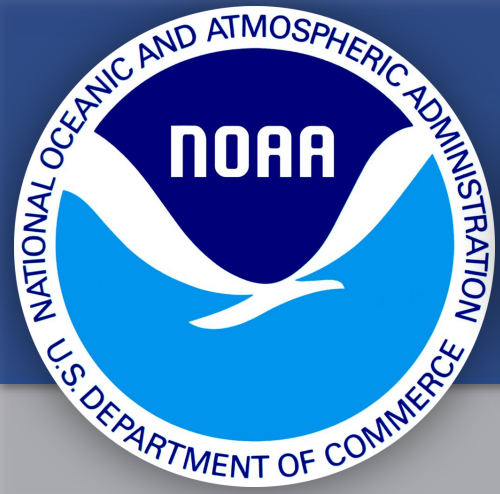




Weather Forecast Office

Pendleton, OR

Monday, April 10

Drought Summary / Water Supply Outlook

Updated: Monday, April 10

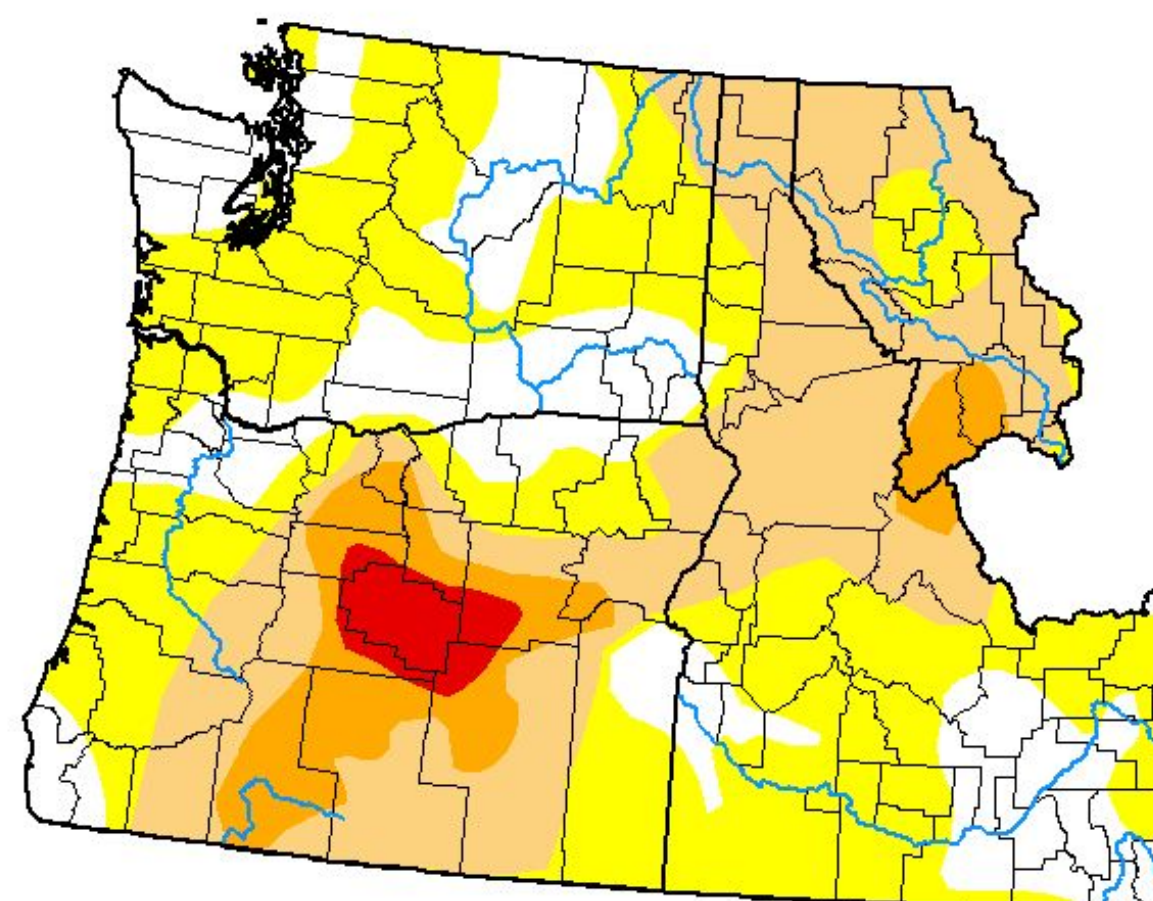
NWS Pendleton, OR

Current Drought Conditions

Weather Forecast Office
Pendleton, OR
Monday, April 10

- Exceptional Drought (D4) has been removed from central Oregon.
- Areas of Severe-Extreme Drought (D2-D3) persist in portions of central, north-central, and eastern Oregon.
- **Notable Improvement:** D4 has been removed from central Oregon.
- **Notable Degradation:** D1 has expanded westward across Wallowa County.

U.S. Drought Monitor Pacific Northwest DEWS



April 4, 2023

(Released Thursday, Apr. 6, 2023)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	22.08	77.92	38.16	9.86	2.20	0.00
Last Week 03-28-2023	17.76	82.24	36.91	12.83	2.20	0.50
3 Months Ago 01-03-2023	14.80	85.20	48.85	24.03	9.29	0.50
Start of Calendar Year 01-03-2023	14.80	85.20	48.85	24.03	9.29	0.50
Start of Water Year 09-27-2022	2.06	97.94	62.50	24.12	11.86	0.50
One Year Ago 04-05-2022	20.44	79.56	70.70	55.62	23.34	5.33

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate 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:

David Simeral
Western Regional Climate Center

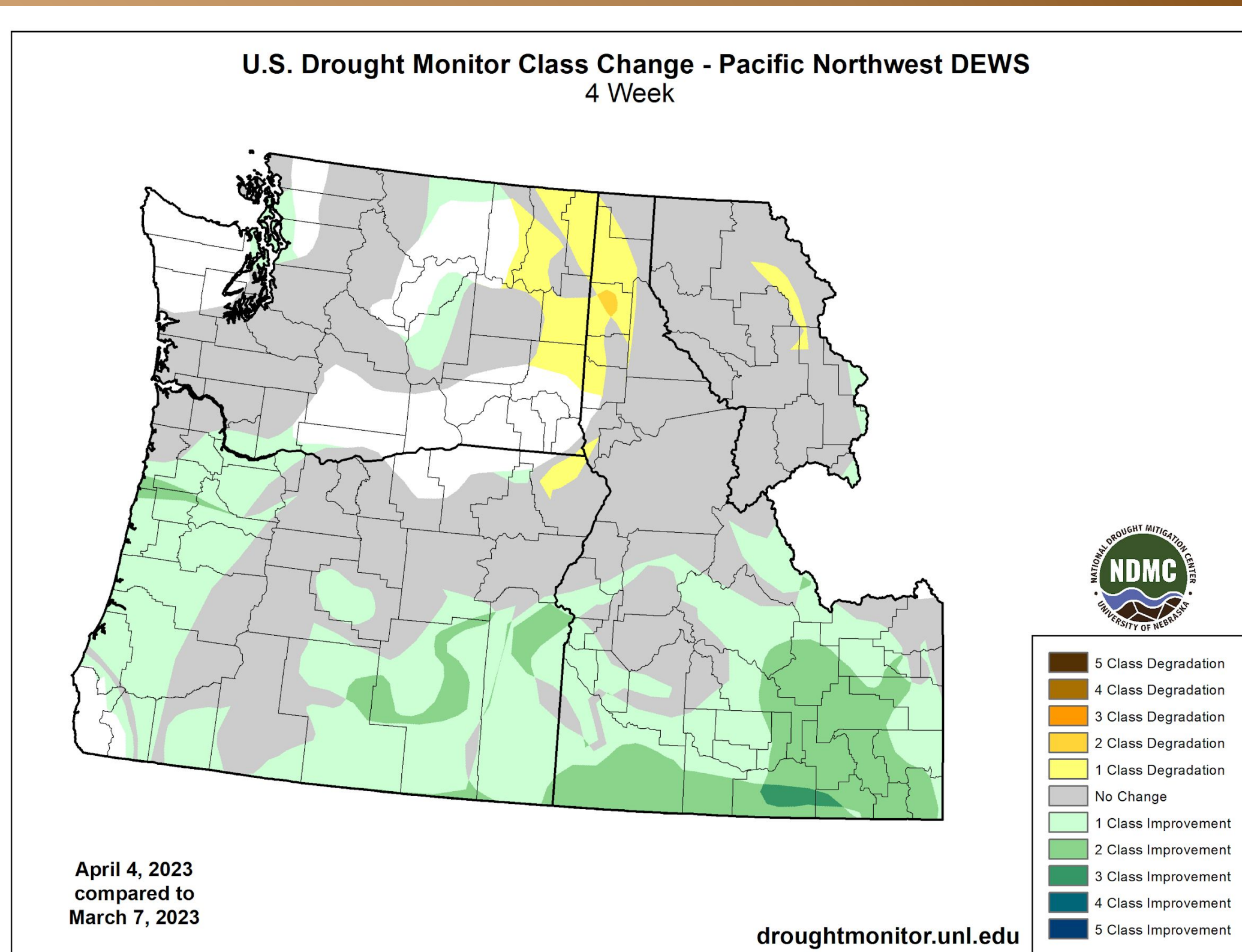


droughtmonitor.unl.edu

One-Month Change

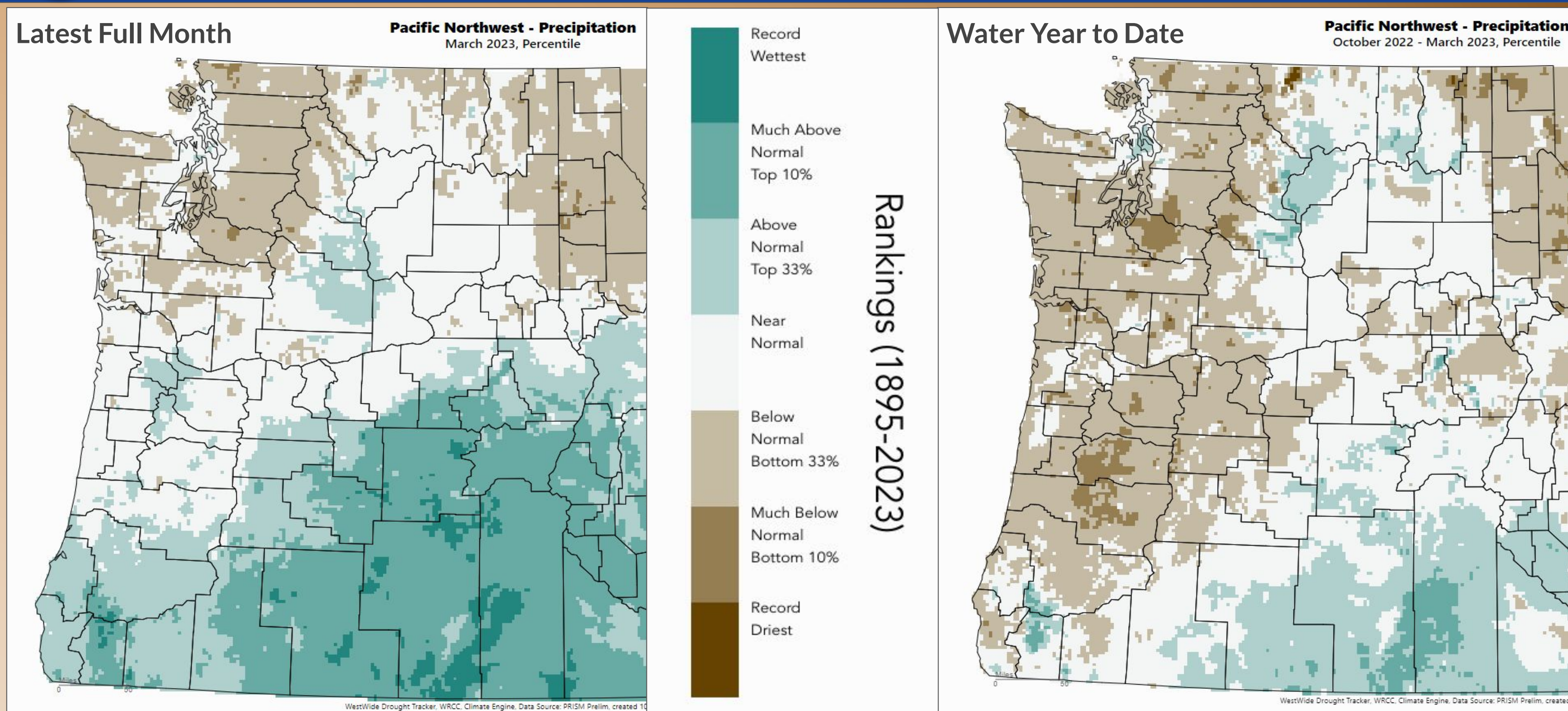
Weather Forecast Office
Pendleton, OR
Monday, April 10

- Exceptional Drought (D4) has been removed from central Oregon.
- Areas of Severe-Extreme Drought (D2-D3) persist in portions of central, north-central, and eastern Oregon.
- **Notable Improvement: D4 has been removed from central Oregon.**
- **Notable Degradation: D1 has expanded westward across Wallowa County.**



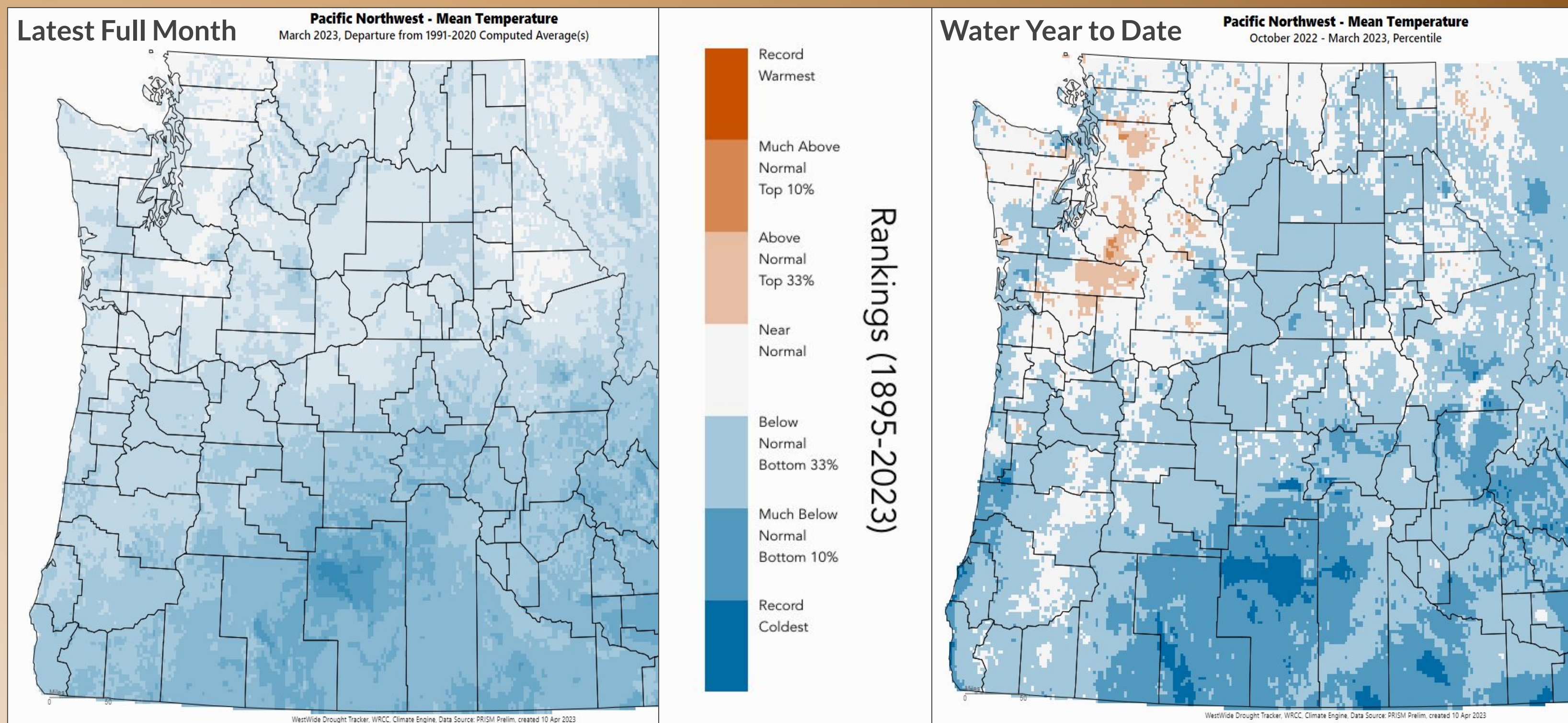
Precipitation Percentiles

Weather Forecast Office
Pendleton, OR
Monday, April 10

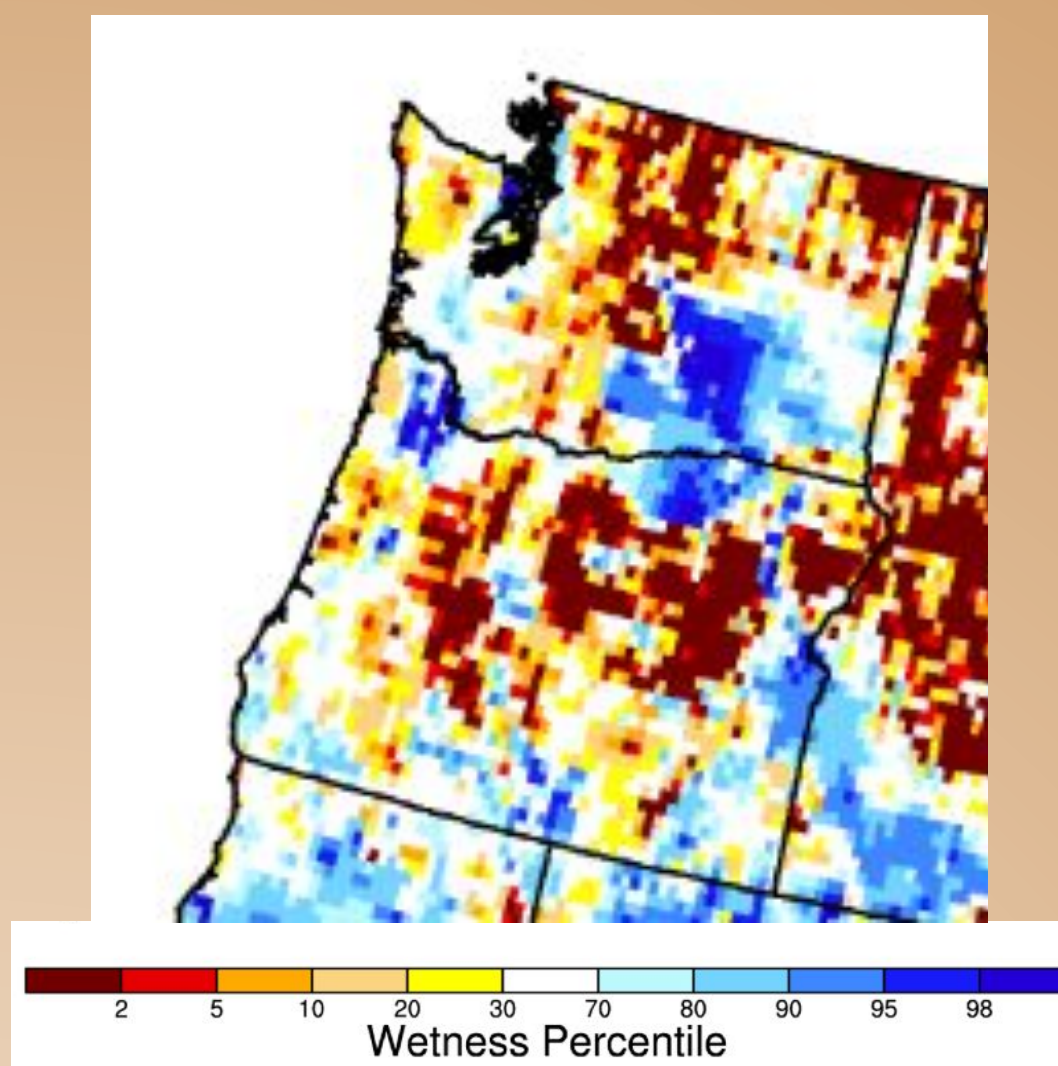


- Predominantly above- to much-above-normal precipitation was seen in March across the central OR mountains into parts of northeast and north central OR. Isolated pockets of above-normal precipitation was seen across south-central WA.
- Mostly below-normal precipitation has been seen along the east slopes of the Cascades extending into parts of the Lower Columbia Basin and Wallowa County for the current water year to date. Generally near-normal precipitation has been observed elsewhere.

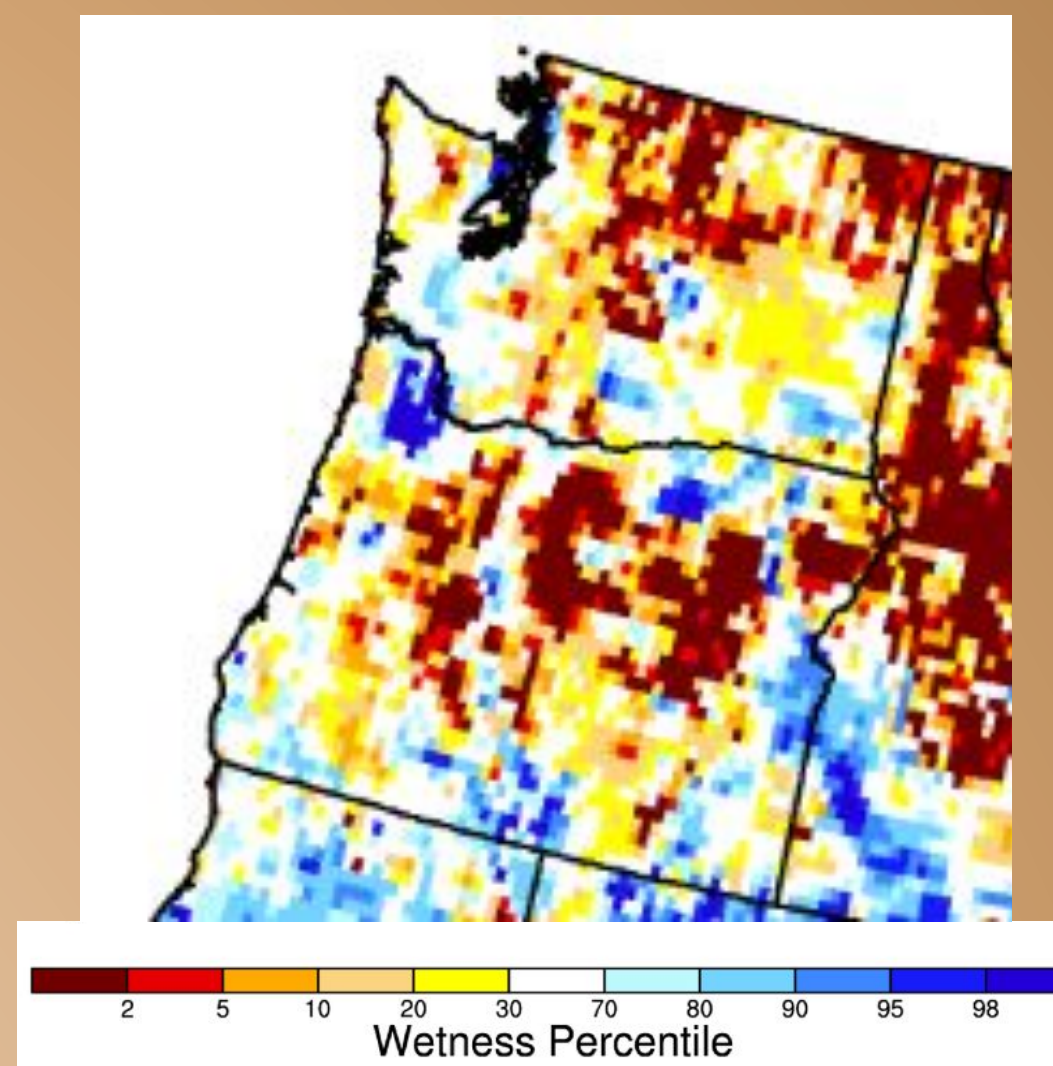
Temperature Percentiles



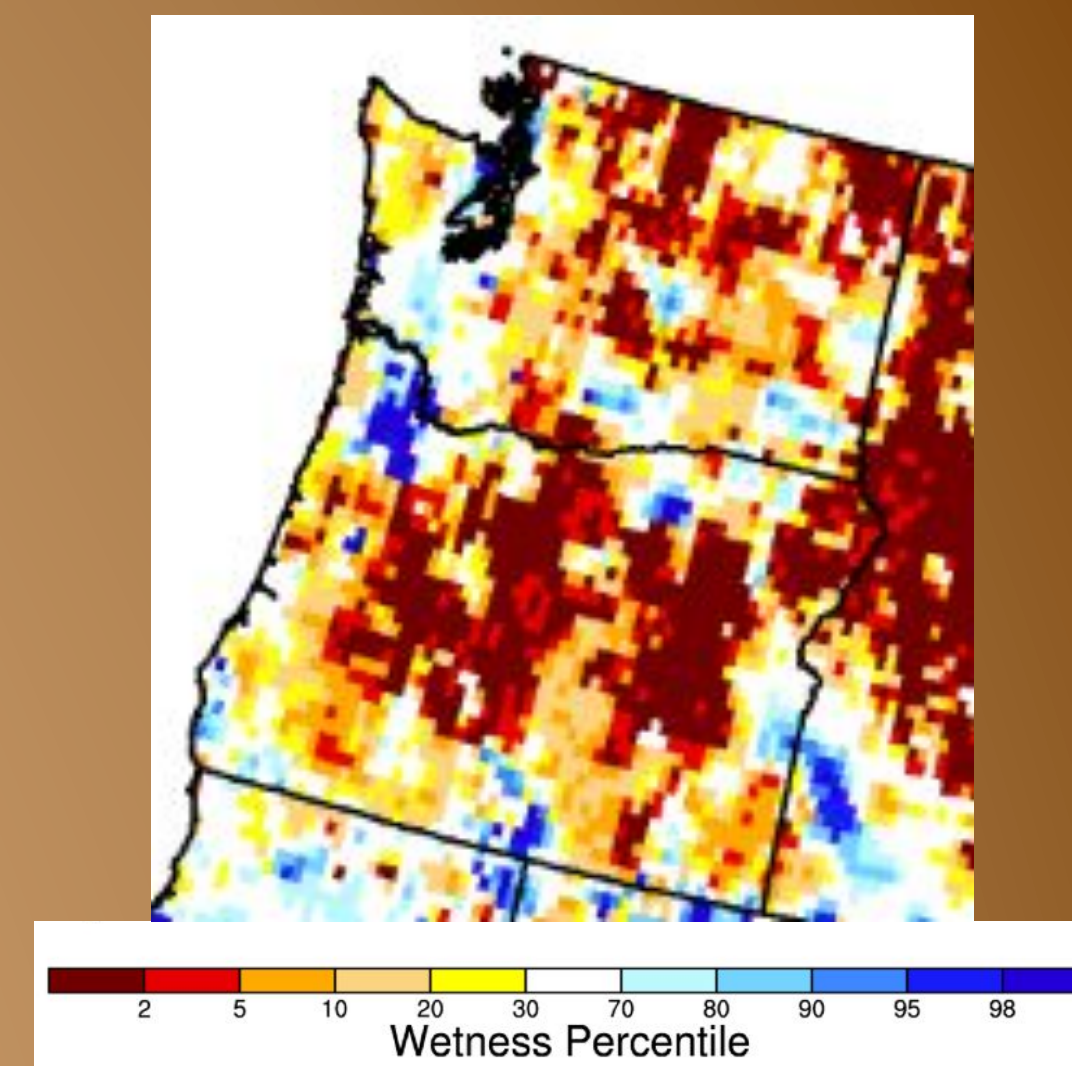
- Much of the area saw below-normal temperatures in March.
- Predominantly below-normal temperatures have been recorded for the current water year to date outside pockets of the mountains that have seen near-normal temperatures.



Surface Soil Moisture
Early March



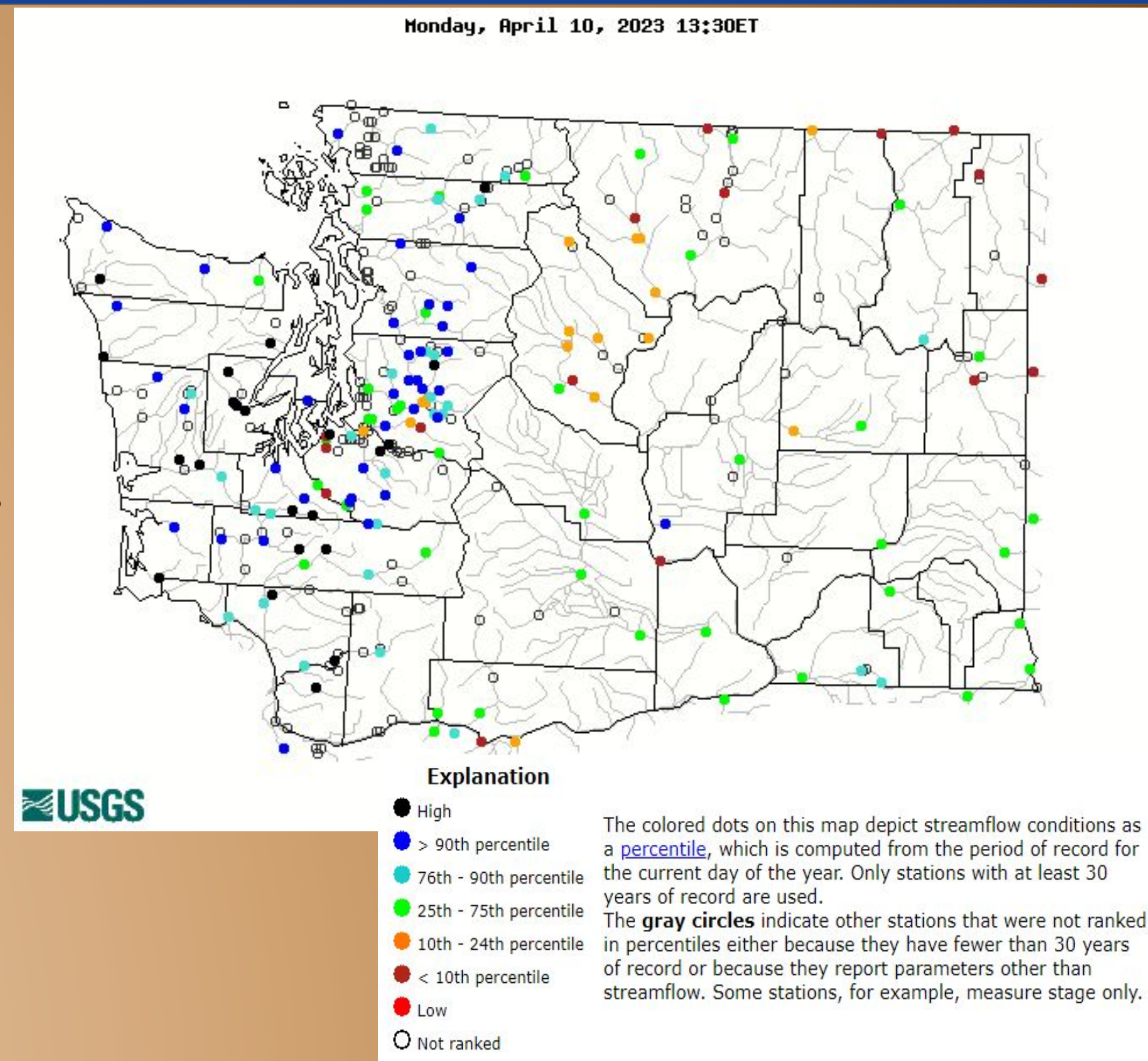
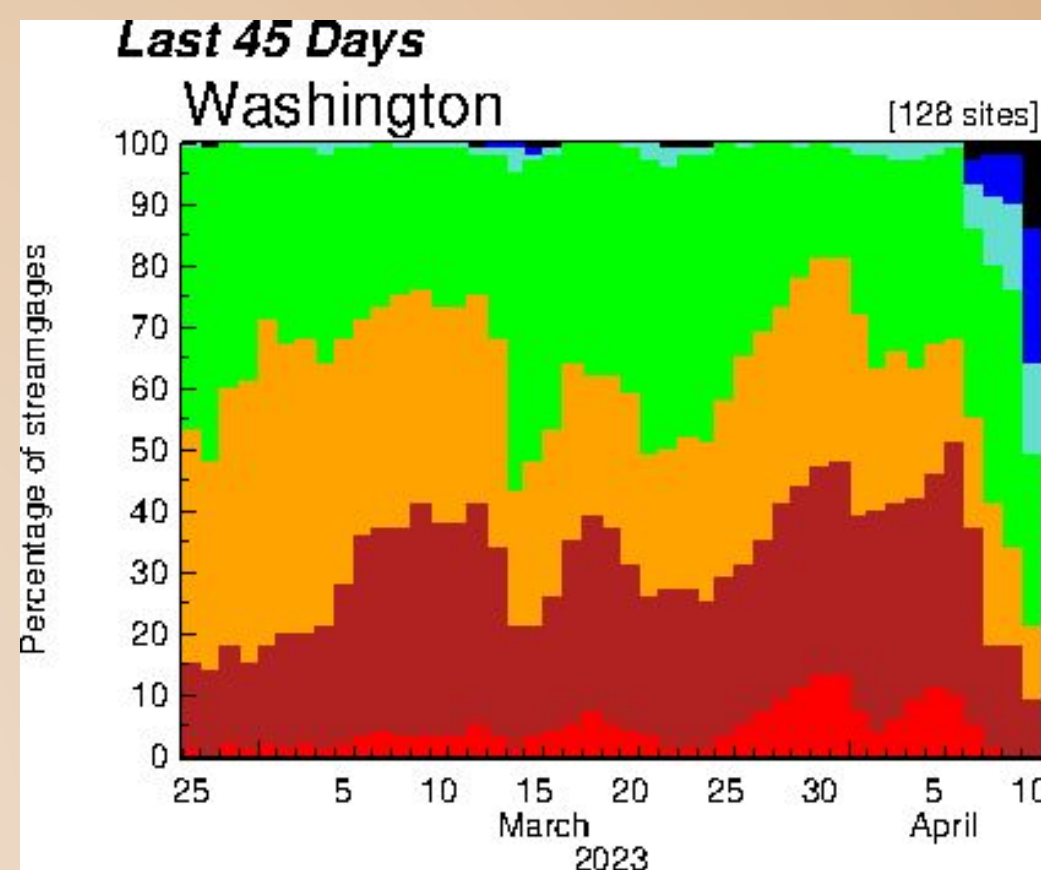
Root-zone Soil Moisture
Early March



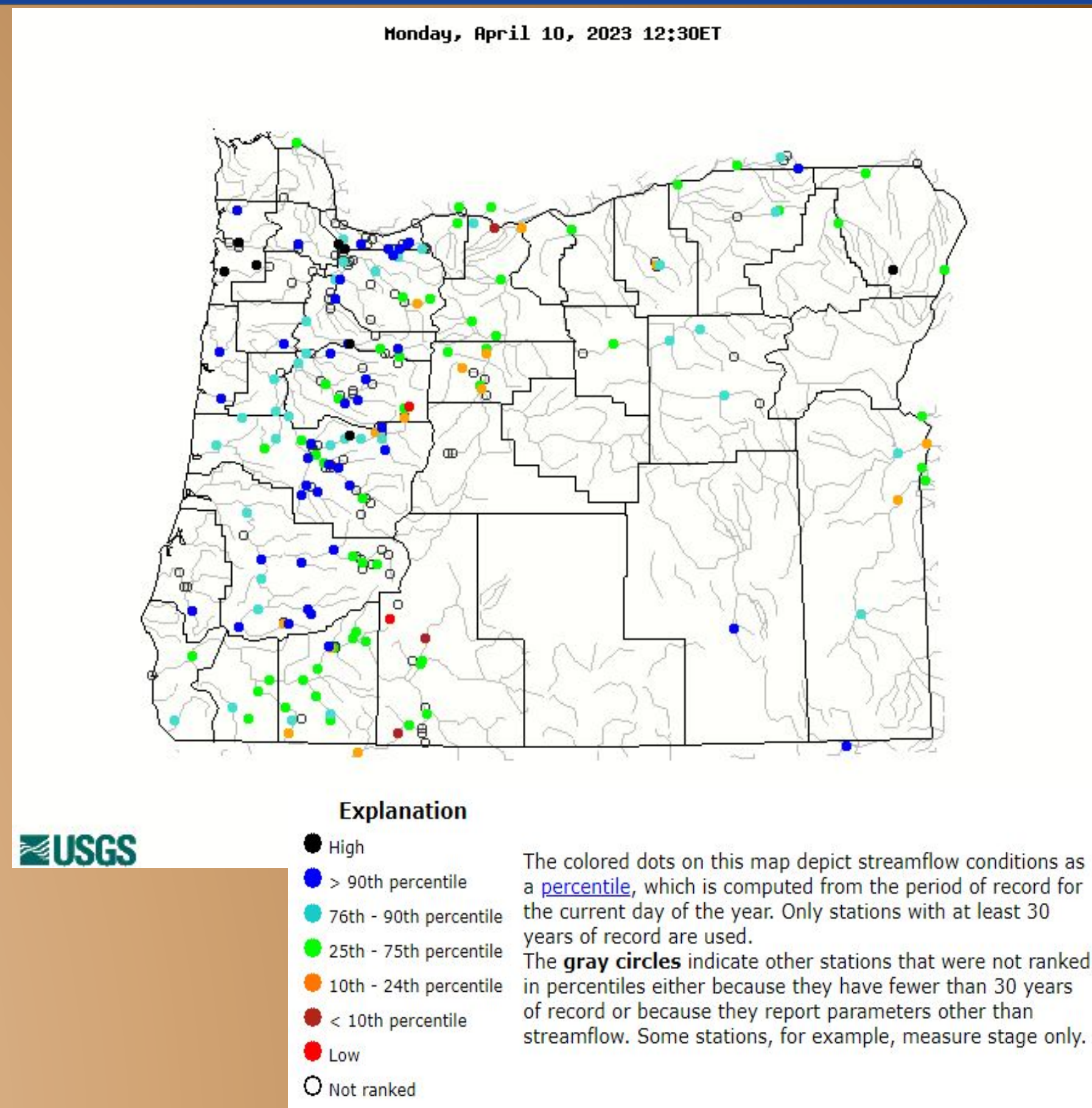
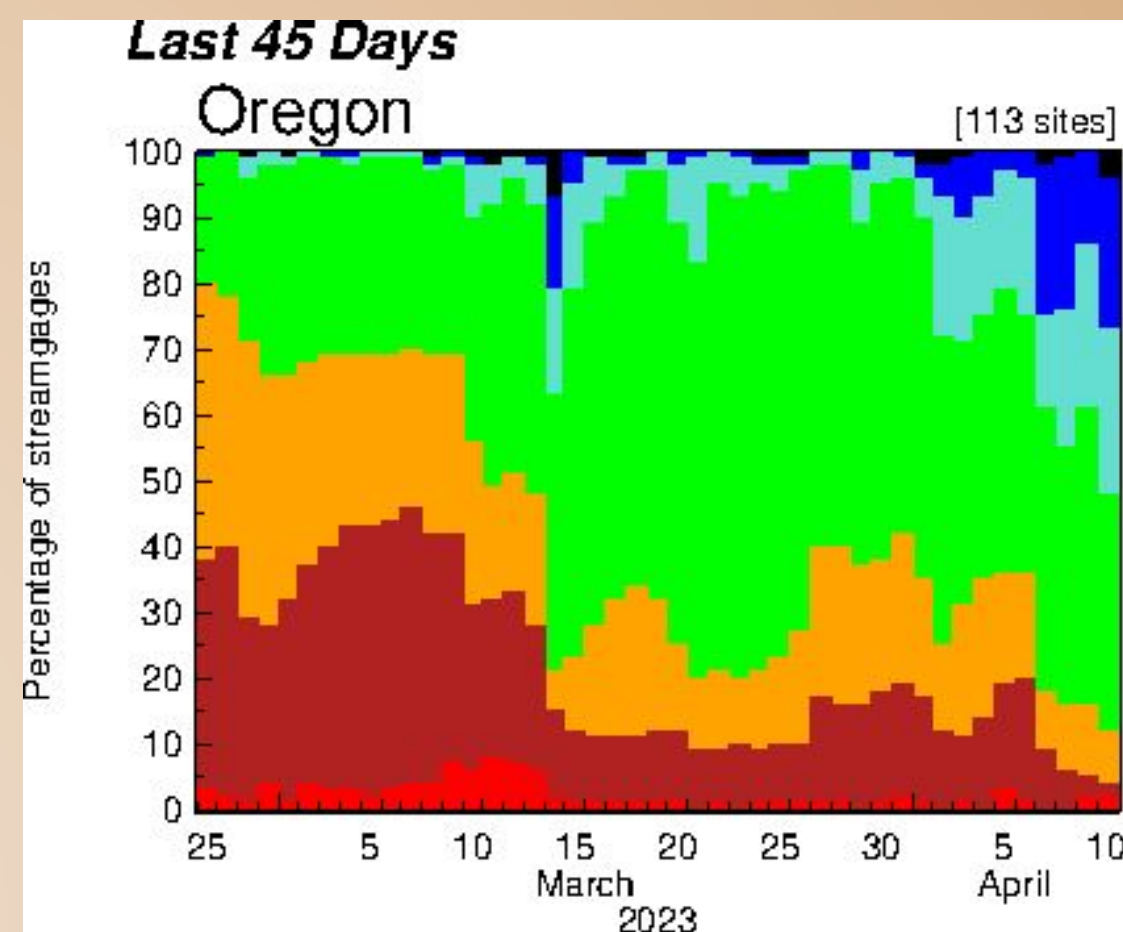
Shallow Groundwater
Early March

- Surface-based soil moisture (top 2 centimeters of soil) is wetter than normal across much of the Lower Basin extending into the Yakima valley for this time of year owing to recent precipitation. Modest improvement was also seen across parts of the east slopes of the Cascades into limited areas of the central OR mountains.
- Root-zone soil moisture (top 1 meter of soil) depicted modest improvements in the Lower OR Basin and Yakima Valley with conditions wetter than normal there. Small improvements seen elsewhere across the OR Cascades and pockets of the central and eastern OR mountains.
- Little to no change in the shallow groundwater drought indicator. Shallow groundwater remains below normal across much of central OR into parts of northeast Oregon. Near-normal and above-normal values are present for much of the northern Blue Mountains and parts of the foothills. A patchwork of below to above normal is present across south-central WA and eastern WA.

- Streamflows across south-central and southeast Washington are mostly near normal with a few gauges reporting either below or above normal.
- The cumulative plot below shows a marked uptick in gauges reporting near- and above-normal streamflow in early April.
 - Note: the biggest change is west of the Cascades due to the recent atmospheric river event.

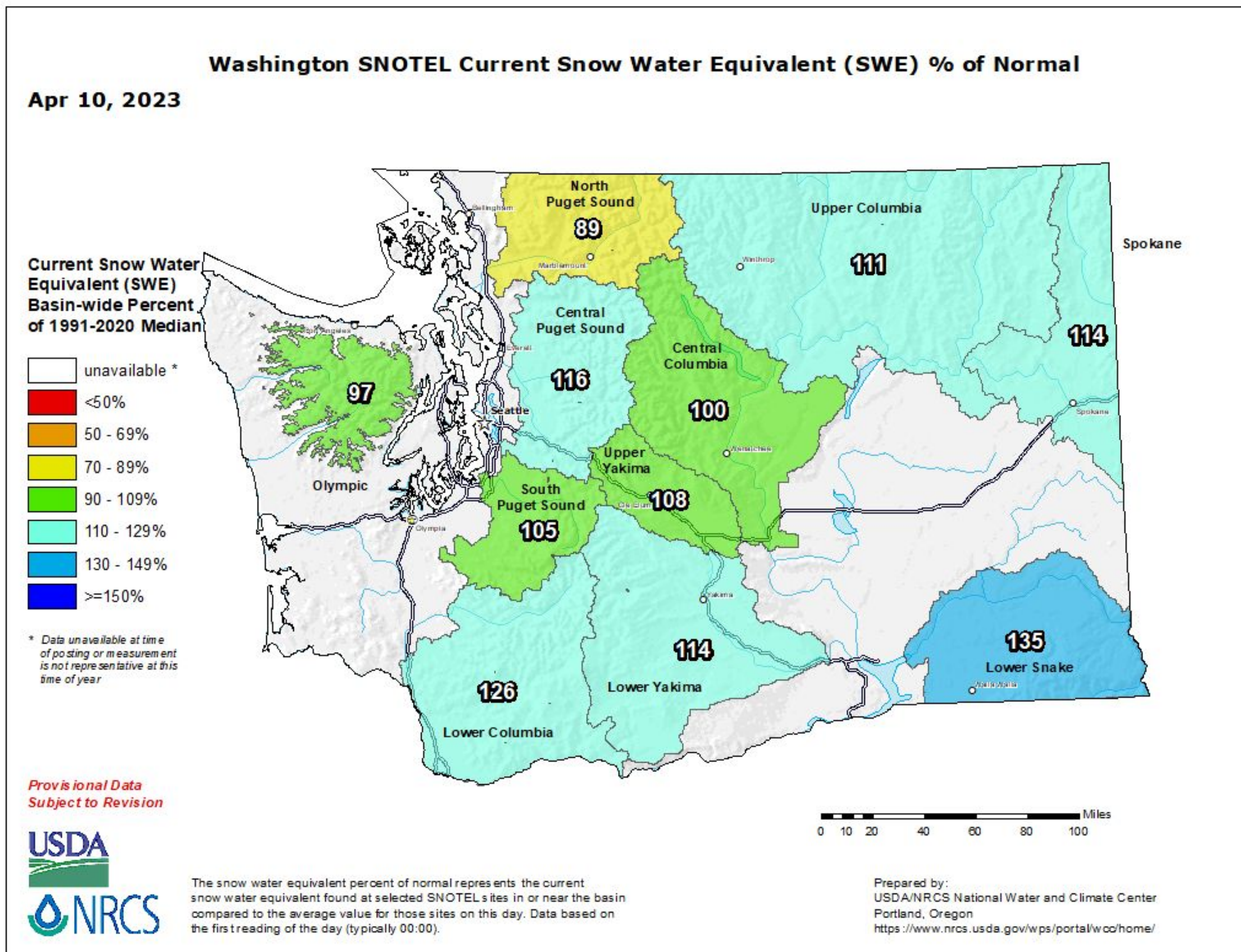


- Streamflows have notably increased in early April and are near or above normal across the majority of eastern Oregon with more below- and near-normal streamflow for central and north-central Oregon.
- The cumulative plot below shows an uptick in gauges reporting above-normal streamflow in March and early April.
 - Note: the biggest change is west of the Cascades due to the recent atmospheric river event.



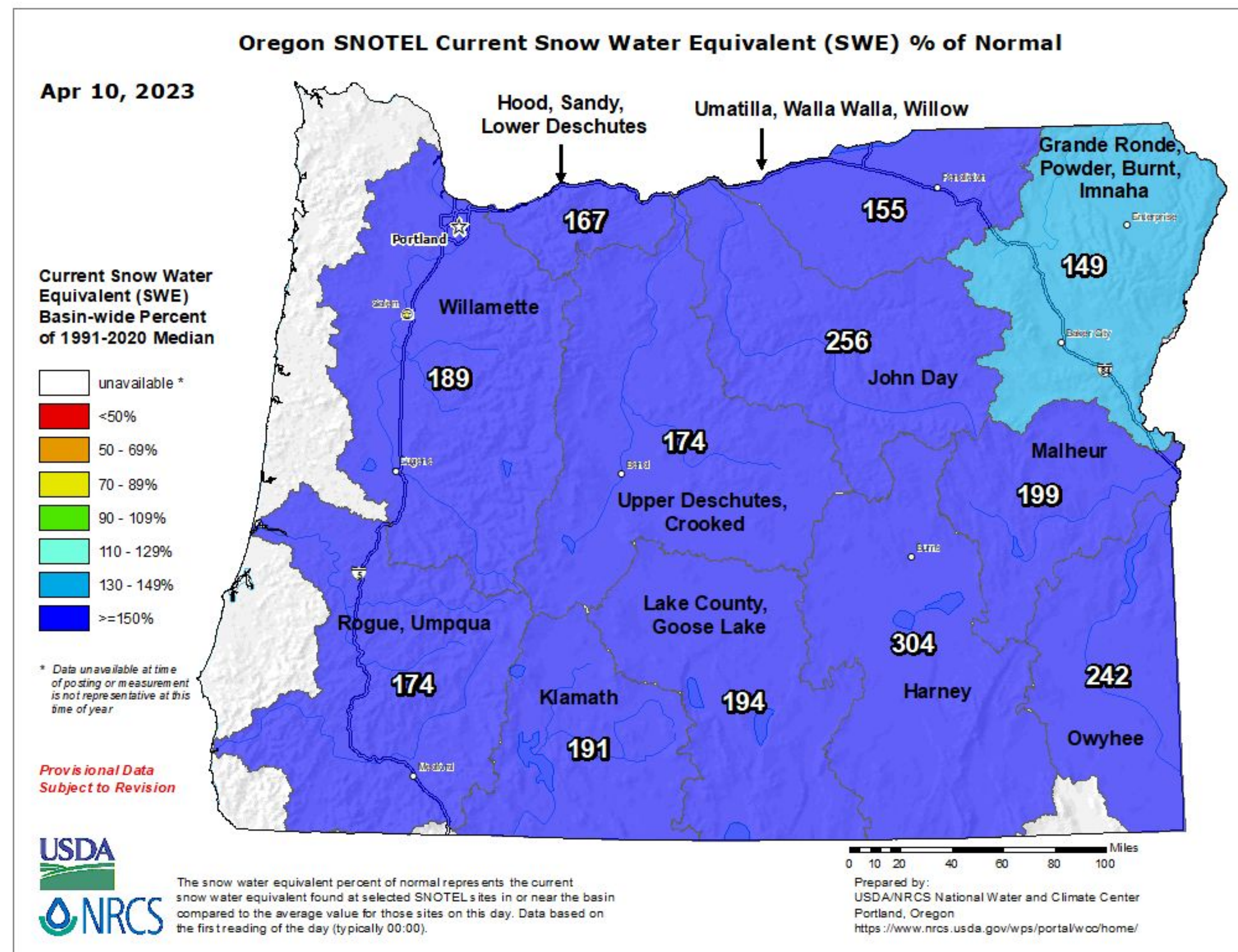
Snow Water Equivalent Percent of 1991-2020 Median

- Snowpack remains near or above normal across the entire state of Washington.
- Individual basins in NWS Pendleton's forecast area in south-central and southeast Washington range from 108% to 135% of normal.



Snow Water Equivalent Percent of 1991-2020 Median

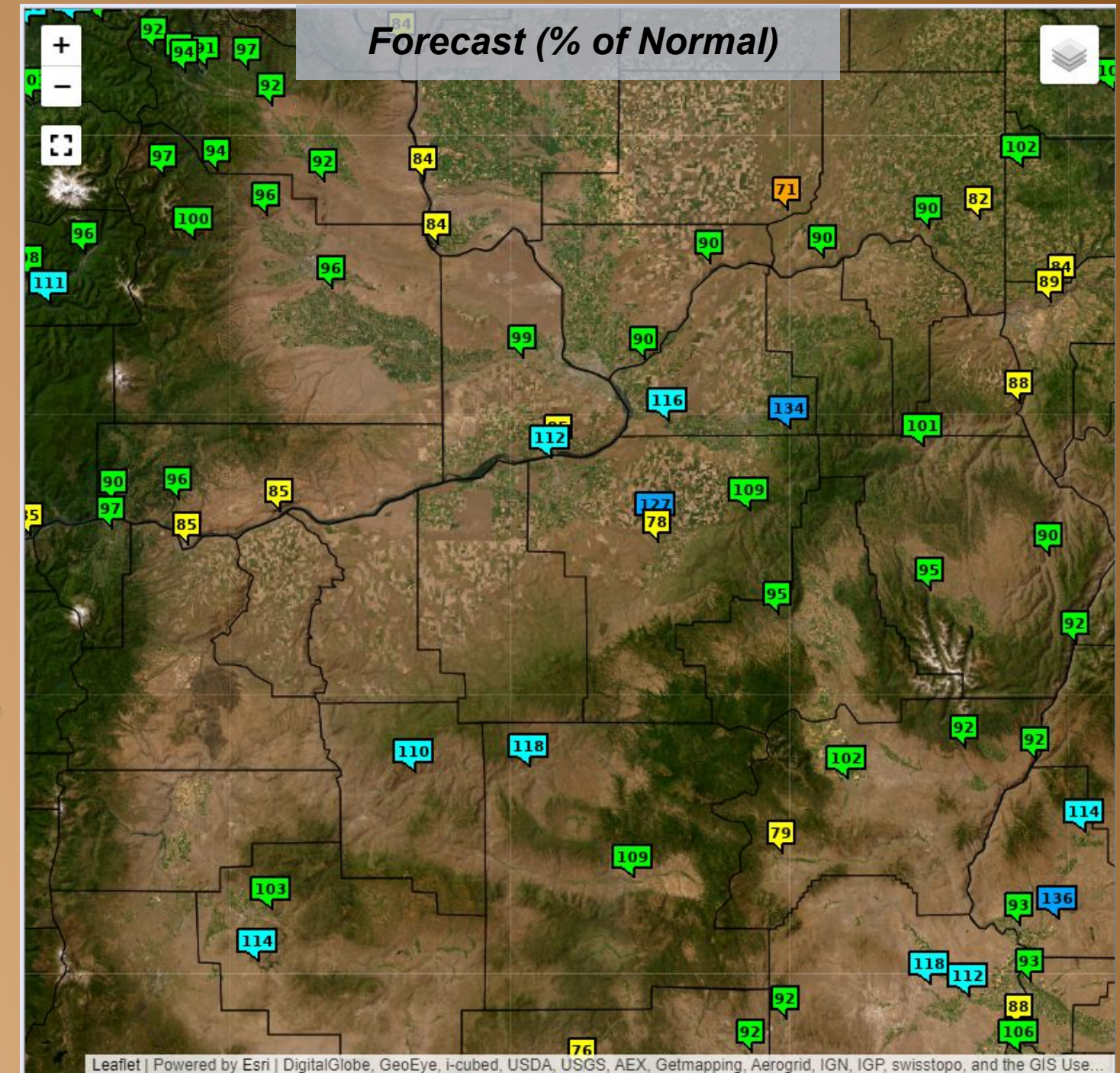
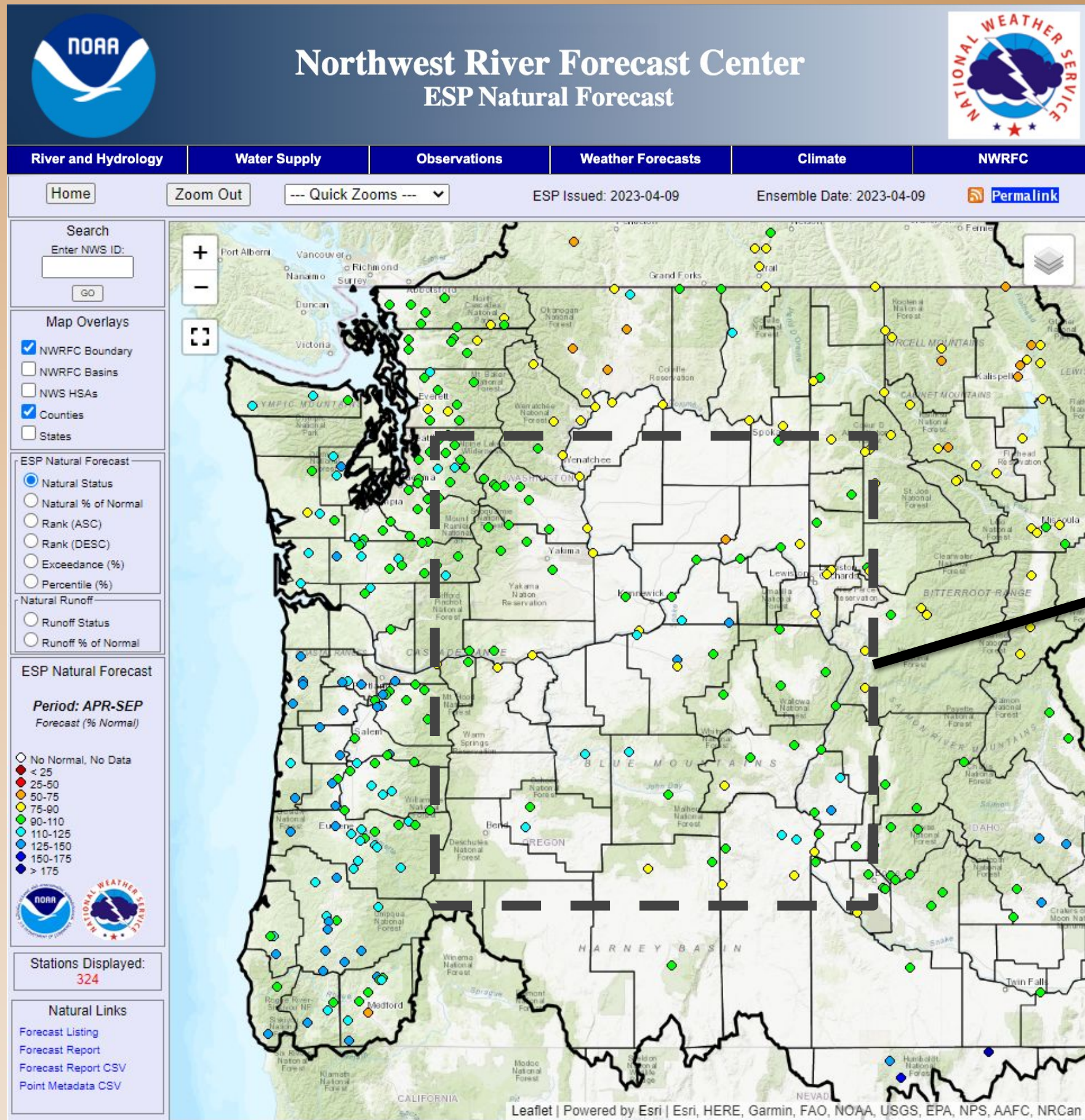
- Snowpack is above normal across the entire state of Oregon.
- Individual basins in NWS Pendleton's forecast area in central and northeast Oregon range from 149% to 256% of normal.





Water Supply Forecast

Weather Forecast Office
Pendleton, OR
Monday, April 10



- Most locations across eastern WA and northeast OR are expected to see near-normal water supply. Central OR has seen an increase in forecast water supply.
- You can find out more about water supply forecasts and watch them evolve at: <https://www.nwrfc.noaa.gov/rfc/>



April Outlook

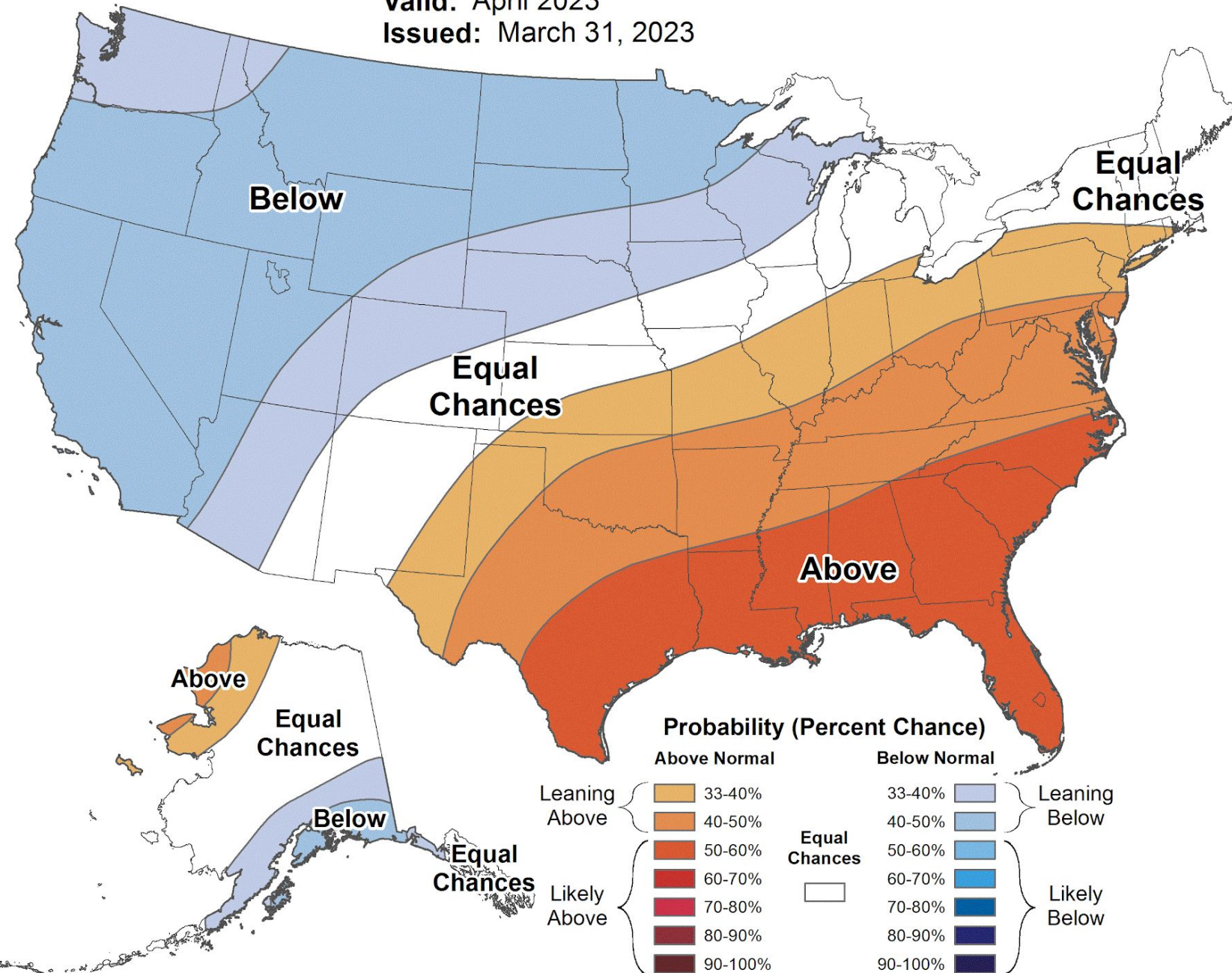
Weather Forecast Office
Pendleton, OR
Monday, April 10



Monthly Temperature Outlook



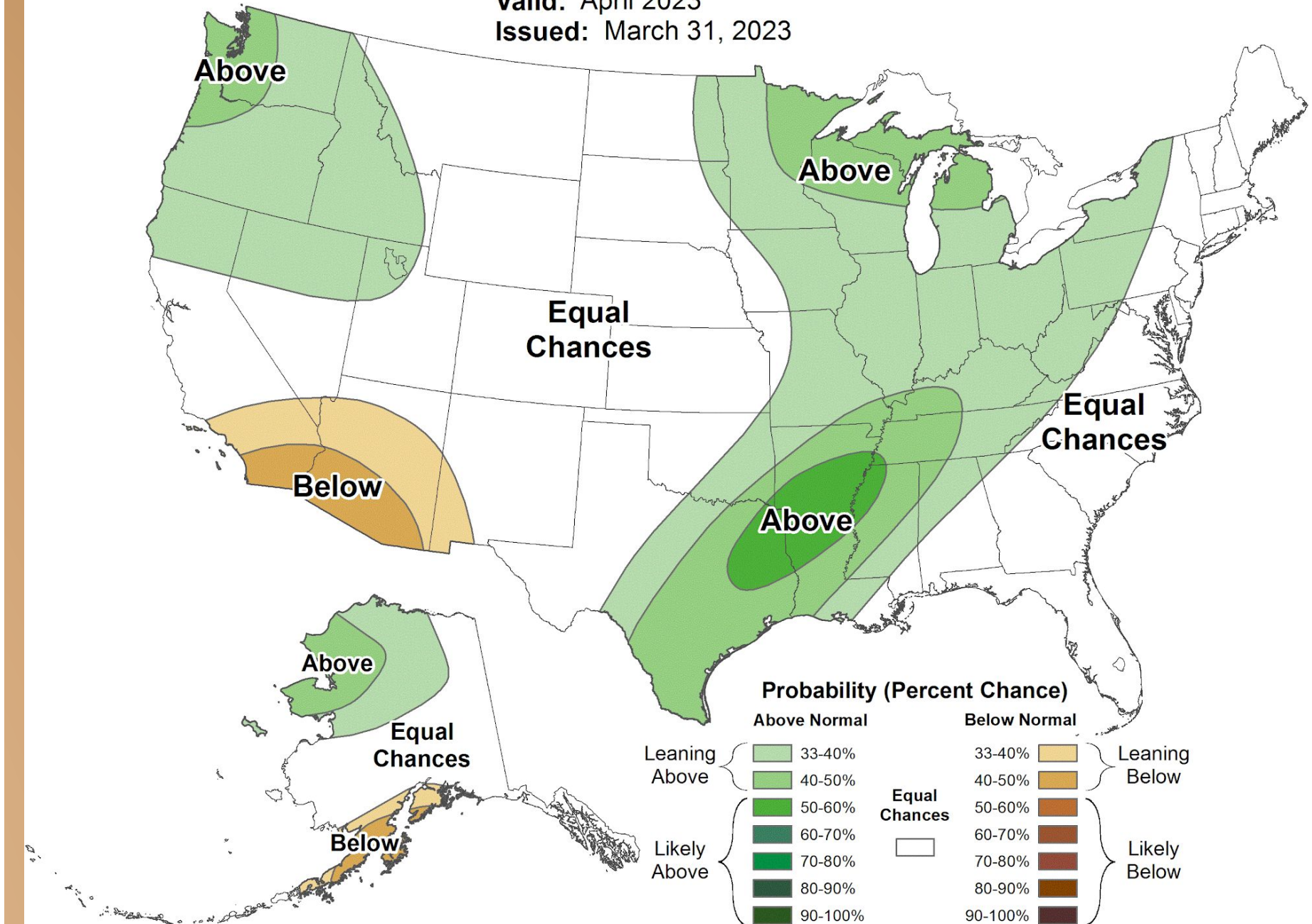
Valid: April 2023
Issued: March 31, 2023



Monthly Precipitation Outlook



Valid: April 2023
Issued: March 31, 2023



Increased chances of below-normal temperatures.

Increased chances of above-normal precipitation.

Equal chances means that there is an equal chance of the odds tilting in either direction.



Seasonal / 3-Month Outlook

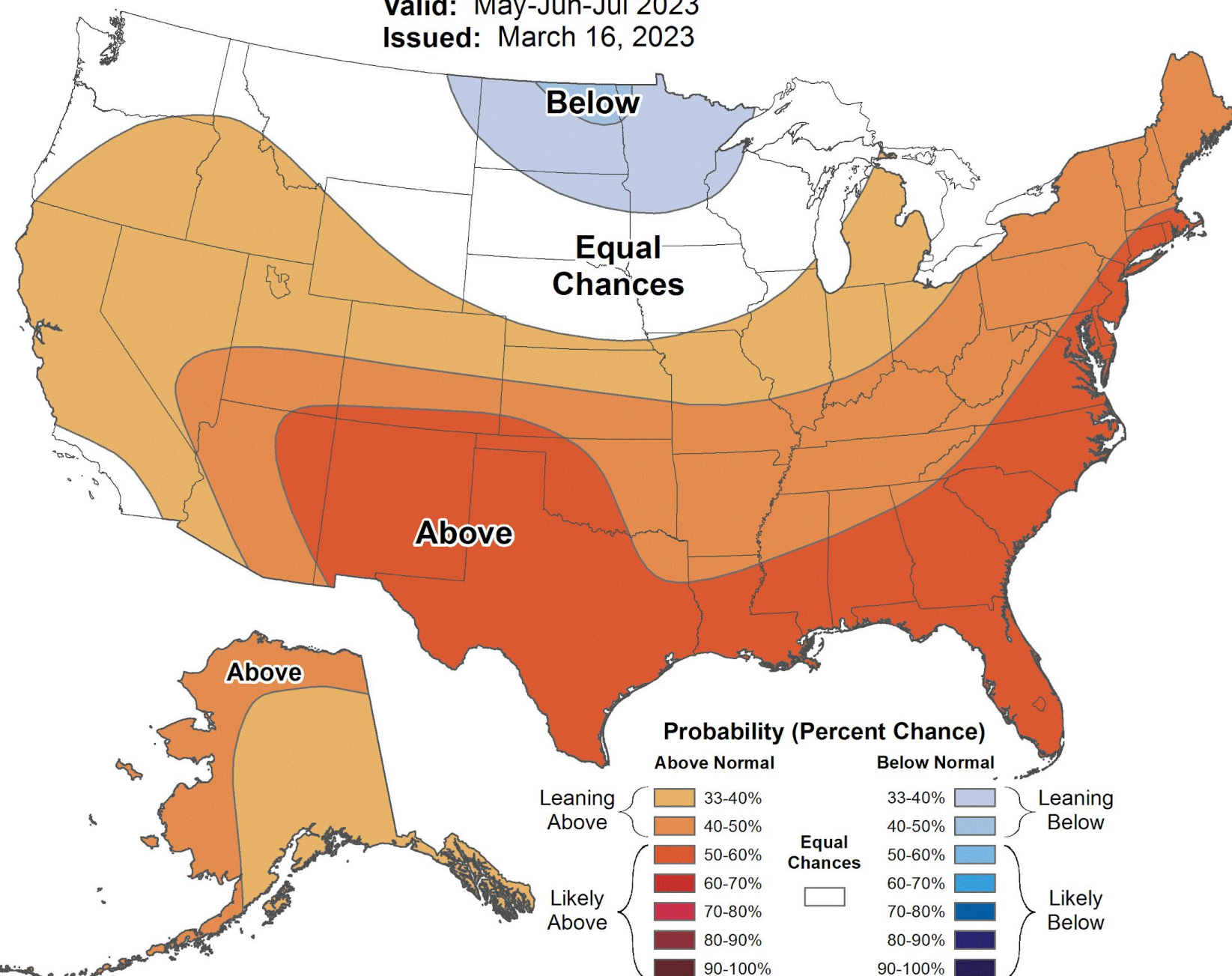
Weather Forecast Office
Pendleton, OR
Monday, April 10



Seasonal Temperature Outlook



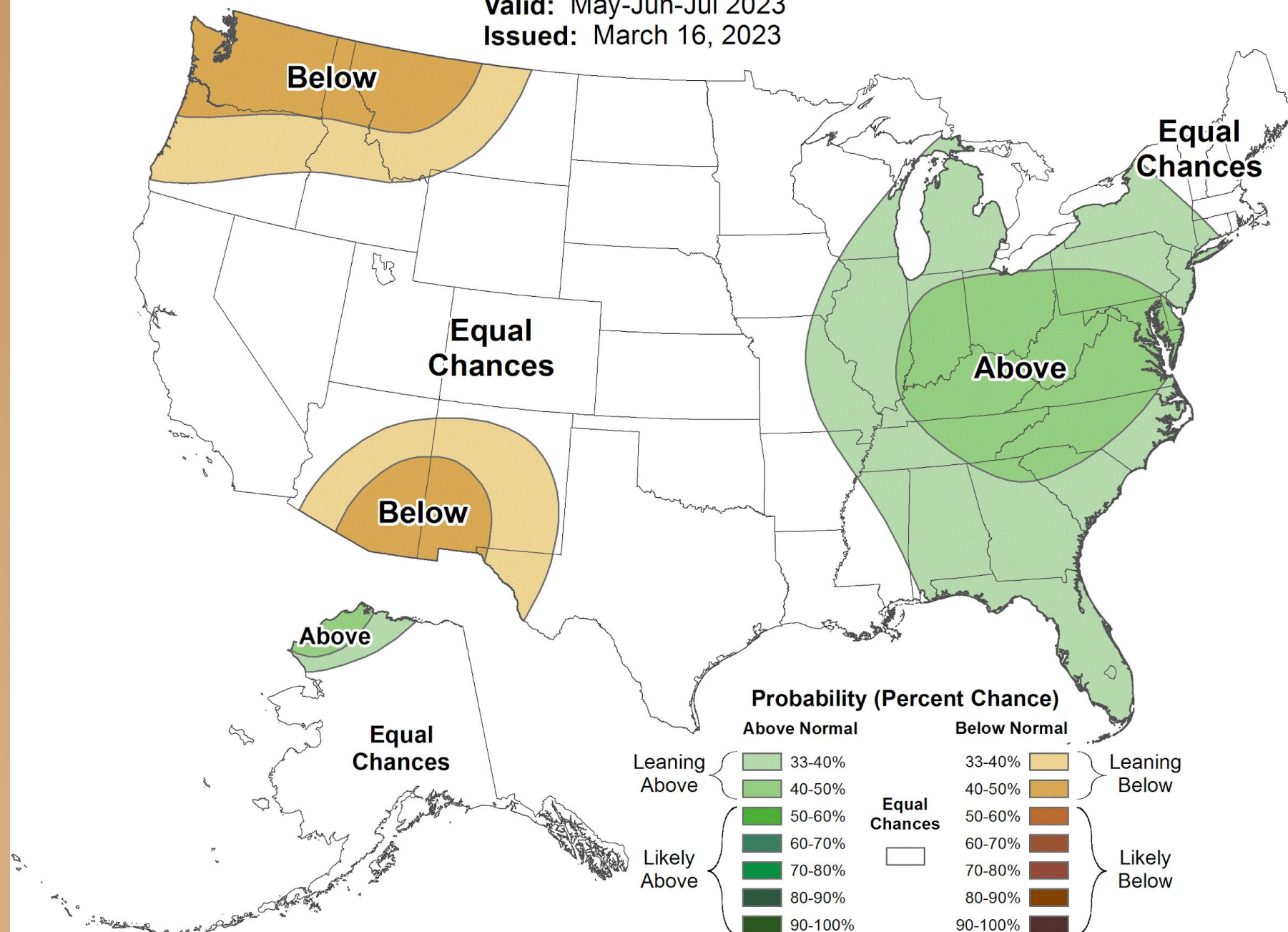
Valid: May-Jun-Jul 2023
Issued: March 16, 2023



Seasonal Precipitation Outlook



Valid: May-Jun-Jul 2023
Issued: March 16, 2023



Increased chances of above-normal temperatures for eastern Oregon with equal chances elsewhere.

Equal chances means that there is an equal chance of the odds tilting in either direction.

Increased chances of below-normal precipitation for most of Oregon and Washington with equal chances across far southeastern Oregon.

Equal chances means that there is an equal chance of the odds tilting in either direction.



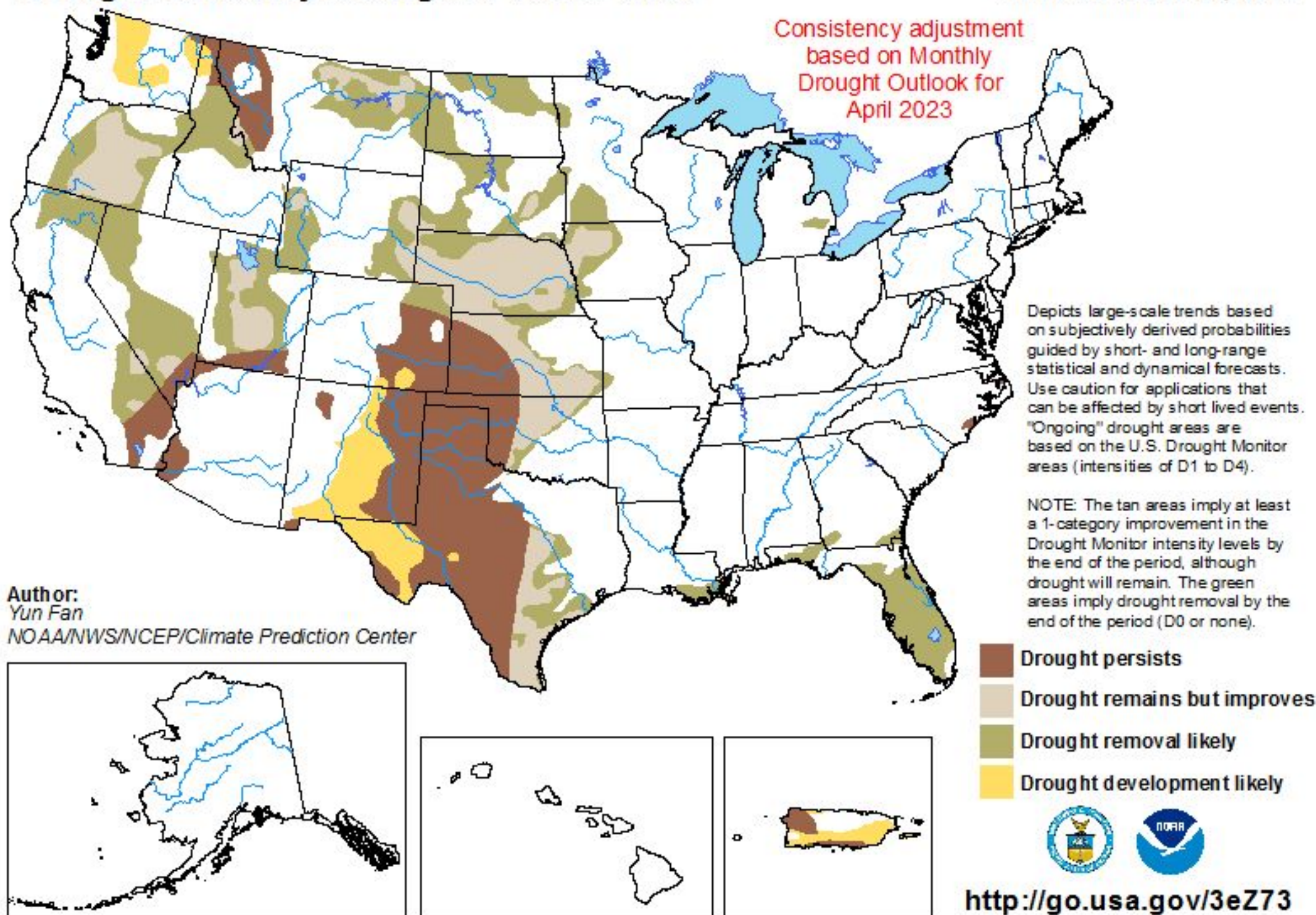
Seasonal Drought Outlook

Weather Forecast Office
Pendleton, OR
Monday, April 10

- Drought is expected to remain but improve through the spring months across areas currently experiencing more severe drought conditions in central and eastern Oregon.
- Drought development is likely for areas of central and south-central Washington.

U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for April 1 - June 30, 2023
Released March 31, 2023

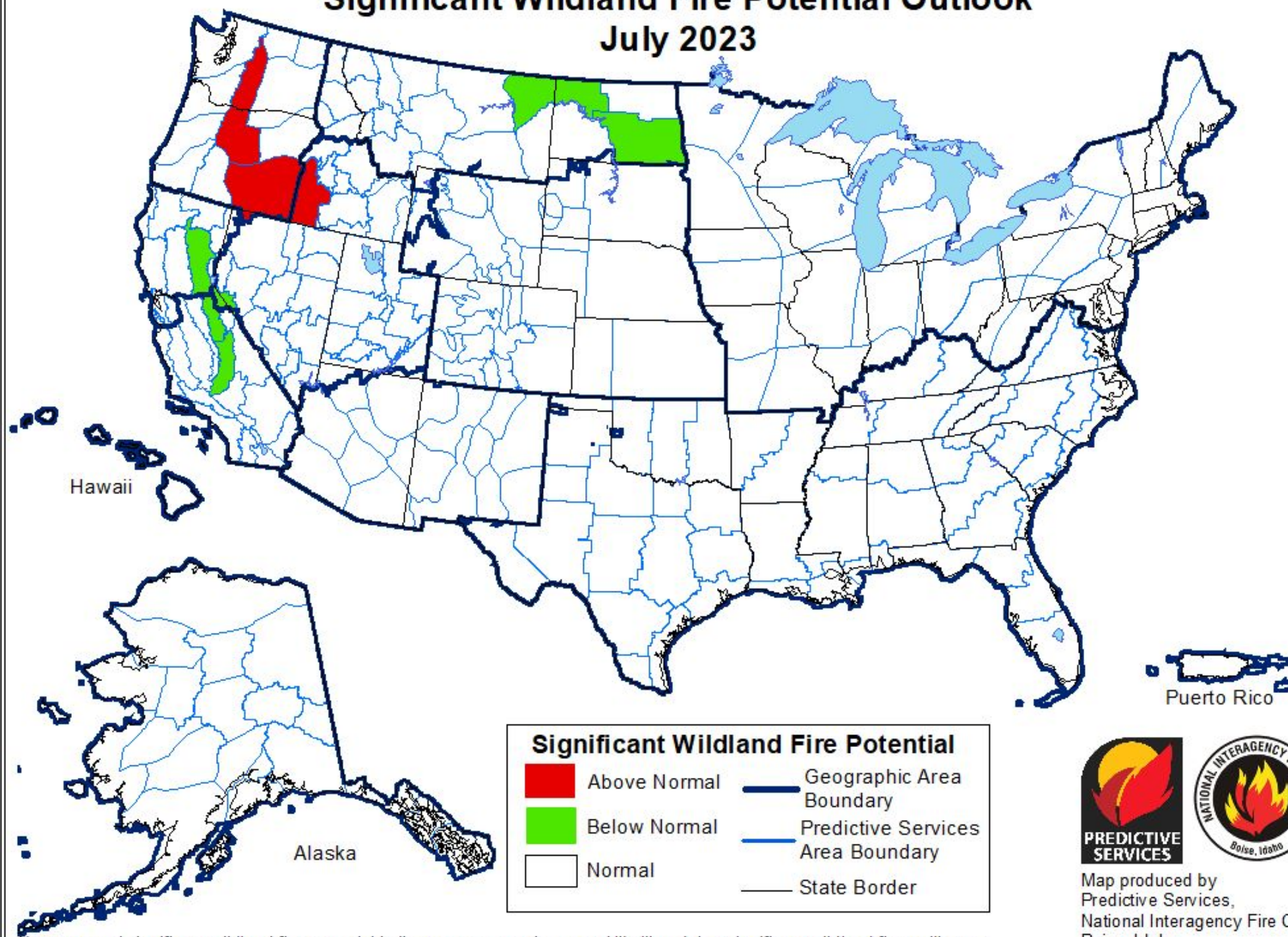




Wildland Fire Potential Outlook - May - July

Weather Forecast Office
Pendleton, OR
Monday, April 10

Significant Wildland Fire Potential Outlook July 2023



Above normal significant wildland fire potential indicates a greater than usual likelihood that significant wildland fires will occur. Significant wildland fires should be expected at typical times and intervals during normal significant wildland fire potential conditions. Significant wildland fires are still possible but less likely than usual during forecasted below normal periods.

Map produced by
Predictive Services,
National Interagency Fire Center
Boise, Idaho
Issued April 1, 2023
Next issuance May 1, 2023

Normal (i.e., very low) risk of significant fires is expected across eastern Oregon and eastern Washington through June.

Above-normal significant wildland fire potential is anticipated across the eastern slopes of the Cascades and portions of central and southeast Oregon beginning in July.

National Significant Wildland Fire Potential Outlook:
<https://www.nifc.gov/nicc/predictive/outlooks/outlooks.htm>



Impacts

Weather Forecast Office
Pendleton, OR
Monday, April 10

- **Exceptional Drought (D4) has been removed across central OR, however, D3 (Extreme Drought) to D1 (Moderate Drought) remains across central north into north-central OR and east into Wallowa County.**
 - **Drought conditions are expected to remain but improve across parts of central and eastern Oregon.**
- **Most locations across eastern WA and northeast OR are expected to see near-normal water supply based on the latest forecasts. Central OR has seen an increase in forecast water supply. *Low reservoir levels are expected to affect agriculture production, fish, and other aquatic species as well recreation activities through the winter months.***
- **Low streamflow is expected to continue for portions of central Oregon - low streamflow also enhances the likelihood of warm water temperatures that is detrimental for many aquatic species.**
- **Other impacts for central Oregon include reduced agricultural yield, crop loss and poor pasture conditions where irrigation water isn't available.**



Drought Outlook Summary

Weather Forecast Office
Pendleton, OR
Monday, April 10

Key Points:

- Over the past month, a 1-class degradation in drought category was observed across portions of central OR.
 - Areas of Severe-Extreme Drought (D2-D3) persist in portions of central, north-central, and eastern Oregon.
- Predominantly above- to much-above-normal precipitation was seen in March across the central OR mountains into parts of northeast and north central OR. Isolated pockets of above-normal precipitation was seen across south-central WA.
- Snowpack snow water equivalent (amount of water stored in snowpack) appears to have reached its peak or be near its peak for the current water year based on snow monitoring stations.
 - Above-normal snow water equivalent is seen area-wide with the greatest departures above normal reported in eastern Oregon.
- For May through June: Leaning above normal for temperatures across eastern Oregon with equal chances elsewhere. Below-normal chances for precipitation across much of the Pacific Northwest.
- Above-normal significant wildland fire potential is anticipated across the eastern slopes of the Cascades and portions of central and southeast Oregon beginning in July.
- Please report any drought conditions and or impacts in your area to WFO Pendleton, via email to camden.plunkett@noaa.gov and ed.townsend@noaa.gov
 - Or through the National Drought Mitigation Center at <https://droughtimpacts.unl.edu/>



Related Websites

Weather Forecast Office
Pendleton, OR
Monday, April 10

- **U.S. Drought Monitor:** www.droughtmonitor.unl.edu
- **U.S. Drought Portal:** drought.gov
- **Climate Prediction Center:** www.cpc.ncep.noaa.gov
- **NWS Northwest River Forecast Center:** www.nwrfc.noaa.gov
- **NWS AHPS Precipitation:**
water.weather.gov/precip/index.php?location_type=wfo&location_name=pdt
- **West Wide Drought Tracker:** wrcc.dri.edu/wwdt/index.php
- **US Bureau of Reclamation Pacific Northwest Reservoirs:**
www.usbr.gov/pn/hydromet/select.html
- **US Geological Survey WaterWatch:** waterwatch.usgs.gov
- **USDA Natural Resources Conservation Service:**
www.nrcs.usda.gov/wps/portal/nrcs/main/or/snow/



nws.pendleton@noaa.gov



(541) 276-7832



weather.gov/pendleton

