

# Oregon Water Conditions Report



September 7<sup>th</sup>, 2021

## HIGHLIGHTS

Thus far in 2021, [22 counties](#) have received [Executive Orders](#) issuing drought declarations. Additional drought requests have been received from Yamhill and Linn Counties.

Nearly 100% of Oregon is classified as D2 (severe drought) - D4 (exceptional drought) according to the [US Drought Monitor](#). Although there has been little change over recent weeks (see below), conditions continue to persist statewide.

[Precipitation throughout August](#) was well below average for much of the state. However, portions of eastern Oregon received average to above average precipitation.

[August temperatures](#) were above average for much of western and central Oregon. Some portions of coastal and eastern Oregon experienced average and below average temperatures.

[Surface soil moisture profiles](#) continue to measure well below the long-term average, with much of western and central Oregon measuring near historic lows.

The [climate outlook](#) for September indicates probabilities favoring above average temperatures and below average precipitation. While the three-month outlook favors above average temperatures, probabilities favor precipitation closer to average.

[Streamflows for the month of August](#) were well below average throughout most of the state. Portions of Baker County benefitted from above average precipitation, leading to August streamflows which measured well above the long-term average (see below). More recently, average streamflows over the past seven days continue to measure below average statewide.

Storage contents in [USBR \(including Klamath Basin\)](#) and [USACE](#) reservoir systems continue to measure well below average throughout the state.

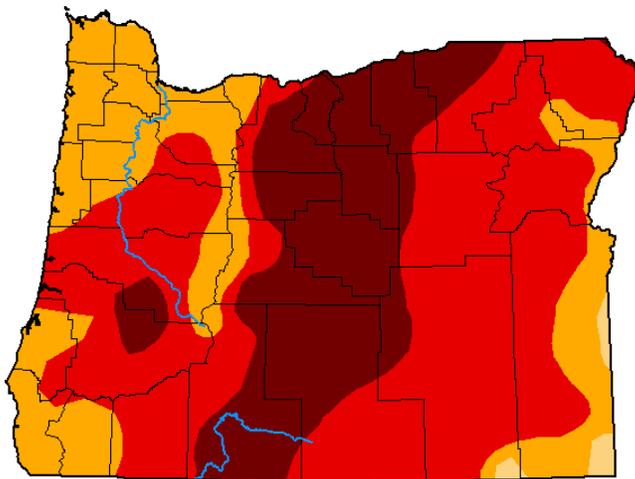
[Significant wildfire potential](#) ranges from minimal to elevated throughout the Pacific Northwest over the next seven days.

## DROUGHT CONDITIONS

The US Drought Monitor indicates 100% of the state is experiencing drought conditions equivalent to D1 (moderate drought) or worse. Major changes include expansion of D4 (exceptional drought) in western Wasco and Jefferson Counties, as well as slight expansion of D2 (severe drought) in eastern Malheur County.

### U.S. Drought Monitor Oregon

**August 31, 2021**  
(Released Thursday, Sep. 2, 2021)  
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	0.00	100.00	100.00	99.07	76.69	26.59
<b>Last Week</b> 08-24-2021	0.00	100.00	100.00	98.71	76.65	25.58
<b>3 Months Ago</b> 06-01-2021	0.00	100.00	97.08	72.03	27.36	3.57
<b>Start of Calendar Year</b> 12-29-2020	8.57	91.43	83.53	68.71	27.74	0.00
<b>Start of Water Year</b> 09-29-2020	6.50	93.50	84.77	65.53	33.59	0.00
<b>One Year Ago</b> 09-01-2020	6.36	93.64	80.22	56.99	17.61	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>

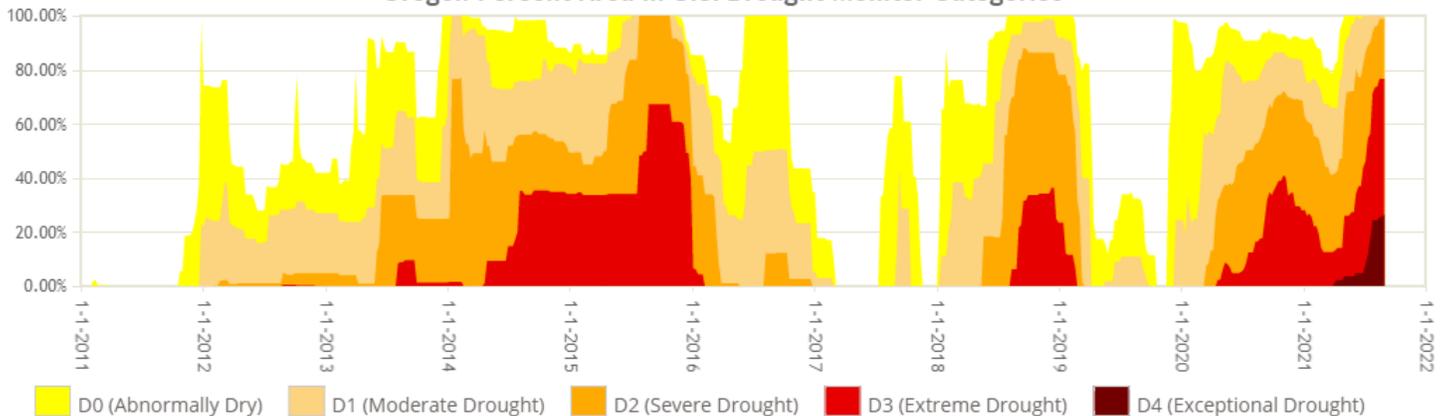
Author:

David Simeral  
Western Regional Climate Center



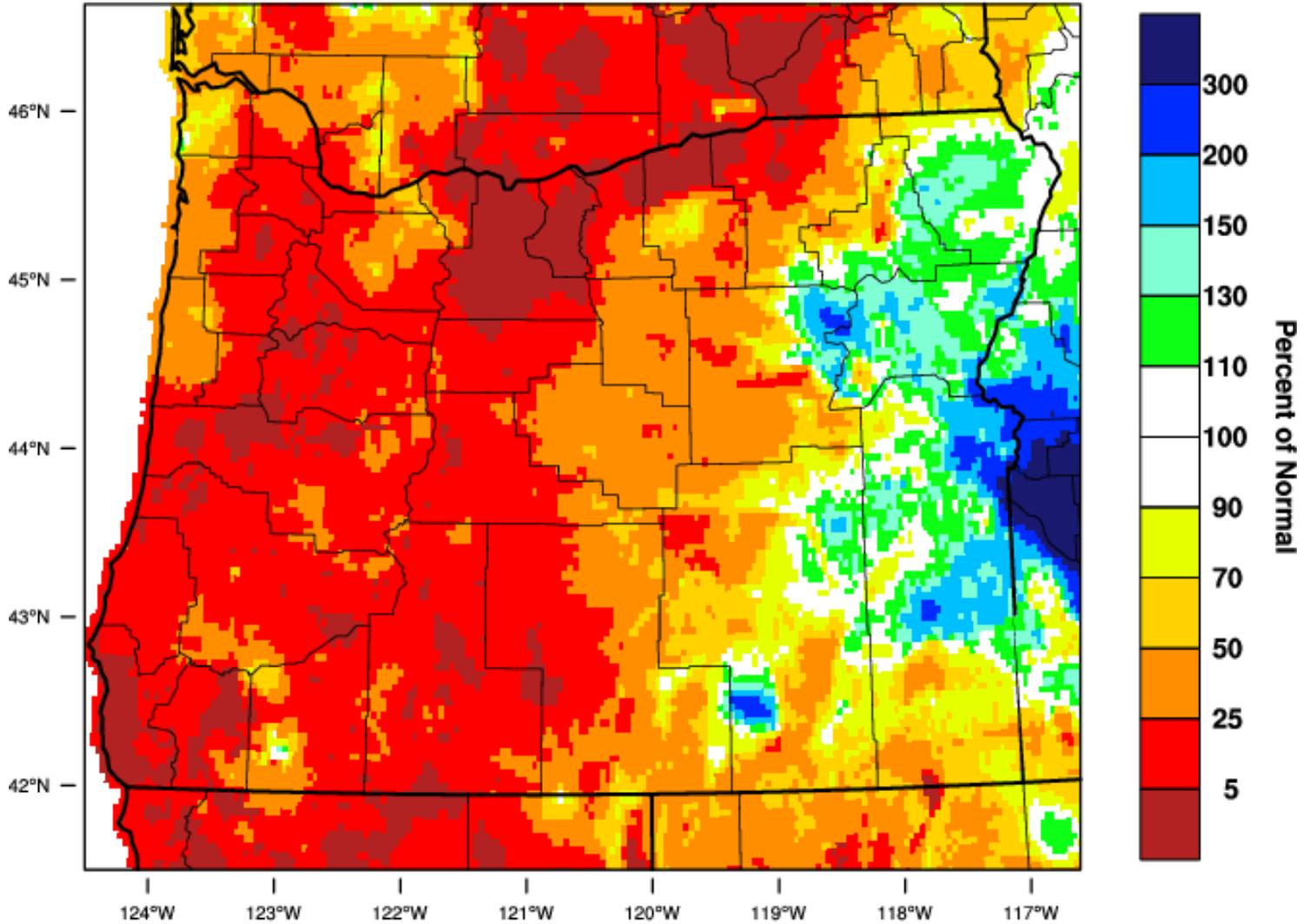
[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

### Oregon Percent Area in U.S. Drought Monitor Categories



### Oregon - Precipitation

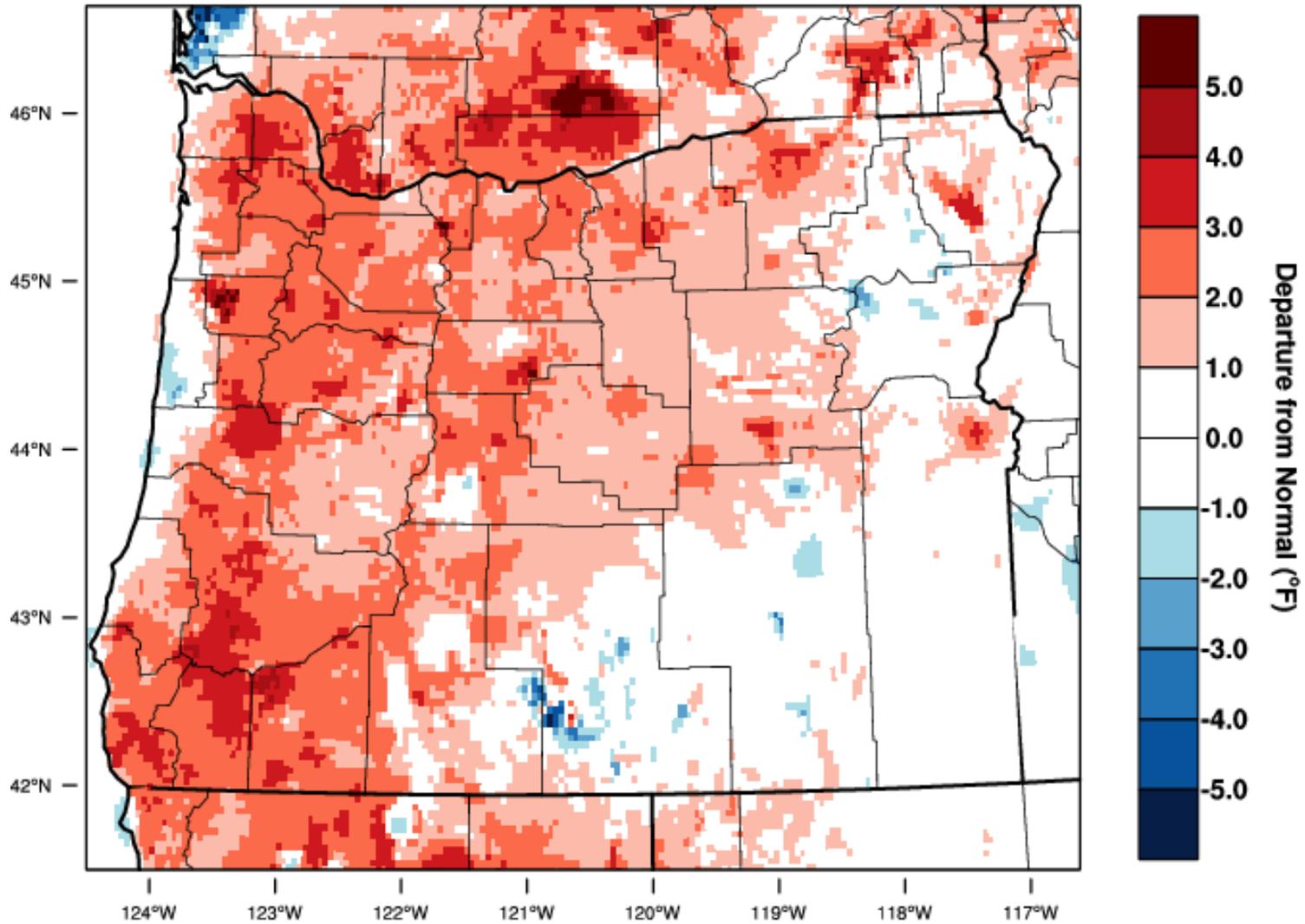
August 2021 Percent of 1981-2010 Normal



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 5 SEP 2021

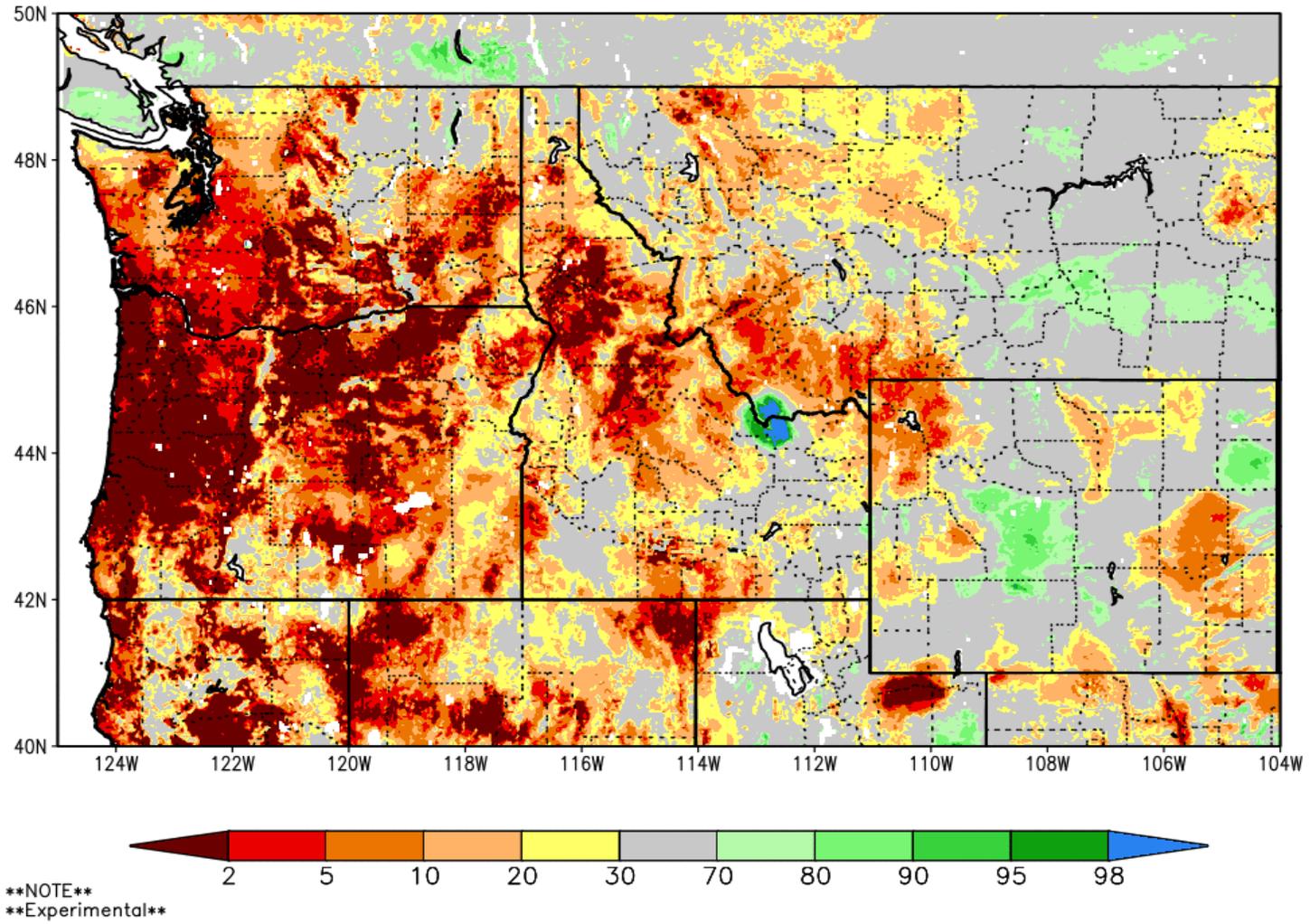
### Oregon - Mean Temperature

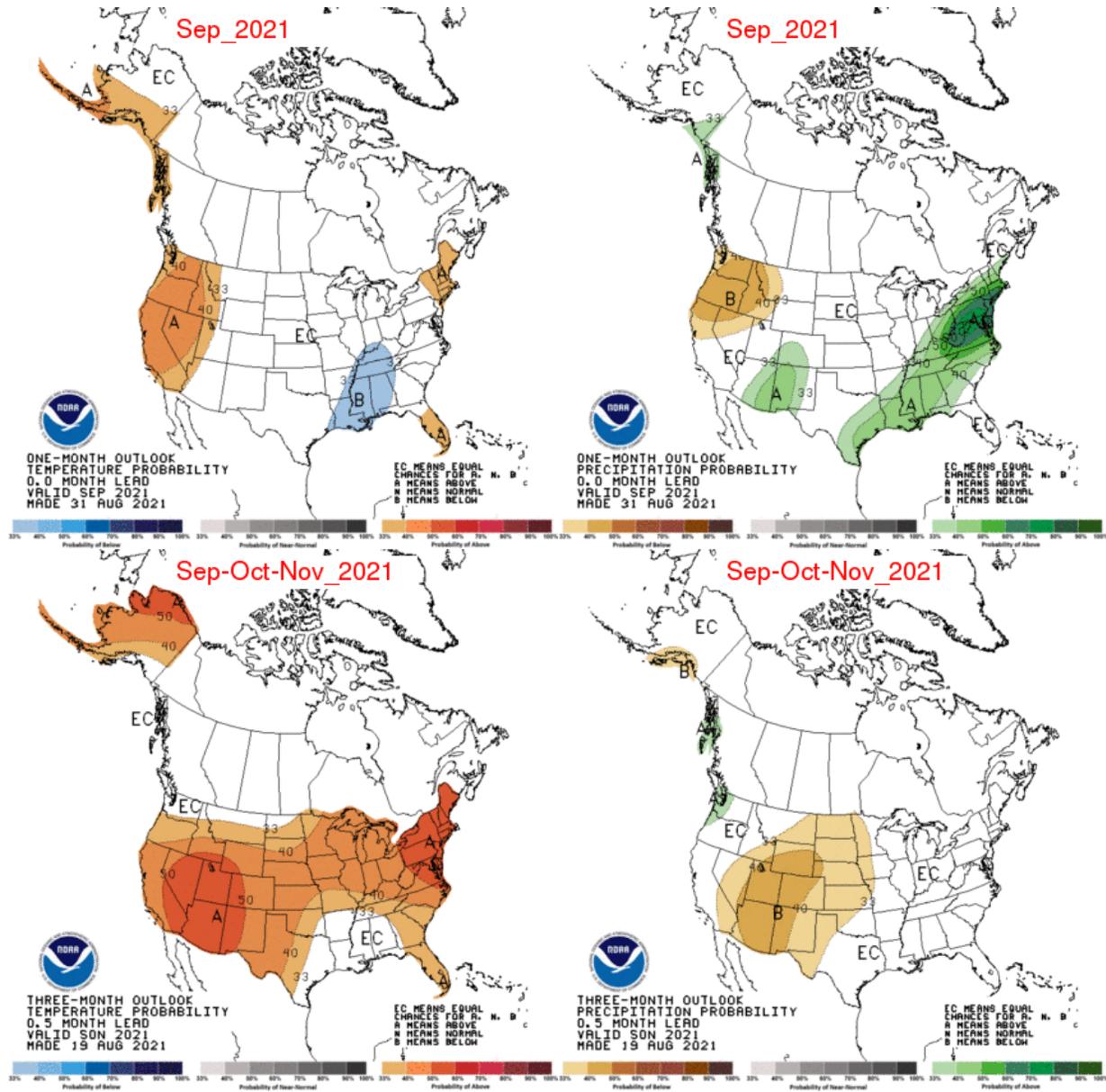
August 2021 Departure from 1981-2010 Normal



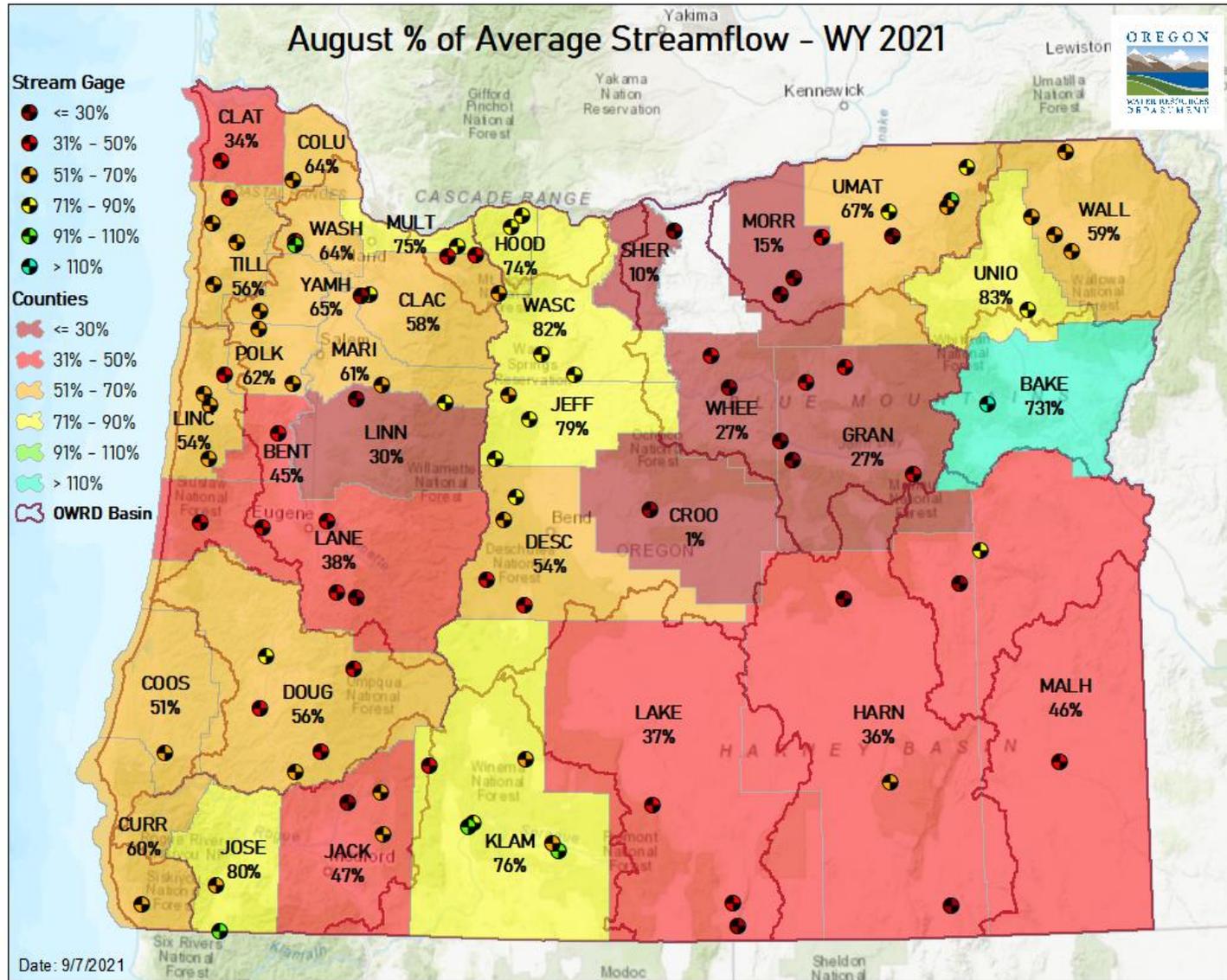
WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 5 SEP 2021

SPoRT-LIS 0-10 cm Soil Moisture percentile valid 07 Sep 2021



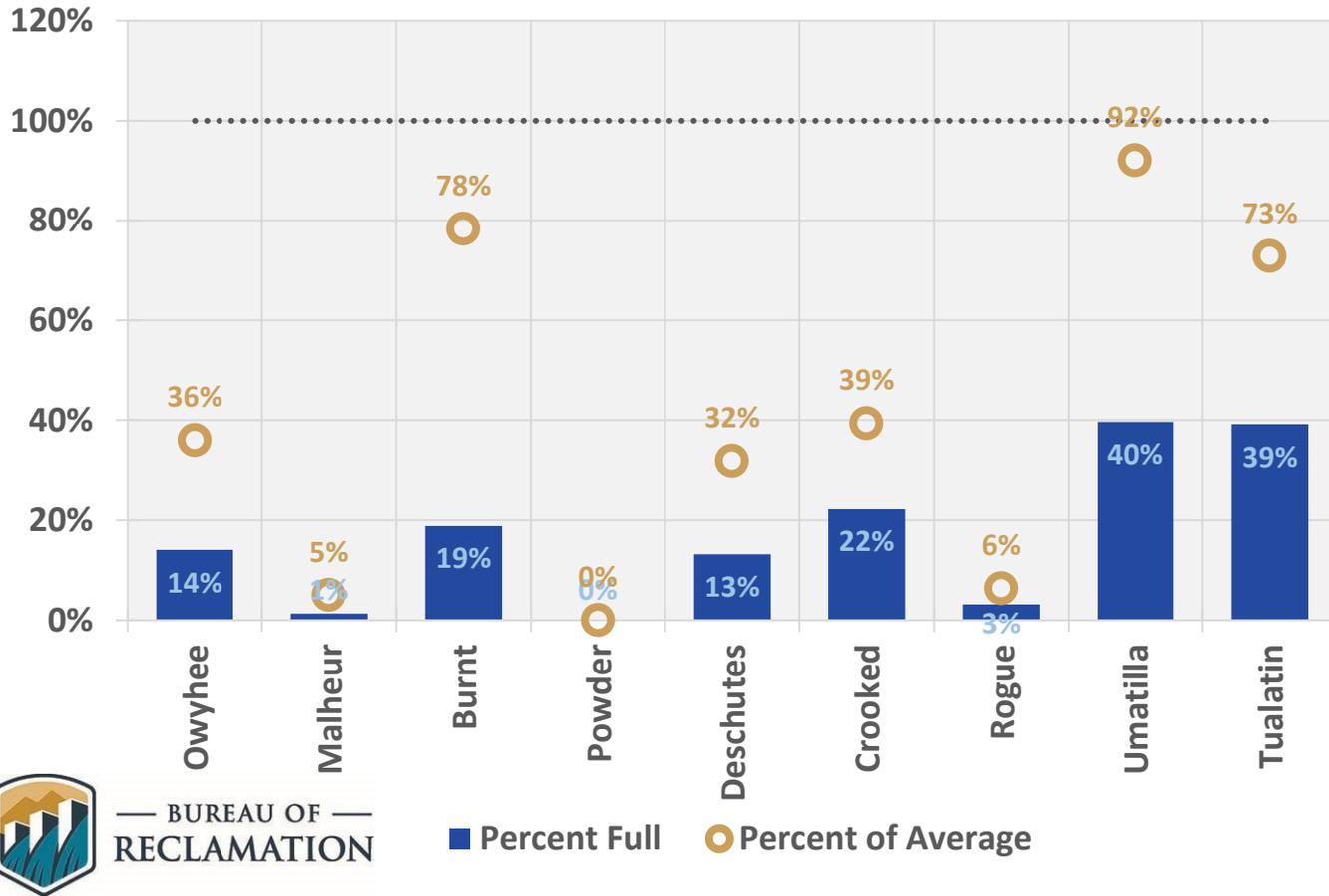


**STREAMFLOW**  
**AUGUST**





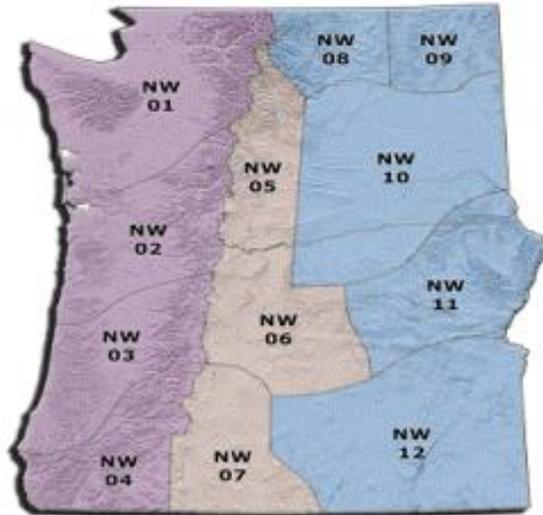
### September 5 Reservoir Storage



## Pacific Northwest 7 Day Significant Fire Potential



Tuesday, 9/7/2021



### Legend

#### Fire Environment (FEN) 4 levels

- Minimal** - The Overall Fire Environment suggests a very low risk for Large fires (**less than 1% chance**)
- Normal** - The Overall Fire Environment suggests a **normal risk** for large fires (**1 - 4% chance**)
- Elevated** - The Overall Fire Environment suggests a moderately high risk for large fires (**5 - 19% chance**)
- High Risk** - The risk for large fire(s) is very high (**≥ 20%**)  
Triggers: 1. ⚡ (Significant Lightning)  
2. BEN (Critical Burn Environment)

The assessment of the overall fire environment considers multiple factors including weather, lightning amount and fuel dryness. Large Fire probabilities are derived objectively via statistical methods. **High Risk** levels (≥ 20% probability of a large fire) are almost always due to significant lightning as burning conditions alone rarely result in a large fire probability much above about 10%.

Predictive Service

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

**Fire Weather:** Another warm, dry, and mostly calm day is in store as high pressure remains over the region, but a change starts tonight as an upper-level trough approaches, bringing light showers to the west side, along with a slight chance for thunderstorms for western Washington and northwestern Oregon. As the trough approaches, expect some breezes this afternoon in southwestern and central Oregon. Warmer than normal temperatures will continue on the east side of the region through Thursday, while the west side will see cooler temperatures tomorrow. Winds will be breezy through Cascade gaps and to the east each afternoon Wednesday into the weekend, as further shortwave disturbances move through the region. Thursday and Friday could bring some shower and thunderstorm chances to the eastern third of Oregon. Temperatures should cool gradually through the latter half of the week.

Check your local NWS fire weather forecast for the details for your area.

**Fire Potential:** With continued warming and drying, fire danger will continue rising today for western PSAs and through Thursday on the east side. The warm, dry conditions result in elevated potential for new significant fires for much of southern Oregon today, spreading north into eastern Washington over the next couple days. Potential will relax back toward normal heading into the weekend, as cooler conditions take effect.

#### Preparedness Level:

Northwest: 5

National: 5

- Eric Wise

## 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.