

Oregon Water Conditions Report



March 8th, 2021

HIGHLIGHTS

[Snowpack](#) is currently measuring 108% of the long-term median statewide, with a clear north-south trend, where northern basins benefitting from recent snowfalls (see basin snowpack graphs below) are measuring above normal SWE (Max = Umatilla-Walla Walla-Willow @ 137%). Southern basins continue to measure SWE below the long-term median (Min = Lake County-Goose Lake @ 75%).

[Statewide precipitation](#) is currently measuring 96% of the long-term average. Although many basins are measuring near-average precipitation over the water year to date, several southern basins continue to lag behind, including Rogue-Umpqua (82%), Owyhee (76%), Klamath (73%), and Lake County-Goose Lake (65%). Much of Oregon experienced [precipitation deficits over recent weeks](#), with exception of small areas in NW and NE Oregon.

The [US Drought Monitor](#) indicates just over 80% of the state is experiencing some form of drought. Improvements include a reduction in areal coverage of drought classification, including portions of Linn, Lane, and Marion Counties in western Oregon and eastern Malheur County.

[Streamflow conditions throughout February](#) differed significantly between western and eastern Oregon. Counties in western Oregon experienced streamflows well above normal due to a surplus of precipitation, measuring 130% of average overall. Counties in eastern Oregon fared worse, where many stream gages measured well below normal leading to 47% of average streamflow overall. See below for more information.

Recent [7-day average streamflows](#) are variable throughout the state (see below for more). With exception of the small pockets of NW and NE Oregon receiving above-normal precipitation over recent weeks, most streams measured normal to below-normal streamflow. It is important to note that snowpack reserves may not have yet translated into streamflow, and will be a valuable indicator of water supply conditions moving forwards in relevant areas.

The near-term climate outlook indicates likelihood of below normal temperatures and near-normal precipitation over the next [8 - 14 days](#) for the entire state. The same conditions are projected [statewide throughout the month of March](#). The [seasonal forecast for April through June](#) indicates a high probability of above-normal temperatures throughout the state. Projections for precipitation are more variable statewide.

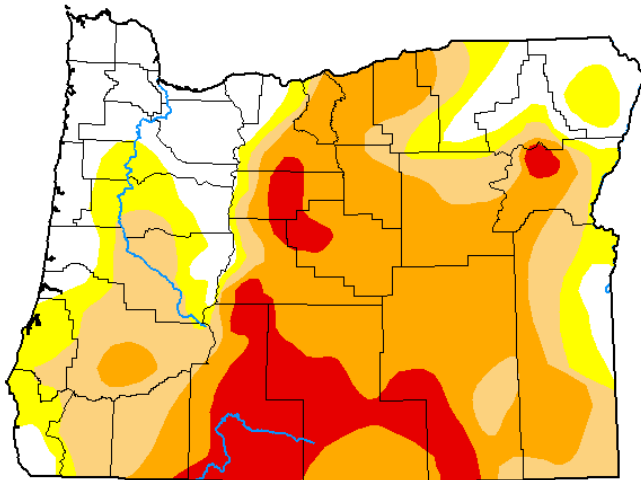
Reservoir contents of [USBR systems](#) have changed little over the past two weeks, both in terms of storage contents and compared to the long-term average. Storage conditions within USACE reservoirs vary in the [Willamette](#) and [Rogue](#) basins.

DROUGHT CONDITIONS

Major changes in drought severity include one-category improvements in portions of Harney and Crook Counties from D3 (extreme drought) to D2 (severe drought) due to overall accumulated precipitation and snowpack. Several other one-category improvements were mainly focused in eastern Oregon. [Varying types of drought](#) have driven recent drought classifications in central and eastern Oregon, where meteorological and hydrological drought conditions are variable.

U.S. Drought Monitor Oregon

March 2, 2021
(Released Thursday, Mar. 4, 2021)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	19.33	80.67	67.28	47.14	12.53	0.00
Last Week 02-23-2021	12.69	87.31	71.82	51.11	14.34	0.00
3 Months Ago 12-01-2020	7.58	92.42	84.10	69.08	34.70	0.00
Start of Calendar Year 12-29-2020	8.57	91.43	83.53	68.71	27.74	0.00
Start of Water Year 09-29-2020	6.50	93.50	84.77	65.53	33.59	0.00
One Year Ago 03-03-2020	19.88	80.12	42.91	0.00	0.00	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>

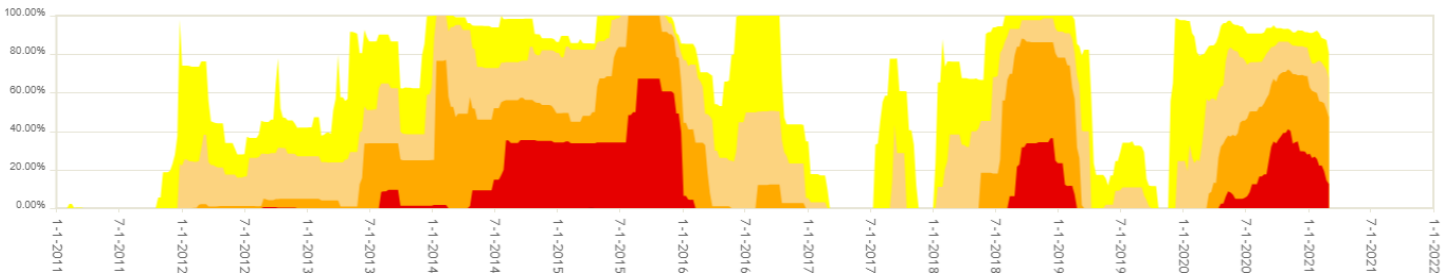
Author:

Brian Fuchs
National Drought Mitigation Center

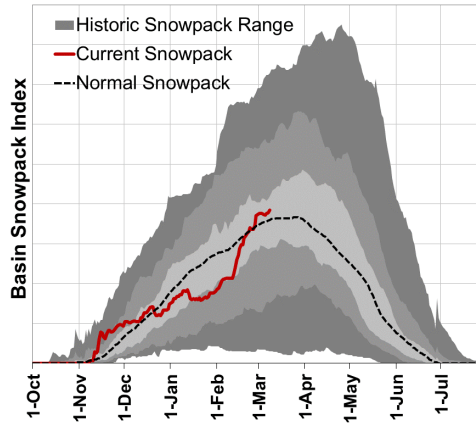


droughtmonitor.unl.edu

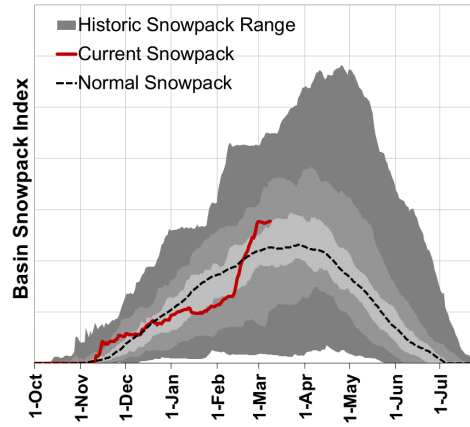
Oregon Percent Area



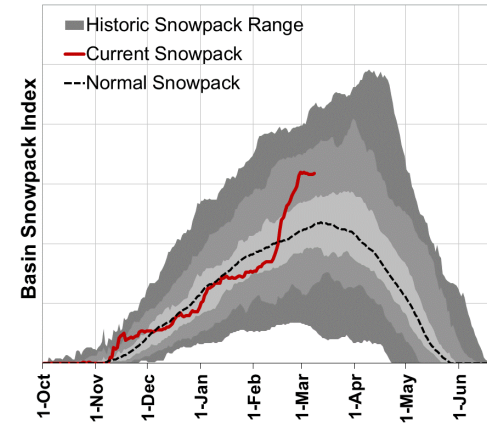
Willamette



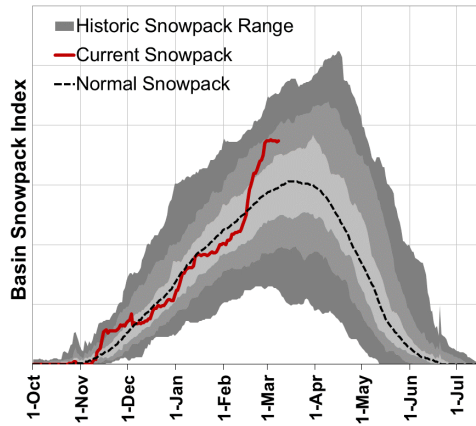
Hood-Sandy-Lower Deschutes



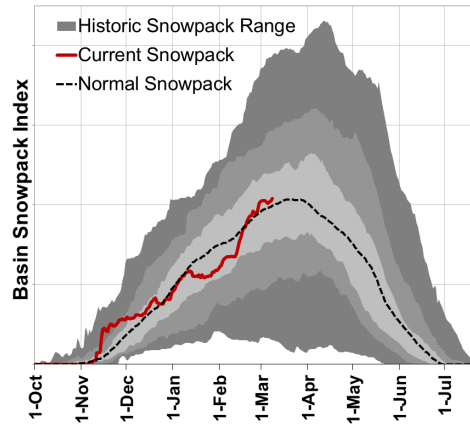
Umatilla-Walla Walla-Willow



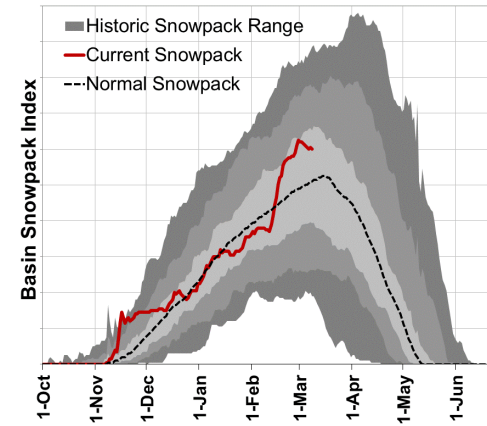
Grande Ronde-Burnt-Powder-Imnaha

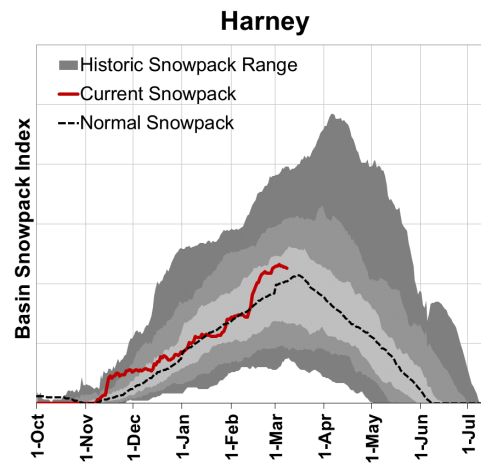
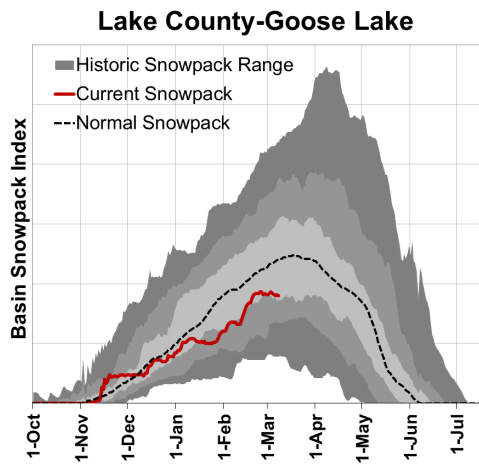
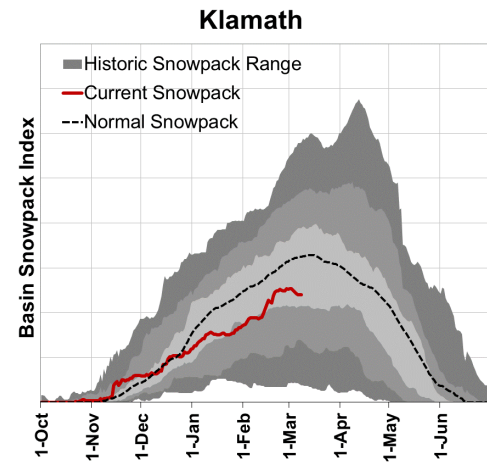
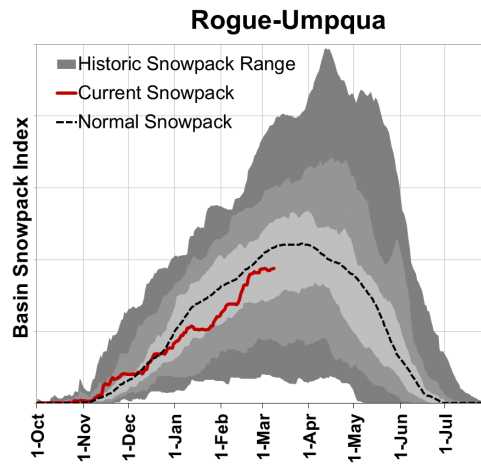
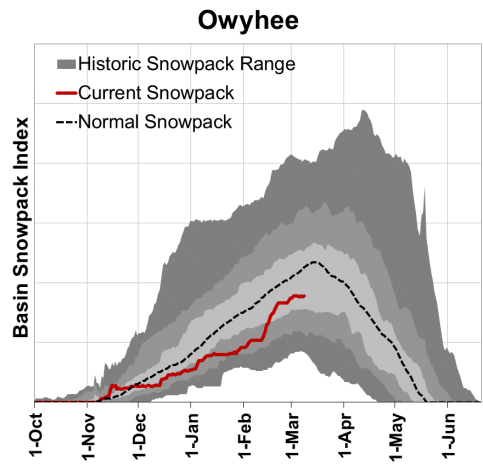


Upper Deschutes-Crooked

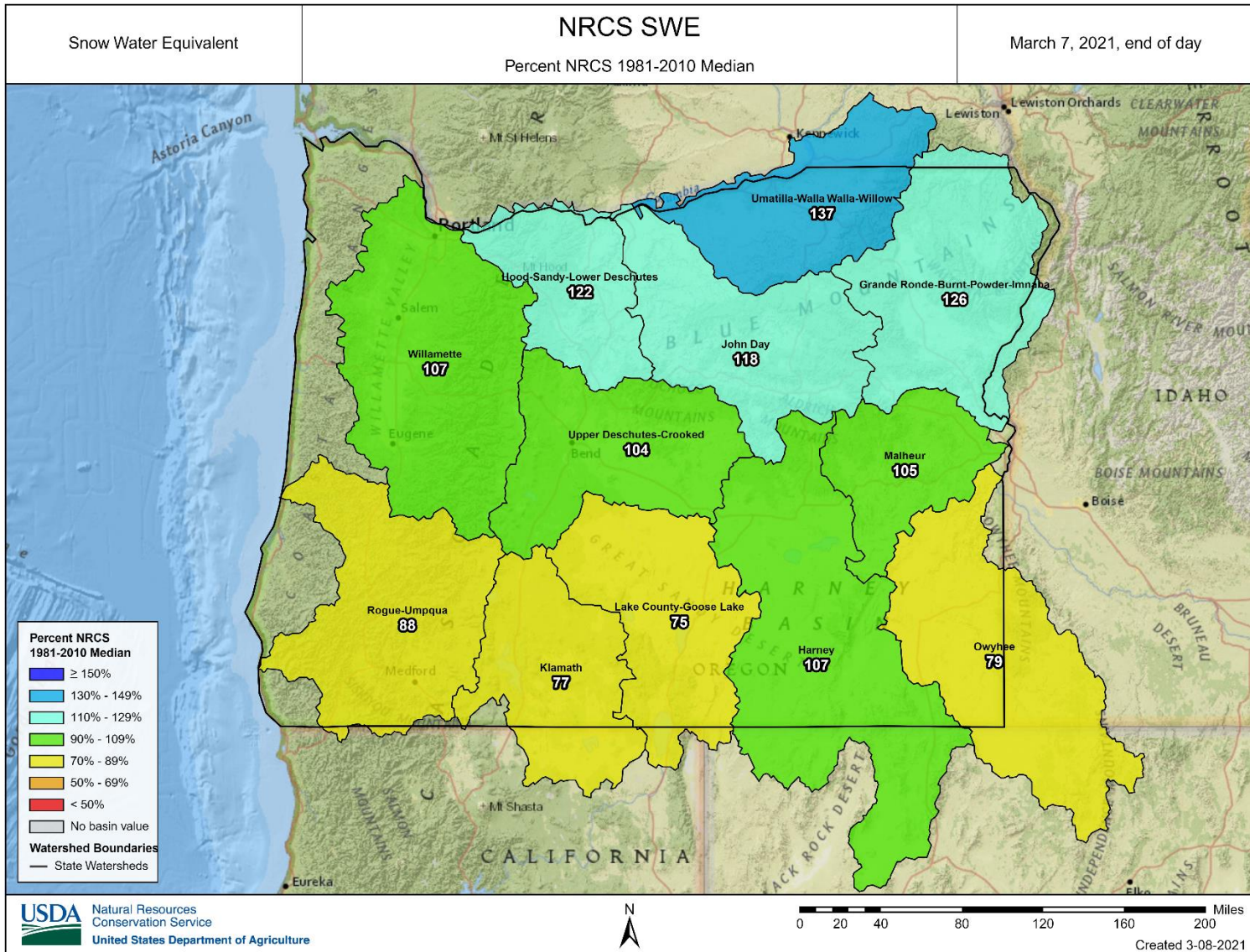


John Day

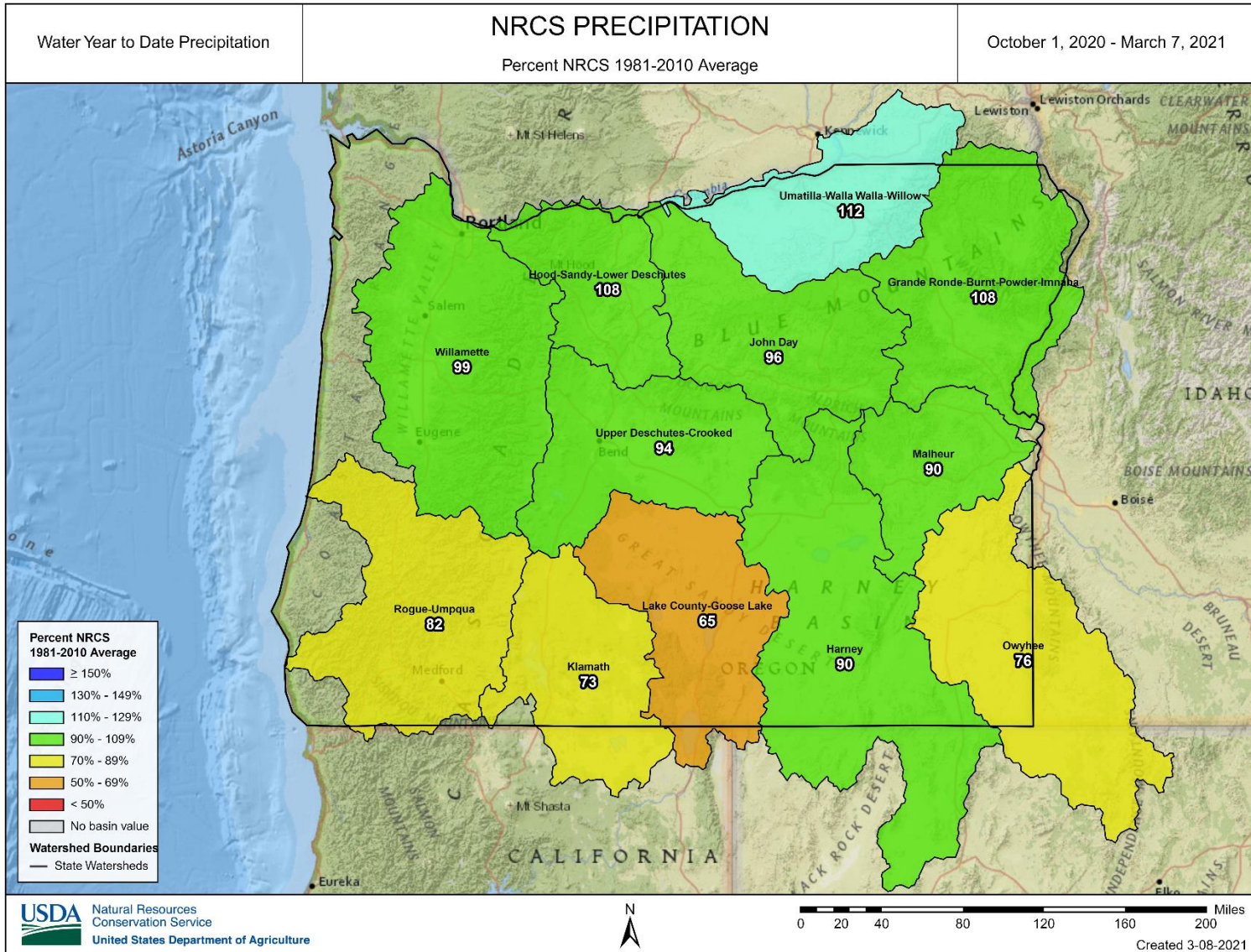




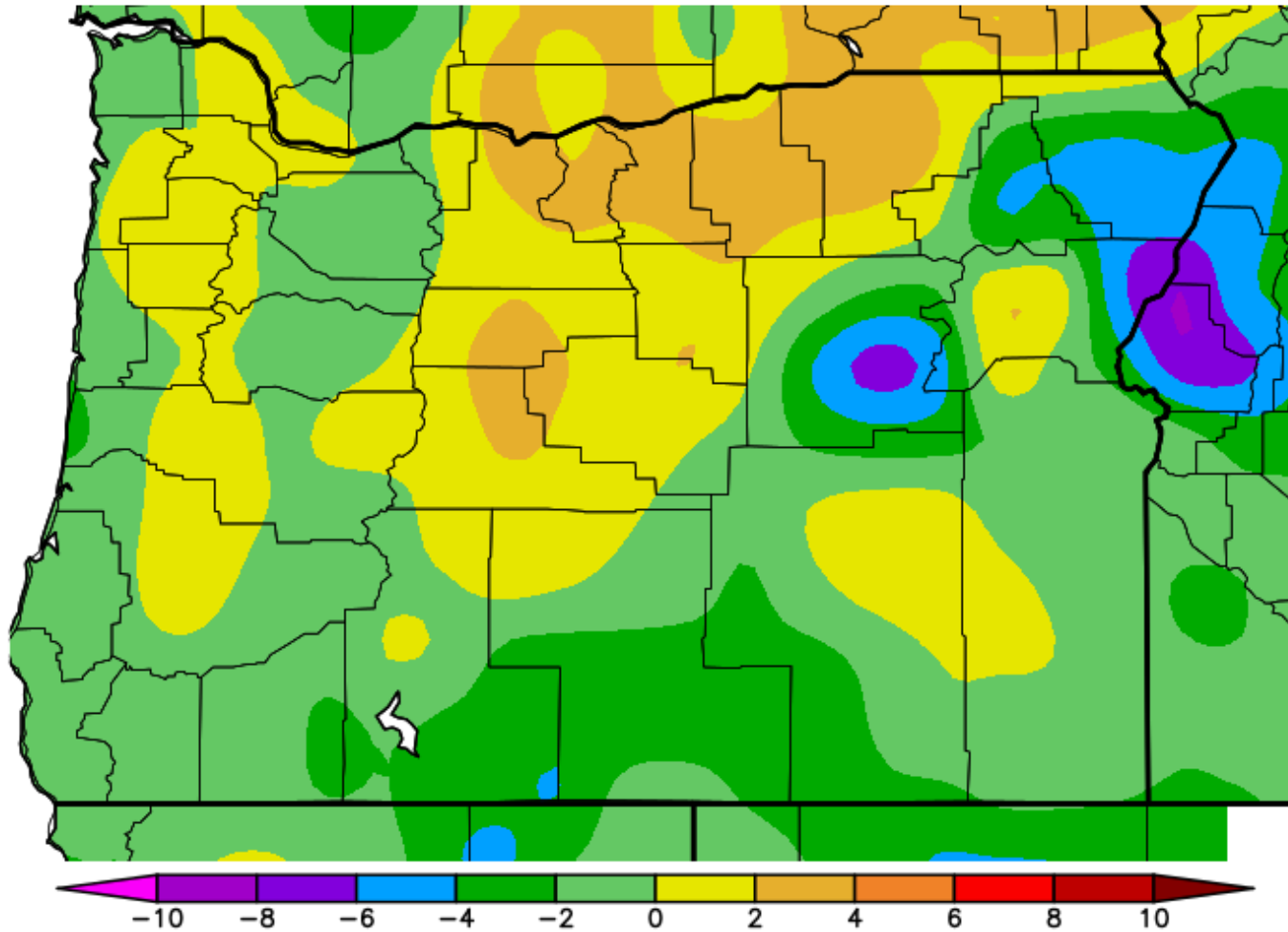
CLIMATE CONDITIONS
SNOW WATER EQUIVALENT



PRECIPITATION



Ave. Temperature dep from Ave (deg F)
2/20/2021 – 3/5/2021

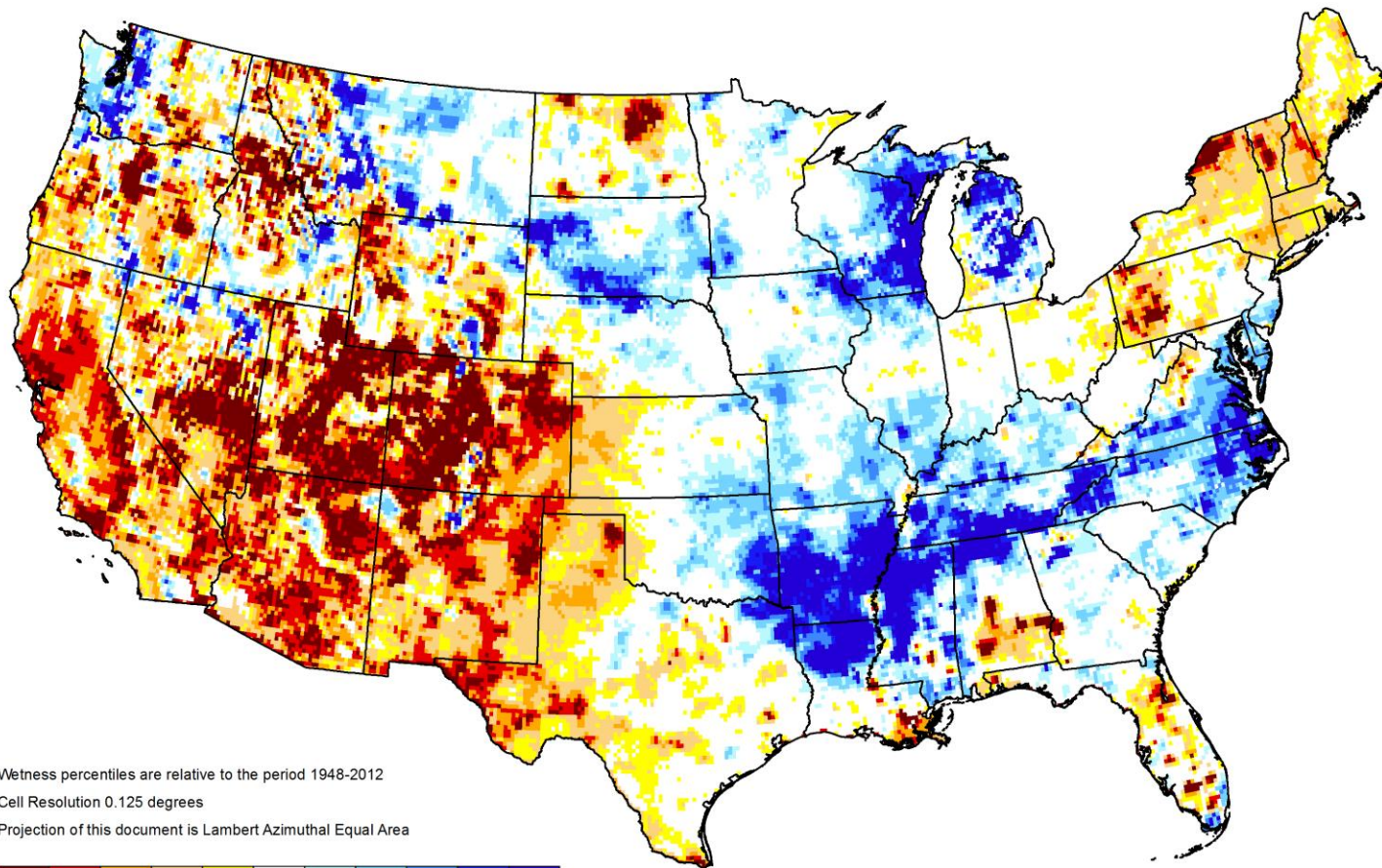


Generated 3/ 6/2021 at WRCC using provisional data.
NOAA Regional Climate Centers

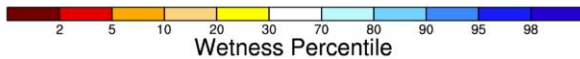


GRACE-Based Shallow Groundwater Drought Indicator

March 01, 2021

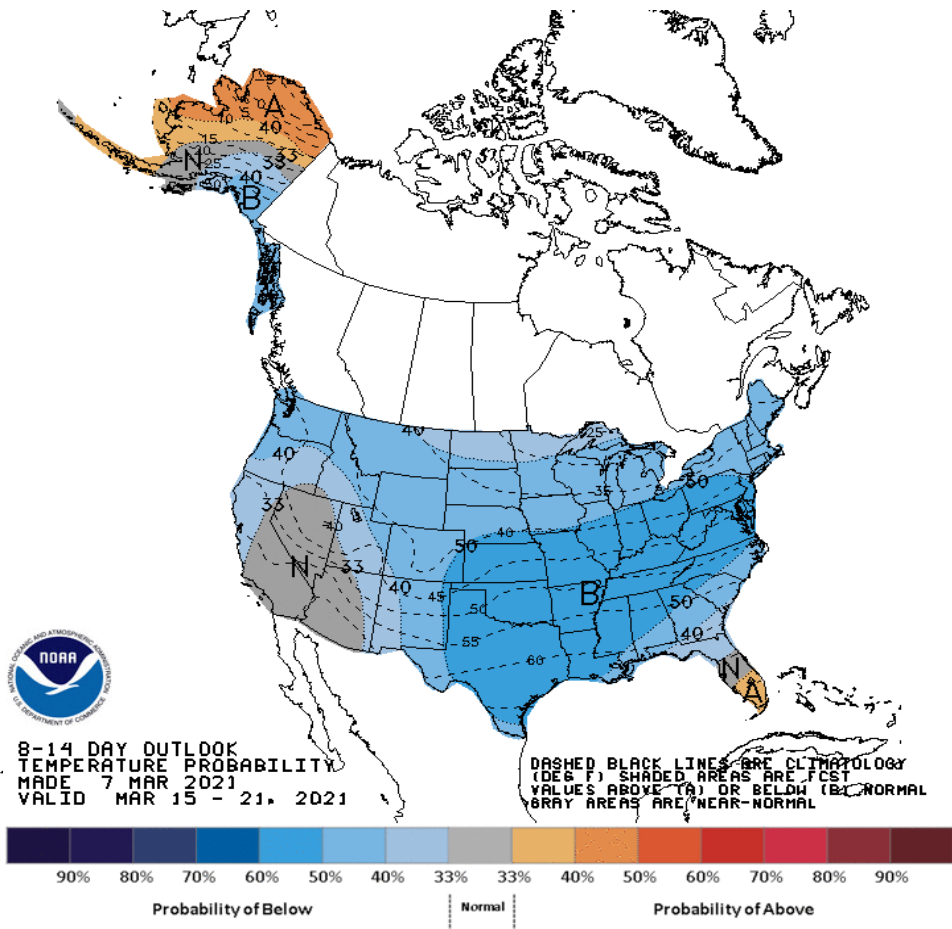
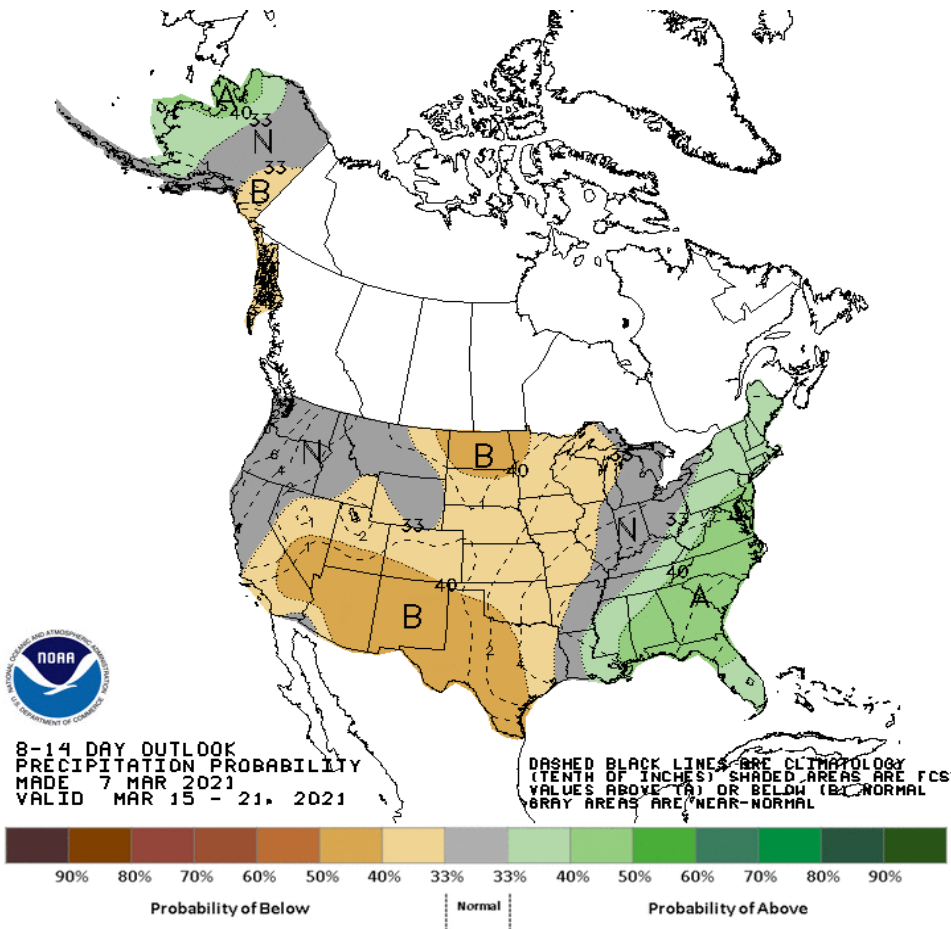


Wetness percentiles are relative to the period 1948-2012
Cell Resolution 0.125 degrees
Projection of this document is Lambert Azimuthal Equal Area

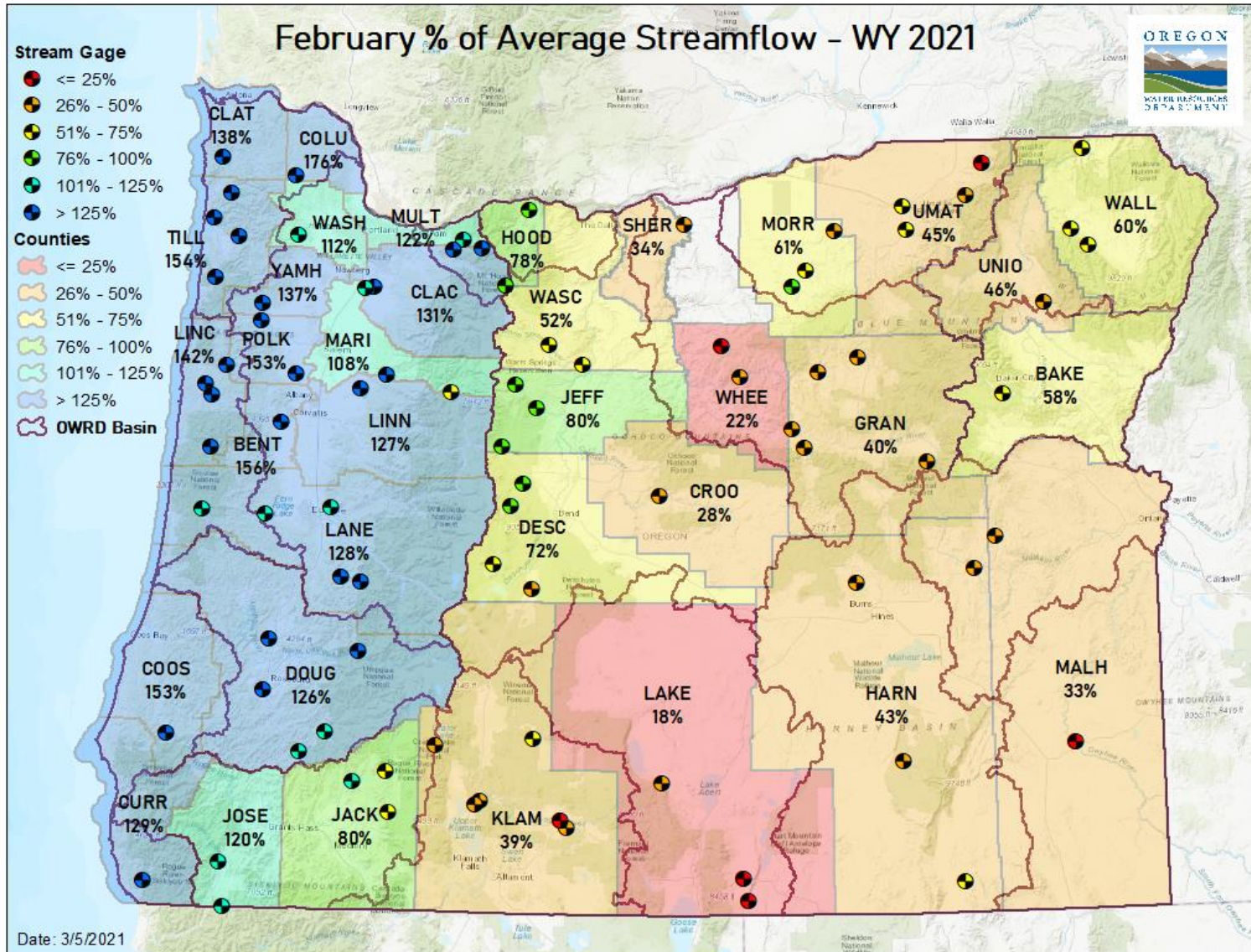


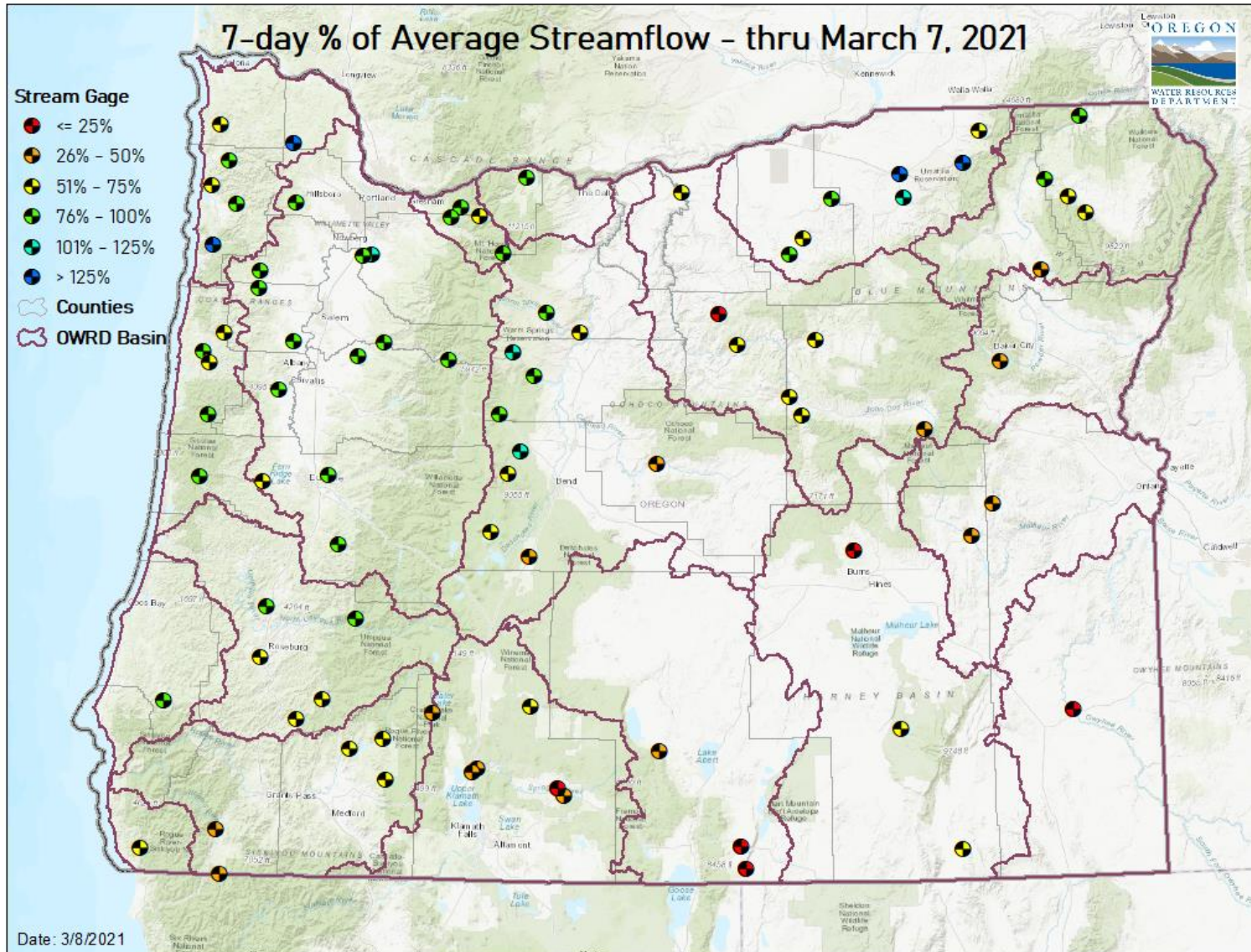
<https://nasagrace.unl.edu>

CLIMATE OUTLOOK
8-14 DAY OUTLOOK

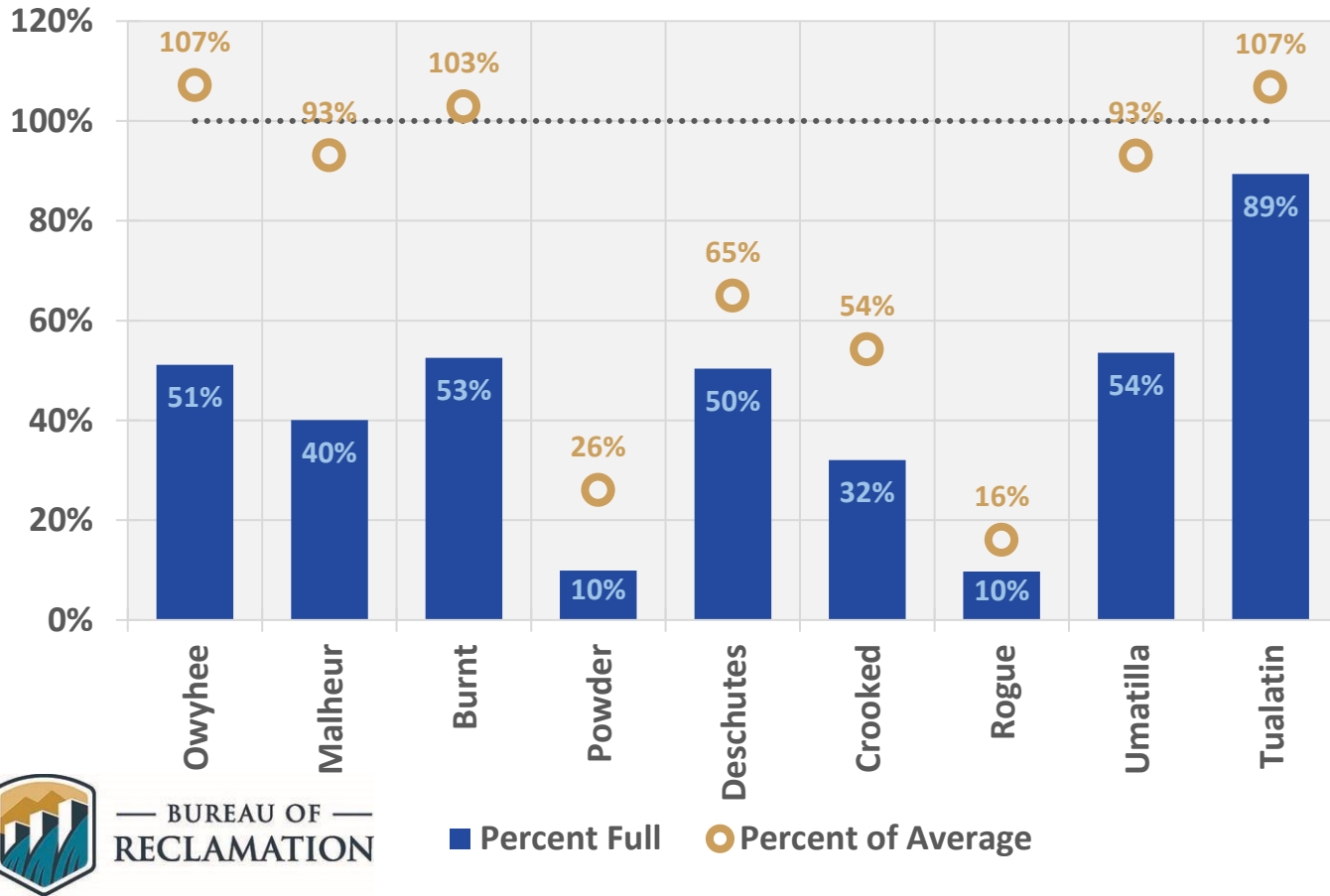


STREAMFLOW
FEBRUARY





February 27 Reservoir Storage



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.