

Oregon Water Conditions Report



May 3rd, 2021

HIGHLIGHTS

[Executive Orders](#) determining a state of drought emergency have been issued for Klamath, Lake, and Jackson Counties thus far in 2021. In addition, county-wide drought declarations have been issued for Baker, Douglas, Gilliam, Morrow, Umatilla, and Wheeler Counties. See [OWRD's drought declaration status map](#) for more information.

Statewide snowpack at [NRCS SNOTEL](#) sites is measuring 70% of the long-term median. Basin snowpack graphs (see below) show rapid melt-out rates, potentially leading to complete melt-out earlier than usual. The Malheur Basin has completely melted out, while the John Day Basin is close behind (9%). The Hood-Sandy-Lower Deschutes Basin is measuring 131% of median snowpack.

[Temperatures throughout the month of April](#) were normal to above normal for much of the state. West of the Cascades temperatures hovered over 2°F above average for the month. Temperatures in much of eastern Oregon were near normal, with smaller pockets benefitting from temperatures cooler than average.

Oregon suffered from a [severe deficit of precipitation](#) throughout the month of April. Many areas including the Willamette Valley, and portions of the coast and southwestern Oregon experienced the [driest April on record](#).

Streamflow conditions for the month of April were well below average throughout much of Oregon (see below). Some stream gages in western Oregon measured the [lowest April streamflows on record](#). A handful of gages in Jefferson and Deschutes Counties likely benefitted from snowmelt runoff; however, nearly all other gages in the state measured streamflow deficits. Recent 7-day average streamflows show little change in streamflow conditions (see below).

The [8 - 14 day climate outlook](#) indicates likelihood of near normal temperatures and below normal precipitation throughout Oregon.

Conditions in reservoir systems throughout the state vary in terms of storage contents, but most are measuring below average for this time of year. Current reservoir conditions have implications for management operations such as delayed starts and early ends to irrigation seasons.

DROUGHT CONDITIONS

The [US Drought Monitor](#) indicates just over 97% of the state is experiencing some form of drought. While drought intensity has remained largely constant over recent weeks, spatial coverage has increased. Conditions deteriorated over recent weeks in portions of the Willamette Valley and the coast, warranting a D0 (abnormally dry) classification in these areas. Conditions in portions of Wallowa County have also contributed to D0 classification in the area.

U.S. Drought Monitor Oregon

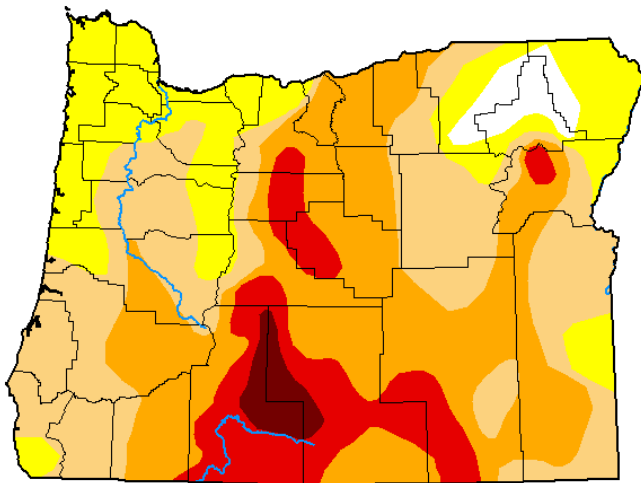
April 27, 2021

(Released Thursday, Apr. 29, 2021)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	2.79	97.21	77.74	47.17	14.12	2.22
Last Week <small>04-20-2021</small>	5.47	94.53	75.95	47.11	14.12	2.22
3 Months Ago <small>01-26-2021</small>	7.72	92.28	75.90	59.80	25.52	0.00
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>04-28-2020</small>	3.84	96.16	63.65	33.43	2.36	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>

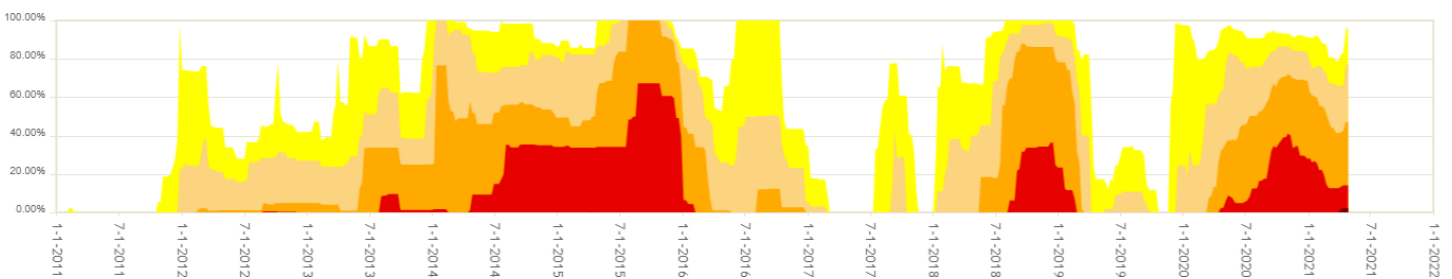
Author:

Richard Heim
NCEI/NOAA

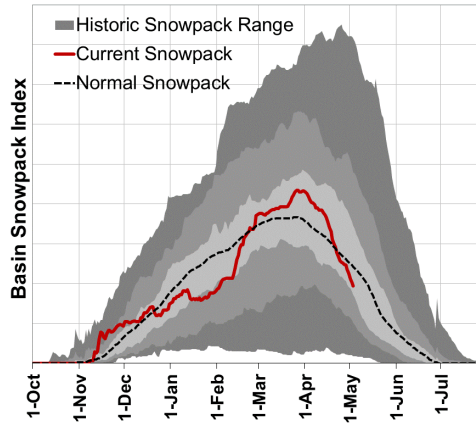


droughtmonitor.unl.edu

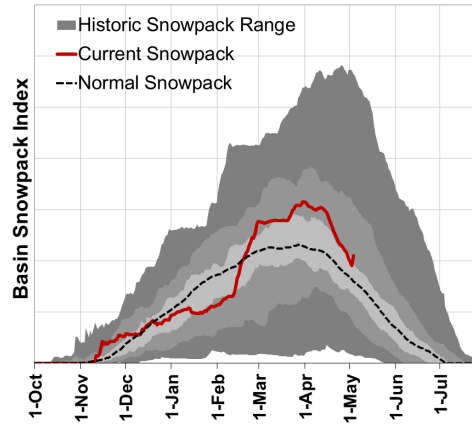
Oregon Percent Area



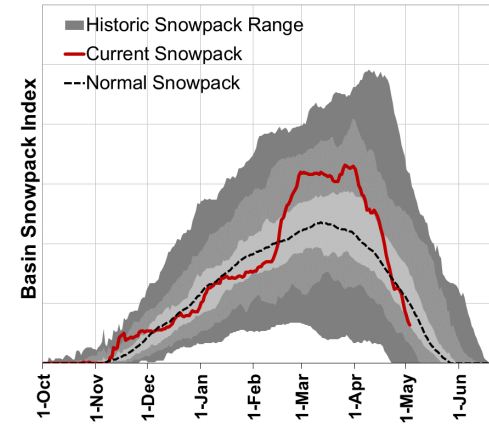
Willamette



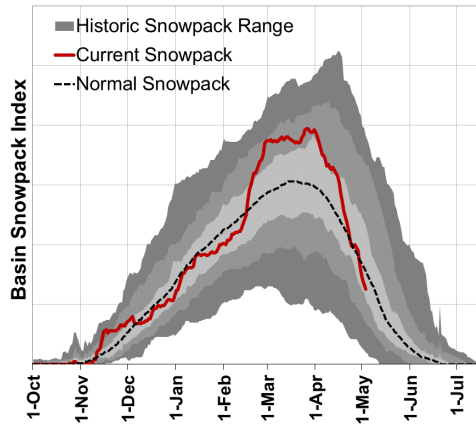
Hood-Sandy-Lower Deschutes



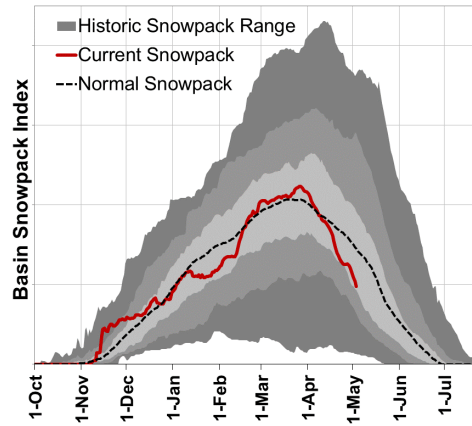
Umatilla-Walla Walla-Willow



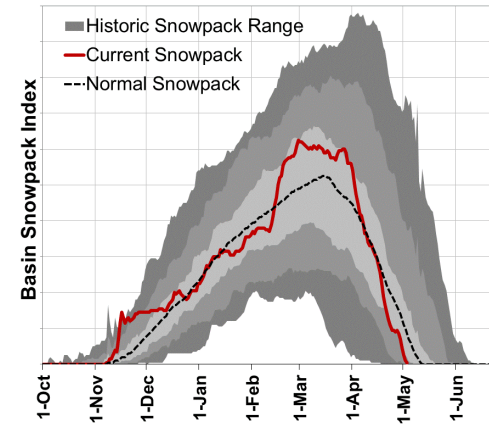
Grande Ronde-Burnt-Powder-Imnaha

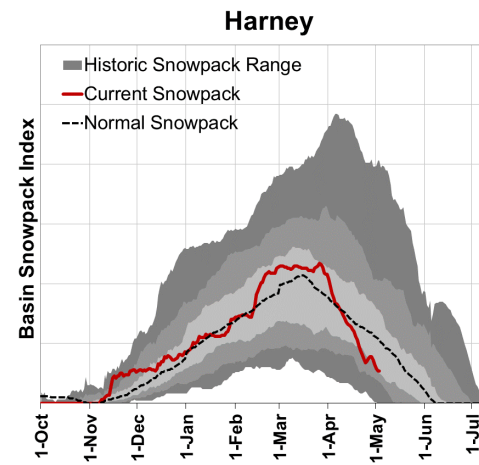
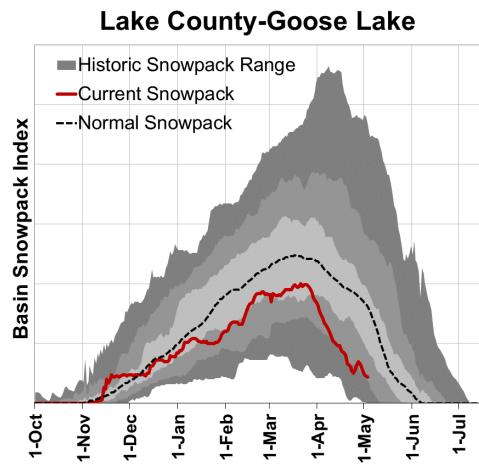
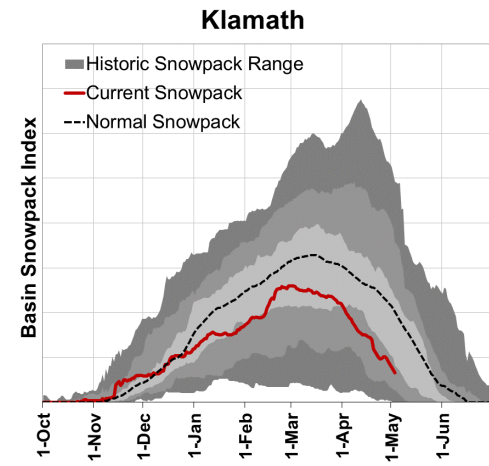
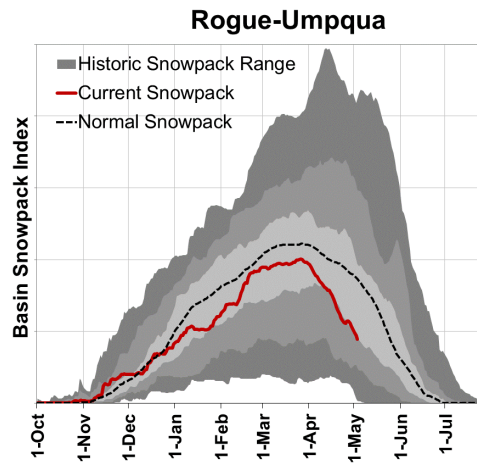
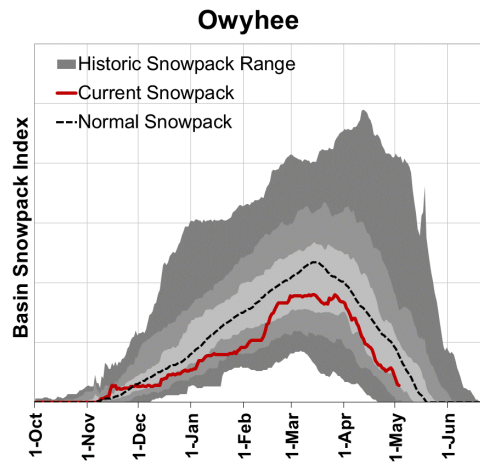


Upper Deschutes-Crooked

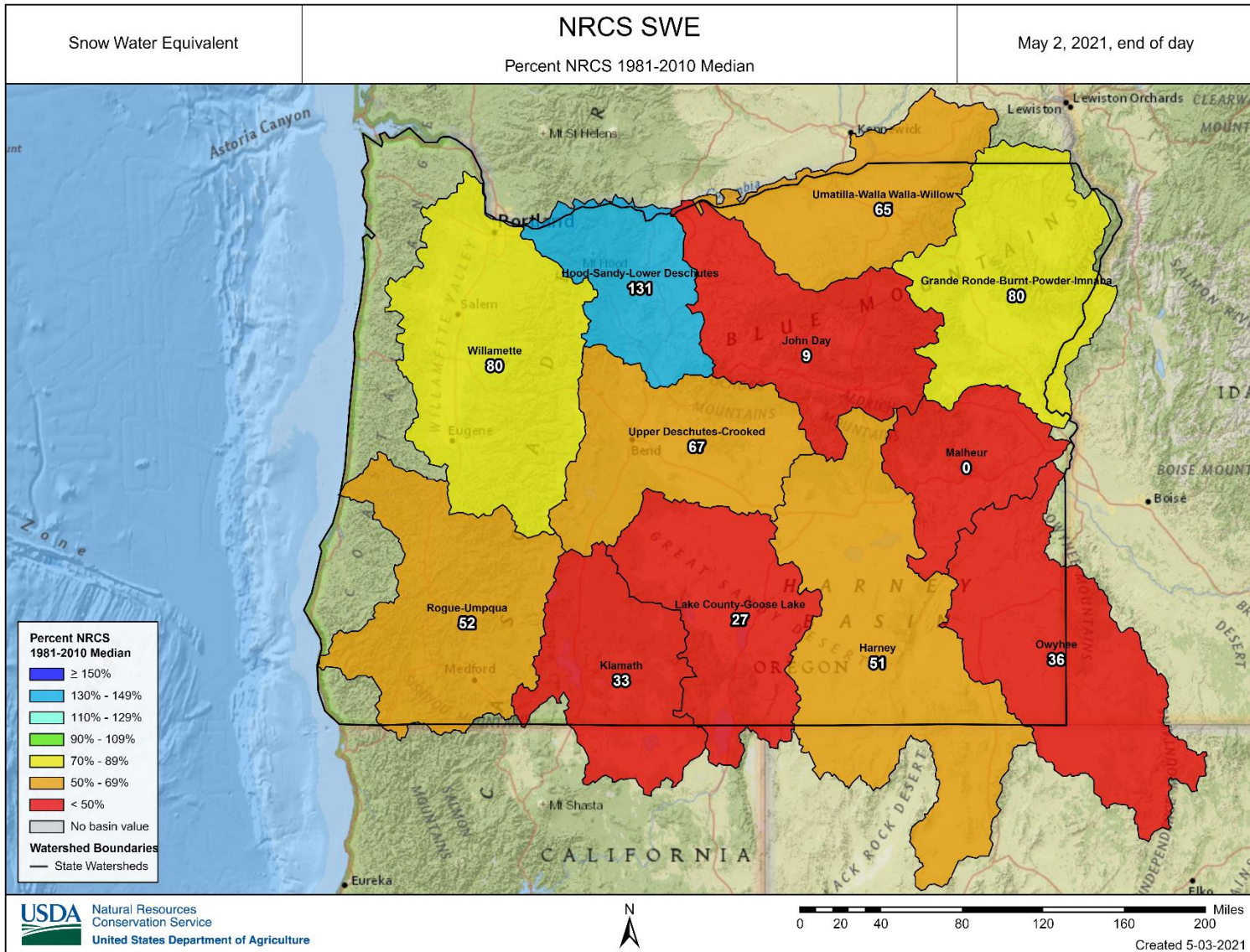


John Day



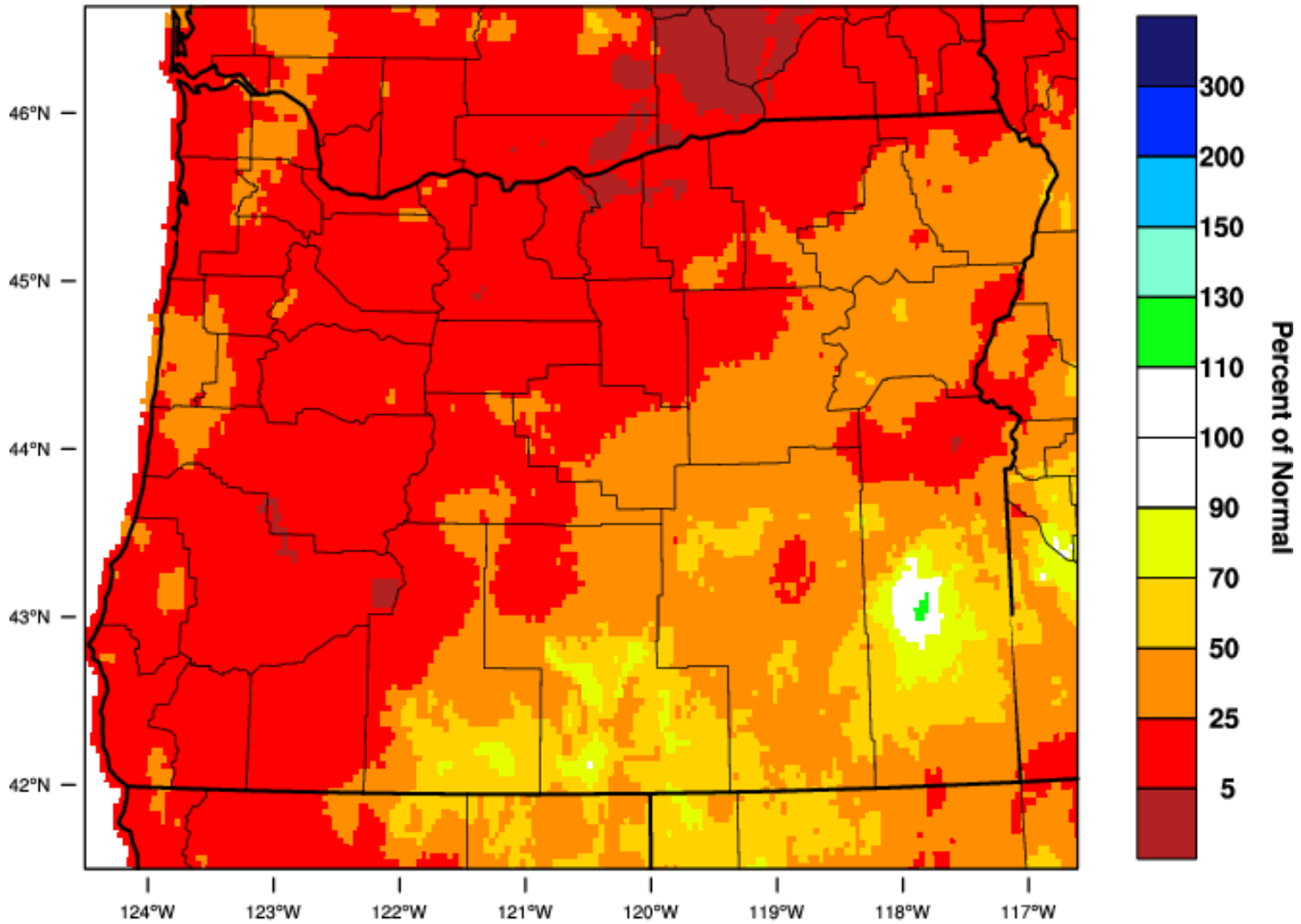


CLIMATE CONDITIONS
SNOW WATER EQUIVALENT



Oregon - Precipitation

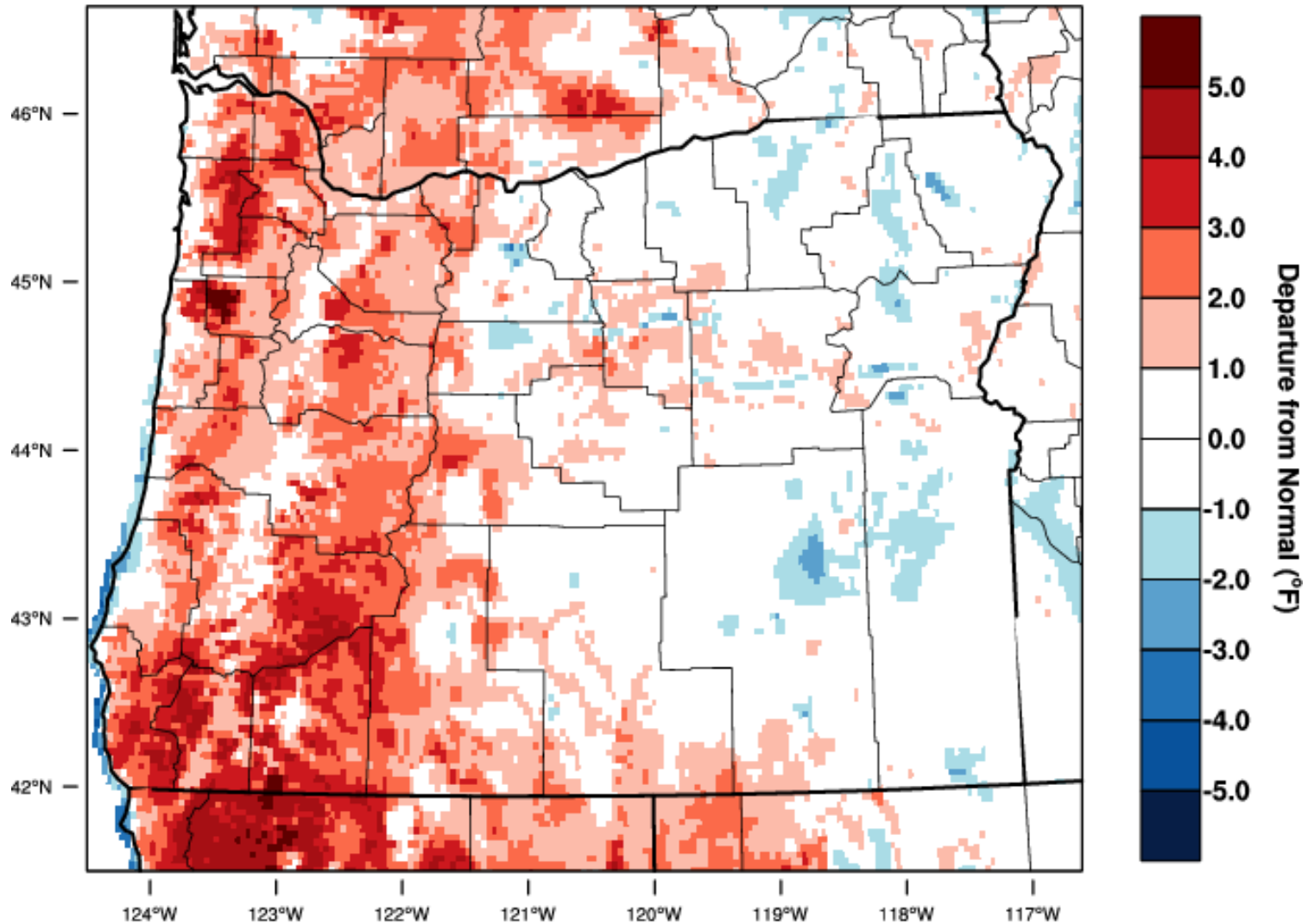
April 2021 Percent of 1981-2010 Normal



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

Oregon - Mean Temperature

April 2021 Departure from 1981-2010 Normal

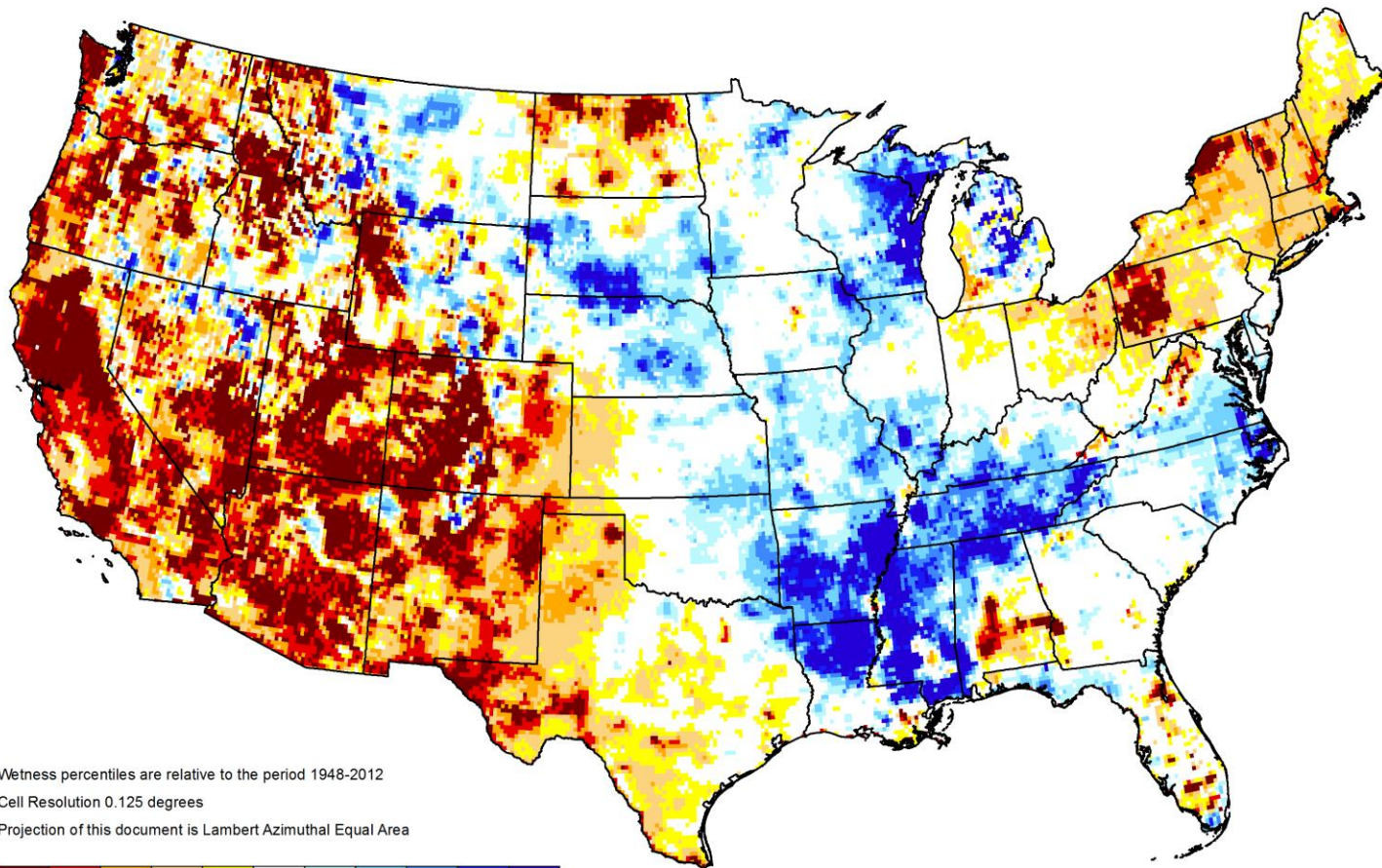


WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 2 MAY 2021

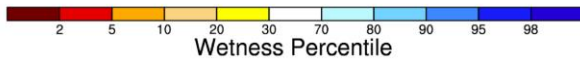


GRACE-Based Shallow Groundwater Drought Indicator

April 26, 2021



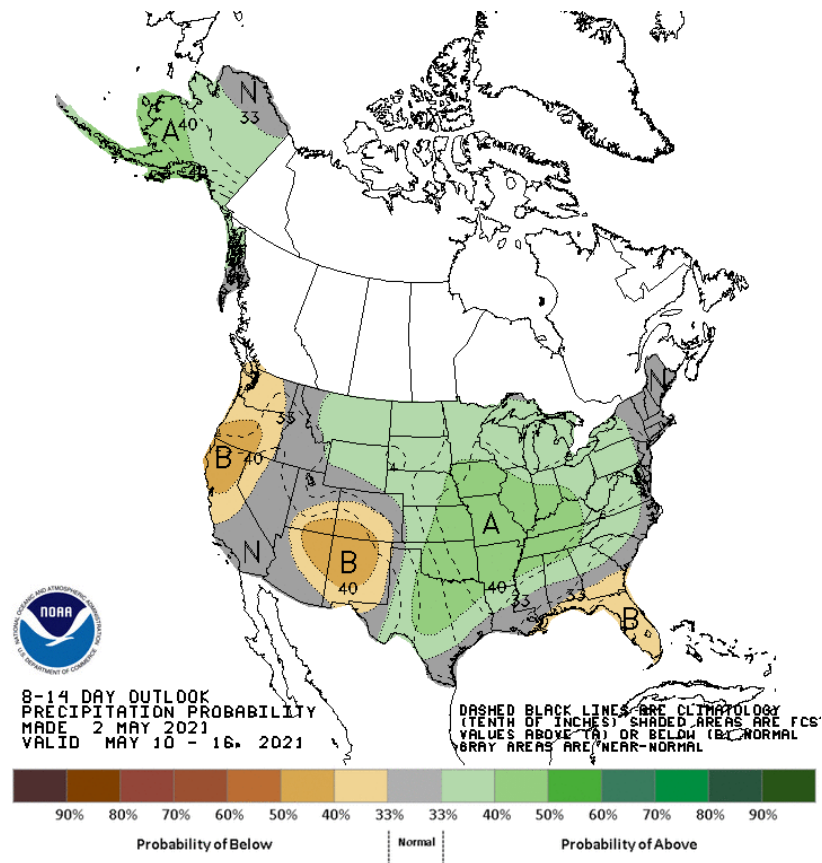
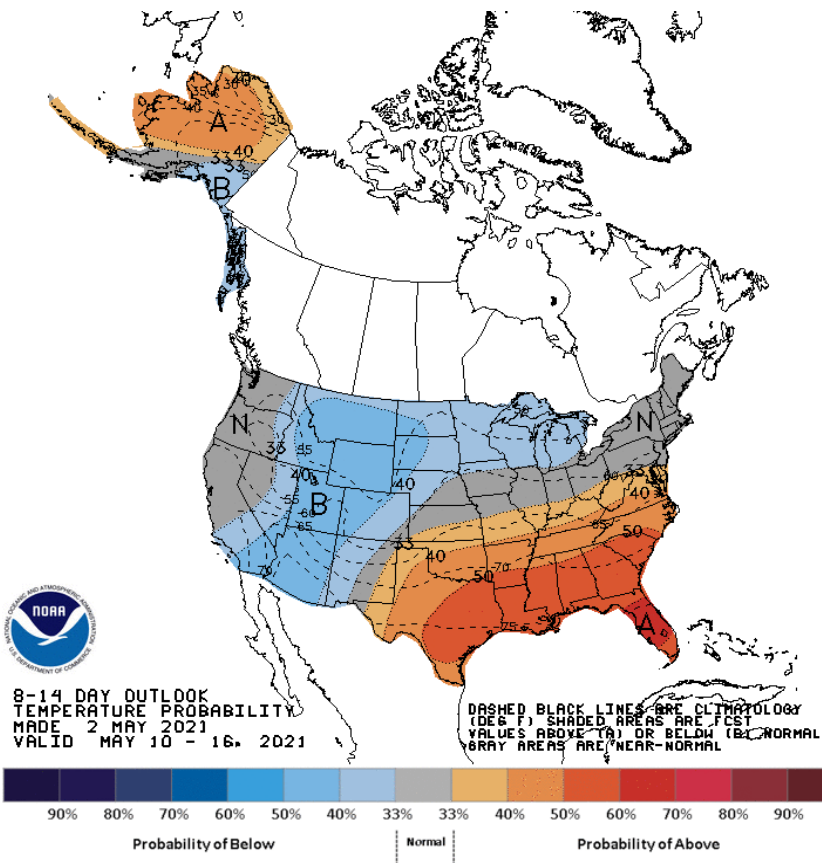
Wetness percentiles are relative to the period 1948-2012
Cell Resolution 0.125 degrees
Projection of this document is Lambert Azimuthal Equal Area



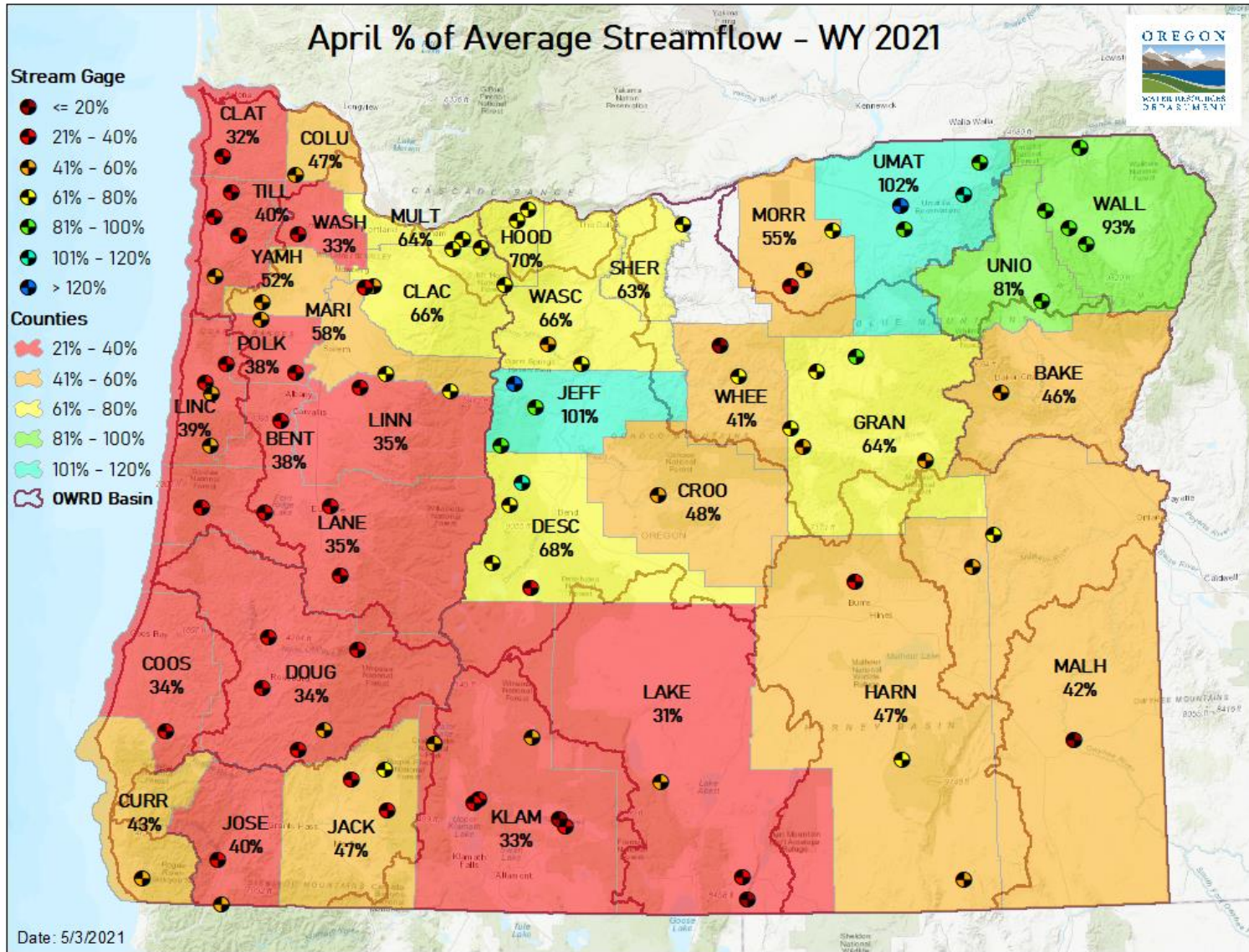
<https://nasagrace.unl.edu>

CLIMATE OUTLOOK

8 - 14 DAY

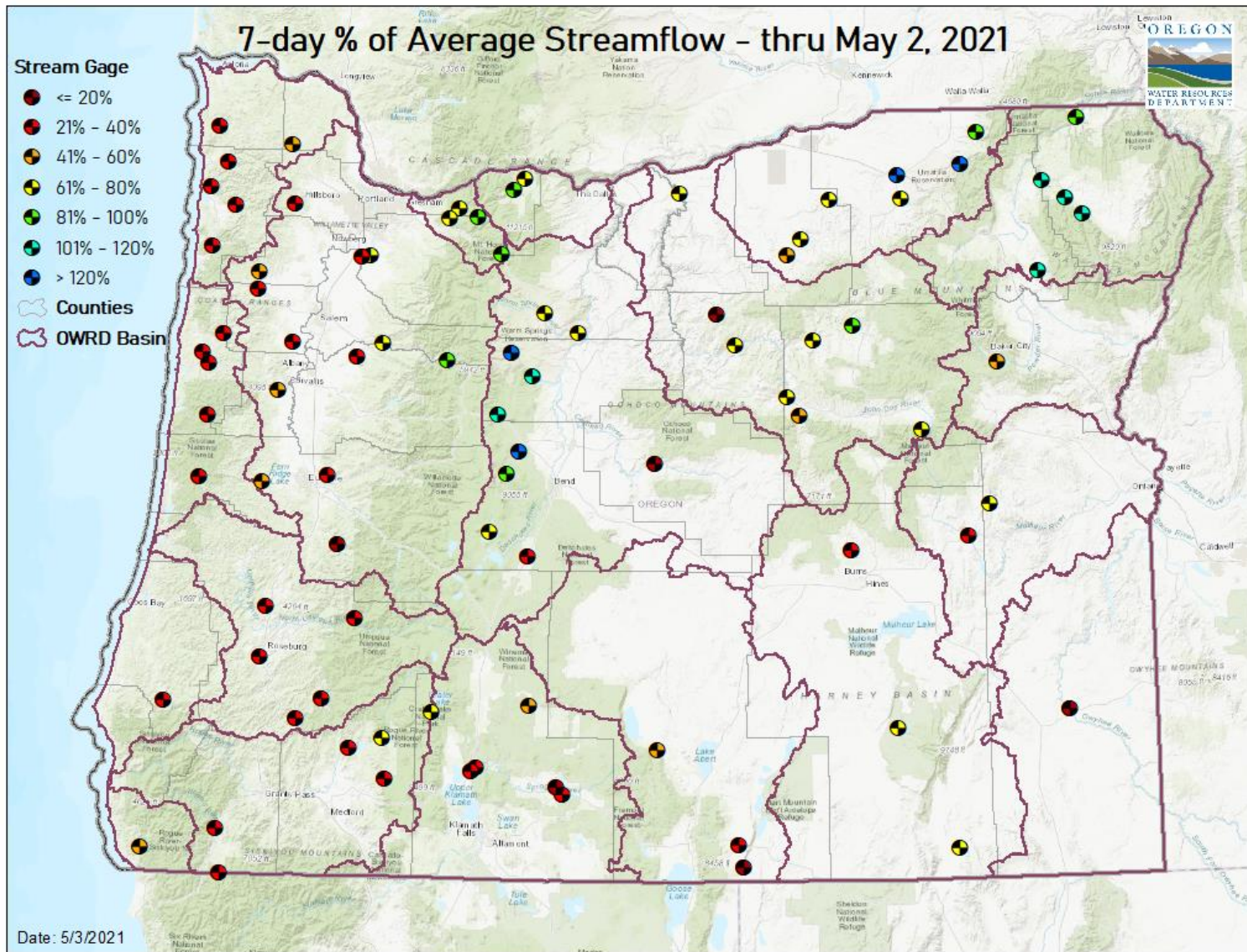


STREAMFLOW
APRIL

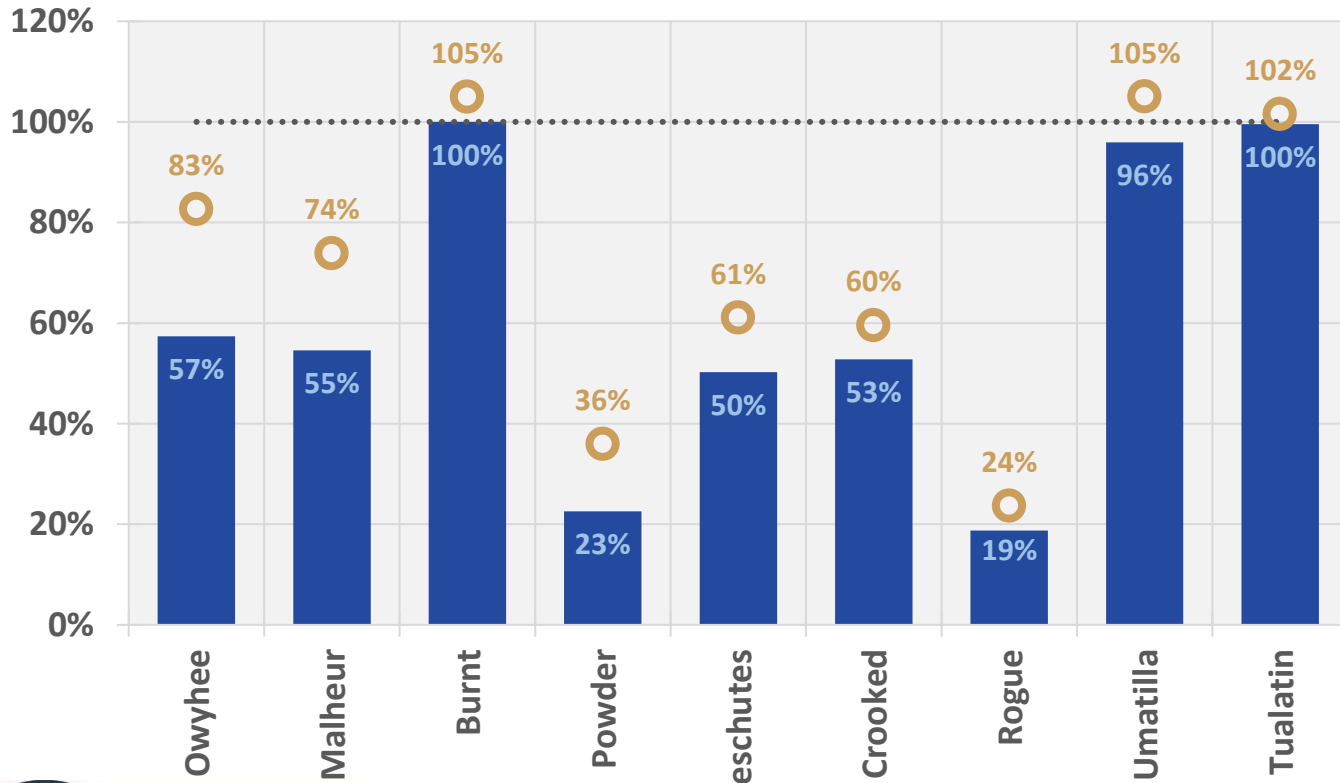


STREAMFLOW

7-DAY



April 28 Reservoir Storage



BUREAU OF RECLAMATION

■ Percent Full

● Percent of Average

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.