Oregon Water Conditions Report

September 20th, 2021

HIGHLIGHTS

Thus far in 2021, 22 counties have received Executive Orders issuing drought declarations. Additional drought requests have been received from Josephine, Linn, and Yamhill counties.

Drought conditions continue to persist statewide. Nearly 100% of Oregon is classified as D2 (severe drought) – D4 (exceptional drought) according to the US Drought Monitor. 76.7% of the state is classified as D3 – D4.

Much of Oregon experienced well above average precipitation over the past two weeks. Much of the precipitation in western Oregon came over the past week.

Temperatures over the past two weeks have been above average for a majority of the state. Some portions of the coast and much of Baker County experienced temperatures cooler than average.

Recent precipitation events have improved recent surface soil moisture profiles. Wetness in western Oregon surface soils has improved significantly compared to the previously sustained record dryness.

The 8 – 14 day climate outlook indicates probabilities favoring above average precipitation statewide. Temperature outlooks differ between western and eastern Oregon (see below).

Streams benefitted from recent precipitation events throughout the state, although many are still flowing below the long-term average (see below).

Storage contents in USBR (including Klamath Basin) and USACE reservoir systems continue to measure well below average throughout the state. Although some systems continue to deliver water, many systems throughout the state have ceased irrigation releases. Carryover in many systems is expected to be low heading into next water year.

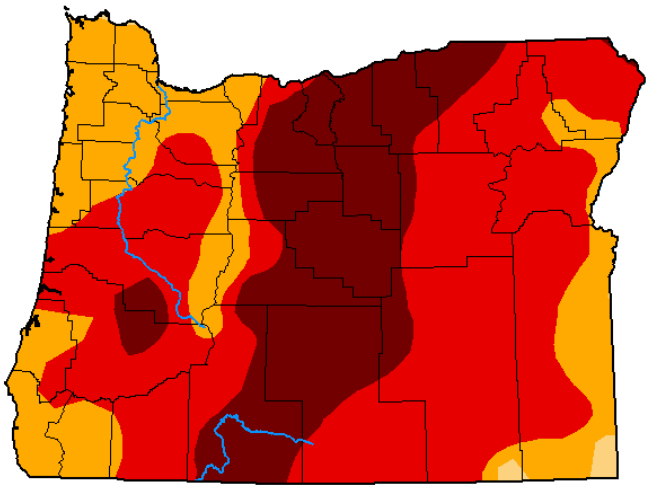
Significant wildfire potential over the next seven days is expected to be minimal throughout much of the Pacific Northwest. Current wildfire activity can be tracked on InciWeb.

DROUGHT CONDITIONS

The US Drought Monitor indicates 100% of the state is experiencing conditions equivalent to D1 (moderate drought) or worse. There have been no major changes over recent weeks.

U.S. Drought Monitor

Oregon



September 14, 2021

(Released Thursday, Sep. 16, 2021)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	99.34	76.69	26.59
Last Week 09-07-2021	0.00	100.00	100.00	99.08	76.69	26.59
3 Months Ago 06-15-2021	0.00	100.00	98.99	77.03	36.90	4.78
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 09-15-2020	6.33	93.67	83.70	64.18	31.84	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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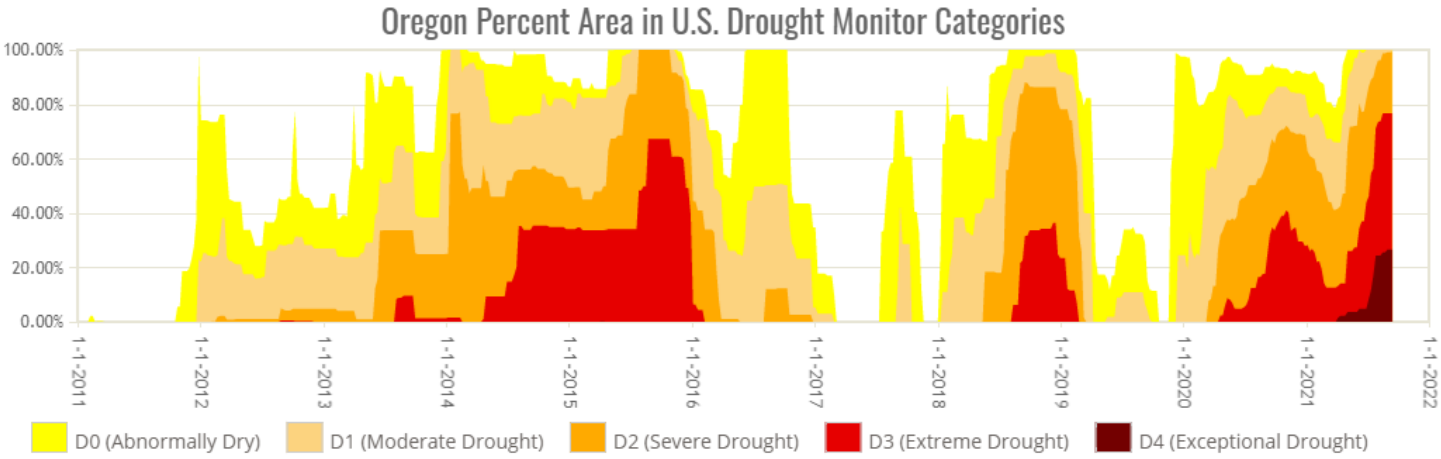
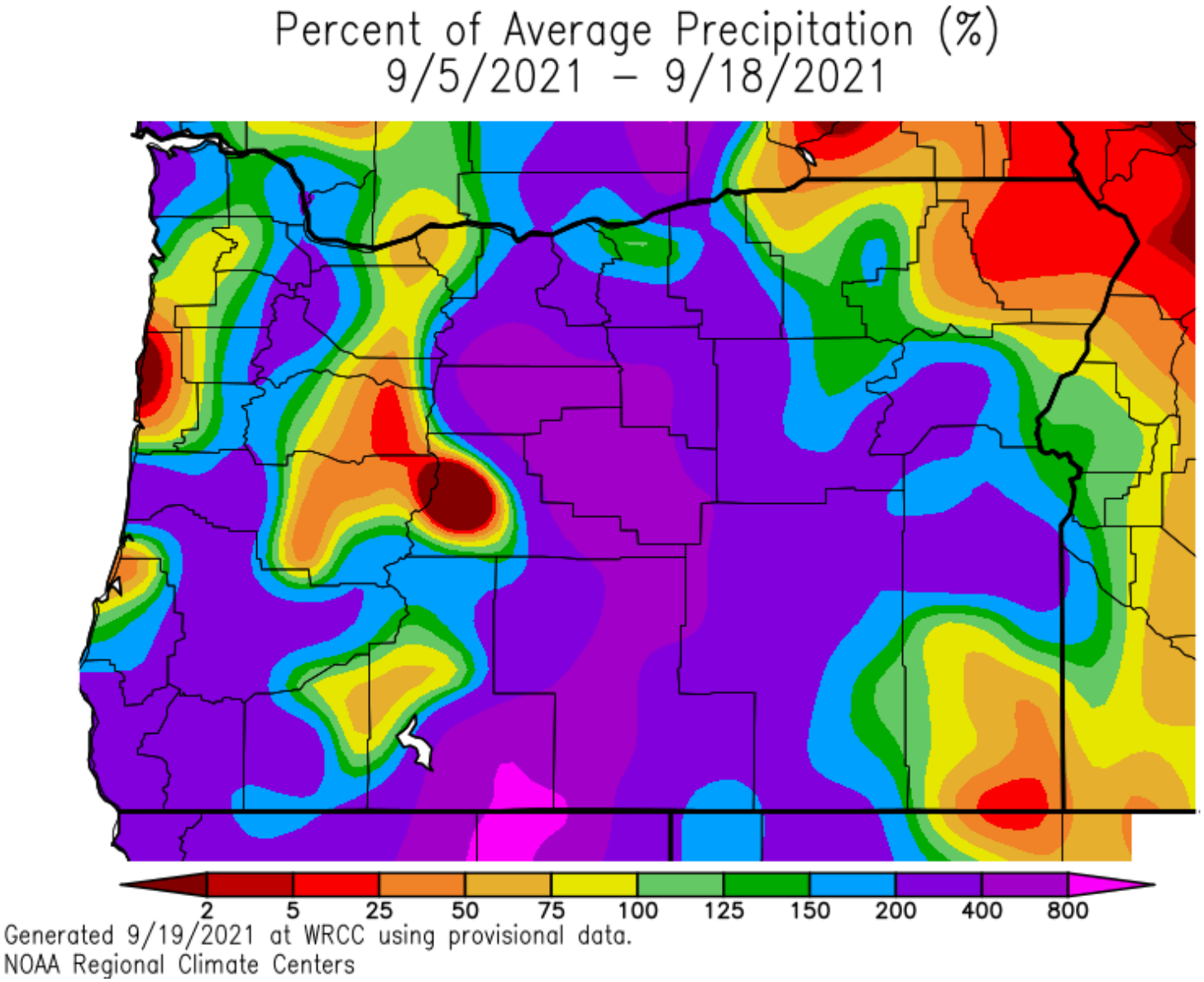
U.S. Department of Agriculture

droughtmonitor.unl.edu

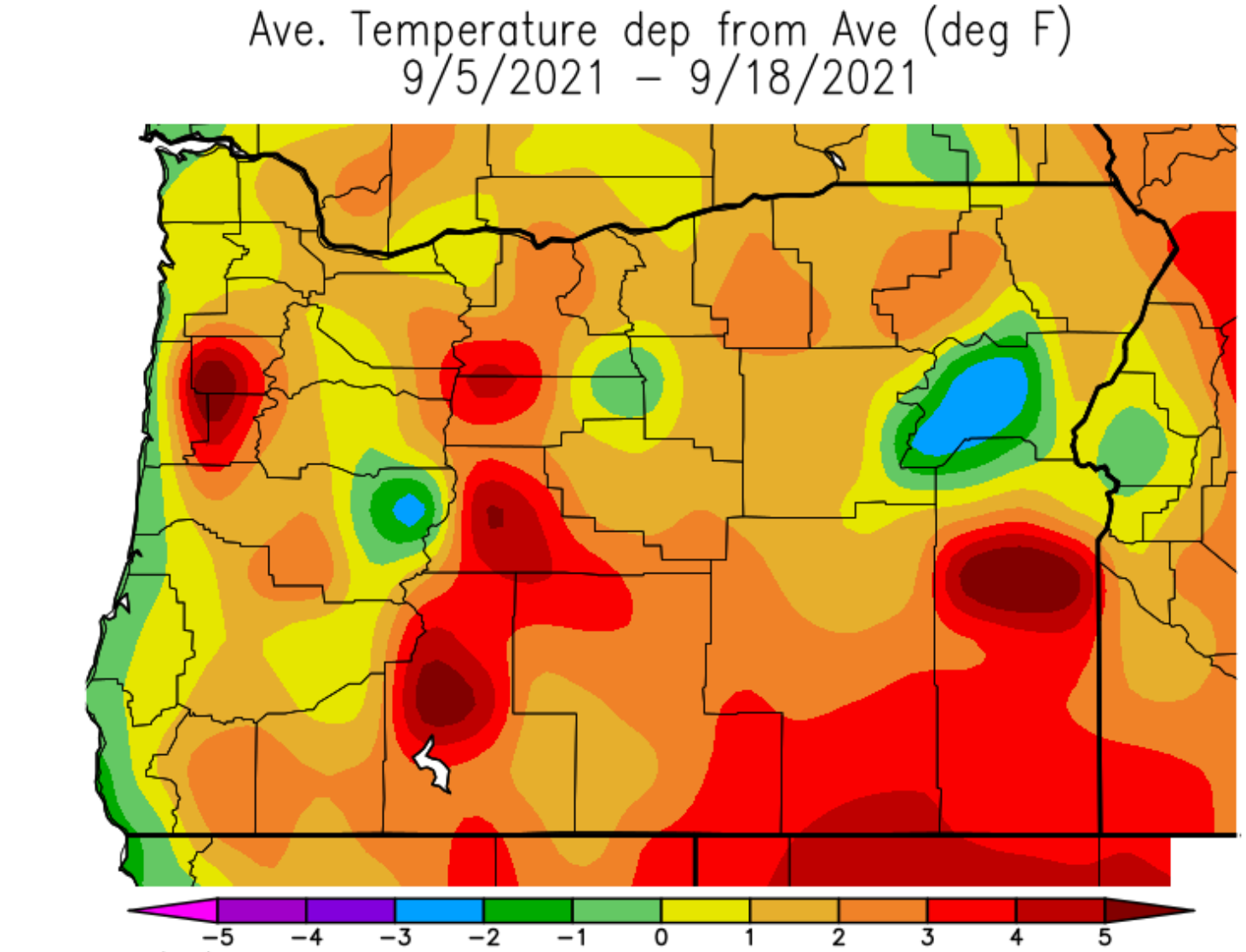


CLIMATE CONDITIONS

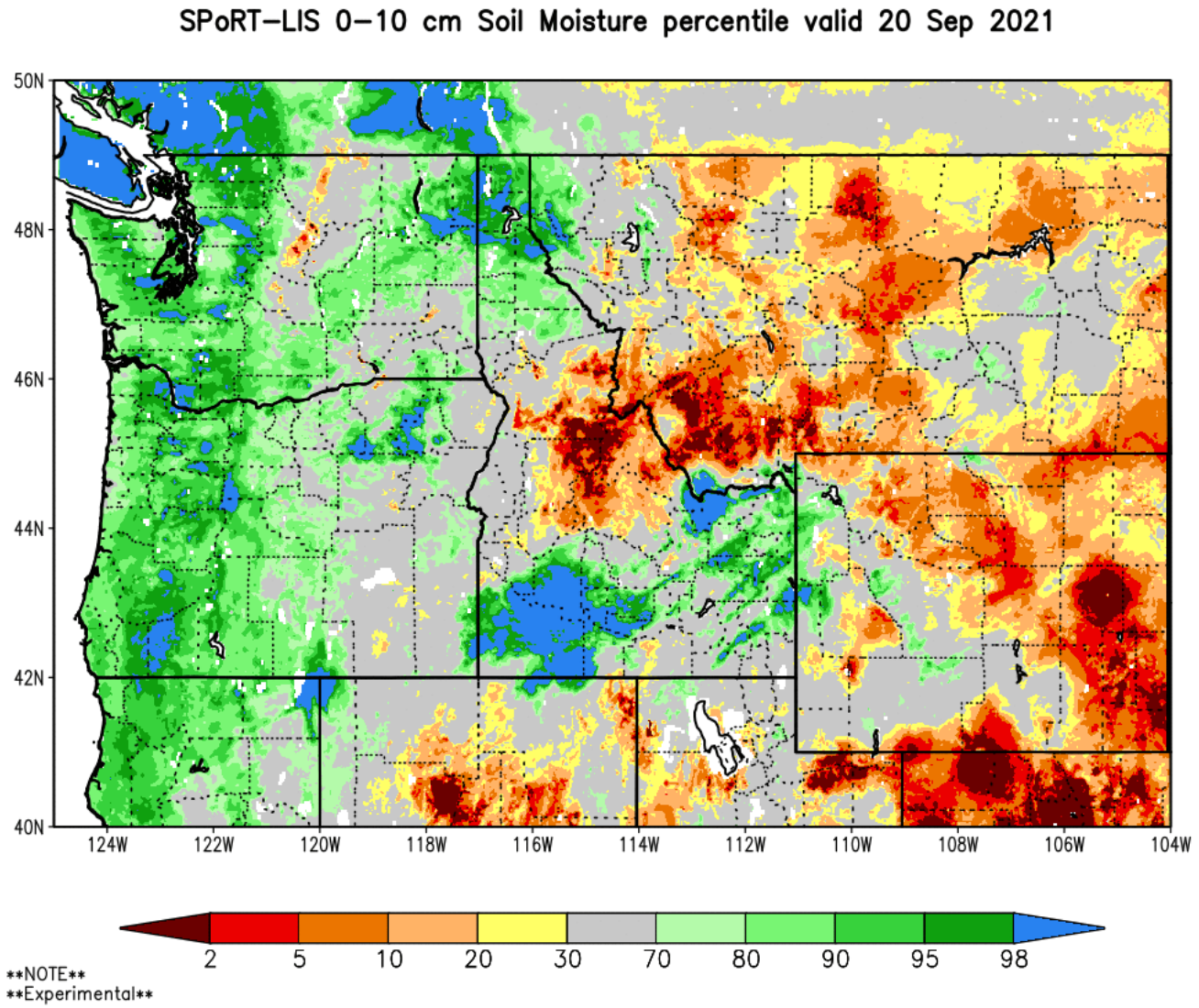
PRECIPITATION



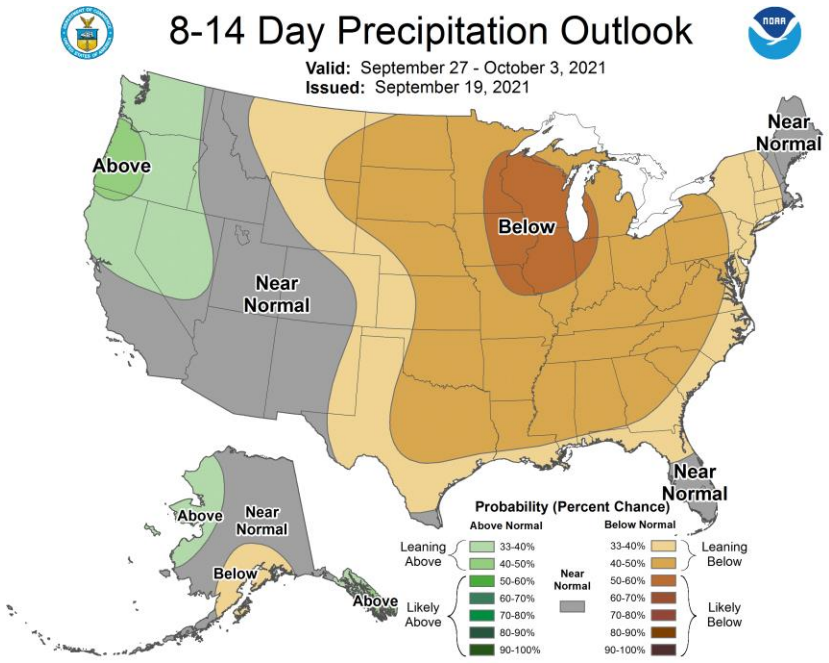
TEMPERATURE

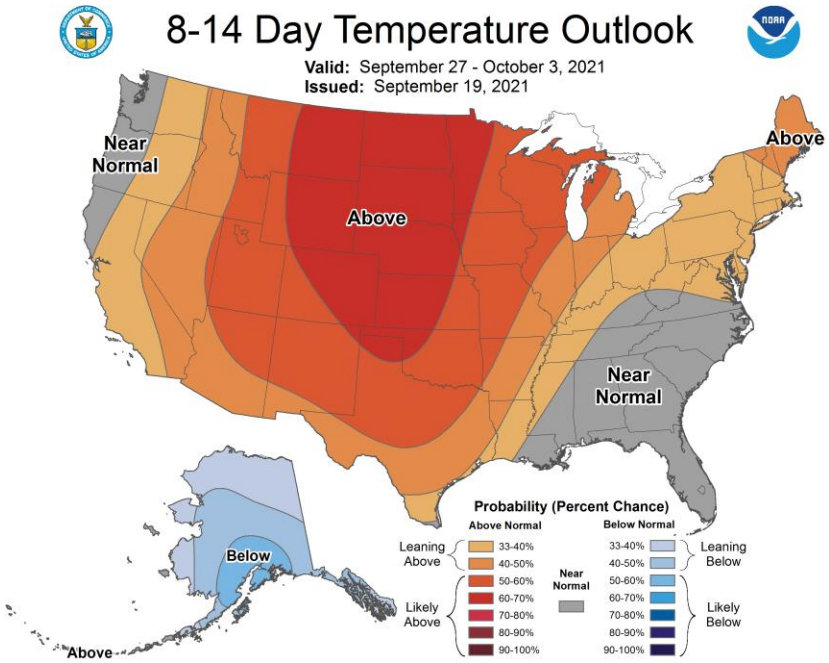


SOIL MOISTURE



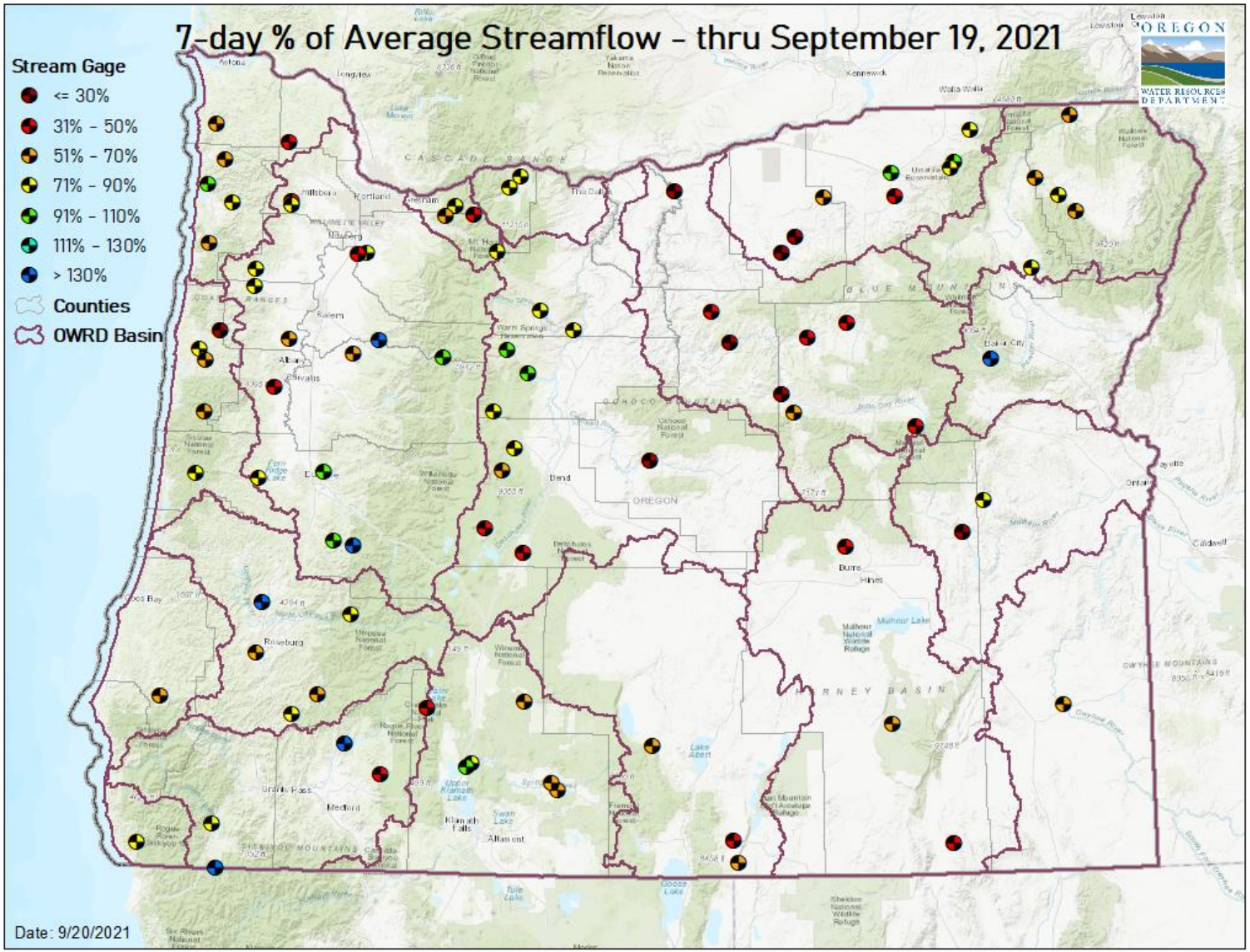
CLIMATE OUTLOOK



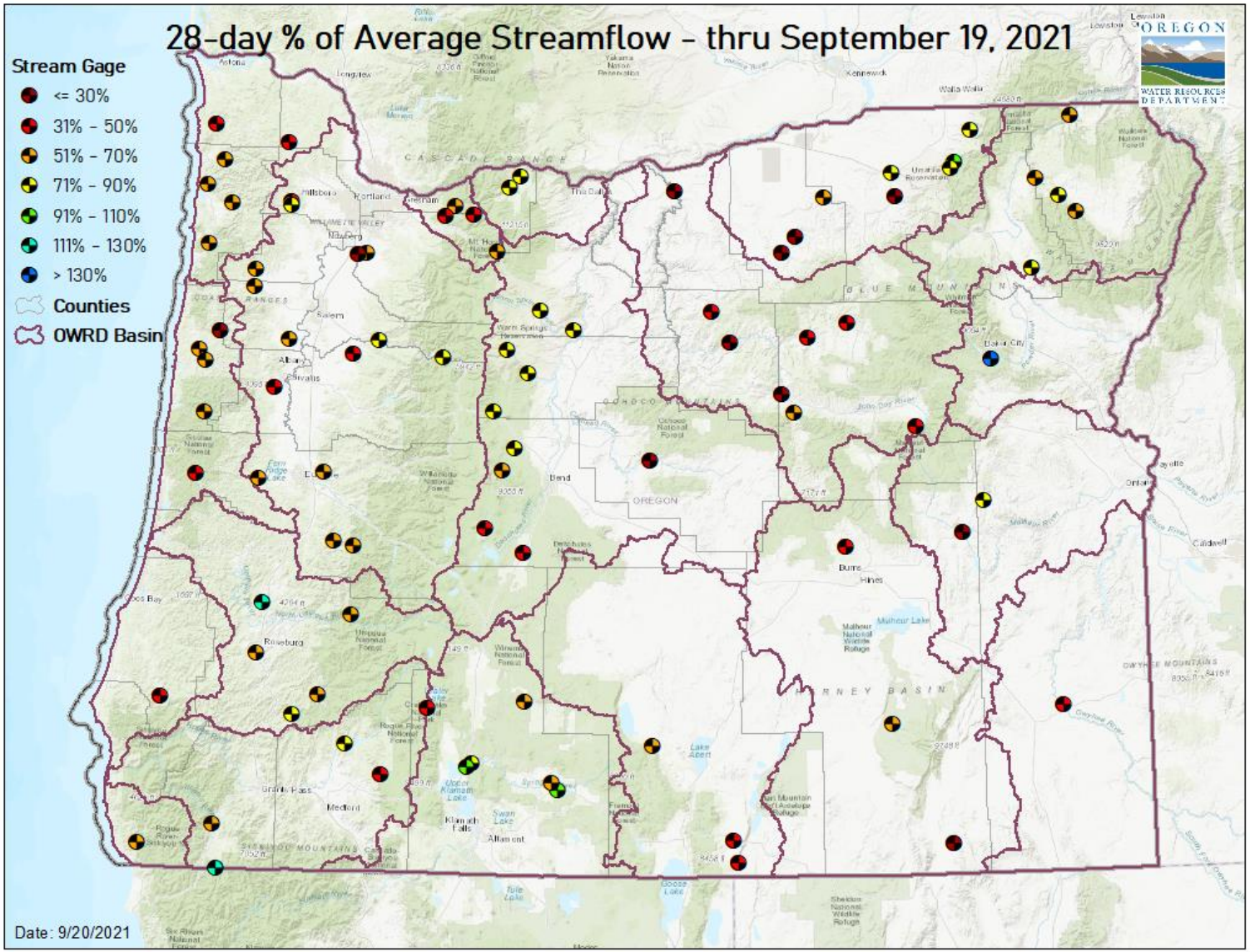


STREAMFLOW

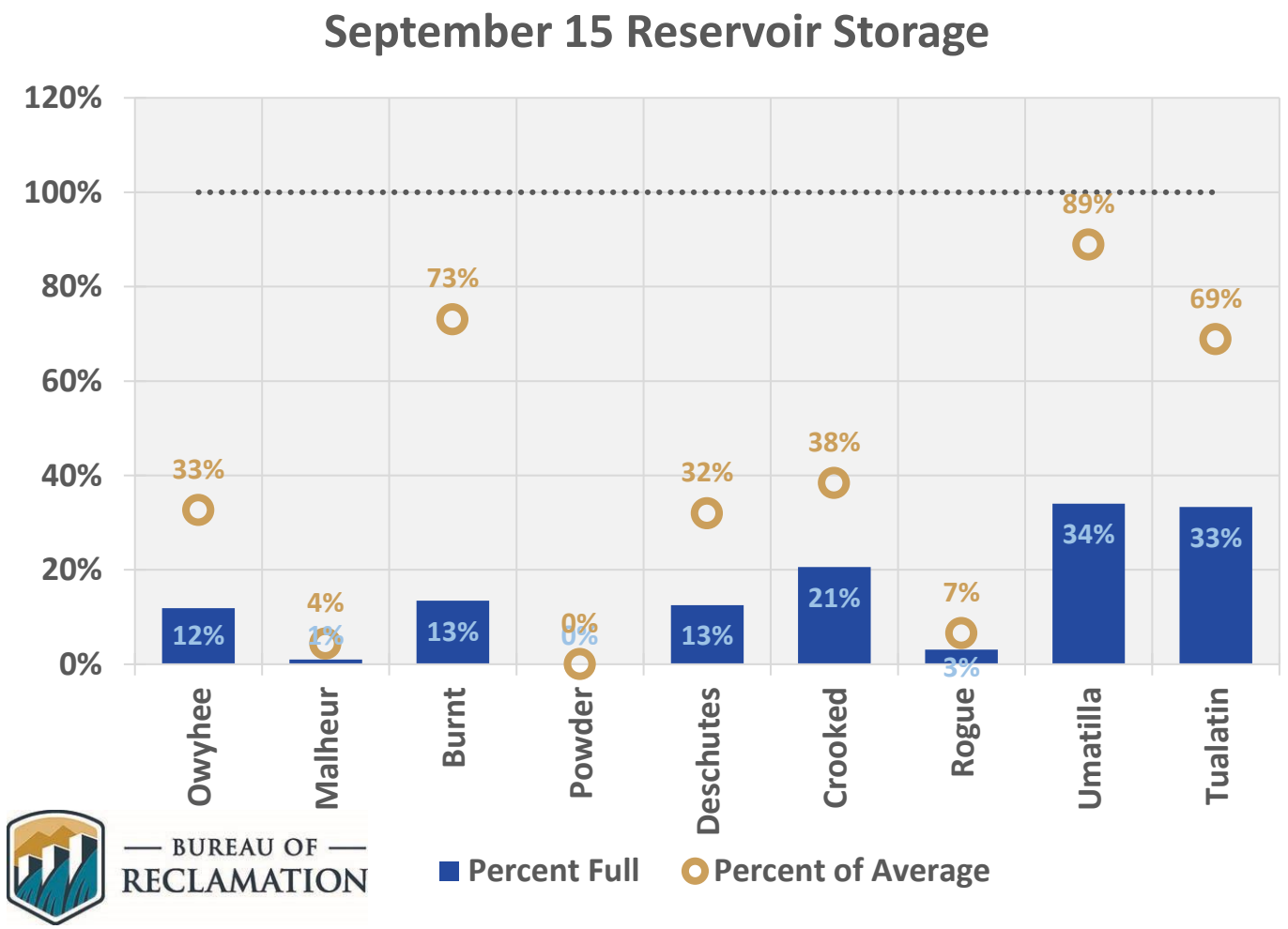
7-DAY

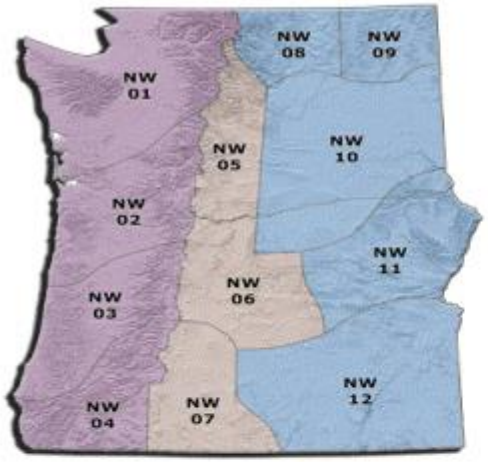


28-DAY


28-day % of Average Streamflow - thru September 19, 2021
Stream Gage
<= 30%
31% - 50%
51% - 70%
71% - 90%
91% - 110%
111% - 130%
> 130%
Counties
OWRD Basin
OREGON
WATER RESOURCES DEPARTMENT
Date: 9/20/2021

STORAGE


September 15 Reservoir Storage
120%
100%
80%
60%
40%
20%
0%
33%
12%
4%
1%
73%
13%
0%
0%
32%
13%
38%
21%
7%
3%
89%
34%
69%
33%
Owyhee
Malheur
Burnt
Powder
Deschutes
Crooked
Rogue
Umatilla
Tualatin
BUREAU OF RECLAMATION
Percent Full
Percent of Average



Legend

Fire Environment (FEN) 4 levels

Minimal - The Overall Fire Environment suggests a very low risk for Large fires (**less than 1% chance**)

Normal - The Overall Fire Environment suggests a normal risk for large fires (**1 - 4% chance**)

Elevated - The Overall Fire Environment suggests a moderately high risk for large fires (**5 - 19% chance**)

High Risk **The risk for large fire(s) is very high (≥ 20%)**
Triggers: 1. (Significant Lightning)
2. BEN (Critical Burn Environment)

The assessment of the overall fire environment considers multiple factors including weather, lightning amount and fuel dryness. Large Fire probabilities are derived objectively via statistical methods. **High Risk** levels (≥ 20% probability of a large fire) are almost always due to significant lightning as burning conditions alone rarely result in a large fire probability much above about 10%.

Pacific Northwest
7 Day Significant Fire Potential

PREDICTIVE SERVICES

Monday, 9/20/2021

Predictive Service Areas	ytd	Today	Tue	Wed	Thu	Fri	Sat	Sun
NW01								
NW02								
NW03								
NW04								
NW05								
NW06								
NW07								
NW08								
NW09								
NW10								
NW11								
NW12								

Fire Weather: Expect a few residual showers this morning over the Cascades, but an upper-level ridge is moving over the Pacific Northwest, clearing, warming, and drying the region today and tomorrow. At the surface, a thermal trough will draw north/northeast winds into southwestern Oregon today, and as the trough strengthens overnight, light offshore flow spreads north by tomorrow morning, boosting warming and drying west of the Cascades in both Oregon and Washington. An upper-level trough will cross the region Wednesday, boosting westerly winds, increasing cloud cover, and bringing some light rain mainly to western Washington and northwestern Oregon. Upper-level ridging and a surface thermal trough return behind the system, continuing warm, dry conditions Thursday into the weekend, with light offshore flow returning Friday.

Monitor your local NWS forecasts for fire weather details in your area.

Fire Potential: New significant fire potential will be low through much of the work week due to the wet weather received over the weekend. Fire danger will rise a bit during the week but no critical weather patterns are expected.

Preparedness Level:

Northwest: 4
National: 5

- Eric Wise

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.