

# Oregon Water Conditions Report



September 25<sup>th</sup>, 2023

## HIGHLIGHTS

[Twelve Oregon counties](#) have received [Executive Orders](#) issuing state drought declarations under ORS 536. Tillamook County has recently declared a local state of emergency due to drought conditions.

The [US Drought Monitor](#) indicates over 54% of Oregon is experiencing moderate (D1) to extreme (D3) drought conditions. Recent changes include degradation in drought conditions along the Cascades and parts of the coast, as well as the Willamette Valley. Areas of moderate drought in most of Grant County improved to abnormally dry (D0).

Extreme drought conditions were introduced due to long-term dryness over the past 12 months as indicated by the [Standardized Precipitation-Evapotranspiration Index](#). Severe drought (D2) conditions were expanded to parts of southwest Oregon and the Cascades in northern Oregon due to [elevated evaporative demand](#) and poor soil moisture.

[Precipitation over the past two weeks](#) was well below average outside of central and northeastern Oregon. Much of western Oregon received [less than 0.25 inches of precipitation](#), or up to [nearly an inch below typical amounts](#).

[Recent temperatures have been variable throughout the state](#), with much of central and eastern Oregon measuring near to below average. Elsewhere temperatures generally ranged from near to above average.

[Surface and root zone soil moisture profiles](#) throughout the state reflect similarities to [water year precipitation](#). Outside of southeastern Oregon, soil moisture conditions are measuring below to well below average.

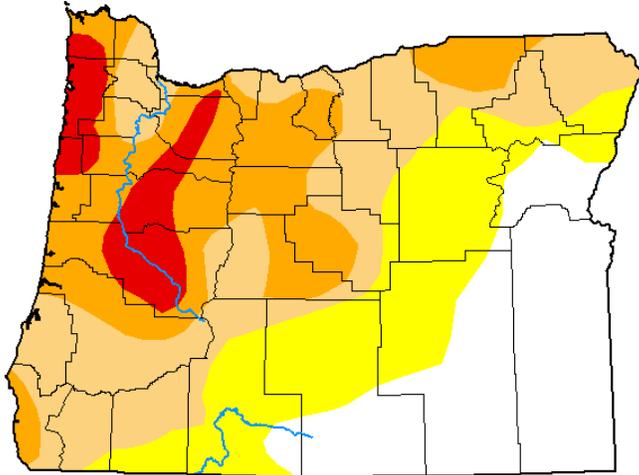
The [near-term climate outlook for the next 8- to 14-day period](#) indicates probabilities favoring below average precipitation statewide. Temperatures may vary, with above average conditions projected for western Oregon and near normal conditions elsewhere.

[Recent streamflows](#) vary between eastern and western Oregon. Streams in western Oregon and those draining the slopes of the Cascades are measuring well below average, including many record low flows. Flows in much of southcentral and eastern Oregon are measuring near to above average.

Reservoir storage contents in [USBR](#) projects in the Owyhee, Malheur, Burnt, Powder, Umatilla, and Crooked basins are measuring near to above average, indicating potential for beneficial carryover heading into next water year. Storage contents in other USBR (including [Klamath](#)) and [USACE](#) projects are measuring below average.

**U.S. Drought Monitor  
Oregon**

**September 19, 2023**  
(Released Thursday, Sep. 21, 2023)  
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	24.13	75.87	54.18	27.04	6.40	0.00
<b>Last Week</b> 09-12-2023	24.13	75.87	56.11	19.63	0.00	0.00
<b>3 Months Ago</b> 06-20-2023	23.16	76.84	39.93	7.02	0.00	0.00
<b>Start of Calendar Year</b> 01-03-2023	13.46	86.54	59.75	46.03	26.18	1.40
<b>Start of Water Year</b> 09-27-2022	0.42	99.58	68.05	52.42	30.73	1.40
<b>One Year Ago</b> 09-20-2022	11.67	88.33	68.05	52.22	30.73	1.40

Intensity:

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

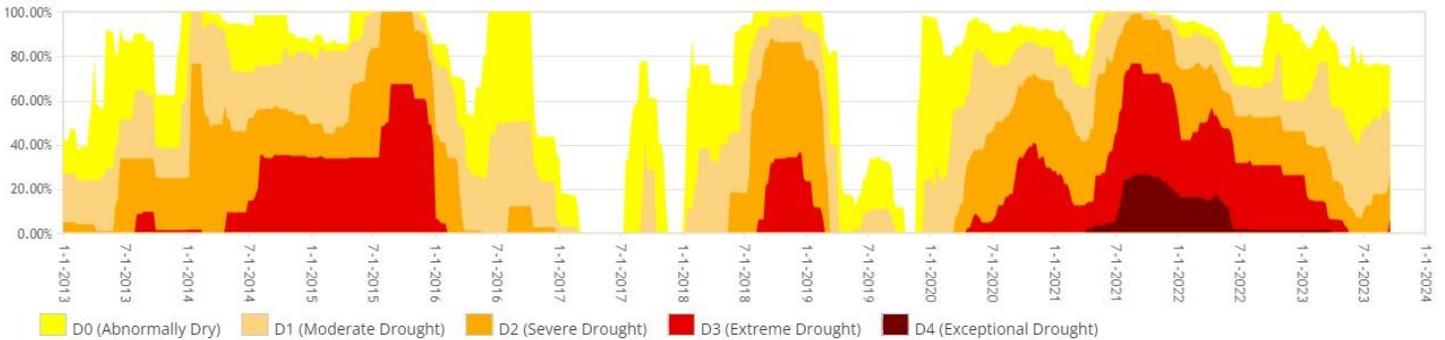
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:  
Richard Heim  
NCEI/NOAA

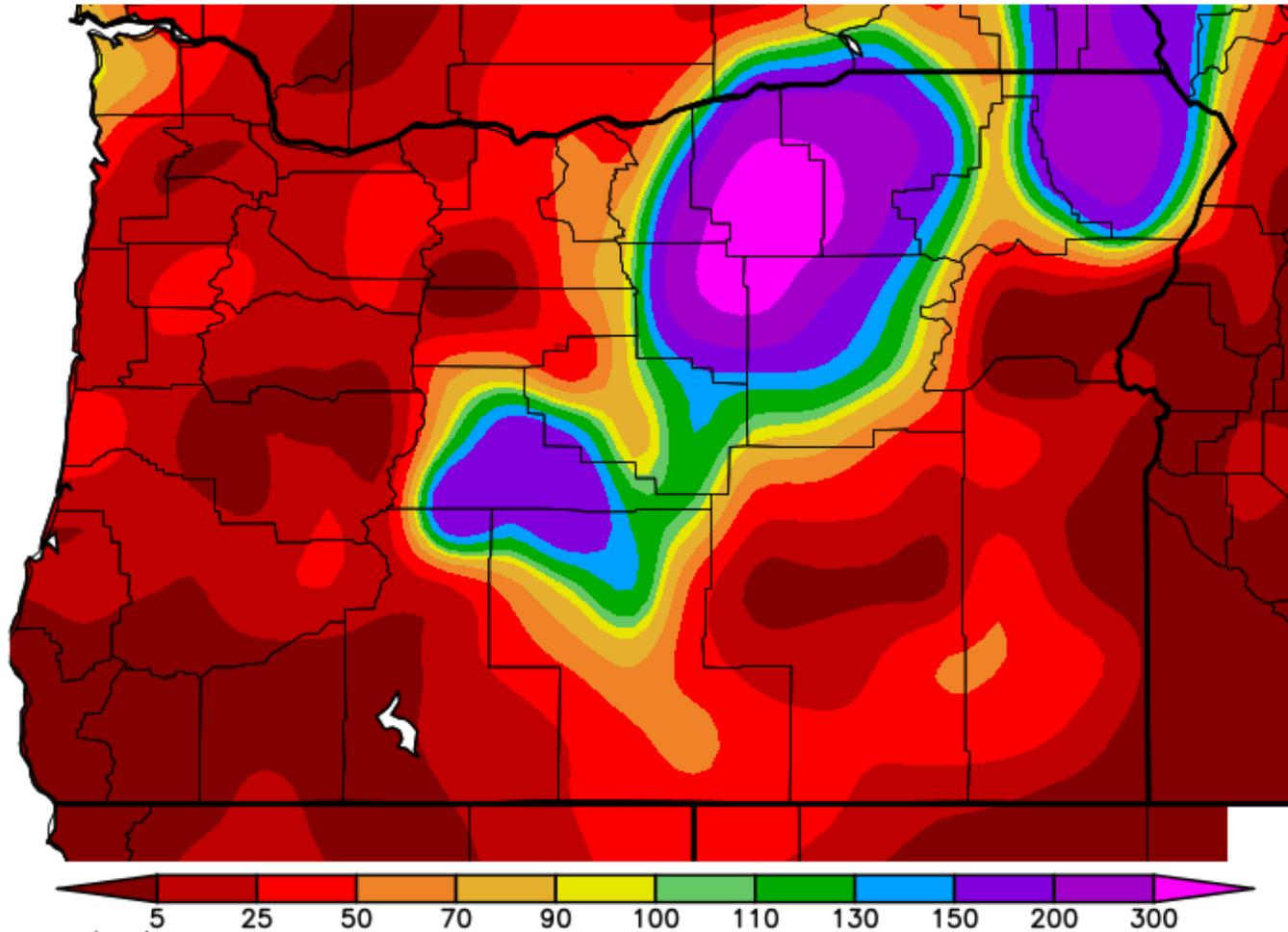


[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

Oregon Percent Area in U.S. Drought Monitor Categories

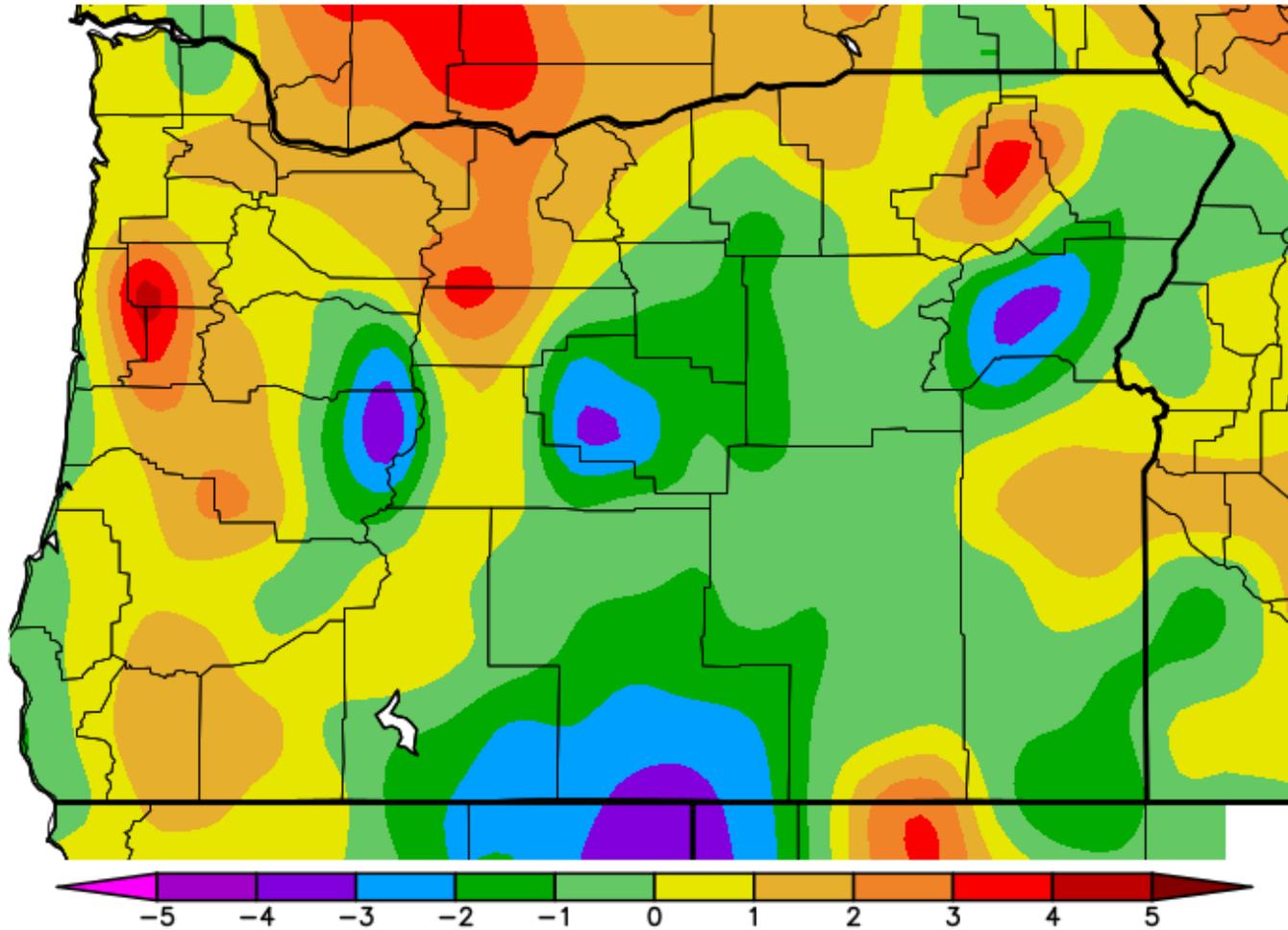


Percent of Average Precipitation (%)  
9/11/2023 – 9/24/2023



Generated 9/25/2023 at WRCC using provisional data.  
NOAA Regional Climate Centers

Ave. Temperature dep from Ave (deg F)  
9/11/2023 - 9/24/2023

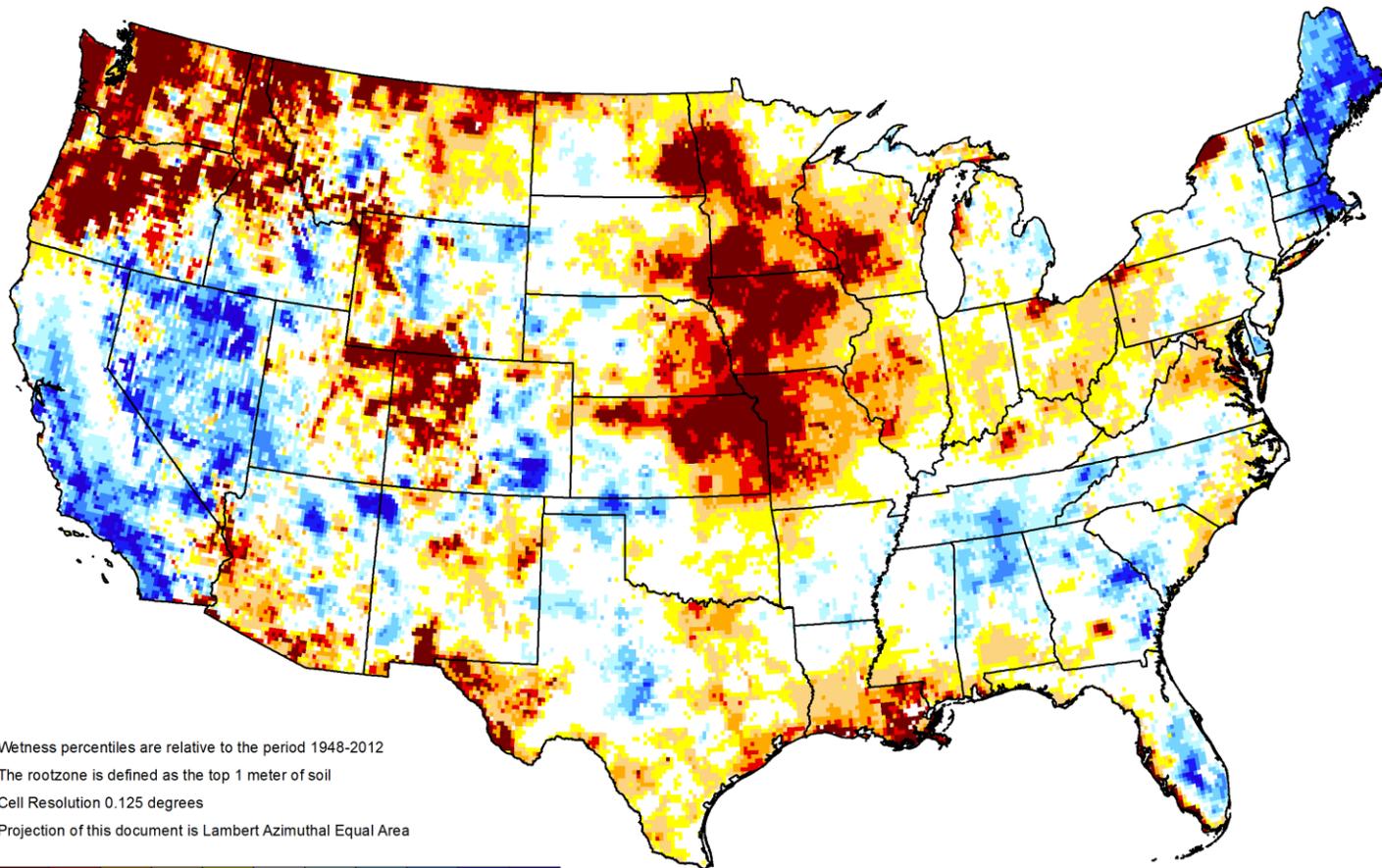


Generated 9/25/2023 at WRCC using provisional data.  
NOAA Regional Climate Centers

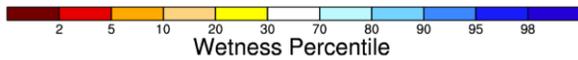


# GRACE-Based Root Zone Soil Moisture Drought Indicator

September 18, 2023



Wetness percentiles are relative to the period 1948-2012  
The rootzone is defined as the top 1 meter of soil  
Cell Resolution 0.125 degrees  
Projection of this document is Lambert Azimuthal Equal Area



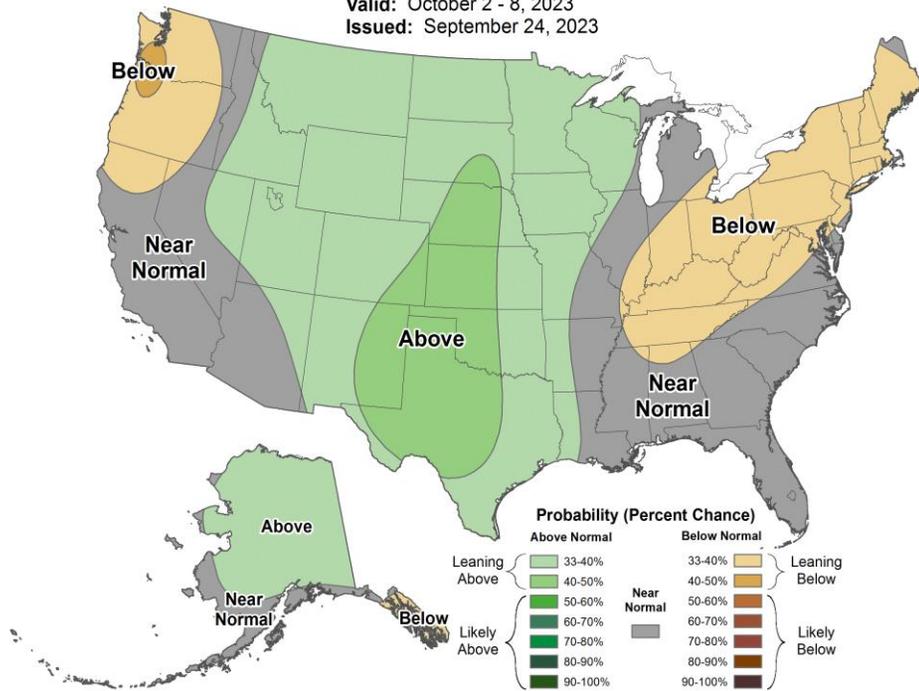
<https://nasagrace.unl.edu>



## 8-14 Day Precipitation Outlook



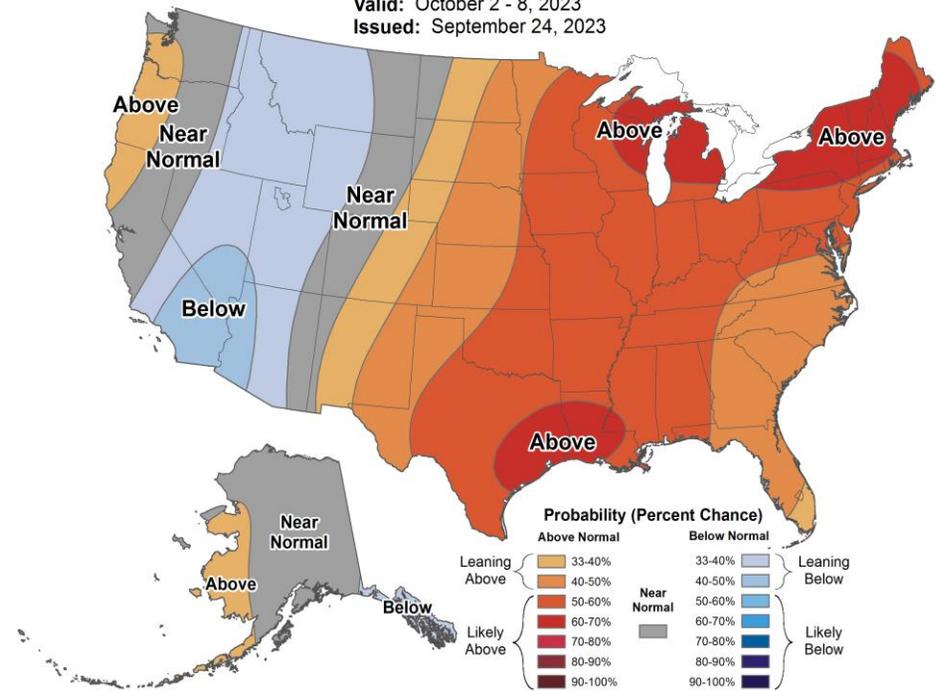
Valid: October 2 - 8, 2023  
 Issued: September 24, 2023



## 8-14 Day Temperature Outlook

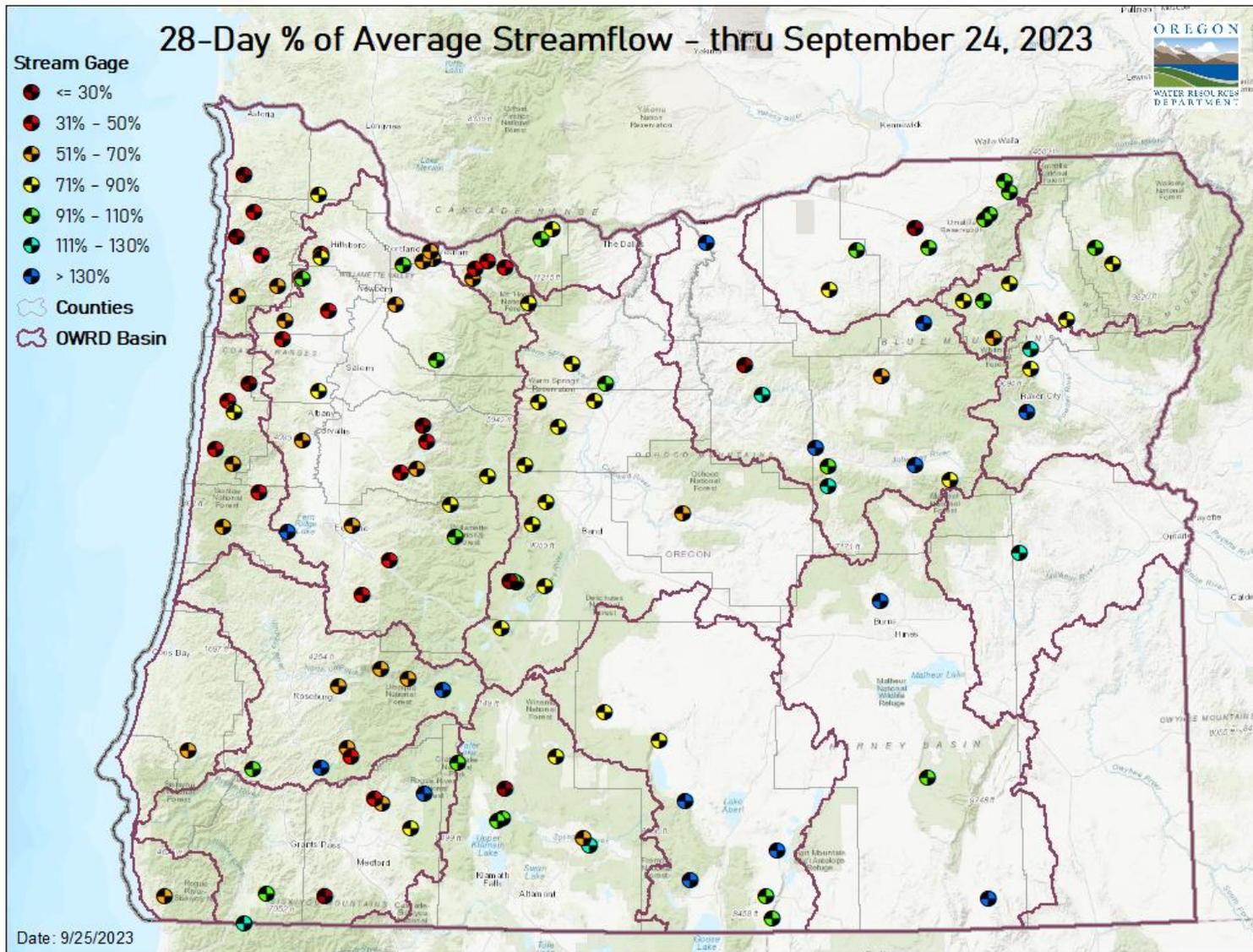


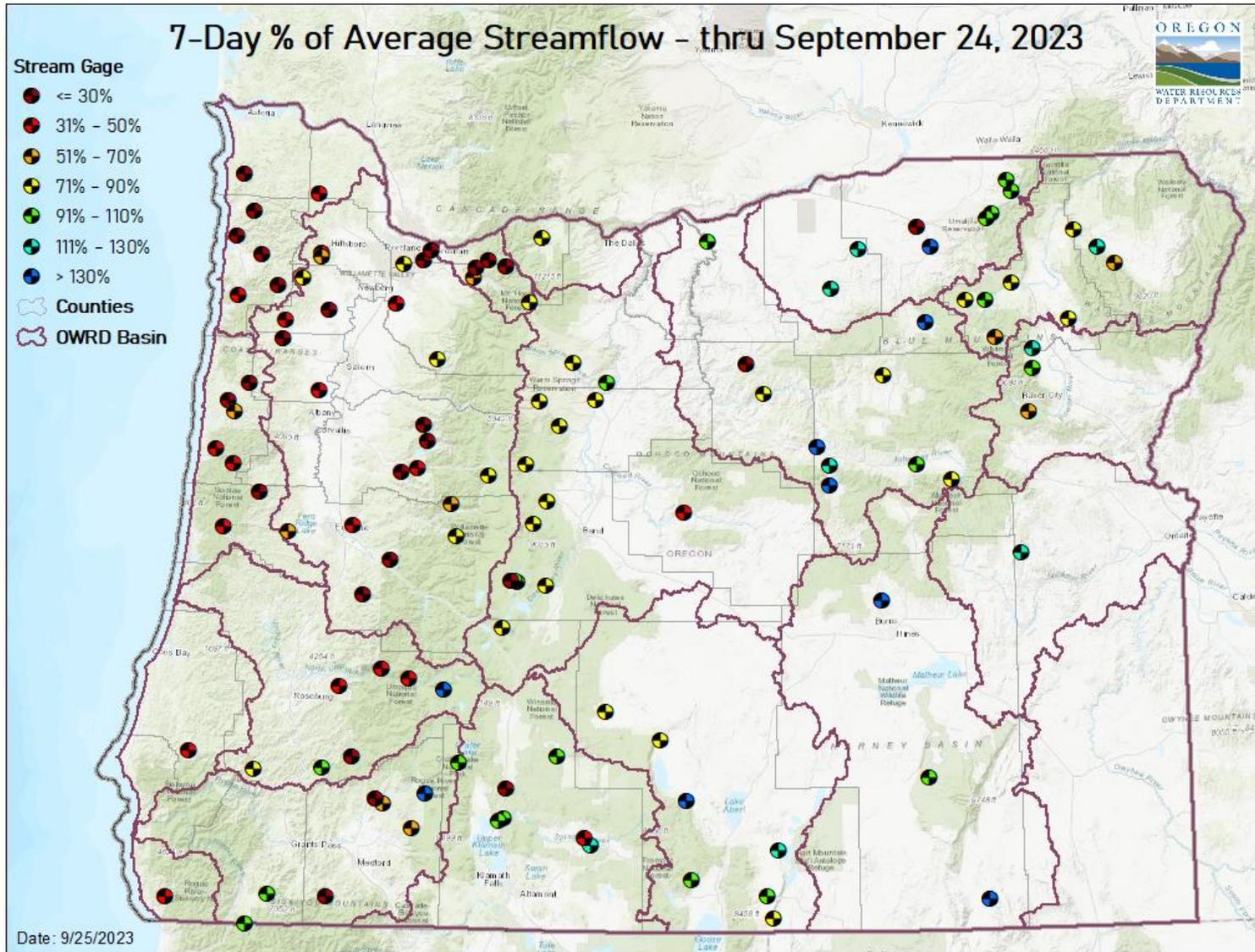
Valid: October 2 - 8, 2023  
 Issued: September 24, 2023



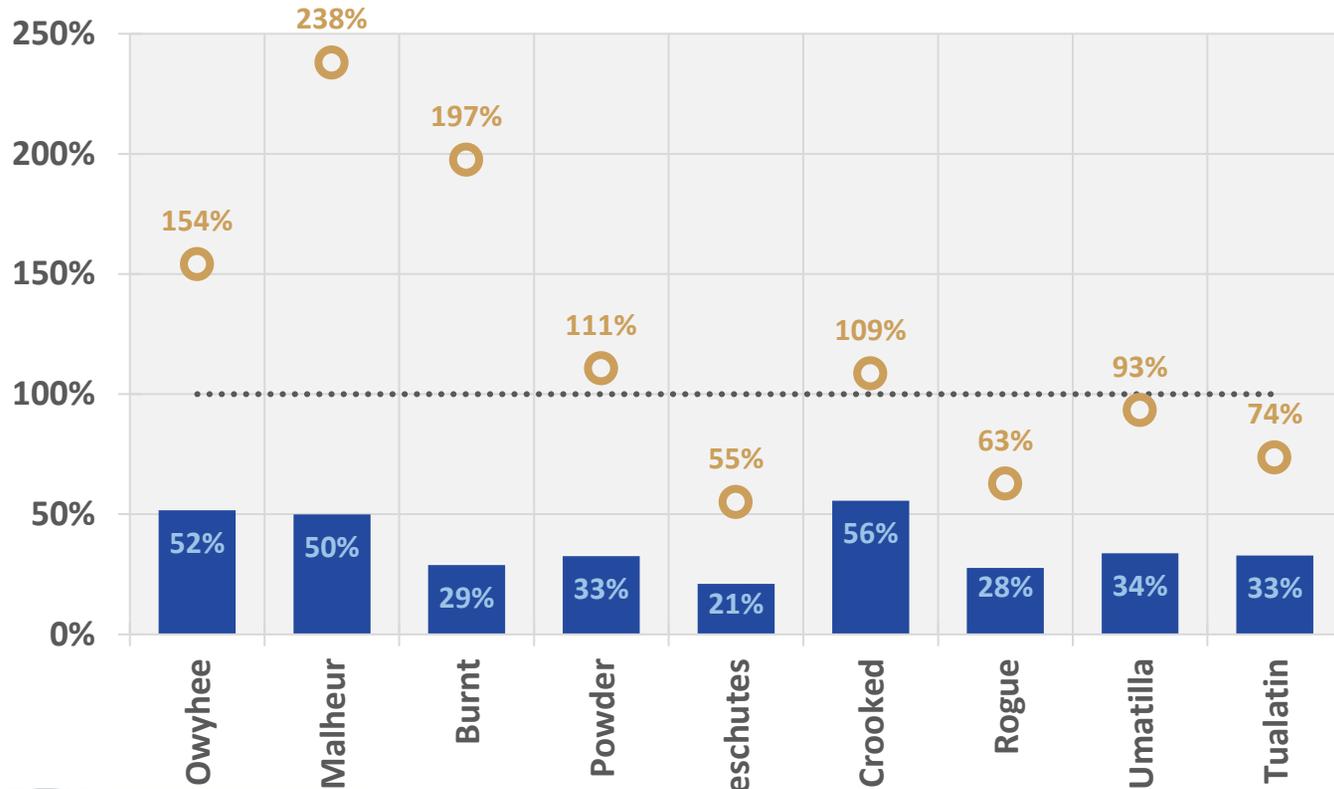
STREAMFLOW

28-DAY





### September 24 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.