

Oregon Water Conditions Report



June 28th, 2021

HIGHLIGHTS

Thus far in 2021, 15 counties have received [state drought declarations](#). Five additional counties have submitted [local drought declarations](#) and have requested state drought declarations: Grant, Lane, Umatilla, Union, and Wasco.

The most recent update to the US Drought Monitor shows that all of Oregon is experiencing some form of drought conditions ranging in intensity from D0 (abnormally dry) to D4 (exceptional drought). See below for more information.

Precipitation at NRCS SNOTEL sites is measuring 81% of average over the water year to date. [Precipitation over the recent weeks](#) included an atmospheric river event which deposited a surplus of precipitation along portions of the coast.

[Temperatures over the past two weeks](#) have been well above the long-term average statewide. The majority of eastern Oregon experienced temperatures at least 6°F above average.

Streamflows over the water year to date are below to well below average statewide (see below). More recently, streamflows over the past seven days have been well below the long-term average.

All [US Bureau of Reclamation storage reservoirs](#) are drafting throughout the state. Extremely dry conditions and high irrigation demands have driven release rates above historical averages. Impacts to recreational activities at [US Army Corps of Engineers reservoir systems](#) are to be expected.

The [near-term climate outlook for the next 8 - 14 days](#) indicates probabilities favoring below-average precipitation and above-average temperatures throughout the state. [One-month and three-month forecasts](#) favor similar conditions throughout Oregon and the Pacific Northwest.

[Wildfire potential](#) for the next seven days is variable throughout the state. With exception of northwestern Oregon (minimal risk), wildfire potential is normal to above normal for much of the state and elsewhere in the Pacific Northwest. Some areas are at high risk for wildfire in eastern Oregon.

DROUGHT CONDITIONS

The [US Drought Monitor](#) indicates 100% of Oregon is experiencing some form of drought conditions. Recent changes include several one-category improvements (reduced severity) due to rainfall and cooler temperatures. The recent atmospheric river event along the coast benefitted streamflows and soil moisture profiles. Portions of Wallowa County were downgraded from D1 to D2 due to low precipitation over the water year and poor soil moisture profiles.

U.S. Drought Monitor Oregon

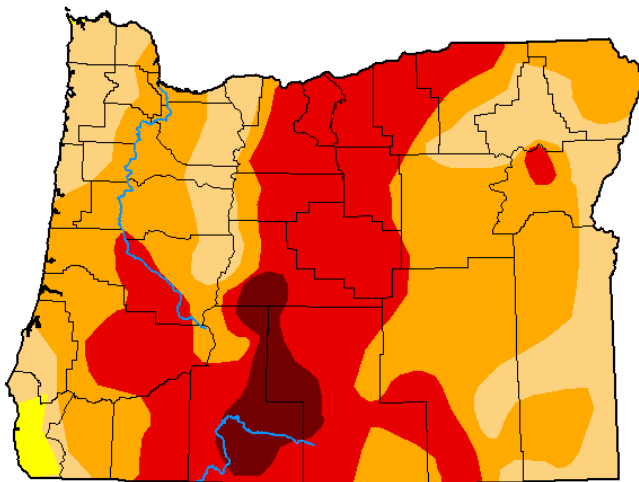
June 22, 2021

(Released Thursday, Jun. 24, 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	98.99	77.38	36.90	4.78
Last Week <i>06-15-2021</i>	0.00	100.00	98.99	77.03	36.90	4.78
3 Months Ago <i>03-23-2021</i>	21.09	78.91	66.00	41.25	12.55	0.00
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>06-23-2020</i>	5.49	94.51	78.38	45.40	4.78	0.00



Intensity



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>

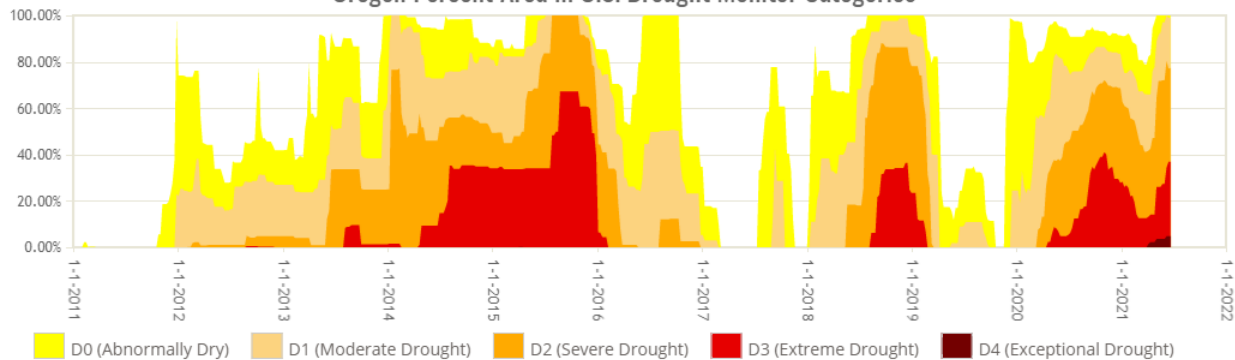
Author

Curtis Riganti
National Drought Mitigation Center

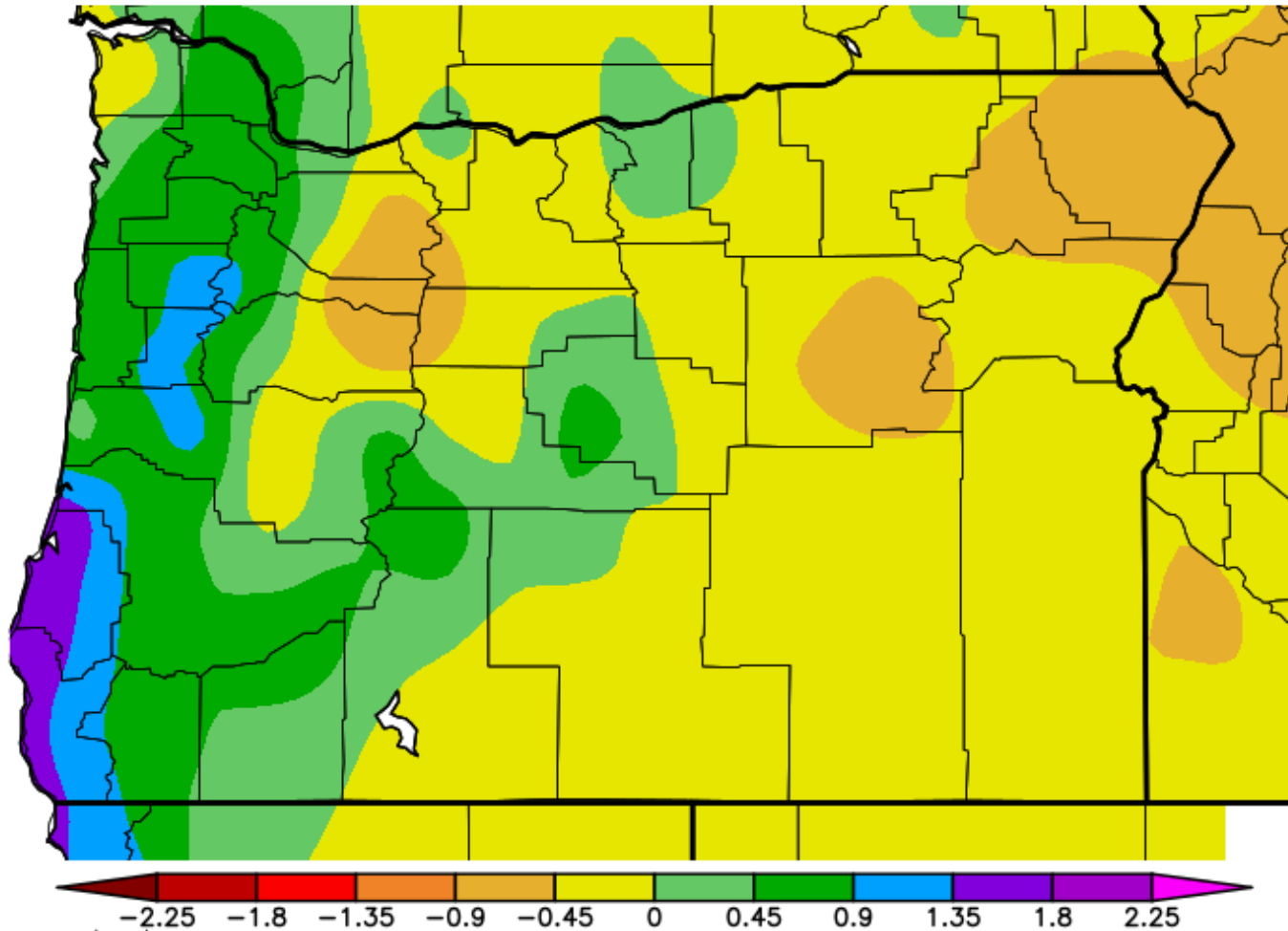


droughtmonitor.unl.edu

Oregon Percent Area in U.S. Drought Monitor Categories

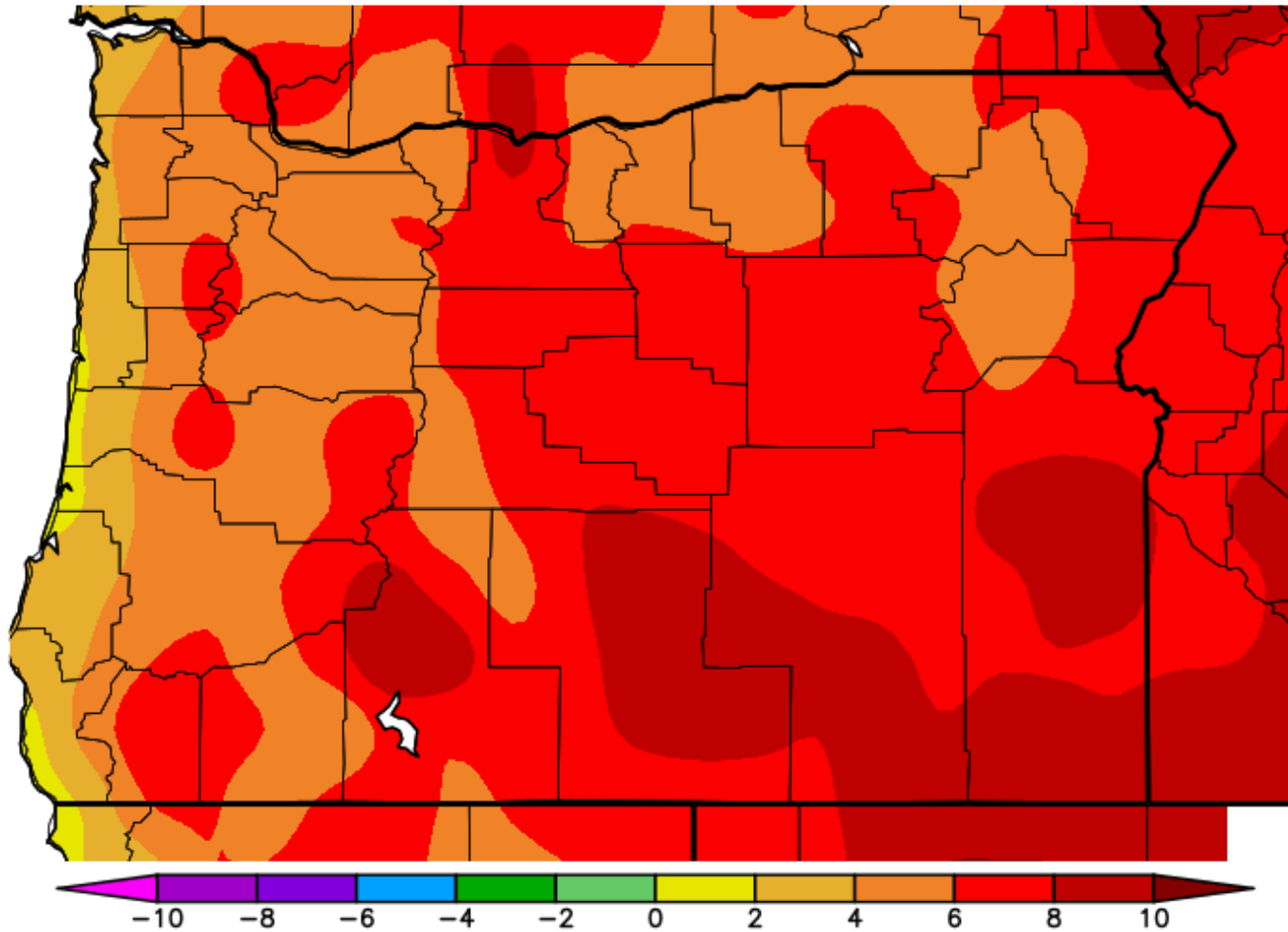


Precipitation Departure from Average (in.) 6/12/2021 – 6/25/2021



Generated 6/26/2021 at WRCC using provisional data.
NOAA Regional Climate Centers

Ave. Temperature dep from Ave (deg F)
6/12/2021 – 6/25/2021

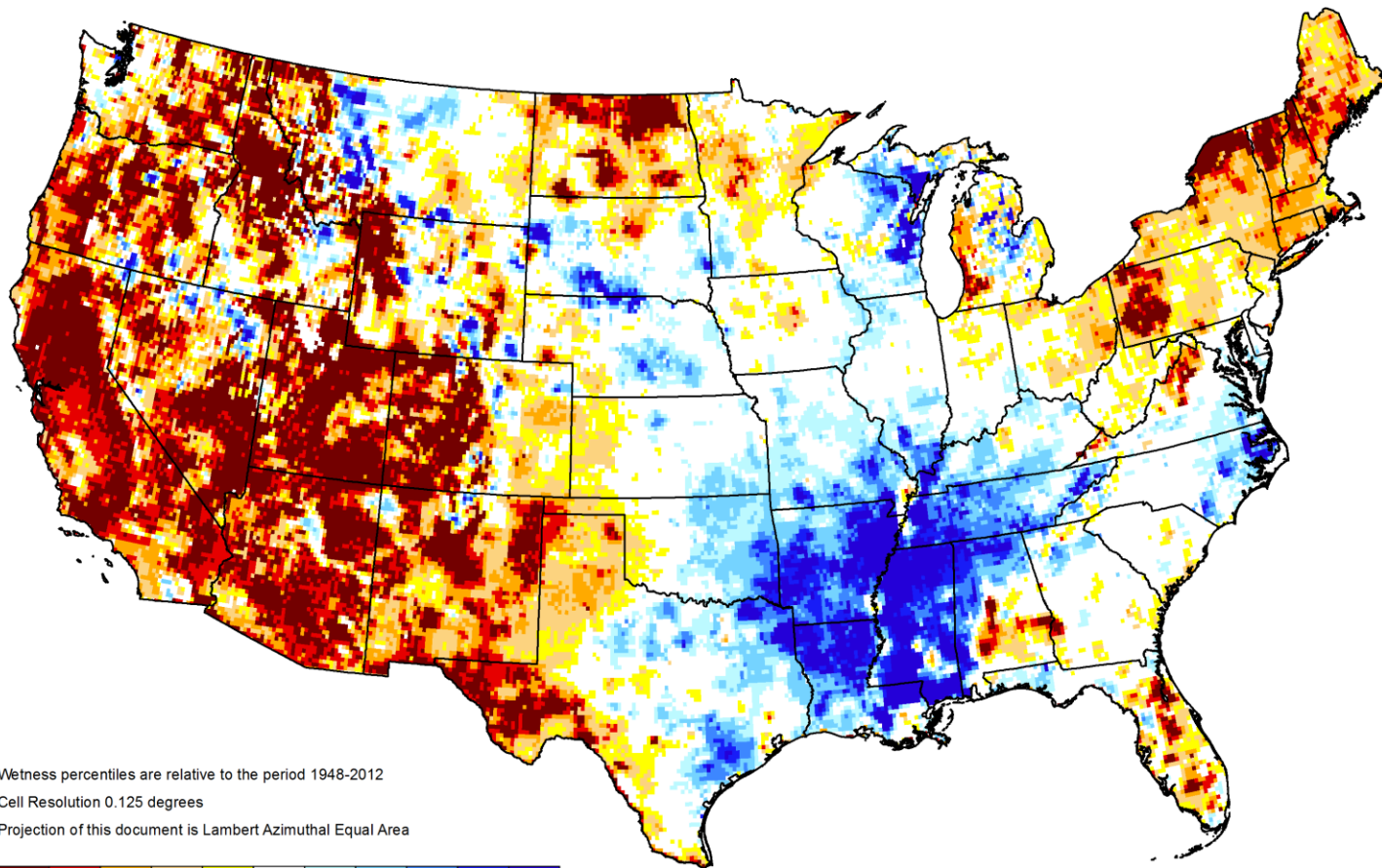


Generated 6/26/2021 at WRCC using provisional data.
NOAA Regional Climate Centers

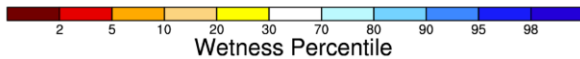


GRACE-Based Shallow Groundwater Drought Indicator

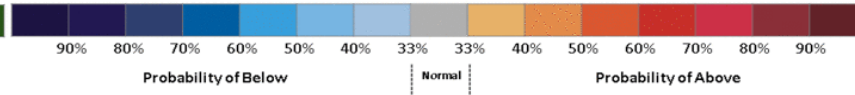
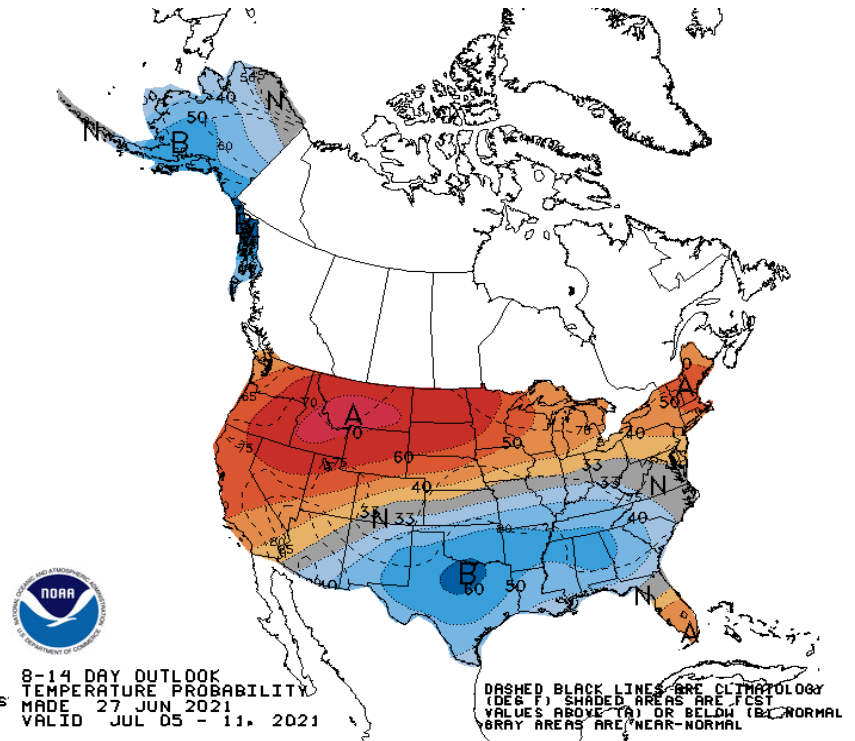
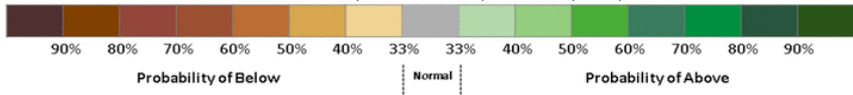
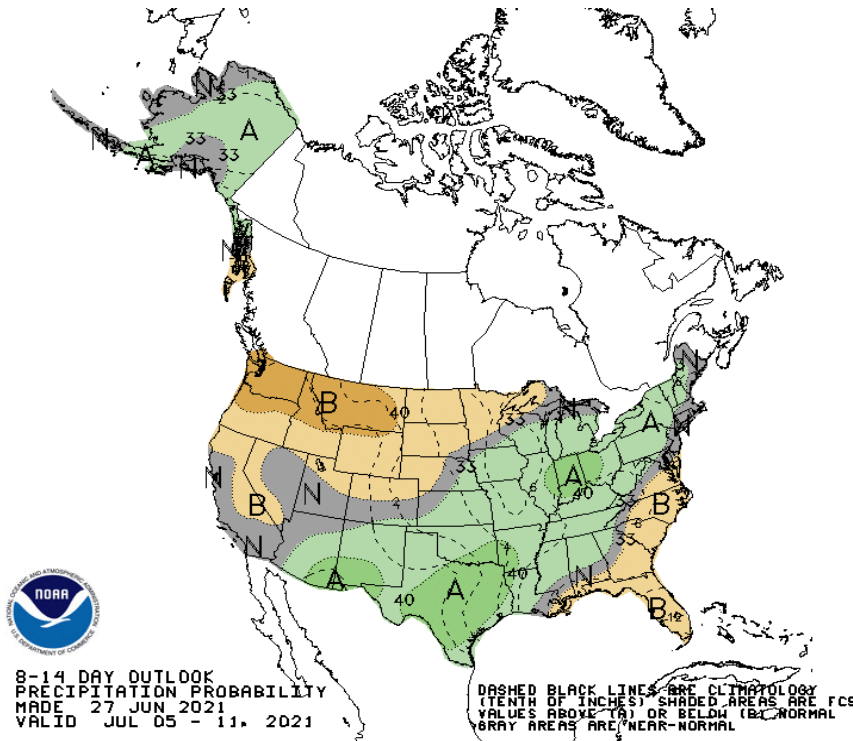
June 21, 2021



Wetness percentiles are relative to the period 1948-2012
Cell Resolution 0.125 degrees
Projection of this document is Lambert Azimuthal Equal Area

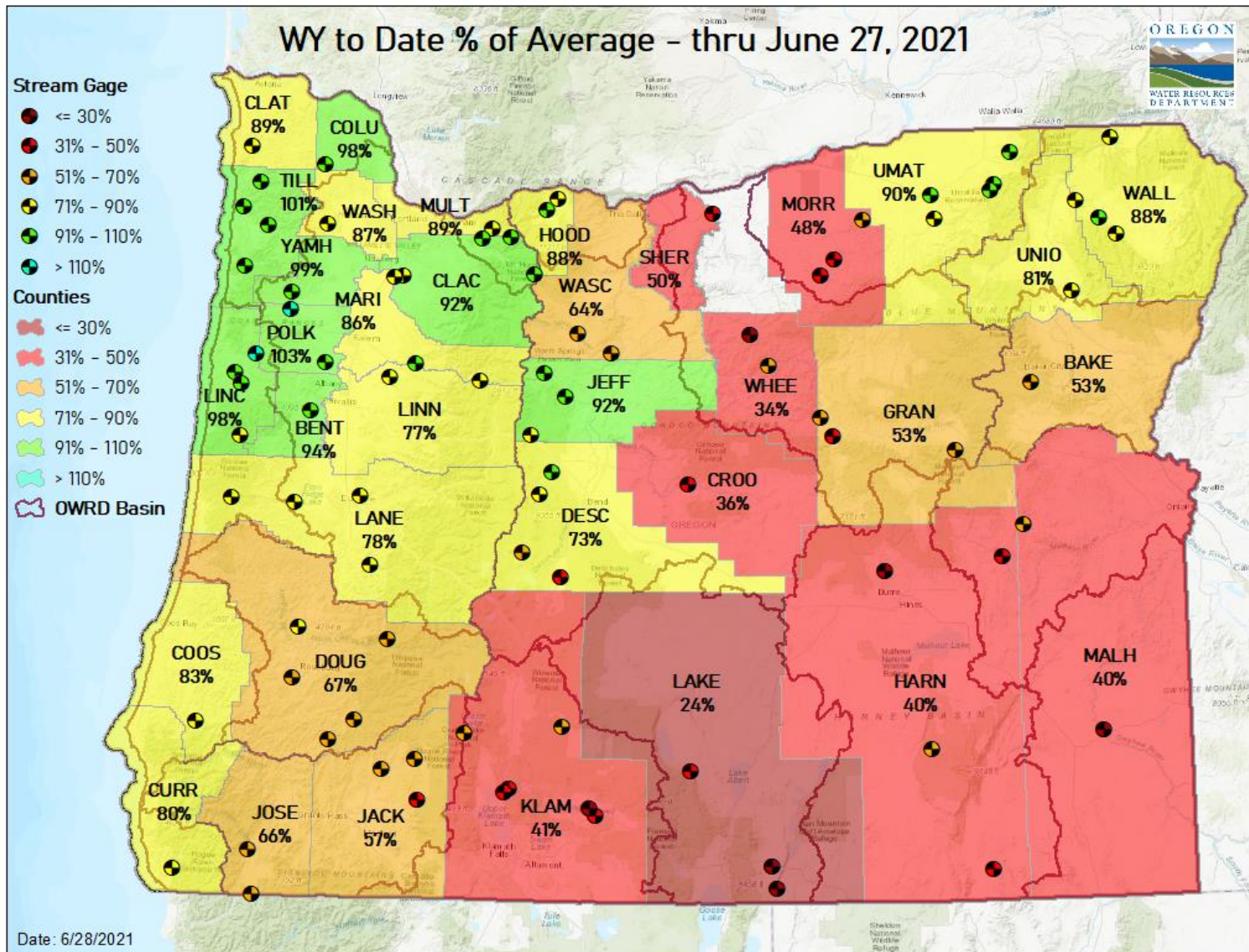


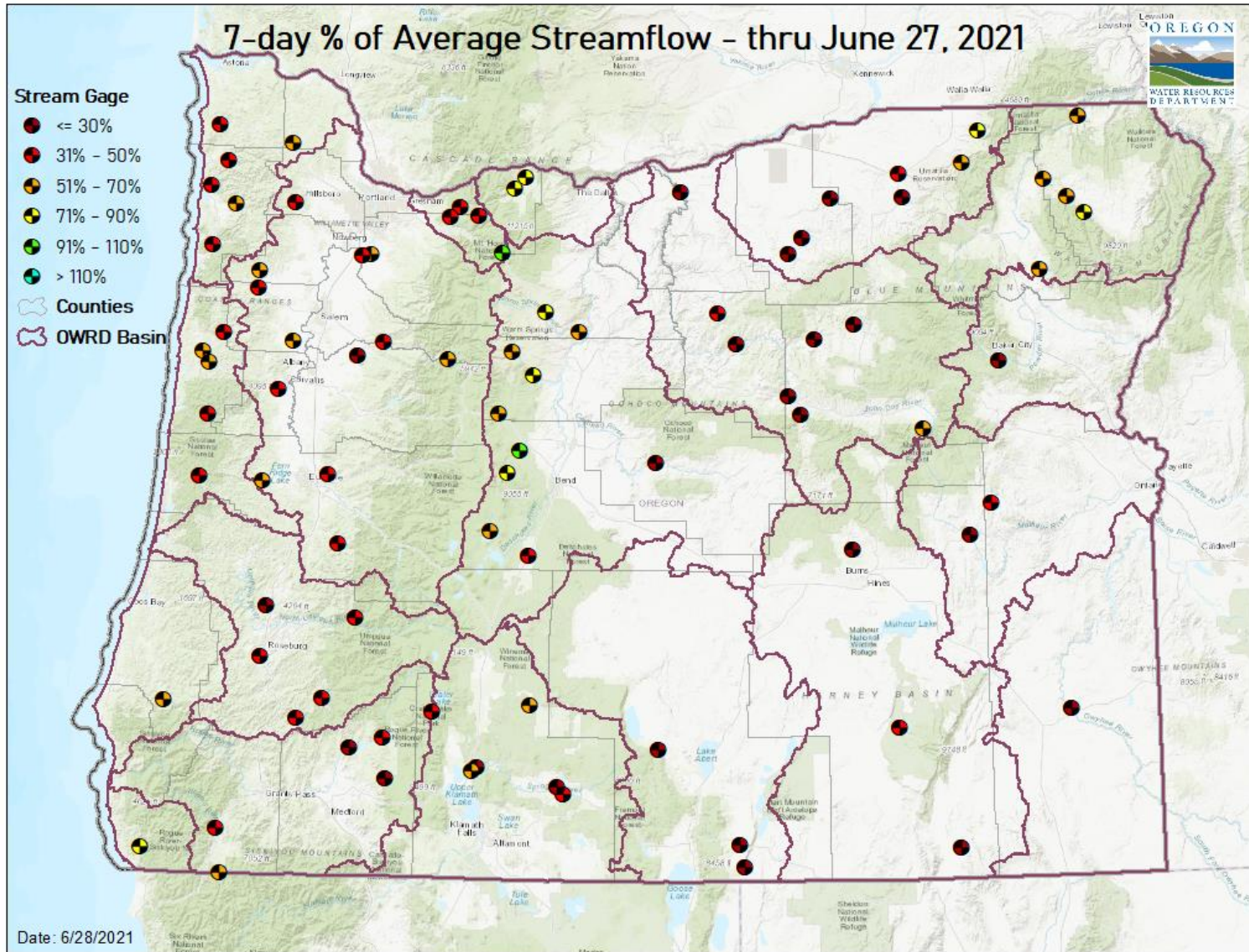
<https://nasagrace.unl.edu>



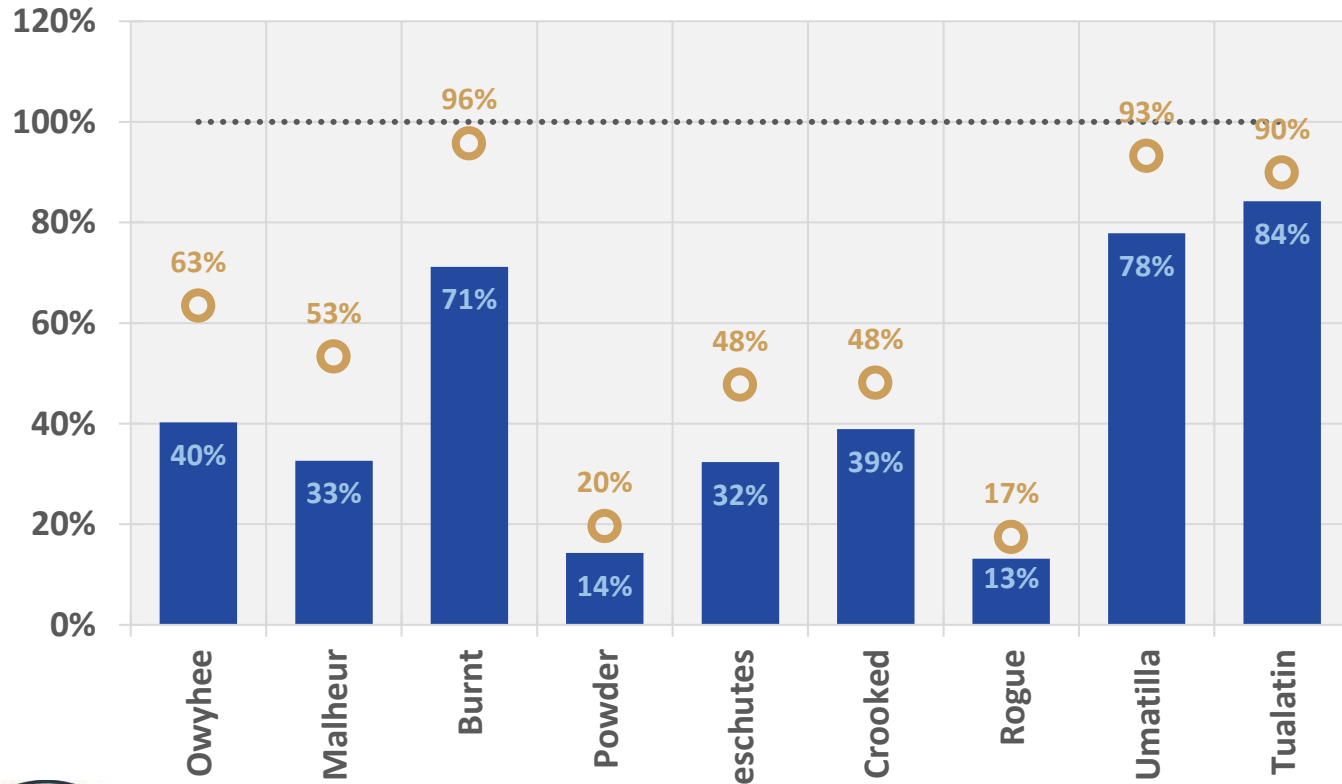
STREAMFLOW

WATER YEAR TO DATE





June 27 Reservoir Storage



BUREAU OF RECLAMATION

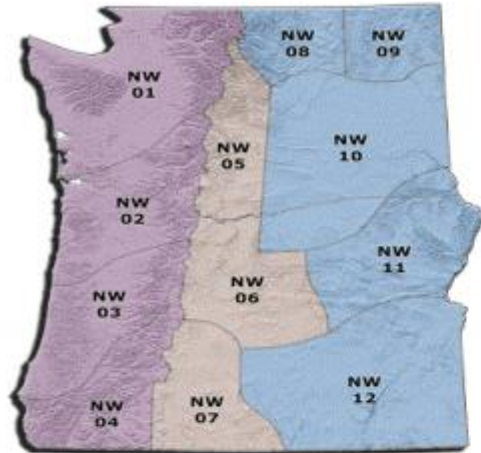
■ Percent Full

● Percent of Average

Pacific Northwest 7 Day Significant Fire Potential



Monday, 6/28/2021



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 <u>normal</u> 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: Extreme heat continues over the region, peaking today on the west side and tomorrow and Wednesday on the east side before moderating, but remaining above normal into next week. A thermal trough along the 1-5 corridor will draw easterly winds over the Cascades again today, bolstering warming and drying for the west side. Breezy easterly winds are expected today through the Kittitas Valley, portions of the Columbia Basin, and much of central Oregon. The thermal trough will shift over, then east of the Cascades tonight into tomorrow, bringing onshore flow Tuesday. As the trough moves east later today, cooler marine air will move into the west side accompanied by breezy westerly winds through coastal gaps. Overnight relative humidity recoveries will continue to be fair to poor at least through mid-week. Monsoonal moisture will move into the region from the south, bringing potential for isolated afternoon/evening thunderstorms maybe as early as Tuesday, but more likely Wednesday into the weekend. Little precipitation is expected with these storms. Thunderstorm activity should be mainly focused on central and eastern Oregon, but Washington's northern mountains could also see some strikes.

See your local NWS forecasts for the latest fire weather details and heat advisories for your area.

Fire Potential: With fire danger indices continuing to rise, significant fire potential will remain elevated across most of the region due to the combination of heat, fire danger, and breezy easterly winds that will eventually switch as a thermal trough moves across the Cascades. As the thermal trough shifts east of the Cascades Monday night and Tuesday, flareups for ongoing incidents (e.g., S-503 and Cutoff Fires) in central Oregon will be possible. Any lightning mid- to late-week will push significant fire potential into the high-risk category, particularly in central and eastern Oregon. Independence Day brings increased potential for human ignitions, which combined with already elevated conditions could result in high risk for new significant fires.

Preparedness Level:

Northwest: 3
National: 4

RESOURCES/REFERENCES

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 [NRCS Snow Survey](#) Program provides mountain snowpack data and streamflow forecasts for Oregon and the western United States.

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.