

Oregon Water Conditions Report



January 9th, 2023

HIGHLIGHTS

Happy New Year! [State drought declarations](#) under ORS 536 expired at the beginning of calendar year 2023. As always, counties will need to request new drought declarations each year dependent upon water supply conditions.

According to the [US Drought Monitor](#), nearly 60% of Oregon is experiencing moderate (D1) to exceptional (D4) drought conditions. Over recent weeks, abnormally dry conditions in portions of northwestern Oregon were alleviated due to precipitation.

[Snow water equivalent](#) is measuring 118% of the long-term median statewide. Conditions range from near to well above normal (min = Willamette @ 104%; max = Harney @ 176%) in all basins. Snowpack continues to accumulate in eastern Oregon; however, accumulation has stagnated in western Oregon.

[December precipitation](#) was variable throughout the state. Much of southern Oregon received above average precipitation, while northern and western Oregon ranged from average to below average. [Precipitation in January](#) has started off near to below average throughout much of the state.

[Temperatures were cooler than usual throughout December](#) for much of Oregon. [Over the first week of January, temperatures](#) have generally measured above average with some exceptions in central Oregon.

[Surface and root zone soil moisture](#) continues to measure near to below average throughout the state, with some exception in southcentral Oregon and the Klamath Basin. Shallow groundwater continues to measure near historical dryness throughout a majority of Oregon.

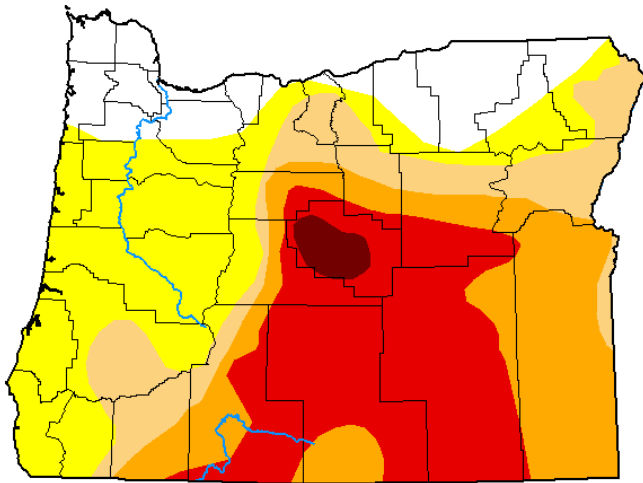
The [three-month seasonal climate outlook for January through March](#) favors below average temperatures statewide. The precipitation outlook differs between north and south, with above average precipitation projected in the north and near average in the south.

[December streamflows](#) were variable throughout the state, although most counties experienced near to well below average flows (one exception with Deschutes @ 130%). Over the water year to date, flows have been well below average in nearly all basins statewide (min = Malheur Lake @ 50%; max = Umatilla @ 134%).

Reservoir storage contents continue to measure well below average in most [USBR](#) (including [Klamath](#)) projects. See below for more information.

**U.S. Drought Monitor
Oregon**

January 3, 2023
(Released Thursday, Jan. 5, 2023)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	13.46	86.54	59.75	46.03	26.18	1.40
Last Week <i>12-27-2022</i>	8.58	91.42	59.76	46.04	26.18	1.40
3 Months Ago <i>10-04-2022</i>	0.44	99.56	68.78	52.50	30.73	1.40
Start of Calendar Year <i>01-03-2023</i>	13.46	86.54	59.75	46.03	26.18	1.40
Start of Water Year <i>09-27-2022</i>	0.42	99.58	68.05	52.42	30.73	1.40
One Year Ago <i>01-04-2022</i>	4.16	95.84	89.75	75.37	50.84	17.27

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

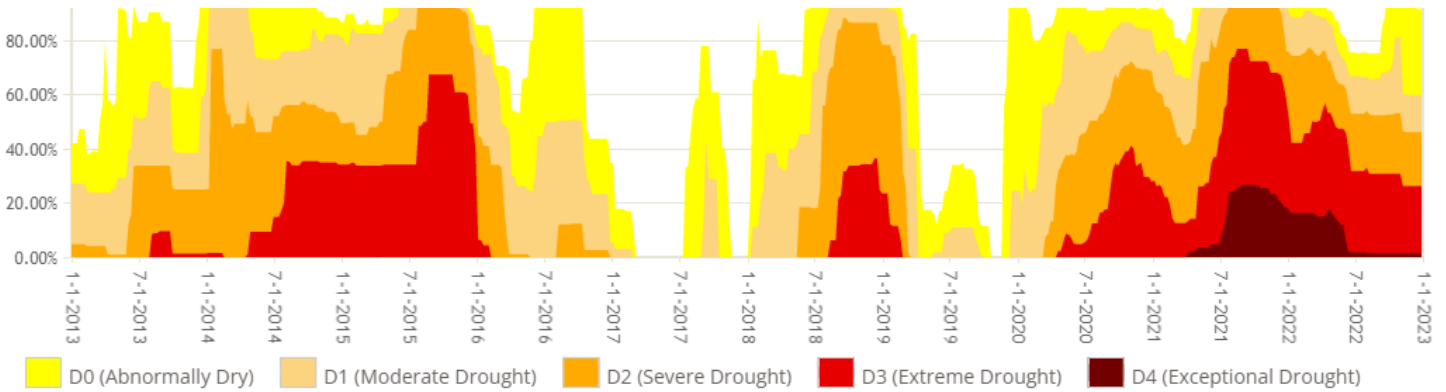
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

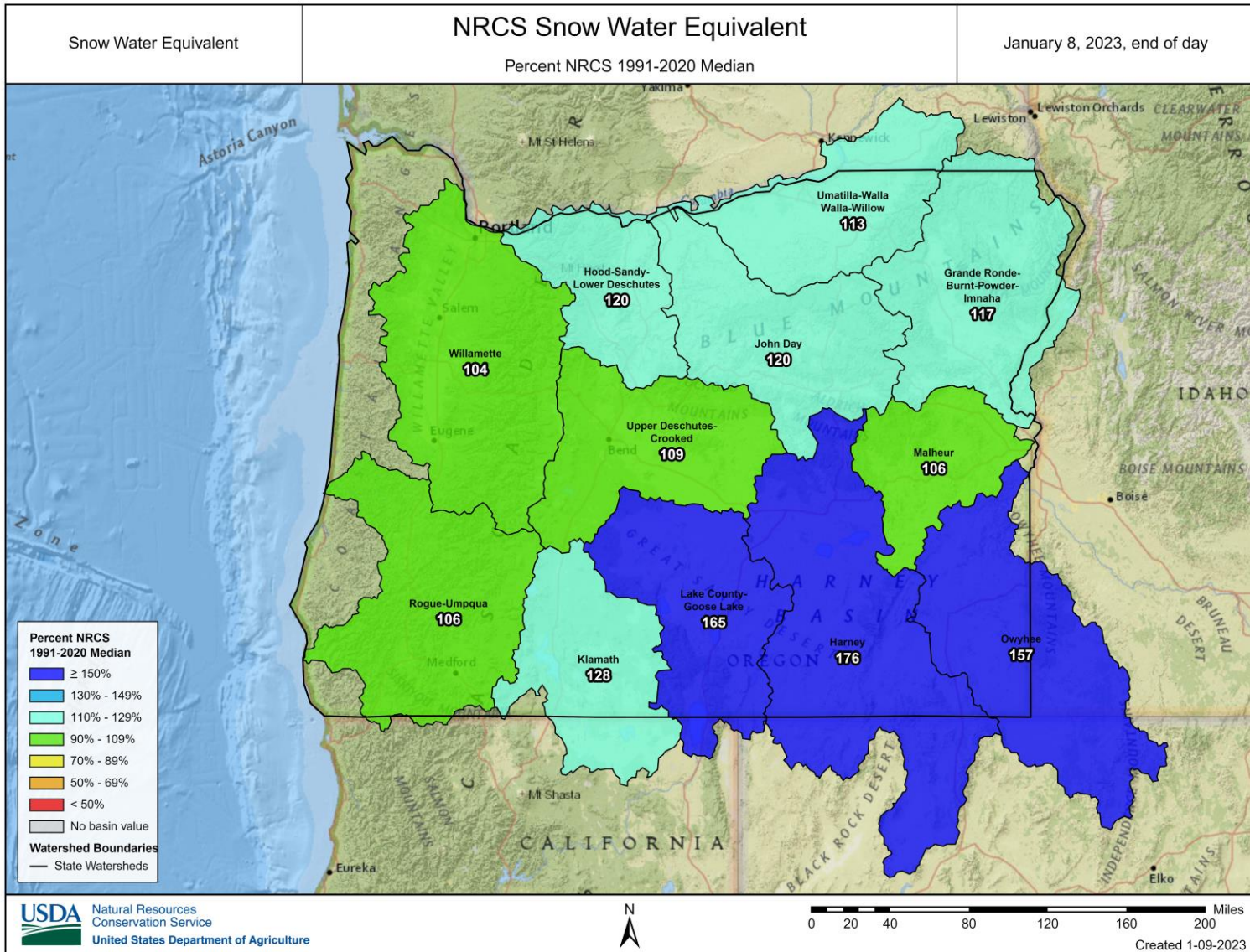
Brad Pugh
CPC/NOAA



droughtmonitor.unl.edu

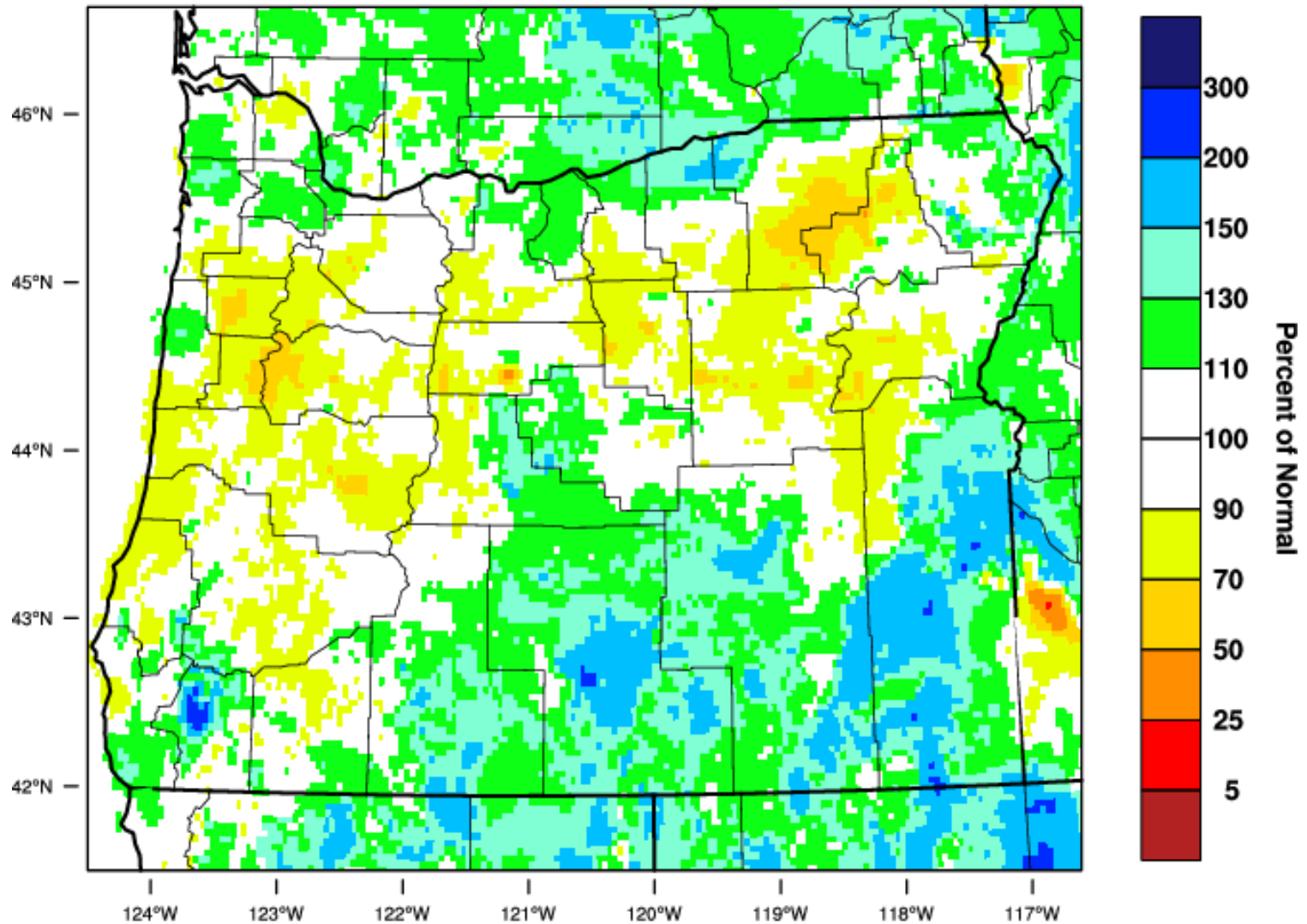


CLIMATE CONDITIONS
SNOW WATER EQUIVALENT



Oregon - Precipitation

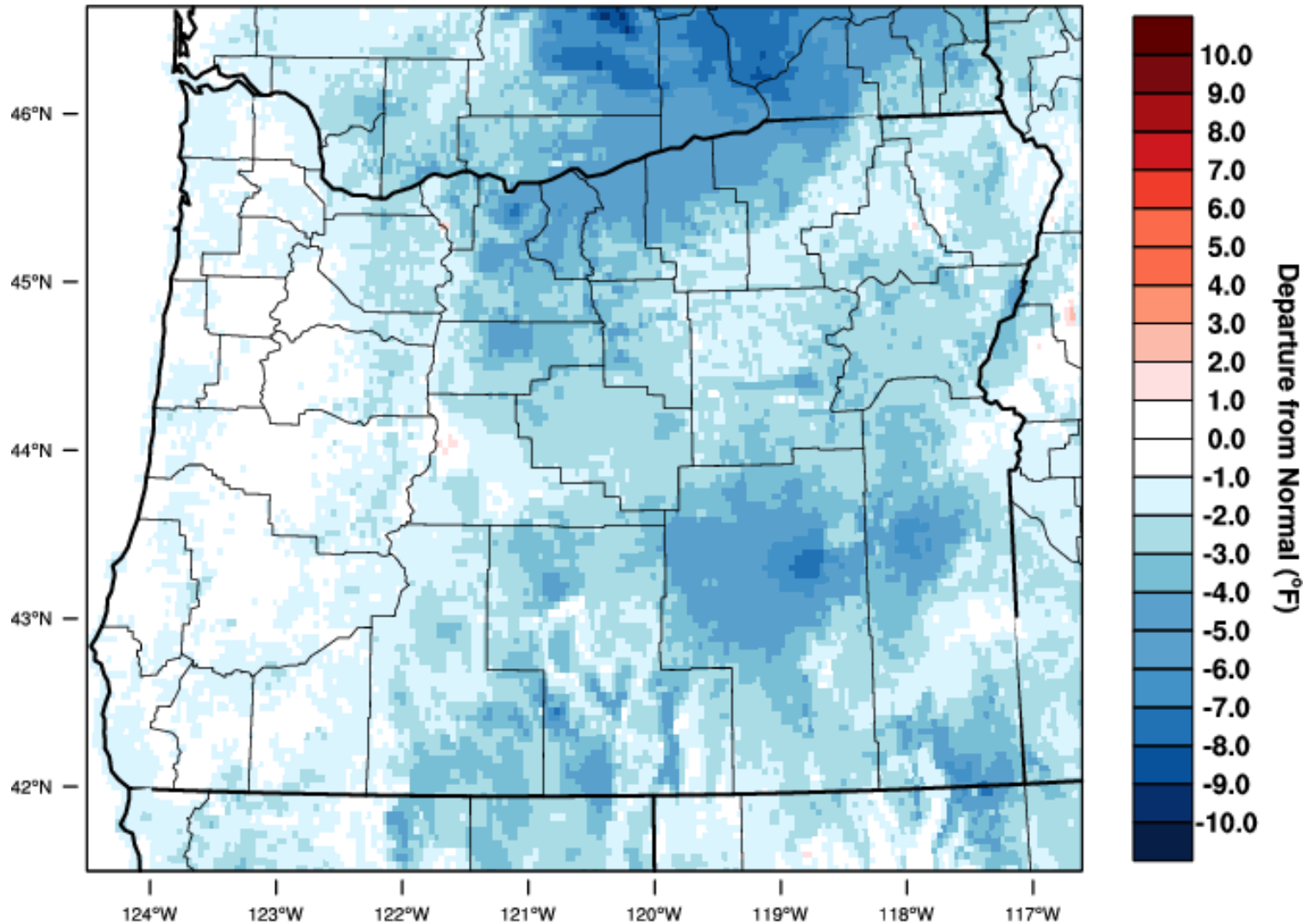
December 2022 Percent of 1981-2010 Normal



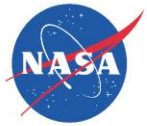
WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 2 JAN 2023

Oregon - Mean Temperature

December 2022 Departure from 1981-2010 Normal

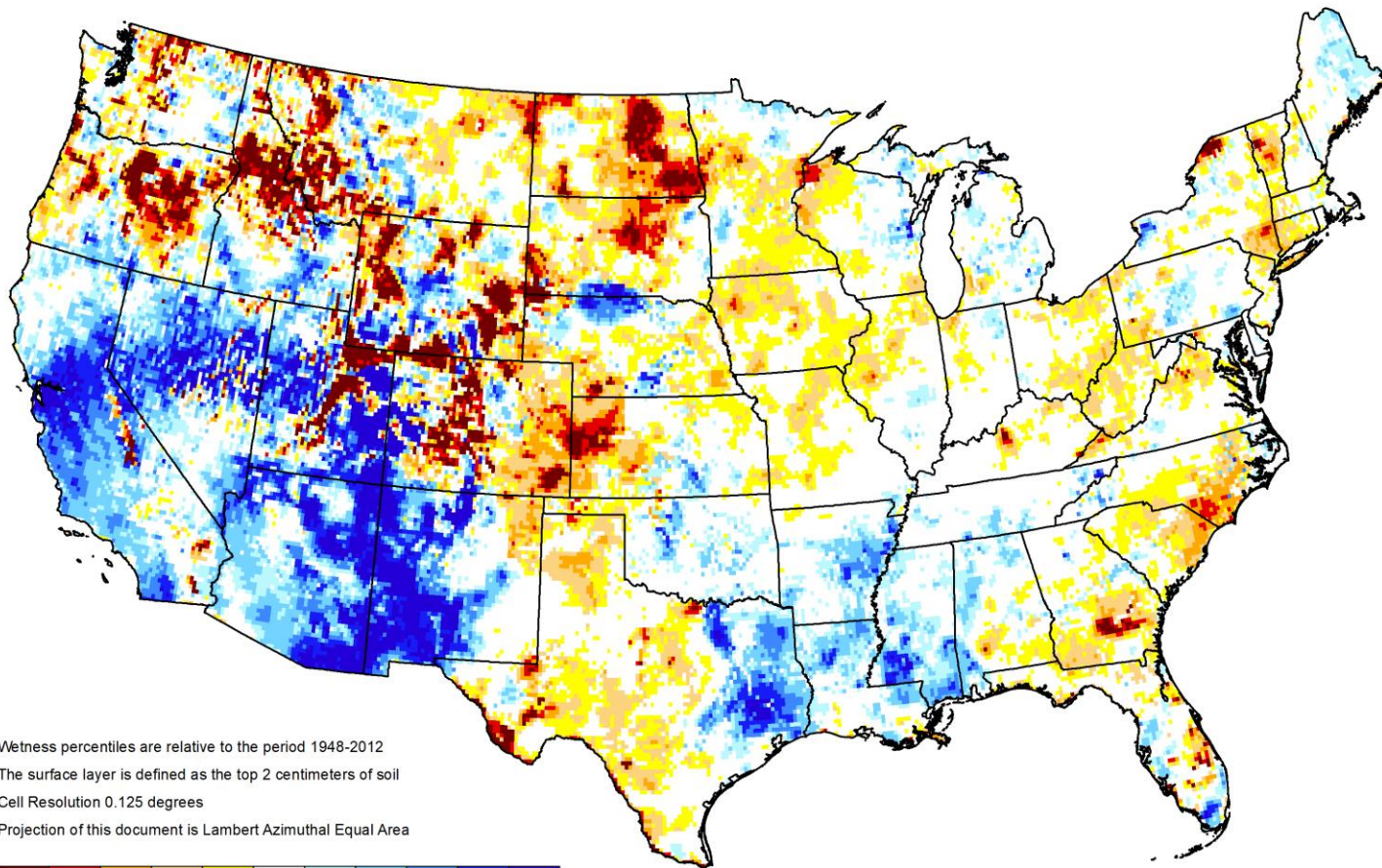


WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 2 JAN 2023

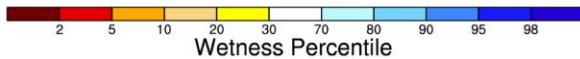


GRACE-Based Surface Soil Moisture Drought Indicator

January 02, 2023



Wetness percentiles are relative to the period 1948-2012
The surface layer is defined as the top 2 centimeters of soil
Cell Resolution 0.125 degrees
Projection of this document is Lambert Azimuthal Equal Area



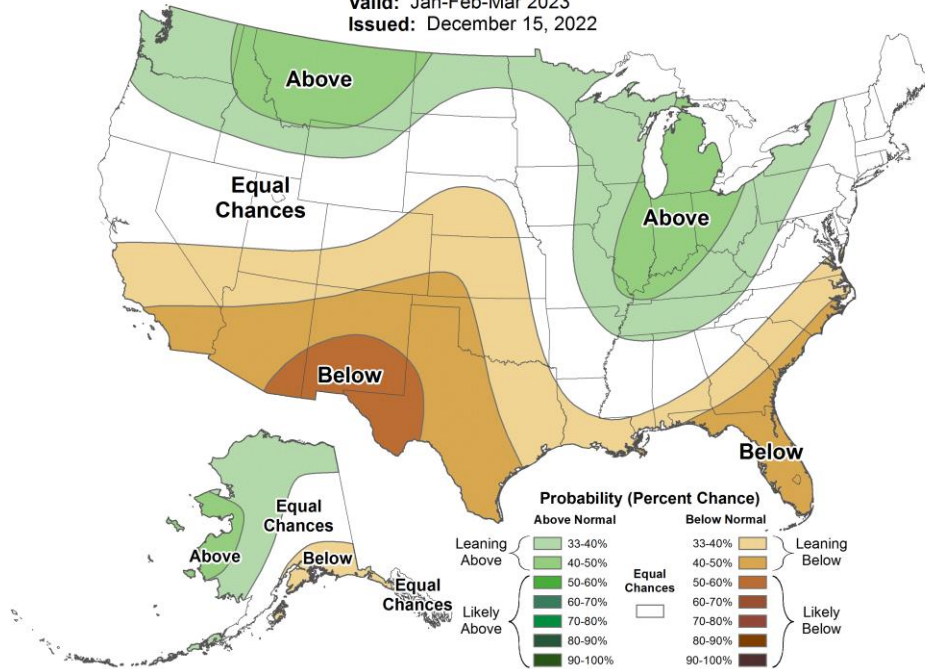
<https://nasagrace.unl.edu>



Seasonal Precipitation Outlook



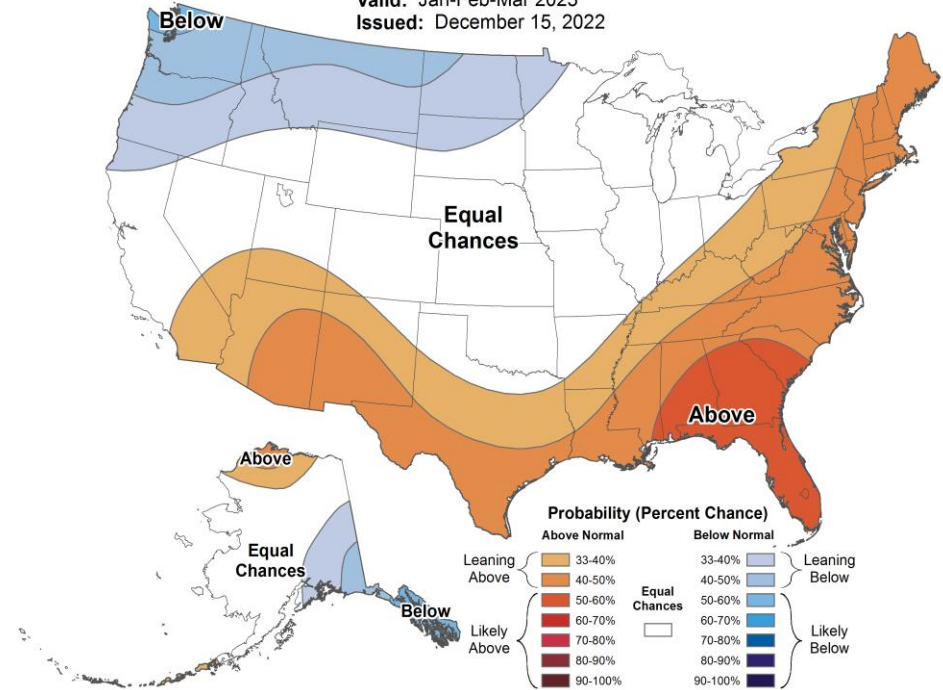
Valid: Jan-Feb-Mar 2023
 Issued: December 15, 2022



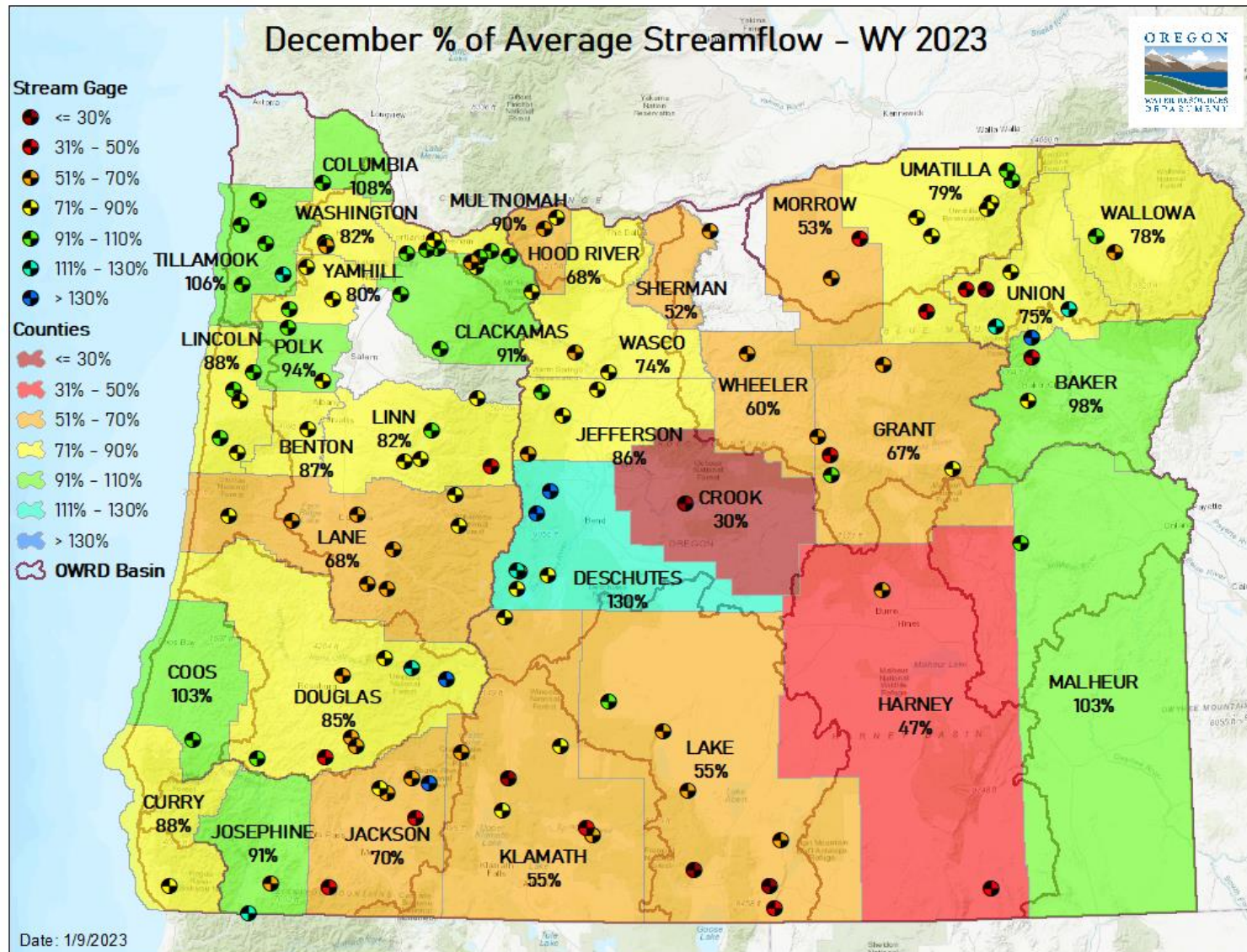
Seasonal Temperature Outlook

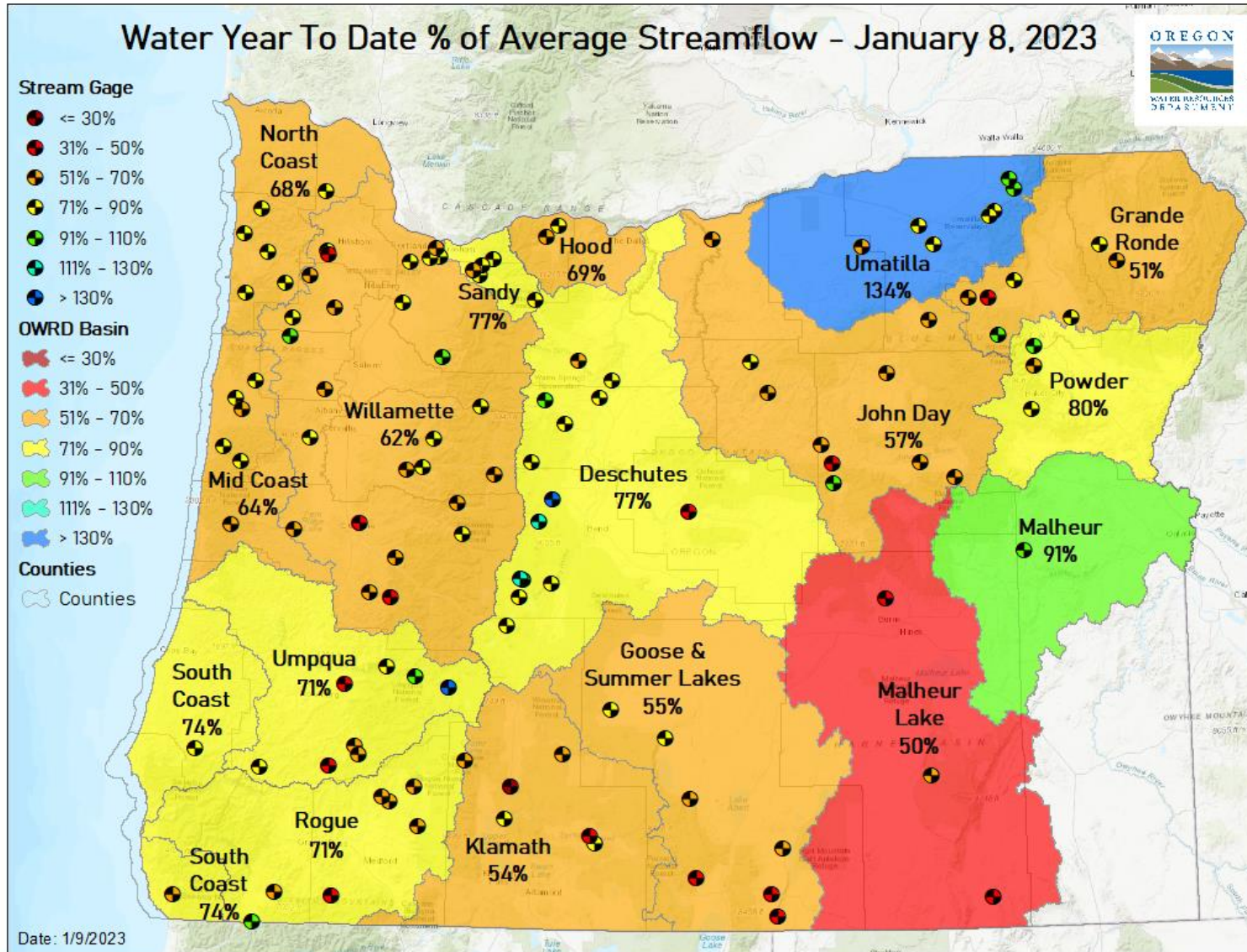


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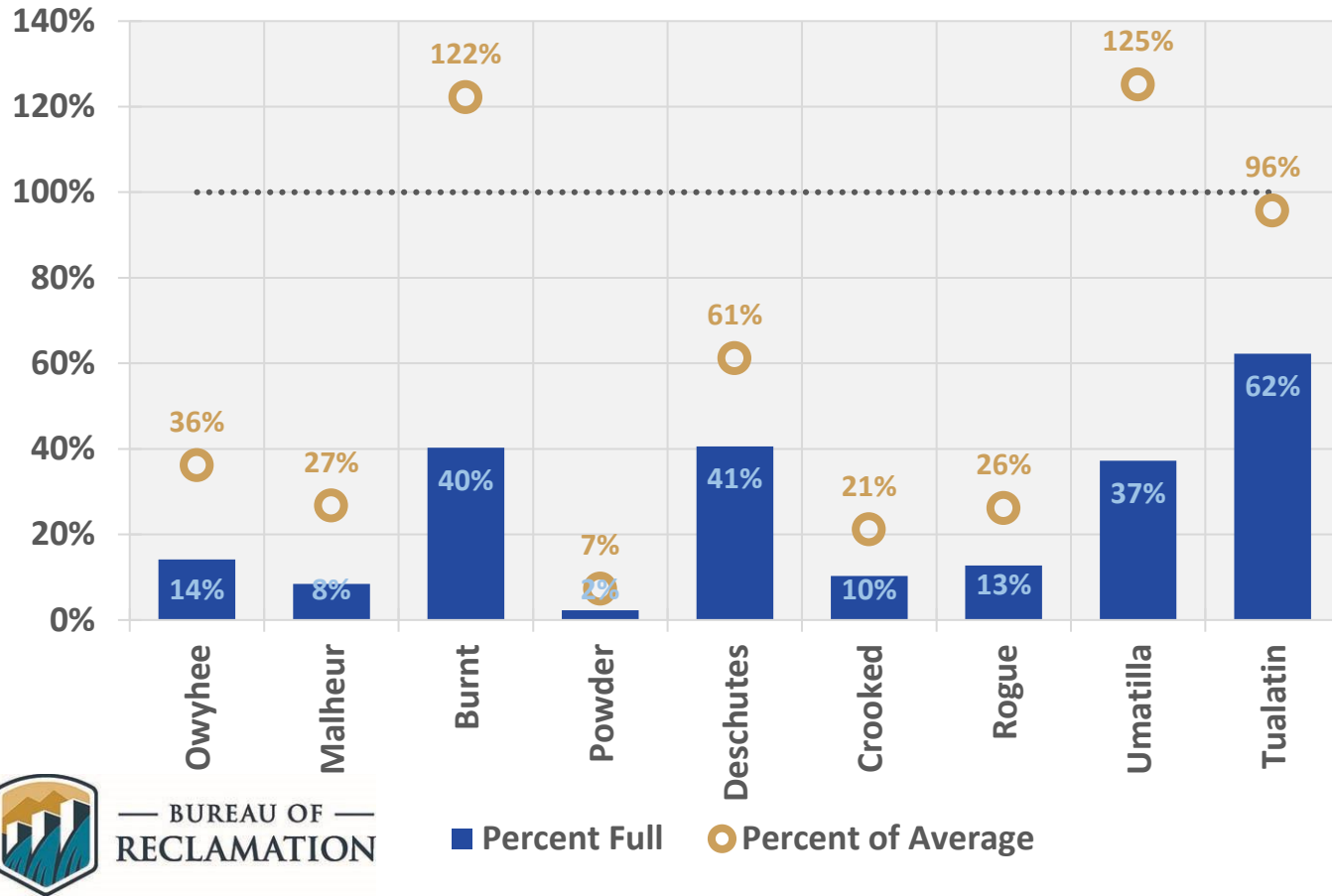


STREAMFLOW
DECEMBER





January 8 Reservoir Storage



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.