

Oregon Water Conditions Report



May 16th, 2022

HIGHLIGHTS

In 2022, [11 counties](#) have received [Executive Orders](#) issuing state drought declarations with additional requests coming from Baker, Douglas, Wallowa, and Wheeler Counties.

According to the [US Drought Monitor](#), over 79% of Oregon is classified as experiencing moderate (D1) to exceptional (D4) drought. Recent conditions have led to reductions in drought coverage and severity statewide. Although the state saw cool, wet weather over the past month, [long-term drought indicators](#) still support severe to exceptional drought throughout a majority of Oregon.

Snowpack is near or completely melted out in the John Day, Owyhee, Harney, Klamath, Lake County-Goose Lake, and Malheur Basins according to NRCS SNOTEL data. While snowpack in northern basins still remains, meltout has begun.

[Precipitation over the past two weeks](#) was well above average throughout much of Oregon. Much of the state ranged from 150% to over 300% of average. Precipitation was below average in southcentral Oregon, with some of the area [receiving little to none](#).

[Temperatures over the past two weeks](#) ranged between 6 °F and 9 °F below average throughout most of Oregon.

Although soil moisture has benefitted from the recent wet weather, [shallow groundwater](#) continues to measure below to well below average in much of Oregon due to the longer recovery time compared to surface and root zone soil profiles.

The [8-14-day climate outlook](#) indicates probabilities favoring below average temperatures statewide. Precipitation is more variable with above average amount projected for the northern portion of Oregon, and equal chances of above or below average for the southern portion.

Streamflows in western Oregon have been well above average over the past [7- and 28-day periods](#). Many streams in northcentral Oregon are also measuring above average flows. Streams in southern and eastern Oregon continue to measure below average.

Reservoir storage in [USBR](#) (including [Klamath](#)) and [USACE](#) systems is variable throughout the state. Storage in the Willamette, Umatilla, and Burnt Basins is nearly full for many individual reservoirs. Contents in the Rogue Basin vary between reservoirs. Contents in all other systems are well below average.

DROUGHT CONDITIONS

The US Drought Monitor indicates over 79% of Oregon is experiencing drought conditions, reflecting a 5% reduction in coverage over the past two weeks. In addition, drought severity has been reduced in various areas of the state due to the benefits of recent precipitation on streamflow and soil moisture.

U.S. Drought Monitor Oregon

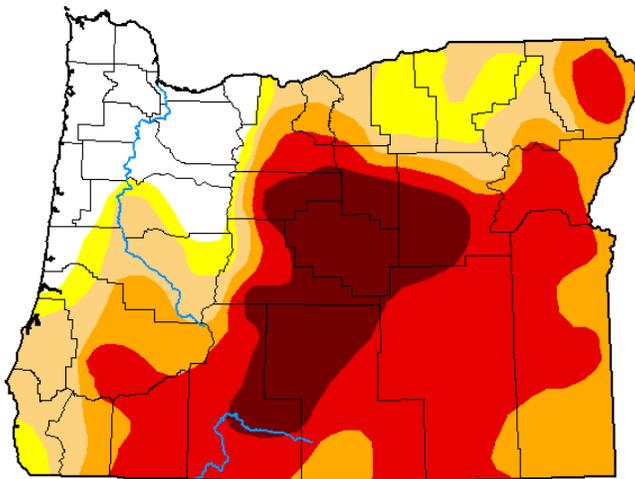
May 10, 2022

(Released Thursday, May 12, 2022)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	12.83	87.17	79.35	65.63	48.13	14.43
Last Week <i>05-03-2022</i>	10.14	89.86	84.21	68.76	50.85	15.71
3 Months Ago <i>02-08-2022</i>	4.27	95.73	88.12	74.73	42.05	16.22
Start of Calendar Year <i>01-04-2022</i>	4.16	95.84	89.75	75.37	50.84	17.27
Start of Water Year <i>09-28-2021</i>	0.00	100.00	100.00	96.47	72.10	26.59
One Year Ago <i>05-11-2021</i>	0.00	100.00	91.49	71.73	26.09	3.57



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>

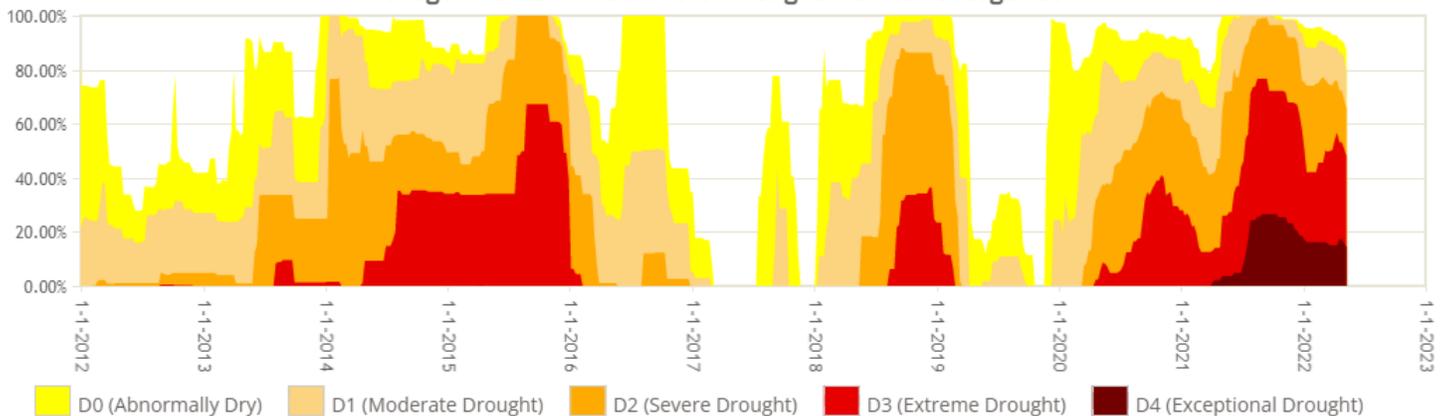
Author:

David Simeral
Western Regional Climate Center

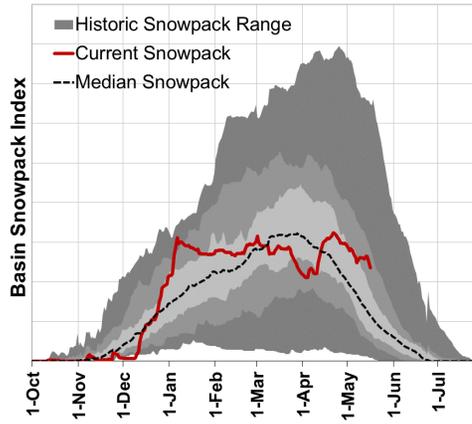


droughtmonitor.unl.edu

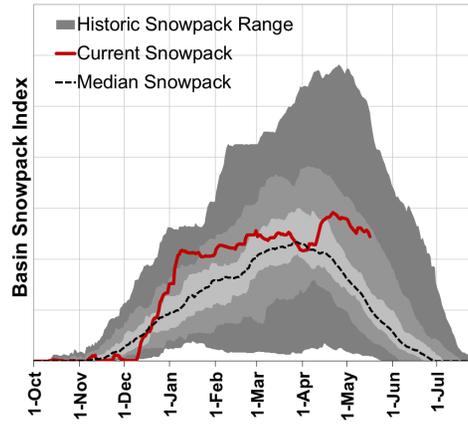
Oregon Percent Area in U.S. Drought Monitor Categories



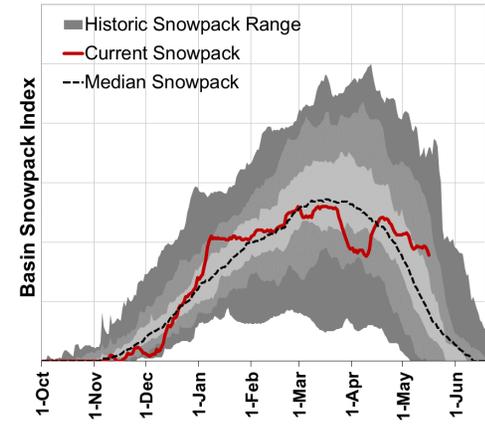
Willamette



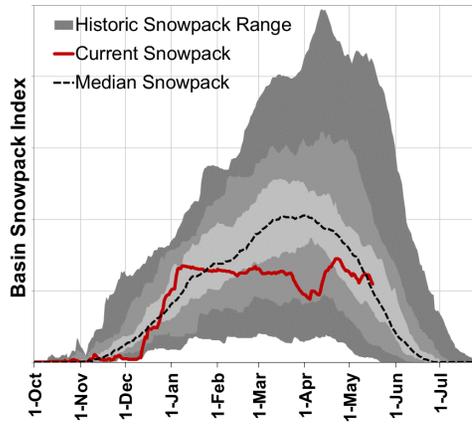
Hood-Sandy-Lower Deschutes



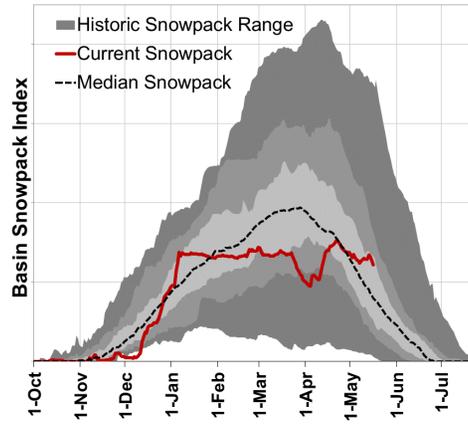
Umatilla-Walla Walla-Willow



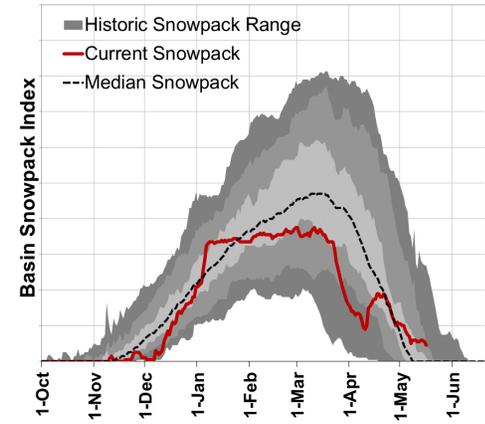
Rogue-Umpqua

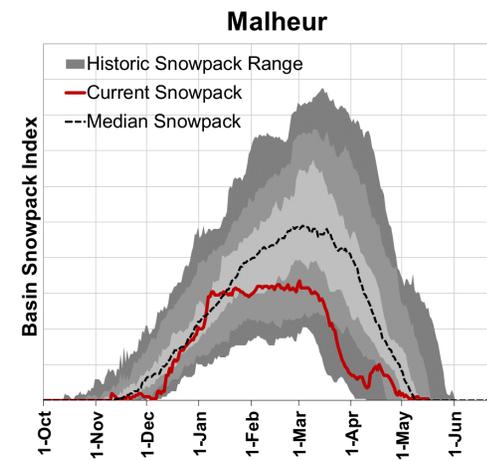
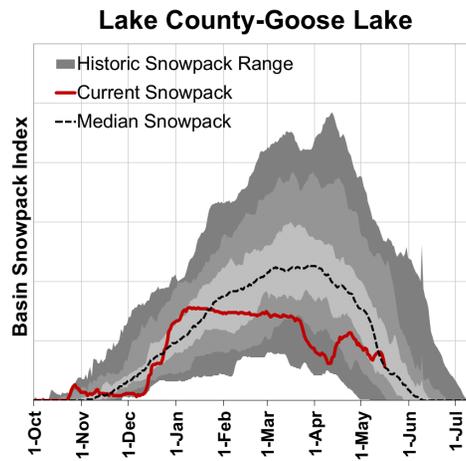
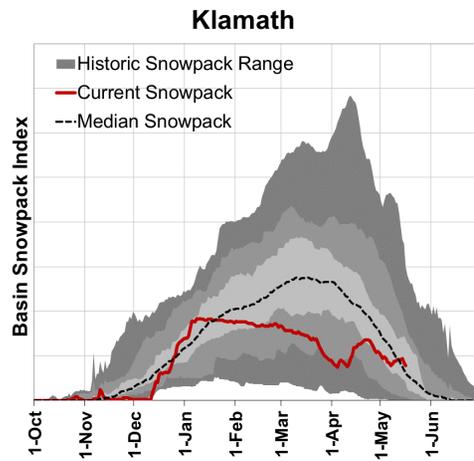
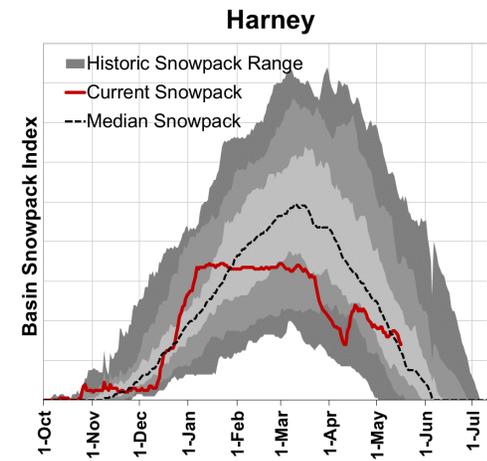
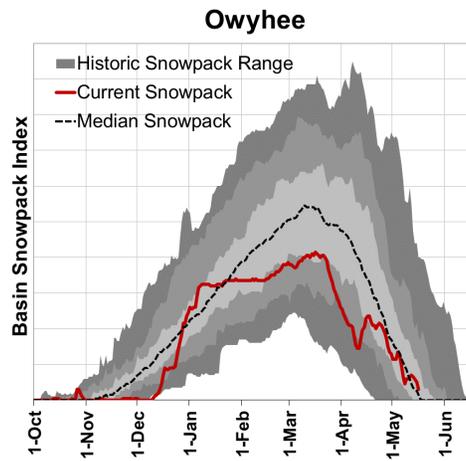
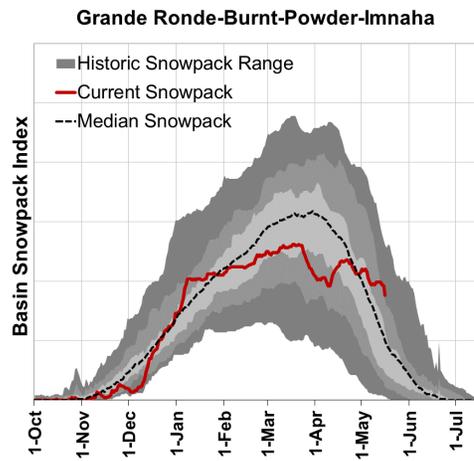


Upper Deschutes-Crooked

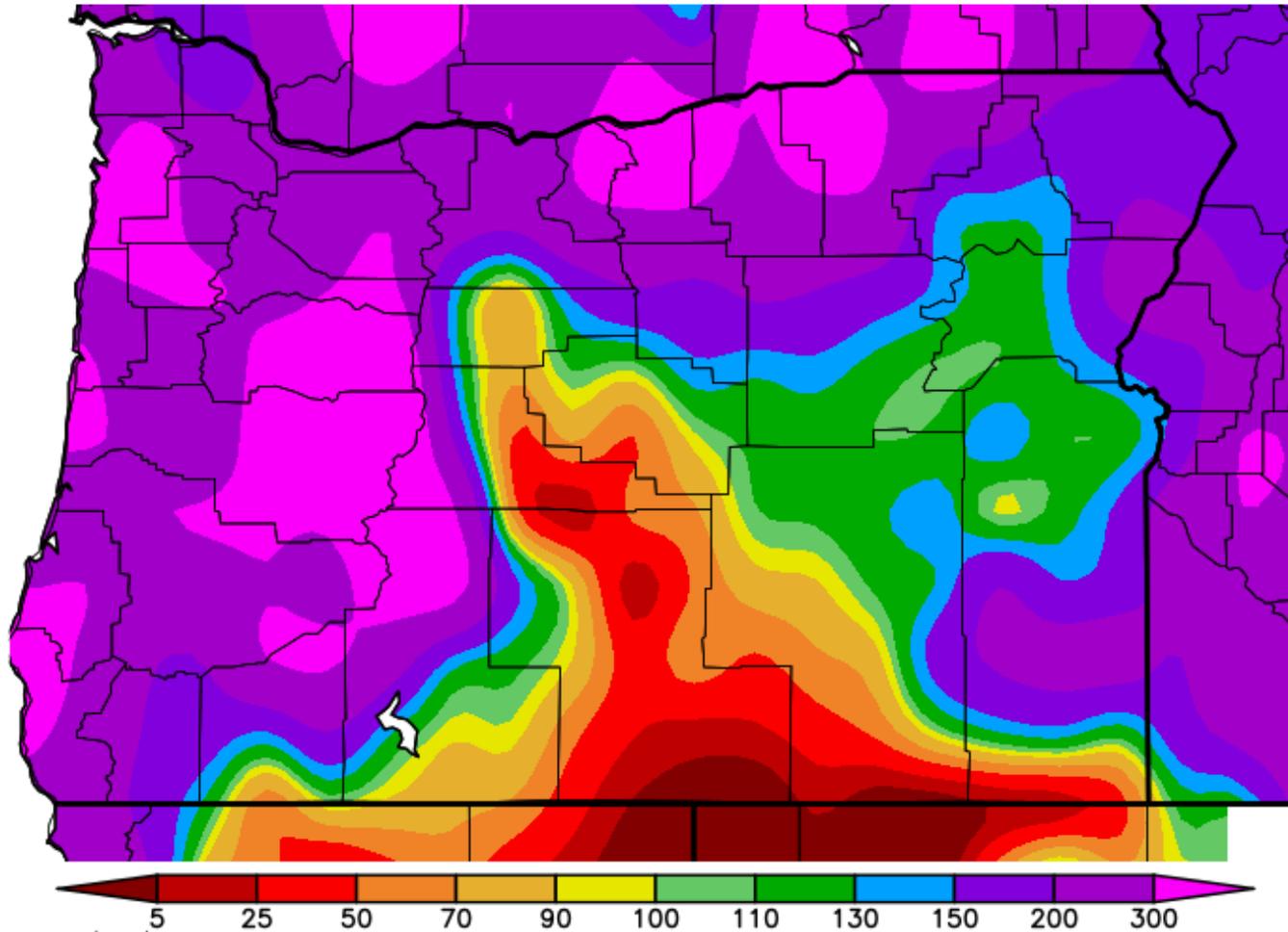


John Day



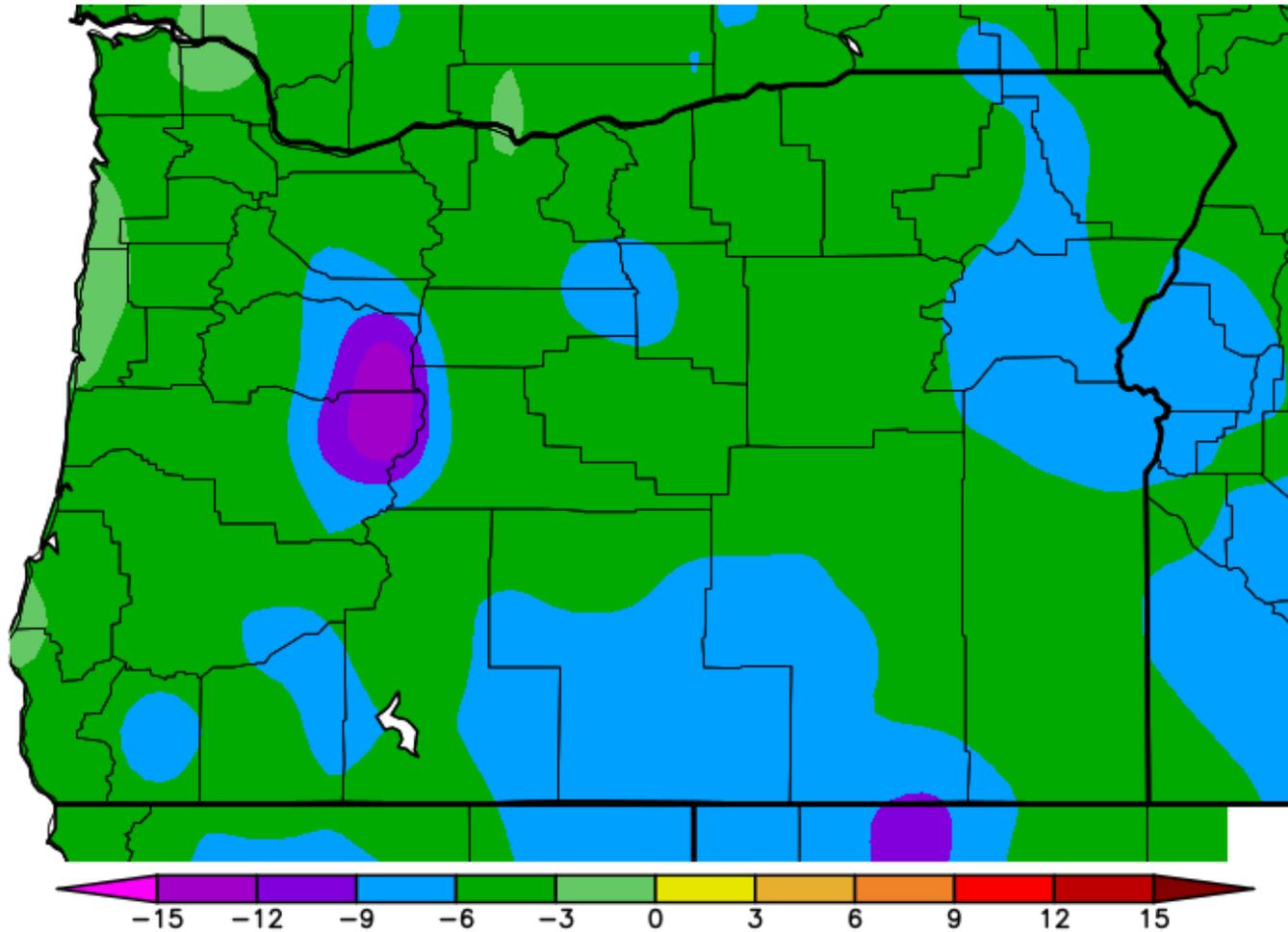


Percent of Average Precipitation (%)
5/2/2022 – 5/15/2022



Generated 5/16/2022 at WRCC using provisional data.
NOAA Regional Climate Centers

Ave. Temperature dep from Ave (deg F)
5/2/2022 - 5/15/2022

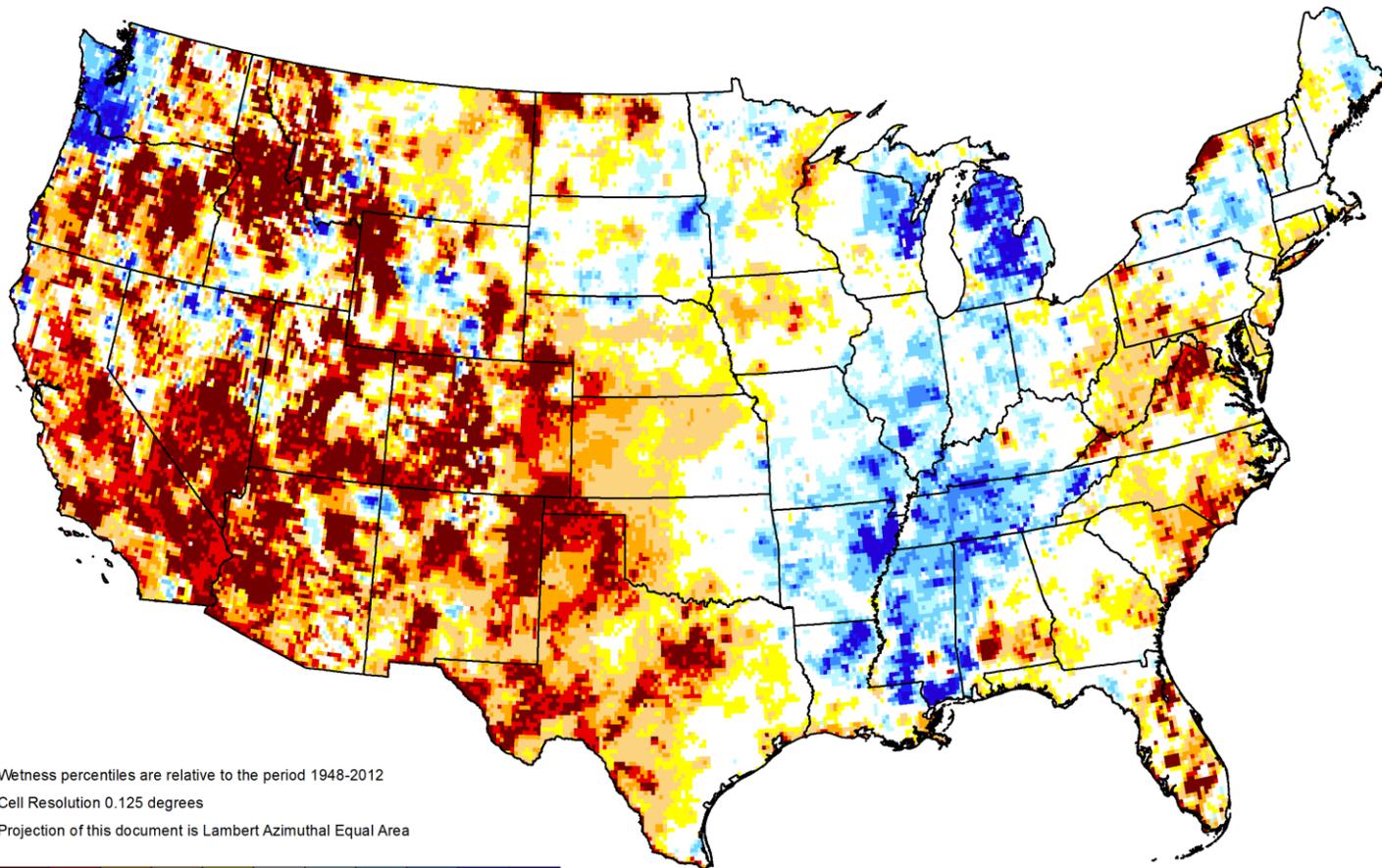


Generated 5/16/2022 at WRCC using provisional data.
NOAA Regional Climate Centers



GRACE-Based Shallow Groundwater Drought Indicator

May 09, 2022



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

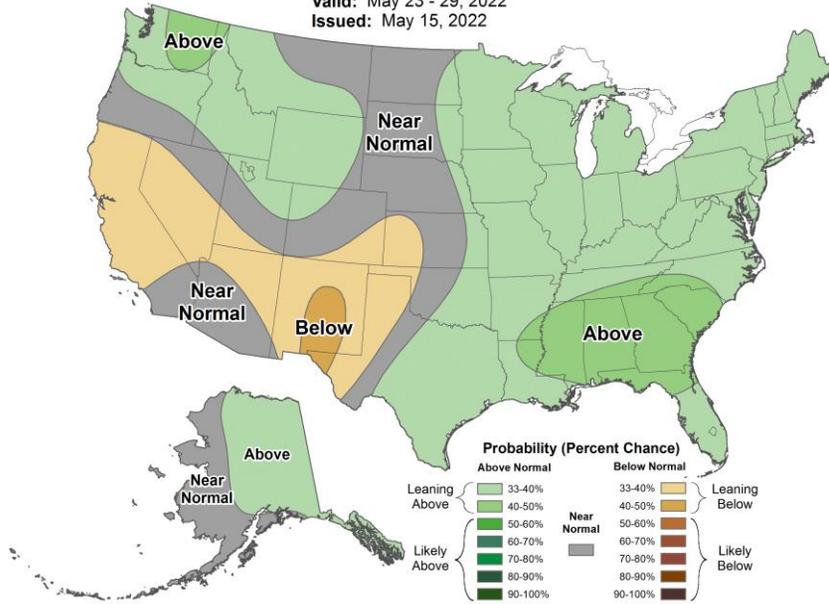


<https://nasagrace.unl.edu>



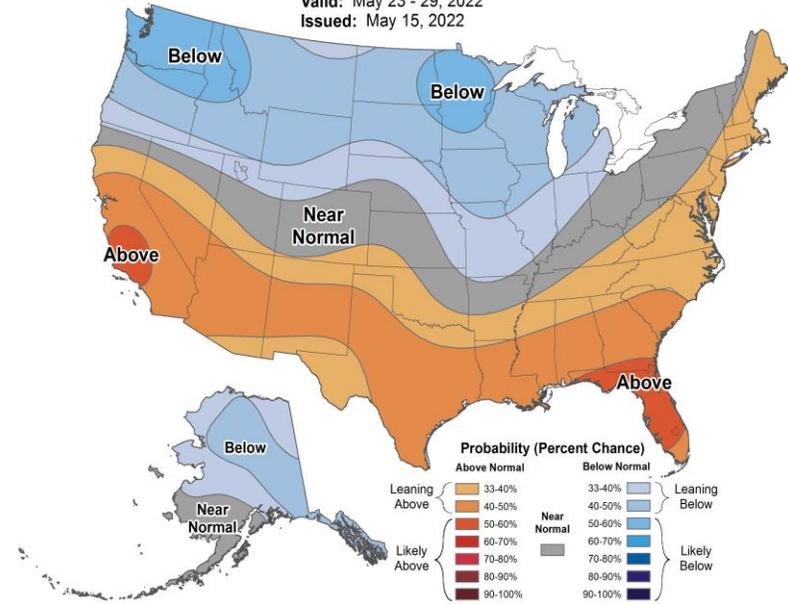
8-14 Day Precipitation Outlook

Valid: May 23 - 29, 2022
 Issued: May 15, 2022

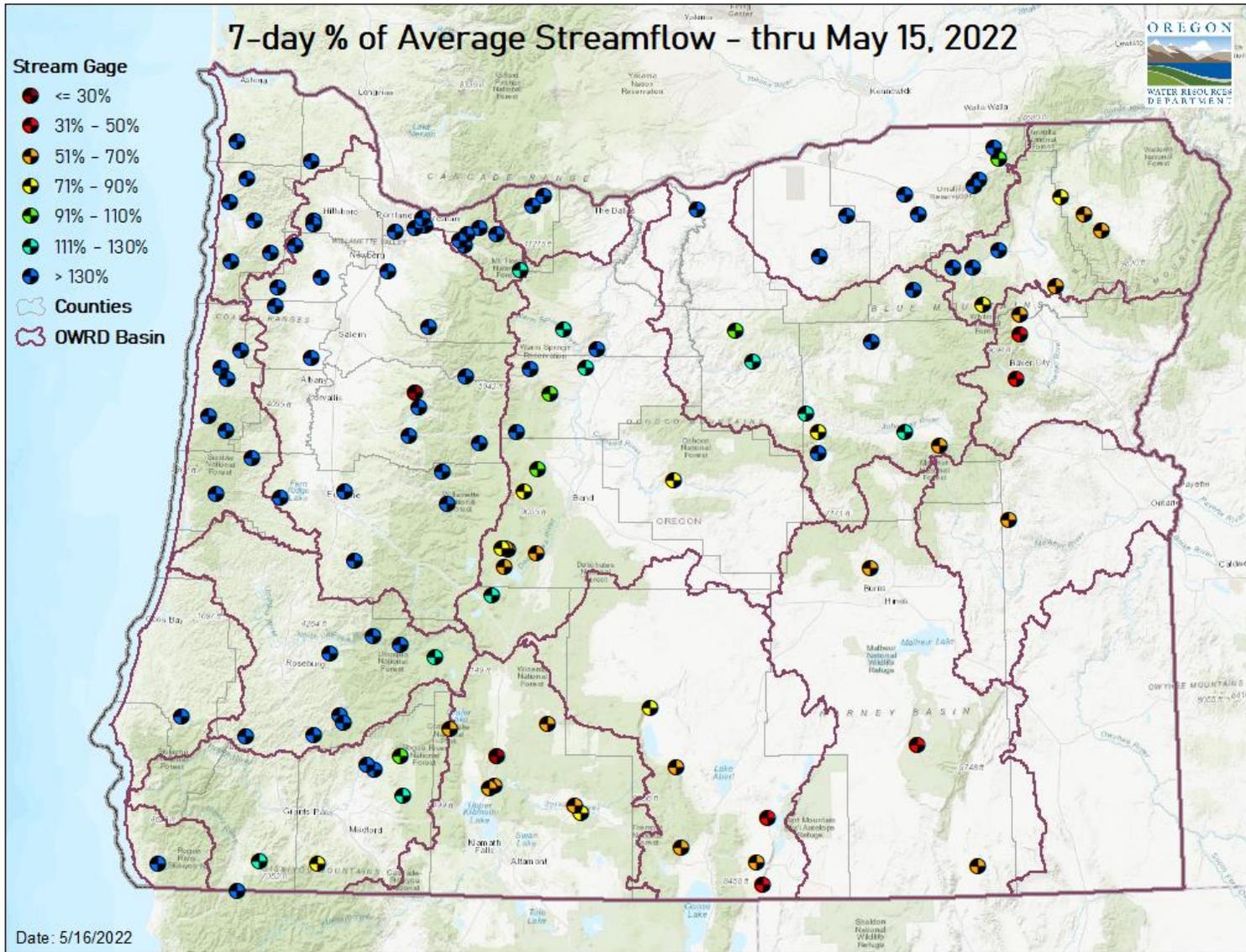


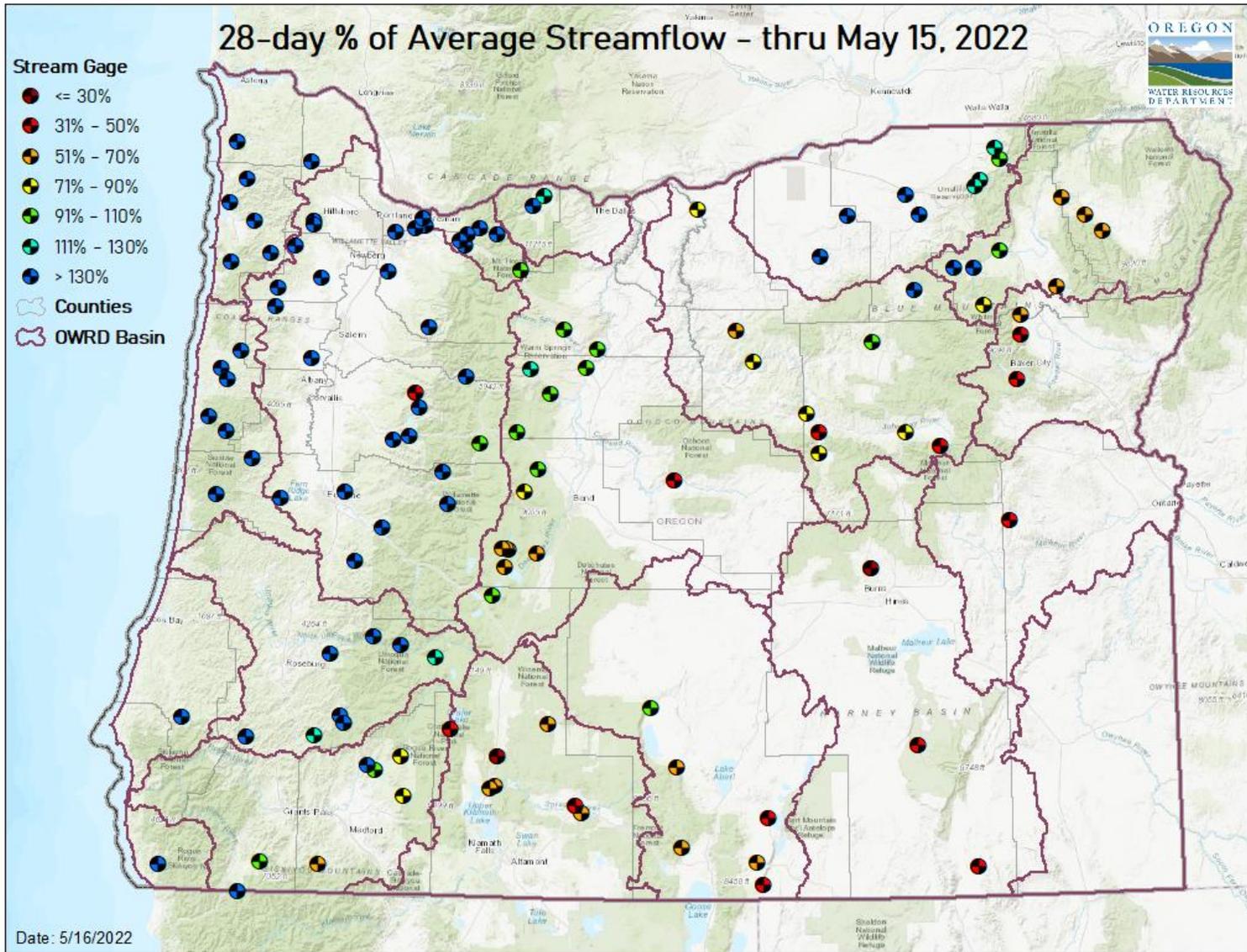
8-14 Day Temperature Outlook

Valid: May 23 - 29, 2022
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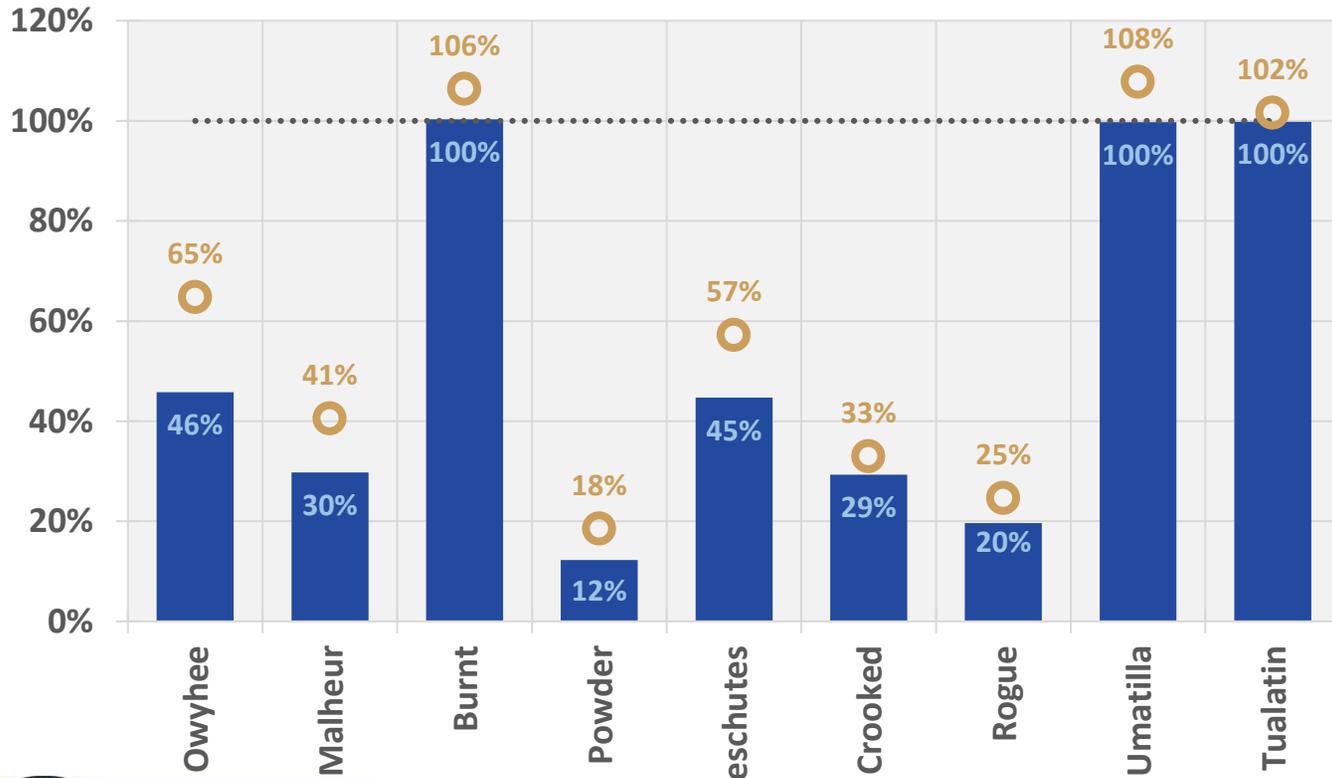


STREAMFLOW
7-DAY





May 15 Reservoir Storage



BUREAU OF RECLAMATION

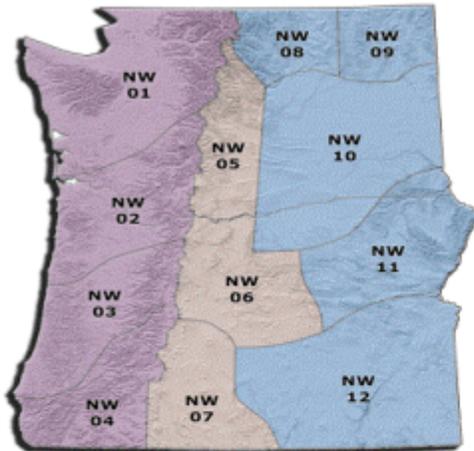
■ Percent Full

● Percent of Average

Pacific Northwest 7 Day Significant Fire Potential



Monday, 5/16/2022



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: Expect seasonable temperatures today along with light showers over the Cascades and coastal areas with lesser amounts over east side mountains. General winds will be somewhat breezy this afternoon, particularly east of the Cascades. Drier conditions should take over tomorrow before a cold front brings precipitation to the west side and higher elevations on the east side Wednesday and Thursday. Breezy winds are likely as the system passes. Friday looks to start dry, but with showers moving into Washington's northern mountains during the day.

Monitor your NWS guidance for local details.

Fire Potential: The potential for significant fires remains low across the region.

Preparedness Level:

Northwest: 1
National: 2

- 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.