

Oregon Water Conditions Report



October 11th, 2023

HIGHLIGHTS

Thus far, [twelve Oregon counties](#) have received [Executive Orders](#) issuing state drought declarations under ORS 536. Additionally, Morrow County has recently requested a drought declaration.

According to the [US Drought Monitor](#), over 53% of Oregon is experiencing moderate (D1) to extreme (D3) drought conditions. Drought conditions in the Willamette Valley have worsened due to long term dryness as indicated by the Standardized Precipitation Evapotranspiration Index. There have also been minor improvements in drought conditions over recent weeks.

[Precipitation in September](#) was well above average for most of the state with some areas in western and central Oregon receiving 150-300% of average. Western Oregon received 1.75 - 4.75 inches with areas in the southern coast region receiving over 6.25 inches. Parts of eastern Oregon were well below average with some areas receiving 5 - 70% of average.

[September temperatures](#) were mostly at or below average with portions of western and southern Oregon being 1° - 4° F cooler than the long-term average. Additionally, some portions of the state, mainly eastern Oregon, were above average with temperatures ranging from 1° - 4° F above normal.

[Surface and root zone soil moisture profiles](#) continue to show some improvement in response to recent precipitation across the state. However, some portions of central and eastern Oregon continue to be significantly dry. Over the past few months, shallow groundwater moisture has shown little improvement across the state.

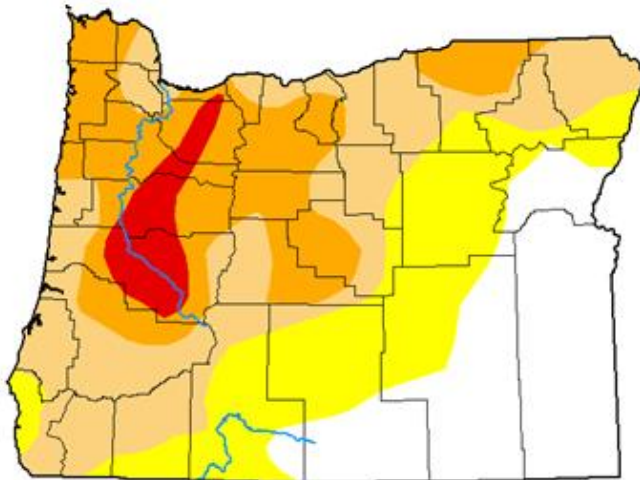
The [three-month seasonal climate](#) outlook for October through December indicates probabilities favoring above average temperatures statewide and below average precipitation for most of the state excluding parts of southeast Oregon. The [near-term outlook](#) (8-14 days) favors below average precipitation and above average temperatures statewide.

September streamflows varied across much of the state and generally followed trends in precipitation and surface soil moisture. Flows in much of western Oregon generally measured near to well below average with some exception in southwest Oregon. Whereas flows across central and eastern Oregon measured near to well above average.

Reservoir storage contents in many basins continue to measure near to above average. However, projects in the Deschutes, Rogue, and Tualatin basins are measuring well below average. See [USBR](#) (including [Klamath](#)) and [USACE](#) teacup diagrams for more information.

U.S. Drought Monitor Oregon

October 3, 2023
(Released Thursday, Oct. 5, 2023)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

| | None | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
|---|-------|-------|-------|-------|-------|------|
| Current | 24.13 | 75.87 | 53.41 | 25.01 | 4.32 | 0.00 |
| Last Week 09-26-2023 | 24.13 | 75.87 | 54.18 | 27.06 | 6.40 | 0.00 |
| 3 Months Ago 07-04-2023 | 23.75 | 76.25 | 46.80 | 10.01 | 0.00 | 0.00 |
| Start of Calendar Year 01-03-2023 | 13.45 | 86.54 | 59.75 | 46.03 | 25.18 | 1.40 |
| Start of Water Year 09-26-2022 | 24.13 | 75.87 | 54.18 | 27.06 | 6.40 | 0.00 |
| One Year Ago 10-04-2022 | 0.44 | 99.56 | 66.78 | 52.50 | 30.73 | 1.40 |

Intensity

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

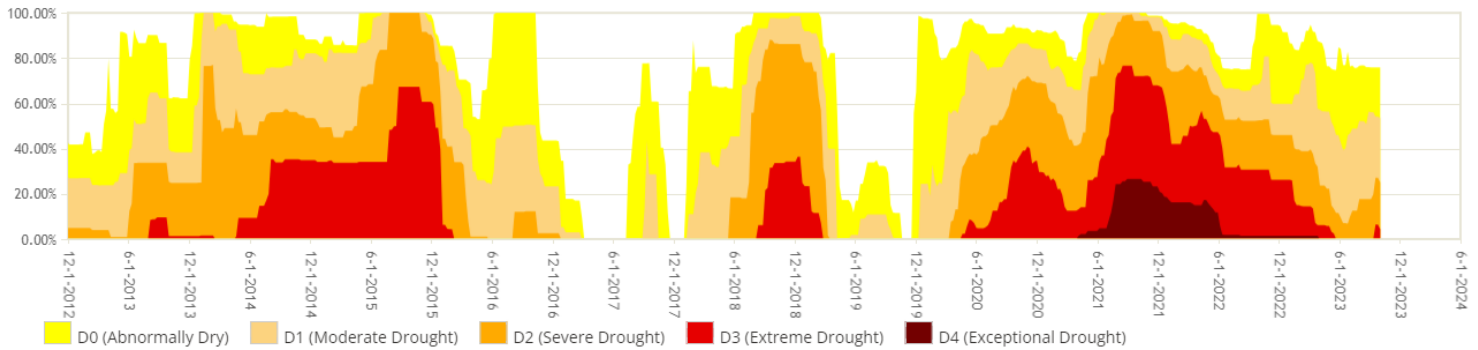
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:
Brad Pugh
CPC/NOAA



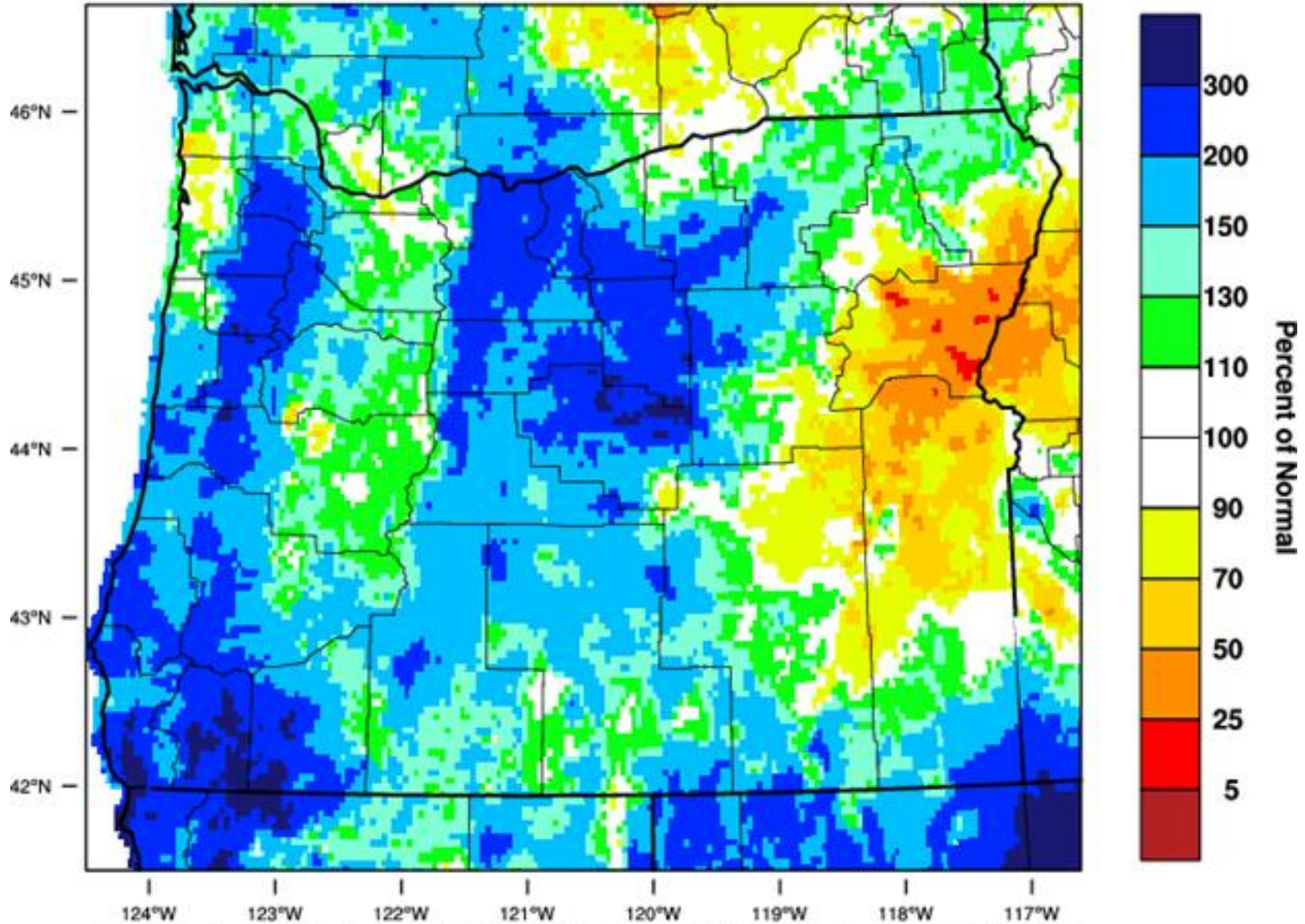
droughtmonitor.unl.edu

Oregon Percent Area in U.S. Drought Monitor Categories



Oregon - Precipitation

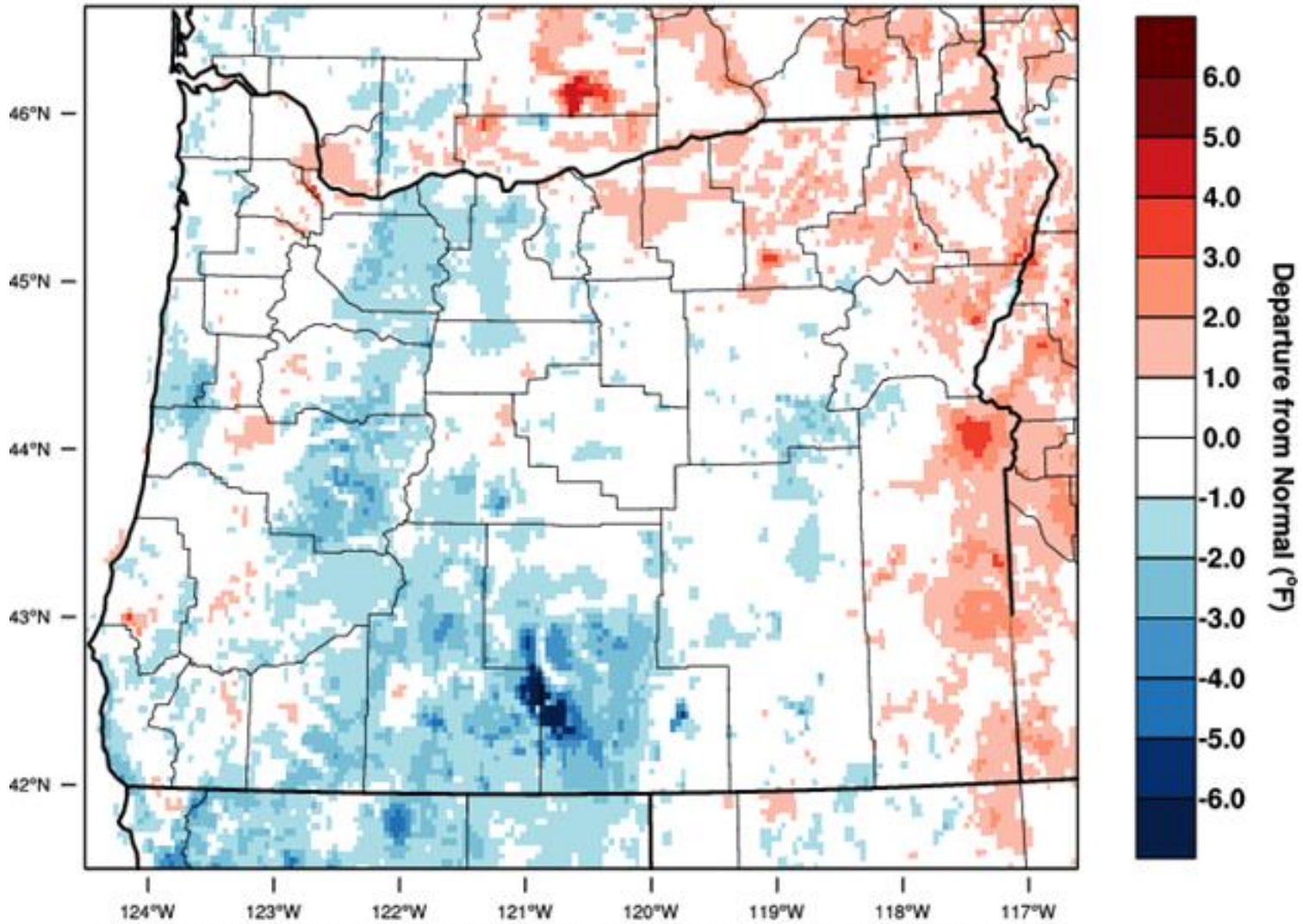
September 2023 Percent of 1981-2010 Normal



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 5 OCT 2023

Oregon - Mean Temperature

September 2023 Departure from 1981-2010 Normal

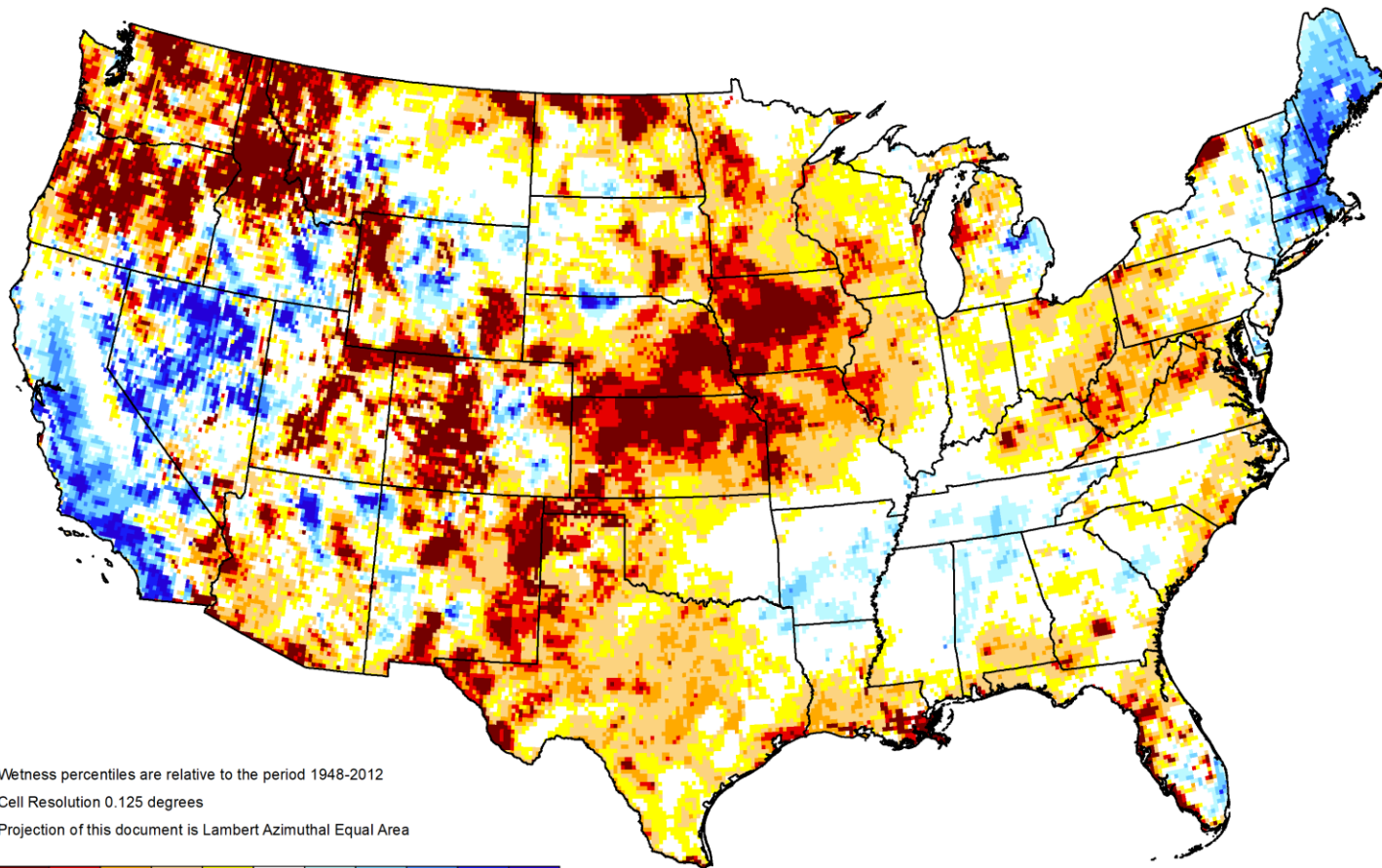


WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 5 OCT 2023

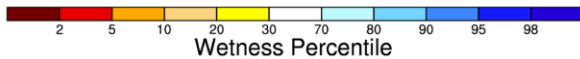


GRACE-Based Shallow Groundwater Drought Indicator

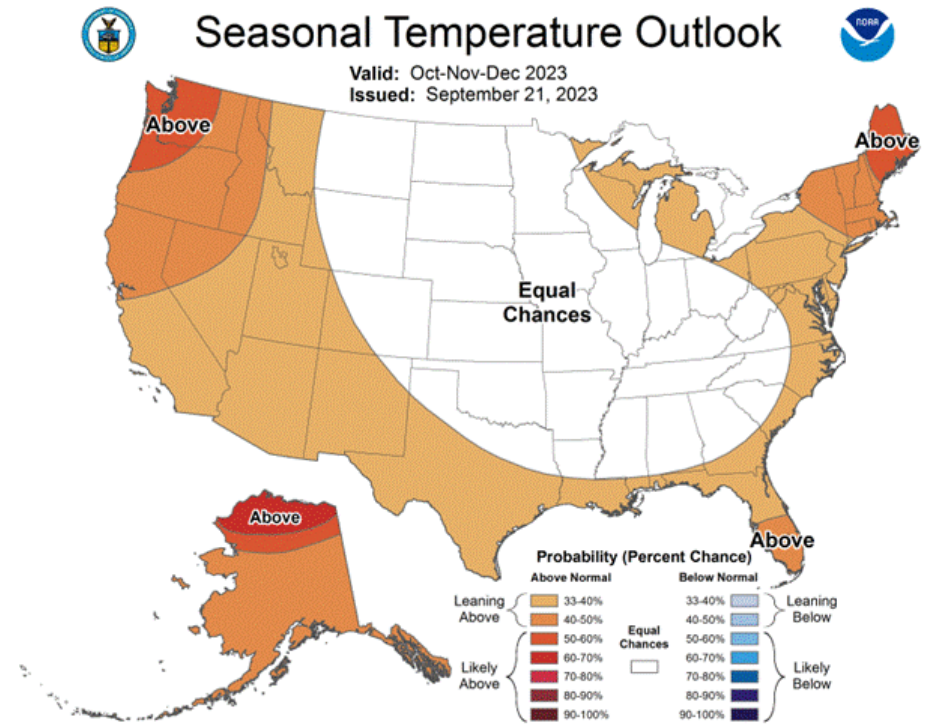
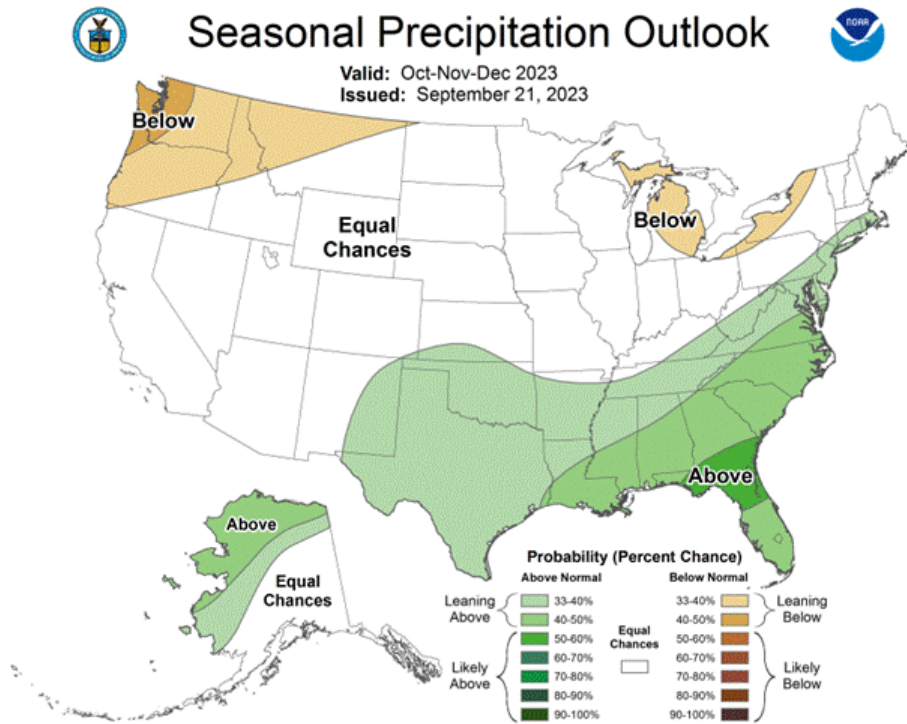
October 09, 2023



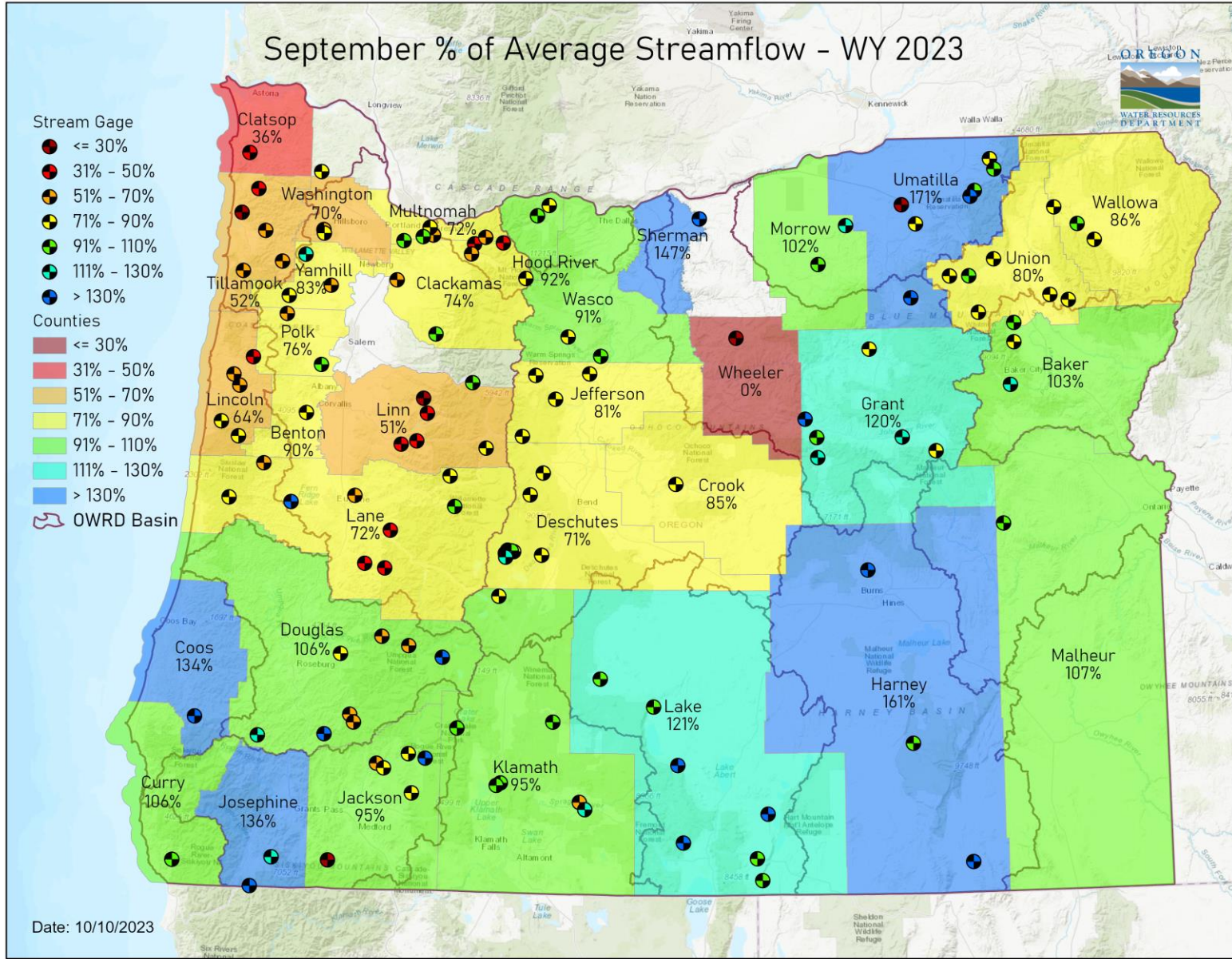
Wetness percentiles are relative to the period 1948-2012
Cell Resolution 0.125 degrees
Projection of this document is Lambert Azimuthal Equal Area



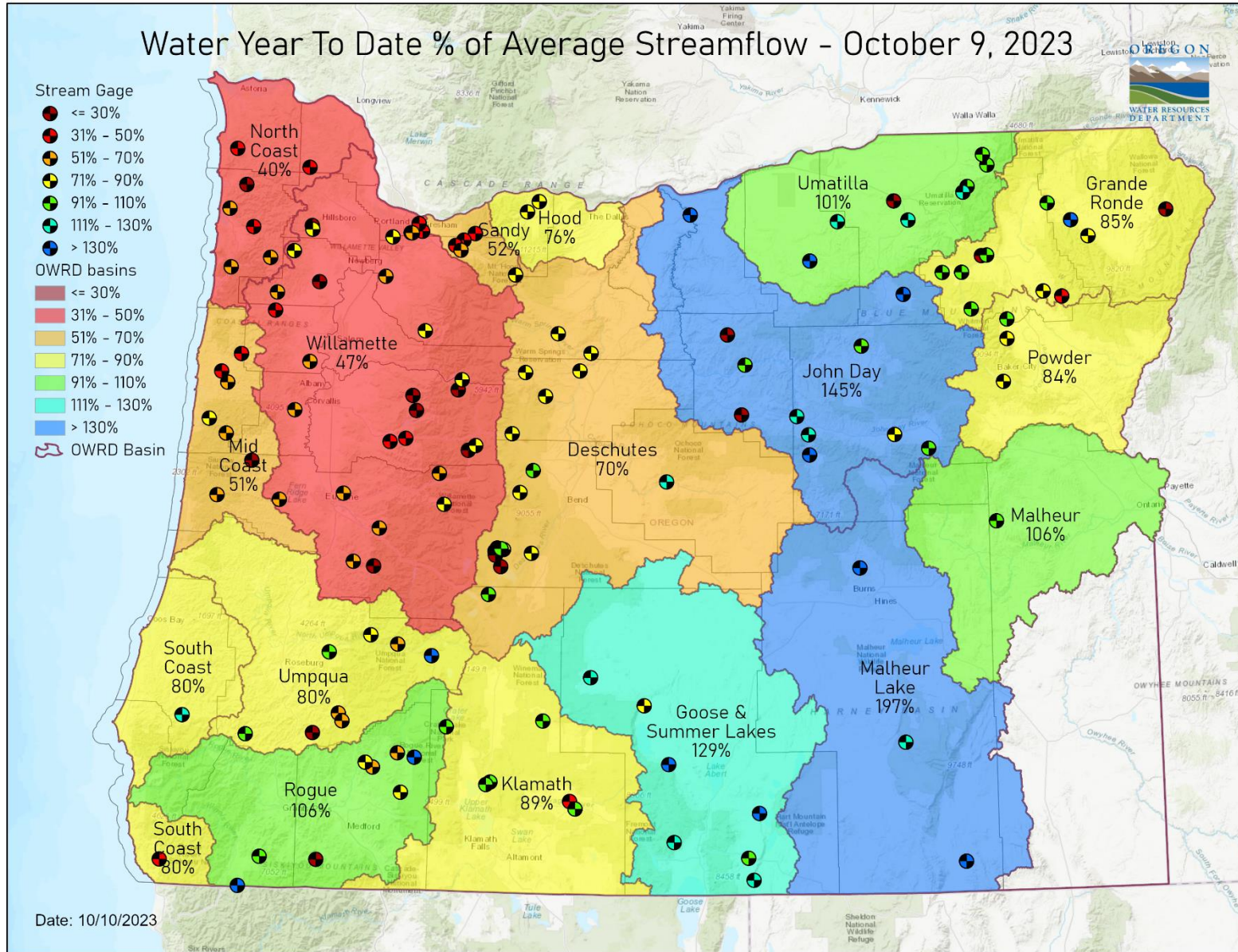
<https://nasagrace.unl.edu>



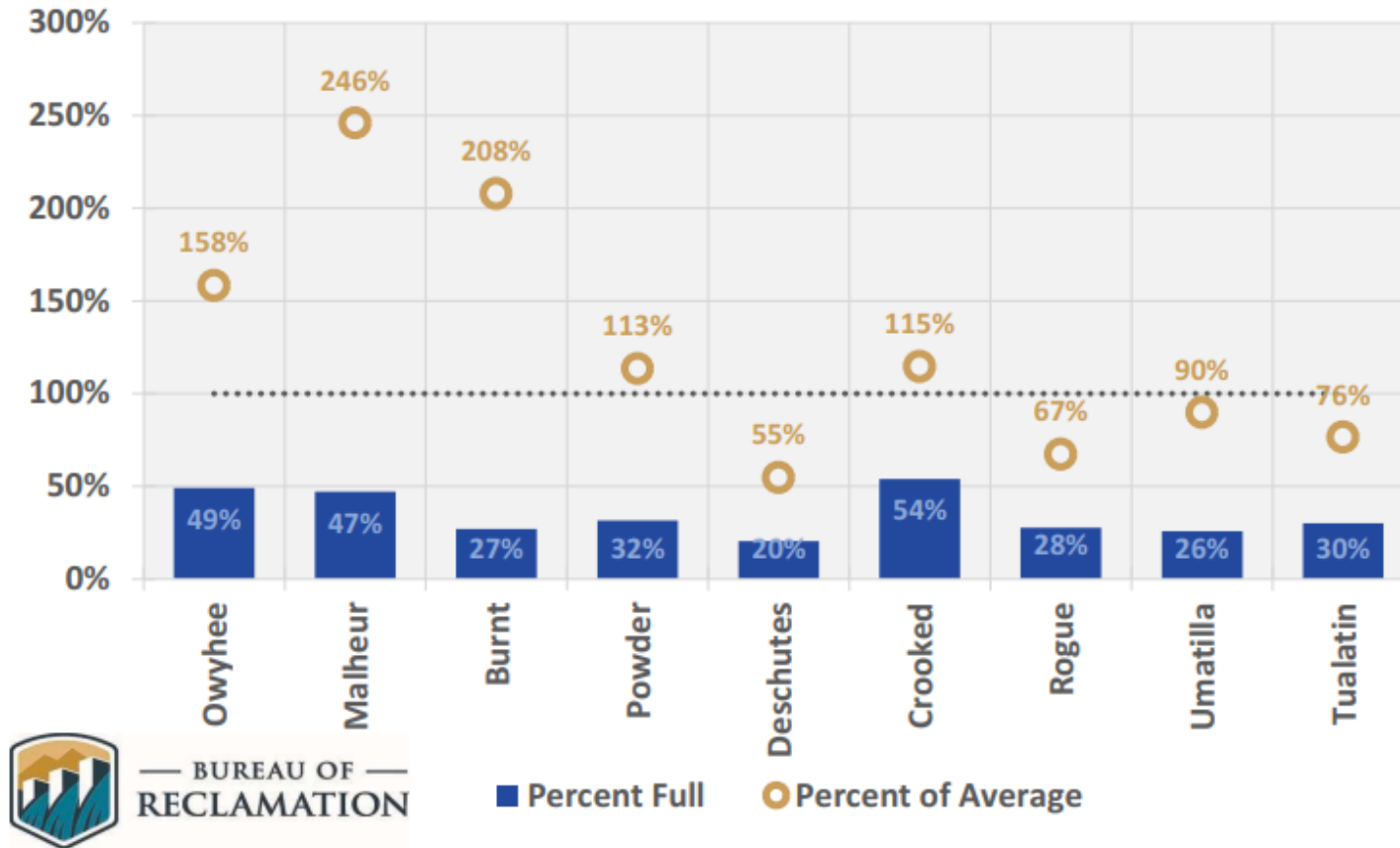
STREAMFLOW
SEPTEMBER



STREAMFLOW
WATER YEAR



October 9 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.