

# Oregon Water Conditions Report



August 9<sup>th</sup>, 2021

## HIGHLIGHTS

Thus far in 2021, [22 Oregon counties](#) have received state drought declarations via [Executive Orders](#).

Recent updates to the [US Drought Monitor](#) indicate over 96% of statewide coverage is classified as D2 - D4. Additionally, there has been a 17% increase in coverage of D3 - D4 conditions over the past two weeks.

[July precipitation](#) was below to well below average throughout much of the state. Much of the Willamette Valley experienced the lowest July precipitation total on record (1895 - 2010). A few locations where precipitation measured above average include portions of Josephine, Klamath, and Malheur Counties.

[Temperatures throughout July](#) were well above average statewide. Much of eastern Oregon experienced temperatures at least 6 °F above the long-term average (1981 - 2010). The [elevated temperatures led to the warmest July on record](#) (1895 - 2010) for a majority of the state.

[Soil moisture profiles](#) remain well below average for much of western Oregon, however, some locations benefitted from recent precipitation events.

The [8 - 14 day climate outlook](#) indicates high probabilities of below average precipitation and above average temperatures statewide. The [seasonal outlook](#) (August - October) indicates probabilities favoring above average temperatures statewide, while precipitation may vary between eastern and western Oregon.

Streamflows throughout July were well below average statewide (max = Wasco County @ 78%). Many gages throughout the state measured [historically low July streamflows](#).

Reservoir storage contents in many systems throughout the state are measuring below to well below average ([see Klamath Basin info here](#)).

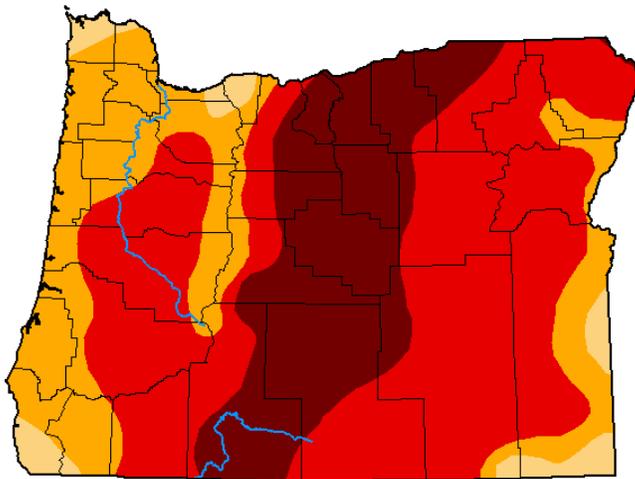
[Significant wildfire potential](#) will be elevated throughout the next seven days statewide. Regions in southwest, central, and eastern Oregon will experience high risk for wildfire.

## DROUGHT CONDITIONS

The US Drought Monitor indicates 100% of the state is experiencing drought conditions. Major changes in increased coverage and severity have been driven by poor streamflow conditions and reduced soil moisture in surface and shallow groundwater profiles.

### U.S. Drought Monitor Oregon

**August 3, 2021**  
(Released Thursday, Aug. 5, 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	96.06	73.49	24.33
<b>Last Week</b> 07-27-2021	0.00	100.00	100.00	93.67	71.18	24.28
<b>3 Months Ago</b> 05-04-2021	0.00	100.00	88.85	64.54	26.09	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> 08-04-2020	9.21	90.79	75.88	50.31	12.49	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>

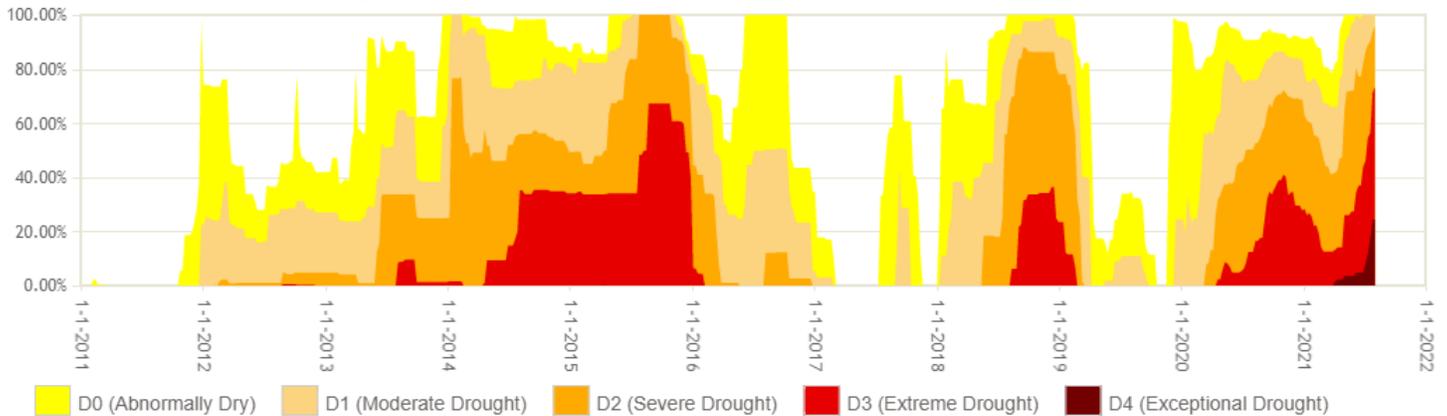
Author:

Richard Tinker  
CPC/NOAA/NWS/NCEP



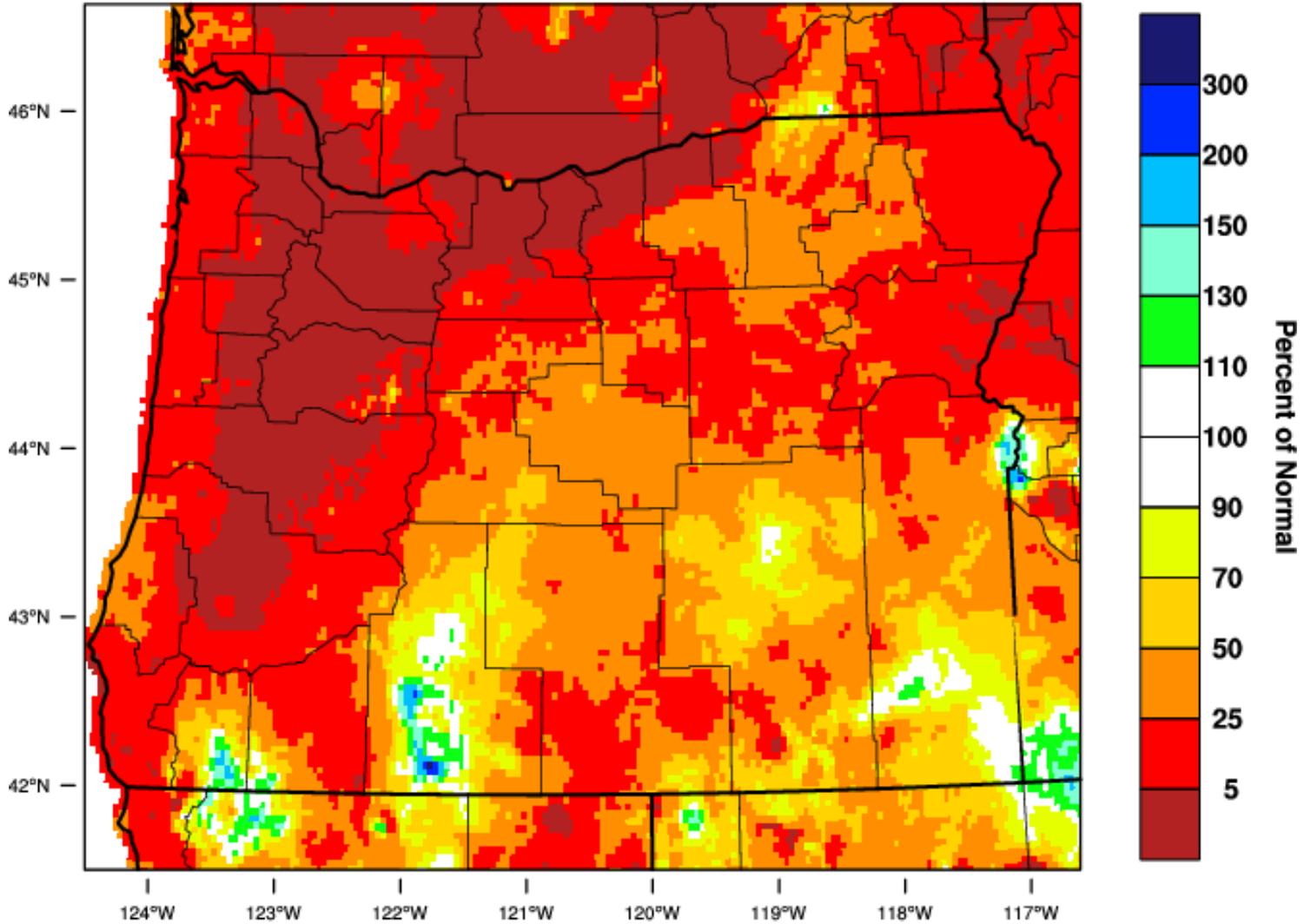
[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

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



### Oregon - Precipitation

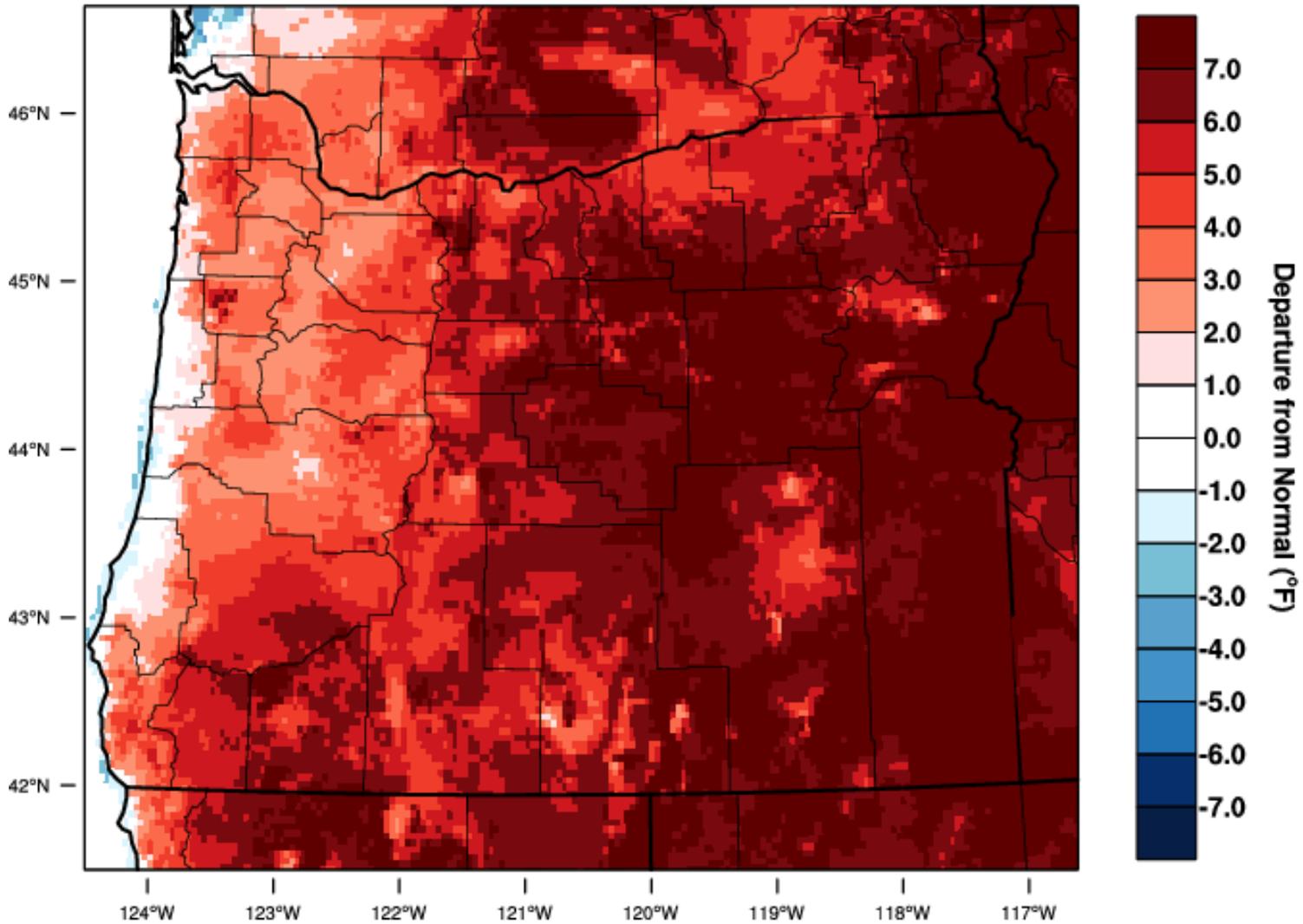
July 2021 Percent of 1981-2010 Normal



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

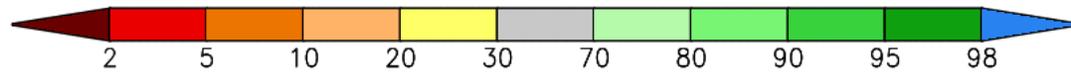
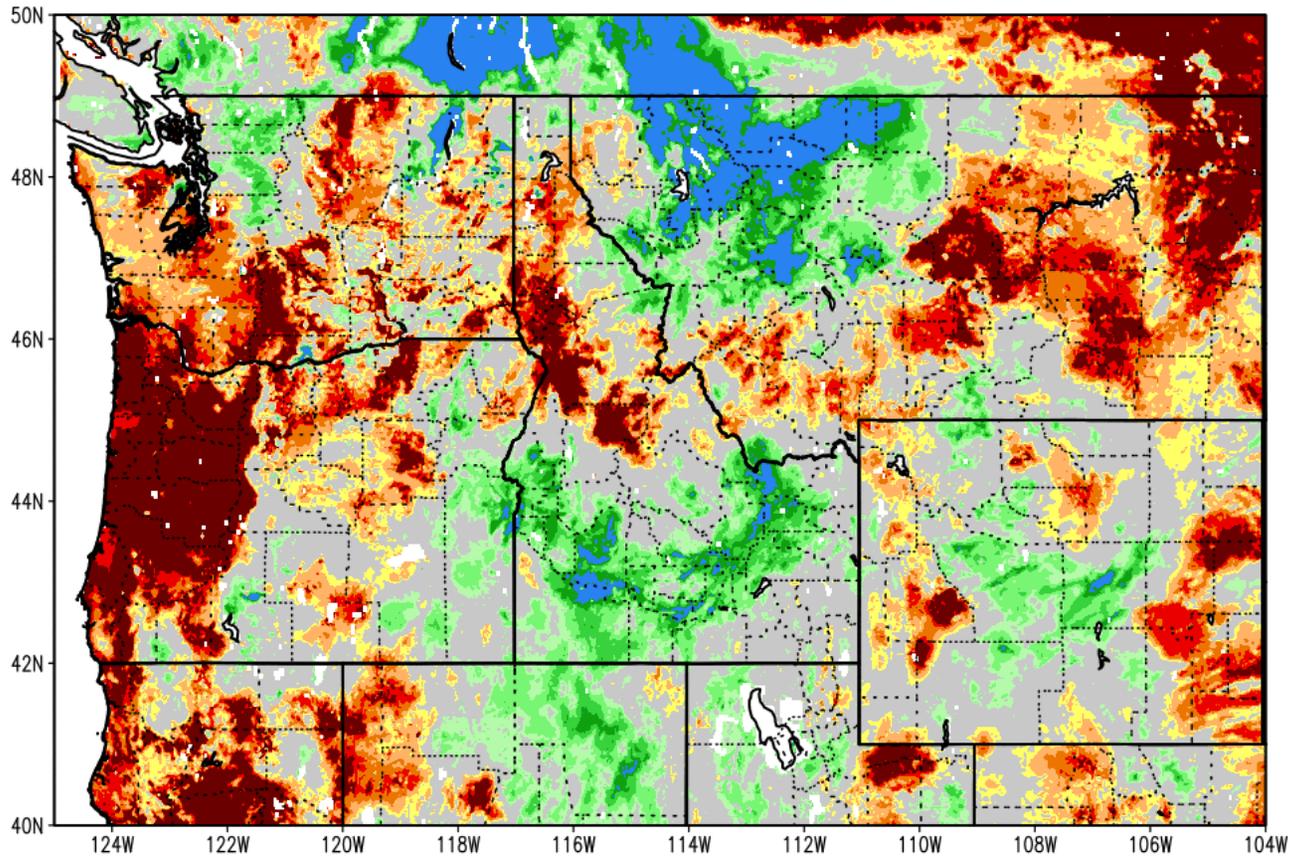
### Oregon - Mean Temperature

July 2021 Departure from 1981-2010 Normal

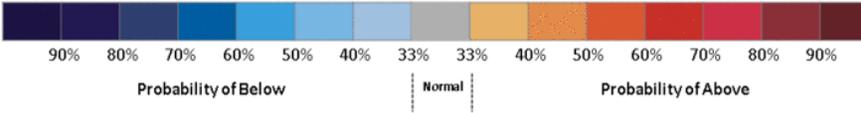
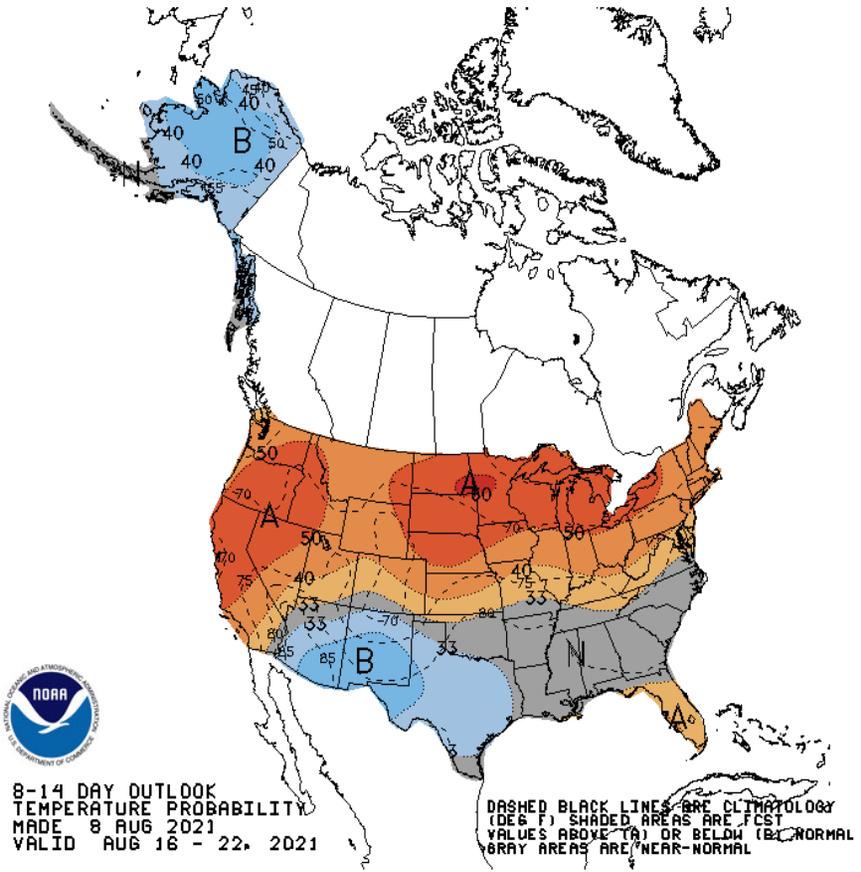
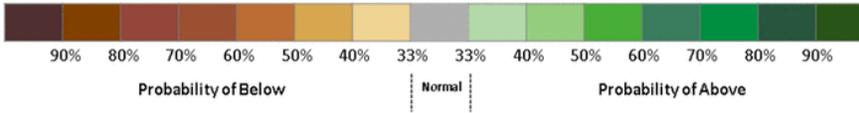
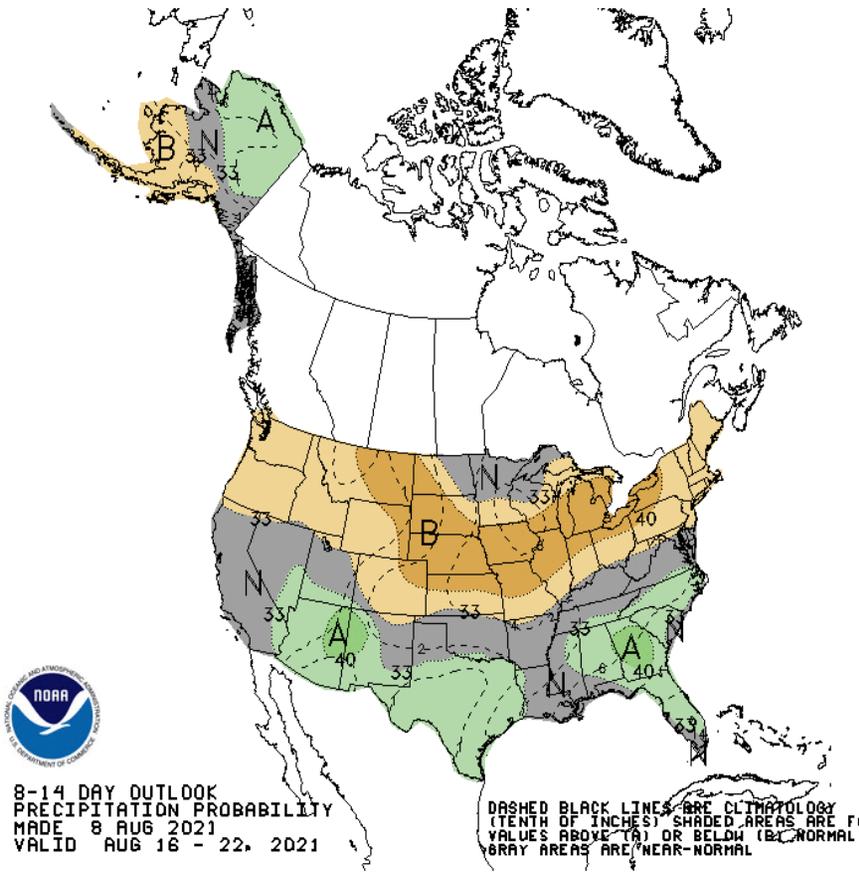


WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 5 AUG 2021

SPoRT-LIS 0-10 cm Soil Moisture percentile valid 09 Aug 2021

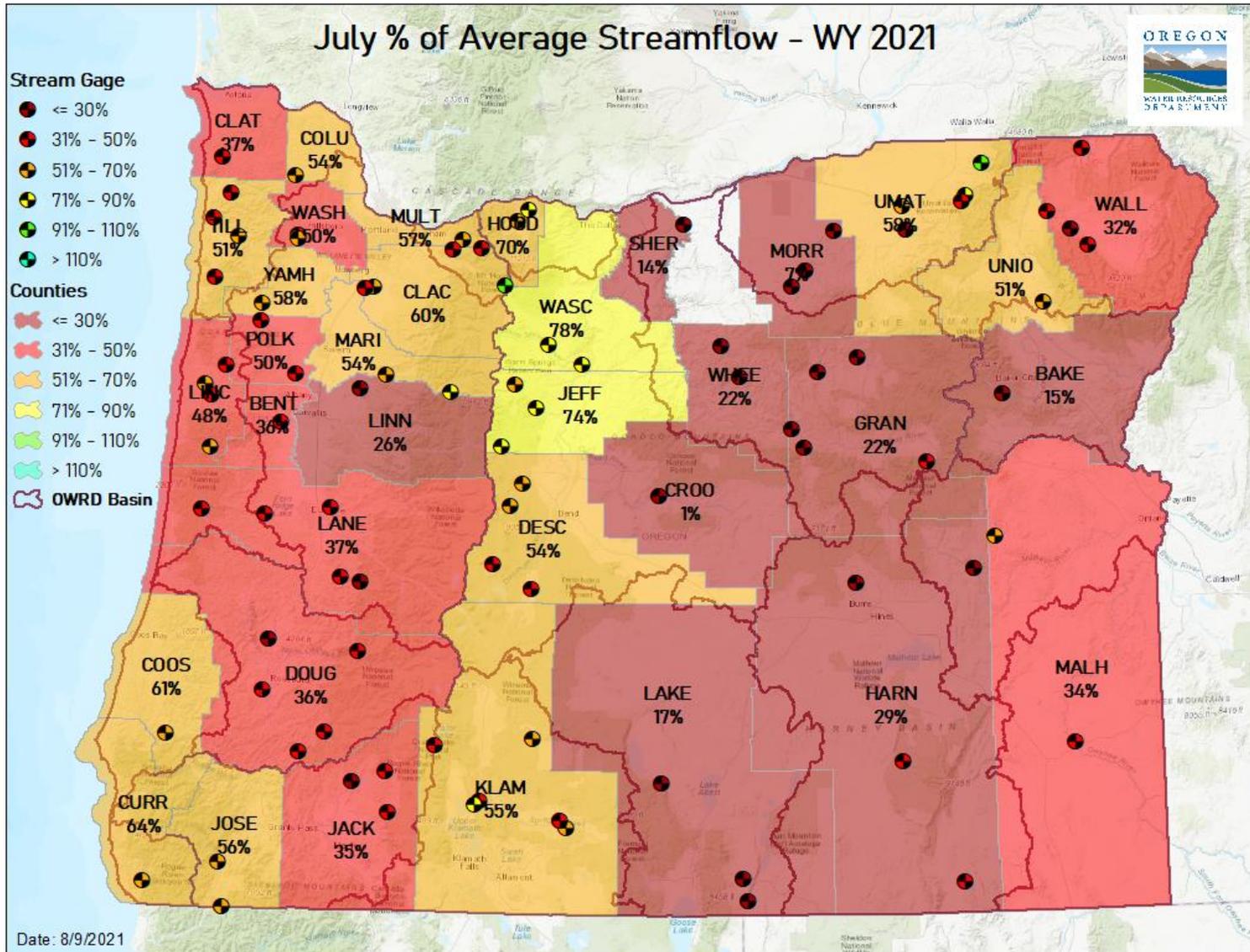


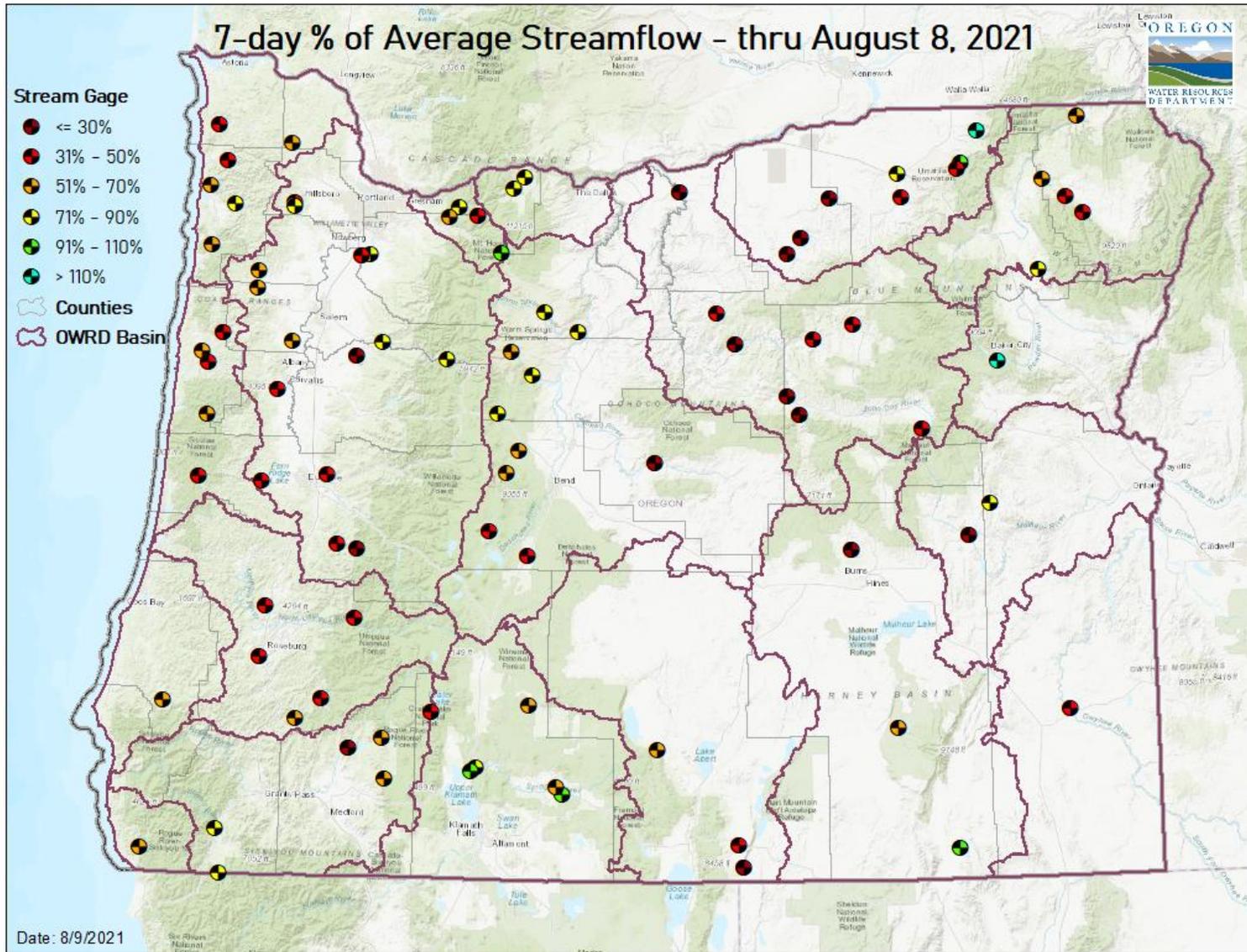
**\*\*NOTE\*\***  
**\*\*Experimental\*\***



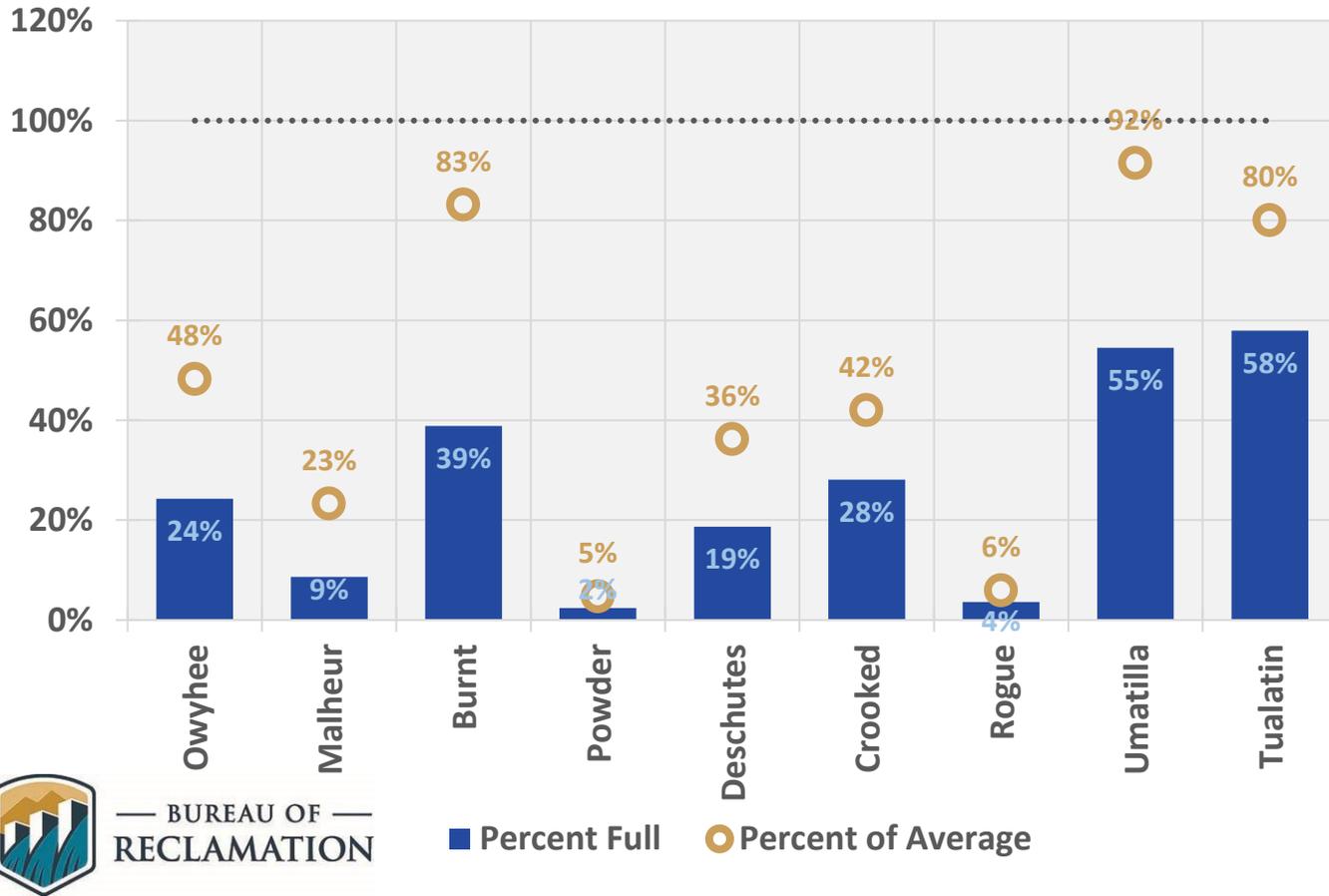
STREAMFLOW

JULY





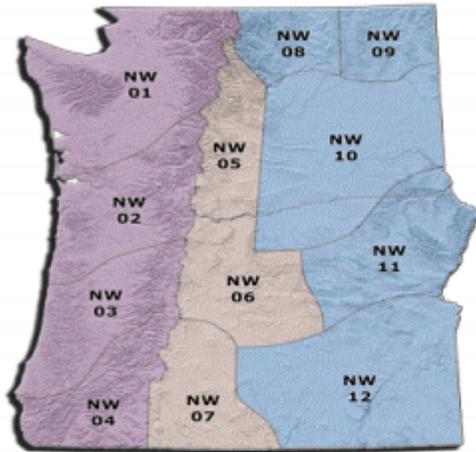
### August 6 Reservoir Storage



## Pacific Northwest 7 Day Significant Fire Potential



Monday, 8/9/2021



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

**Fire Weather:** Temperatures today will be similar to yesterday's, but strong upper-level high pressure will build over the region through the week, bringing significant warming, drying and atmospheric instability starting Tuesday. A thermal trough along the coast will accentuate warming/drying in southwestern Oregon, but offshore winds are not expected to be strong. General winds are expected to be light for the most part, but breezy northerly winds could get channeled through the Okanogan Valley mid-week. Near daily record high temperatures will peak Thursday and Friday on the west side of the region and Friday into the weekend on the east side. Relative humidity will correspondingly drop though the week and overnight recovery will become poor, particularly at mid-slopes and ridgetops. Moisture approaching from the south could bring thunderstorm chances toward the end of the week, although details are still uncertain.

Watch your NWS forecasts and advisories for details in your area.

**Fire Potential:** Fire danger indices will rise with the warming and drying trend through the week, resulting in elevated potential for new significant fire development. Hot, dry, unstable conditions will boost fire behavior. The potential return of lightning after a few days of heating could bring high risk for development of new significant fires late in the week, but confidence is not high in that portion of the forecast.

#### 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.