

# Oregon Water Conditions Report



August 14<sup>th</sup>, 2023

## HIGHLIGHTS

Thus far in 2023, [nine Oregon counties](#) have received [Executive Orders](#) issuing drought declarations under ORS 536. Three additional requests have been received from Douglas, Gilliam, and Lincoln Counties. The request from Gilliam County has been forwarded to the Governor's Office.

Many Oregon counties have also received primary and contiguous county designations by the [US Department of Agriculture](#) for crop disaster losses due to drought conditions.

According to the [US Drought Monitor](#), over 52% of Oregon is classified as experiencing moderate (D1) to severe (D2) drought conditions. Severe drought has developed along the mid to north coast as well as in northern Umatilla County. Moderate drought conditions have also developed in Coos County, and much of Gilliam and Morrow Counties.

Drought conditions have worsened in several areas throughout the state over recent weeks due to warm, dry conditions. Such conditions have led to [extremely high evaporative demand](#) over this time in western and northern Oregon. Several streams along the coast and elsewhere in western Oregon have measured record low flows during this time.

[July precipitation was well below average](#) across the state. Some areas in southwestern and central Oregon measured the [lowest July precipitation on record](#). More recently, parts of northwestern Oregon benefitted from [recent precipitation over the past week](#).

[July temperatures](#) measured well above average across Oregon. Temperatures ranged from 1 °F to greater than 6 °F above the long-term average.

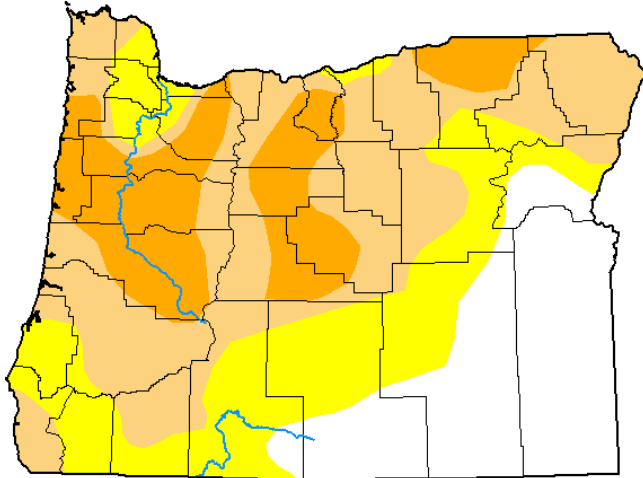
The [surface soil moisture profile](#) from NASA GRACE reflects the recent precipitation in northwestern Oregon. The root zone and shallow groundwater indicators still reflect extremely dry conditions in various parts of the state.

July streamflows were quite variable throughout Oregon (min = Crook @ 19%; max = Harney @ 131%). With the exception of pockets of southcentral and southeastern Oregon, flows were generally below to well below average. Water year streamflow has followed a similar trend, with parts of southcentral and eastern Oregon being the beneficiaries of well above average flows.

Reservoir storage contents range from well below average (Deschutes, Rogue, Tualatin) to well above average. See [USBR](#) (including [Klamath](#)) and [USACE](#) teacup diagrams for more information.

## U.S. Drought Monitor Oregon

**August 8, 2023**  
(Released Thursday, Aug. 10, 2023)  
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	23.27	76.73	52.09	17.68	0.00	0.00
<b>Last Week</b> <small>08-01-2023</small>	23.38	76.62	52.19	17.68	0.00	0.00
<b>3 Months Ago</b> <small>05-09-2023</small>	24.77	75.23	51.86	14.85	3.24	0.00
<b>Start of Calendar Year</b> <small>01-03-2023</small>	13.46	86.54	59.75	46.03	26.18	1.40
<b>Start of Water Year</b> <small>09-27-2022</small>	0.42	99.58	68.05	52.42	30.73	1.40
<b>One Year Ago</b> <small>08-09-2022</small>	25.01	74.99	65.60	52.55	30.73	1.40

Intensity:

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

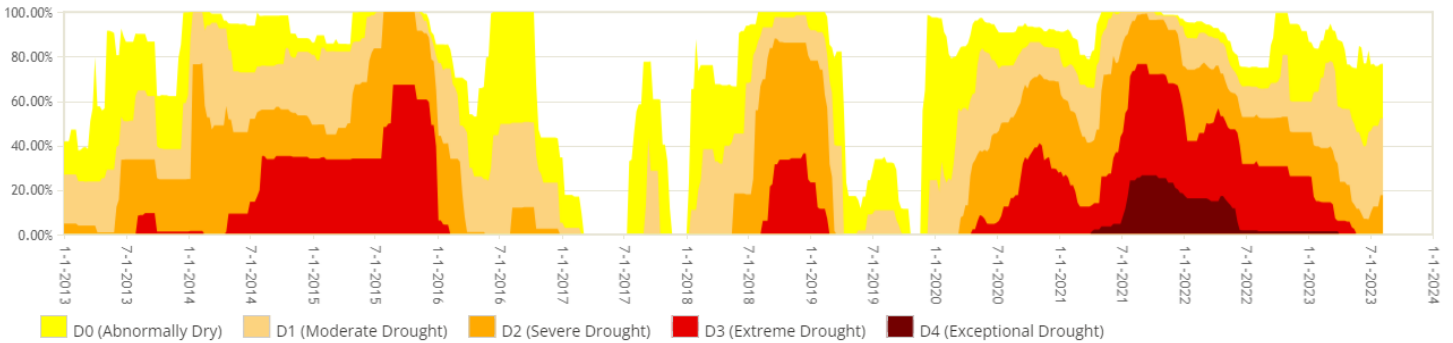
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

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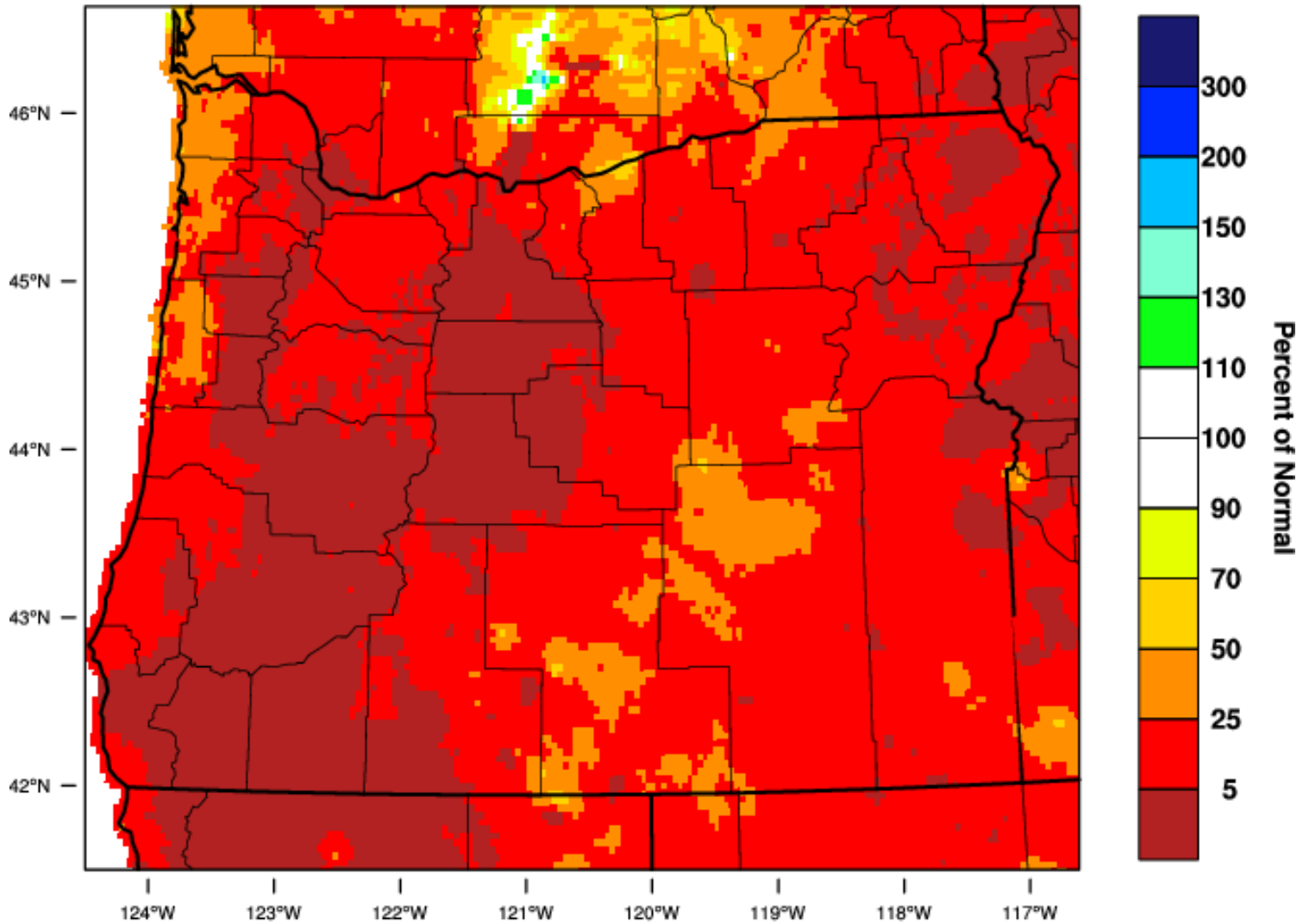


[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

Oregon Percent Area in U.S. Drought Monitor Categories



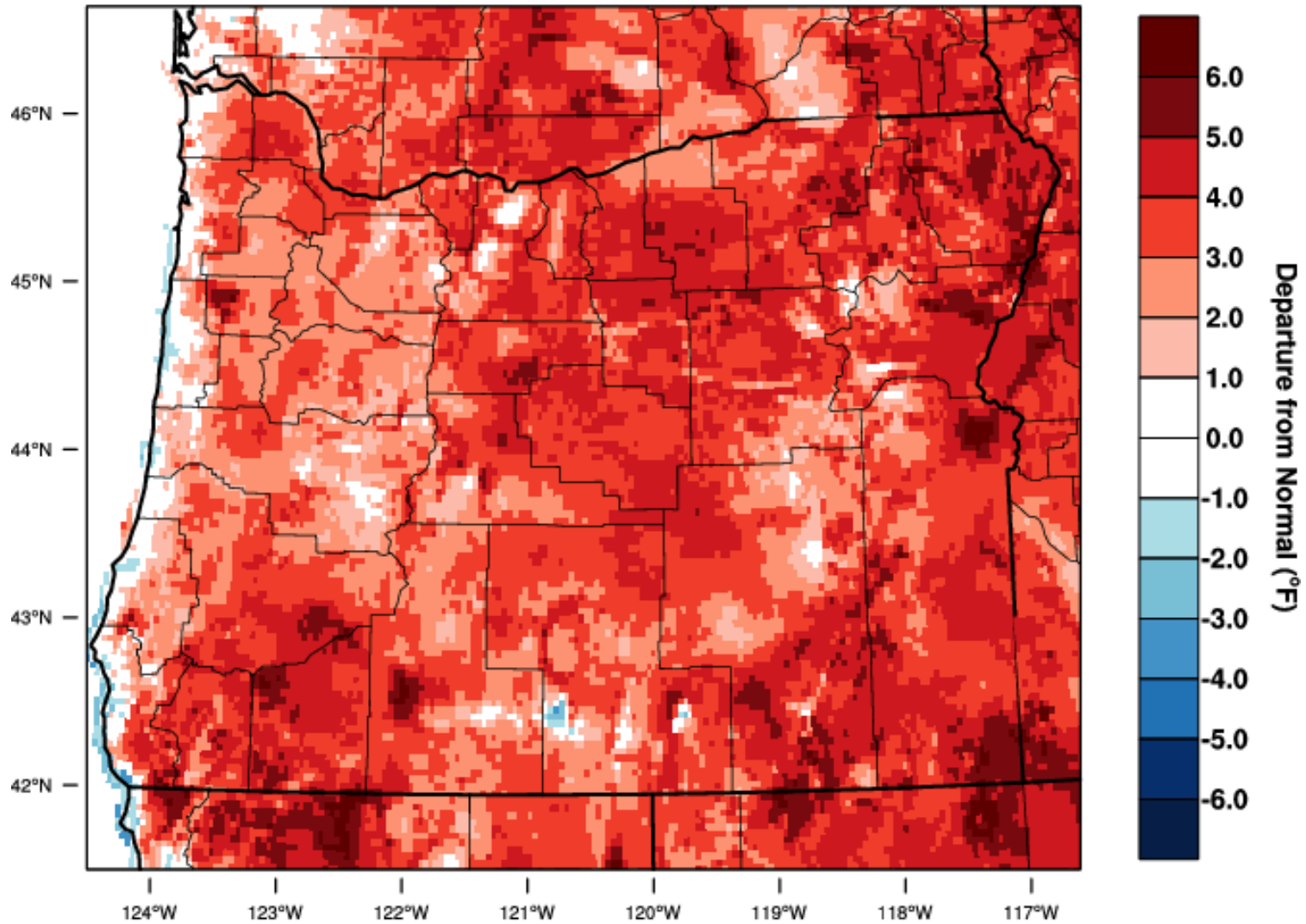
### Oregon - Precipitation July 2023 Percent of 1981-2010 Normal



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 11 AUG 2023

### Oregon - Mean Temperature

July 2023 Departure from 1981-2010 Normal

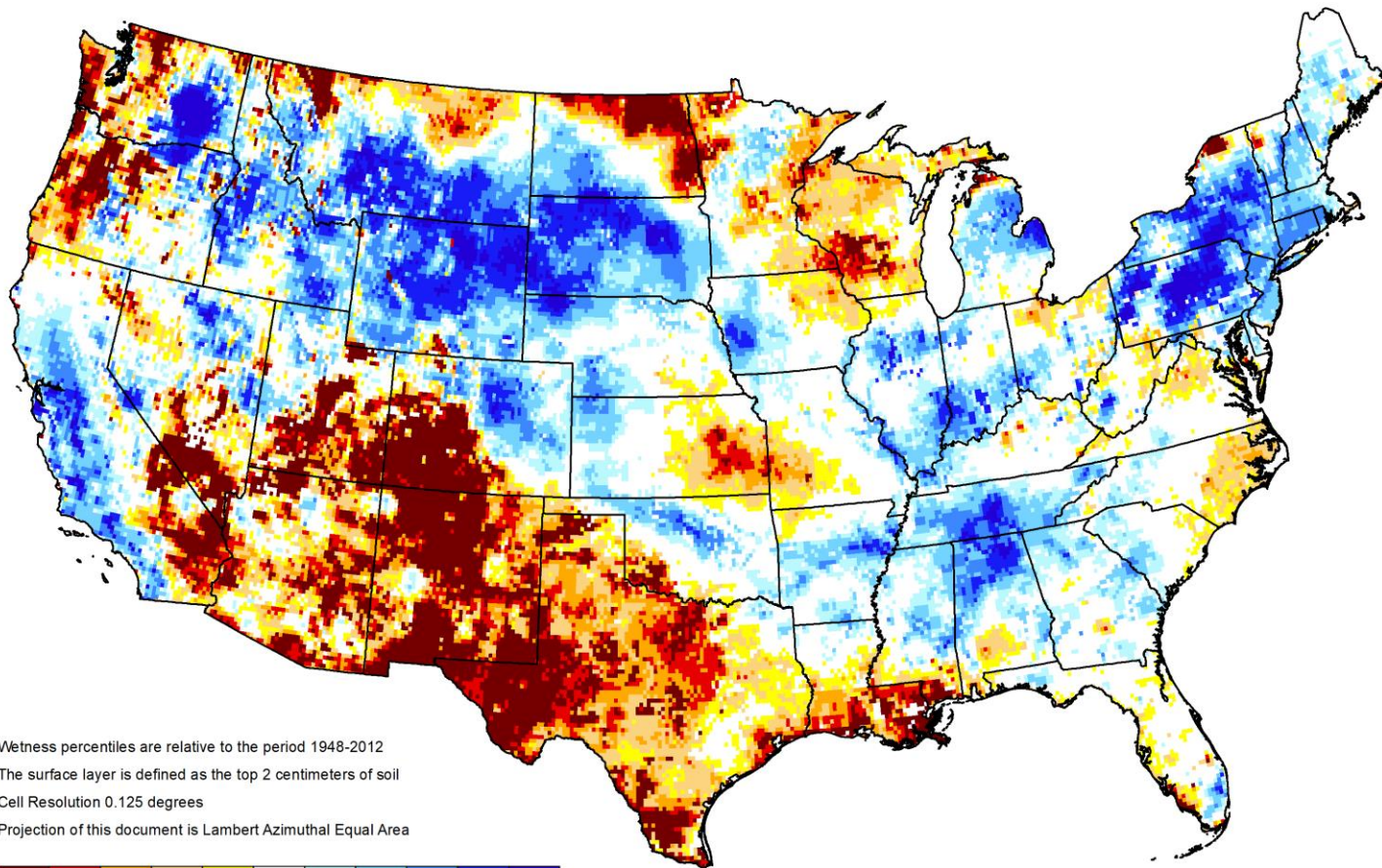


WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 11 AUG 2023

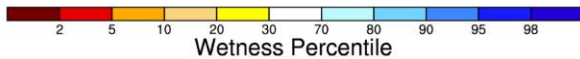


# GRACE-Based Surface Soil Moisture Drought Indicator

August 07, 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



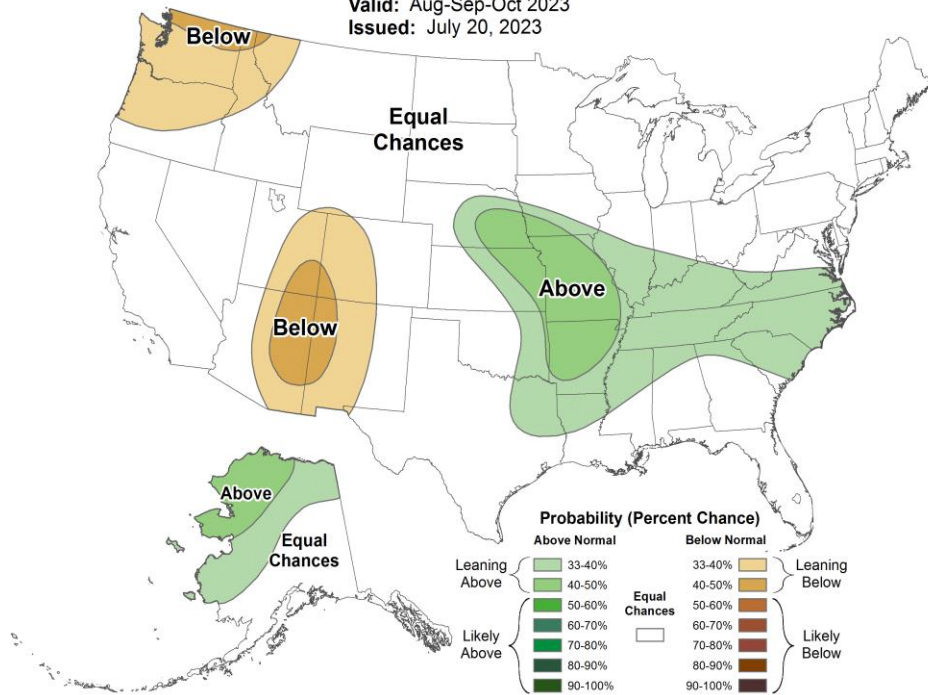
<https://nasagrace.unl.edu>



## Seasonal Precipitation Outlook



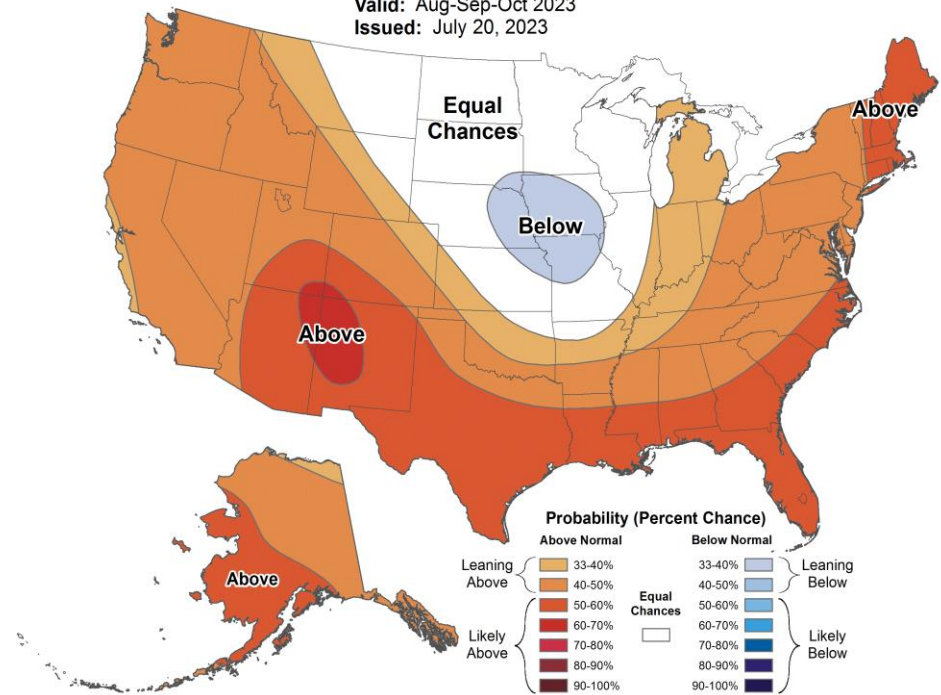
Valid: Aug-Sep-Oct 2023  
 Issued: July 20, 2023



## Seasonal Temperature Outlook

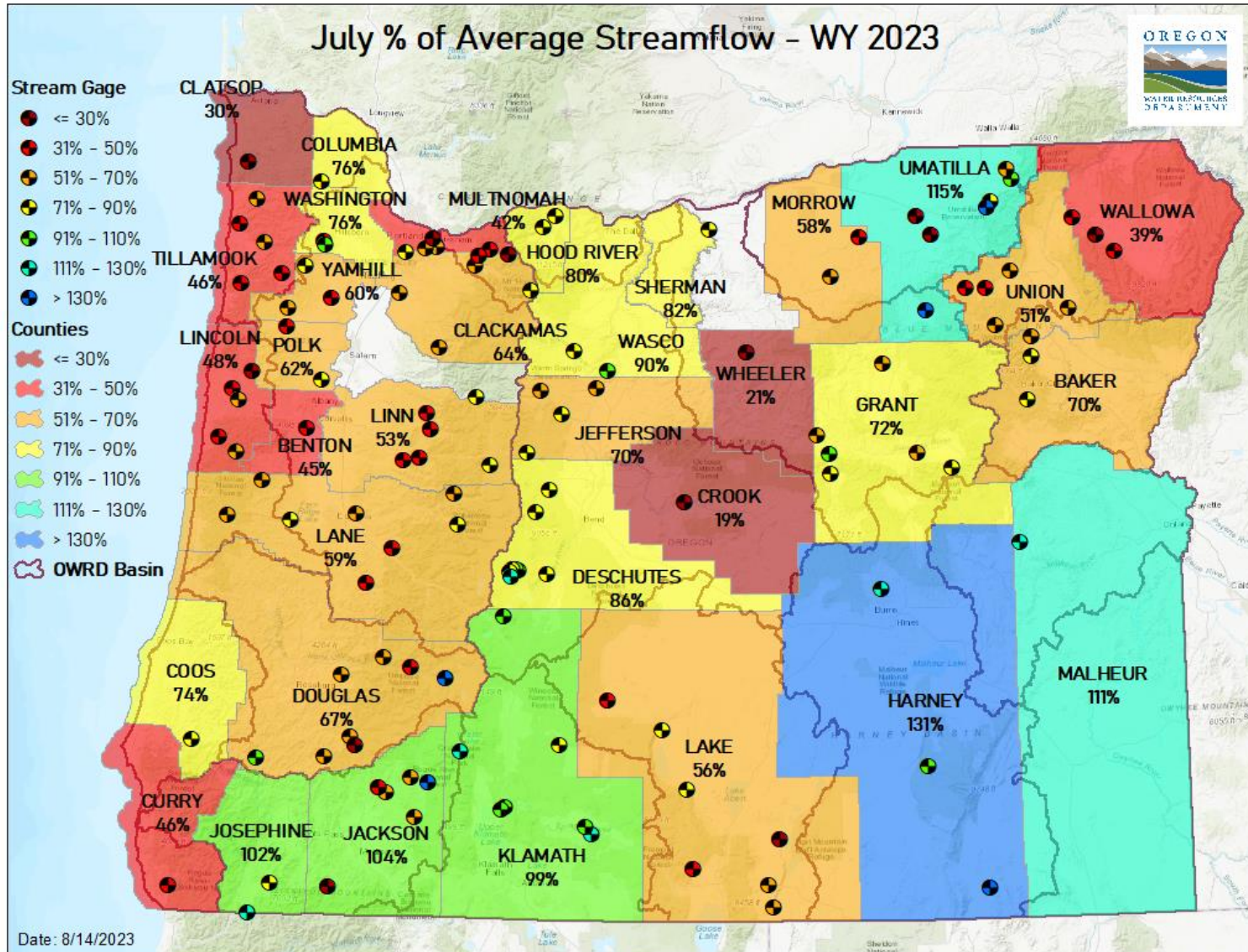


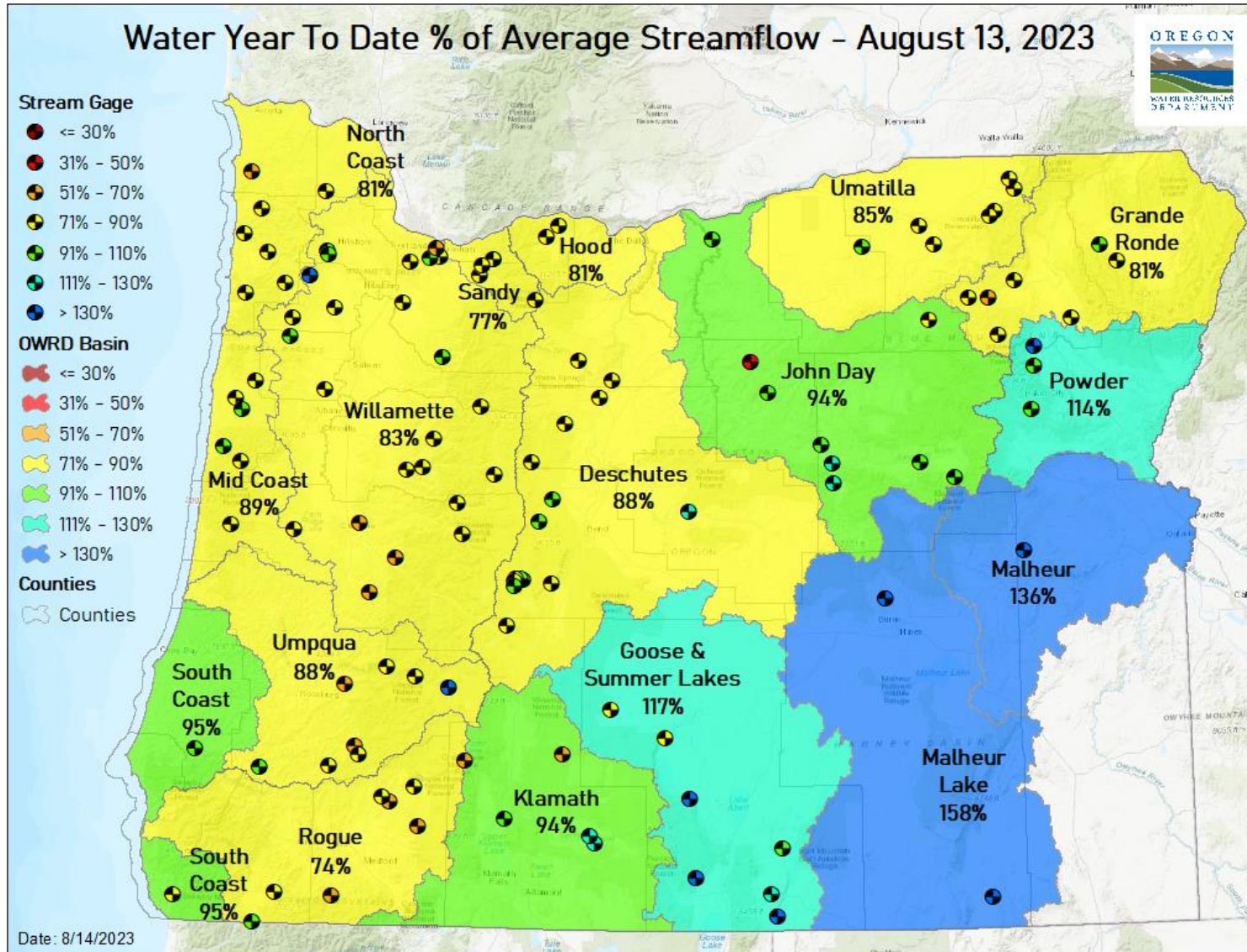
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STREAMFLOW

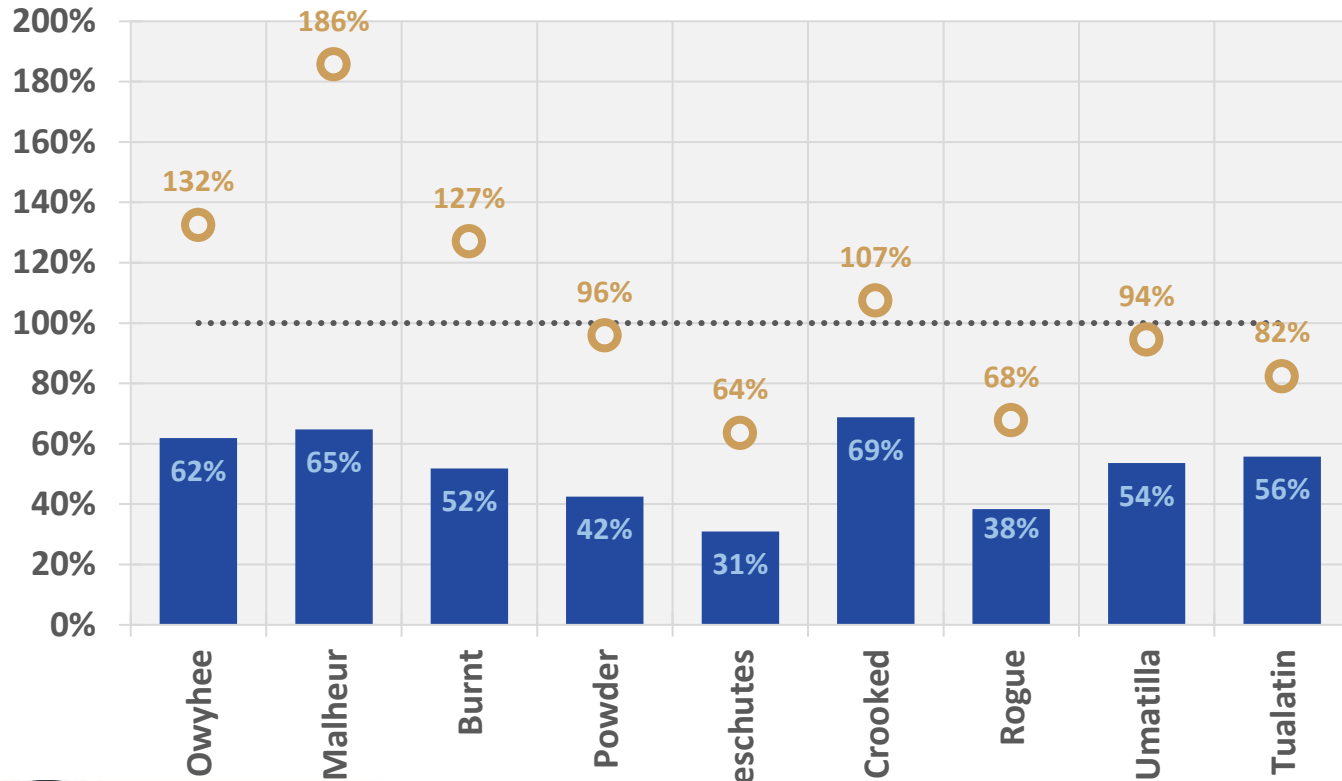
JULY







### August 13 Reservoir Storage



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.