

Oregon Water Conditions Report



October 4th, 2021

HIGHLIGHTS

Thus far in 2021, [25 counties](#) have received [Executive Orders](#) issuing drought declarations. Recent drought declarations have been issued in Josephine, Linn, and Yamhill Counties.

Over 96% of Oregon is classified as experiencing severe (D2) to exceptional (D4) drought conditions according to the [US Drought Monitor](#). Oregon saw a slight reduction in drought severity of D2 and D3 conditions over recent weeks due to recent precipitation (see below for more information).

[Statewide precipitation](#) for the month of September ranged from average to well above average. Recent rains closed out a [water year that saw a significant lack of precipitation](#) throughout the state.

[Average September temperatures](#) were variable throughout the state. While temperatures were near the long-term average in some areas, many others experienced elevated temperatures ranging from 1 °F - 5°F above average. This continued a trend of [above average temperatures throughout the water year](#).

[Surface soil moisture profiles](#) benefitted from recent precipitation events. The rains replenished soil moisture which had seen extended periods of historically dry conditions during the water year.

The [seasonal climate outlook](#) (October through December) indicates probabilities favoring above average precipitation throughout much of the state, with exception of southeastern Oregon (equal chances above/below average). Temperatures over the same periods are projected to be near average throughout much of the state. Temperatures in southeastern Oregon are projected to be above average.

Water year 2021 streamflows were below to well below average throughout much of the state, with exception of much of northwestern Oregon. Streamflows in central and southeastern Oregon were significantly impacted by drought conditions (see below).

Reservoir storage contents and release operations are variable throughout the state. Some systems have stopped irrigation releases while some continue to release to meet irrigation demands, although conditions in nearly all [USBR](#) (including [Klamath](#)) and [USACE](#) systems are well below average.

[Significant wildfire potential](#) throughout the Pacific Northwest is minimal for the next seven days.

DROUGHT CONDITIONS

In Oregon, 100% of the state is experiencing drought conditions according to the US Drought Monitor. Major changes over the past two weeks include a one-class improvement in drought severity in northwestern Oregon (D2 -> D1). Portions of the Willamette Valley and the mid coast also saw a one-class improvement (D3 -> D2).

U.S. Drought Monitor Oregon

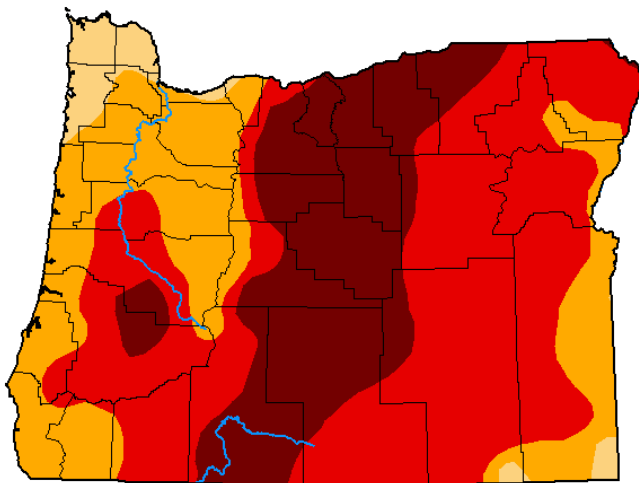
September 28, 2021

(Released Thursday, Sep. 30, 2021)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	96.47	72.10	26.59
Last Week <i>09-21-2021</i>	0.00	100.00	100.00	96.47	72.10	26.59
3 Months Ago <i>06-29-2021</i>	0.00	100.00	99.97	81.96	43.93	4.78
Start of Calendar Year <i>12-29-2020</i>	8.57	91.43	83.53	68.71	27.74	0.00
Start of Water Year <i>09-29-2020</i>	6.50	93.50	84.77	65.53	33.59	0.00
One Year Ago <i>09-29-2020</i>	6.50	93.50	84.77	65.53	33.59	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>

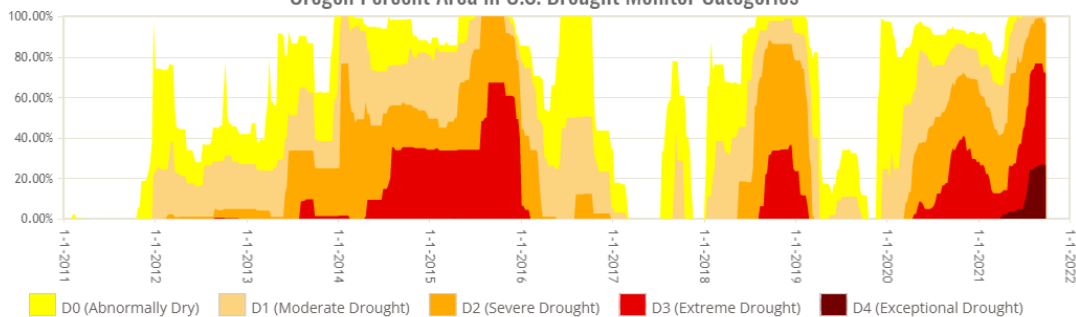
Author:

Brian Fuchs
National Drought Mitigation Center



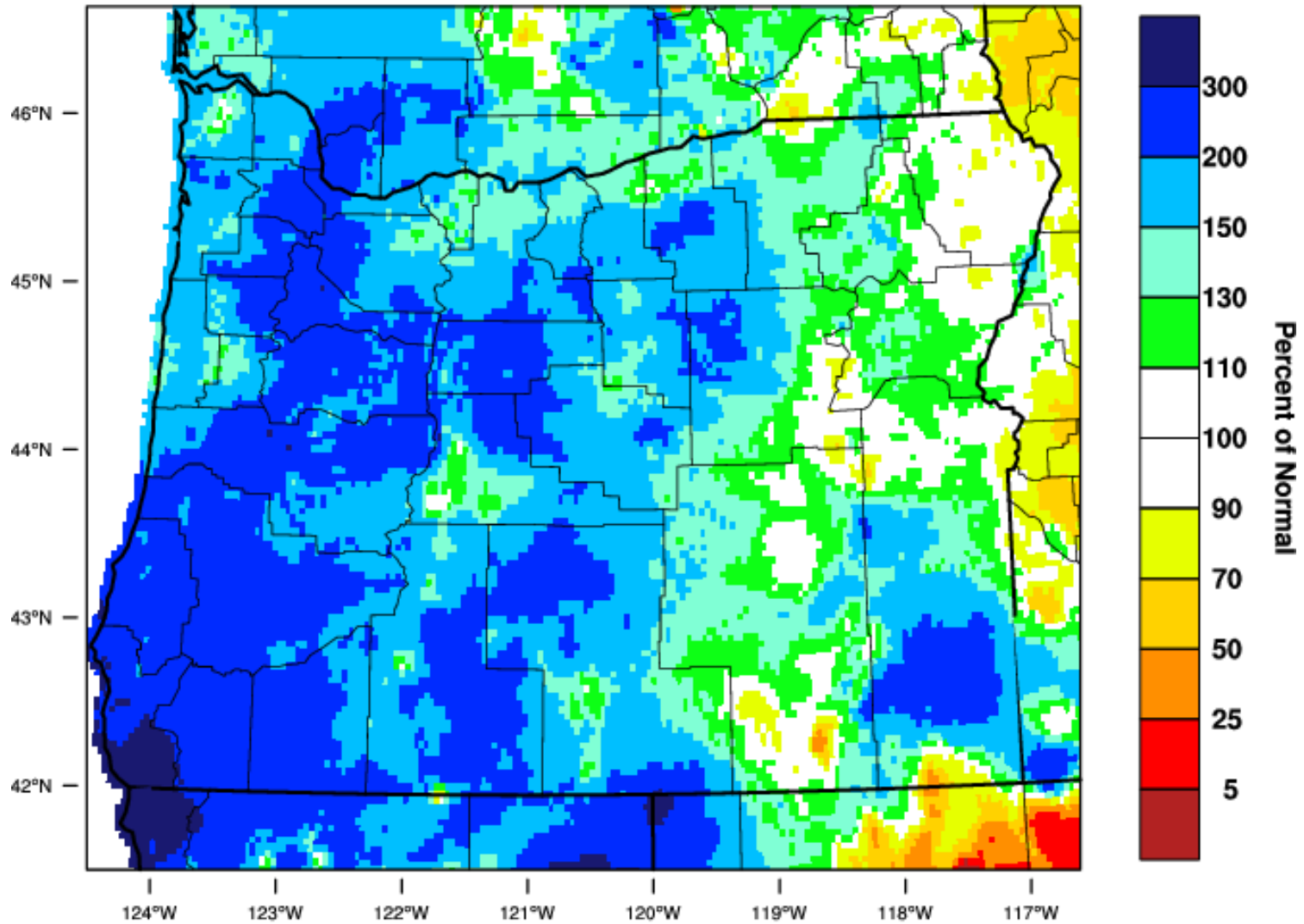
droughtmonitor.unl.edu

Oregon Percent Area in U.S. Drought Monitor Categories



Oregon - Precipitation

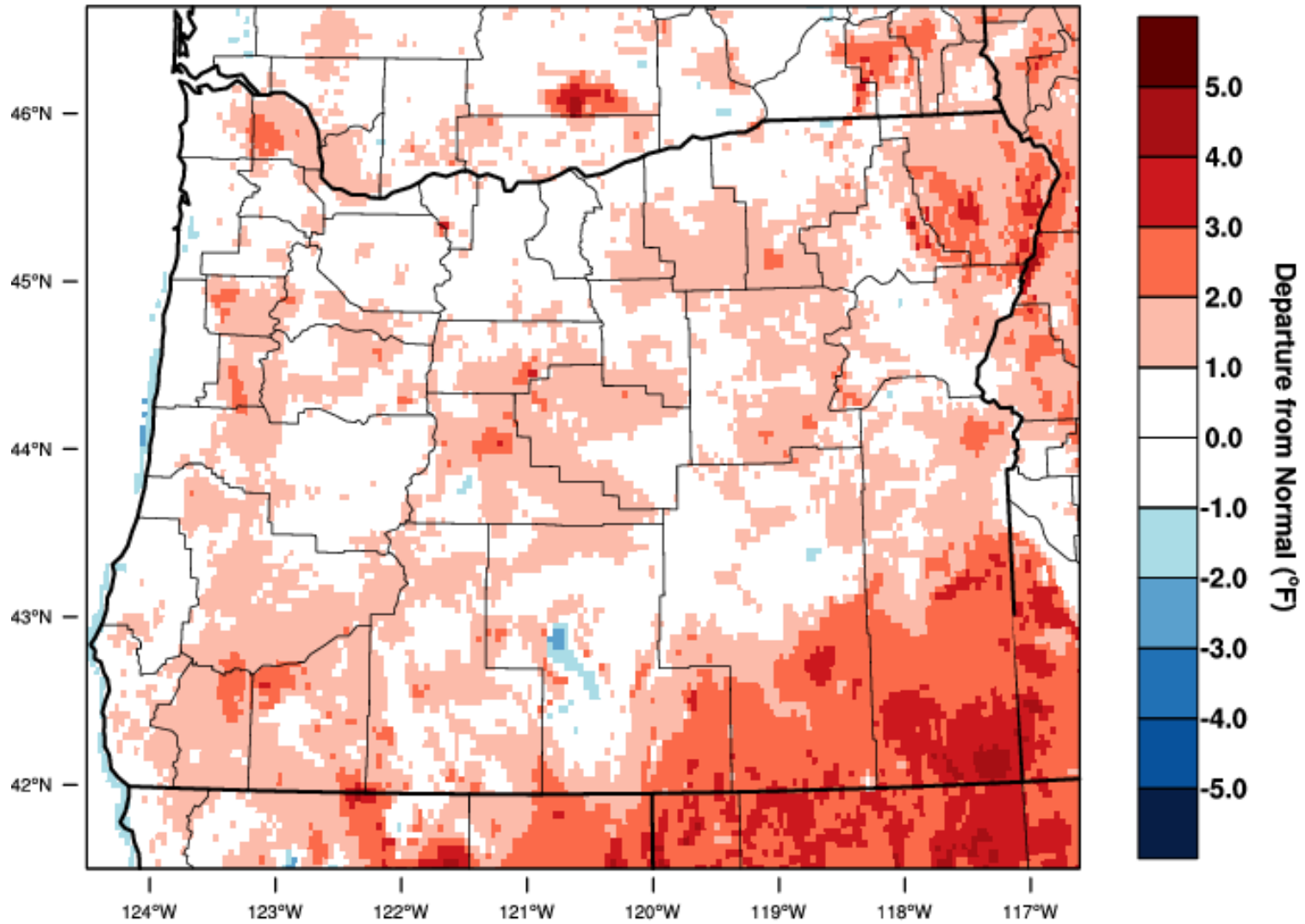
September 2021 Percent of 1981-2010 Normal



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 2 OCT 2021

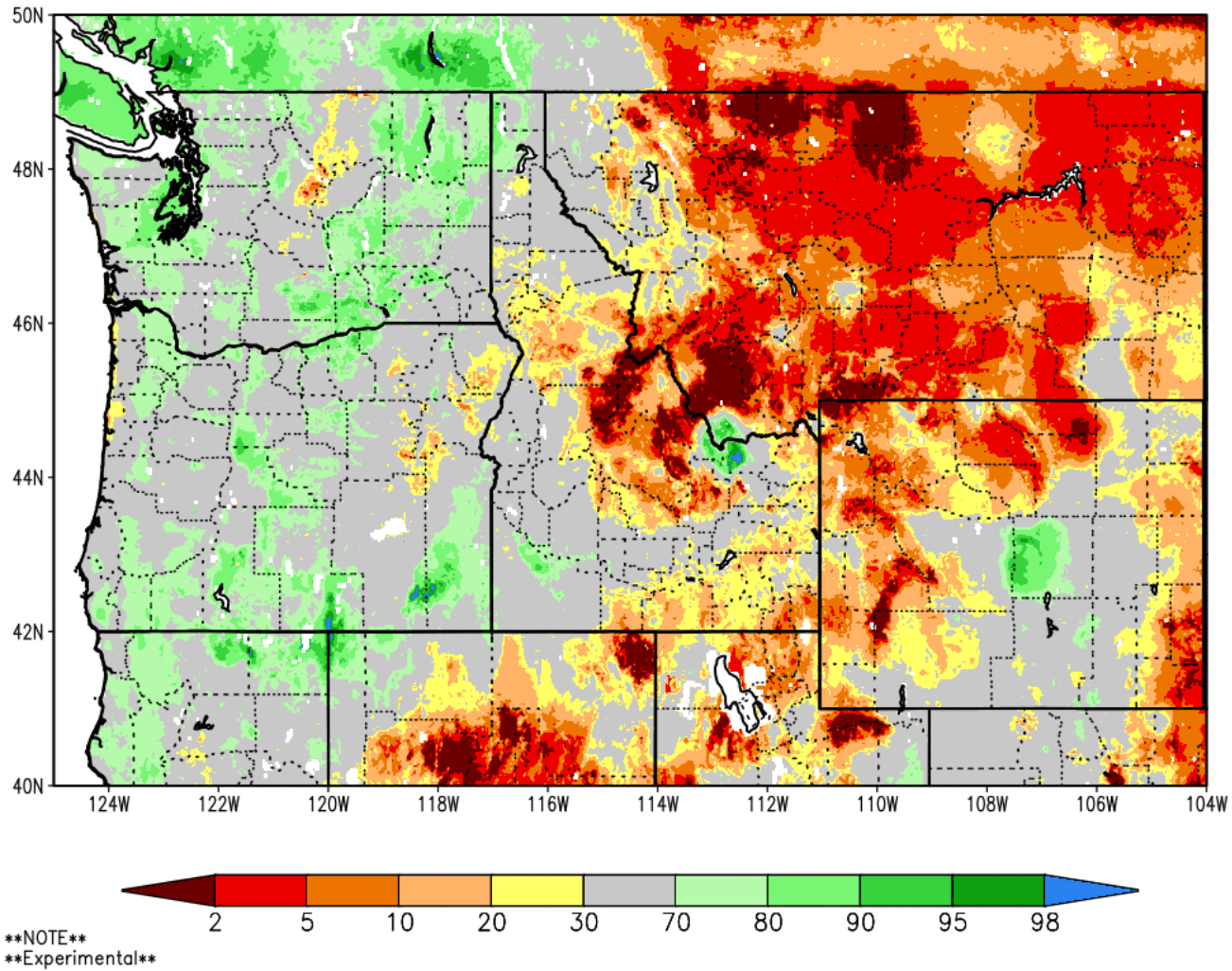
Oregon - Mean Temperature

September 2021 Departure from 1981-2010 Normal



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 2 OCT 2021

SPoRT-LIS 0-10 cm Soil Moisture percentile valid 04 Oct 2021

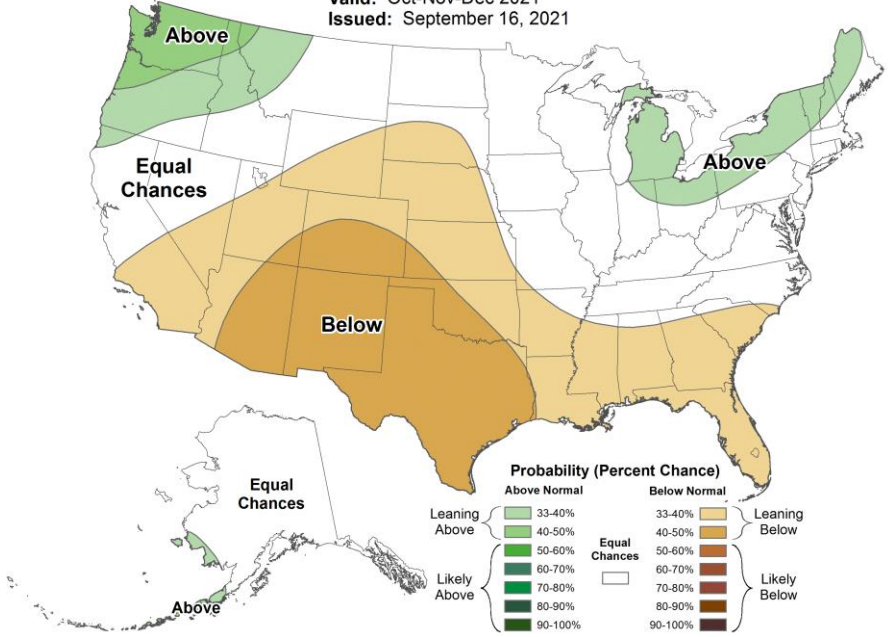




Seasonal Precipitation Outlook



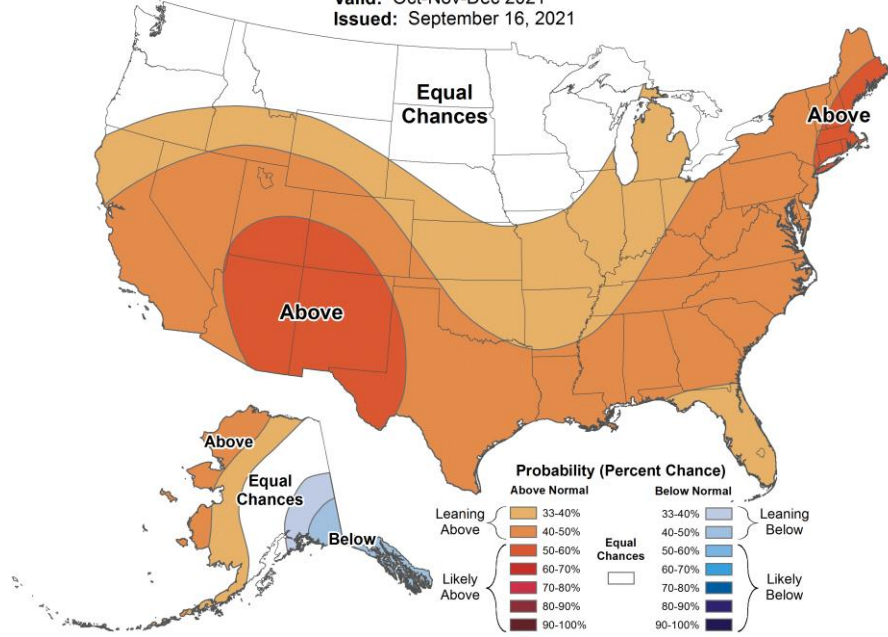
Valid: Oct-Nov-Dec 2021
 Issued: September 16, 2021



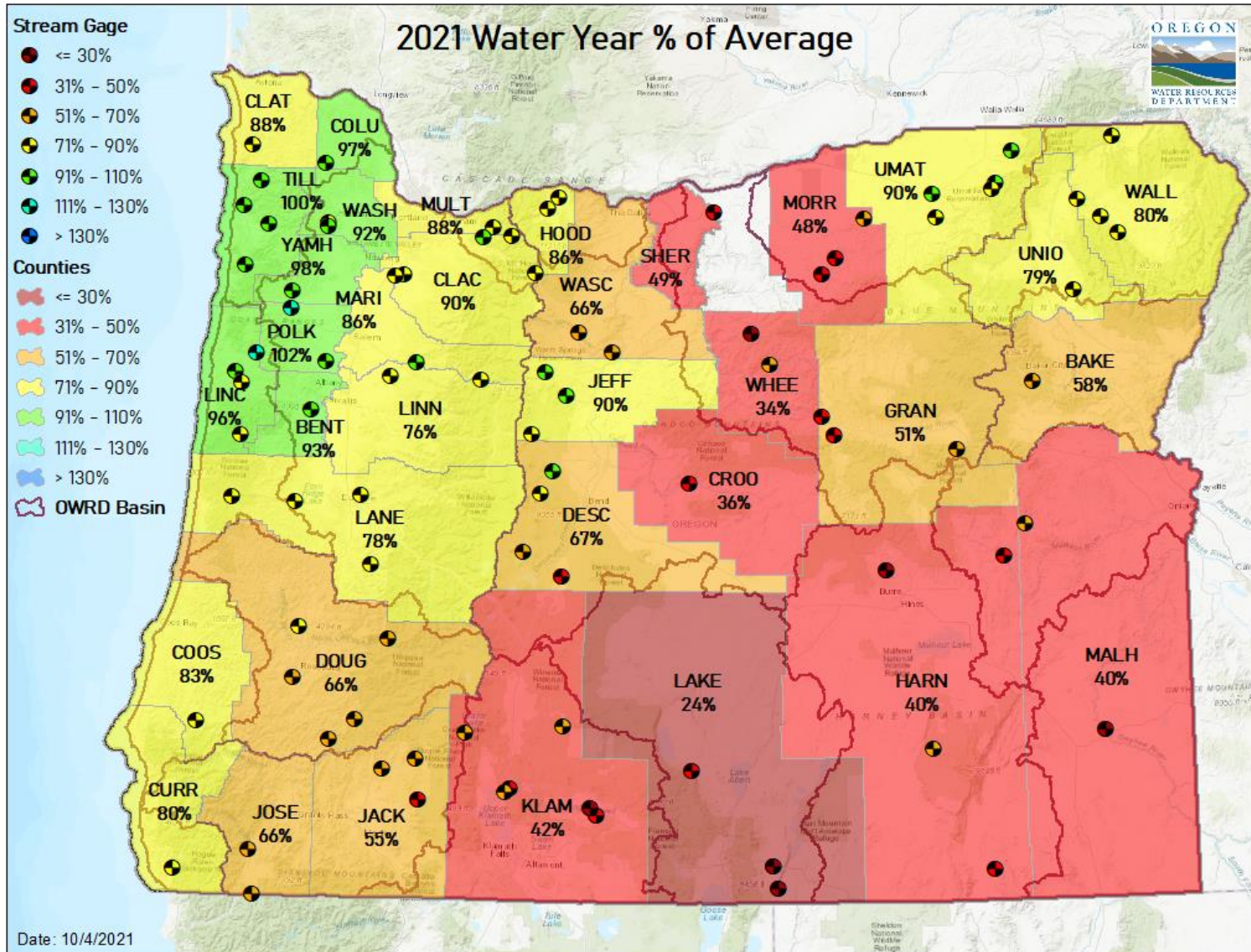
Seasonal Temperature Outlook

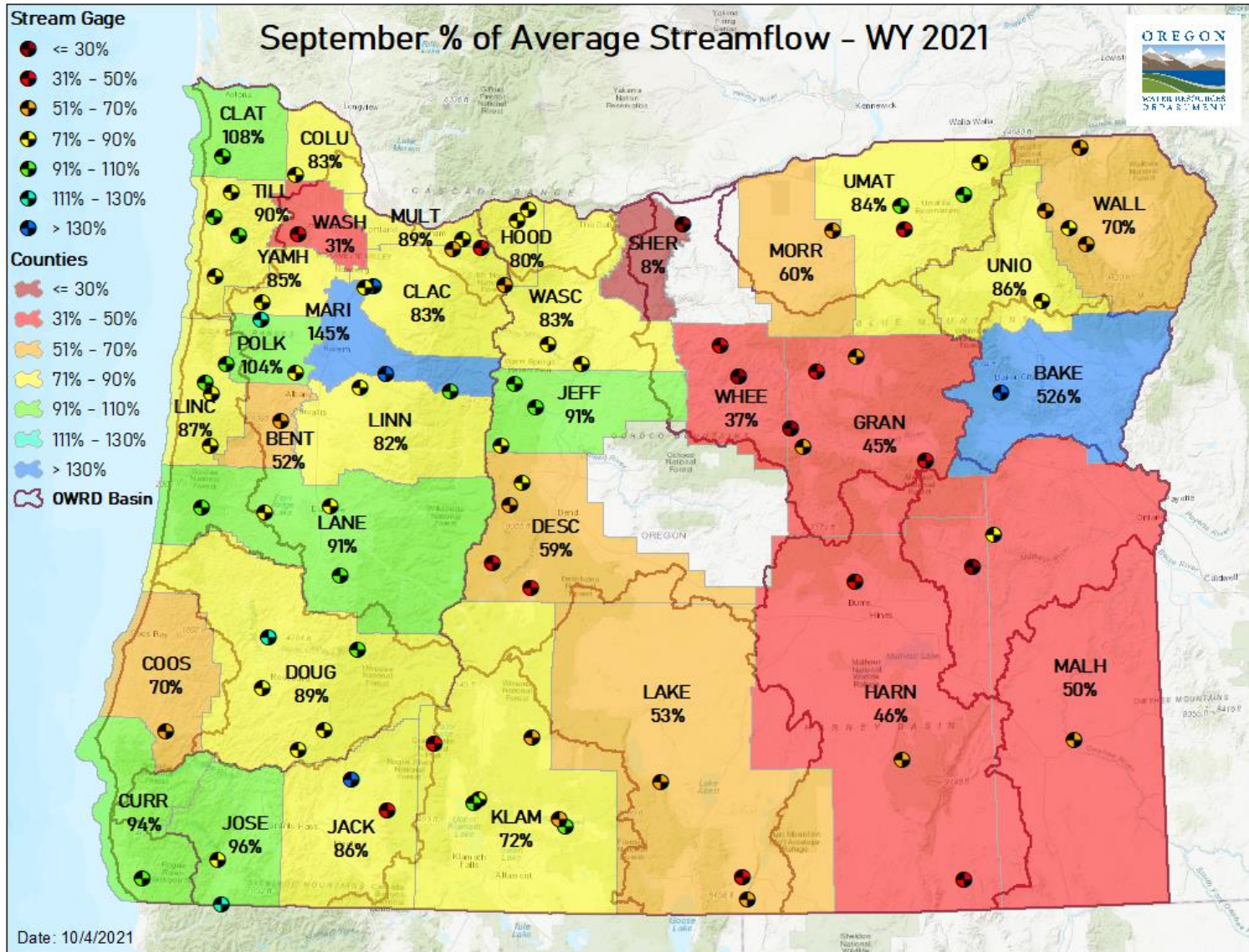


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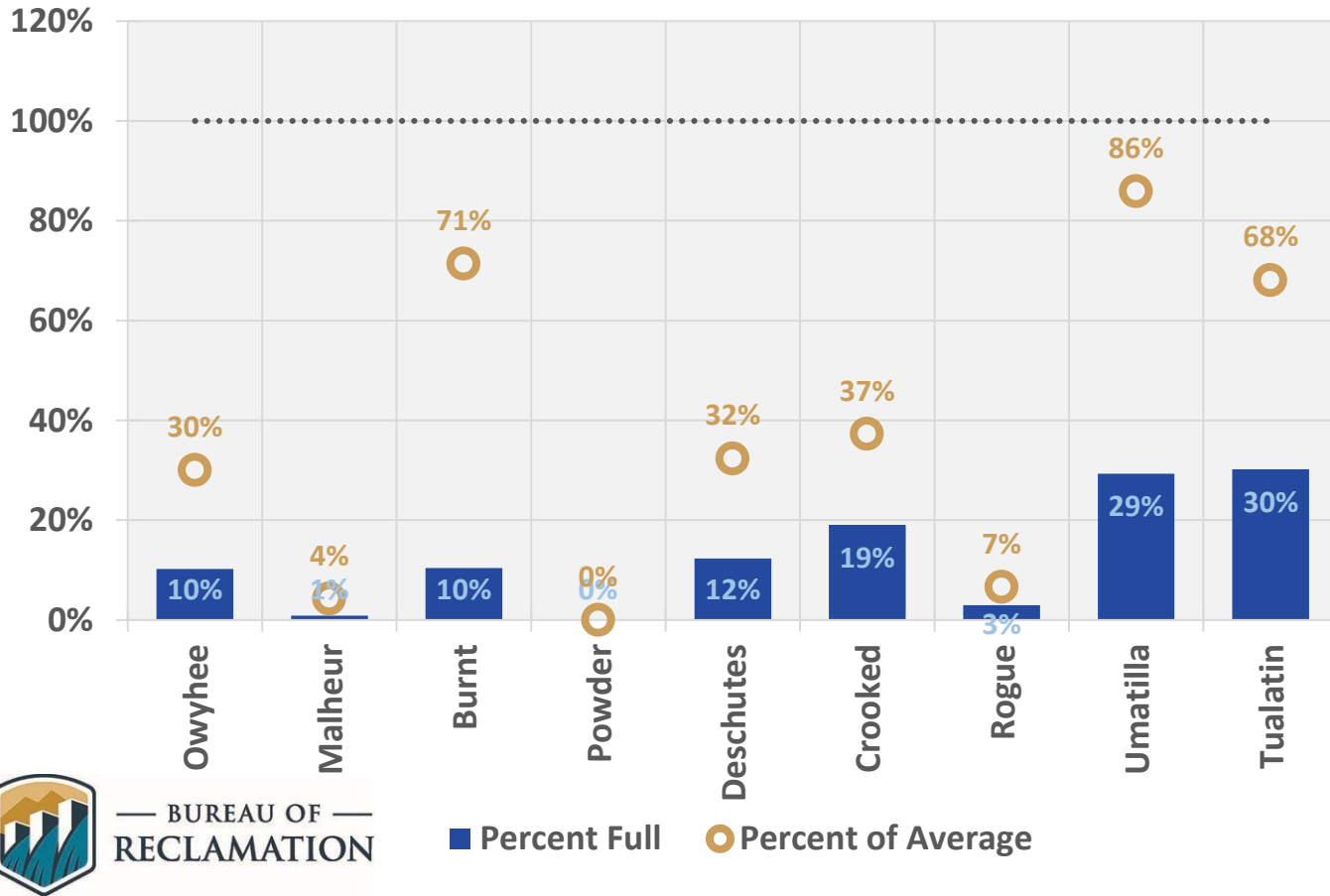


STREAMFLOW
2021 WATER YEAR





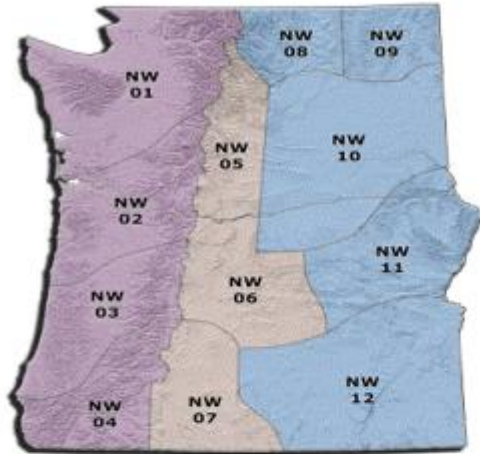
September 25 Reservoir Storage



Pacific Northwest 7 Day Significant Fire Potential



Monday, 10/4/2021



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	Tue	Wed	Thu	Fri	Sat	Sun
NW01								
NW02								
NW03								
NW04								
NW05								
NW06								
NW07								
NW08								
NW09								
NW10								
NW11								
NW12								

Fire Weather: Today will be dry and seasonably warm across the region. General winds will start light today but will begin increasing over higher elevations east of the Cascades in Oregon this afternoon the next weather system nears. The frontal system will bring precipitation to western Washington by tomorrow morning, spreading to the rest of the west side through the day with some showers possible for higher elevations on the east side. Winds will further increase, particularly for central Oregon tomorrow afternoon, then ease some on Wednesday. Upper level troughing will linger over the region, maintaining cool temperatures and periodic showers through the work week.

Your NWS fire weather forecast has the details for your area.

Fire Potential: The potential for new significant fires is forecast to remain low through the week.

Preparedness Level:

Northwest: 2
National: 3

- 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.