

Oregon Water Conditions Report



May 17th, 2021

HIGHLIGHTS

Thus far in 2021, [Executive Orders](#) declaring a state of drought emergency have been issued for eight of Oregon's counties. [Local declarations](#) have been issued for an additional five counties (Crook, Harney, Jefferson, Umatilla, and Wallowa). Many of Oregon's counties have been [designated as natural disaster areas](#) by the US Department of Agriculture due to persistent drought conditions. Such designations provide benefits to producers in those counties - [see here for more information](#). See a [drought status update for the Pacific Northwest](#) provided by NIDIS and partners.

Snowpack continues to melt out throughout the state; the Owyhee, John Day, and Lake County-Goose Lake Basins have [completely melted out](#), with Harney and Klamath Basins nearly complete.

Precipitation is currently measuring 84% of the long-term average at [NRCS SNOTEL sites](#) over the water year to date. While most basins are measuring below to well-below average, the Hood-Sandy-Lower Deschutes, Umatilla-Walla Walla-Willow, and Grande Ronde-Burnt-Powder-Imnaha basins are all measuring above 90% of average. [Precipitation over recent weeks](#) has measured below average throughout the state.

[Recent temperatures](#) have measured above average throughout Oregon, with the exception of much of Baker County and portions of the coast. Above average temperatures have contributed to rapid rates of melting snowpack, with some basins completely melting out up to four weeks earlier than average.

[Soil moisture profiles](#) throughout the western US have recently ranked as some of the lowest on record. Recent precipitation deficits and increased temperatures have contributed to worsening wetness profiles.

Streamflows have measured below to well-below average throughout much of the state. Some streams in central and northeastern Oregon are benefitting from above-average flows; however, many sites in western Oregon are measuring [record-low streamflows](#).

Management operations in many reservoir systems are drafting water to meet irrigation demands, although Rogue, Umatilla, and Burnt systems continue to refill. US Bureau of Reclamation Rogue district has scheduled a late start and early end to the irrigation season. Low reservoir contents could also impact recreational activities throughout summer.

Significant fire potential is variable [throughout the state](#) and [Pacific Northwest region](#). There is potential for prescribed burns to end in early June, approximately one month earlier than usual.

DROUGHT CONDITIONS

The [US Drought Monitor](#) indicates 100% of Oregon is experiencing some form of drought conditions. Drought intensity has worsened over recent weeks due to extremely dry soil moisture profiles, a significant lack of precipitation, and warmer temperatures. Coverage of D4 (exceptional drought) conditions has expanded into southern Deschutes County, while D3 coverage has expanded in central Oregon and has extended west into Jackson, Douglas, and Lane Counties.

U.S. Drought Monitor Oregon

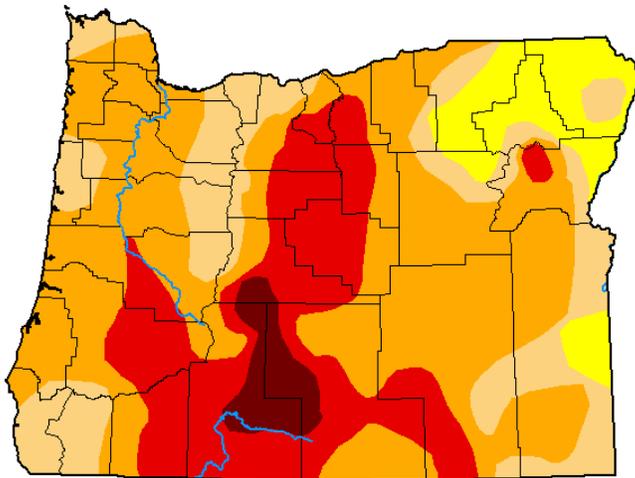
May 11, 2021

(Released Thursday, May. 13, 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	91.49	71.73	26.09	3.57
Last Week <i>03-04-2021</i>	0.00	100.00	88.85	64.54	26.09	3.57
3 Months Ago <i>02-09-2021</i>	11.55	88.45	75.70	55.26	22.23	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>05-12-2020</i>	2.63	97.37	82.11	37.67	8.69	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>

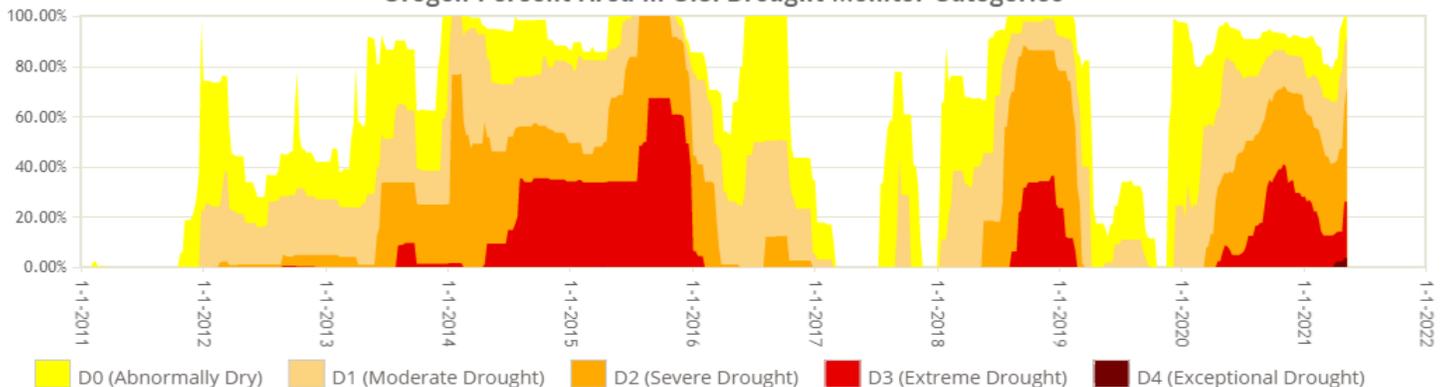
Author:

David Simeral
Western Regional Climate Center

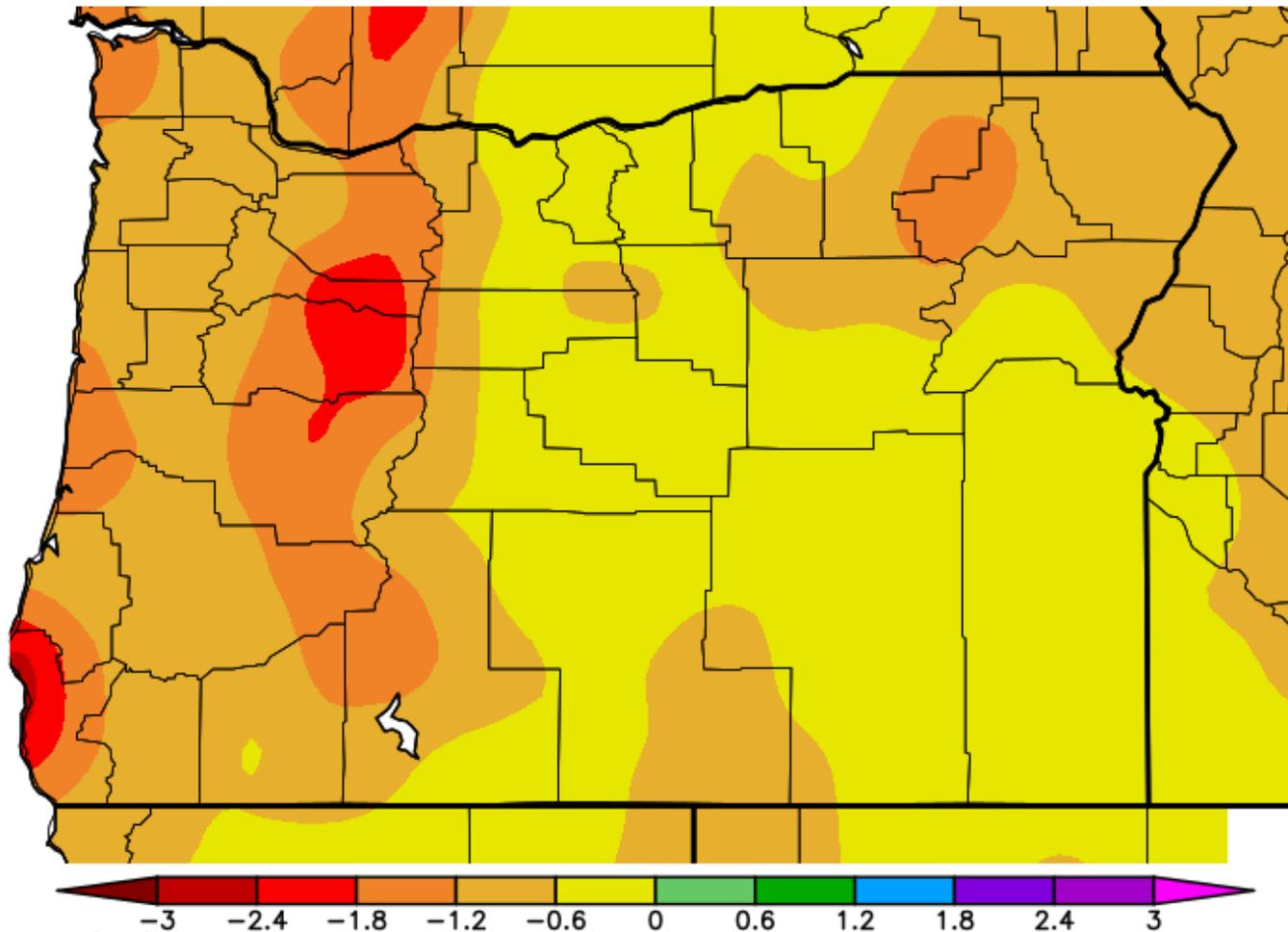


droughtmonitor.unl.edu

Oregon Percent Area in U.S. Drought Monitor Categories

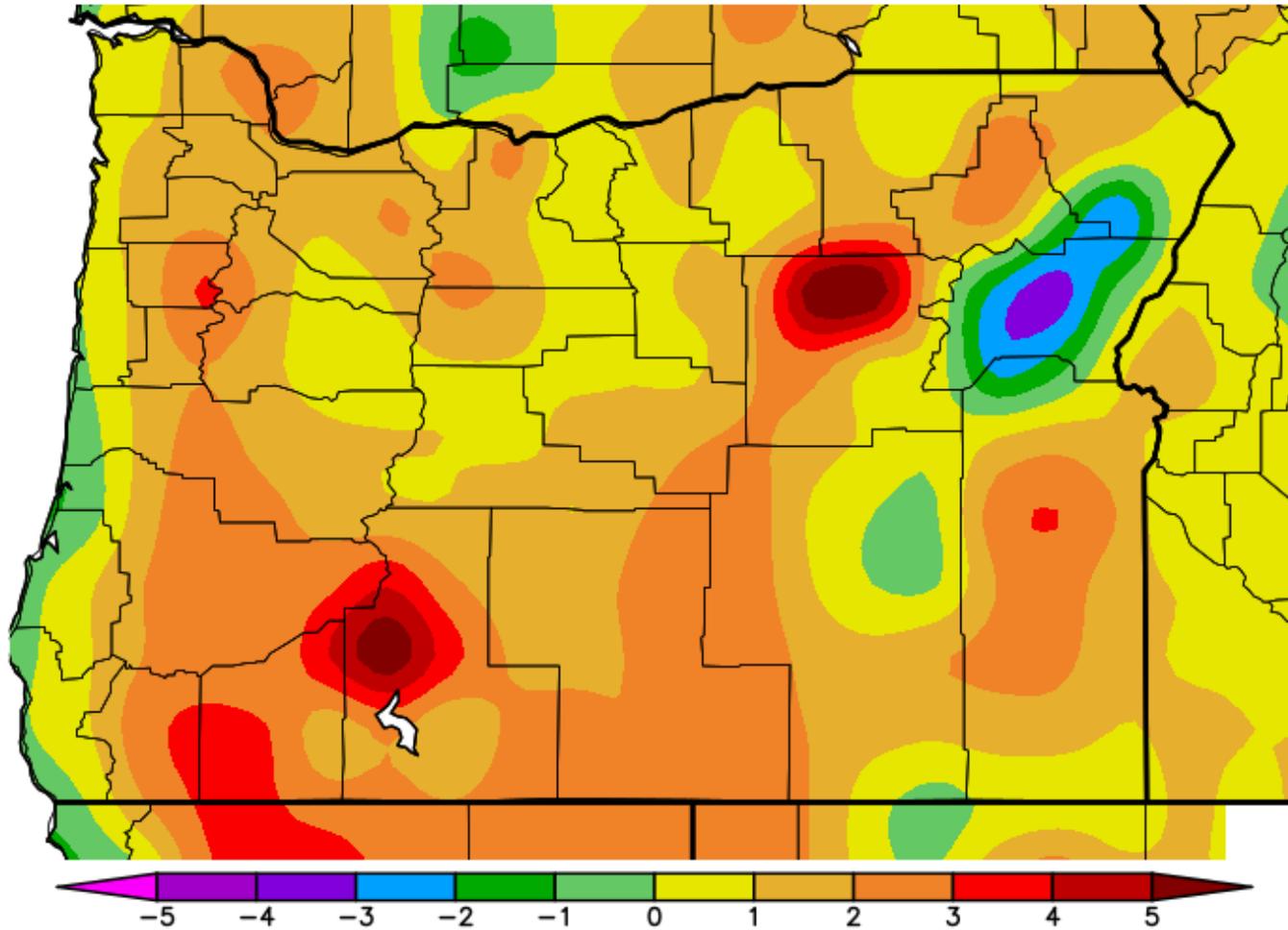


Precipitation Departure from Average (in.) 5/3/2021 – 5/16/2021

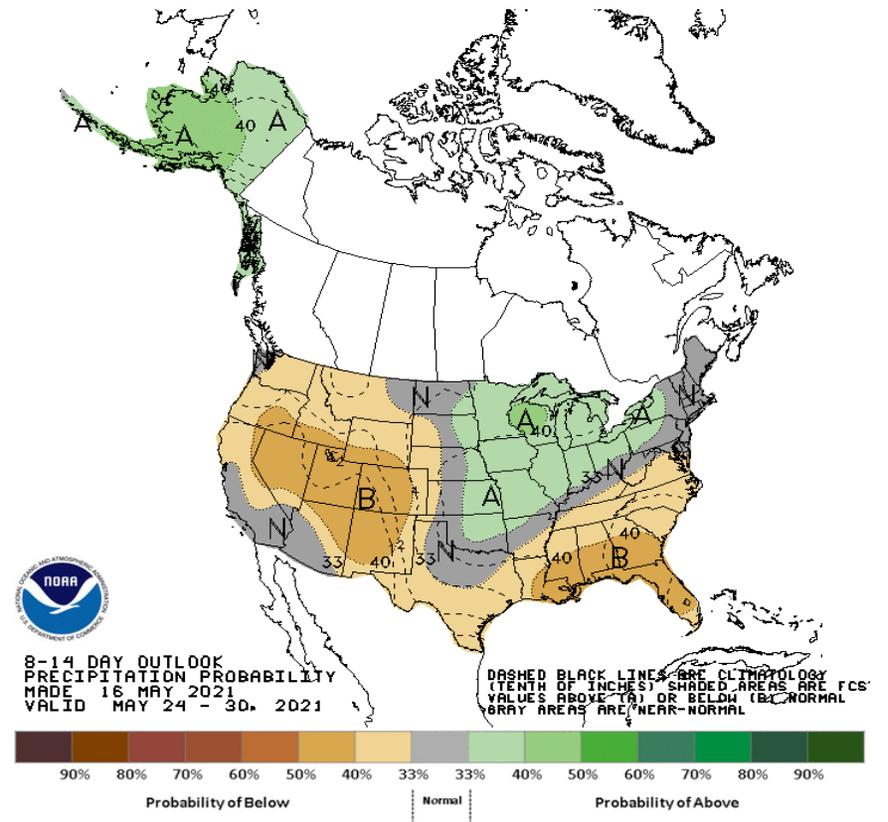
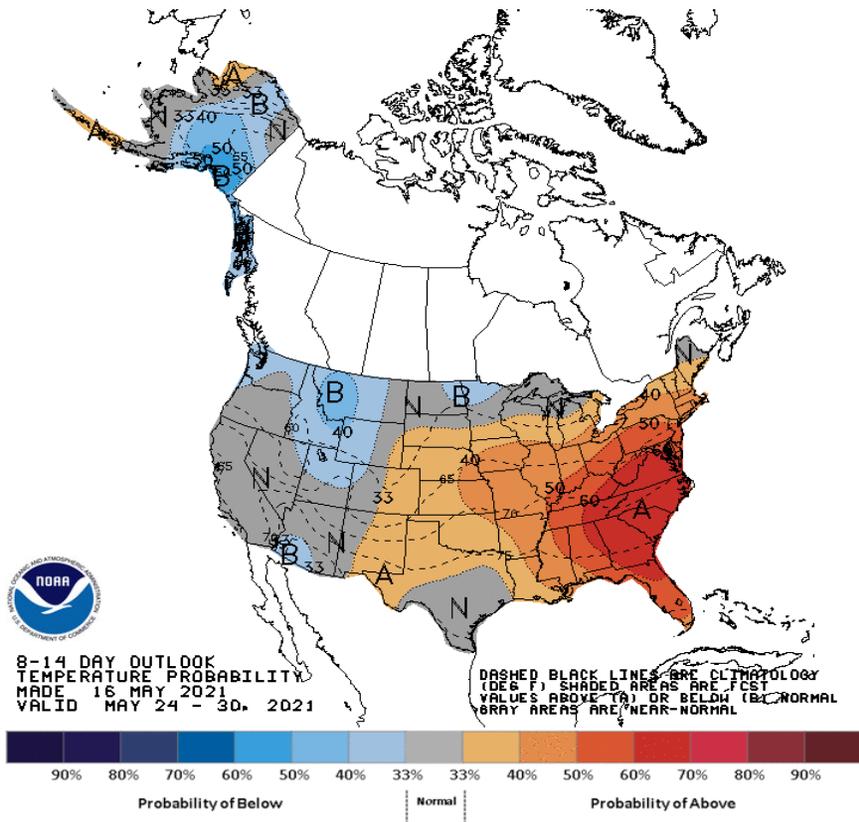


Generated 5/17/2021 at WRCC using provisional data.
NOAA Regional Climate Centers

Ave. Temperature dep from Ave (deg F)
5/3/2021 – 5/16/2021

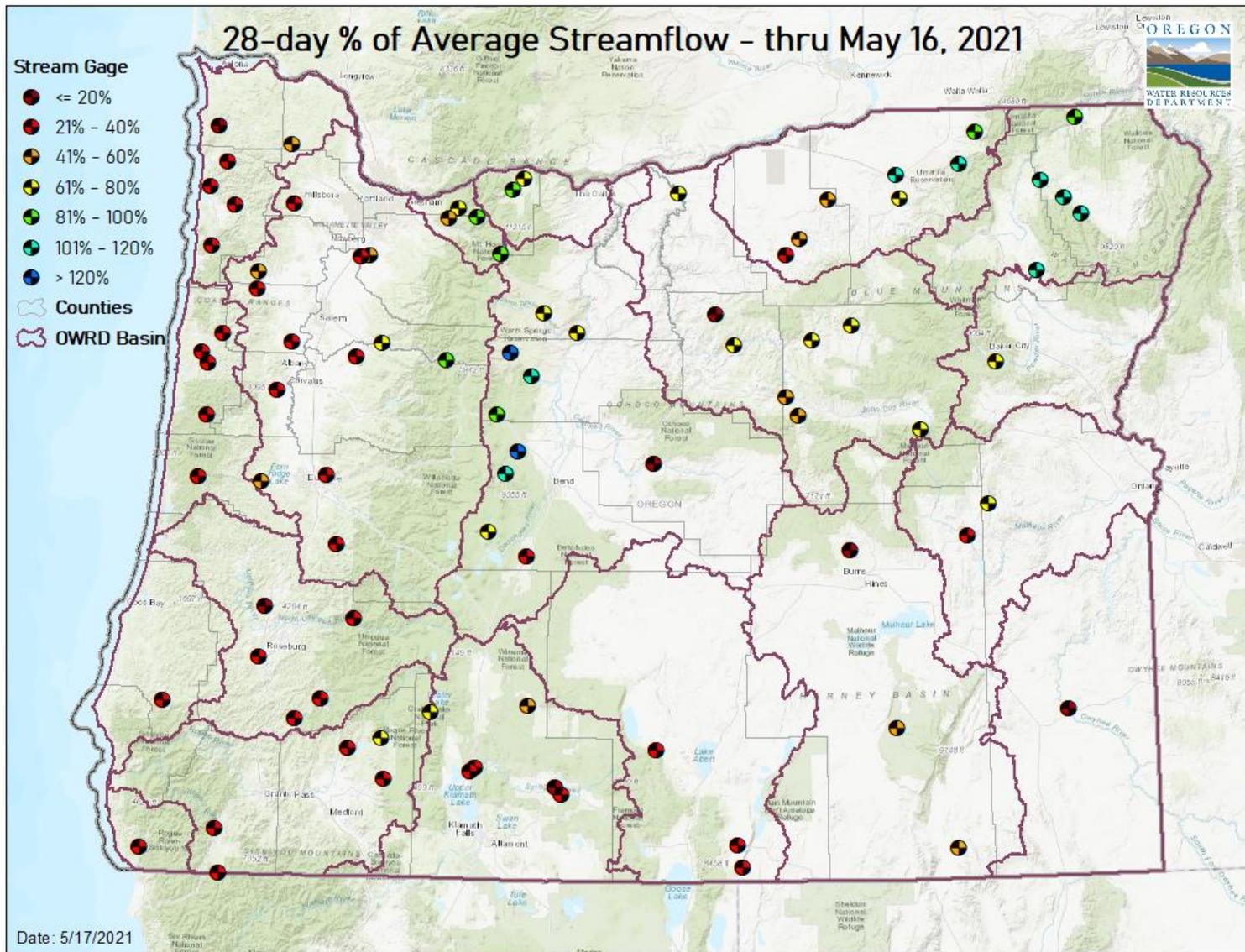


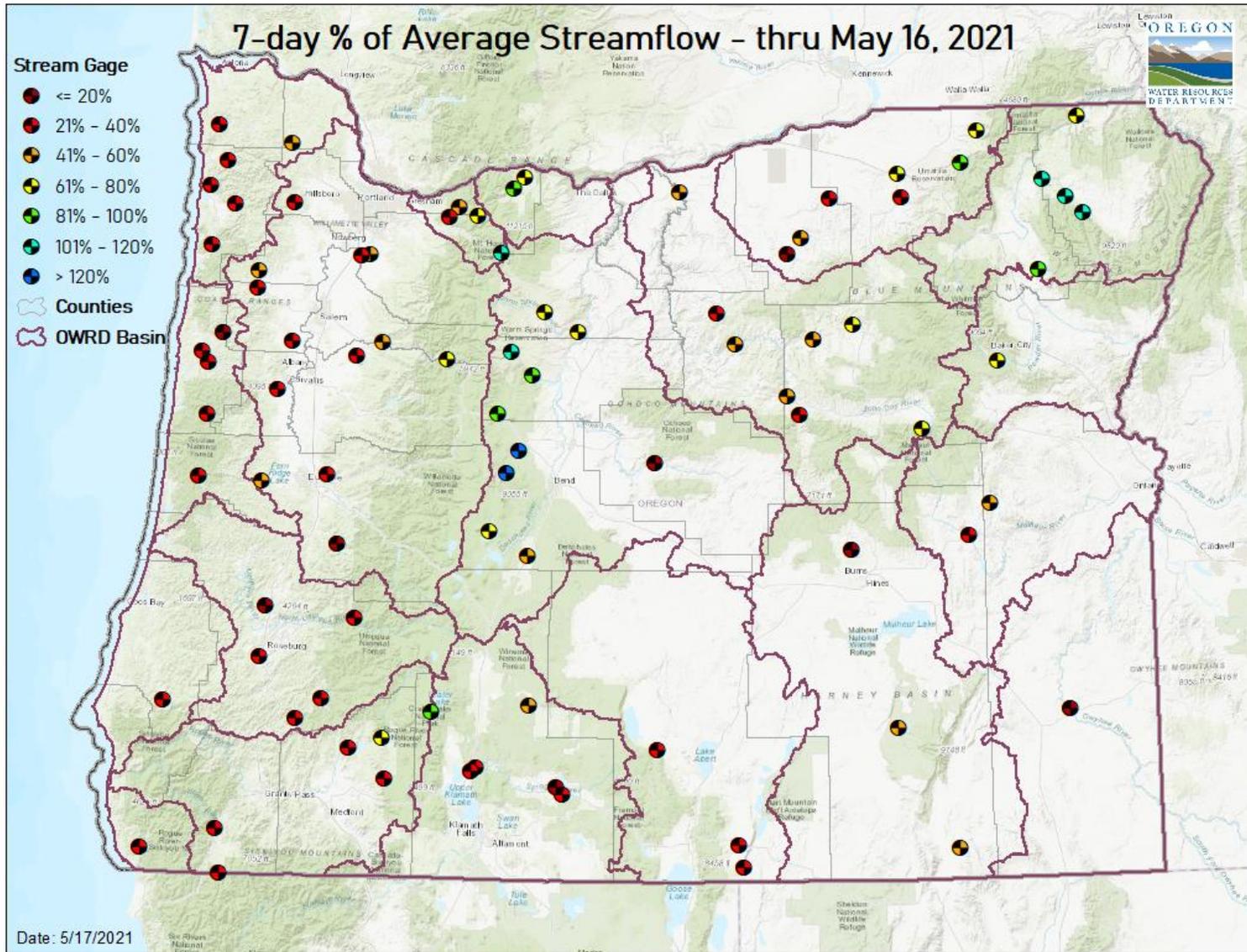
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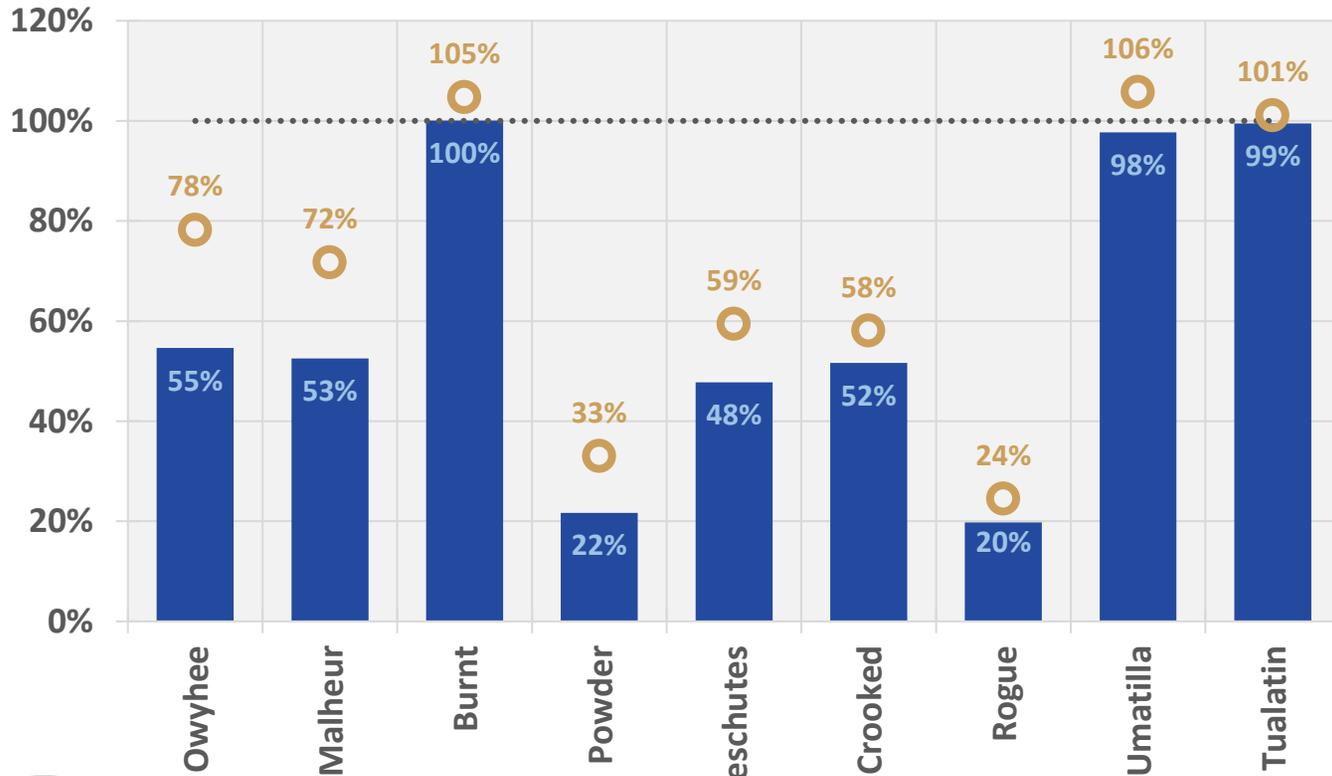
STREAMFLOW

28-DAY





May 8 Reservoir Storage



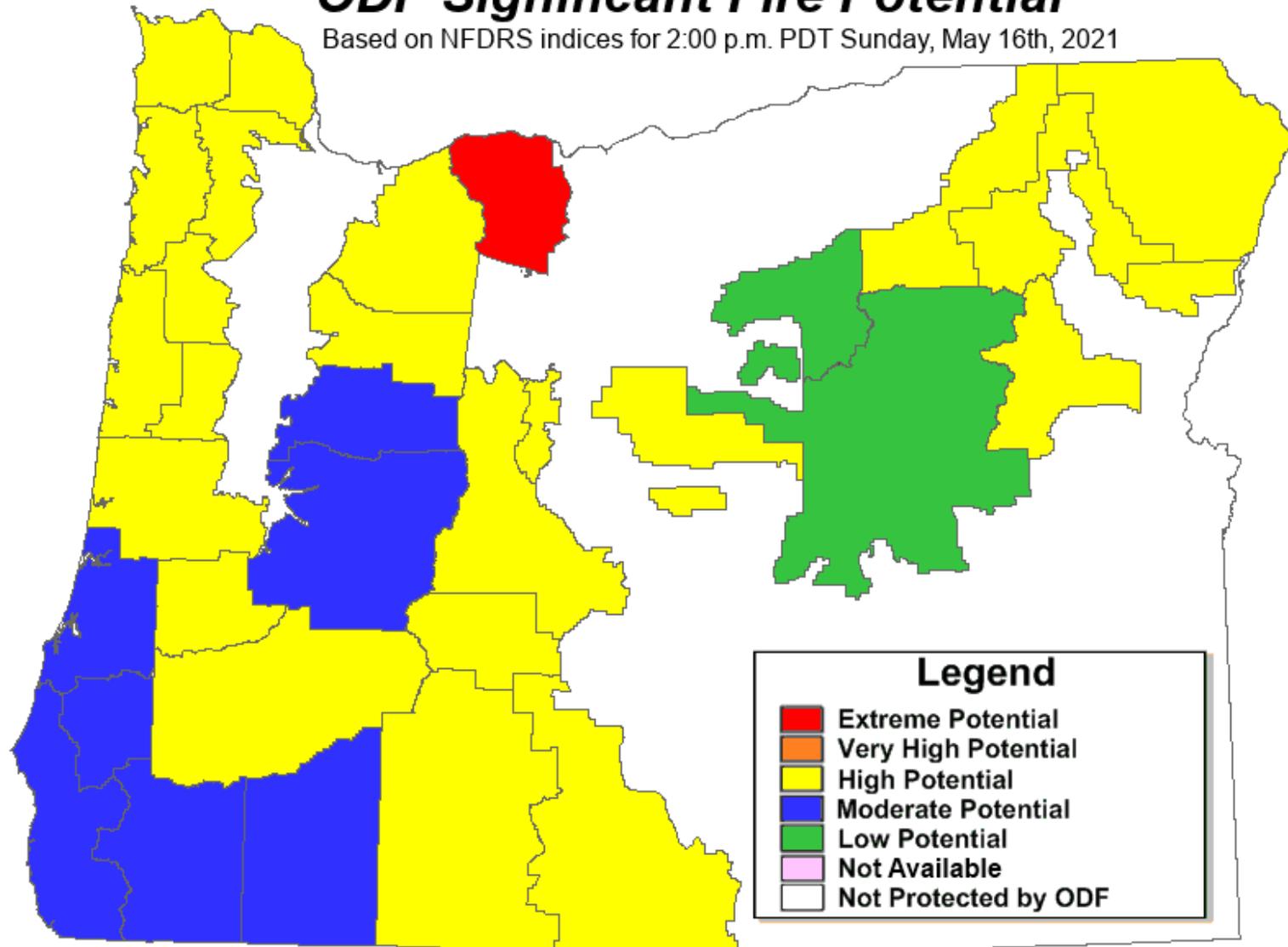
BUREAU OF RECLAMATION

■ Percent Full

● Percent of Average

ODF Significant Fire Potential

Based on NFDRS indices for 2:00 p.m. PDT Sunday, May 16th, 2021



Updated: 9:03 a.m. PDT Monday, May 17th, 2021 (map does not display or represent Fire Danger or Regulated Use Restrictions).

RESOURCES/REFERENCES

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.