

Oregon Water Conditions Report



July 12th, 2021

HIGHLIGHTS

Thus far in 2021, [19 Oregon counties](#) have received state drought declarations, including recent [Executive Orders](#) for Grant, Umatilla, Union, and Wasco Counties.

Multiple drought indices have suggested further deterioration in drought conditions which are reflected in the most recent update to the [US Drought Monitor](#). Extreme temperatures caused by the recent heat wave and severe lack of precipitation have led to historically dry soil moisture and record low streamflows. See below for more information.

[June precipitation](#) was below average throughout a majority of the state. Portions of western Oregon, including the Willamette Valley and the southwest region experienced above average precipitation due to a significant atmospheric river event at the beginning of the month. Much of eastern Oregon experienced well below average precipitation.

[June temperatures](#) were well above average throughout the state. Most of Oregon averaged at least 5 - 8 °F above average. Extreme heat due to the recent heat wave caused damage to crops, including fruits, vegetables, and nursery plants. [Heat and drought conditions continued to reduce crop yield and quality.](#)

Soil moisture profiles reflect record dry conditions throughout much of the state, both in terms of [shallow](#) and [deeper](#) profiles. Dry soil moisture conditions have significantly impacted rangeland conditions.

Average streamflows for June were well below average throughout the entire state. All counties recorded below average streamflows, with many recording less than 50% of average. Throughout the water year to date, nearly all counties have recorded below average streamflow. See below for more information.

The [8 - 14 day forecast](#) indicates probabilities favoring below average precipitation and above average temperatures. The [long-term outlook](#) reflects similar probabilities for July through September.

Reservoir storage contents are measuring below average among US Bureau of Reclamation systems in [Oregon](#), including the [Klamath Basin](#).

[Wildfire potential](#) is elevated throughout much of the Pacific Northwest and is expected to remain so for the next seven days.

DROUGHT CONDITIONS

The US Drought Monitor indicates 100% of Oregon is experiencing some form of drought conditions. Major changes include expansion of D4 (exceptional drought) coverage throughout portions of central Oregon, one-class degradation (D1 -> D2) in Harney and Malheur Counties, and one-class degradation (D2 -> D3) in Wallowa County.

U.S. Drought Monitor Oregon

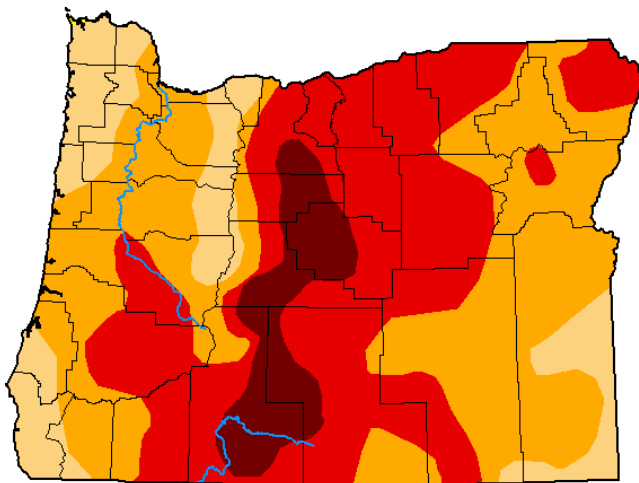
July 6, 2021

(Released Thursday, Jul. 8, 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	99.97	86.40	46.02	8.24
Last Week <small>06-29-2021</small>	0.00	100.00	99.97	81.96	43.93	4.78
3 Months Ago <small>04-06-2021</small>	17.73	82.27	65.94	41.68	13.22	1.48
Start of Calendar Year <small>12-29-2020</small>	8.57	91.43	83.53	68.71	27.74	0.00
Start of Water Year <small>09-29-2020</small>	6.50	93.50	84.77	65.53	33.59	0.00
One Year Ago <small>07-07-2020</small>	9.21	90.79	74.48	46.67	6.18	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>

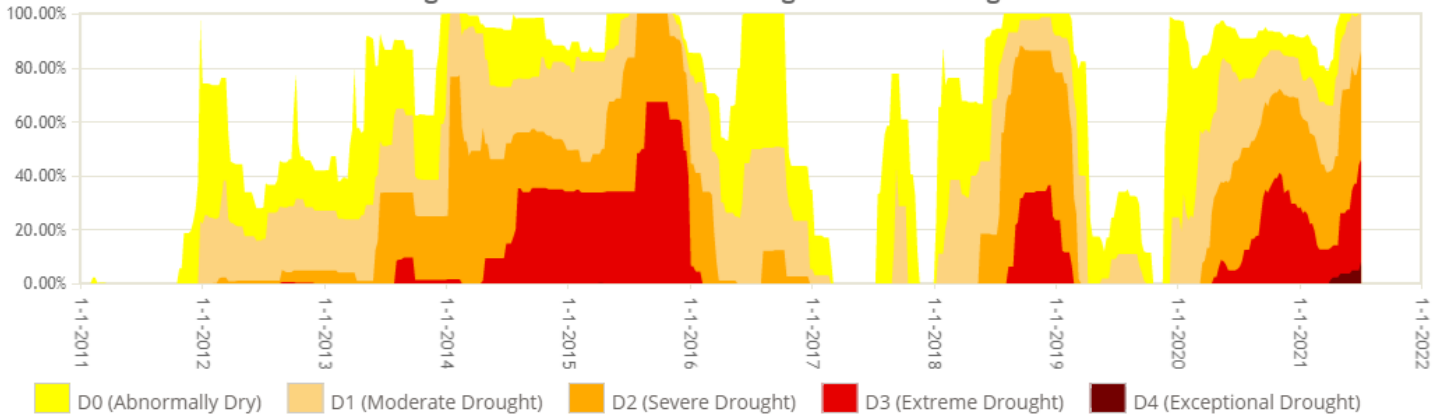
Author:

Deborah Bathke
National Drought Mitigation Center



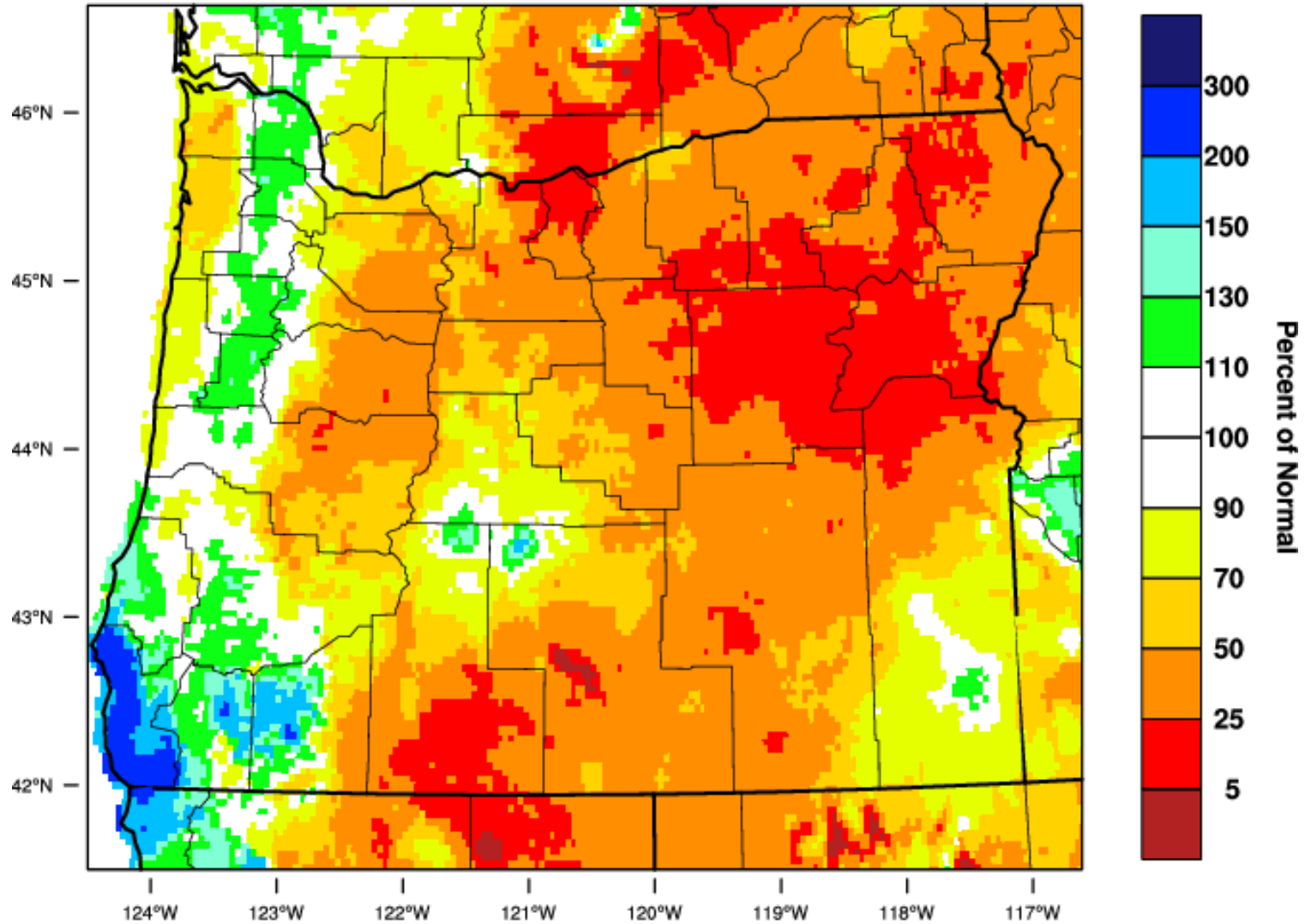
droughtmonitor.unl.edu

Oregon Percent Area in U.S. Drought Monitor Categories



Oregon - Precipitation

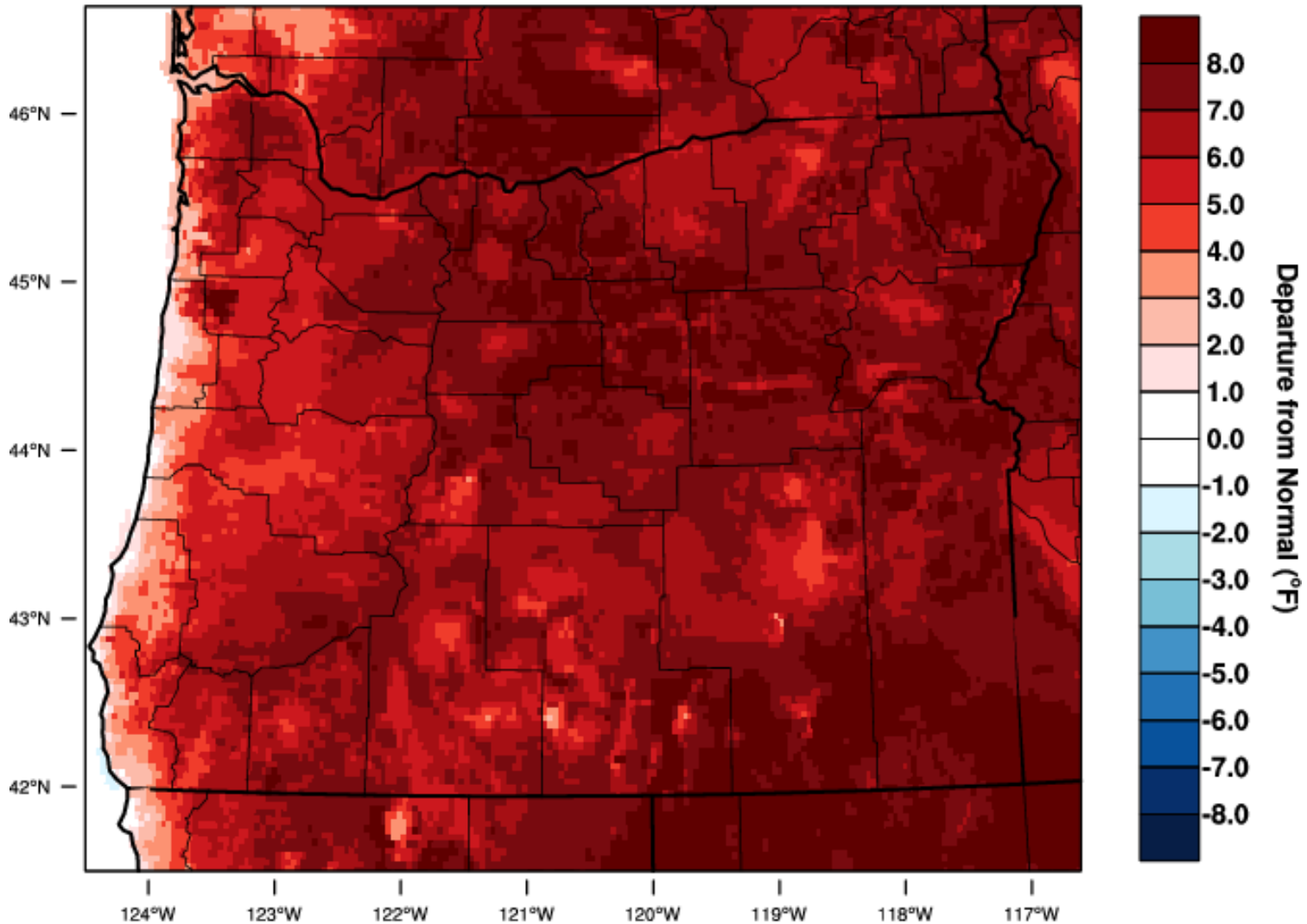
June 2021 Percent of 1981-2010 Normal



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 11 JUL 2021

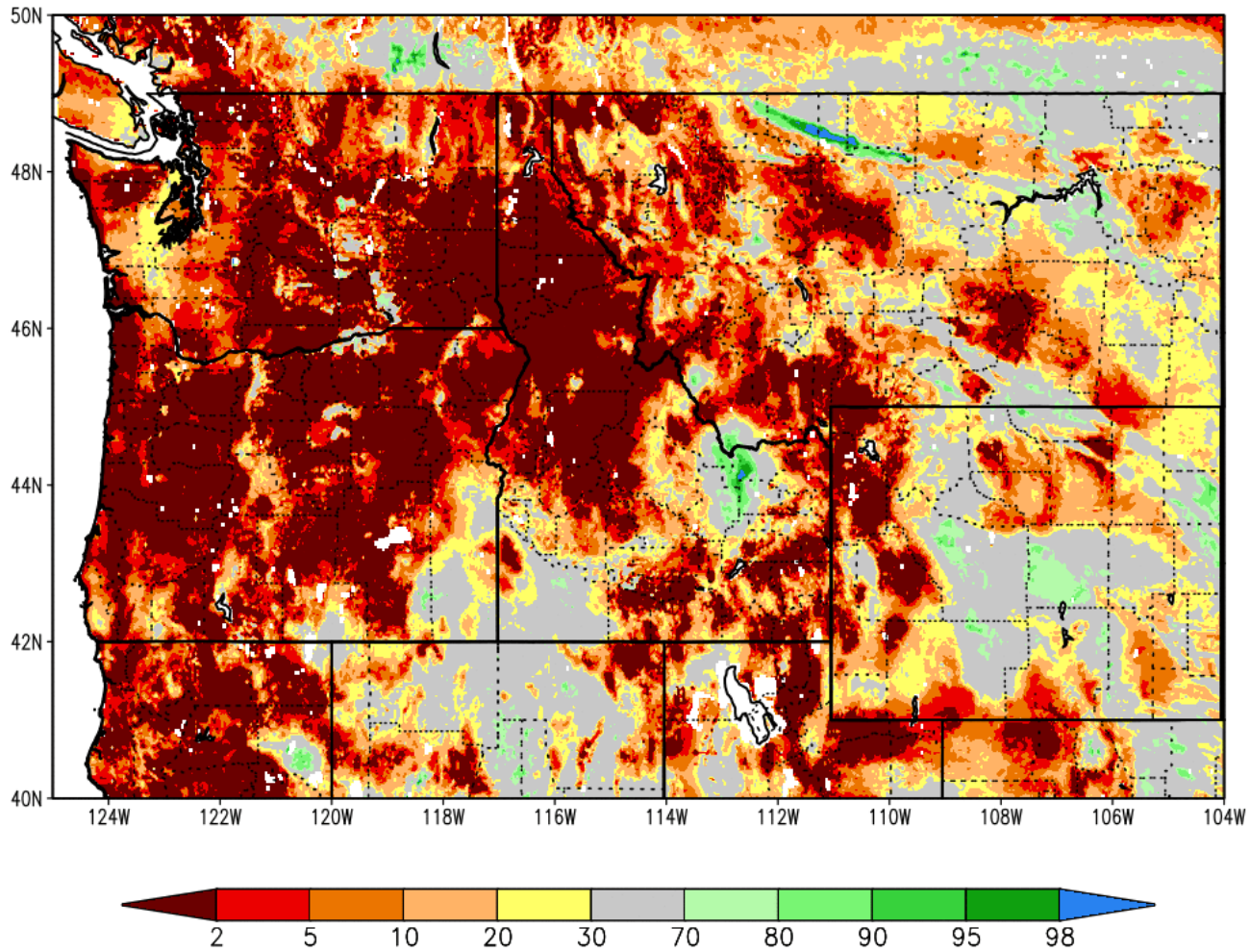
Oregon - Mean Temperature

June 2021 Departure from 1981-2010 Normal

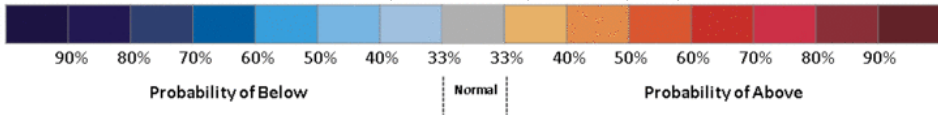
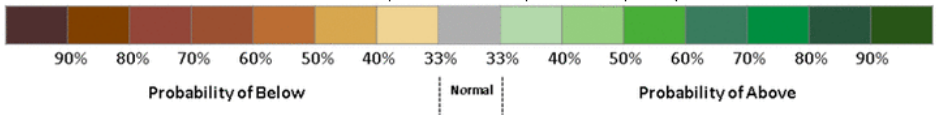
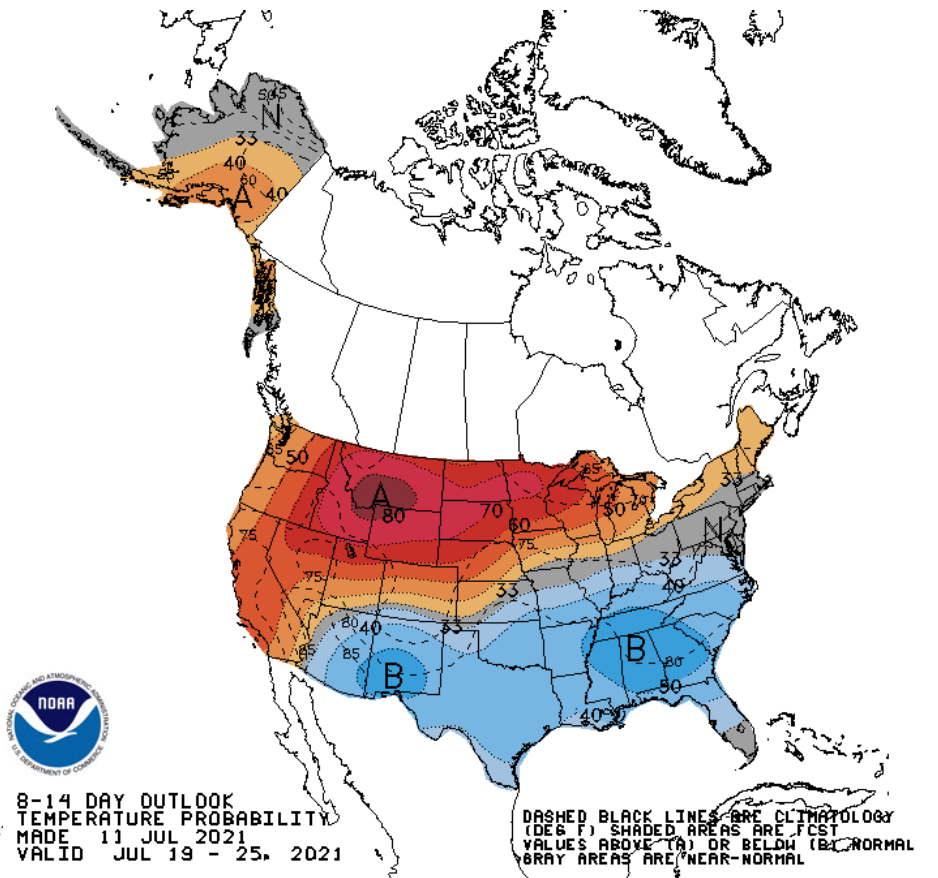
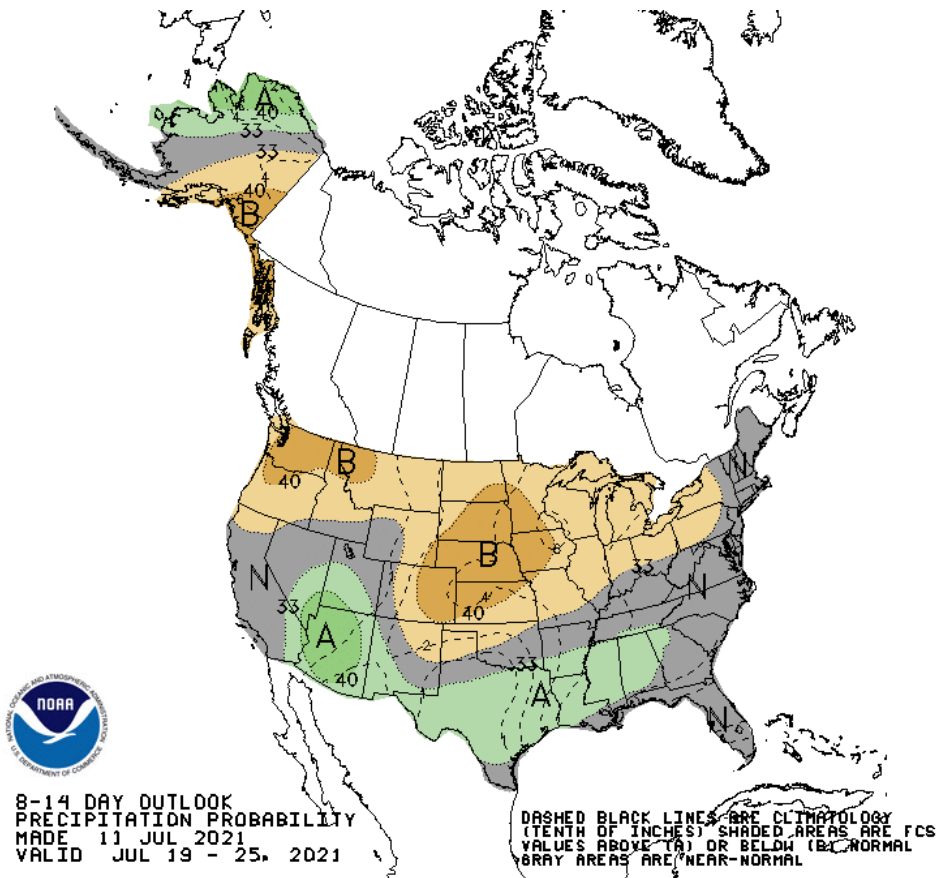


WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 11 JUL 2021

SPoRT-LIS 0-10 cm Soil Moisture percentile valid 12 Jul 2021

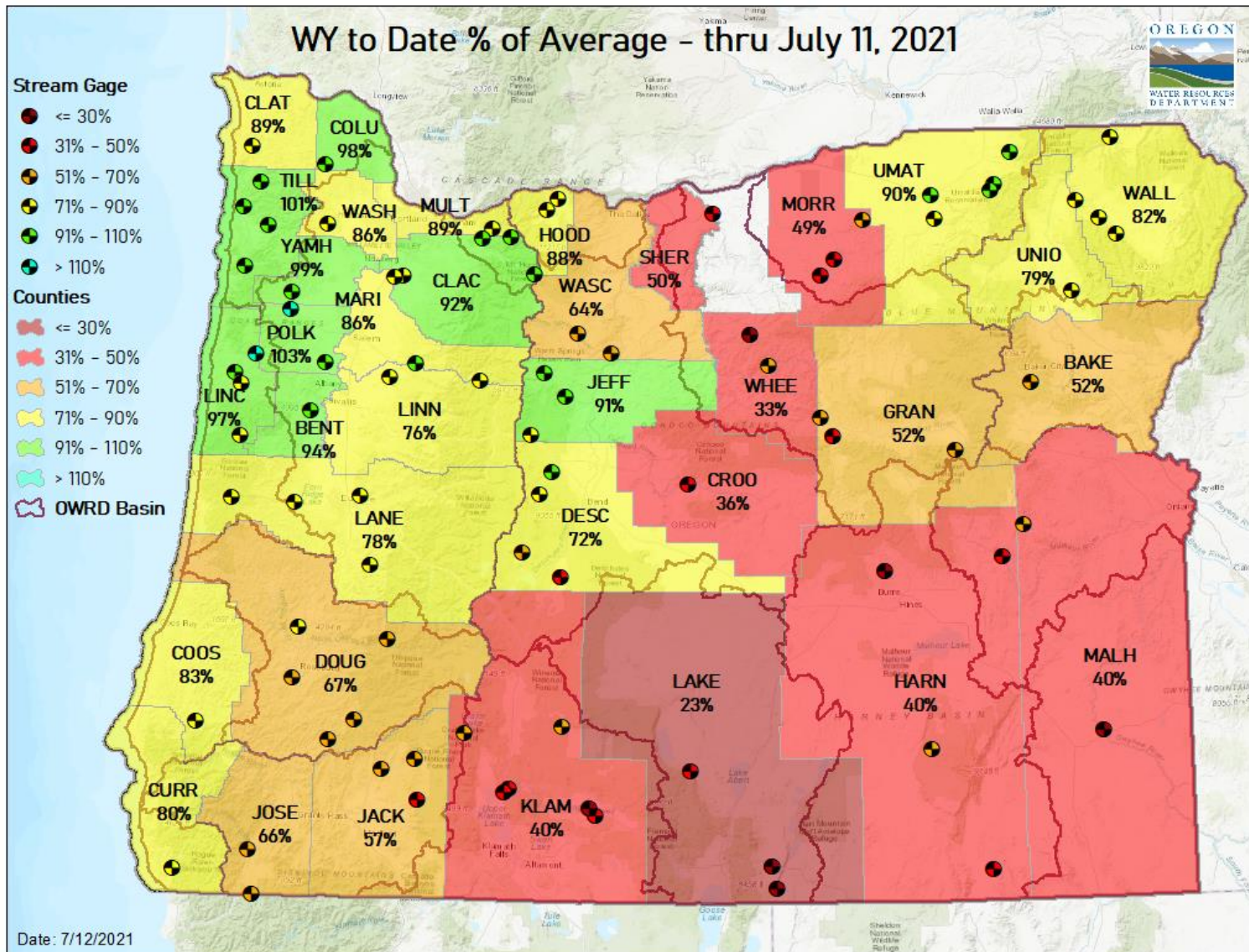


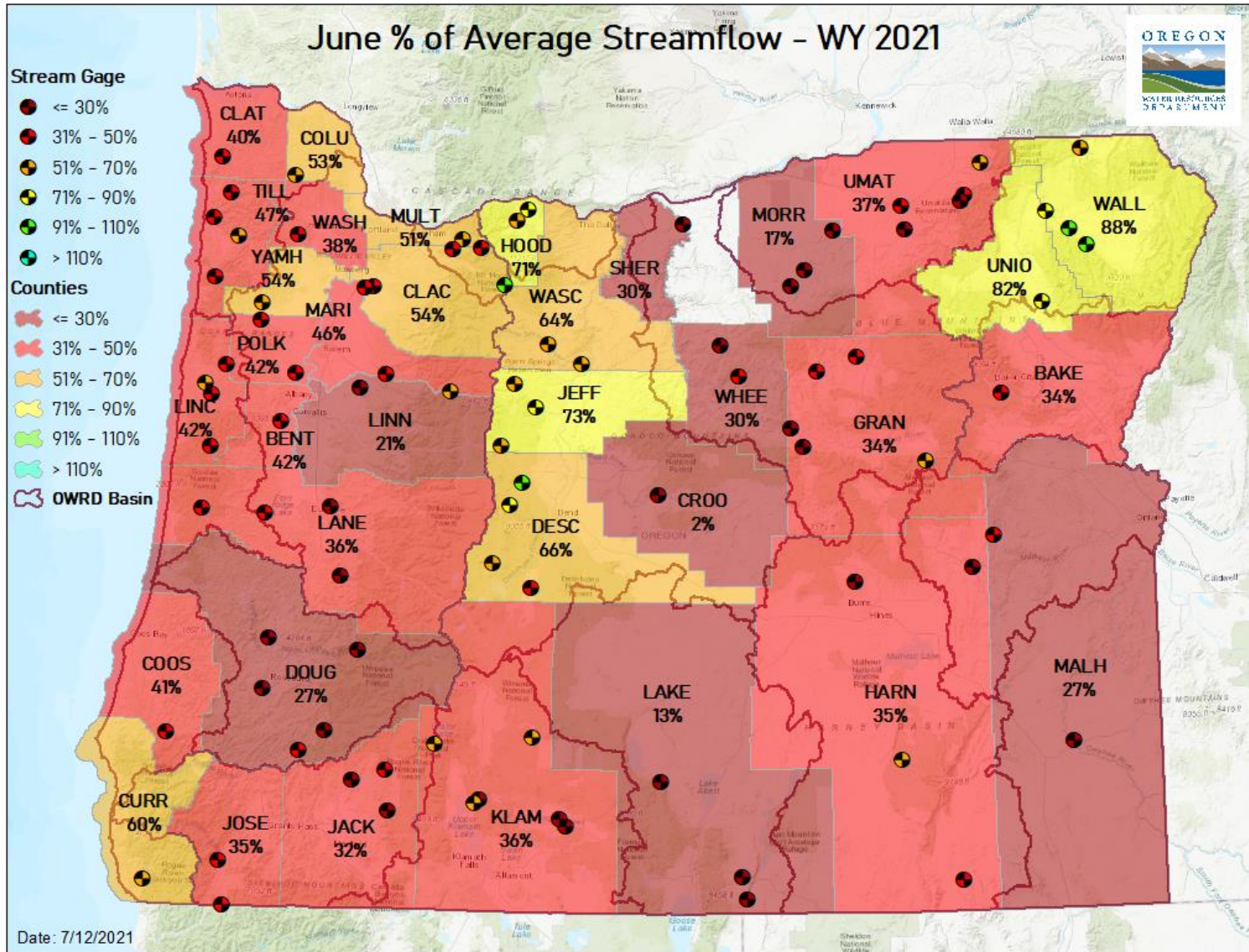
CLIMATE OUTLOOK



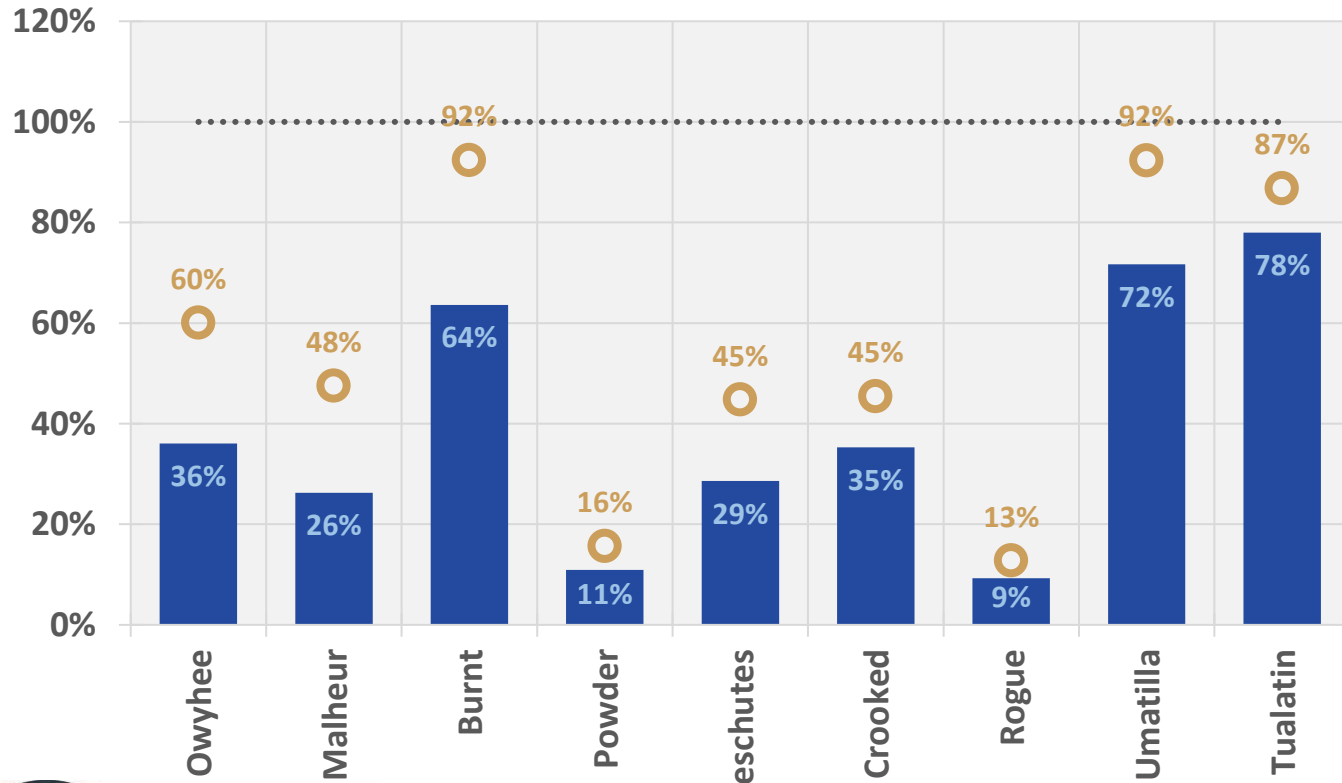
STREAMFLOW

WATER YEAR TO DATE





July 7 Reservoir Storage



BUREAU OF RECLAMATION

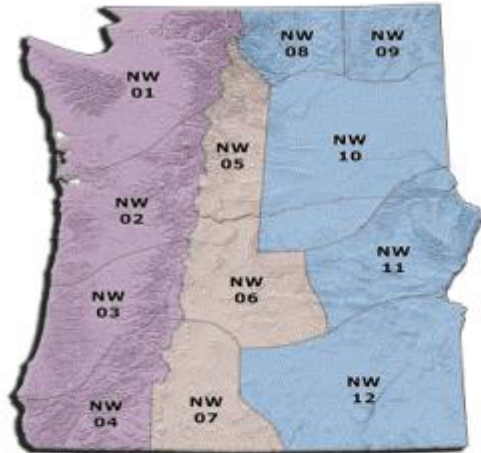
■ Percent Full

● Percent of Average

Pacific Northwest 7 Day Significant Fire Potential



Monday, 7/12/2021



Predictive Service

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

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%.

Fire Weather: The Pacific Northwest will stay hot and dry into the middle of the week with poor to moderate overnight relative humidity recoveries on the east side of the region. Breezy winds are expected each afternoon through Cascade gaps and to the east. A shortwave disturbance will cross the region today bringing chances for showers and wet thunderstorms in the northern mountains this afternoon/evening with some residual chances tomorrow. A broad upper level trough will approach Wednesday, bringing breezy to windy conditions through Cascade gaps and across the east side basins Wednesday and Thursday. The system will also reduce temperatures toward seasonal normals into the weekend. No precipitation is expected with the system. Temperatures will rise again next week.

See your NWS forecasts for the latest fire weather details for your area.

Fire Potential: Potential for thunderstorms over the northern Cascades today leads to high risk for new significant fires. The storms will be wet, but with initial attack already in progress for previous lightning holders, outflow gusts as well as new ignitions are concerning. As fire danger remains above average for most of the region, hot, dry and breezy conditions will maintain elevated potential for new significant fire development east of the Cascades. Potential could moderate some toward the end of next week as cooler weather arrives.

Preparedness Level:

Northwest: 4
National: 4

- 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.