Oregon Water Conditions Report

September 9th, 2024

HIGHLIGHTS

Thus far in 2024, there is one Oregon county with a state drought declaration under ORS 536. Lake County has also submitted a request for a state drought declaration.

According to the US Drought Monitor, over 54% of Oregon is experiencing moderate (D1) to severe drought (D2) conditions. In the past two weeks, moderate and severe drought coverage has diminished across the state.

Precipitation in August was generally below normal east of the Cascades and above normal west of the Cascades. In southwestern Oregon and the northern Cascades, precipitation was well above normal. Parts of north-central and eastern Oregon received well below normal precipitation in August. Over the last two weeks, the entire state received well below normal precipitation.

August temperatures were generally near normal for much of the state. In parts of northeastern and southwestern Oregon, temperatures were generally above and below normal, respectively. Over the last two weeks, temperatures have been above normal for most of the state ranging from 2°F to 8°F above normal.

Recent soil moisture indicators show a decrease in soil moisture across much of western Oregon as well northeastern parts of the state.

The seasonal climate outlook indicates above normal temperatures are likely for eastern portions of the state with equal chances of above or below normal temperatures for the rest of the state. The outlook also indicates above normal precipitation is likely in northwestern parts of the state with equal chances of above or below normal precipitation in the rest of the state.

Streamflow in August was near to above normal in most of western Oregon. Across much of eastern Oregon, streamflow generally ranged from well below normal to normal. Recent streamflow conditions were highly variable ranging from well below to well above normal across the state.

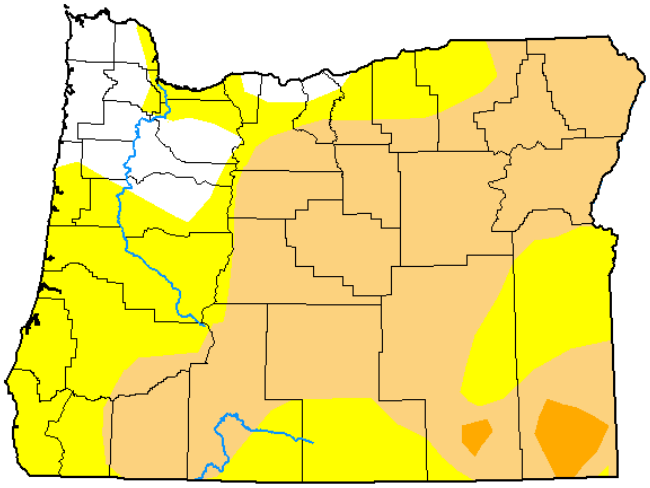
Reservoir storage in many basins is currently near to above average. However, projects in the Deschutes, Powder, and Rogue basins are measuring below average. See USBR (including Klamath) and USACE teacup diagrams for more information.

Significant wildfire potential over the next seven days ranges from low to elevated throughout the Pacific Northwest. Most of the Pacific Northwest is projected to have a low fire risk by the end of the week.

DROUGHT CONDITIONS

U.S. Drought Monitor

Oregon



September 3, 2024

(Released Thursday, Sep. 5, 2024)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	8.98	91.02	54.02	1.80	0.00	0.00
Last Week *08-27-2024*	3.06	96.94	66.12	8.40	0.00	0.00
3 Months Ago *06-04-2024*	87.71	12.29	0.00	0.00	0.00	0.00
Start of Calendar Year *01-02-2024*	47.04	52.96	18.85	3.12	0.00	0.00
Start of Water Year *09-26-2023*	24.13	75.87	54.18	27.06	6.40	0.00
One Year Ago *09-05-2023*	24.13	75.87	56.11	17.70	0.00	0.00

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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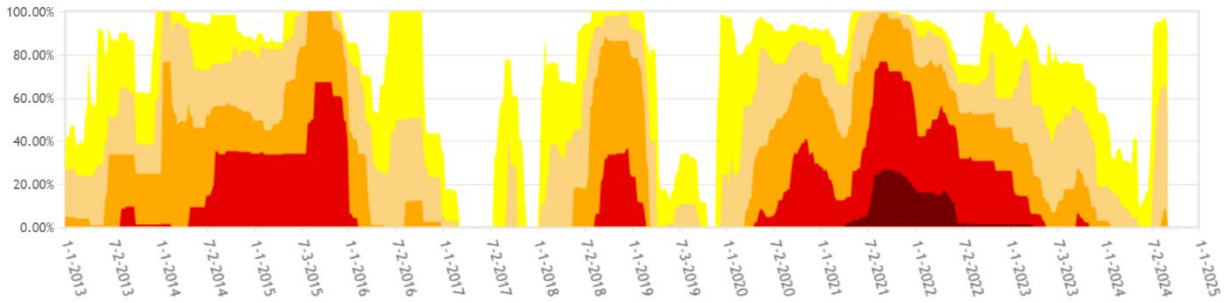
Lindsay Johnson
National Drought Mitigation Center

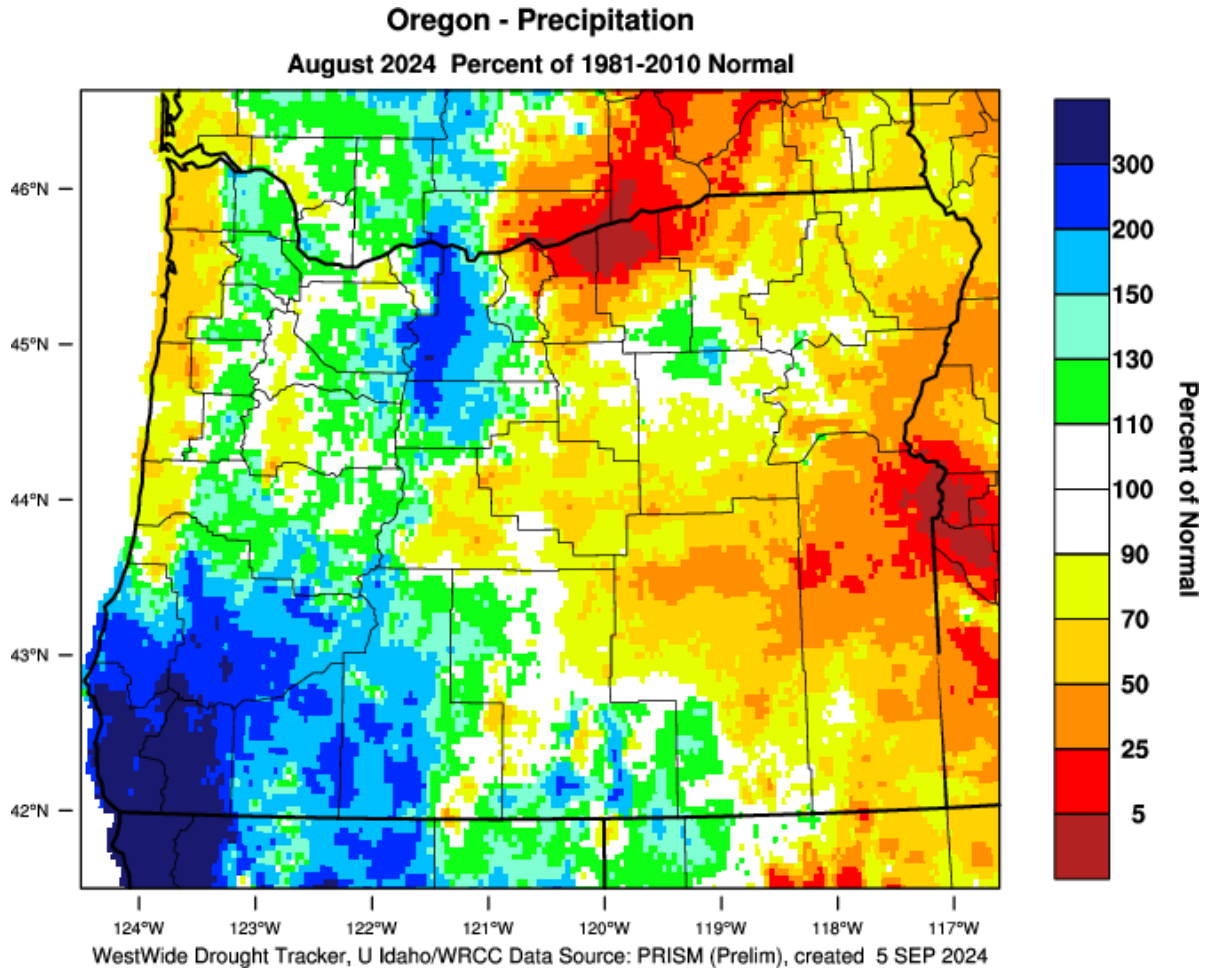
droughtmonitor.unl.edu

Oregon Percent Area in U.S. Drought Monitor Categories

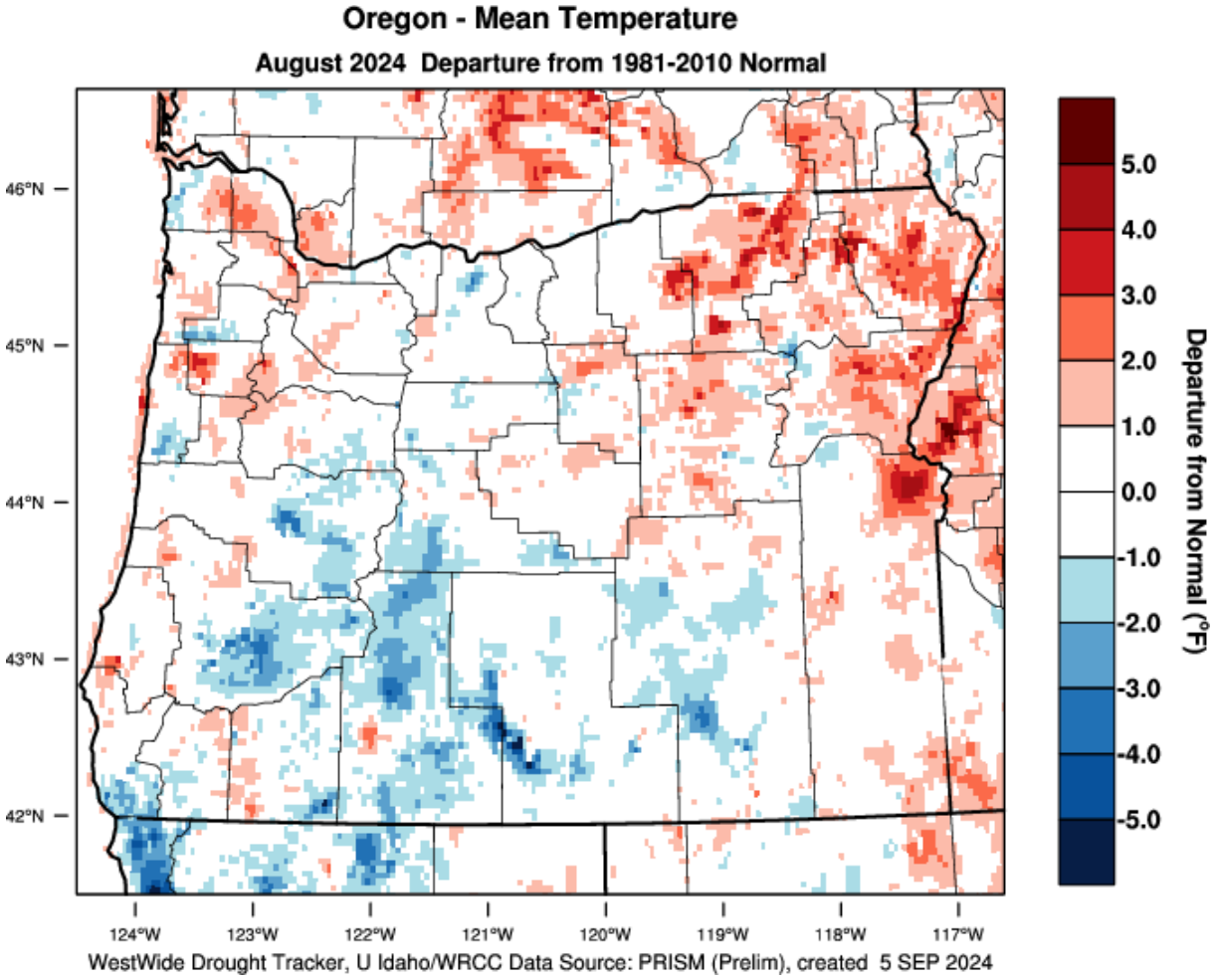


From the U.S. Drought Monitor website, https://droughtmonitor.unl.edu/DmData/TimeSeries.aspx, 9-9-2024

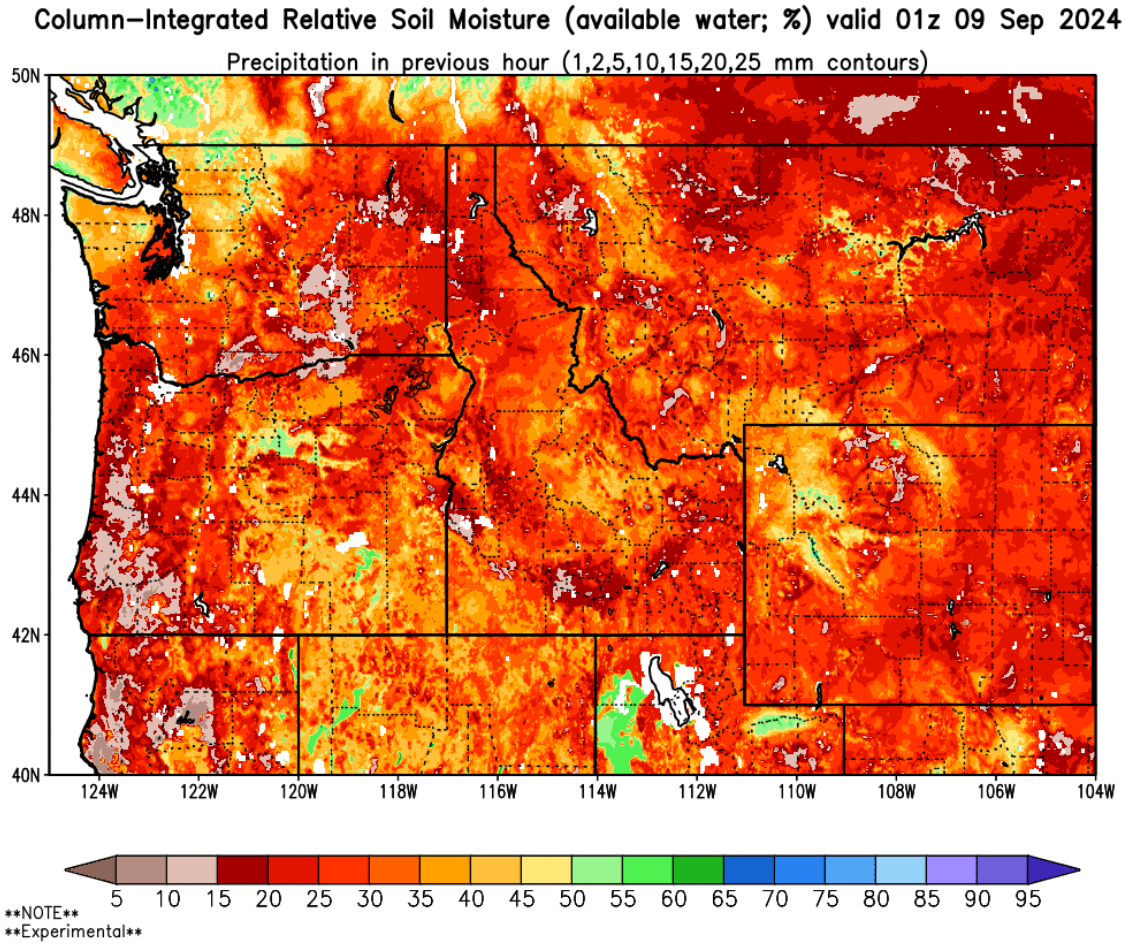
PRECIPITATION



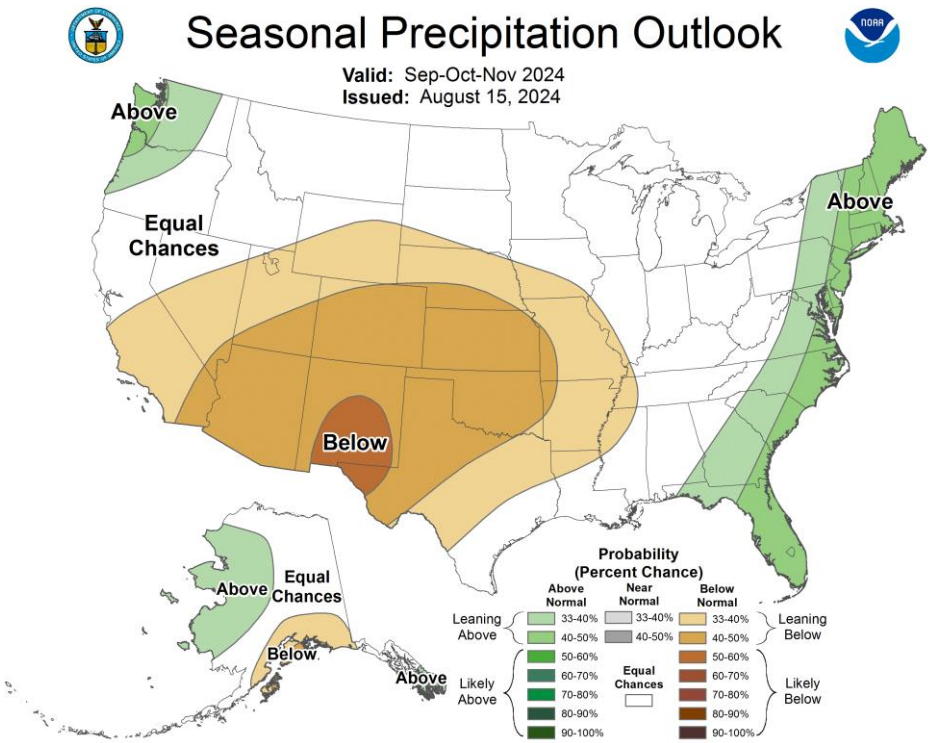
TEMPERATURE

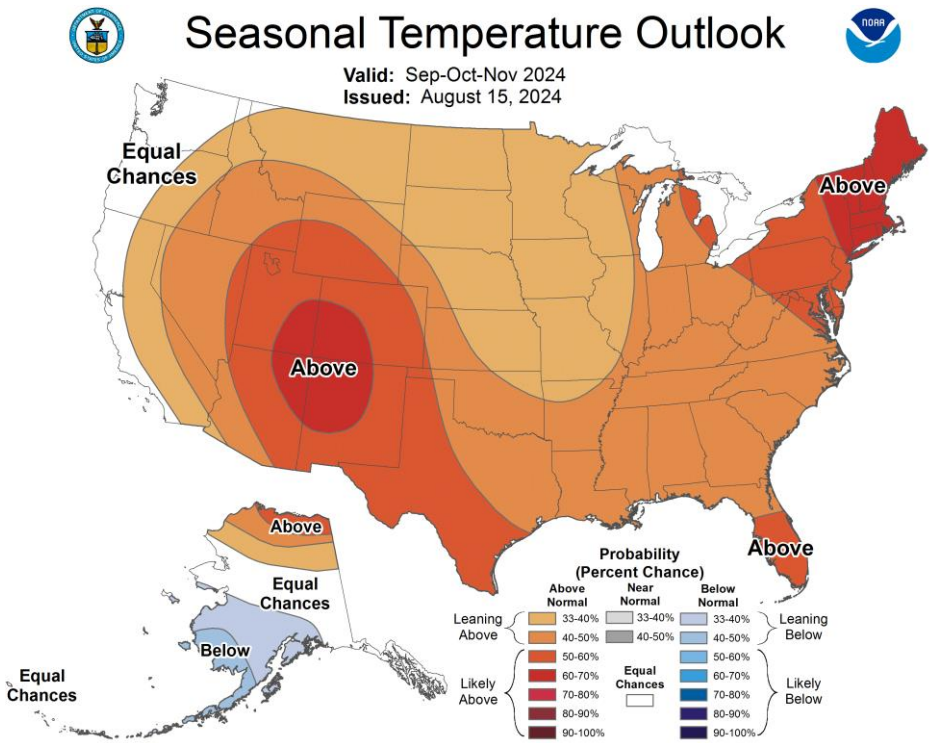


SOIL MOISTURE

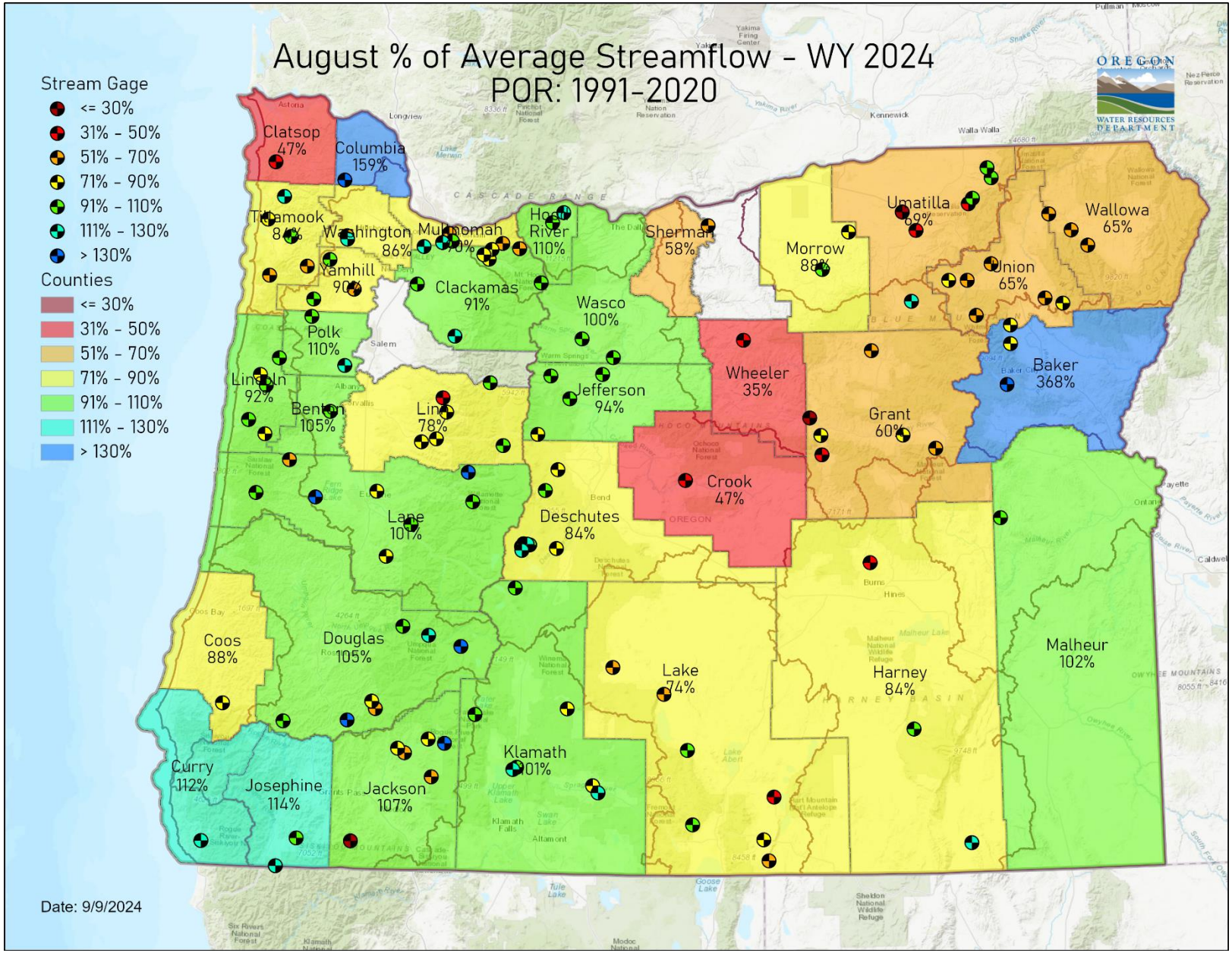


CLIMATE OUTLOOK

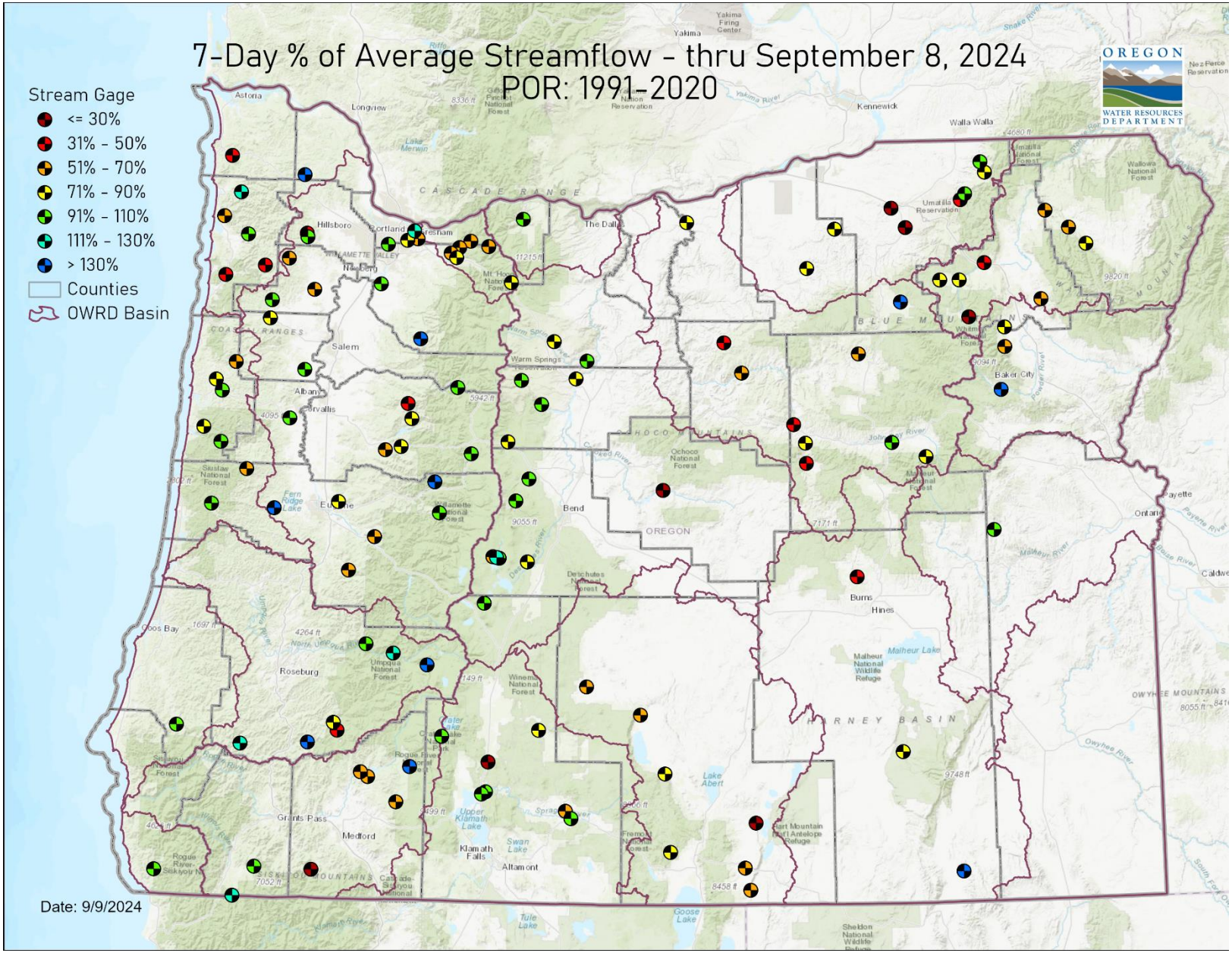




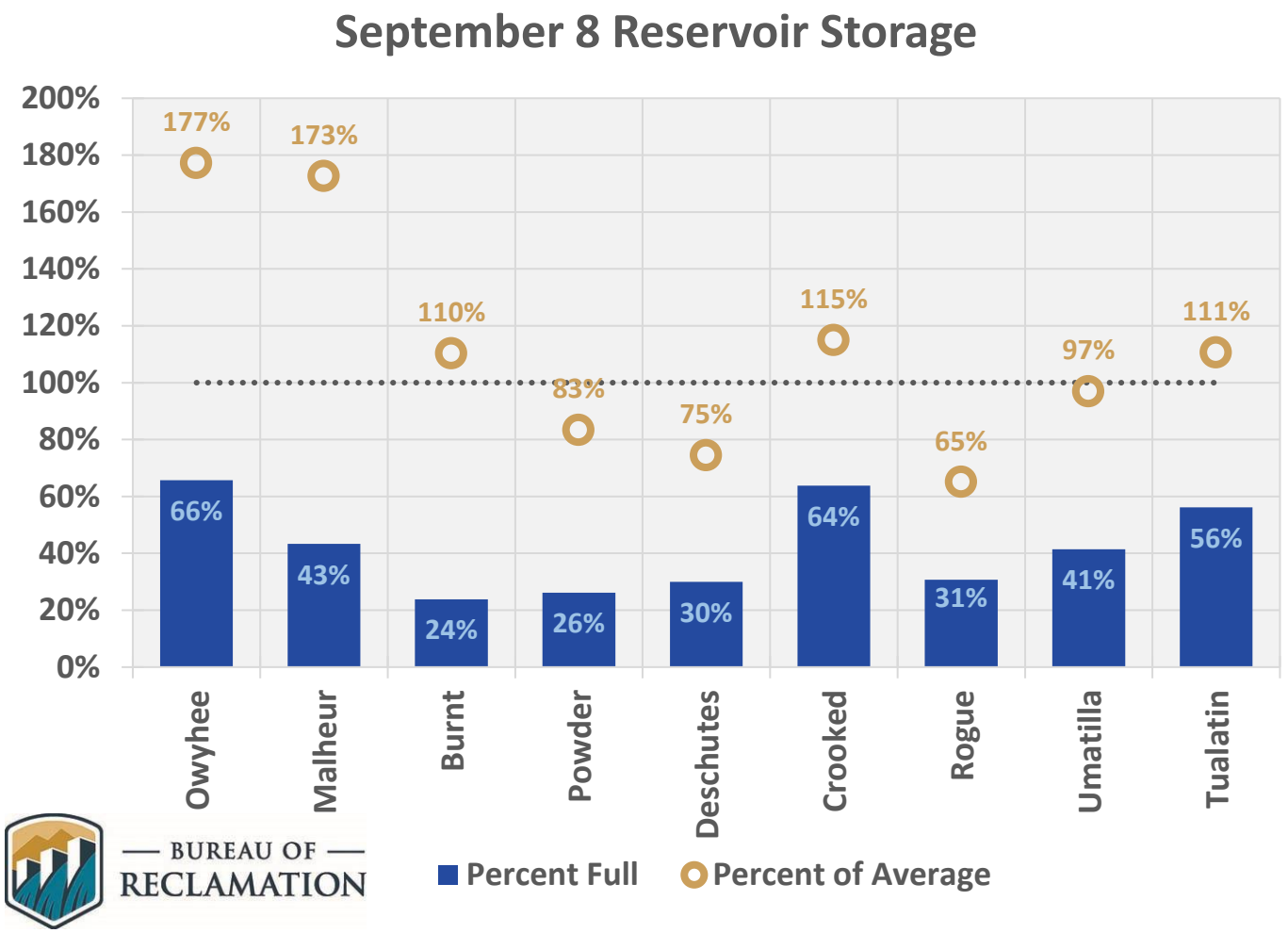
STREAMFLOW

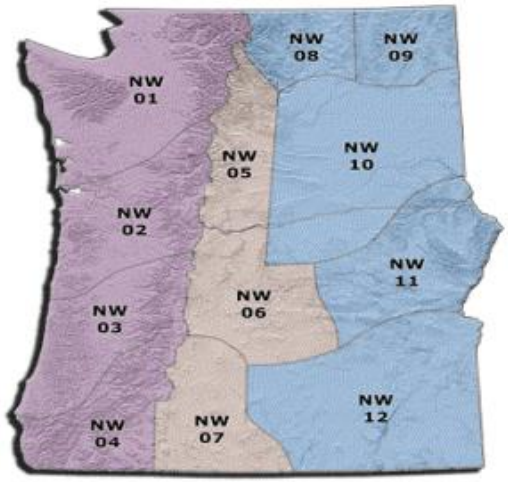

August % of Average Streamflow - WY 2024
POR: 1991-2020
Stream Gage
<= 30%
31% - 50%
51% - 70%
71% - 90%
91% - 110%
111% - 130%
> 130%
Counties
<= 30%
31% - 50%
51% - 70%
71% - 90%
91% - 110%
111% - 130%
> 130%
Clatsop 47%
Columbia 159%
Tillamook 84%
Washington 86%
Multnomah 70%
Hood River 110%
Sherman 58%
Umatilla 69%
Morrow 88%
Wallowa 65%
Union 65%
Baker 368%
Yamhill 90%
Clackamas 91%
Wasco 100%
Polk 110%
Lincoln 92%
Benton 105%
Linn 78%
Jefferson 94%
Wheeler 35%
Grant 60%
Crook 47%
Deschutes 84%
Lane 101%
Coos 88%
Douglas 105%
Lake 74%
Harney 84%
Malheur 102%
Curry 112%
Josephine 114%
Jackson 107%
Klamath 101%
Date: 9/9/2024

STREAMFLOW


7-Day % of Average Streamflow - thru September 8, 2024
POR: 1991-2020
Stream Gage
<= 30%
31% - 50%
51% - 70%
71% - 90%
91% - 110%
111% - 130%
> 130%
Counties
OWRD Basin
OREGON
WATER RESOURCES DEPARTMENT
Date: 9/9/2024

STORAGE


September 8 Reservoir Storage
200%
180%
160%
140%
120%
100%
80%
60%
40%
20%
0%
177%
173%
110%
83%
75%
115%
65%
97%
111%
66%
43%
24%
26%
30%
64%
31%
41%
56%
Owyhee
Malheur
Burnt
Powder
Deschutes
Crooked
Rogue
Umatilla
Tualatin
BUREAU OF RECLAMATION
Percent Full
Percent of Average



Legend

Significant Fire Risk Levels

Low	- The Overall Fire Environment suggests a very low risk for significant fires (**less than 1% chance**)
Moderate	- The Overall Fire Environment suggests a moderate risk for significant fires (**1 - 4% chance**)
Elevated	- The Overall Fire Environment suggests a moderately high risk for significant fires (**5 - 19% chance**)
High Risk	**The risk for significant fire(s) is very high (≥ 20%)** **Triggers: 1. ↯ (Significant Lightning)** **2. BEN (Critical Burn Environment)**

The assessment of Significant Fire risk considers three main factors including: weather elements, number of ignitions, and background fire danger.

Significant Fire risk is derived objectively via statistical methods that combine all three factors. **High Risk** levels (≥ 20% probability of a significant fire) are usually due to numerous fire starts from lightning. Human fires don't often result in a large fire probability above 20%.

Pacific Northwest
7 Day Significant Fire Potential

PREDICTIVE SERVICES

Monday, 9/9/2024

Predictive Service Areas	ytd	Today	Tue	Wed	Thu	Fri	Sat	Sun
NW01								
NW02								
NW03								
NW04								
NW05								
NW06								
NW07								
NW08								
NW09								
NW10								
NW11								
NW12								

Fire Weather: The Geographic Area is between systems today. Gusty west winds push through the lower Cascade gaps and across Columbia Basin. Marine air will bring higher humidity to the western Basin but with little effect further east. Dry and breezy southwest wind crosses southeast Oregon. This wind pattern repeats for most of Tuesday. Cooler showery weather and embedded thunderstorms return Tuesday night through Thursday. Another upper low arrives this weekend to reinforce the cooler temperatures but will not bring significant rain for many areas.

Refer to local NWS forecasts and Red Flag Warning details in your area.

Fire Potential: Gusty wind and lower humidity east of the Cascades the next couple days will promote active fire spread for any new and existing uncontained fires, especially in lighter fuels. Additionally, moderate low-level instability will promote ventilation and increased spotting potential for more active fire areas. Eastern and Central PSA fire danger gradually declines toward mid-week before significantly dropping heading into the weekend. Onshore flow will force a more rapid decline across western PSAs. The overall fire danger will be greatly reduced from current values by next weekend.

Fire Danger Trends:
https://gacc.nifc.gov/nwcc/content/products/fwx/WEB_NFDRS_graphics.php

Preparedness Level:

Northwest: 5

National: 5

-Jon Bonk

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.