Oregon Water Conditions Report

December 14, 2020

OREGON WATER RESOURCES DEPARTMENT

HIGHLIGHTS

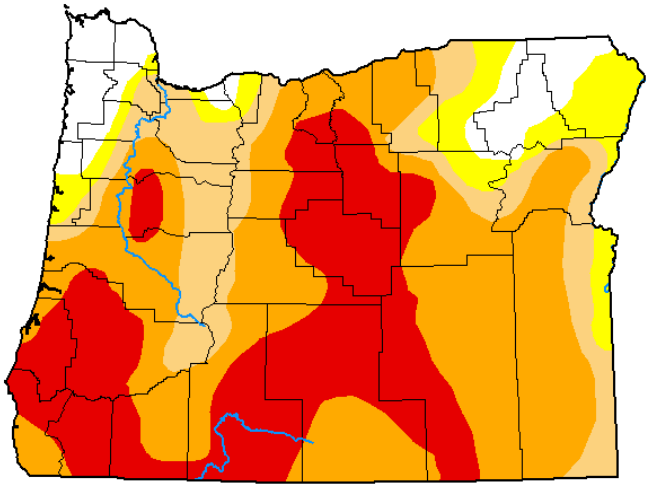
- Statewide precipitation at NRCS SNOTEL sites is measuring 79% of normal. NRCS basin values range from a low of 57% of normal in the Owyhee basin to a high of 95% in the Umatilla-Walla Walla-Willow basin.
- SNOTEL snow water equivalent (SWE) is currently measuring 102% of the median statewide with conditions varying throughout the state. While many basins show near normal conditions, it is important to note that the values will continue to stabilize as we as we enter the winter season. This trend is evident when comparing with SWE conditions from the most recent Water Supply Report where nearly all basins in Oregon were above the median.
- SNOTEL SWE basin values range from a low of 69% of the median in the Owyhee basin to a high of 117% of the median in both the Harney and Malheur basins. In general, basins in northeastern and southeastern Oregon are showing deficits of SWE.
- Recent temperatures over the past two weeks show varied conditions throughout the state. Much of southeastern Oregon experienced temperatures up to 4° F below normal, however temperatures throughout much of the rest of the state were above normal.
- Precipitation over the past two weeks shows below normal conditions statewide, with western Oregon experiencing greater deficits as compared to eastern Oregon.
- The US Drought Monitor remains somewhat unchanged, with the exception of a slight reduction in D3 coverage in eastern Oregon.
- Outlooks over the next 8 – 14 days favor near-normal precipitation statewide, and above average temperatures in western Oregon.
- Seasonal climate outlook predictions vary in both the near and long term as driven by La Niña conditions. There is an increased chance of above normal temperatures and below normal precipitation for much of the state throughout the month of December. Alternatively, the three-month seasonal outlook favors above normal precipitation for the northern half of Oregon, while the temperature outlook varies by location.
- Recent 7-day streamflow observations indicate low conditions statewide as a result of lack of precipitation. Some streamgages in eastern Oregon have recently experienced ice effects which may impact streamflow observations.
- Storage reservoirs have since transitioned to storage season operations and continue to balance needs to meet in-stream demands.

DROUGHT CONDITIONS

The most recent update to the US Drought Monitor indicates an overall reduction in coverage of D3 (extreme drought), mainly in eastern Oregon. Conditions in northeastern Oregon have worsened slightly from no drought classification to D0 (abnormally dry). Overall, just over 92% of Oregon is classified as experiencing some form of drought (D0); however, there have been reductions in coverages of D1, D2, and D3 classifications over the past couple weeks.

U.S. Drought Monitor

Oregon



December 8, 2020

(Released Thursday, Dec. 10, 2020)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	7.77	92.23	84.10	69.08	29.59	0.00
Last Week 12-01-2020	7.58	92.42	84.10	69.08	34.70	0.00
3 Months Ago 09-08-2020	6.38	93.62	81.80	59.05	24.90	0.00
Start of Calendar Year 12-31-2019	2.40	97.60	24.46	0.00	0.00	0.00
Start of Water Year 09-29-2020	6.50	93.50	84.77	65.53	33.59	0.00
One Year Ago 12-10-2019	1.22	98.78	0.00	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

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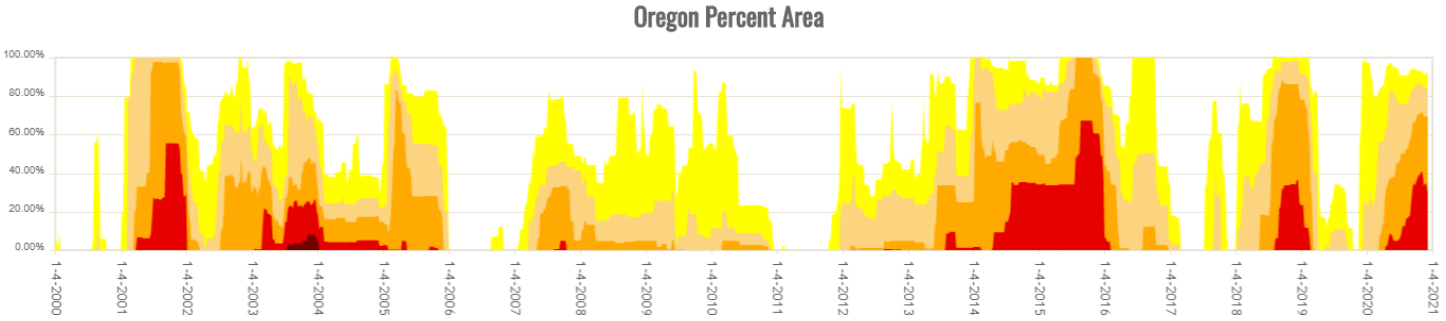
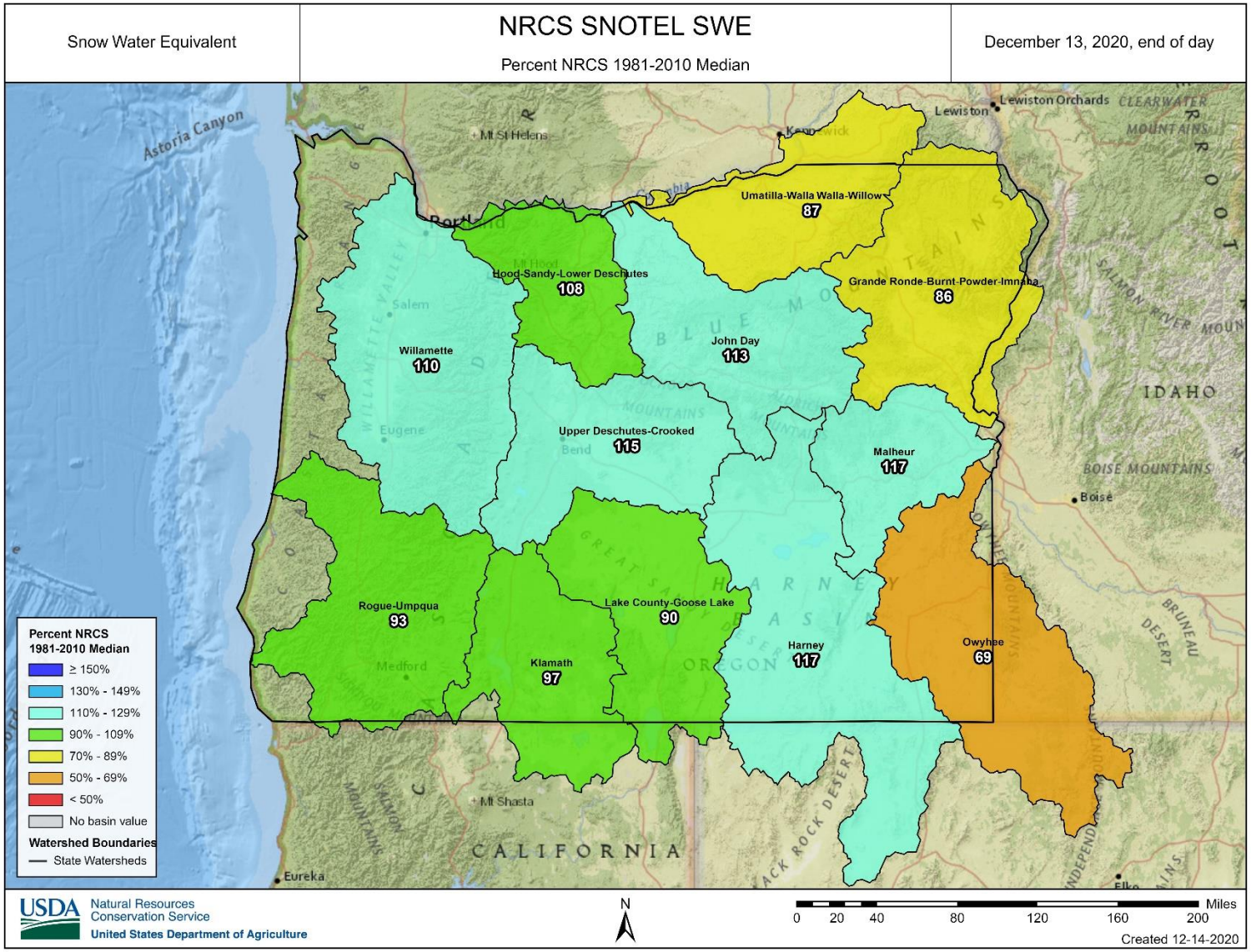
droughtmonitor.unl.edu

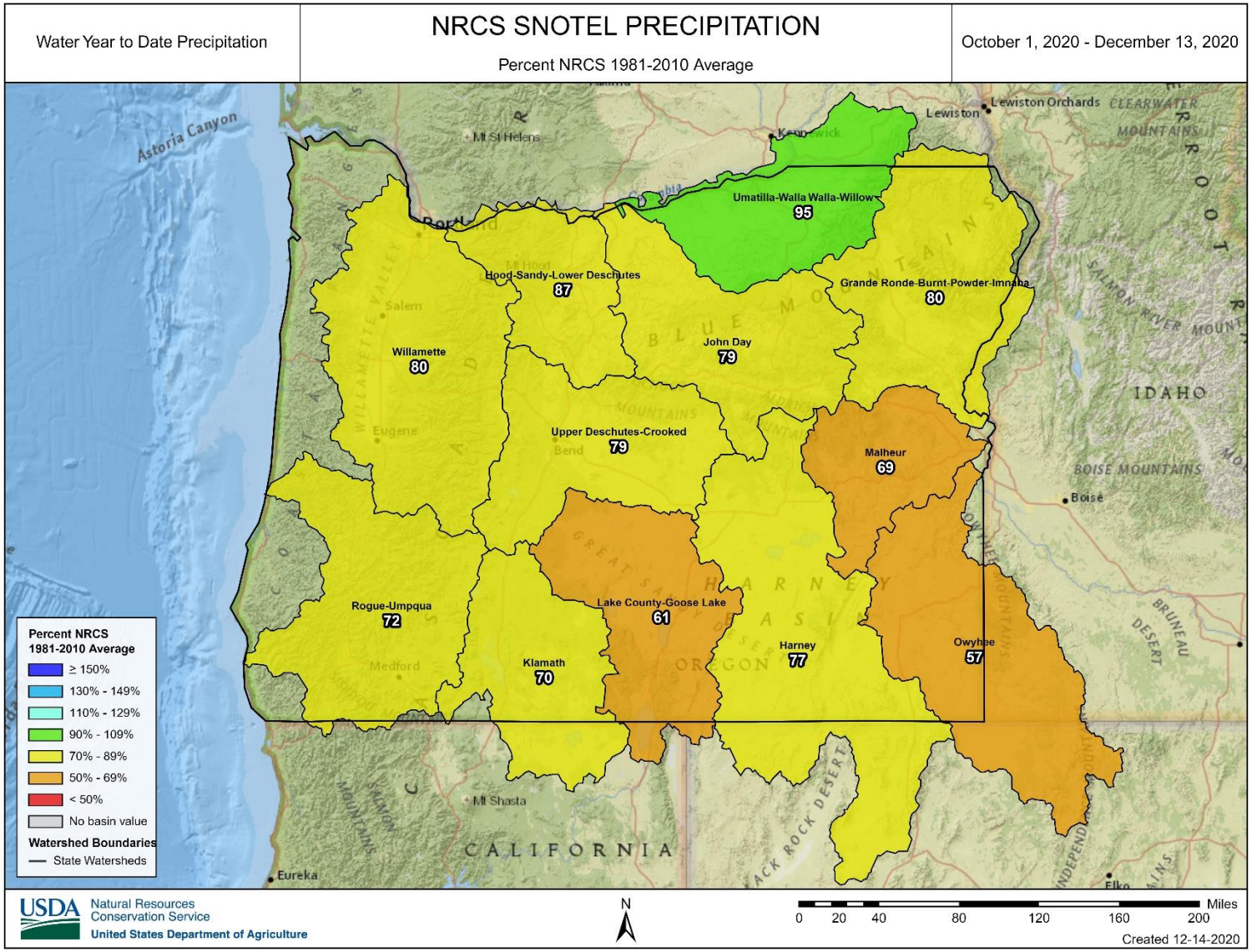


CLIMATE CONDITIONS

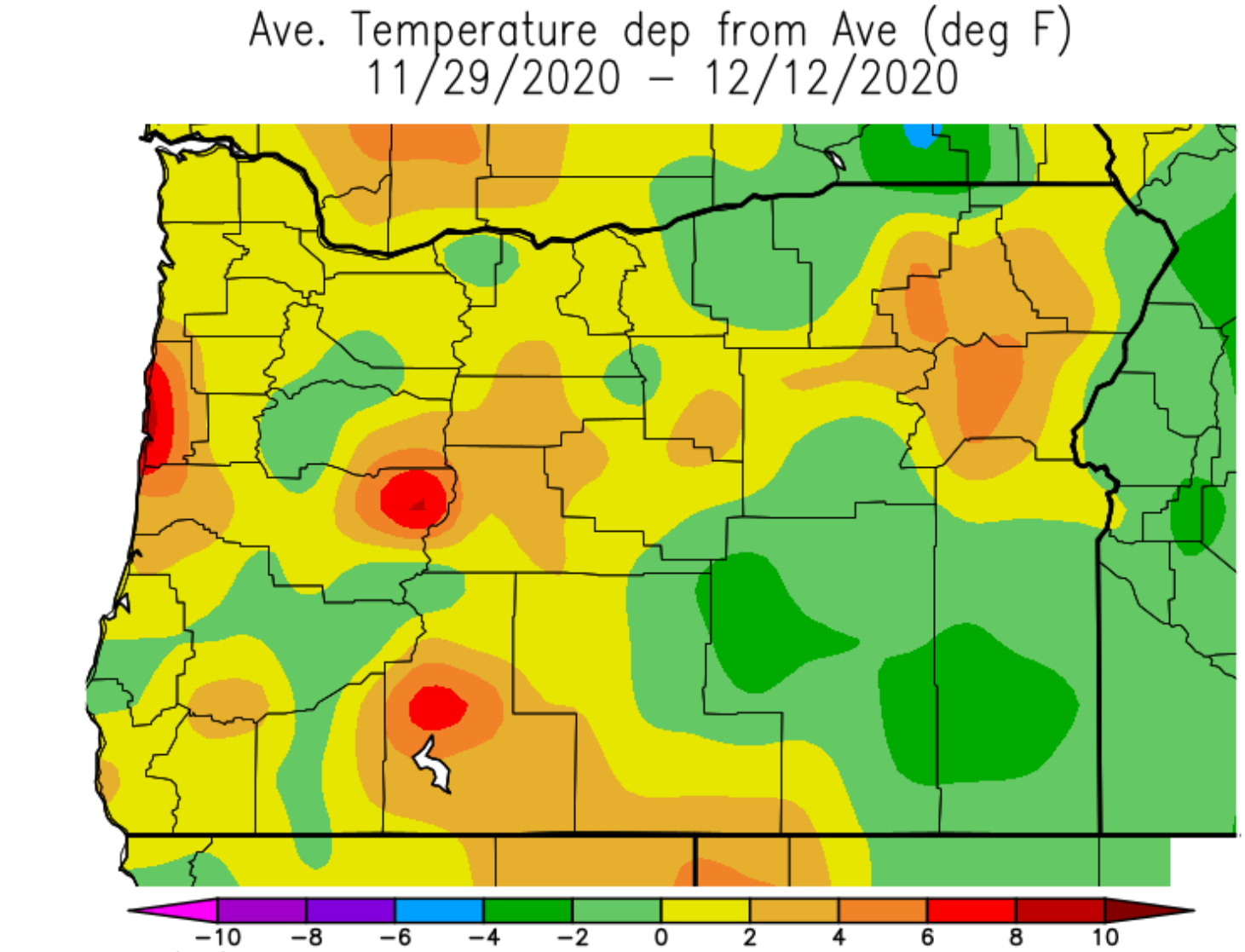
SNOW WATER EQUIVALENT



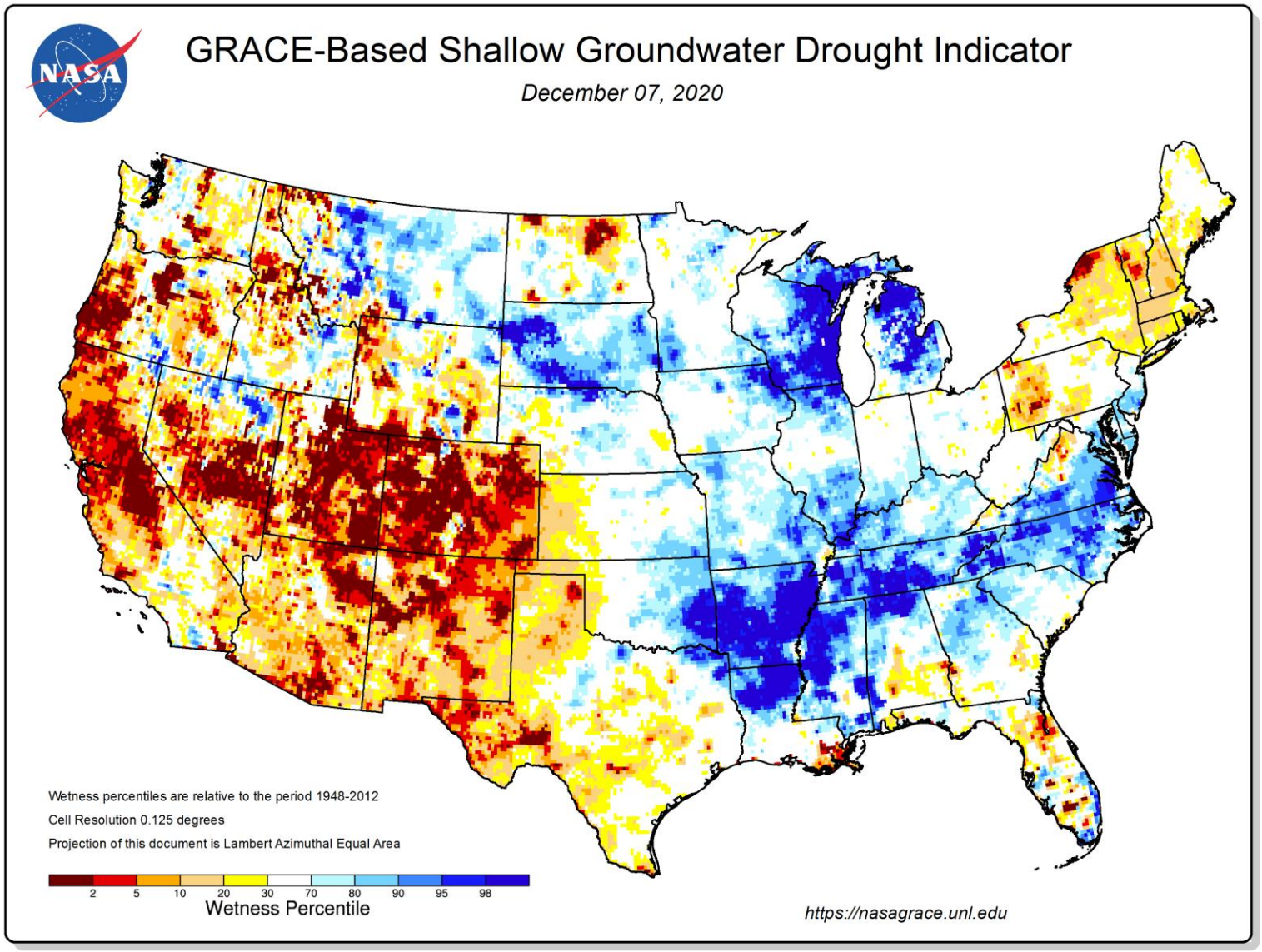
PRECIPITATION



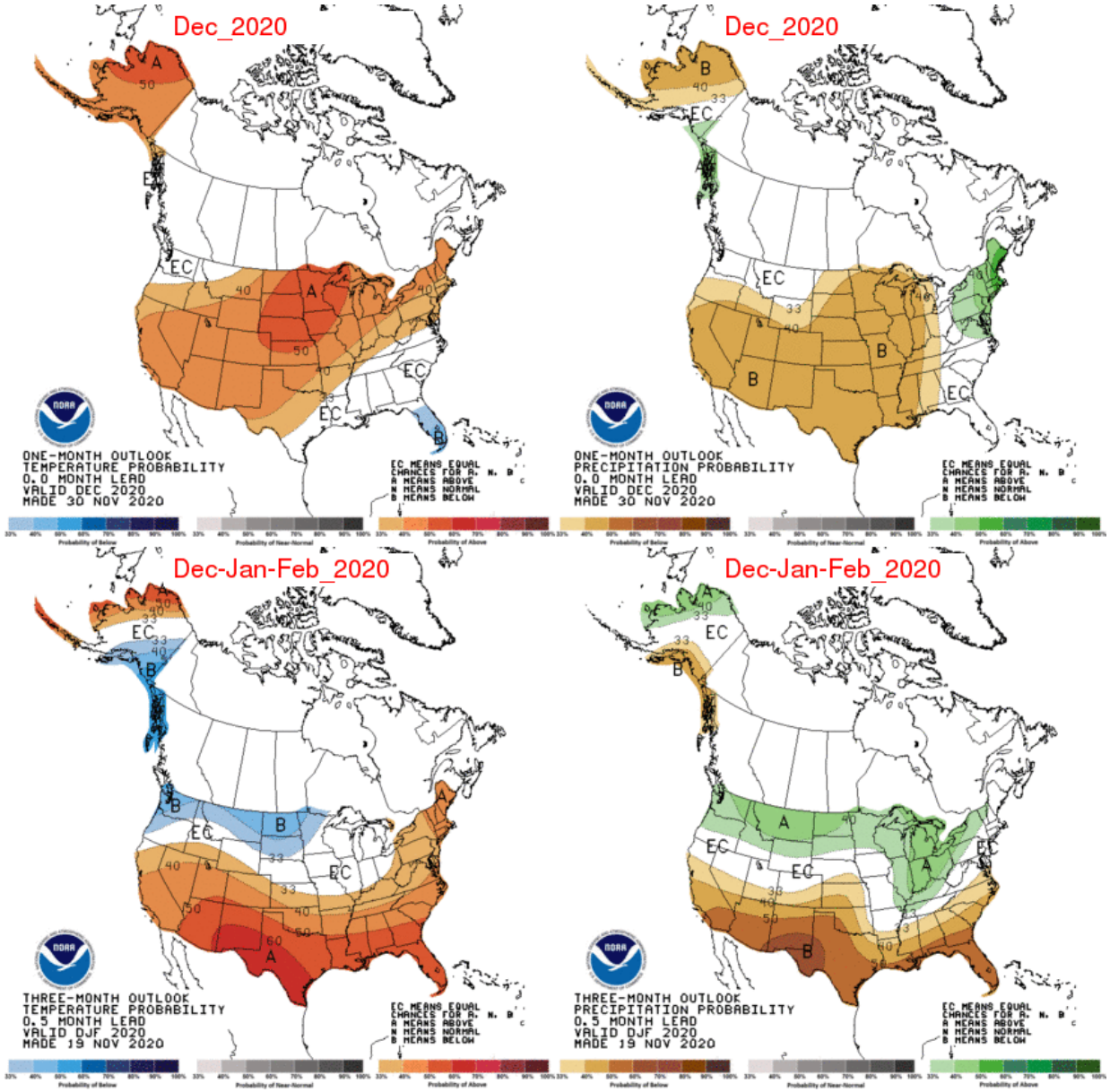
TEMPERATURE



SOIL MOISTURE

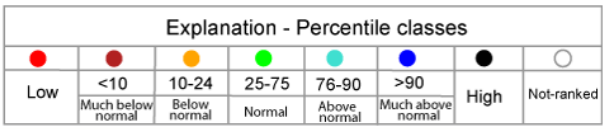


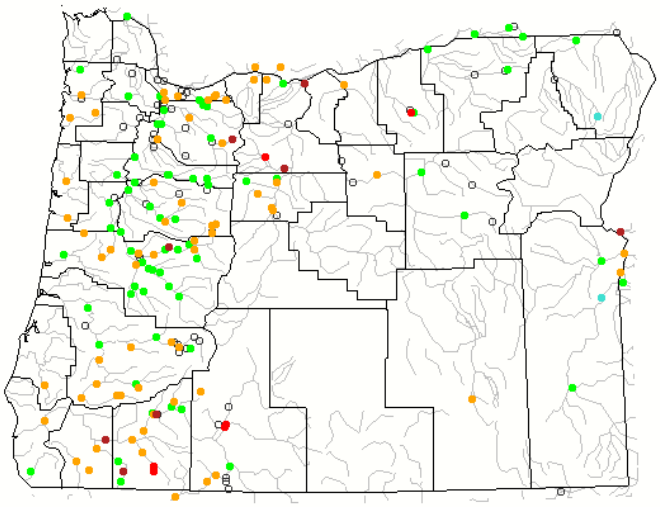
CLIMATE OUTLOOK



STREAMFLOW

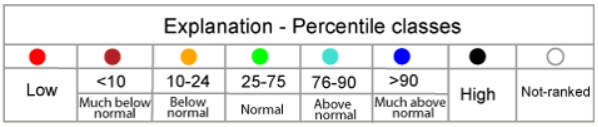
Map of 28-day average streamflow compared to historical streamflow for the day of the year (Oregon)

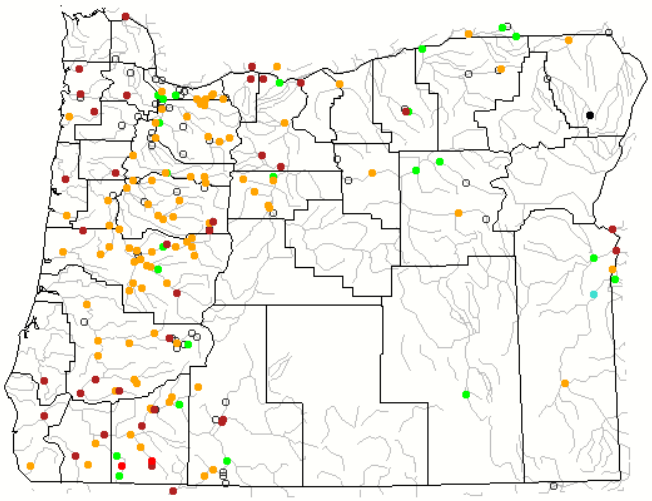




USGS

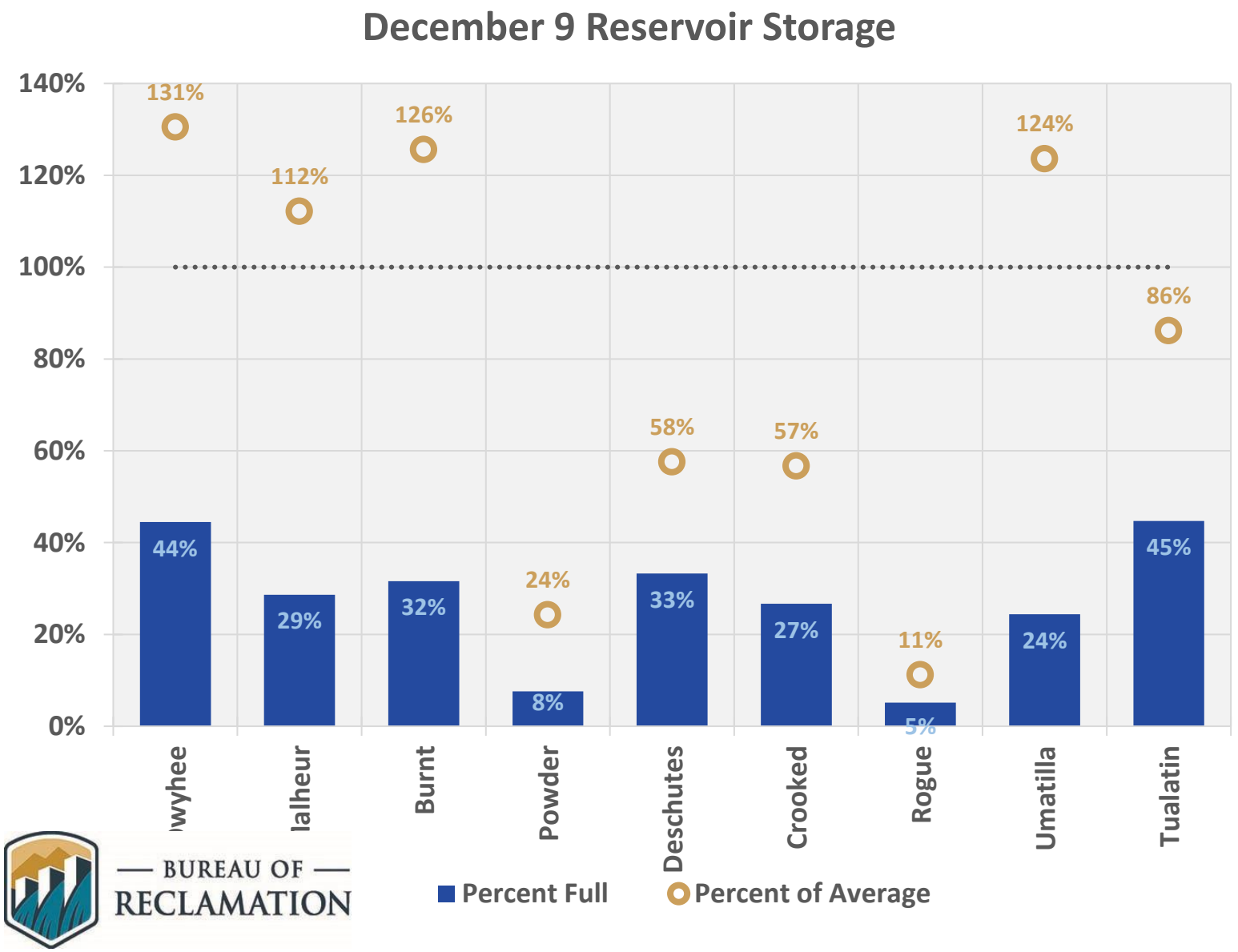
Map of 7-day average streamflow compared to historical streamflow for the day of the year (Oregon)





USGS

STORAGE


December 9 Reservoir Storage
140%
120%
100%
80%
60%
40%
20%
0%
131%
112%
126%
24%
58%
57%
11%
124%
86%
44%
29%
32%
8%
33%
27%
5%
24%
45%
wyhee
lalheur
Burnt
Powder
Deschutes
Crooked
Rogue
Umatilla
Tualatin
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.