

Oregon Water Conditions Report



July 17th, 2023

HIGHLIGHTS

Thus far in 2023, there are [nine Oregon counties](#) with state drought declarations under ORS 536. Jackson County was most recently issued a state drought declaration.

Nearly 49% of Oregon is experiencing moderate (D1) to severe (D2) drought conditions, according to the [US Drought Monitor](#). Recent changes include development of severe drought conditions in the Willamette Valley and the northern Oregon Cascades due to low streamflows, high evaporative demand, and well below average soil moisture. Much of southeastern Oregon has improved to drought-free classification, although some areas remain abnormally dry (D0).

Precipitation over the past two weeks has been [well below average](#), with much of Oregon receiving [little to no measurable precipitation](#). [Water year precipitation](#) varies between east and west of the Cascades. Much of western Oregon is experiencing a significant precipitation deficit, with some areas measuring up to 16 inches below typical amounts. East of the Cascades, water year precipitation ranges from just below average to average.

Recent temperatures over the past two weeks have measured [near to above average statewide](#). This follows [June temperatures](#) that were above average throughout much of the state, with exceptions in southeastern and coastal Oregon where temperatures were near to below average.

According to NASA GRACE, [soil moisture content](#) is somewhat variable across the state and different profiles. Surface soil content is measuring well below average throughout much of Oregon due to the recent lack of precipitation and warm temperatures, while root zone profiles show similar patterns. Southeastern Oregon is experiencing near normal conditions.

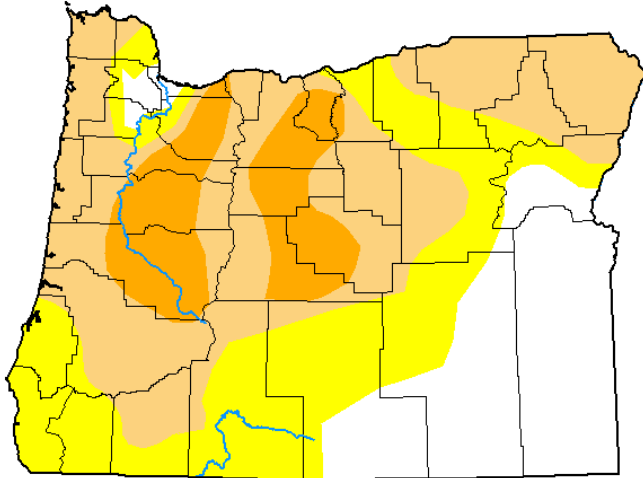
The [three-month seasonal outlook](#) for July through September indicates conditions are likely to continue or worsen, as probabilities favor above average temperatures and near average precipitation.

June streamflows varied across the state. Flows in western and northern Oregon measured below to well below average, while those in the rest of the state measured near to well above average (min = Clatsop @ 22%; max = Harney @ 153%). Flows over the water year to date reflect a similar pattern.

Reservoir storage contents are measuring near to above normal in many [USBR](#) (including [Klamath](#)) and [USACE](#) projects. Contents in the Deschutes, Rogue, and Tualatin Basins are measuring below to well below average.

U.S. Drought Monitor Oregon

July 11, 2023
(Released Thursday, Jul. 13, 2023)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	23.21	76.79	48.76	12.60	0.00	0.00
Last Week <small>07-04-2023</small>	23.75	76.25	46.80	10.01	0.00	0.00
3 Months Ago <small>04-11-2023</small>	13.40	86.60	56.44	23.63	6.20	0.00
Start of Calendar Year <small>01-03-2023</small>	13.46	86.54	59.75	46.03	26.18	1.40
Start of Water Year <small>09-27-2022</small>	0.42	99.58	68.05	52.42	30.73	1.40
One Year Ago <small>07-12-2022</small>	25.00	75.00	66.67	52.71	31.72	1.77

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>

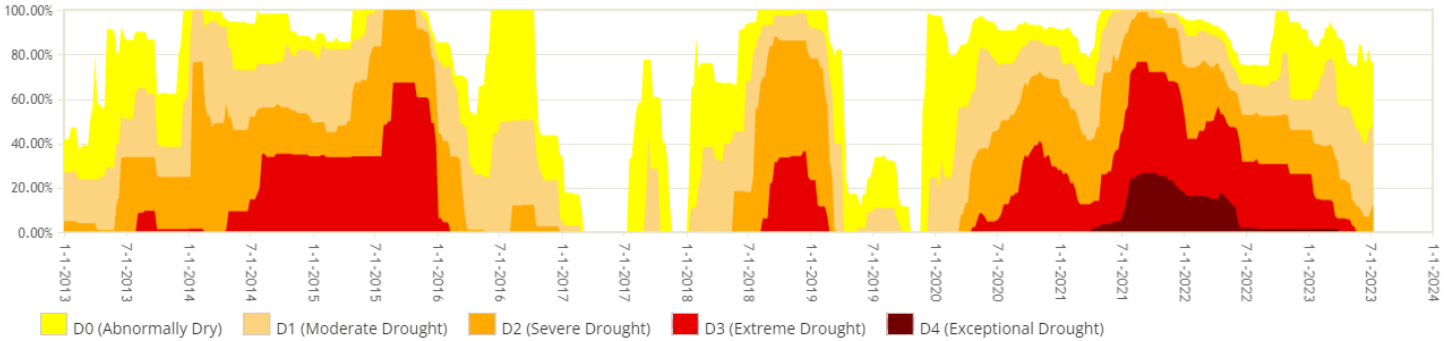
Author:

Richard Tinker
CPC/NOAA/NWS/NCEP

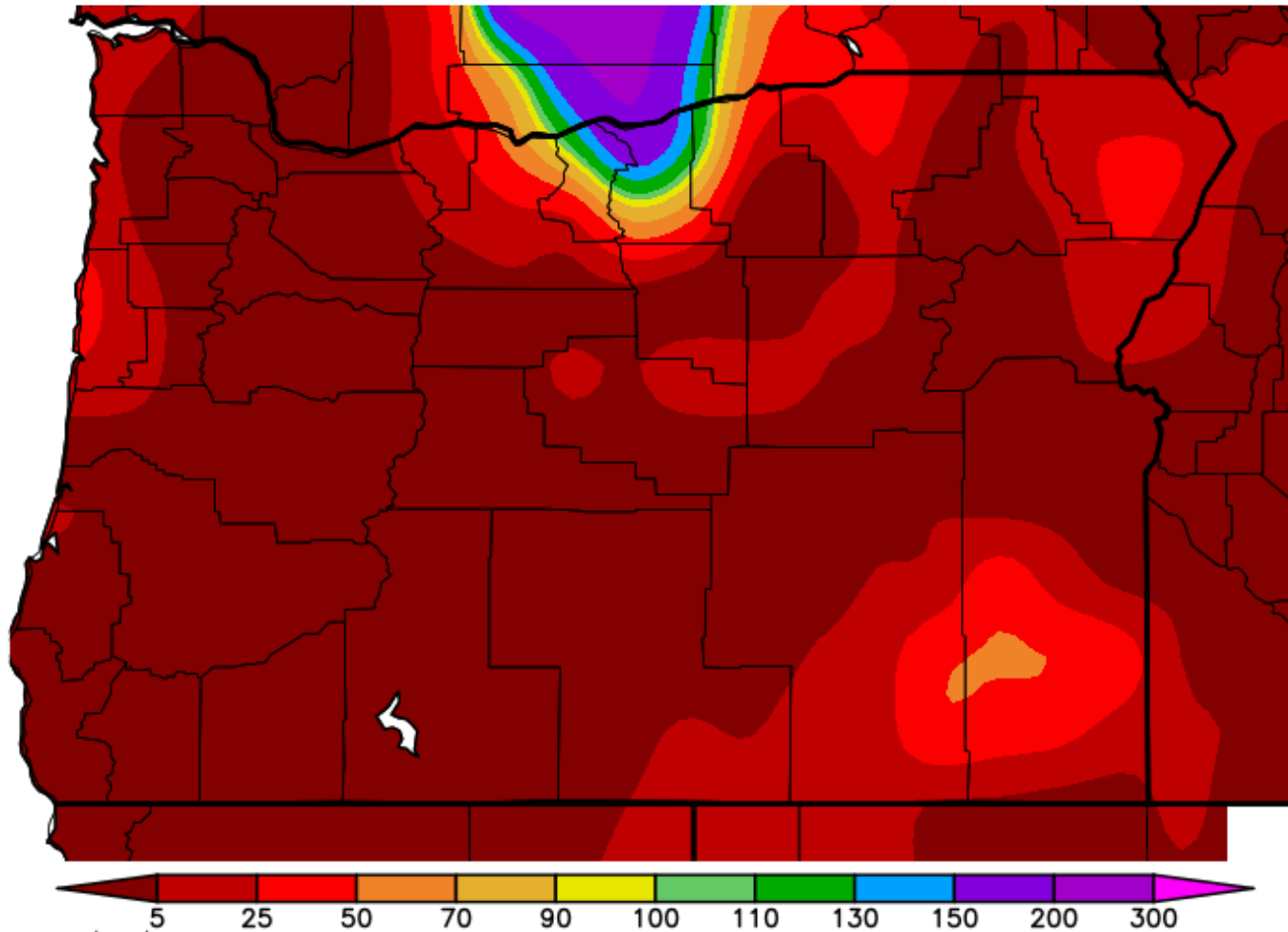


droughtmonitor.unl.edu

Oregon Percent Area in U.S. Drought Monitor Categories

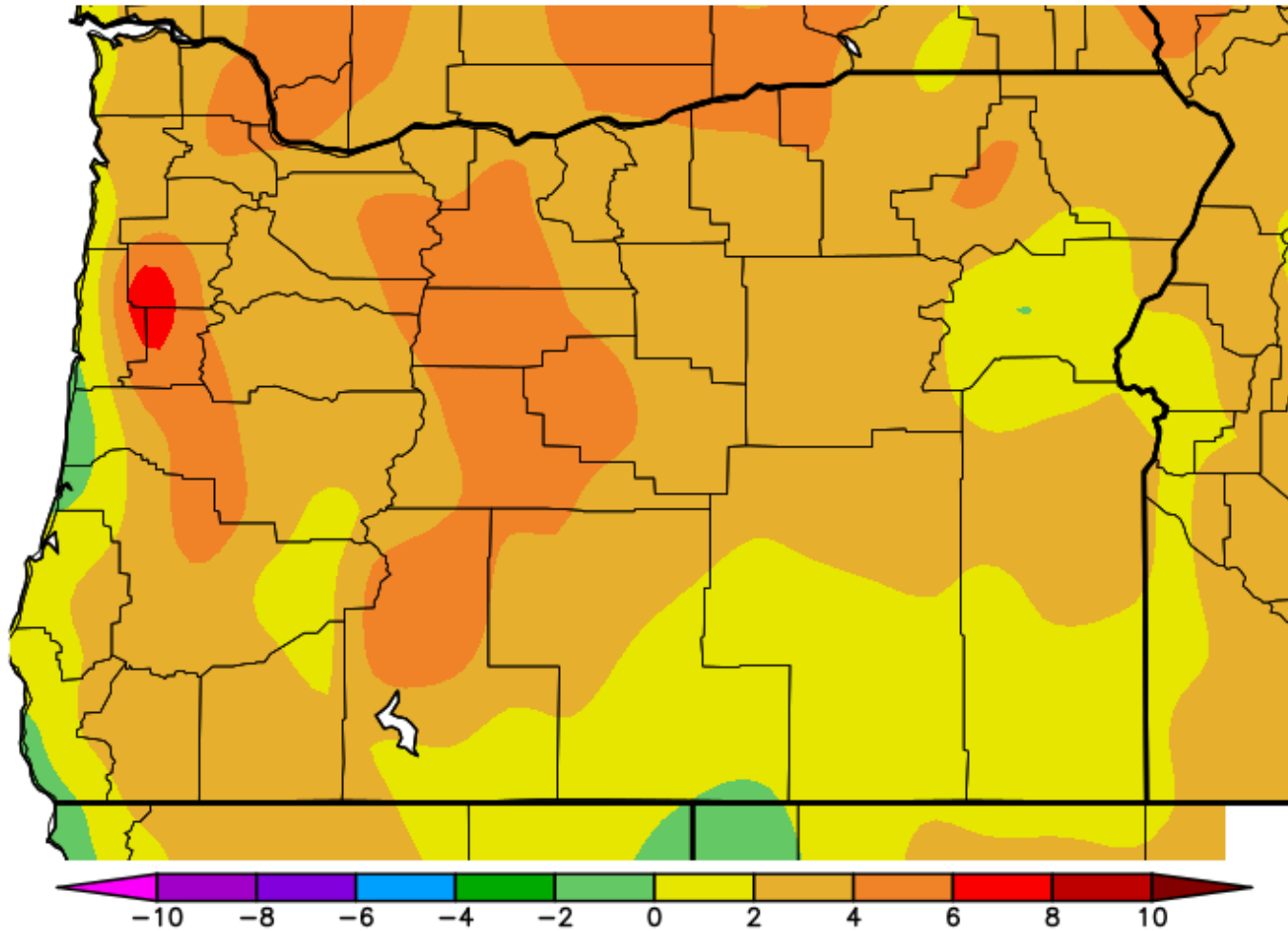


Percent of Average Precipitation (%)
7/3/2023 - 7/16/2023

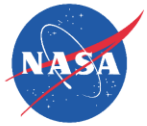


Generated 7/17/2023 at WRCC using provisional data.
NOAA Regional Climate Centers

Ave. Temperature dep from Ave (deg F)
7/3/2023 - 7/16/2023

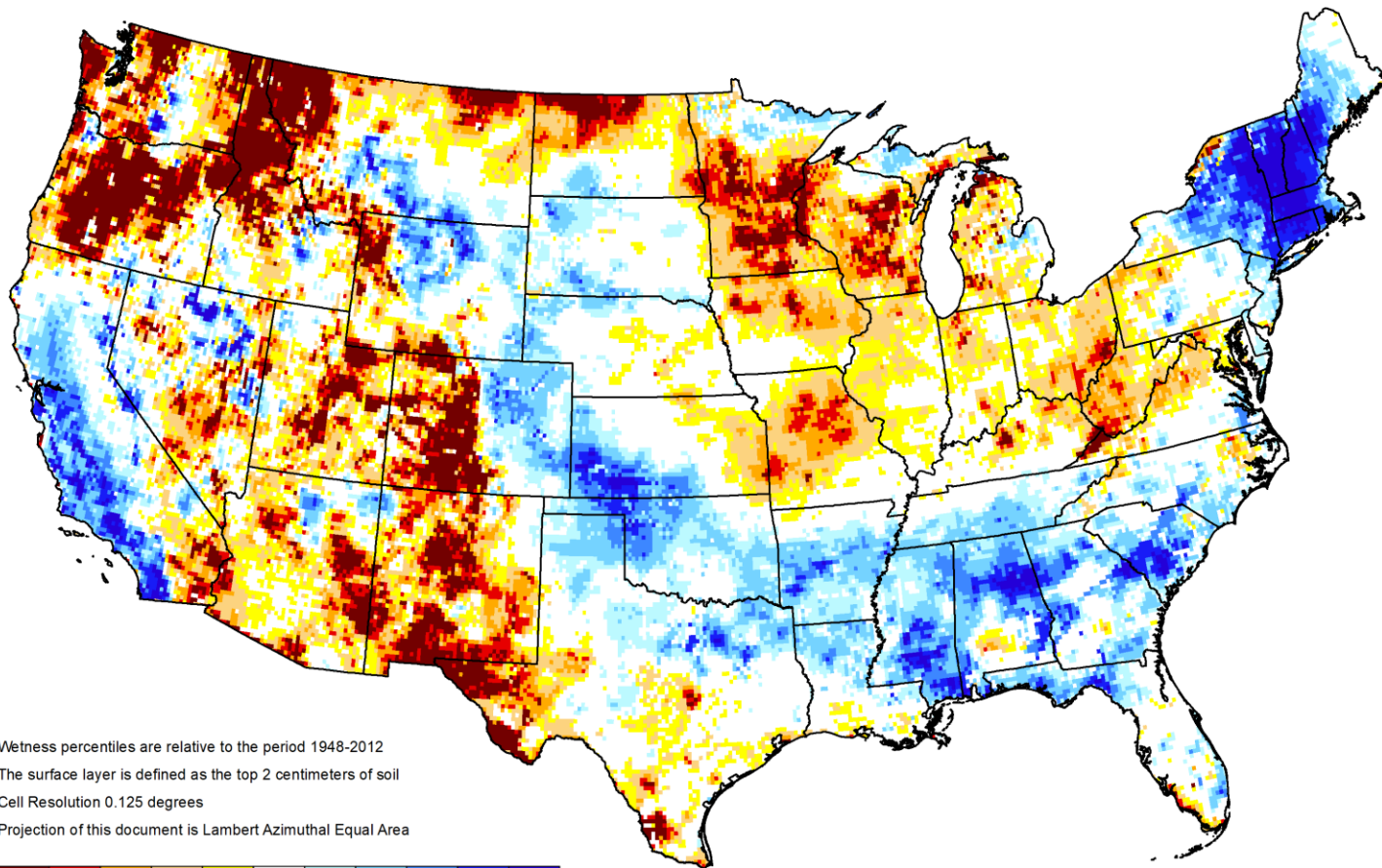


Generated 7/17/2023 at WRCC using provisional data.
NOAA Regional Climate Centers

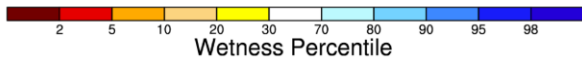


GRACE-Based Surface Soil Moisture Drought Indicator

July 10, 2023



Wetness percentiles are relative to the period 1948-2012
The surface layer is defined as the top 2 centimeters of soil
Cell Resolution 0.125 degrees
Projection of this document is Lambert Azimuthal Equal Area



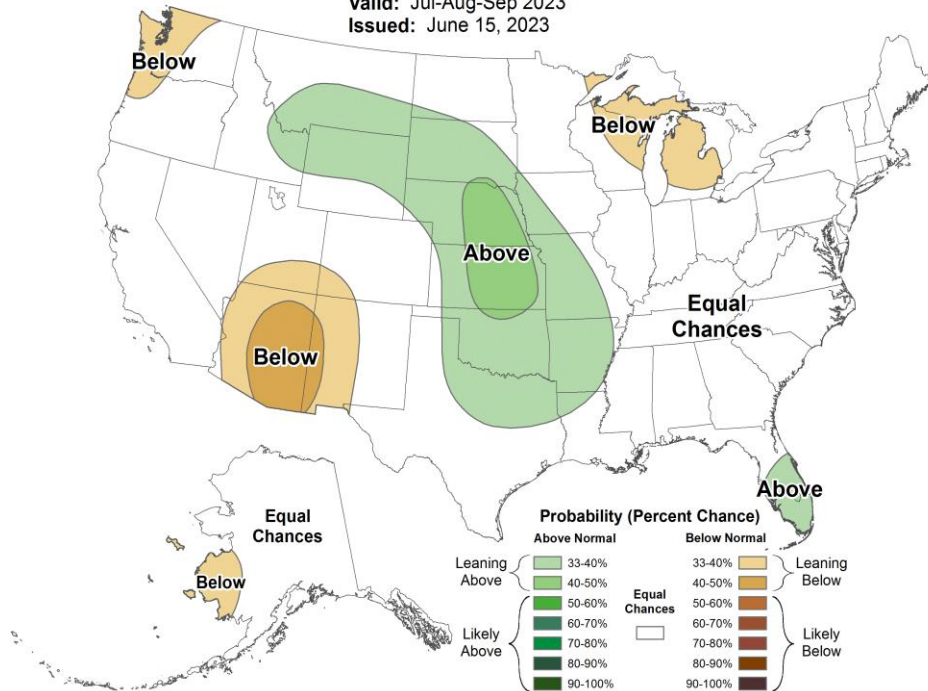
<https://nasagrace.unl.edu>



Seasonal Precipitation Outlook



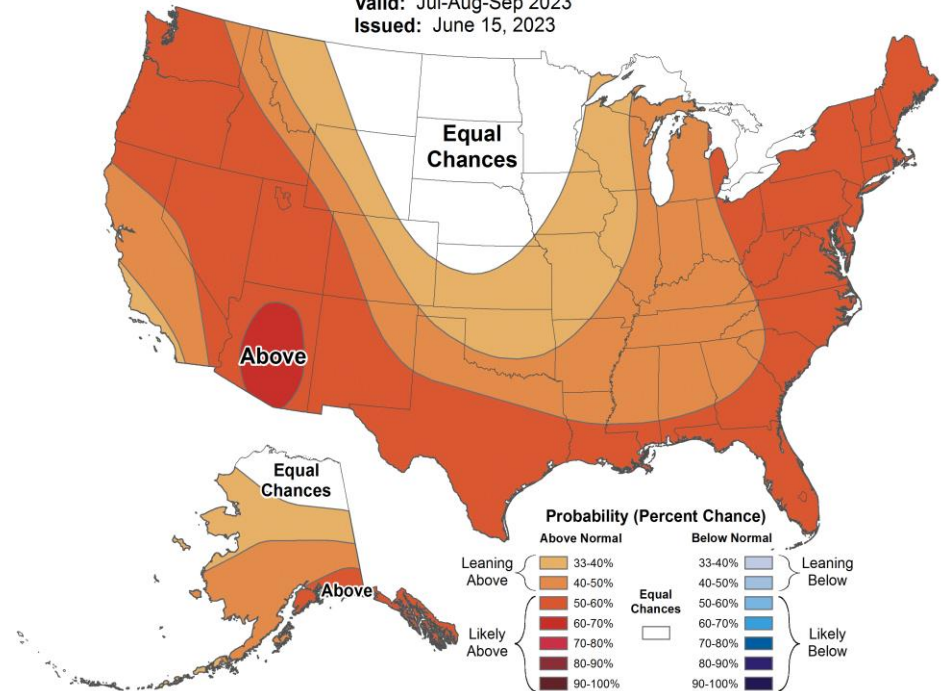
Valid: Jul-Aug-Sep 2023
 Issued: June 15, 2023



Seasonal Temperature Outlook

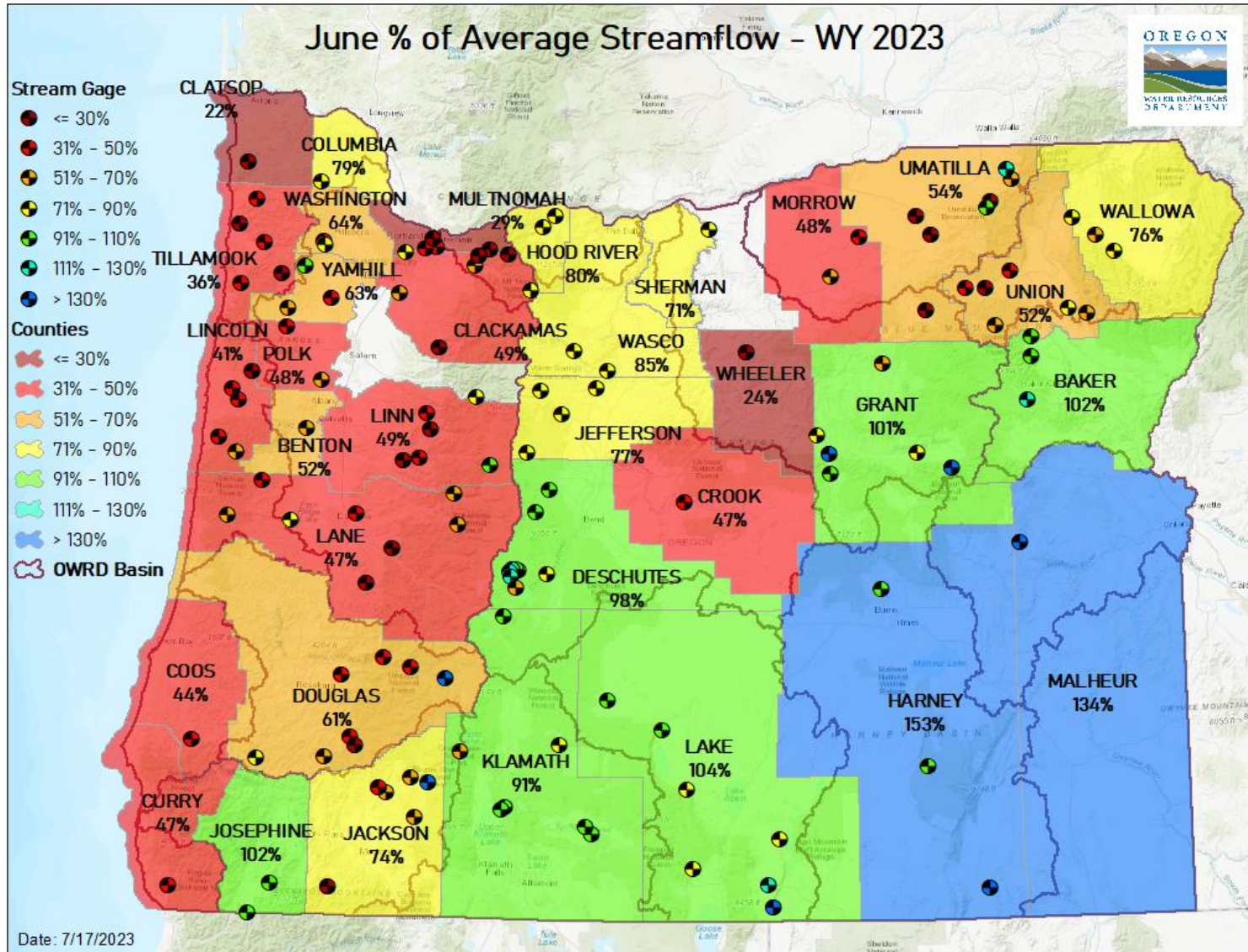


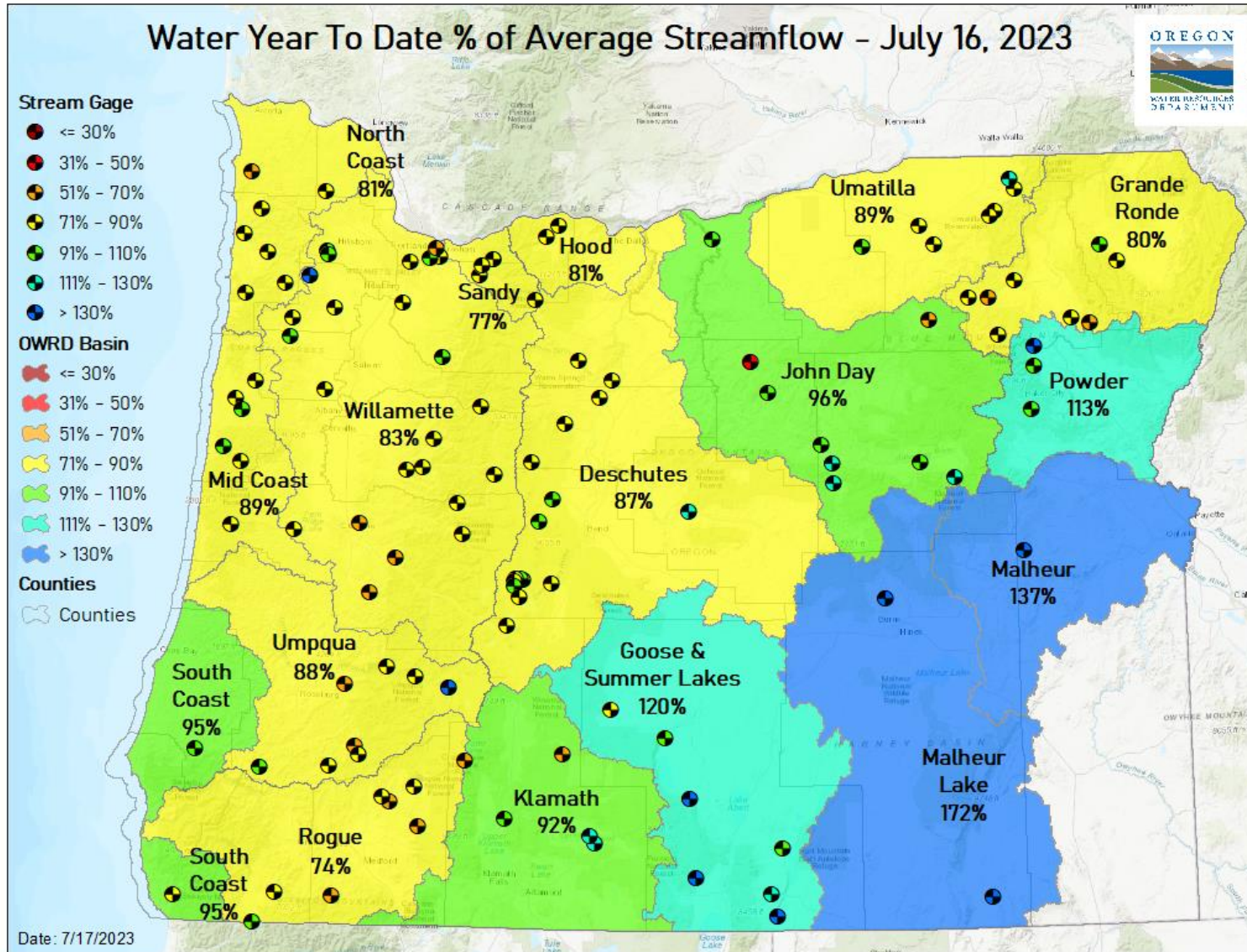
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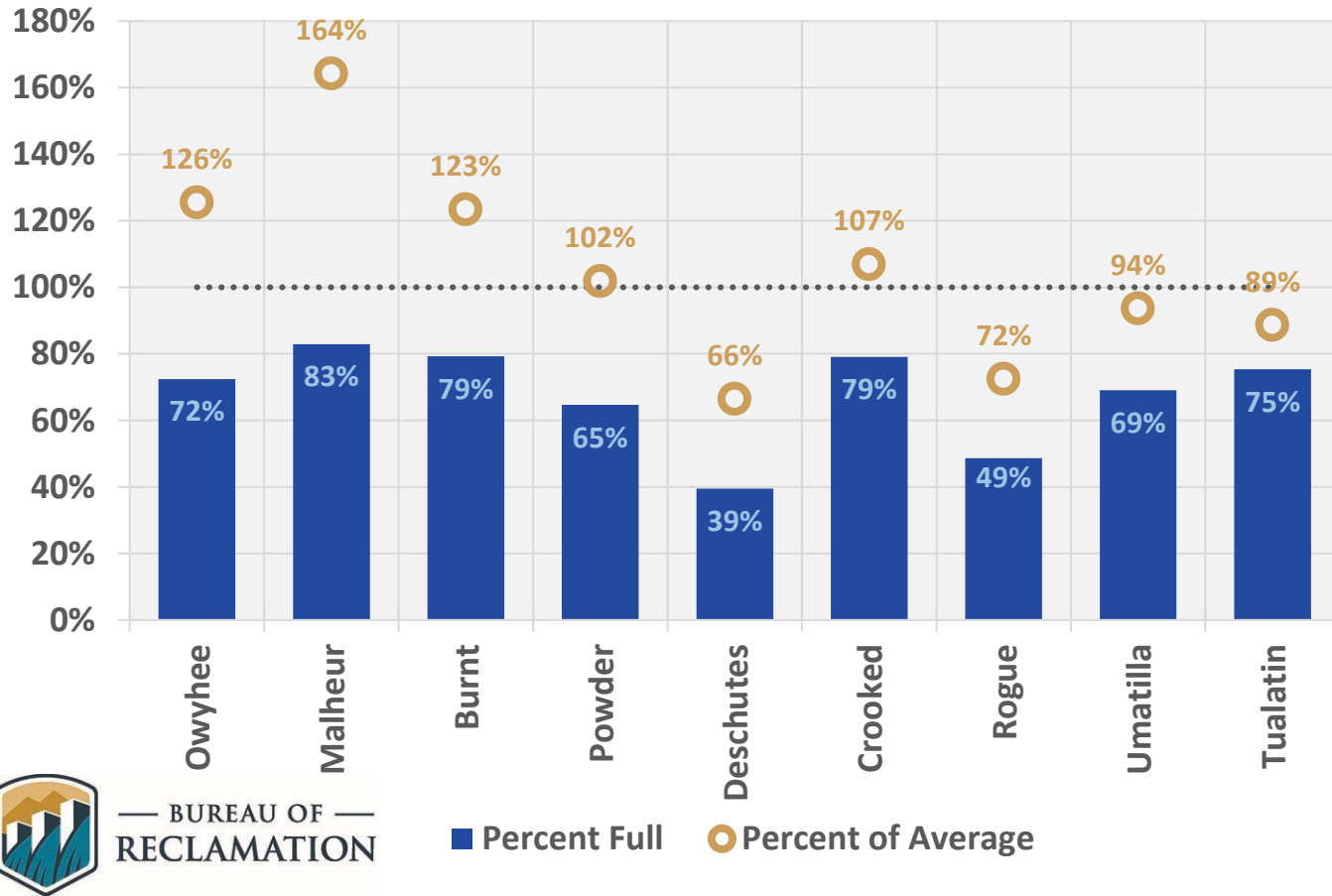
STREAMFLOW

JUNE





July 16 Reservoir Storage



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.