Oregon Water Conditions Report

June 12th, 2023

HIGHLIGHTS

In total, eight Oregon counties have received Executive Orders issuing state drought declarations under ORS 536. Jackson County has also submitted a drought declaration request.

The US Drought Monitor indicates over 42% of Oregon is experiencing moderate (D1) to severe (D2) drought conditions. Changes over recent weeks include reduction in coverage of severe drought in central Oregon due to average wetness as indicated by the standardized precipitation evapotranspiration index. Abnormally dry and moderate drought conditions have expanded in parts of the Willamette Valley due to low precipitation and high evaporative demand.

Snowpack has melted or is near completely melted in all basins. Warm May temperatures led to rapid rates of meltout at many sites across the state.

May precipitation was variable between western and eastern Oregon. Precipitation was below to well below average west of the Cascades, generally ranging between 25% and 50% of average, while much of the east side received average to above average precipitation. Portions of Oregon along the Columbia River corridor also measured below average precipitation.

Temperatures throughout May were well above average statewide, ranging upwards of 7 °F above average.

High evaporative demand due to elevated temperatures has led to reductions in soil moisture in both surface and root zone profiles. Shallow groundwater profiles continue to lag behind in large swaths of Oregon.

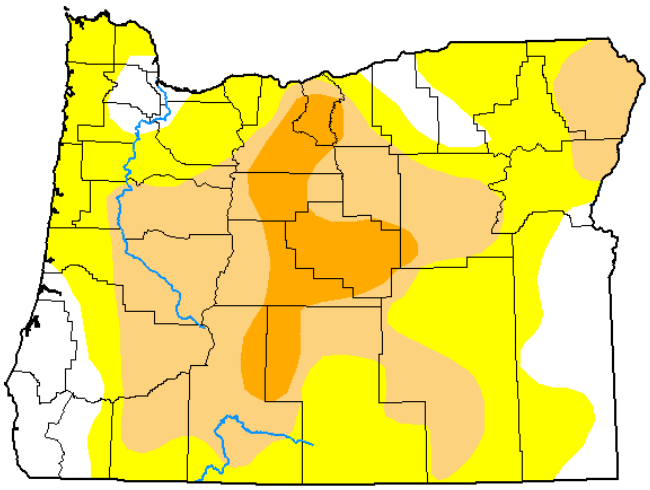
The three-month climate outlook for June through August favors above average temperatures statewide. Precipitation is more variable with below average precipitation favored in the northern half of the state and equal chances above or below for the southern half.

May streamflows were well above average east of the Cascades due to rapid meltout of above average snowpack in combination with above average precipitation. Flows in western Oregon were more variable, ranging from well below to well above average. Some areas benefitted from snowmelt while others were negatively impacted by below average precipitation and warm temperatures.

Reservoir storage is near to above average in many USBR (including Klamath) and USACE projects across the state. Contents in the Rogue and Deschutes Basins remain below average.

DROUGHT CONDITIONS

U.S. Drought Monitor
Oregon



June 6, 2023
(Released Thursday, Jun. 8, 2023)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	15.92	84.08	42.57	9.37	0.00	0.00
Last Week *05-30-2023*	15.15	84.85	46.05	11.50	0.00	0.00
3 Months Ago *03-07-2023*	5.19	94.81	78.02	39.67	14.48	1.40
Start of Calendar Year *01-03-2023*	13.46	86.54	59.75	46.03	26.18	1.40
Start of Water Year *09-27-2022*	0.42	99.58	68.05	52.42	30.73	1.40
One Year Ago *06-07-2022*	19.39	80.61	71.16	61.99	45.78	5.77

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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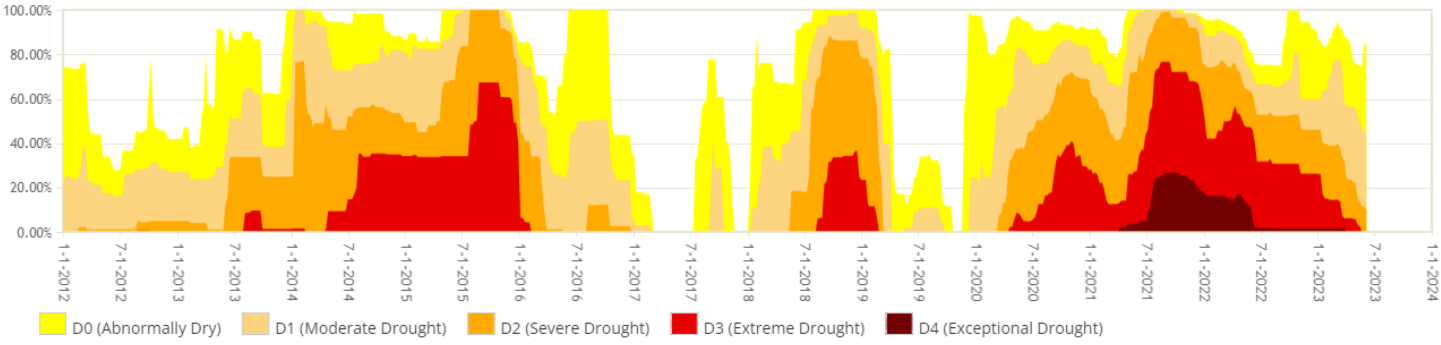
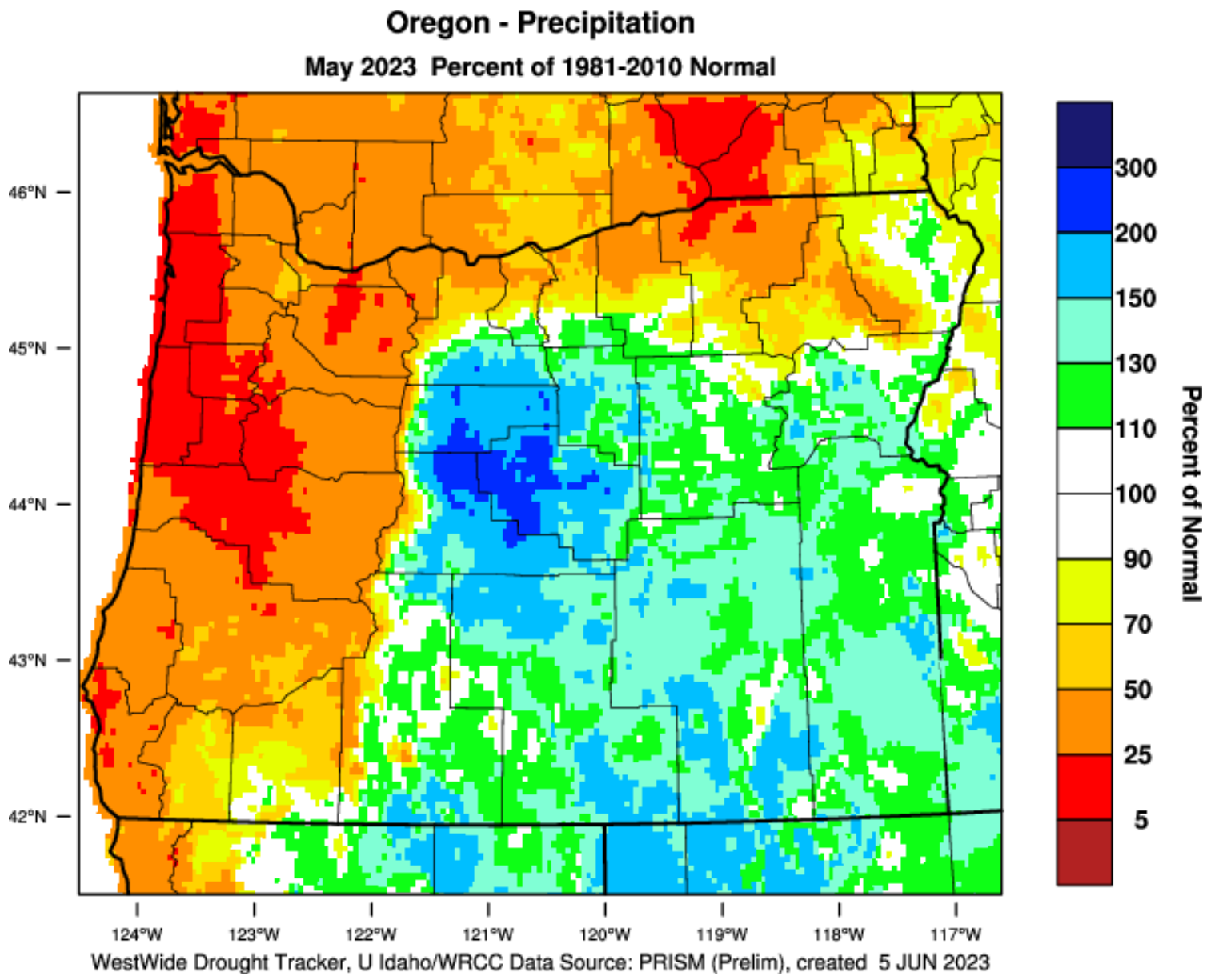
droughtmonitor.unl.edu

Oregon Percent Area in U.S. Drought Monitor Categories

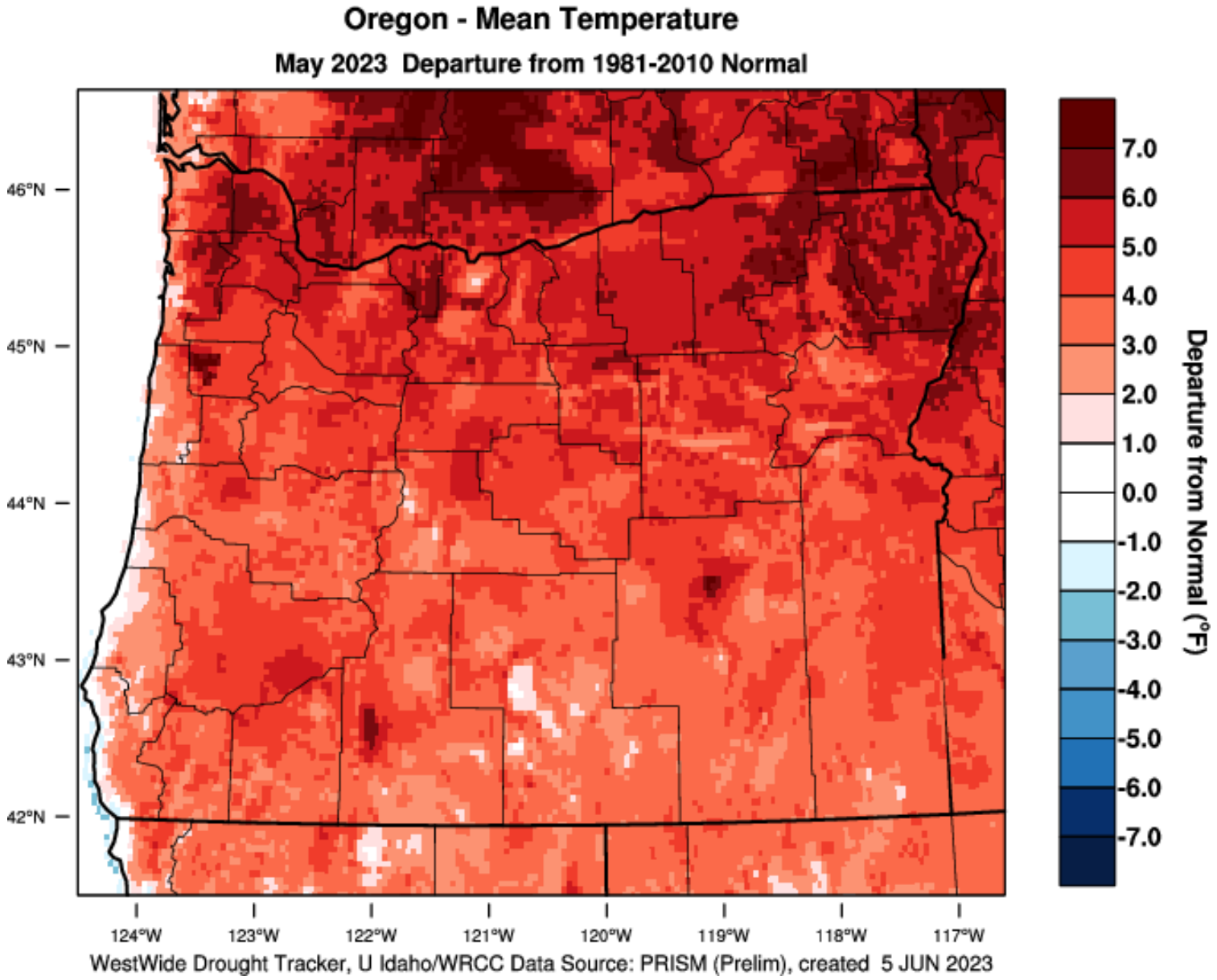


CLIMATE CONDITIONS

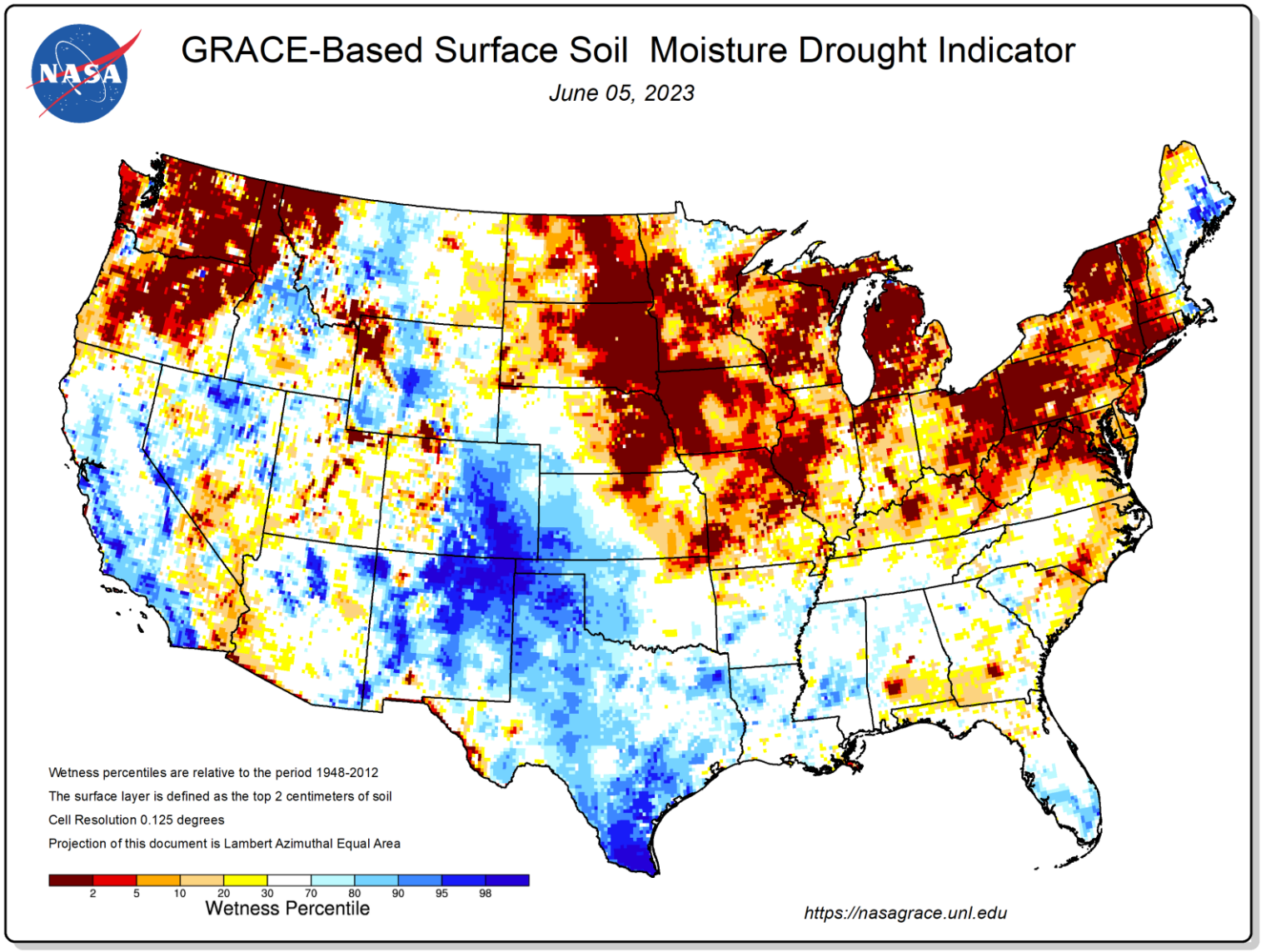
PRECIPITATION



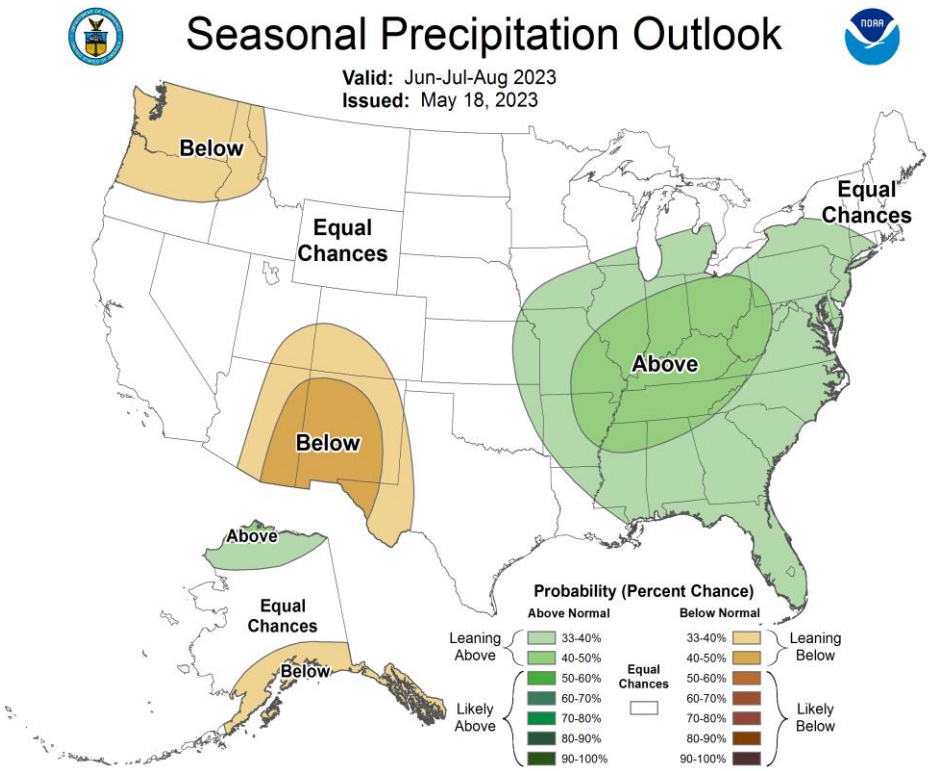
TEMPERATURE

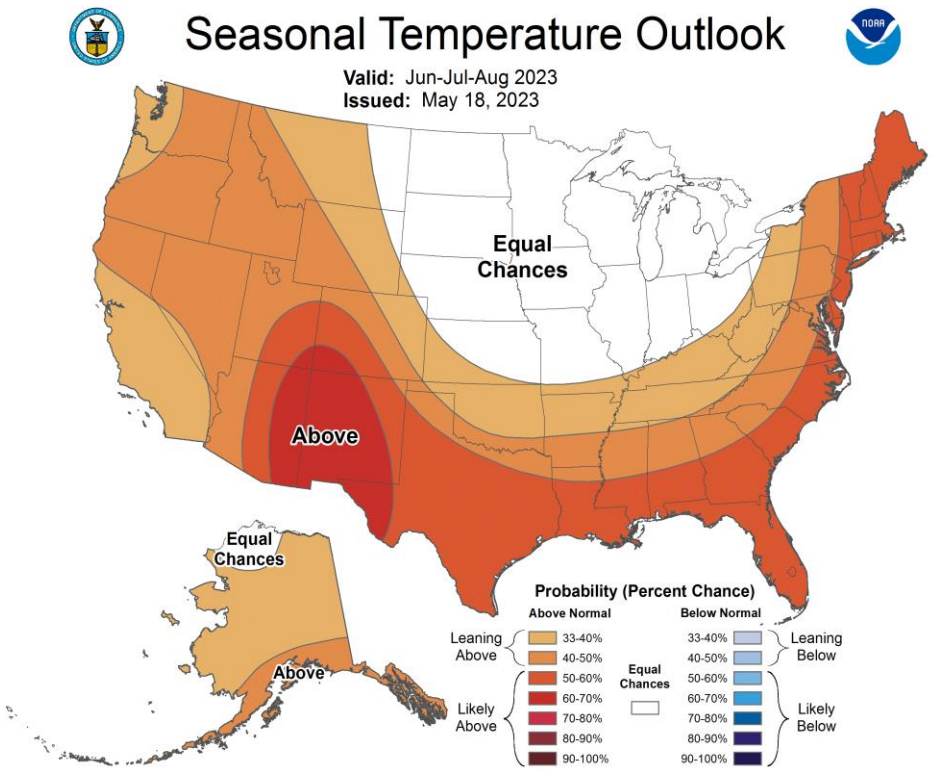


SOIL MOISTURE



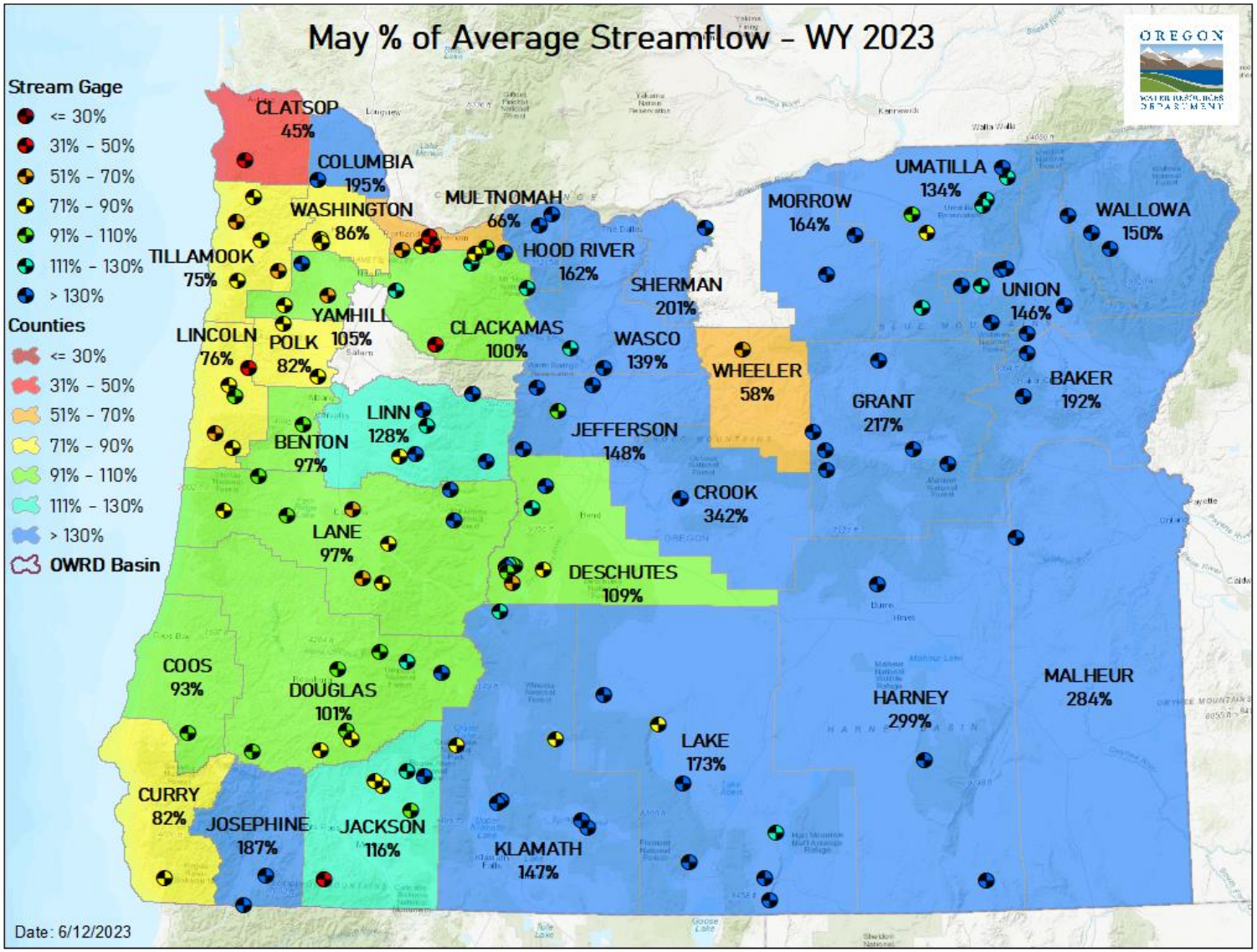
CLIMATE OUTLOOK



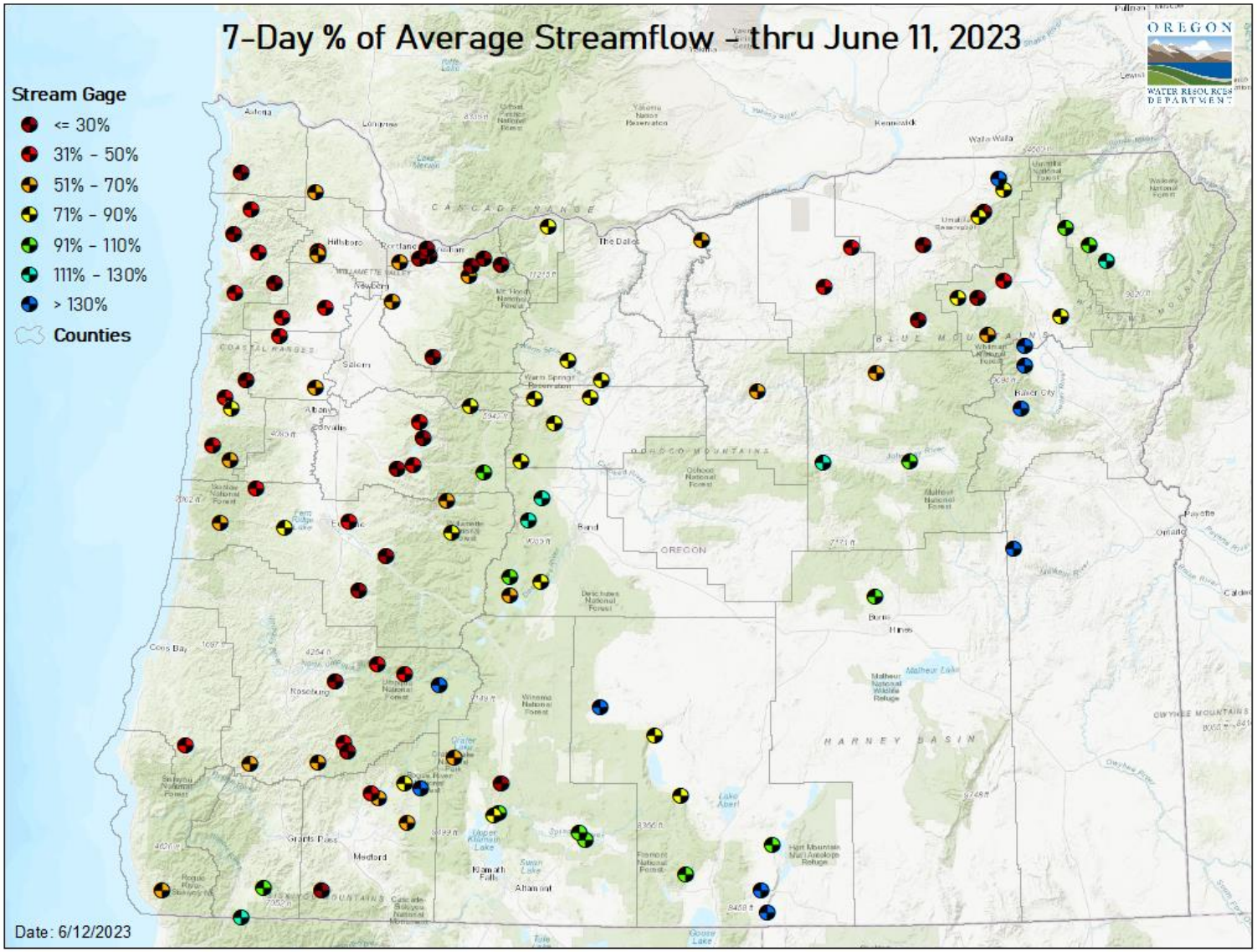


STREAMFLOW

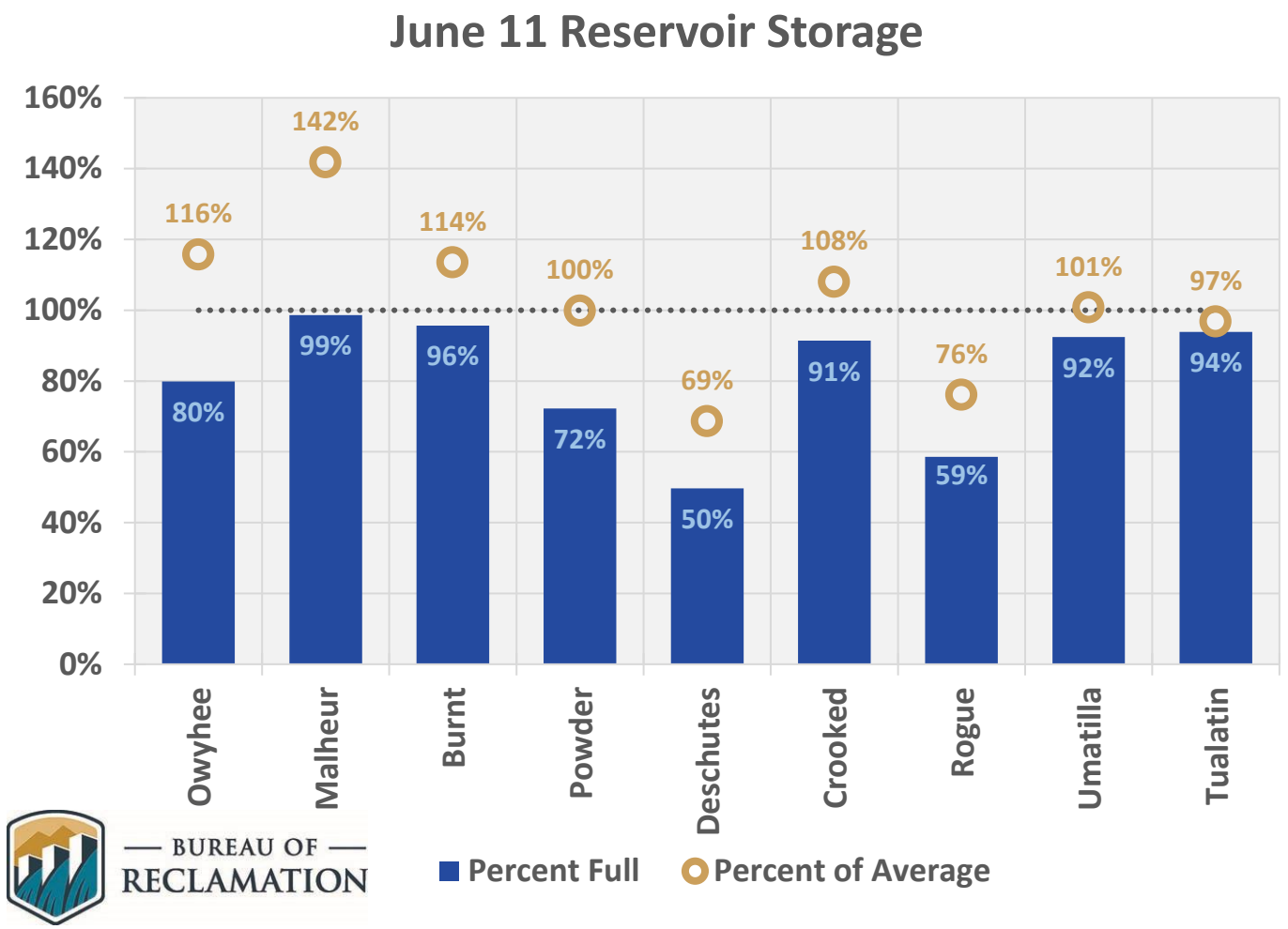
MAY



7-DAY


7-Day % of Average Streamflow – thru June 11, 2023
OREGON
WATER RESOURCES DEPARTMENT
Stream Gage
<= 30%
31% - 50%
51% - 70%
71% - 90%
91% - 110%
111% - 130%
> 130%
Counties
Date: 6/12/2023

STORAGE


June 11 Reservoir Storage
160%
140%
120%
100%
80%
60%
40%
20%
0%
116%
142%
114%
100%
108%
101%
97%
80%
99%
96%
72%
69%
50%
91%
76%
59%
92%
94%
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.