Oregon Water Conditions Report

January 9th, 2023

OREGON WATER RESOURCES DEPARTMENT

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.

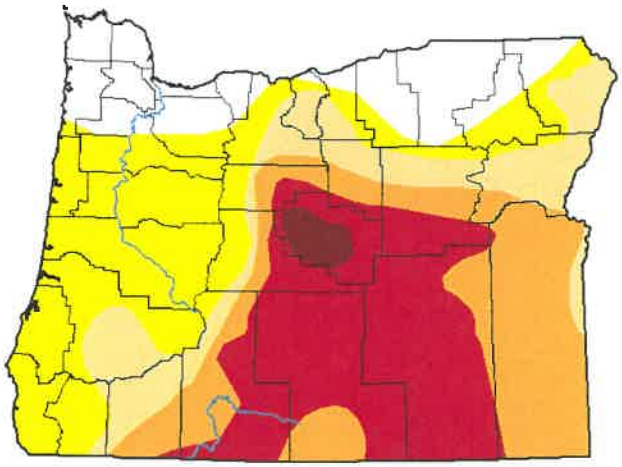
The three-month seasonal climate outlook for January through March favors below average temperatures statewide. The precipitation outlook differs between north and south, with above average precipitation projected in the north and near average in the south.

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.

DROUGHT CONDITIONS

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 12-27-2022	8.58	91.42	59.76	46.04	26.18	1.40
3 Months Ago 10-04-2022	0.44	99.56	68.78	52.50	30.73	1.40
Start of Calendar Year 01-03-2023	13.46	86.54	59.75	46.03	26.18	1.40
Start of Water Year 09-27-2022	0.42	99.58	68.05	52.42	30.73	1.40
One Year Ago 01-04-2022	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

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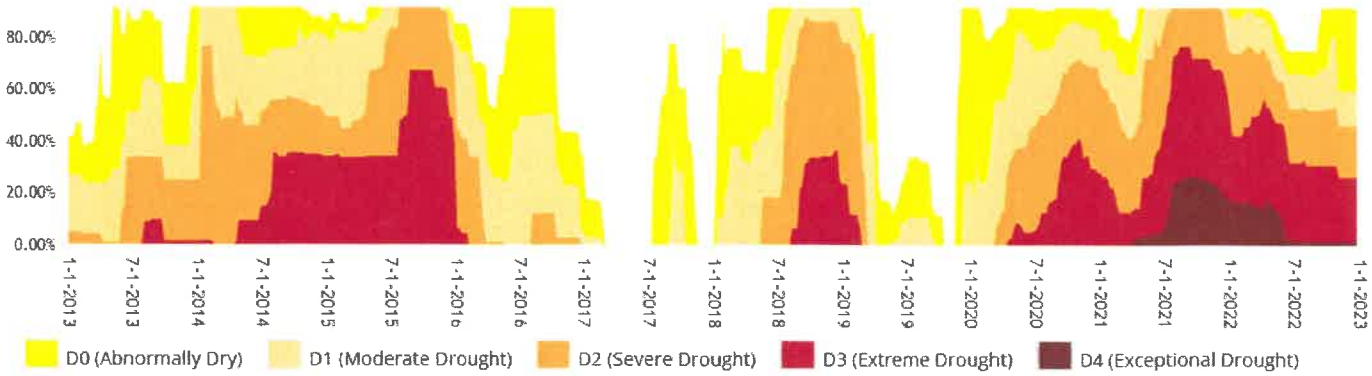
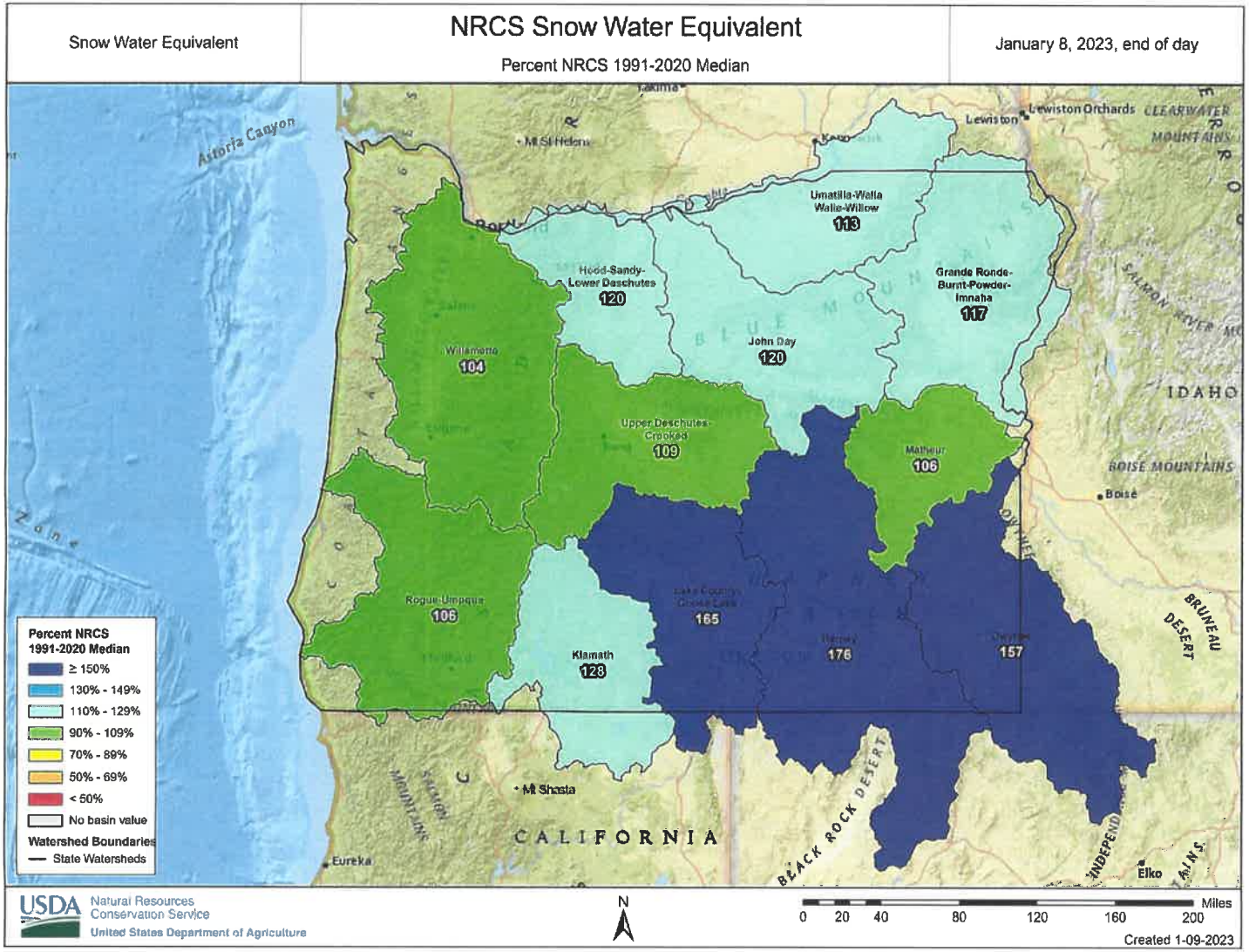
CPC/NOAA

droughtmonitor.unl.edu

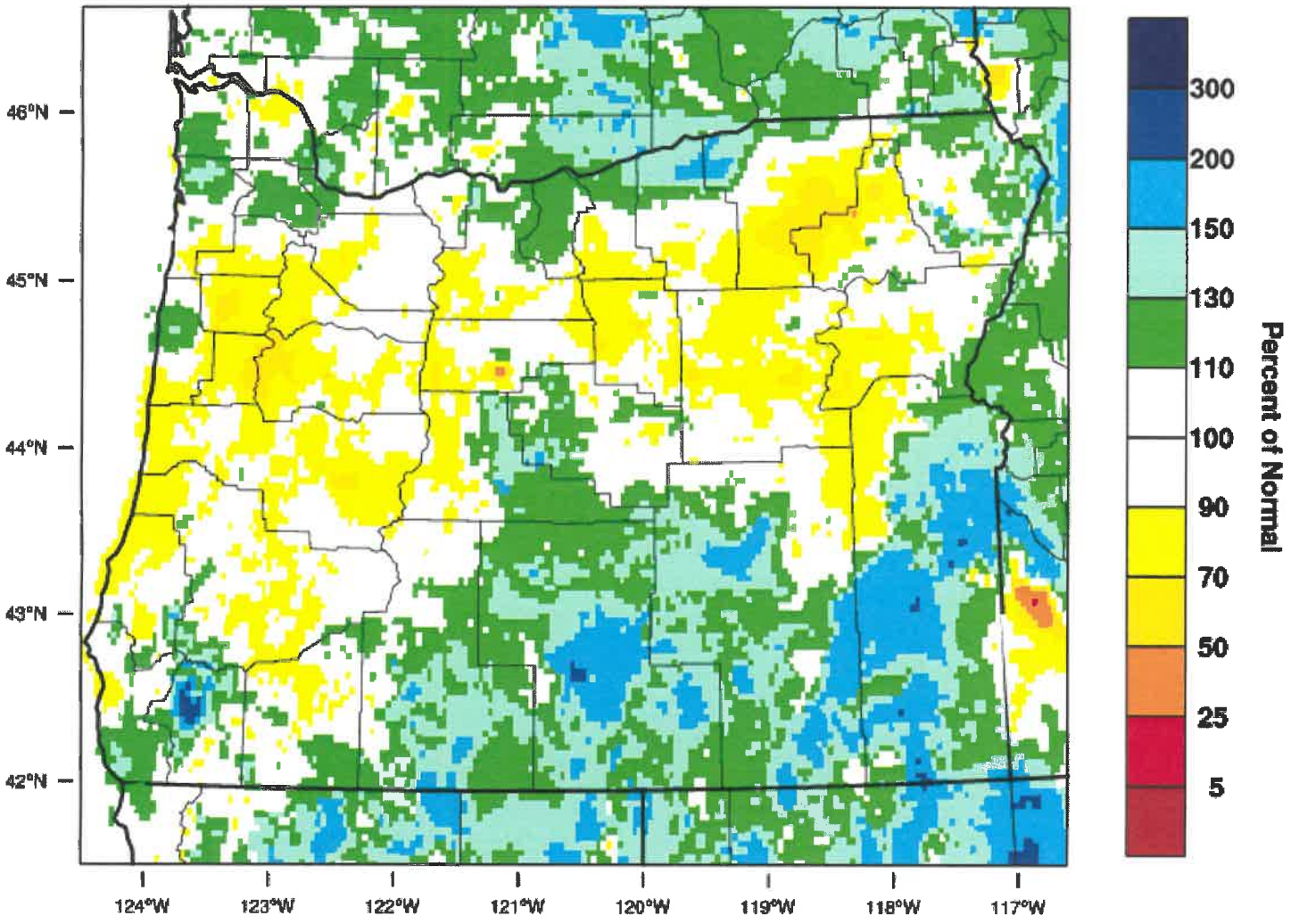


CLIMATE CONDITIONS
SNOW WATER EQUIVALENT



Oregon - Precipitation

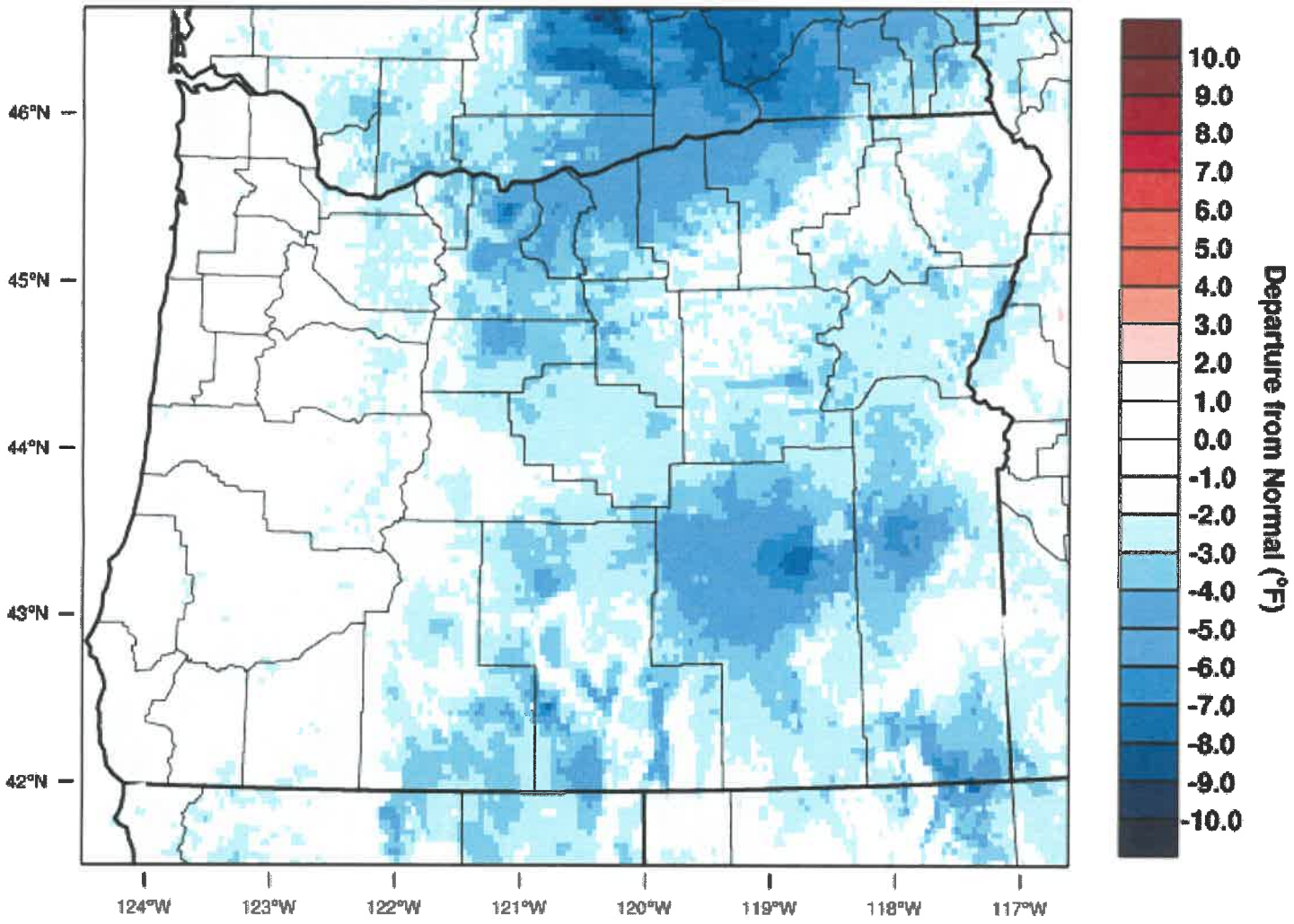
December 2022 Percent of 1981-2010 Normal



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

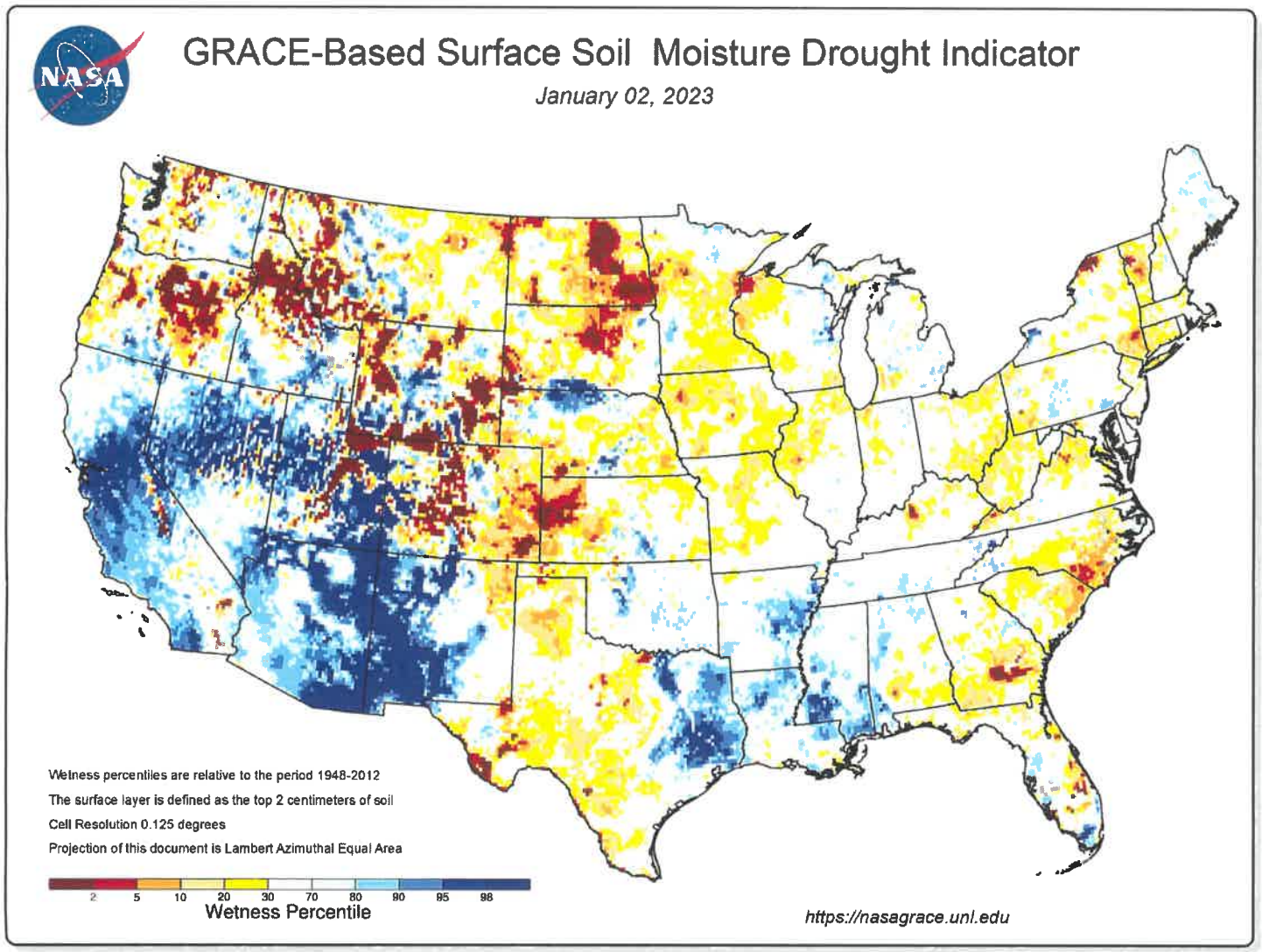
Oregon - Mean Temperature

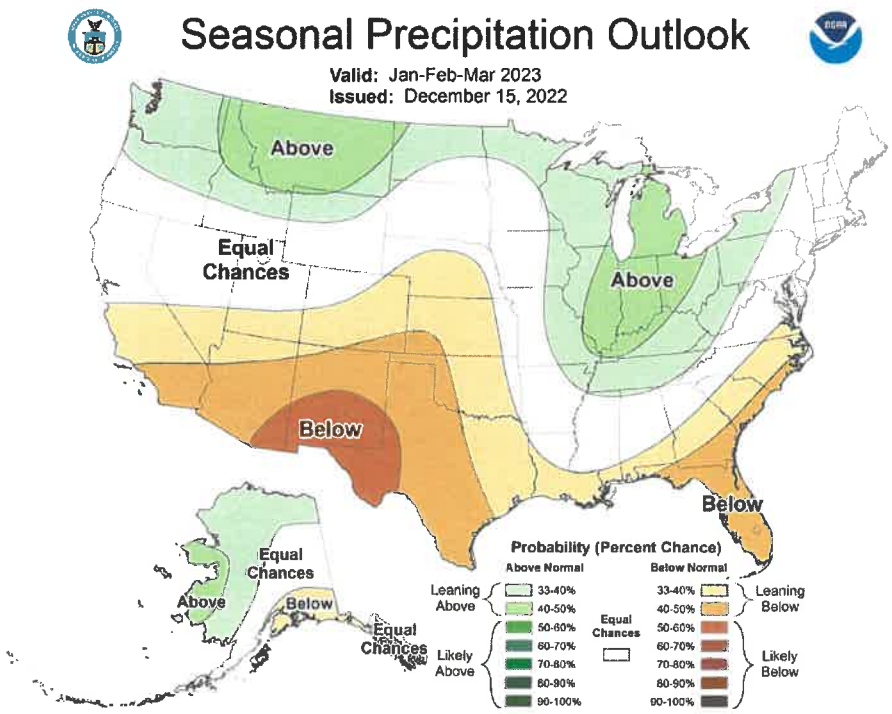
December 2022 Departure from 1981-2010 Normal

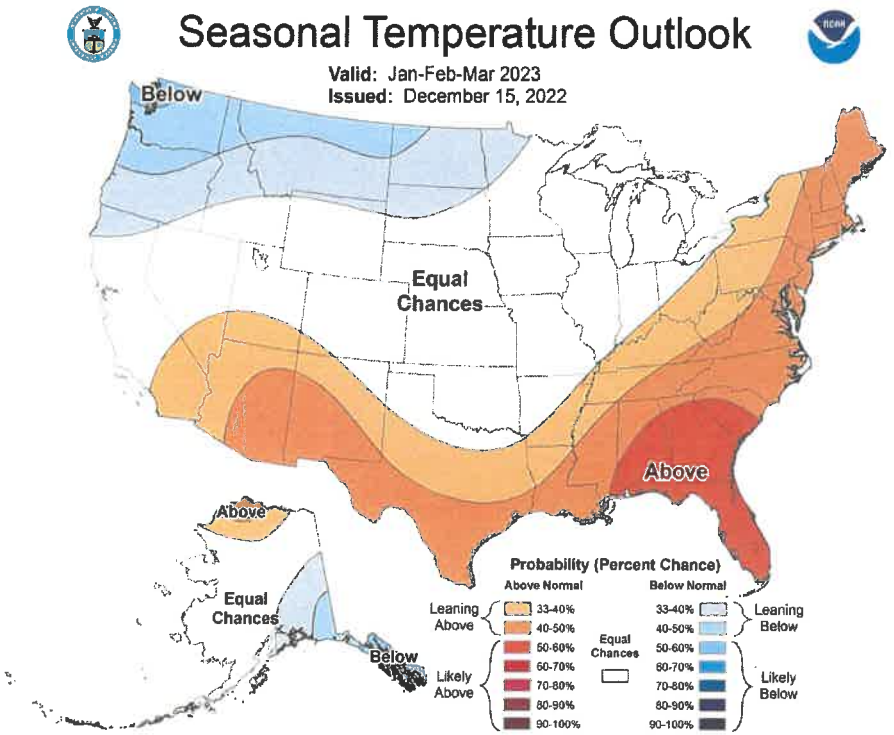


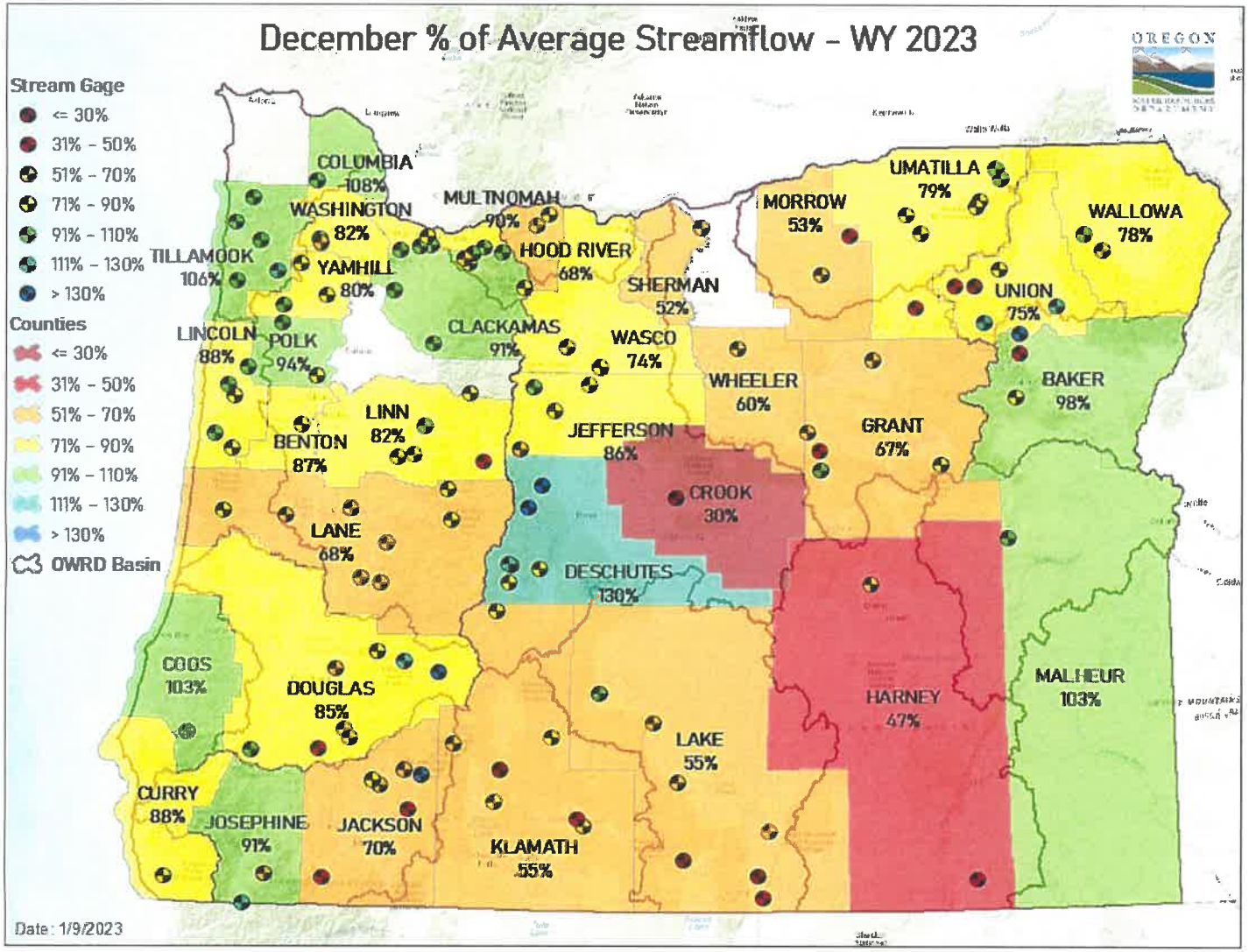
WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 2 JAN 2023

SOIL MOISTURE

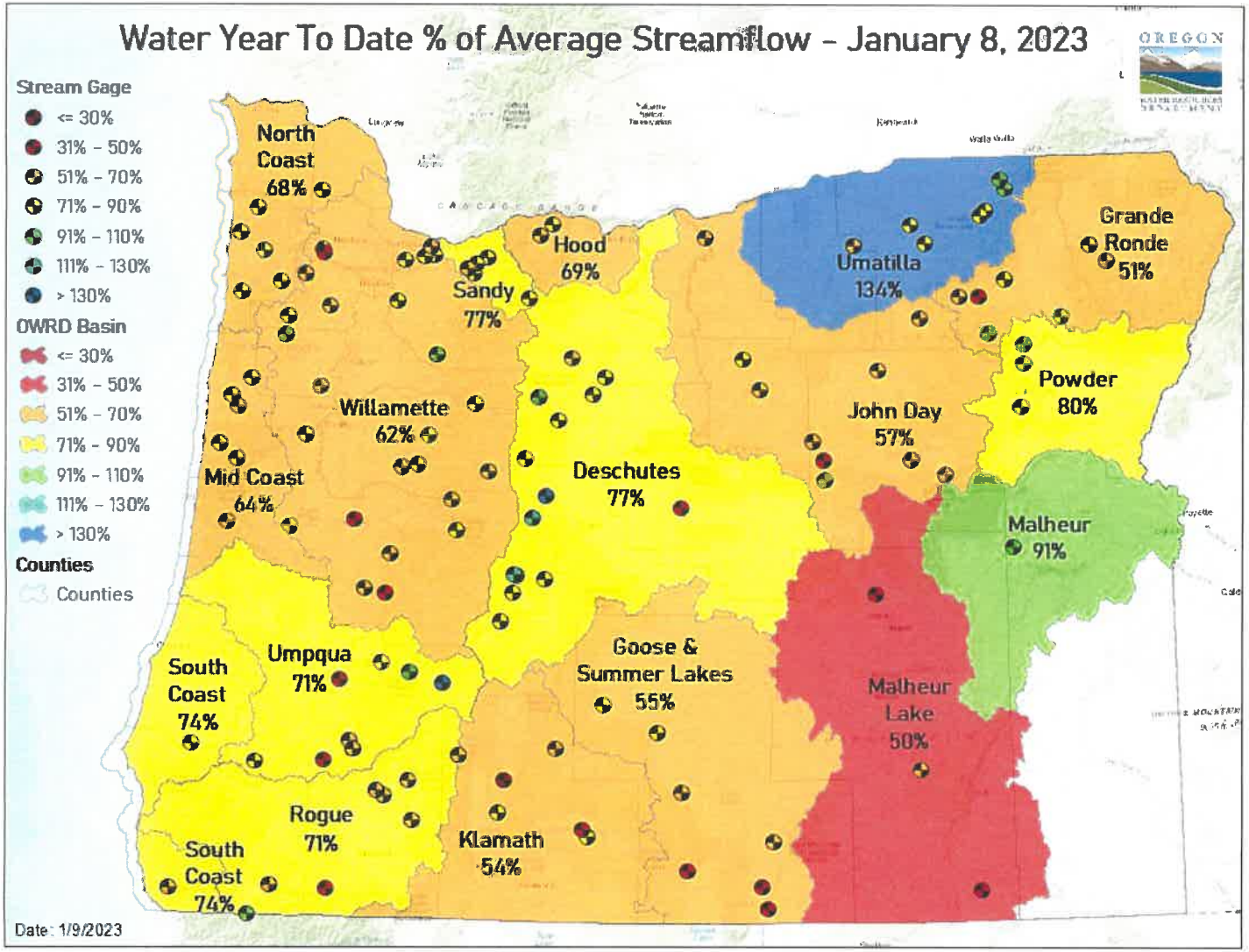


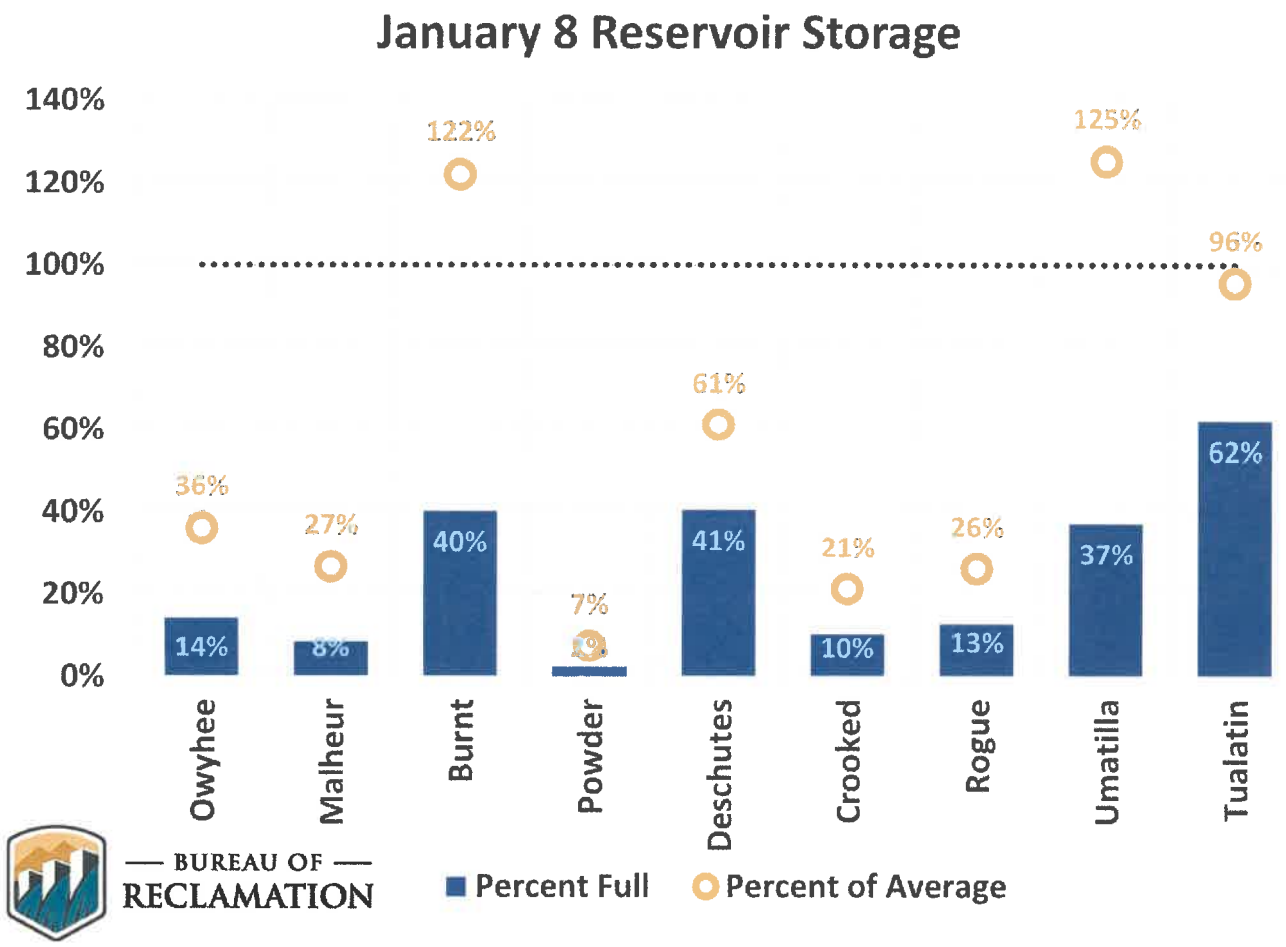

Seasonal Precipitation Outlook
Valid: Jan-Feb-Mar 2023
Issued: December 15, 2022
Above
Equal Chances
Above
Below
Below
Equal Chances
Above
Below
Equal Chances
Probability (Percent Chance)
Above Normal
Below Normal
Leaning Above
Likely Above
Equal Chances
Leaning Below
Likely Below
33-40%
40-50%
50-60%
60-70%
70-80%
80-90%
90-100%


Seasonal Temperature Outlook
Valid: Jan-Feb-Mar 2023
Issued: December 15, 2022
Below
Equal Chances
Above
Above
Equal Chances
Below
Probability (Percent Chance)
Above Normal
Below Normal
Leaning Above
Likely Above
Equal Chances
Leaning Below
Likely Below
33-40%
40-50%
50-60%
60-70%
70-80%
80-90%
90-100%


December % of Average Streamflow - WY 2023
OREGON
Stream Gage
<= 30%
31% - 50%
51% - 70%
71% - 90%
91% - 110%
111% - 130%
> 130%
Counties
<= 30%
31% - 50%
51% - 70%
71% - 90%
91% - 110%
111% - 130%
> 130%
OWRD Basin
COLUMBIA 108%
WASHINGTON 82%
MULTNOMAH 90%
HOOD RIVER 68%
TILLAMOOK 106%
YAMHILL 80%
CLACKAMAS 91%
SHERMAN 52%
MORROW 53%
UMATILLA 79%
WALLOWA 78%
UNION 75%
LINCOLN 88%
POLK 94%
WASCO 74%
WHEELER 60%
BAKER 98%
LINN 82%
BENTON 87%
JEFFERSON 86%
GRANT 67%
CROOK 30%
LANE 68%
DESCHUTES 130%
COOS 103%
DOUGLAS 85%
HARNEY 47%
MALHEUR 103%
LAKE 55%
CURRY 88%
JOSEPHINE 91%
JACKSON 70%
KLAMATH 55%
Date: 1/9/2023

WATER YEAR TO DATE




January 8 Reservoir Storage
140%
120%
100%
80%
60%
40%
20%
0%
36%
27%
122%
7%
61%
21%
26%
125%
96%
14%
8%
40%
1%
41%
10%
13%
37%
62%
Owyhee
Malheur
Burnt
Powder
Deschutes
Crooked
Rogue
Umatilla
Tualatin
BUREAU OF RECLAMATION
Percent Full
Percent of Average

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.