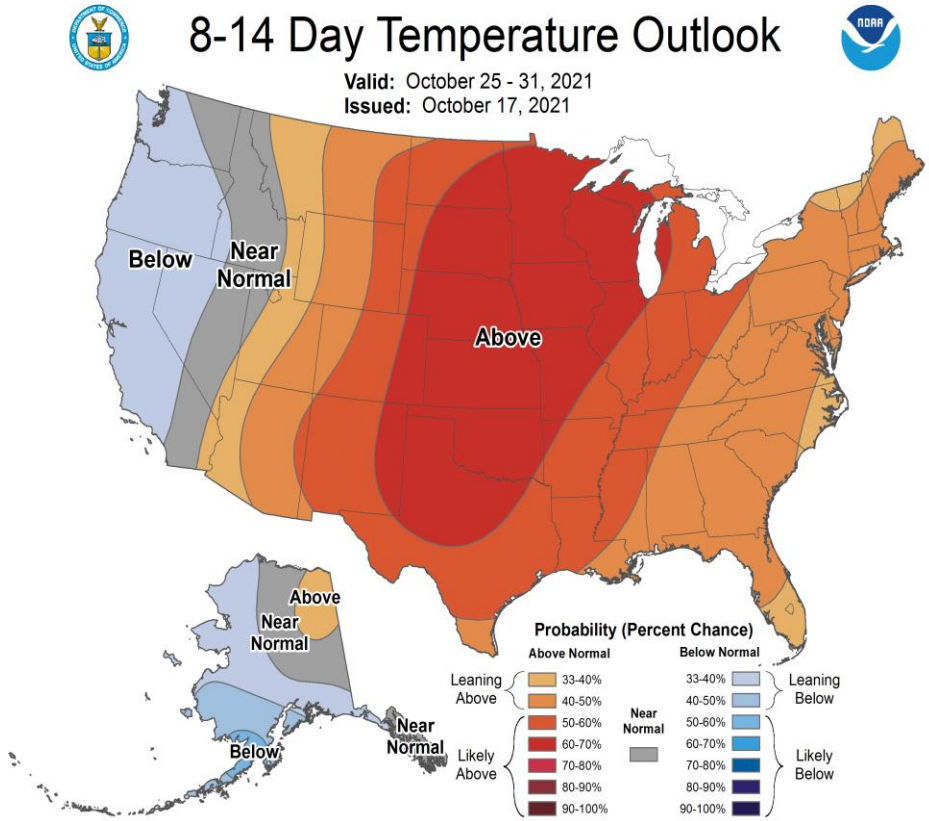


SOIL MOISTURE



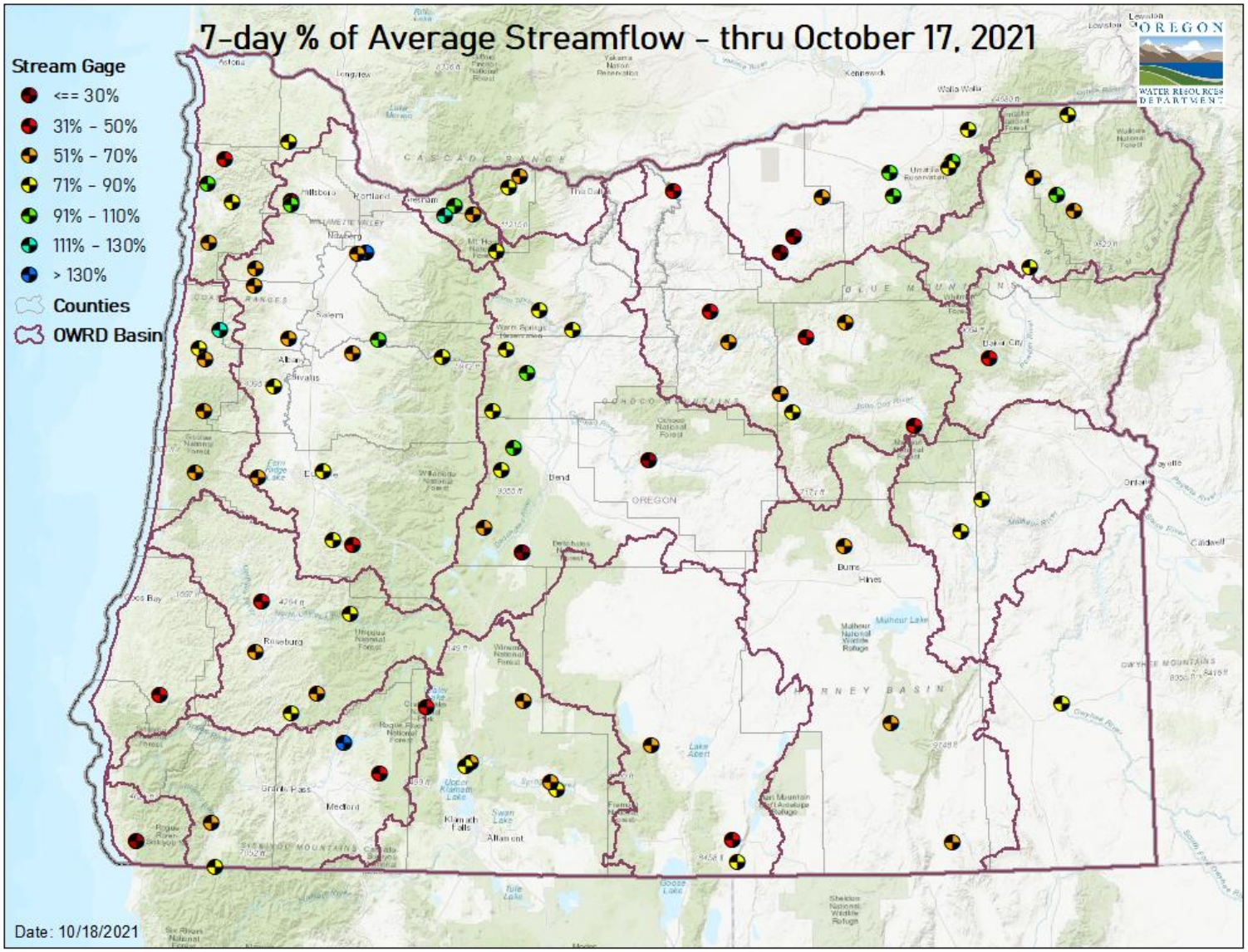
CLIMATE OUTLOOK



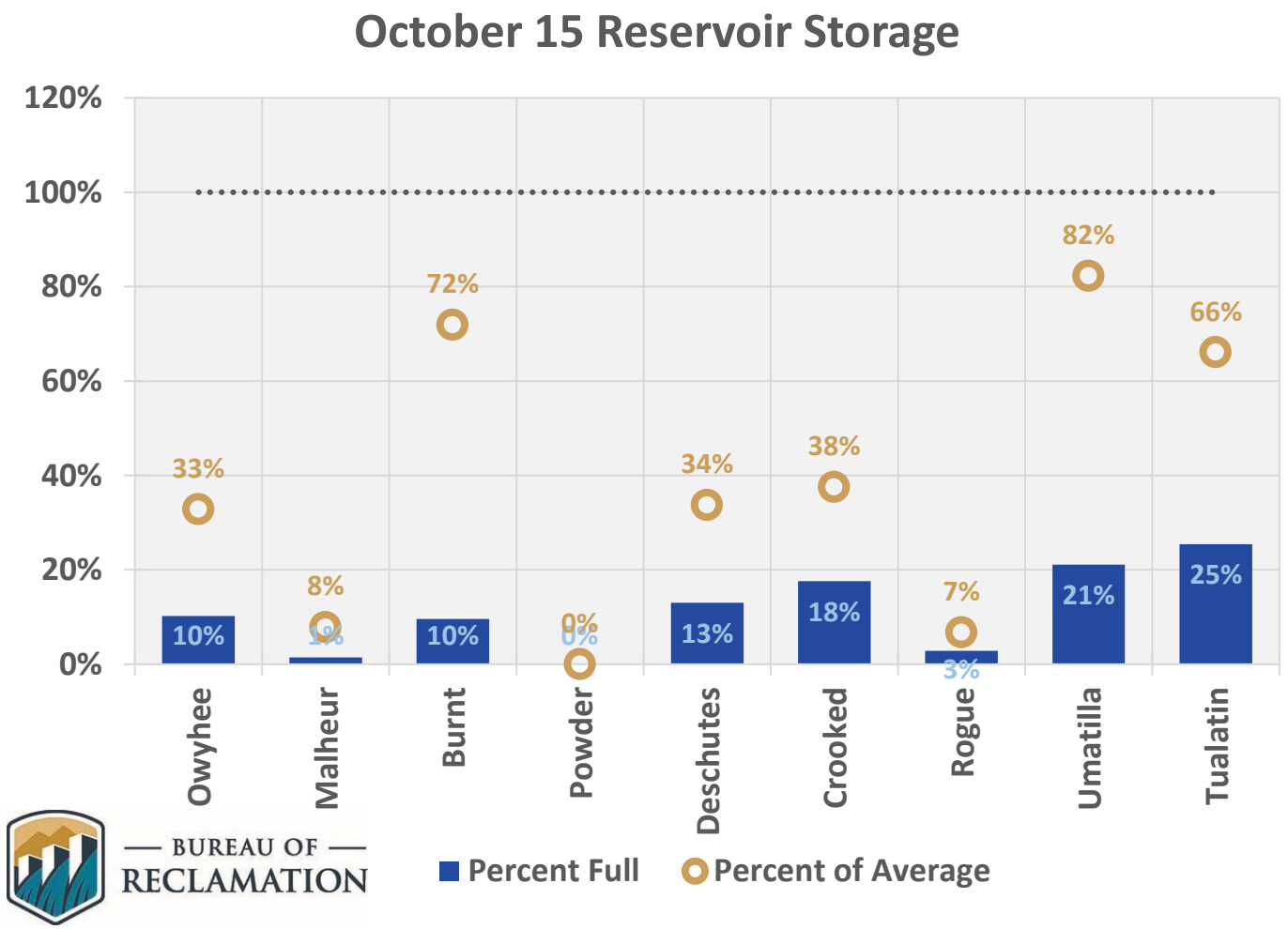


STREAMFLOW

7-DAY



STORAGE


October 15 Reservoir Storage
120%
100%
80%
60%
40%
20%
0%
33%
8%
72%
0%
34%
38%
7%
82%
66%
10%
1%
10%
0%
13%
18%
3%
21%
25%
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.