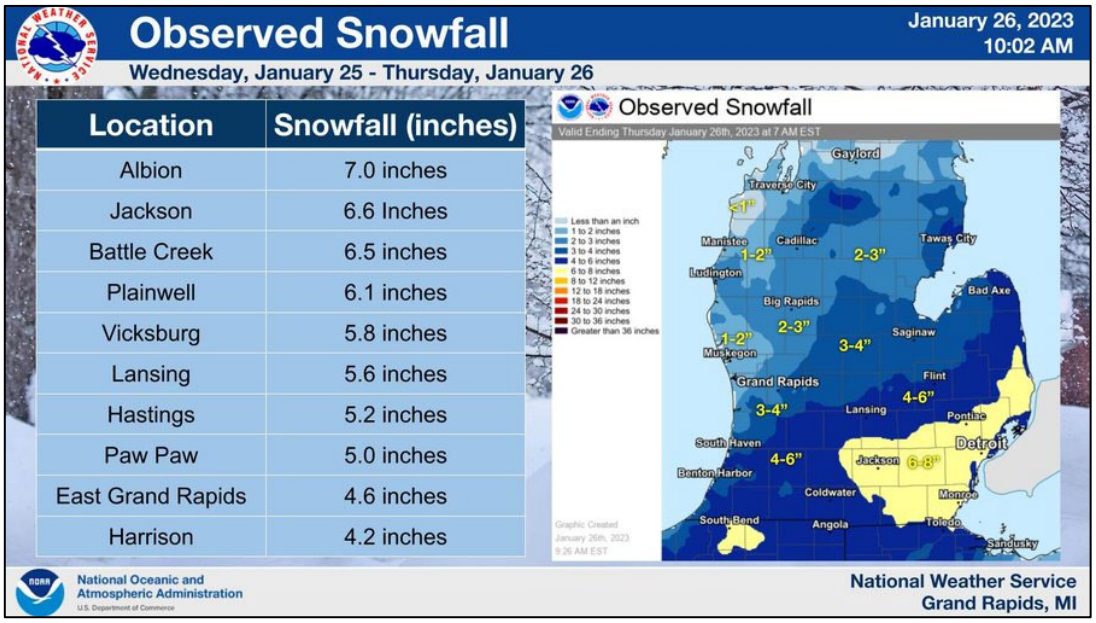
United States Department of Agriculture

Water and Climate Update

January 26, 2023

The Natural Resources Conservation Service produces this weekly report using data and products from the National Water and Climate Center and other agencies. The report focuses on seasonal snowpack, precipitation, temperature, and drought conditions in the U.S.

Winter weather briefly returns to the Midwest and Northeast



After a prolonged January deficit, the Midwest and Northeastern U.S. received snowfall this week. The above graphic shows recent snowfall in Michigan cities. Of note, New York City has experienced a lack of snow storms this winter overall, where snow records date back as far as 1869. The current record for the latest date of first measurable snow occurred on January 29, 1973. According to the National Weather Service, this year is likely going to break the historic record as only a trace has fallen so far this season.

Related:

Storm system dumps heavy snow on Indiana and Michigan after bringing tornado damage to Texas – CBS News

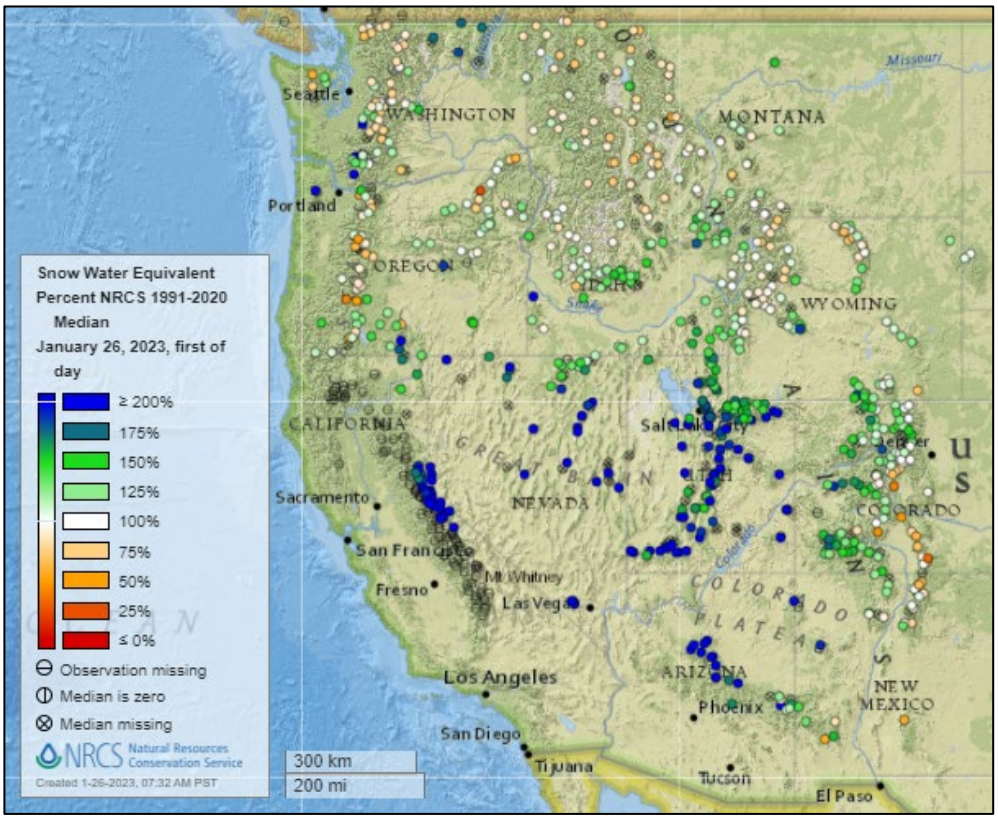
Thousands are without power after storm spawns tornadoes in the South and brings snow to Midwest and Northeast – CNN

After a lull, Buffalo begins to see some January snow – The Buffalo News (NY)

Highly unusual': What's behind the snowless winter in NYC, Washington and Philadelphia - USA Today

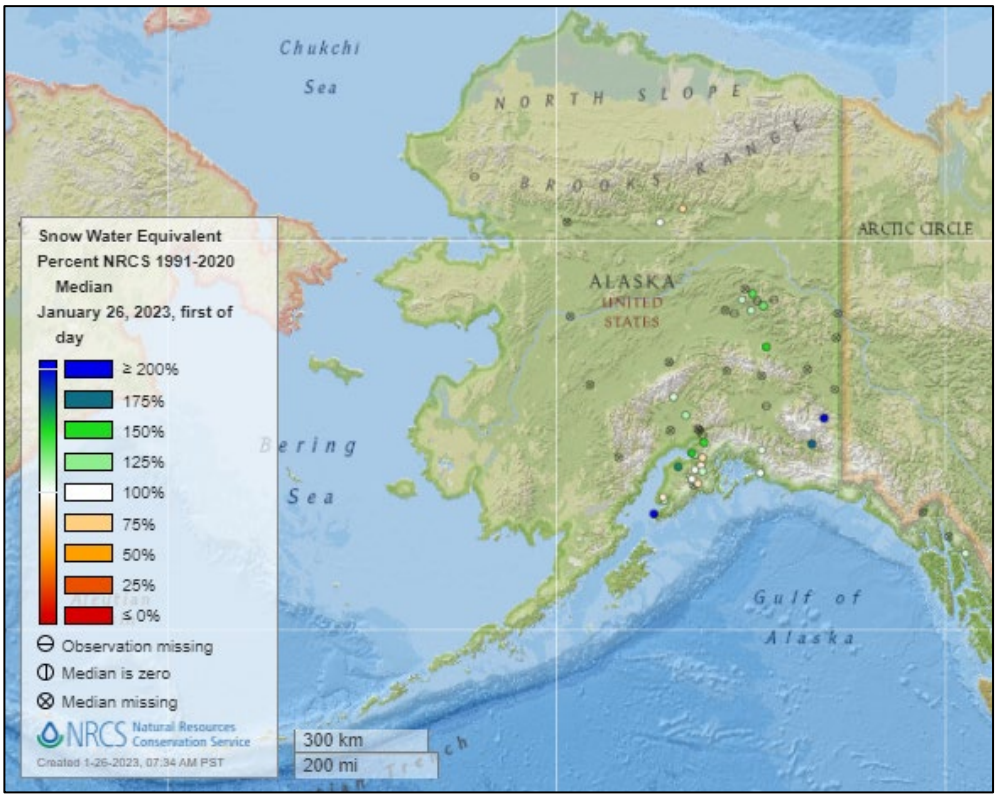
New York City's snow drought nears all-time record - United Press International

Snow



[Snow water equivalent percent of median map]

See also:
[Snow water equivalent values (inches) map]

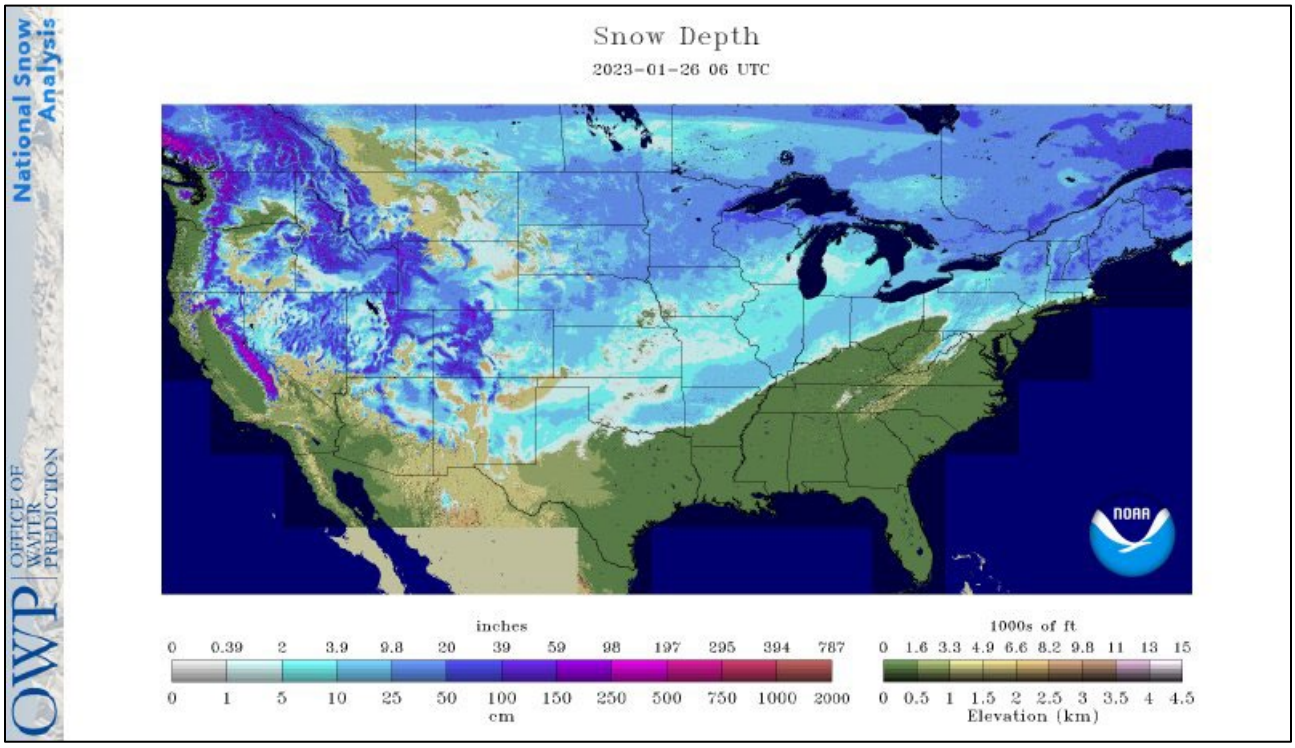


[Alaska snow water equivalent percent of median map]

See also:
[Alaska snow water equivalent values (inches) map]

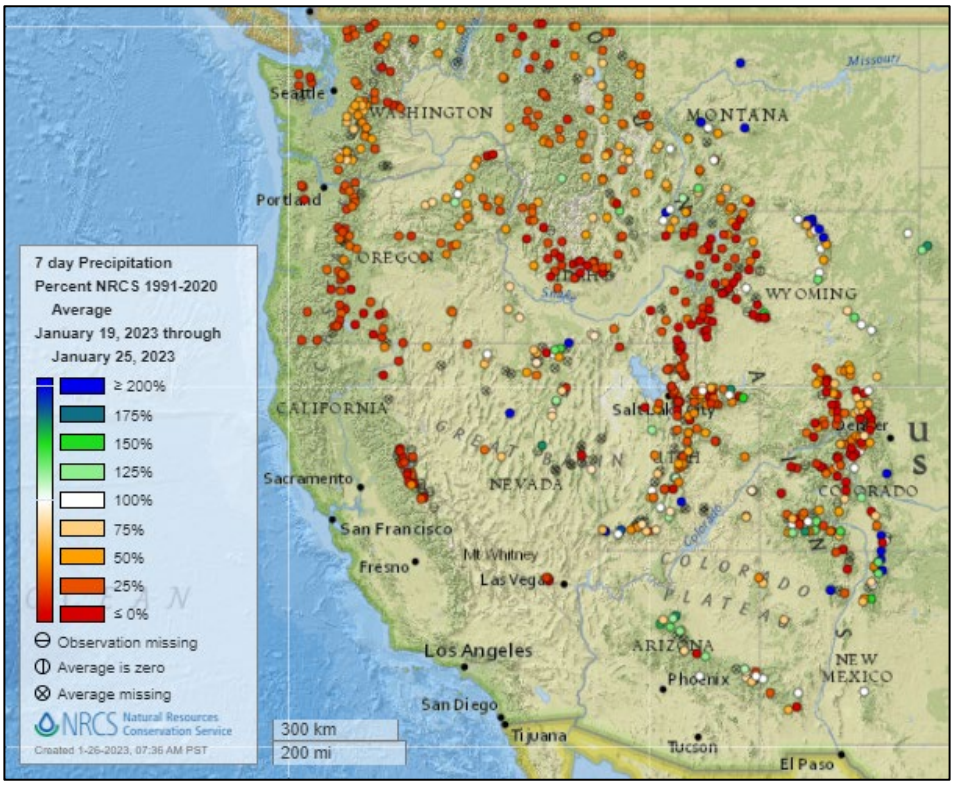
Current Snow Depth, National Weather Service Snow Analysis

Source: NOAA NWS National Operational Hydrologic Remote Sensing Center



Precipitation

Last 7 Days, NRCS SNOTEL Network

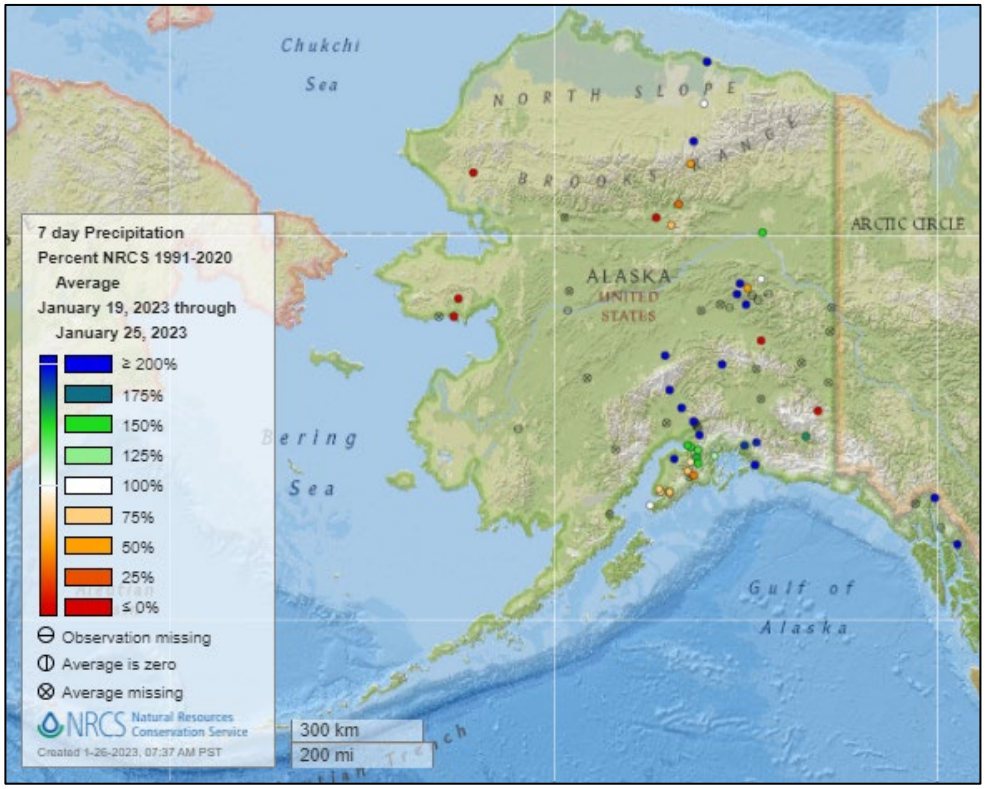


[7-day precipitation percent of average map]

See also:
[7-day total precipitation values (inches) map]

[Alaska 7-day precipitation percent of average map]

See also:
[Alaska 7-day total precipitation values (inches) map]

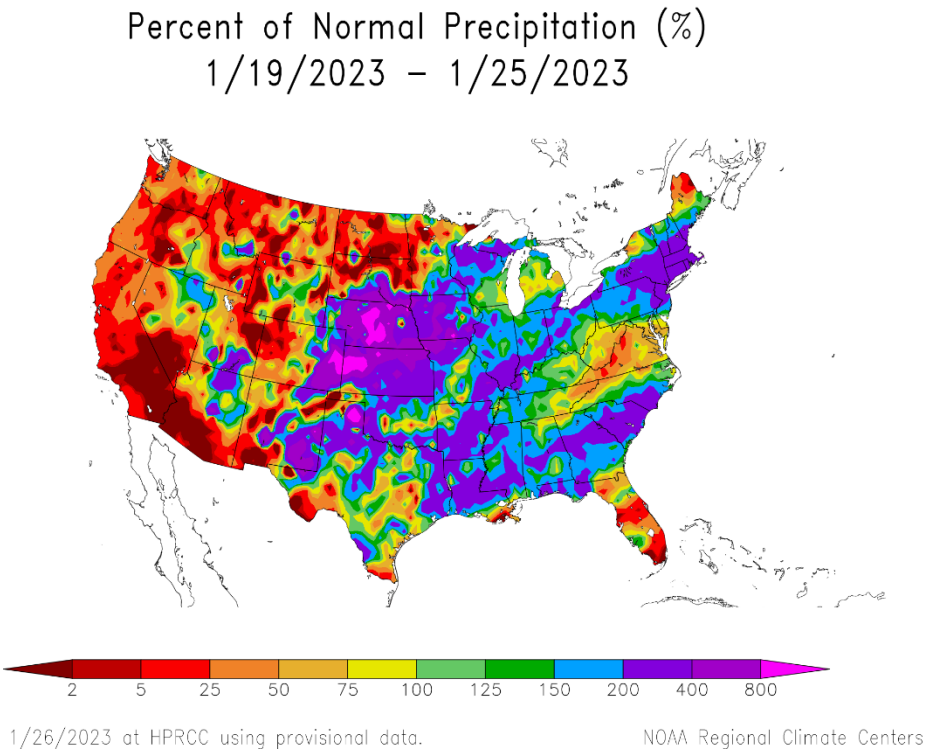


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

7-day precipitation percent of normal map for the continental U.S.

See also: 7-day total precipitation values (inches) map

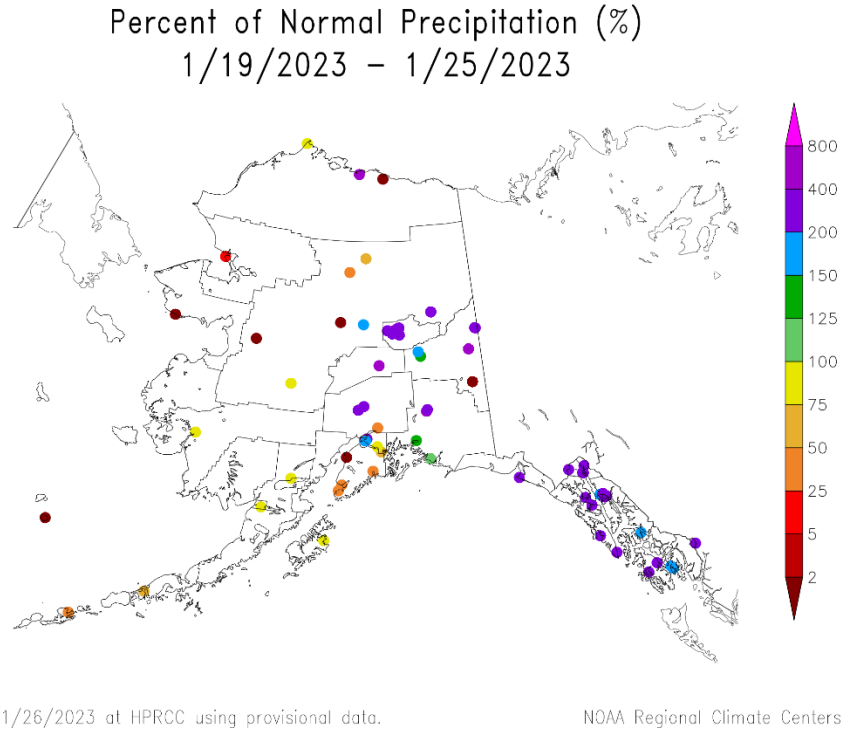


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

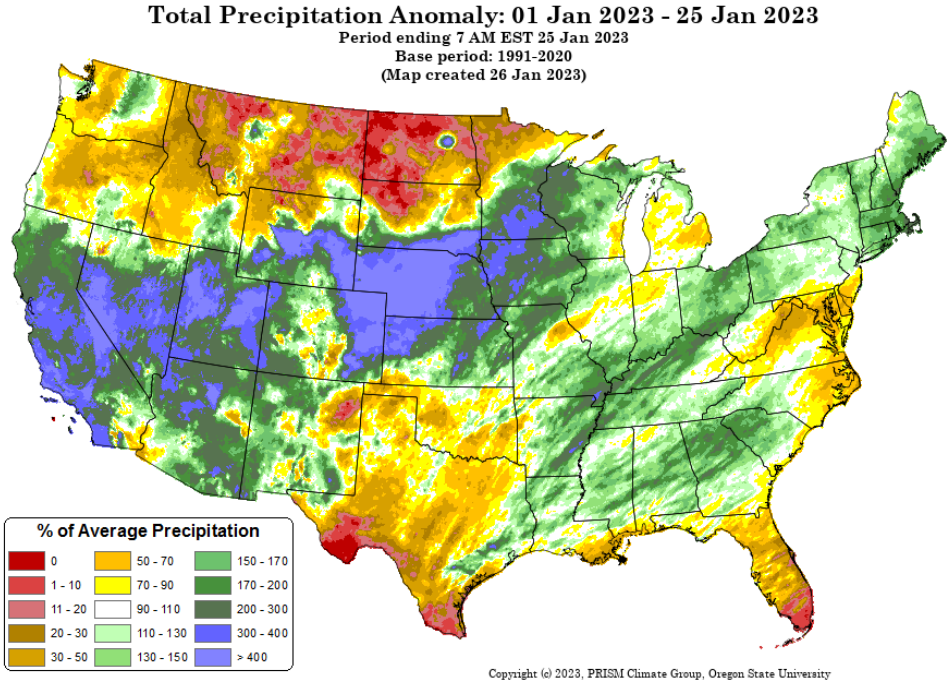
7-day precipitation percent of normal map for Alaska.

See also: 7-day total precipitation values (inches) map



Month-to-Date, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

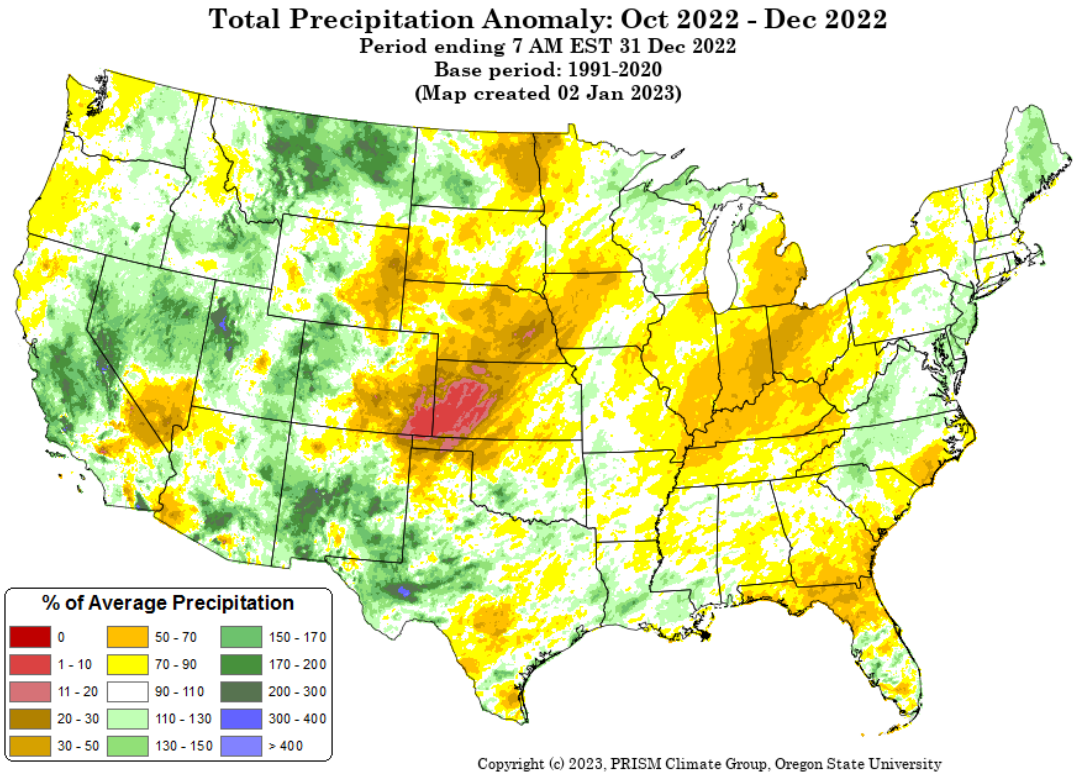


Month-to-date national total precipitation anomaly map

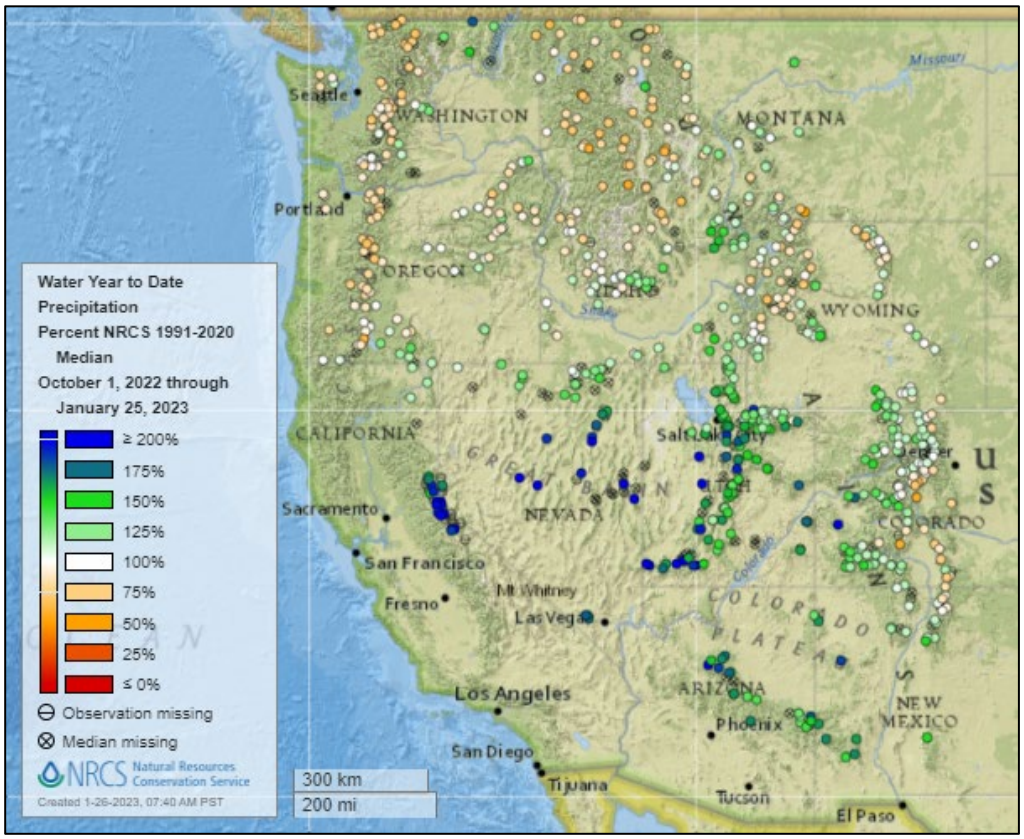
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

October through December 2022 precipitation anomaly map



Water Year-to-Date, NRCS SNOTEL Network



[2023 water year-to-date precipitation percent of median map]

See also:

[2023 water year-to-date precipitation percent of average map]

[2023 water year-to-date precipitation values (inches) map]

[Alaska 2023 water year-to-date precipitation percent of median map]

See also:

[Alaska 2023 water year-to-date precipitation percent of average map]

[Alaska 2023 water year-to-date precipitation values (inches) map]

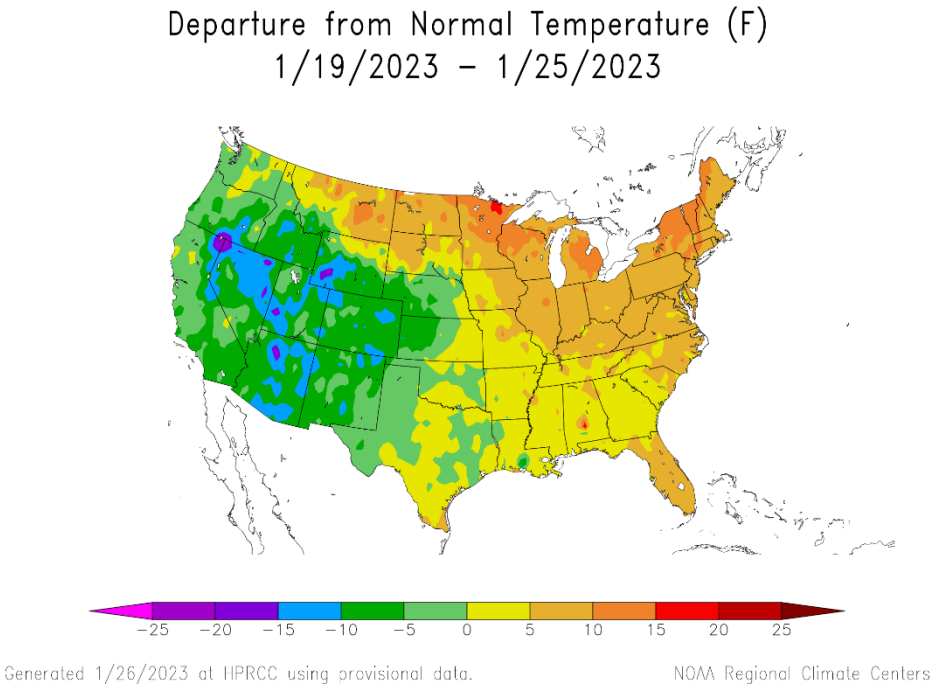
Temperature

Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

7-day temperature anomaly map for the contiguous U.S.

See also: 7-day temperature (° F) map

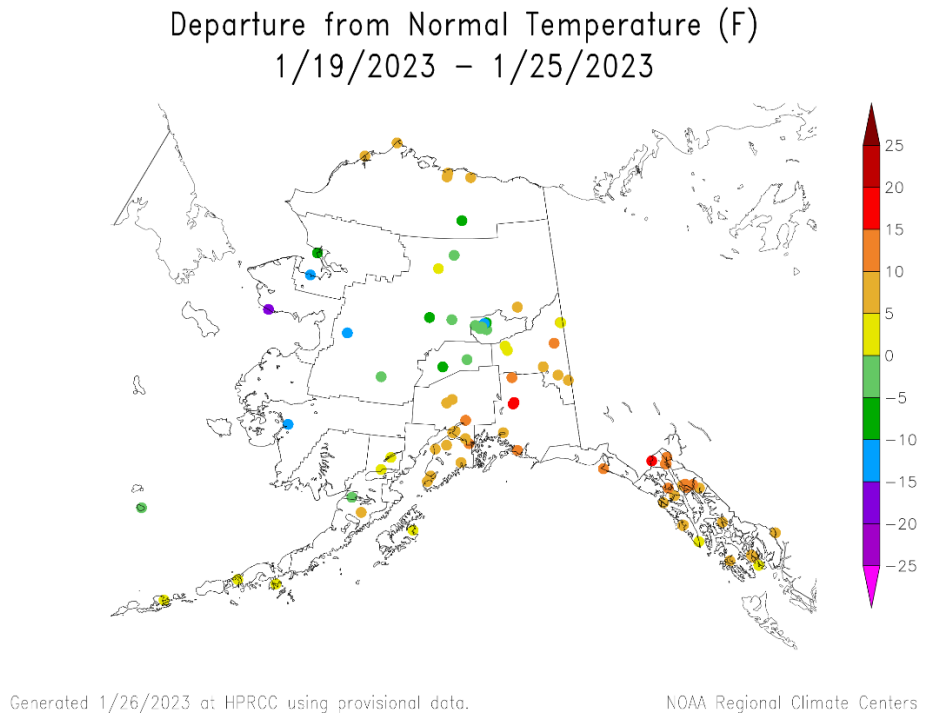


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

7-day temperature anomaly map for Alaska.

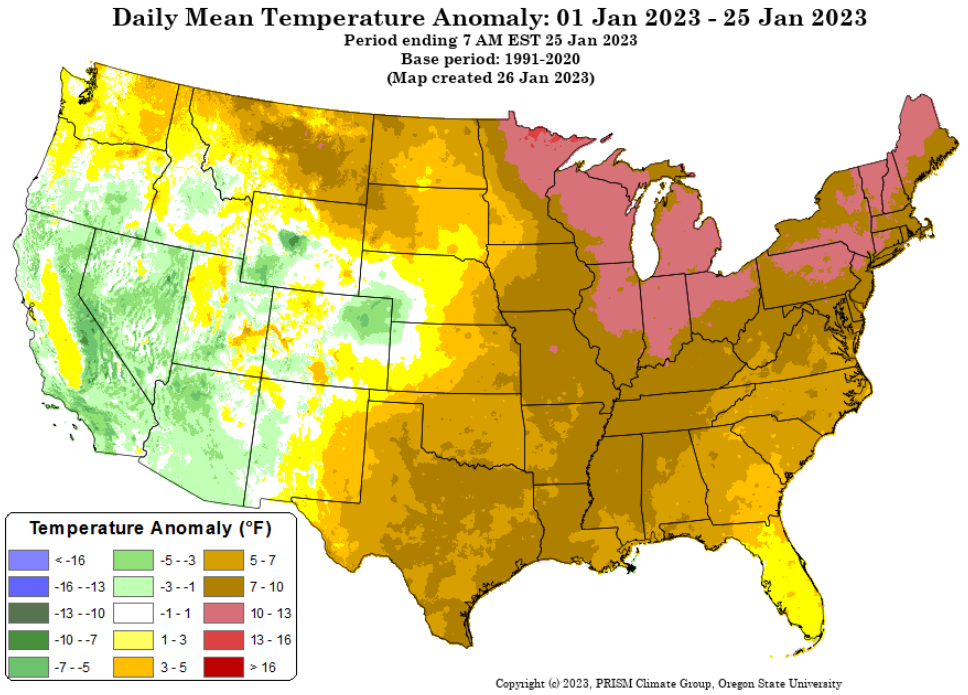
See also: 7-day temperature (° F) map



Month-to-Date, All Available Data Including SNOTEL and NWS Networks

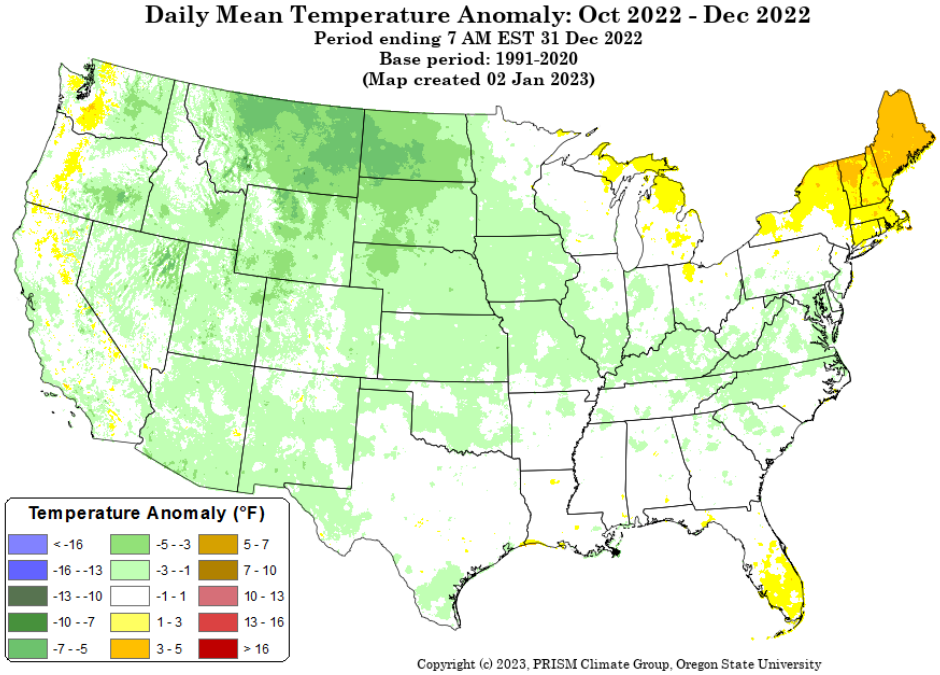
Source: PRISM

[Month-to-date national daily mean temperature anomaly map]



Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

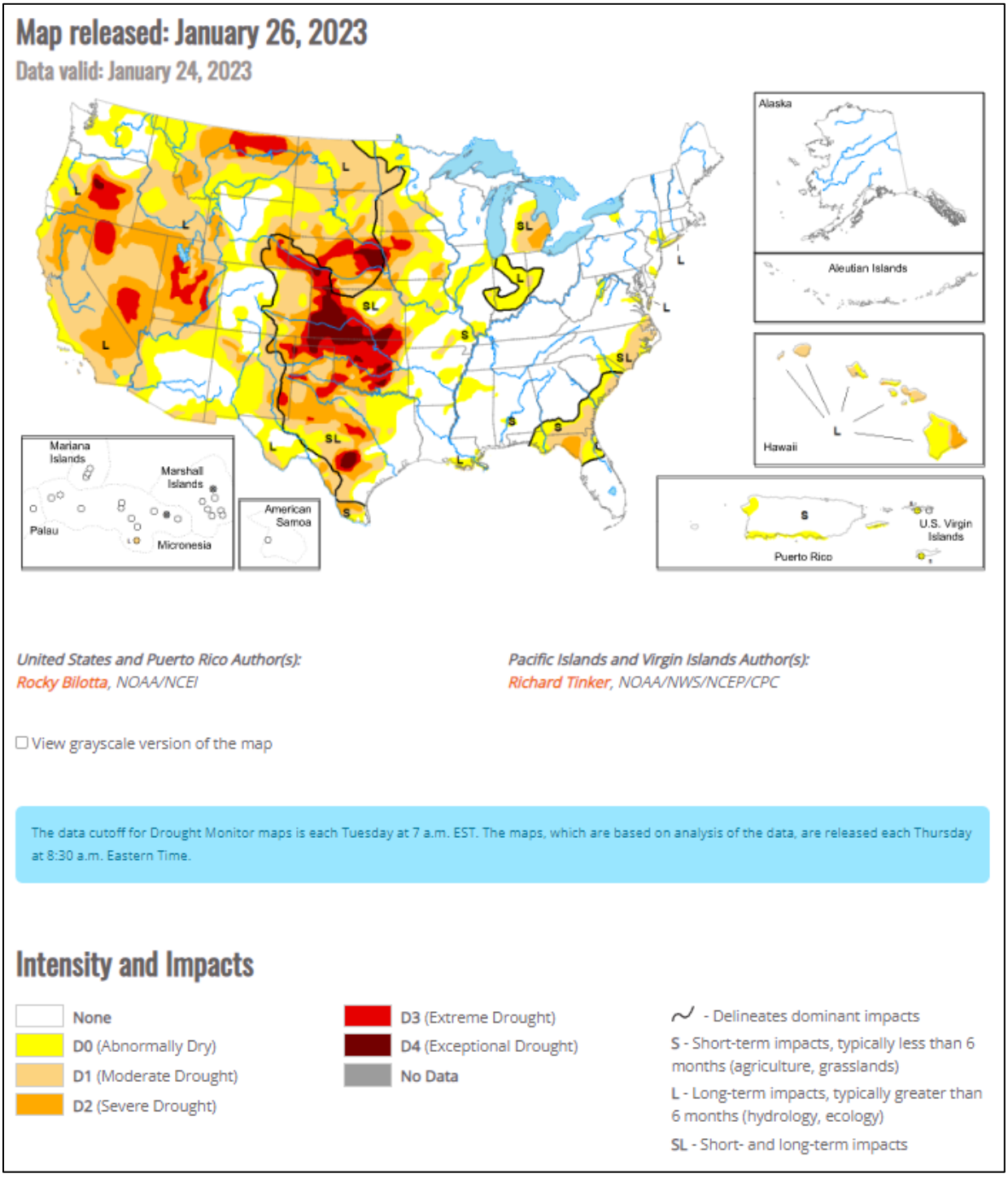


[October through December 2022 daily mean temperature anomaly map]

Drought

U.S. Drought Monitor
Source: National Drought Mitigation Center

U.S. Drought Portal
Source: NOAA



Current National Drought Summary, January 26, 2023

Source: National Drought Mitigation Center

“Over the past few weeks, a series of atmospheric rivers brought significant amounts of rain and snow across parts of the West leading to improvements in soil moisture, streamflow, reservoirs levels and snowpack. This above-normal precipitation led to abnormal dryness and drought improvements in California, the Pacific Northwest, Great Basin and the central Rockies. Despite these improvements, long-term drought persists across much of the West. In the eastern United States, winter storms brought cooler temperatures and above-normal precipitation from the Mississippi Valley to the East Coast, leading to abnormal dryness and drought improvements in the Midwest, Northeast and Southeast. Meanwhile, persistent dryness led to the expansion of drought in the southern Plains and northern Rockies, while much of the Southern and High Plains regions remain largely unchanged.”

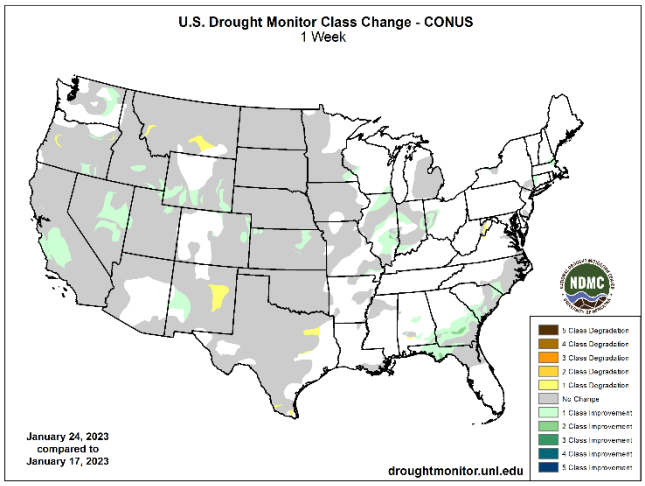
National Drought Summary – Looking Ahead

“The National Weather Service Weather Prediction Center has forecasted a winter storm (valid January 25 – January 26) that will track through the eastern Great Lakes overnight. Bands of heavy snow are expected over northern New York and New England. A second area of low pressure will develop over Southern New England and move into the Gulf of Maine by early Thursday where over 10” of snow is forecasted for interior locations. Moving into next week (valid January 28 – February 1), the forecast calls persistently cold temperatures from the northern/central Rockies into the Upper Midwest, while the West will trend colder. the Southeast on the warmer side of normal, especially after the weekend. At 8 – 14 days, the Climate Prediction Center Outlook (valid February 2 – February 8) calls for below-normal temperatures over most of the country except for the Southeast and Alaska. Parts of the Northeast, southern Southwest and central Alaska can expect near-normal temperatures, while parts of the Southeast and western Alaska have the greatest probability of warmer-than-normal temperatures. Most of the U.S. can expect near- to slightly above-normal precipitation with the probability of near-normal precipitation occurring from the northern Plains to the Northeast and from southern California to the southern Plains, including western and southeast Alaska. Southern parts of the Southwest and Alaska have increased odds for below-normal precipitation.”

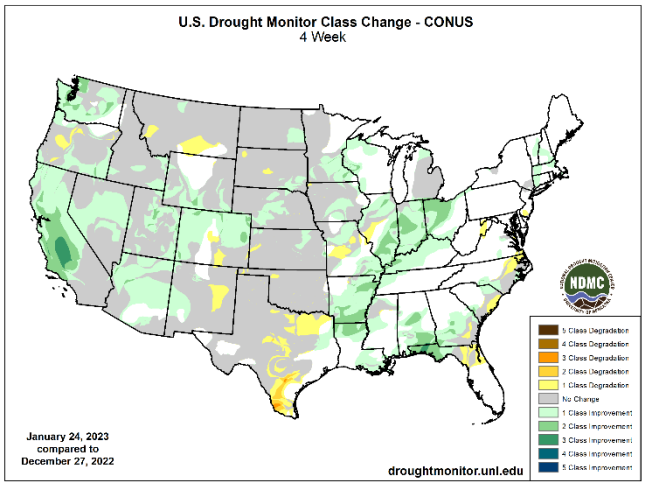
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

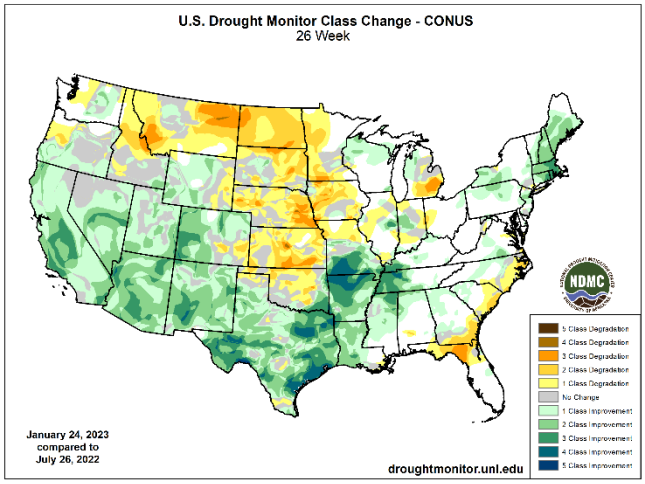
1 Week



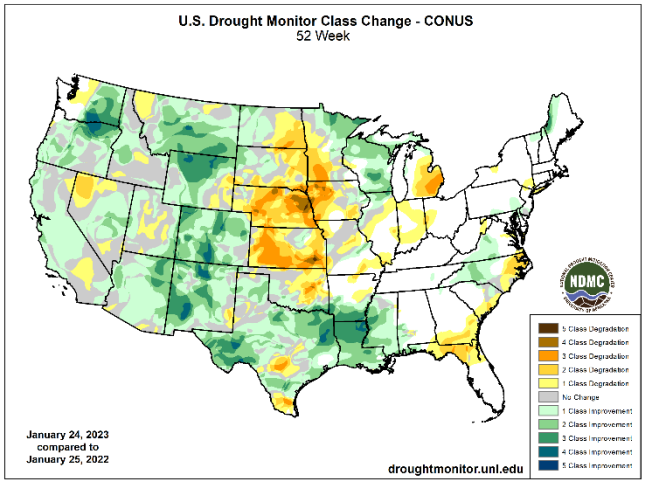
1 Month



6 Months



1 Year



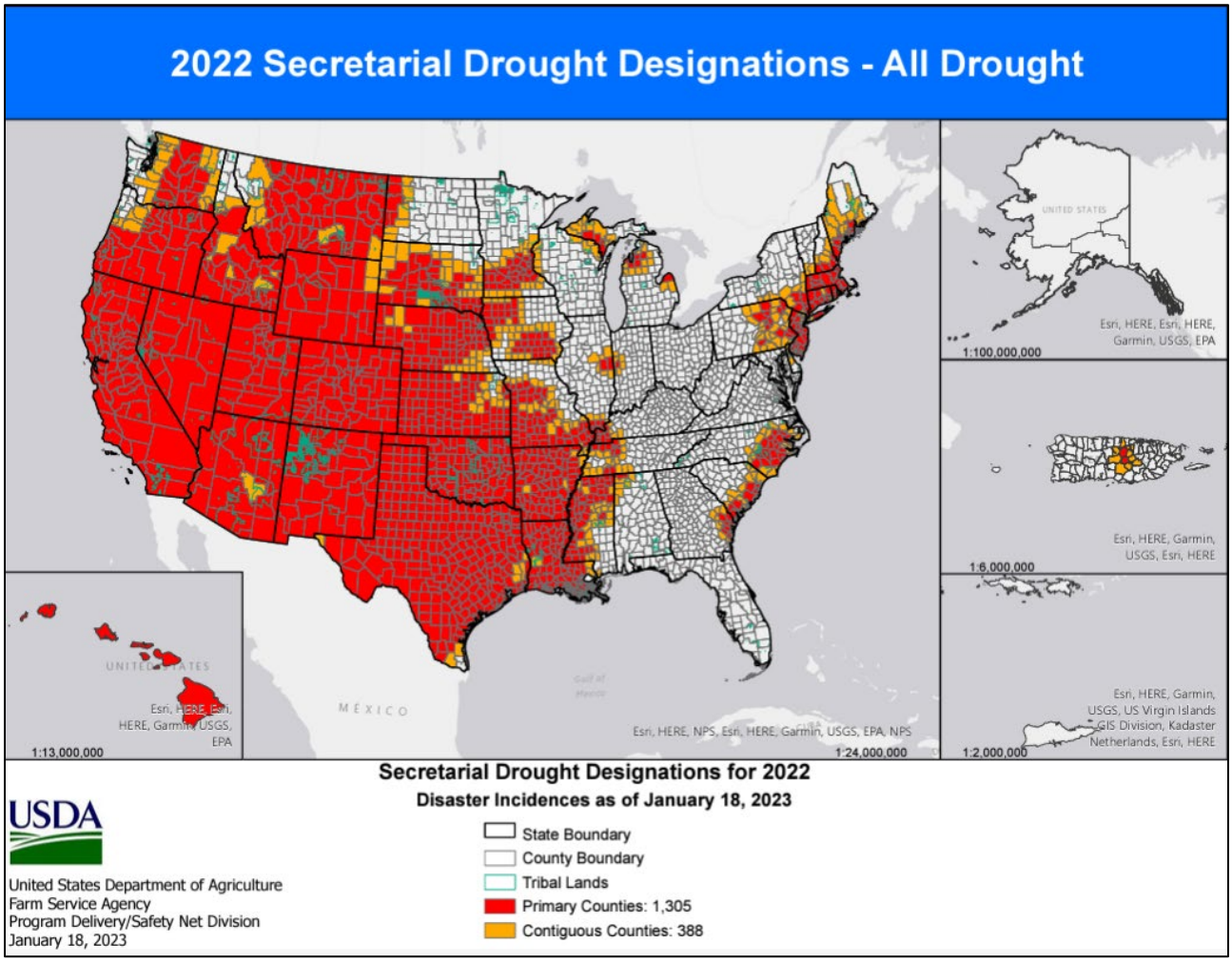
Changes in drought conditions over the last 12 months for the contiguous U.S.

Highlighted Drought Resources

- Drought Impact Reporter
- Quarterly Regional Climate Impacts and Outlook
- U.S. Drought Portal Indicators and Monitoring
- U.S. Population in Drought, Weekly Comparison
- USDA Disaster and Drought Information

USDA Secretarial Drought Designations

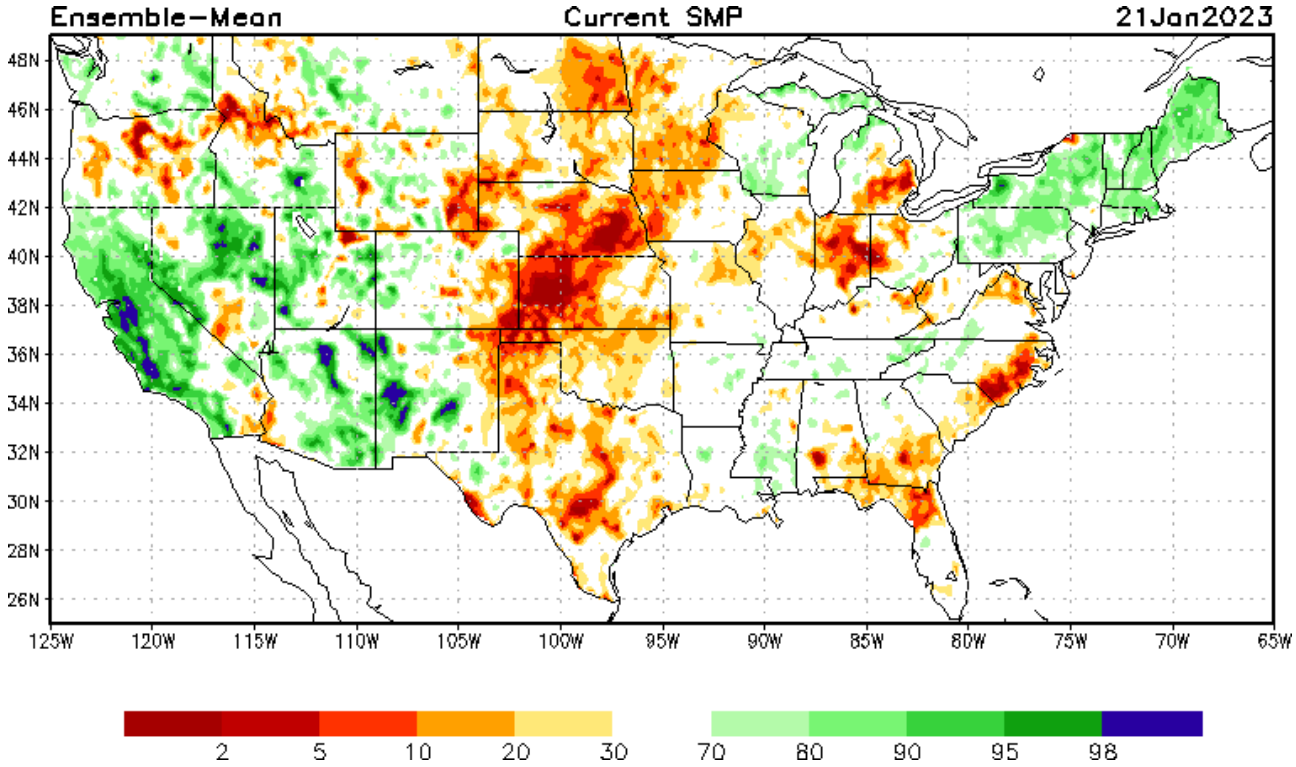
Source: USDA Farm Service Agency



Other Climatic and Water Supply Indicators

Soil Moisture

Source: NOAA National Centers for Environmental Prediction

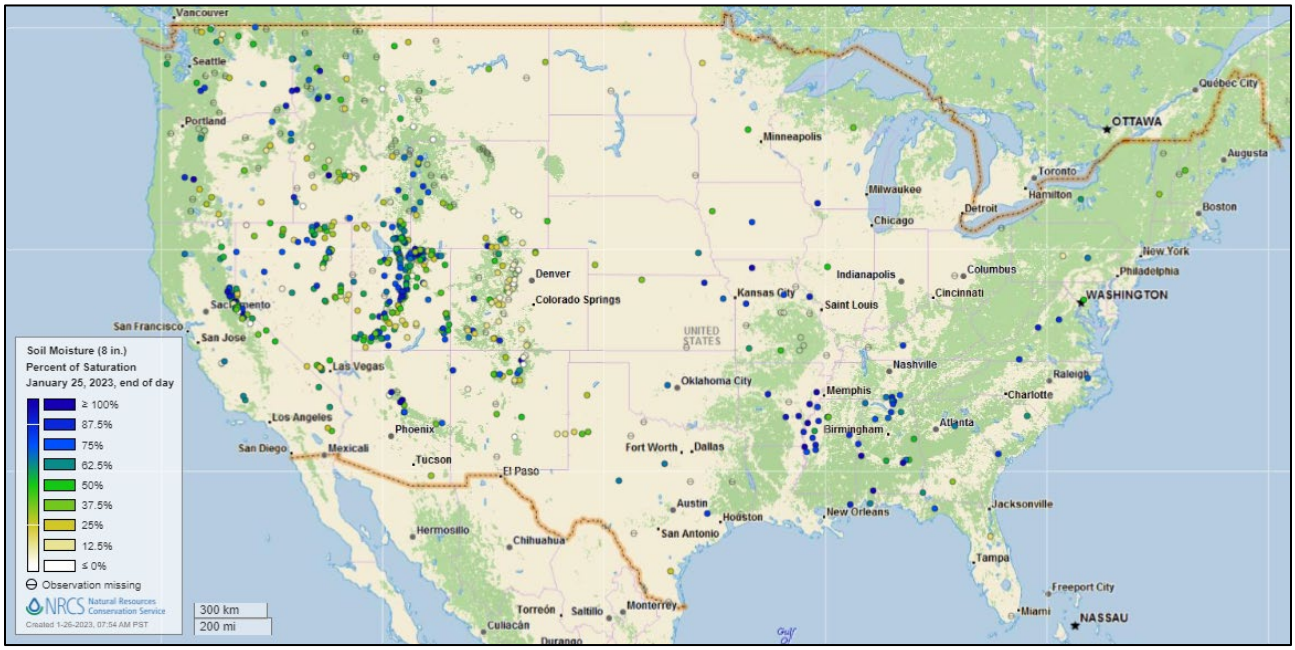


Modeled soil moisture percentiles as of January 21, 2023

Soil Moisture Percent of Saturation

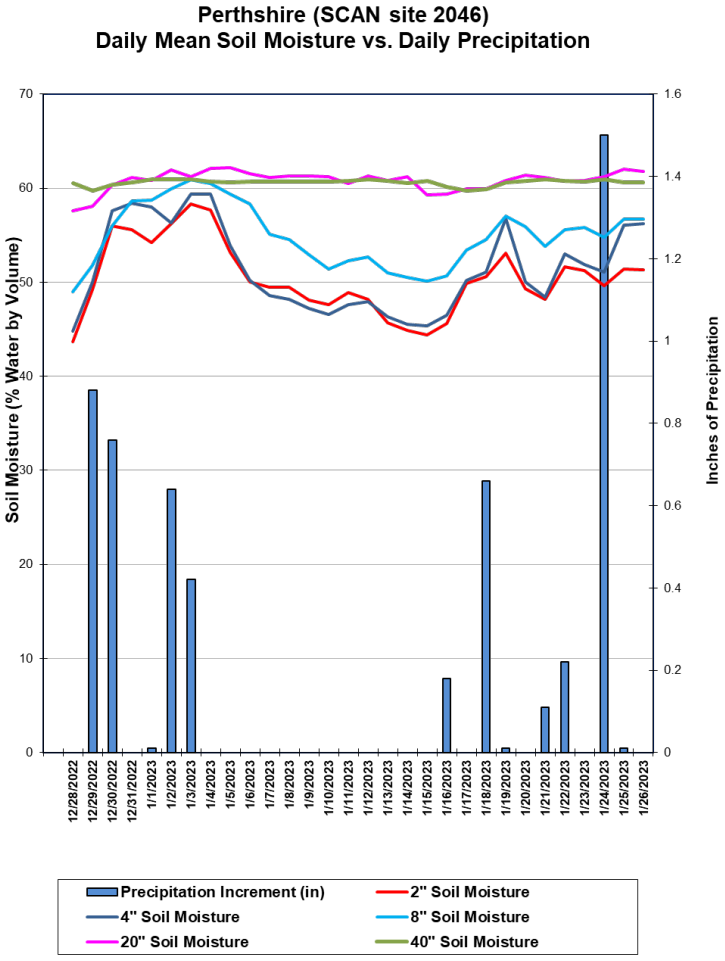
Source: NRCS SNOTEL and Soil Climate Analysis Network (SCAN)

U.S. soil moisture map at 8-inch depth:



Soil Moisture

Source: NRCS Soil Climate Analysis Network (SCAN)



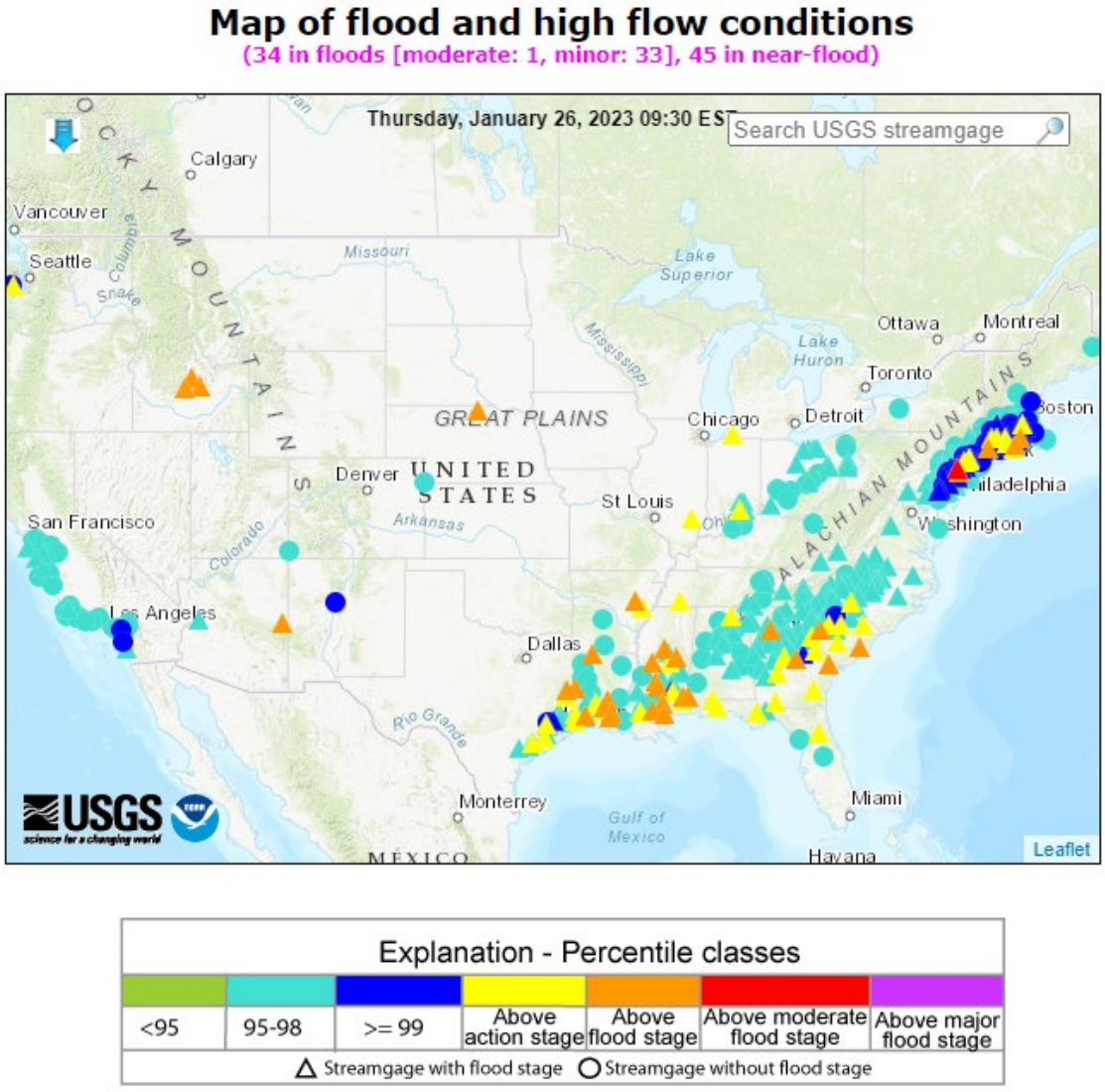
This chart shows the precipitation and soil moisture for the last 30 days at the Perthshire SCAN site in Mississippi. Storm activity on January 24 brought 1.5 inches of precipitation to the station with the -2, -4, -8, and -20-inch soil sensors reporting an increase in soil moisture. Total precipitation for the 30-day period was 5.4 inches.

Soil Moisture Data Portals

- USCRN Soil Moisture
- National Soil Moisture Network
- NOAA Climate Prediction Center Soil Moisture
- NASA Grace

Streamflow, Drought, Flood, and Runoff

Source: U.S. Geological Survey [WaterWatch Streamflow Map]



[WaterWatch: Streamflow, drought, flood, and runoff conditions]

Reservoir Storage

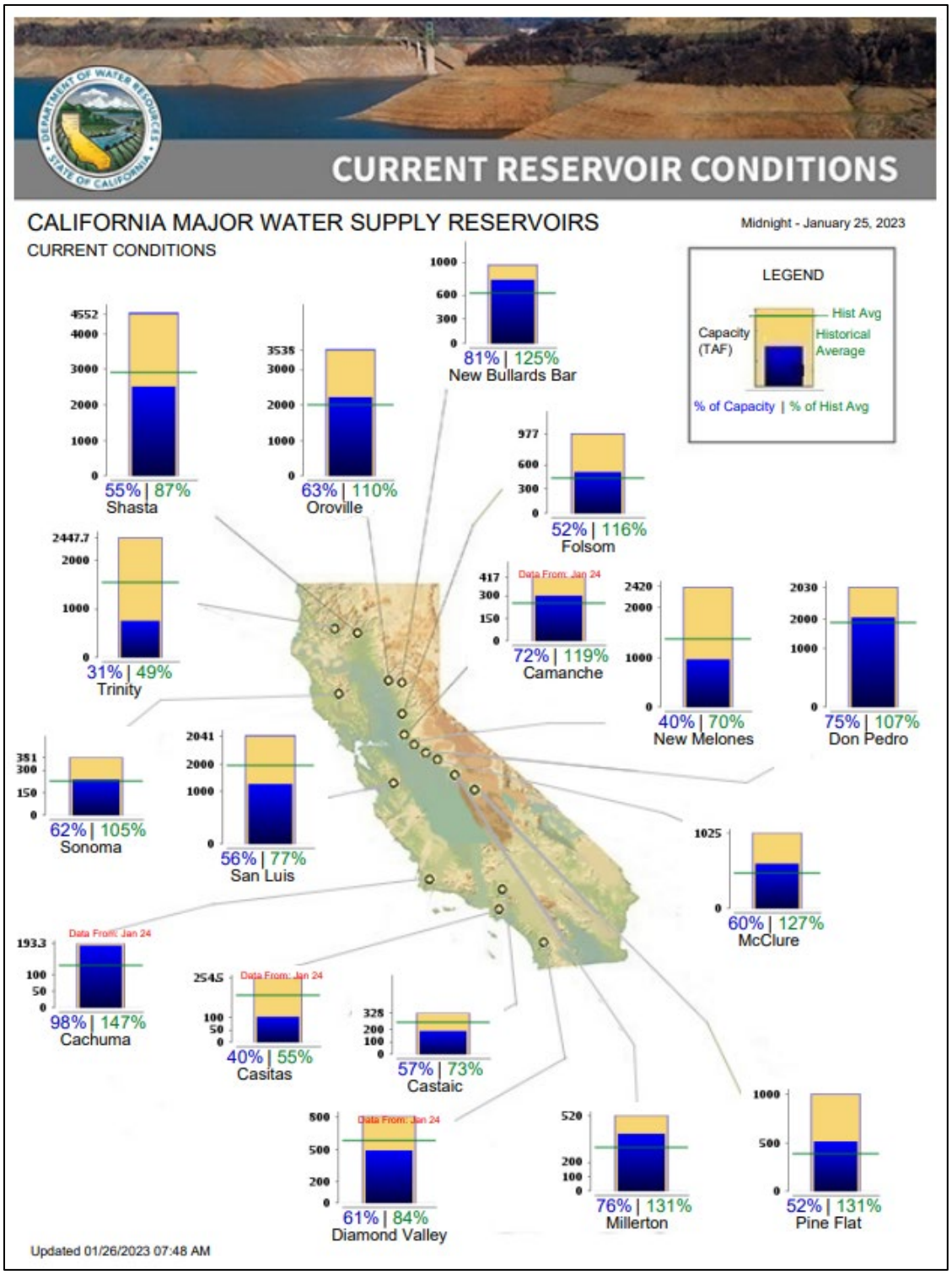
Hydromet Teacup Reservoir Depictions

Source: U.S. Bureau of Reclamation

- [Upper Colorado]
- [Pacific Northwest/Snake/Columbia]
- [Sevier River Water, Utah]
- [Upper Missouri, Kansas, Oklahoma, Texas]

Current California Reservoir Conditions

Source: California Department of Water Resources



Current California Reservoir Conditions

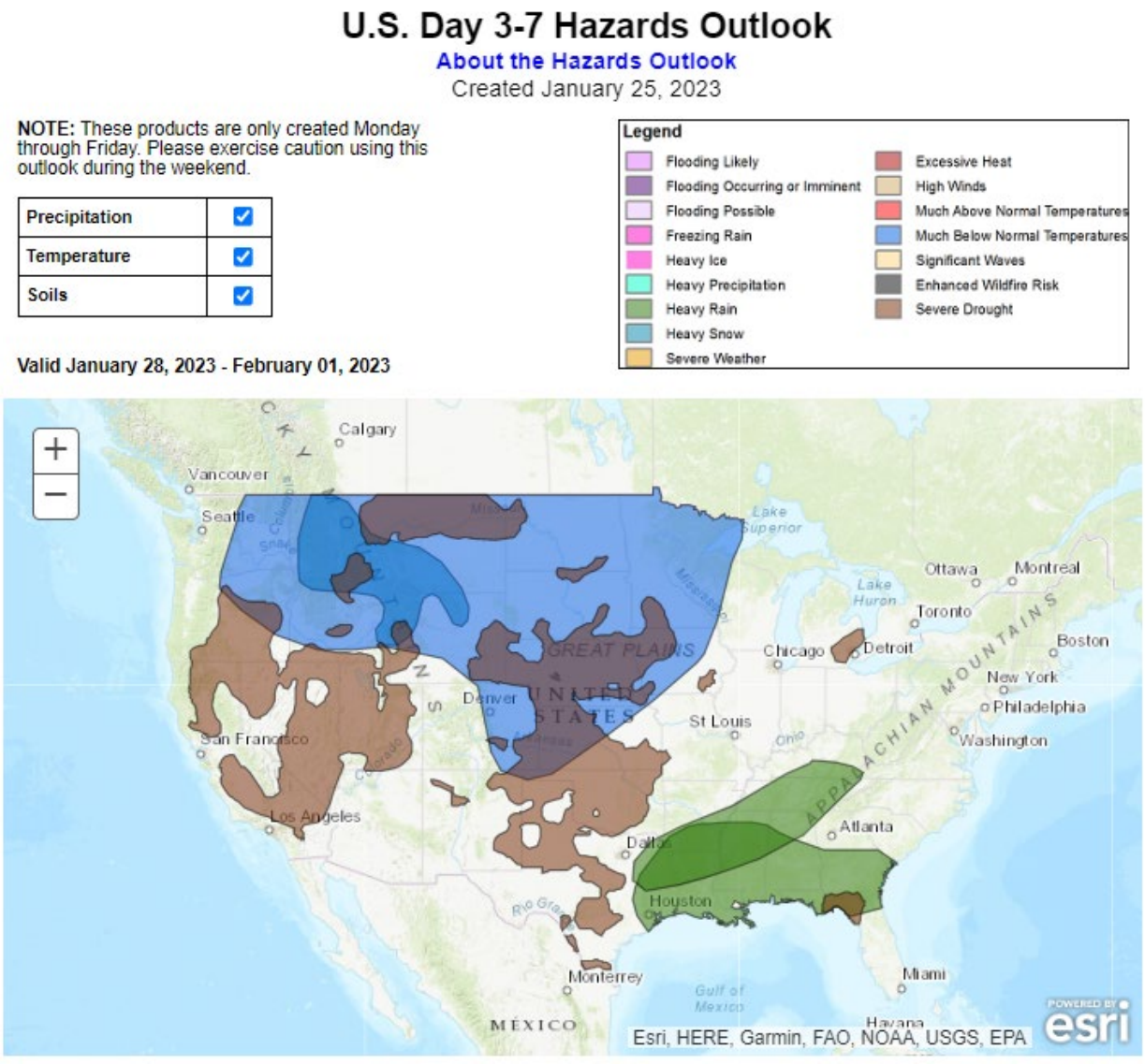
Agricultural Weather Highlights

Author: Brad Rippey, Agricultural Meteorologist, USDA/OCE/WAOB

National Outlook, Thursday January 26, 2023: "During the next couple of days, precipitation (scattered snow showers) will be confined to the northern U.S. During the weekend, however, heavy showers and locally severe thunderstorms will return across the South, with rainfall possibly reaching 1 to 3 inches or more. Meanwhile, increasingly cold air will settle across the Plains, Midwest, and West, with temperatures by early next week, plunging below 0°F as far south as the central High Plains. Temperatures may fall to -20°F or lower from the northern Rockies to near Lake Superior. Colder air will also invade the West, with sub-zero temperatures expected across much of the interior Northwest and sub-freezing temperatures likely to develop in California's Central Valley. The NWS 6- to 10-day outlook for January 31 – February 4 calls for the likelihood of below-normal temperatures along and northwest of a line from the Texas coast to northern New England, while warmer-than-normal weather will be confined to the mid-Atlantic and Southeastern States. Meanwhile, near- or above-normal precipitation across most of the country should contrast with drier-than-normal conditions in parts of the north-central U.S. and southern sections of the Rockies and High Plains."

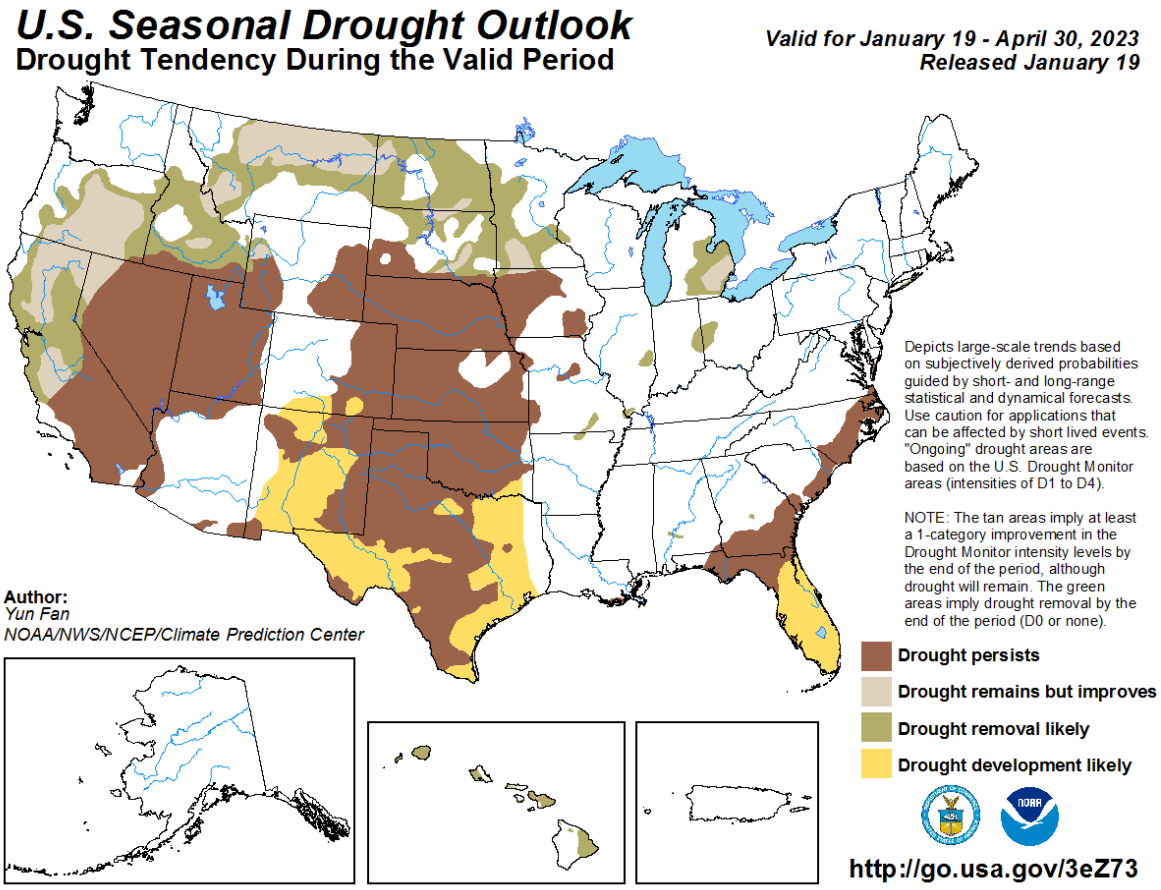
Weather Hazards Outlook: January 28 – February 01, 2023

Source: NOAA Weather Prediction Center



Seasonal Drought Outlook: January 19 – April 30, 2023

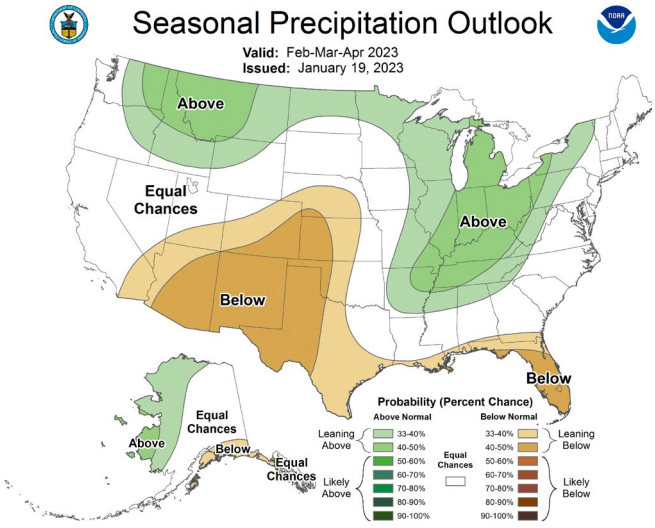
Source: National Weather Service



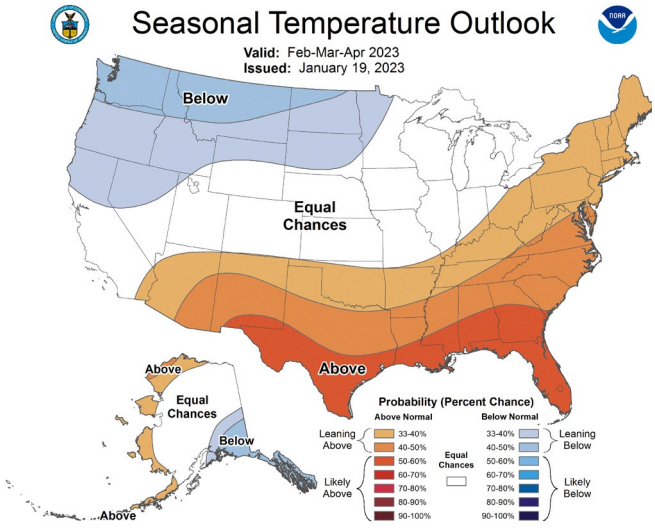
Climate Prediction Center Three-month Outlook

Source: National Weather Service

Precipitation



Temperature



February-March-April 2023 precipitation and temperature outlook summaries

More Information

The NRCS National Water and Climate Center publishes this weekly report. We welcome your feedback. If you have questions or comments, please contact us.