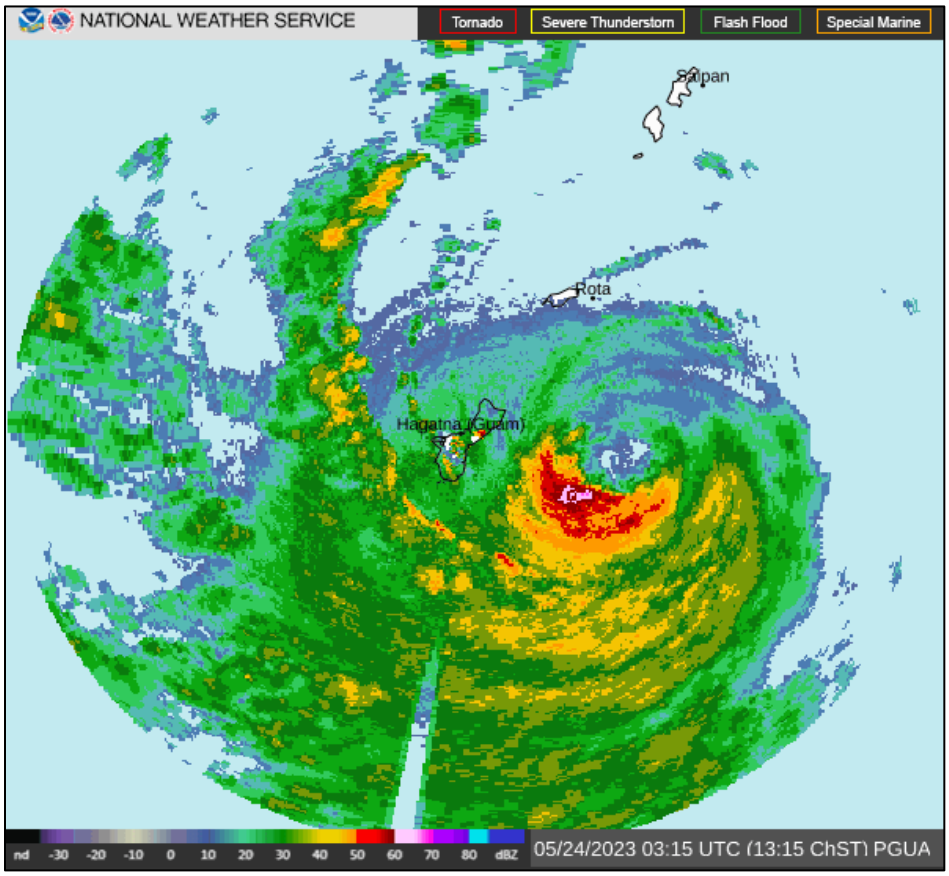
United States Department of Agriculture

Water and Climate Update

May 25, 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.

Typhoon Mawar whips across Guam

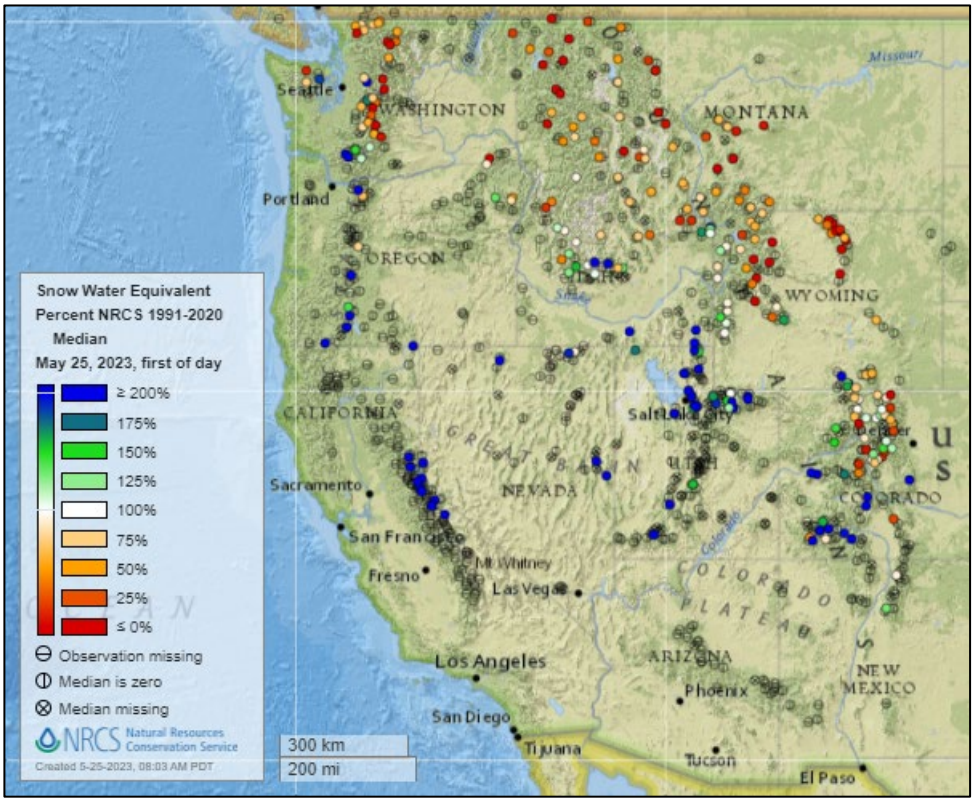


The strongest storm Guam has experienced in over two decades impacted the island on May 24. Typhoon Mawar brought sustained winds of up to 140 mph, gusts over 160 mph, and torrential rainfall. Although most residents were left with considerable flooding and loss of power after the event, damage from the typhoon was not as great as initially forecasted. The strength of Typhoon Mawar was equivalent to a category 4 hurricane that weakened just before making landfall, though it has intensified and upgraded to a super typhoon since leaving the island.

Related:

Typhoon Mawar Pounds Guam With High Winds, Knocking Out Power – The New York Times
Super Typhoon Mawar strengthens to the equivalent of a Category 5 Atlantic hurricane after lashing Guam – CNN
'We are at the crosshairs': Guam braces for direct hit from Super Typhoon Mawar - USA Today

Snow



[Snow water equivalent percent of median map]

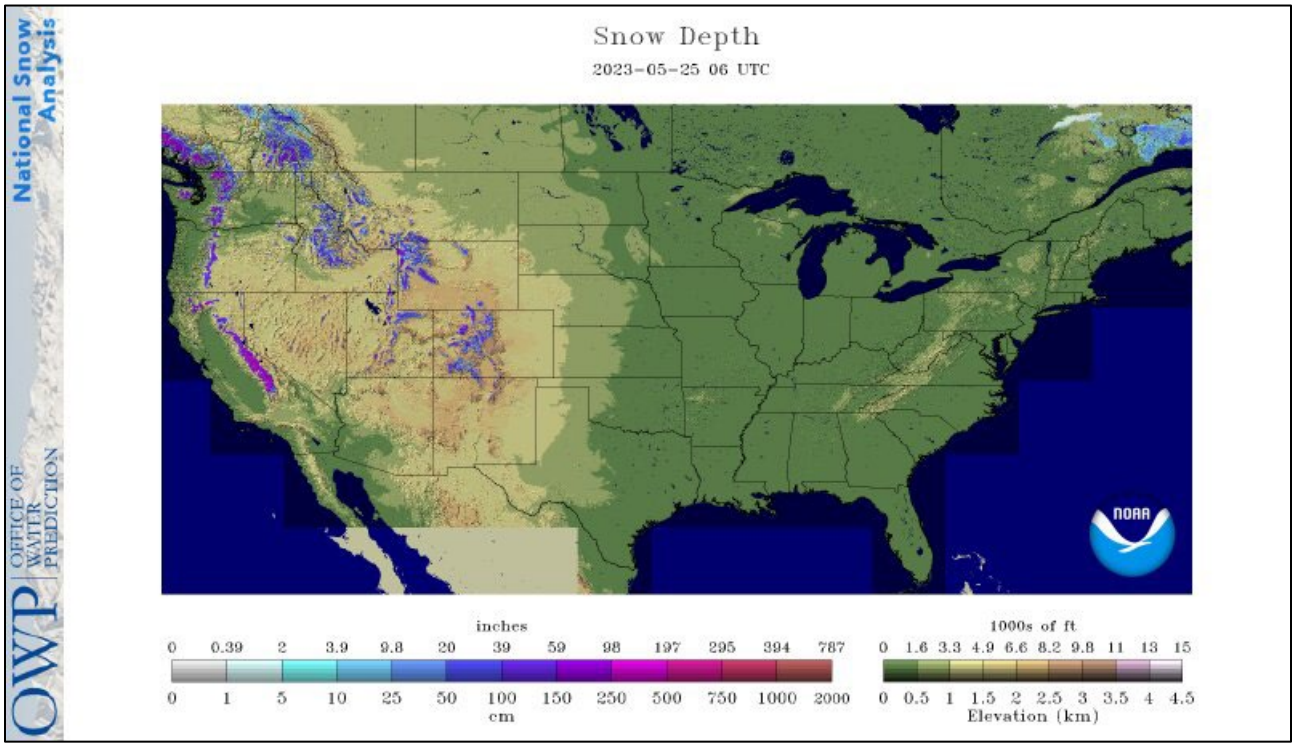
See also:
[Snow water equivalent values (inches) map]

[Alaska snow water equivalent percent of median map]

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

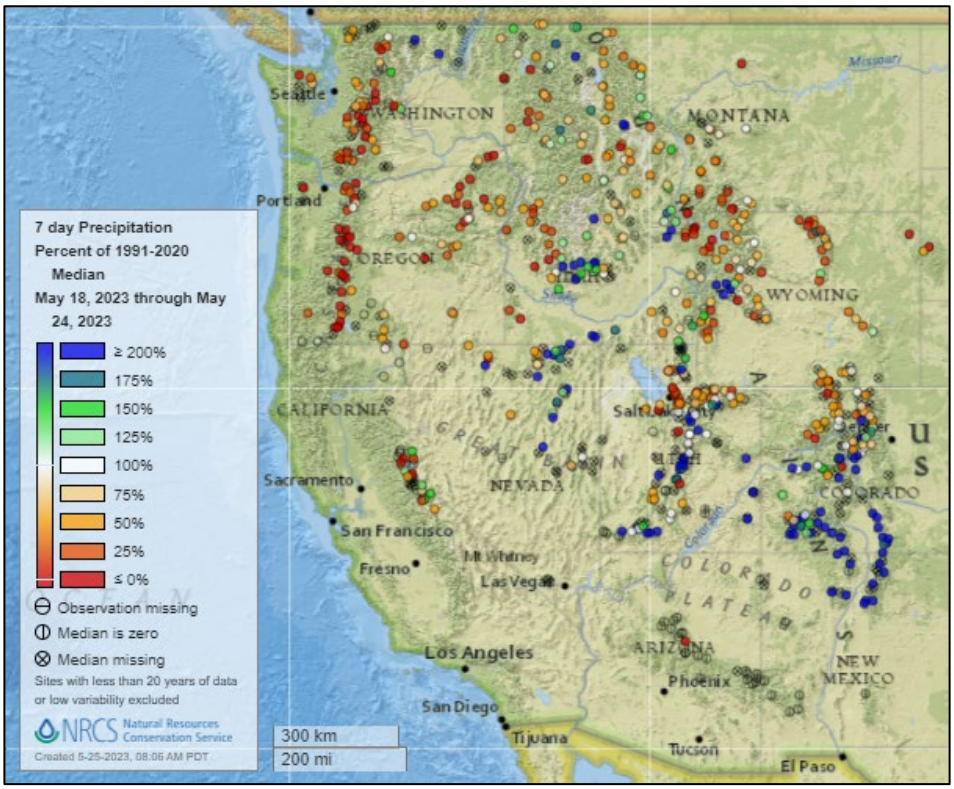
Current Snow Depth, National Weather Service Snow Analysis

Source: NOAA NWS National Operational Hydrologic Remote Sensing Center



Precipitation

Last 7 Days, NRCS SNOTEL Network



[7-day precipitation percent of median map]

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

[Alaska 7-day precipitation percent of median map]

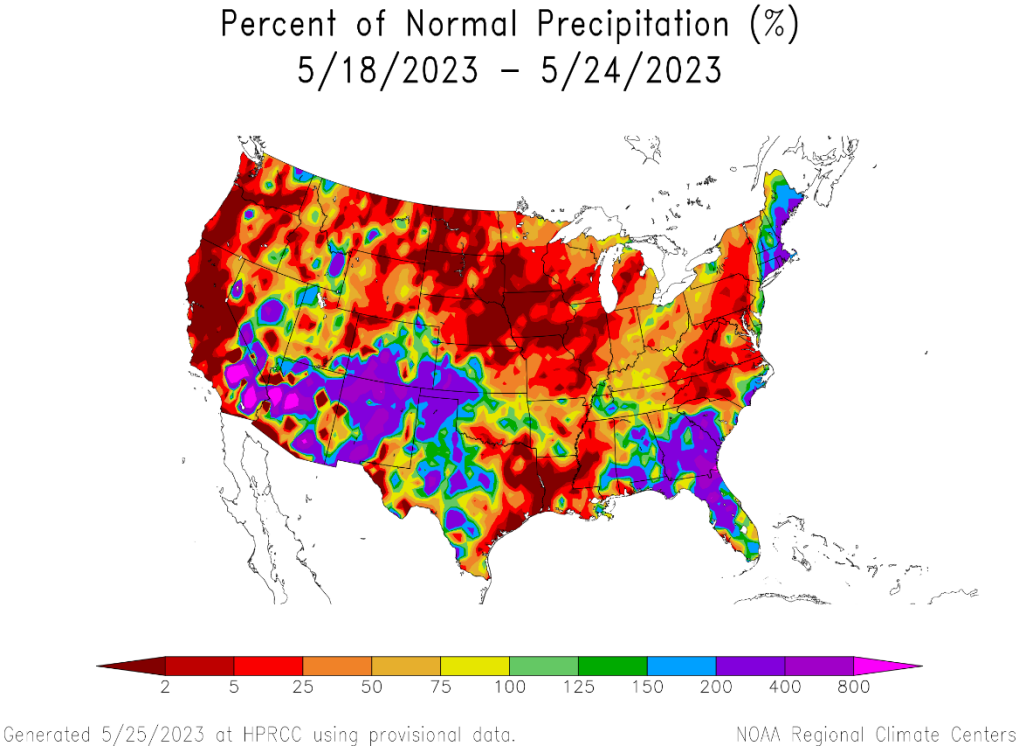
See also:
[Alaska 7-day total precipitation values (inches) map]

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](#)

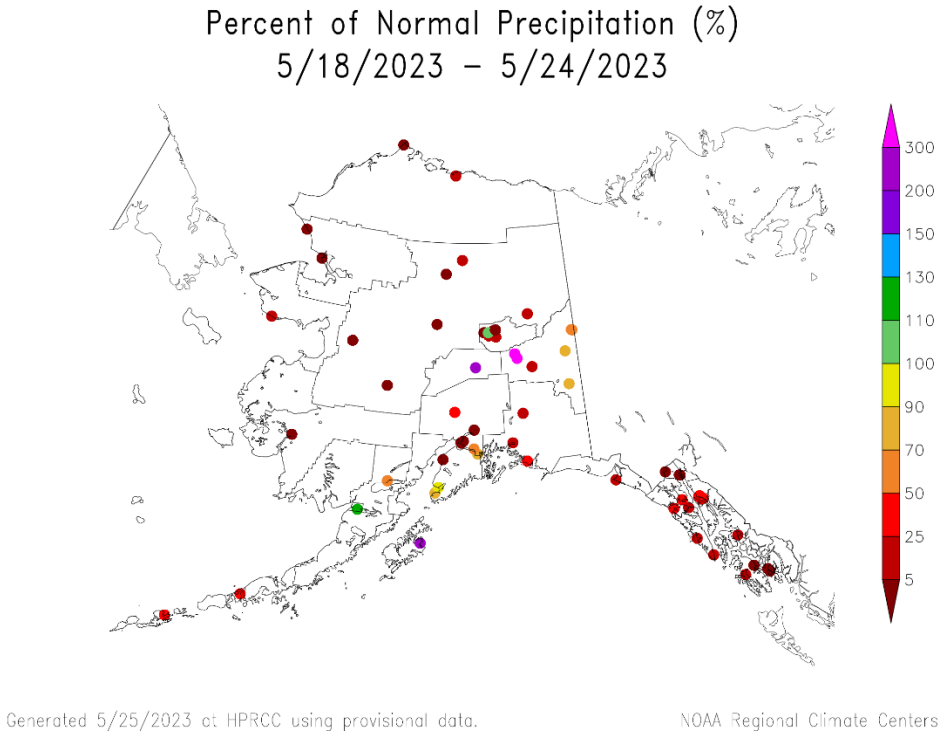


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

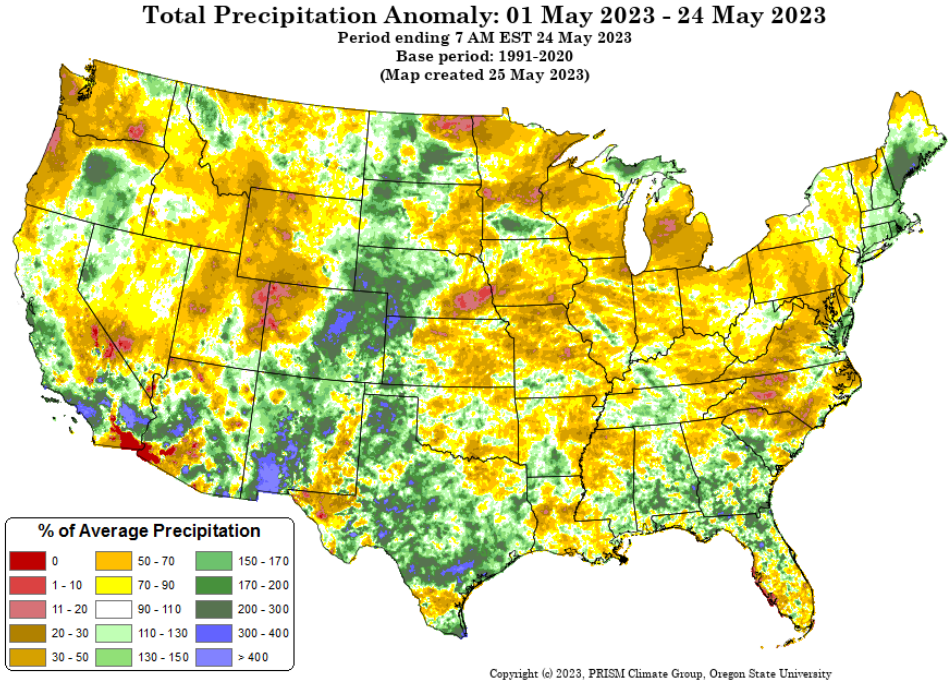
[7-day precipitation percent of normal map](#) for Alaska.

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



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

Source: PRISM

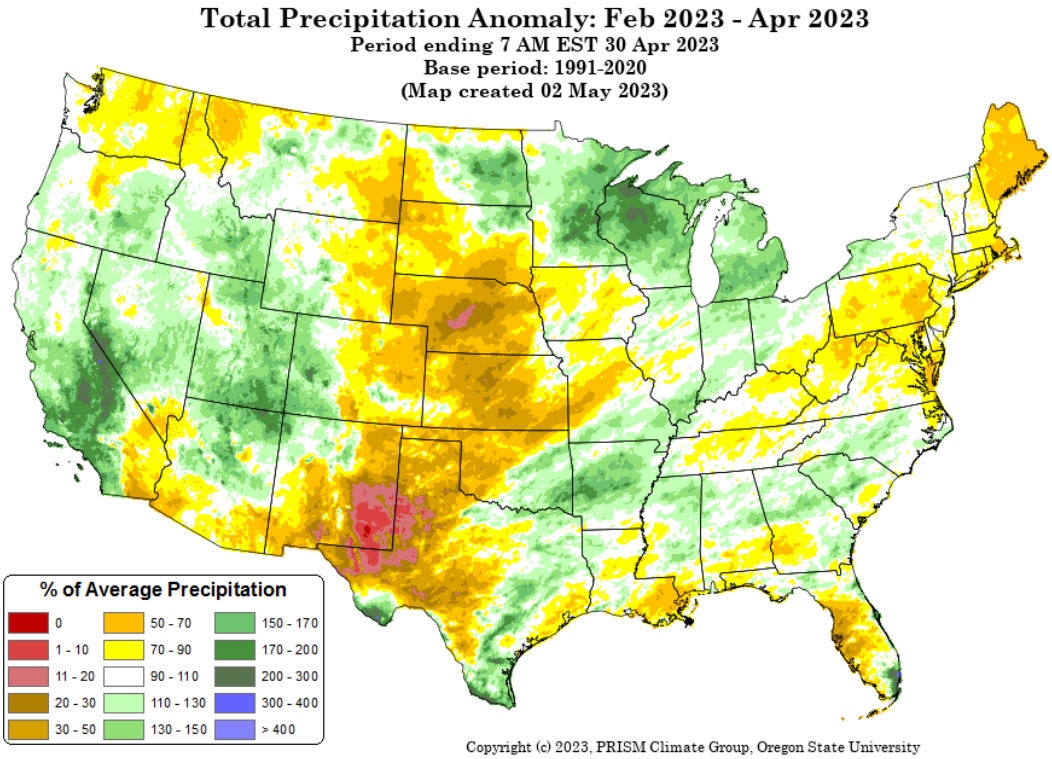


[Month-to-date national total precipitation anomaly map]

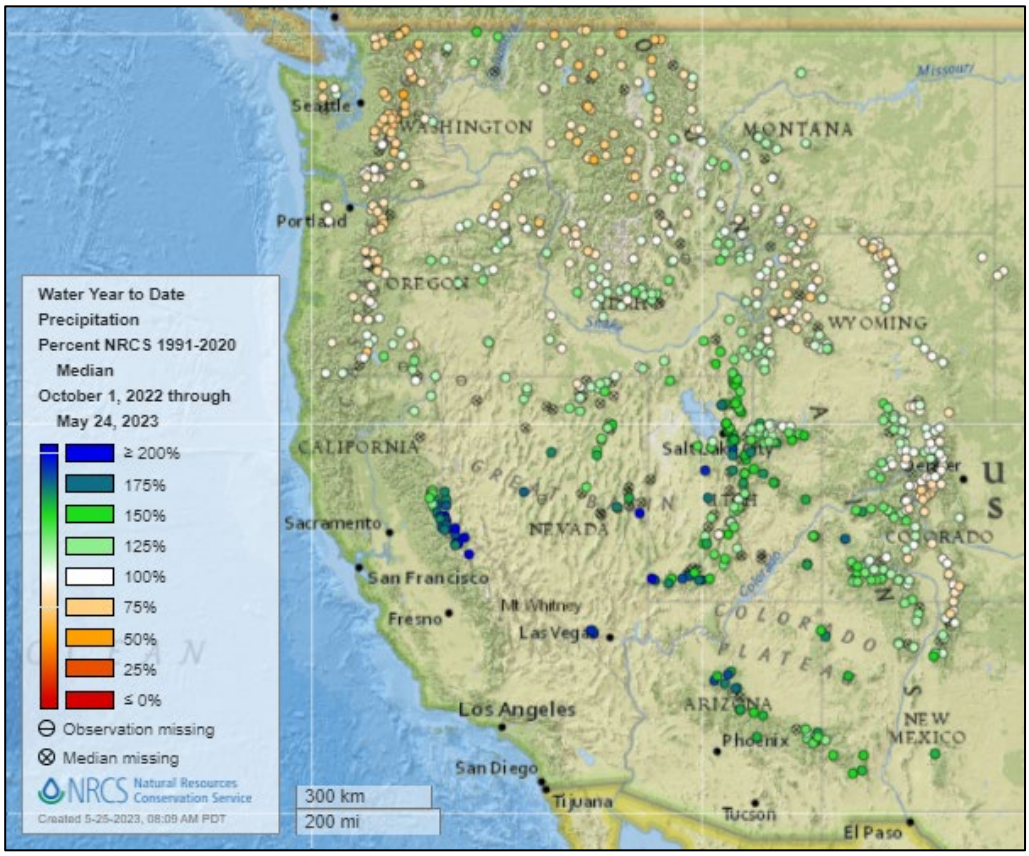
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

[February through April 2023 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]

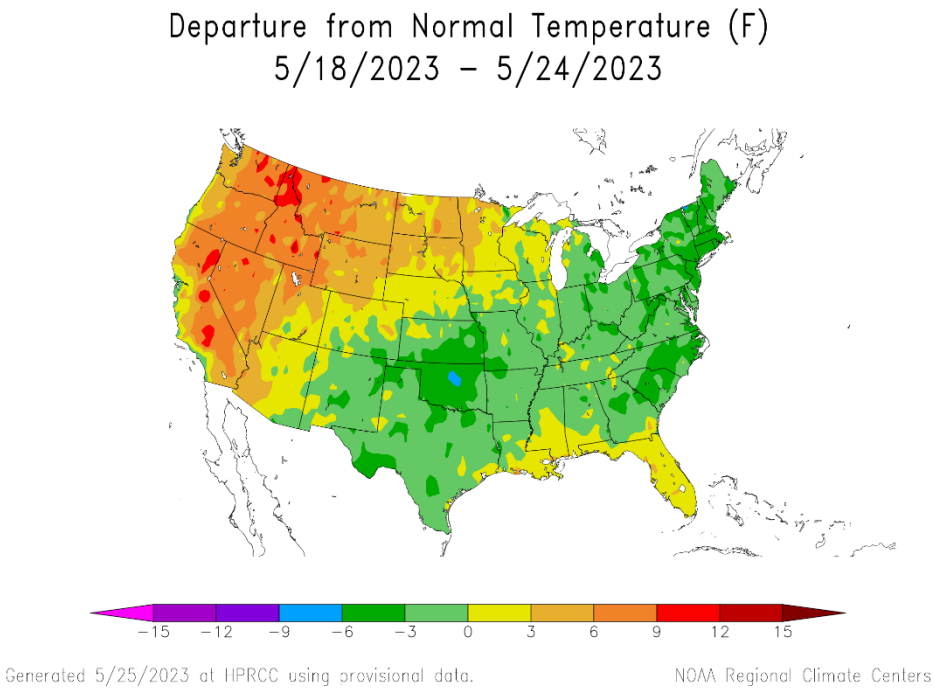
Temperature

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](#)

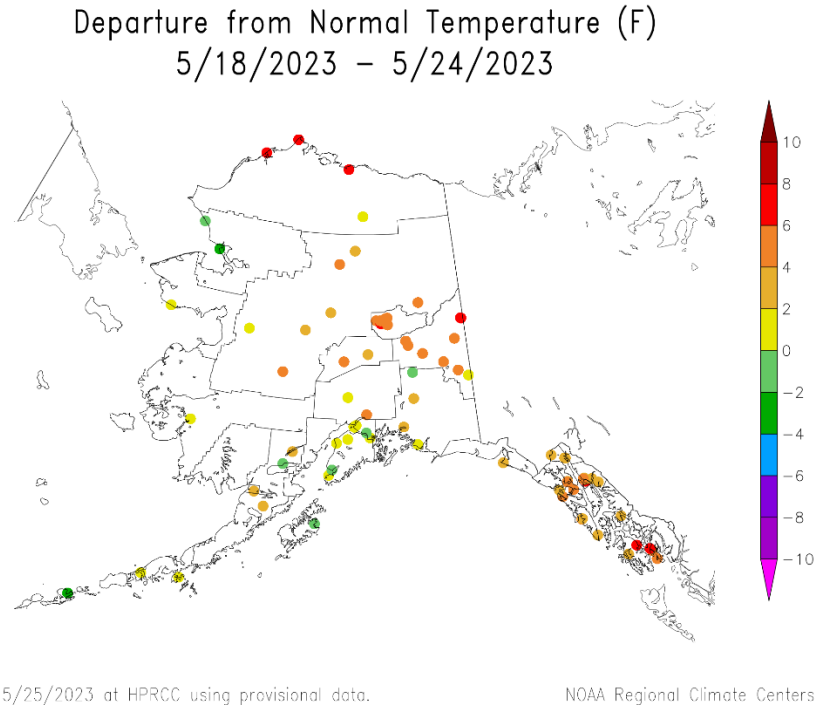


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day temperature anomaly map](#) for Alaska.

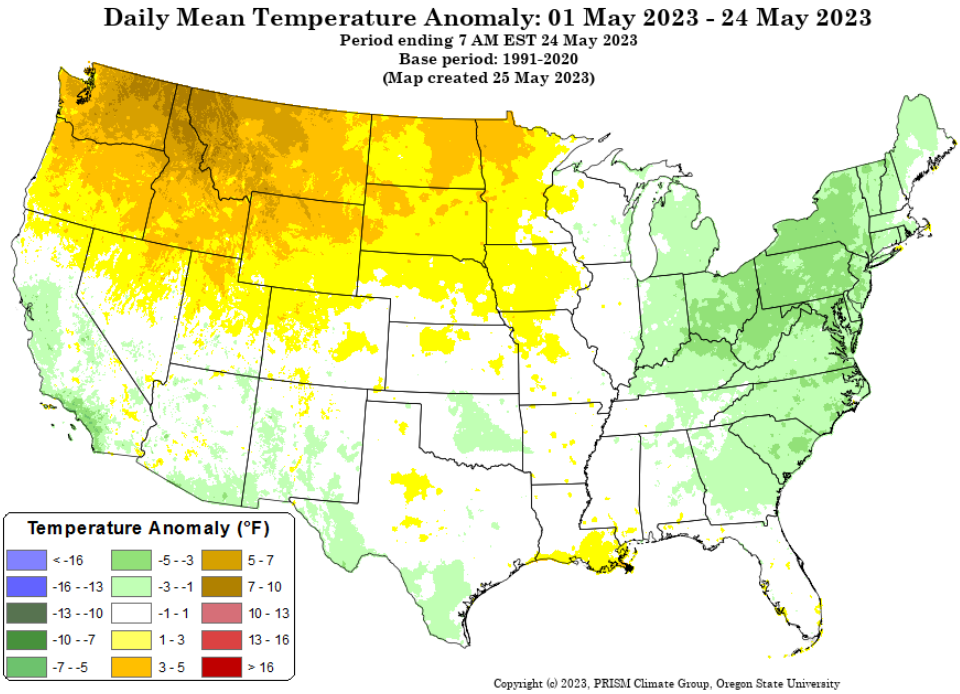
See also: [7-day temperature (° F) map](#)



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

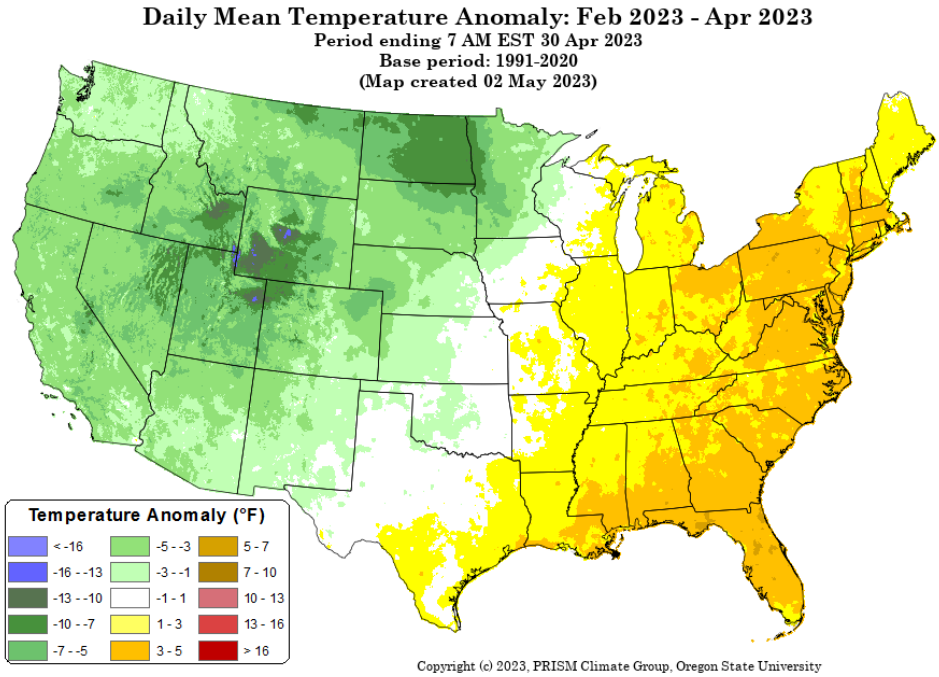
Source: PRISM

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



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

Source: PRISM



[February through April 2023 daily mean temperature anomaly map]

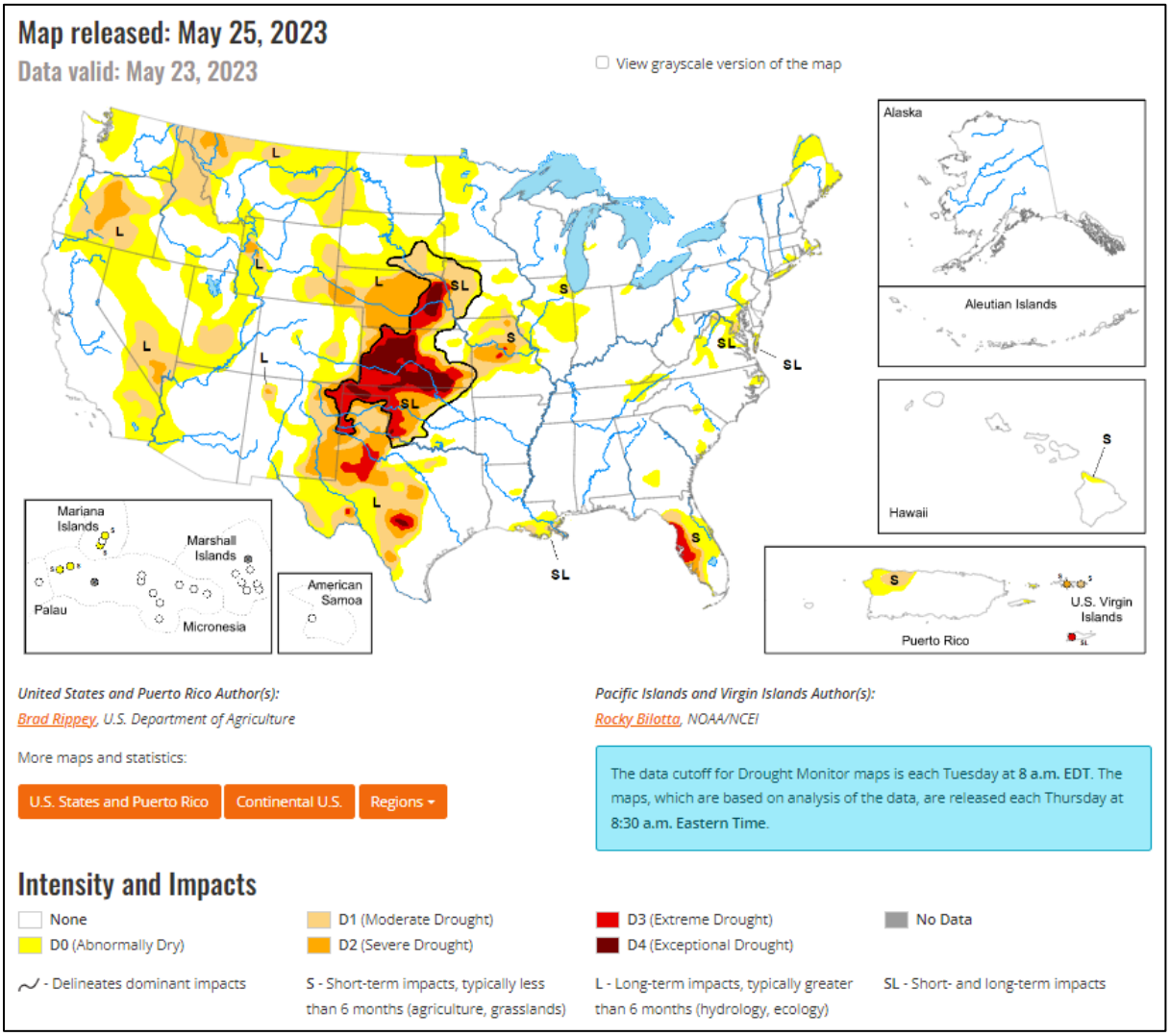
Drought

U.S. Drought Monitor

Source: National Drought Mitigation Center

U.S. Drought Portal

Source: NOAA



Current National Drought Summary, May 23, 2023

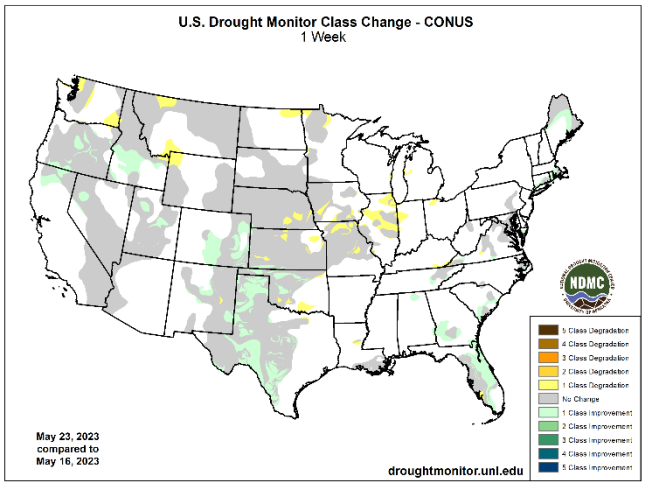
Source: National Drought Mitigation Center

"Showery weather across the southern half of the Plains provided additional drought relief, following the previous week's major storm. Still, much of the rain arrived too late to rescue winter wheat, although rangeland, pastures, and summer crops greatly benefited from the soil moisture improvements. Variable rainfall extended westward into the central and southern Rockies and eastward to the southern Atlantic Coast, maintaining generally favorable growing conditions for pastures and summer crops. Eventually, rain shifted northward along the northern Atlantic Coast, easing dry conditions. Meanwhile, light showers dotted the Northwest, while little or no rain fell across the remainder of the country, including the north-central U.S. and the Far West. A week-long hot spell elevated temperatures in the Pacific Northwest, although temperatures began to fall late in the drought-monitoring period. A separate area of heat, accompanied by high humidity, affected much of the Deep South. Elsewhere, near- or slightly below-normal temperatures prevailed across the central and southern Plains, while cooler-than-normal weather covered much of the Northeast and environs."

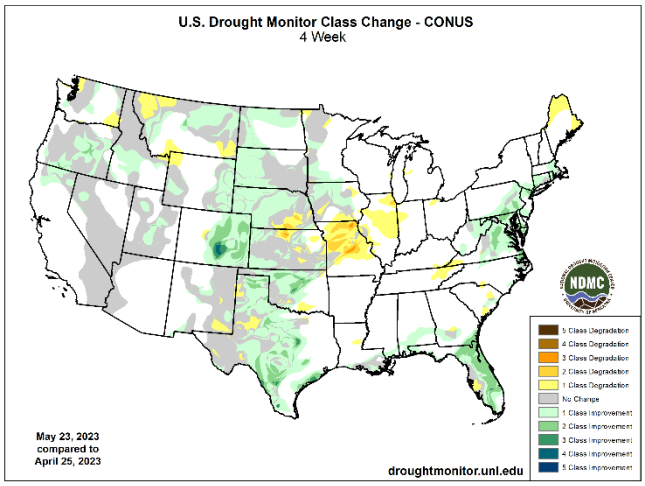
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

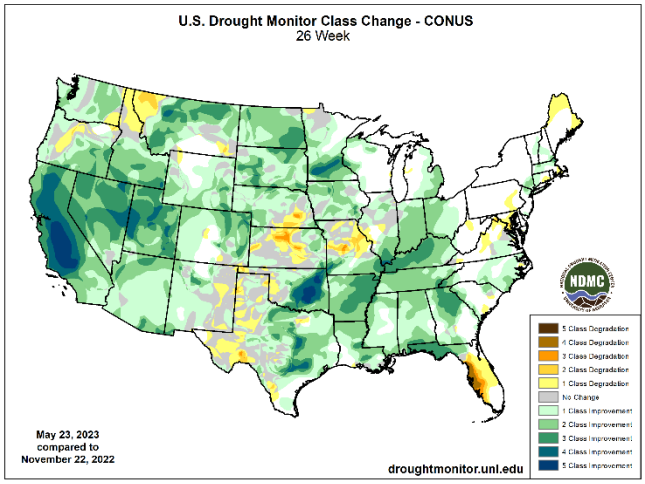
1 Week



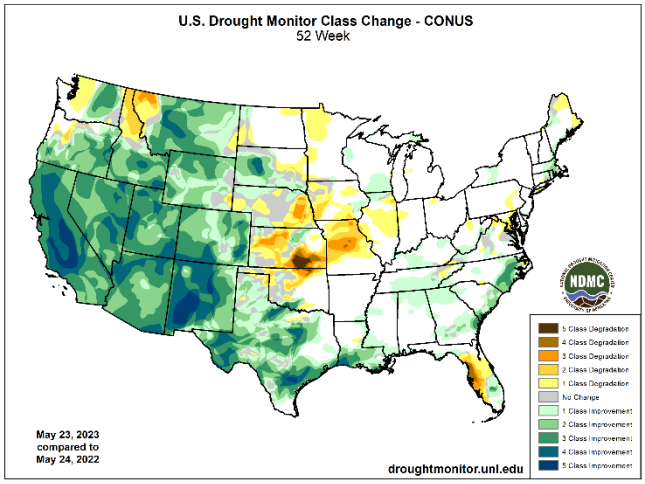
1 Month



6 Months



1 Year



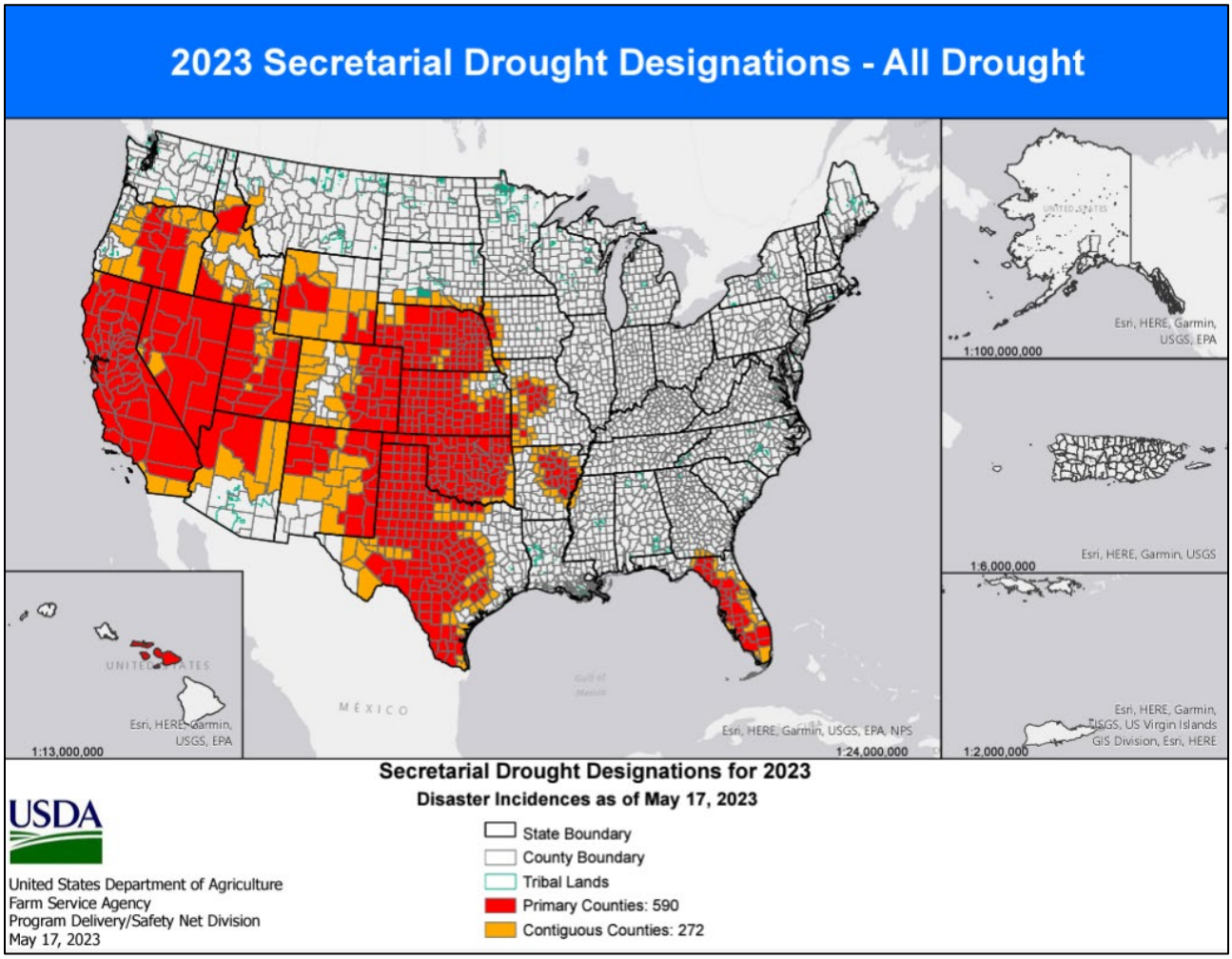
Changes in drought conditions over the last 12 months for the contiguous U.S.

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

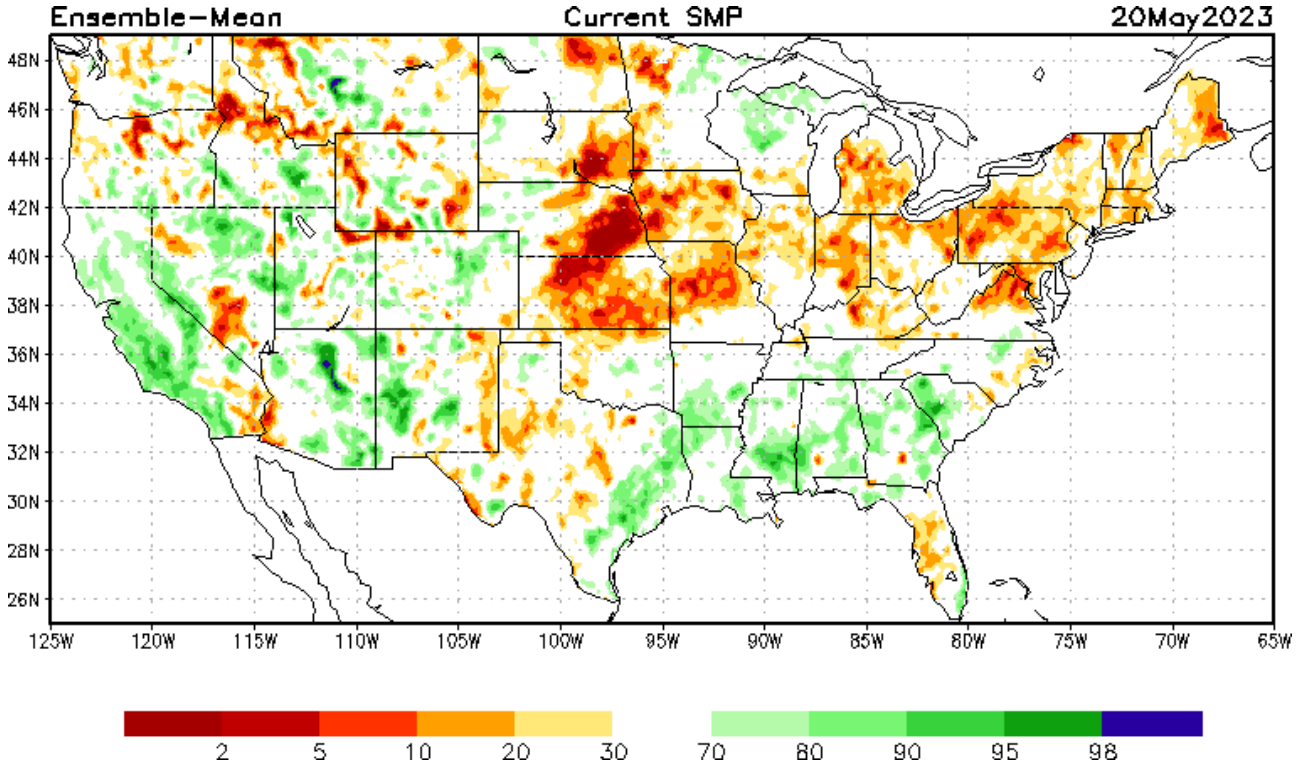
Source: USDA Farm Service Agency



Other Climatic and Water Supply Indicators

Soil Moisture

Source: NOAA National Centers for Environmental Prediction

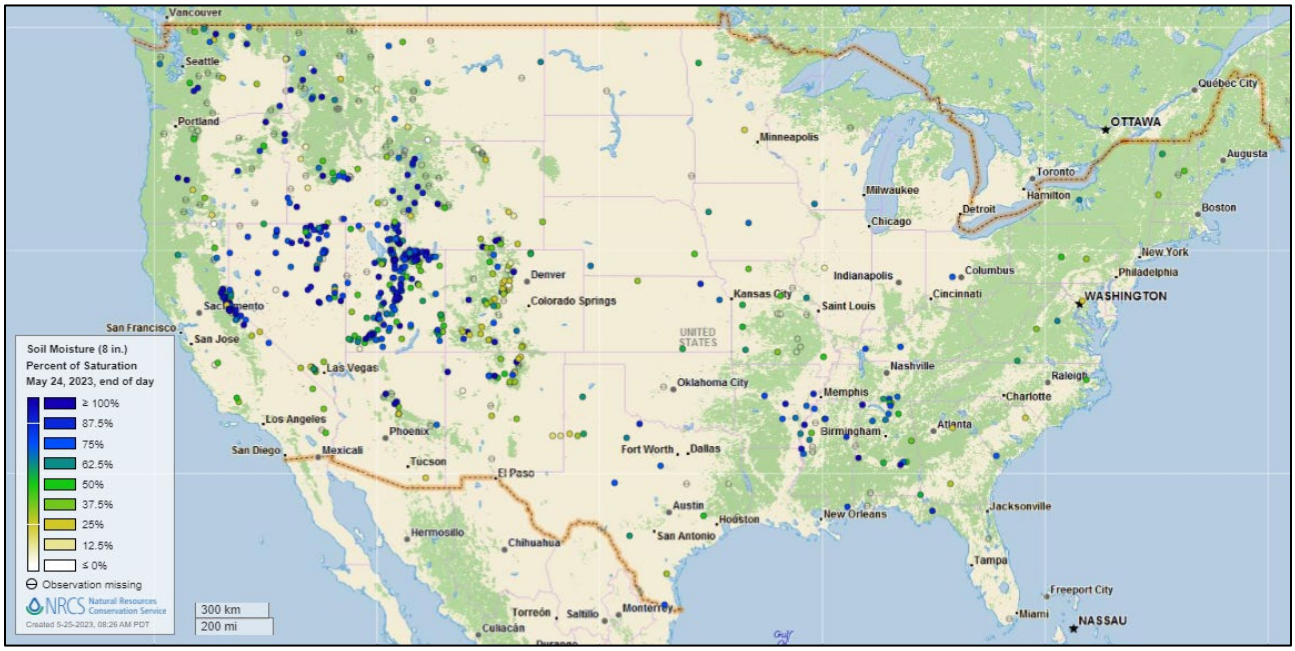


Modeled soil moisture percentiles as of May 20, 2023

Soil Moisture Percent of Saturation

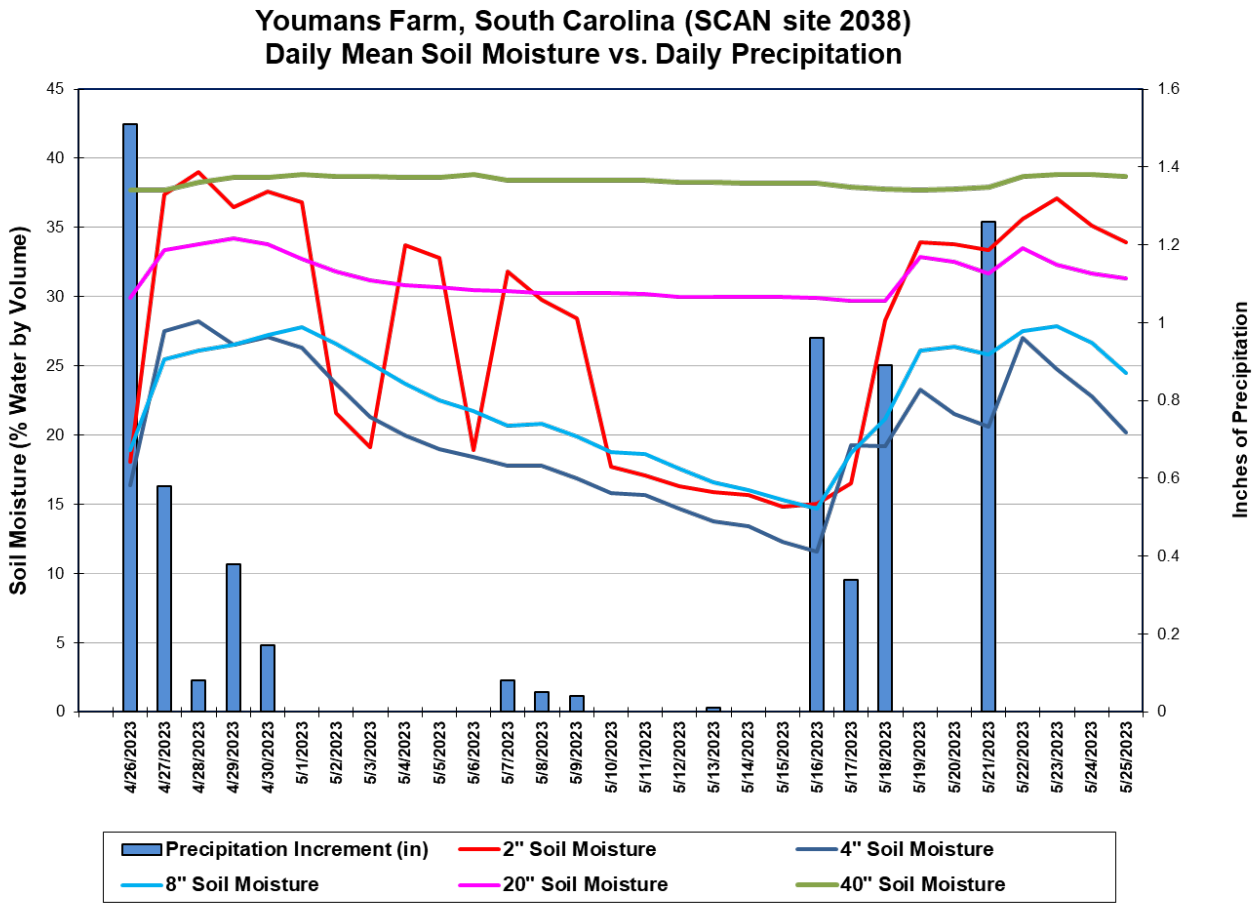
Source: NRCS SNOTEL and Soil Climate Analysis Network (SCAN)

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



Soil Moisture

Source: NRCS Soil Climate Analysis Network (SCAN)



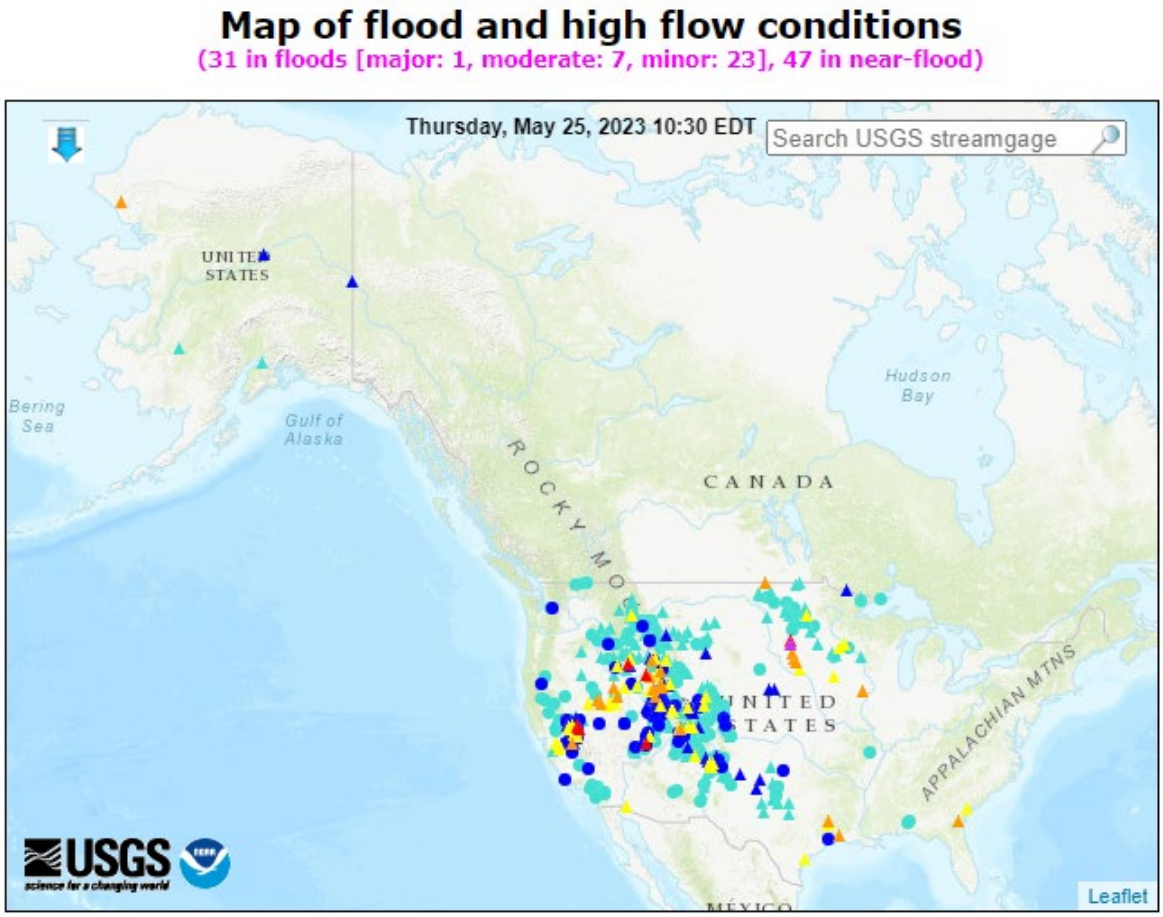
This chart shows the precipitation and soil moisture for the last 30 days at the Youmans Farm SCAN site in South Carolina. The period started with the site receiving 2.72 inches of precipitation between April 26-30, with corresponding increases in soil moisture at all sensor depths. The soil moisture levels proceeded to steadily decline, until the site received 3.45 inches of precipitation between May 16-21, after which soil moisture levels can be seen increasing once again at all soil sensor depths. Total precipitation for the 30-day period was 6.35 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]



Explanation - Percentile classes						
<95	95-98	>= 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage
△ Streamgage with flood stage ○ Streamgage without flood stage						

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

Reservoir Storage

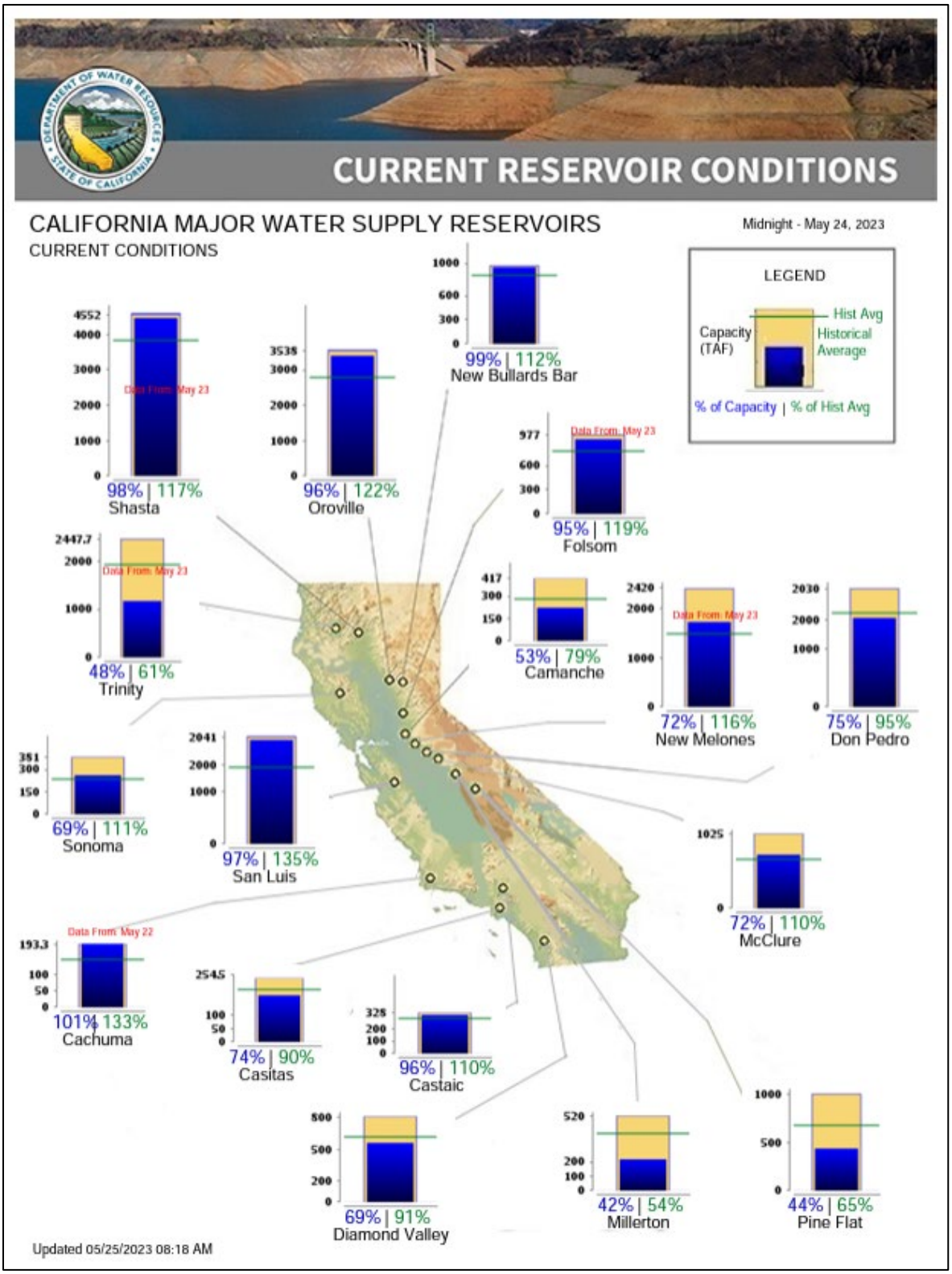
Hydromet Teacup Reservoir Depictions

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 May 25, 2023: **"**Another round of frosty conditions may occur on Friday morning, mainly from the Great Lakes region into northern New England. As high pressure shifts eastward, a Midwestern and Northeastern warming trend will commence during the Memorial Day weekend, although mostly dry weather will persist. Farther south, however, a low-pressure system is expected to move inland during the weekend across the Carolinas, leading to potentially heavy rain. Southern Atlantic totals could reach 1 to 3 inches as far north as southern Virginia, with much higher amounts possible in the coastal Carolinas. In contrast, dry weather will prevail during the next 5 days in the Mississippi Valley and the Southwest. However, another area of rain will affect the High Plains and northern Rockies, with 5-day totals possibly reaching 1 to 3 inches from Montana and the western Dakotas southward into eastern New Mexico and western Texas. Scattered showers will also continue across northern sections of the Great Basin and Intermountain West. The NWS 6- to 10-day outlook for May 30 – June 3 calls for the likelihood of near- or above-normal temperatures and precipitation across most of the country. Cooler-than-normal conditions should be confined to an area stretching from southern California to the southern High Plains, while drier-than-normal weather should be limited to western Washington and an area stretching from the Great Lakes region to New England."

Weather Hazards Outlook: May 27 – 31, 2023

Source: NOAA Weather Prediction Center

U.S. Day 3-7 Hazards Outlook

About the Hazards Outlook

Created May 24, 2023

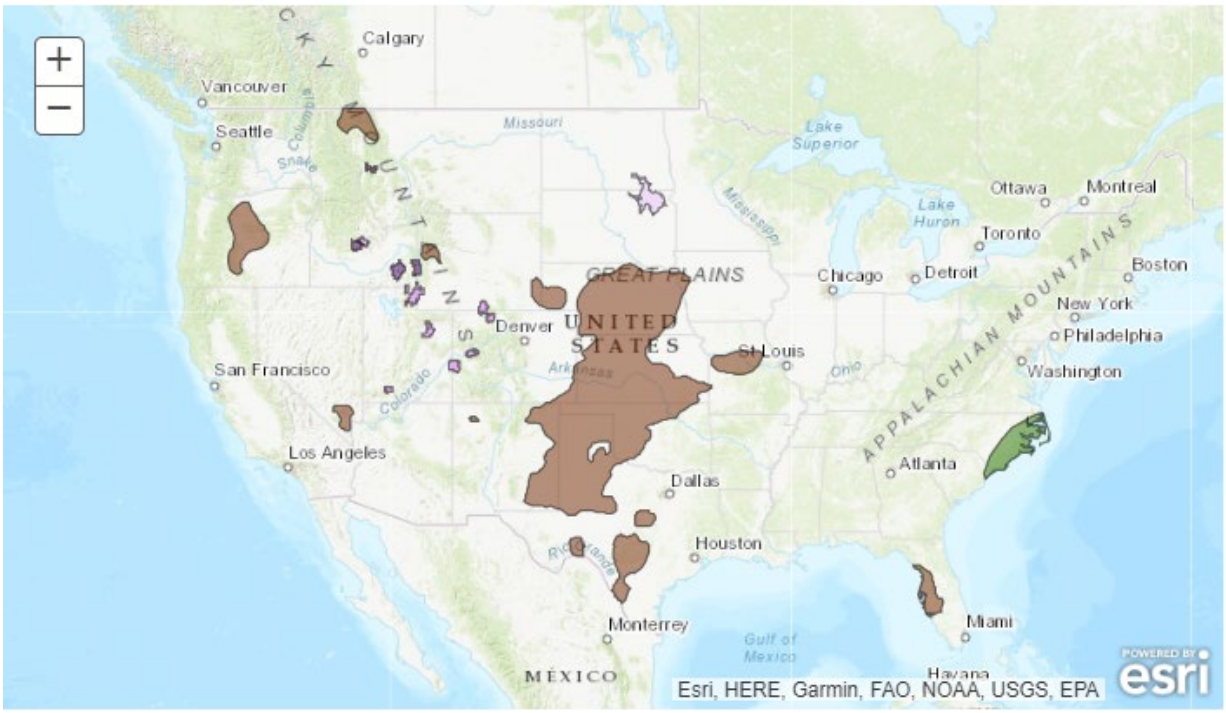
NOTE: These products are only created Monday through Friday. Please exercise caution using this outlook during the weekend.

Precipitation	☑
Temperature	☑
Soils	☑

Valid May 27, 2023 - May 31, 2023

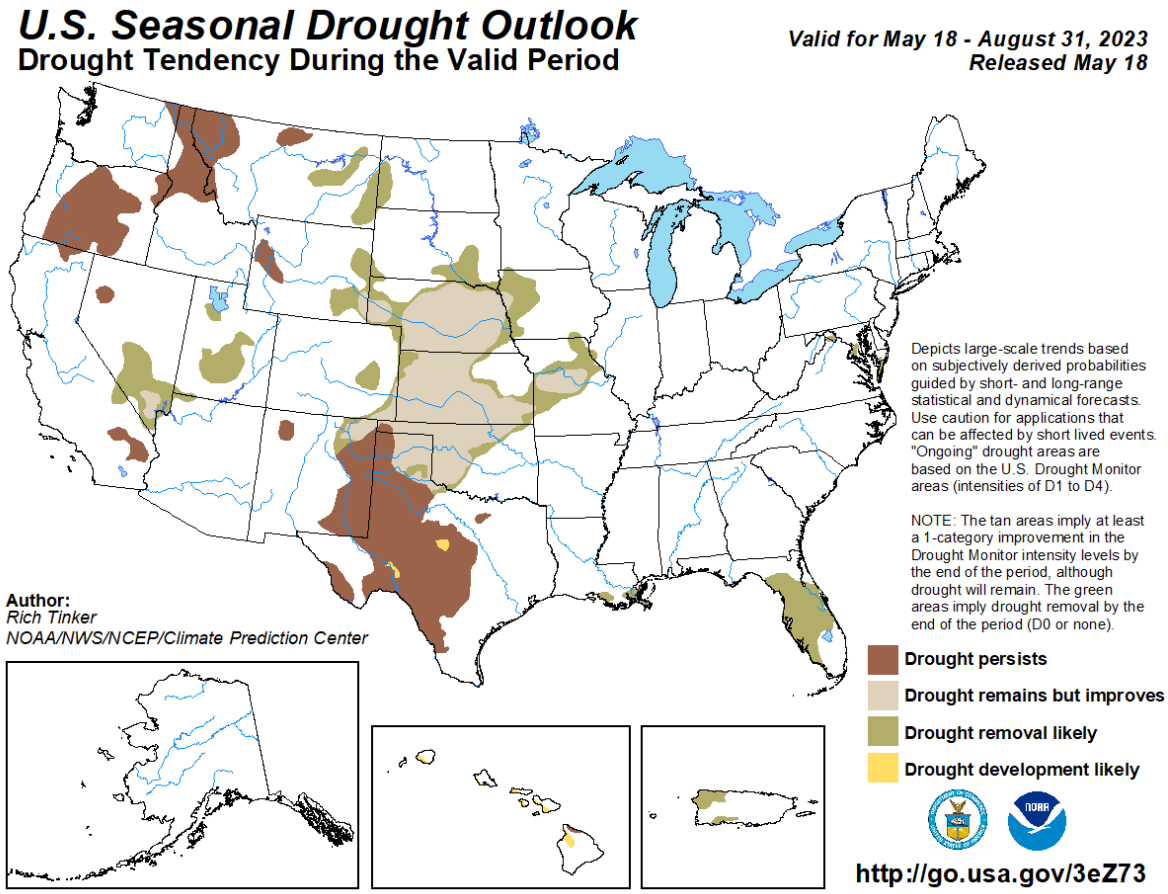
Legend

- Flooding Likely
- Flooding Occurring or Imminent
- Flooding Possible
- Freezing Rain
- Heavy Ice
- Heavy Precipitation
- Heavy Rain
- Heavy Snow
- Severe Weather
- Excessive Heat
- High Winds
- Much Above Normal Temperatures
- Much Below Normal Temperatures
- Significant Waves
- Enhanced Wildfire Risk
- Severe Drought



Seasonal Drought Outlook: May 18 – August 31, 2023

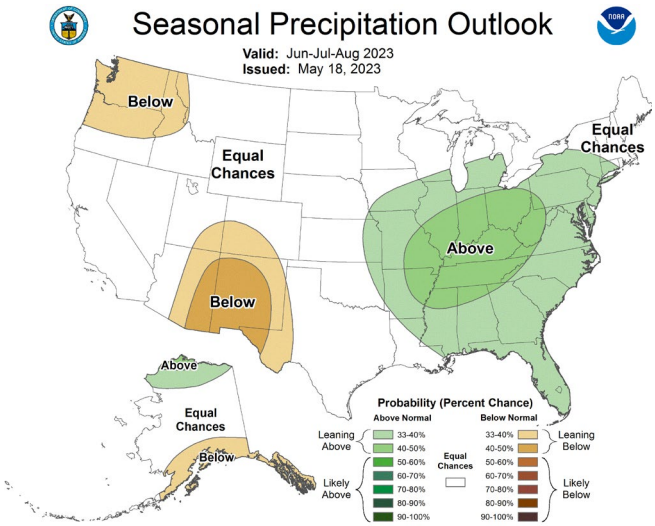
Source: National Weather Service



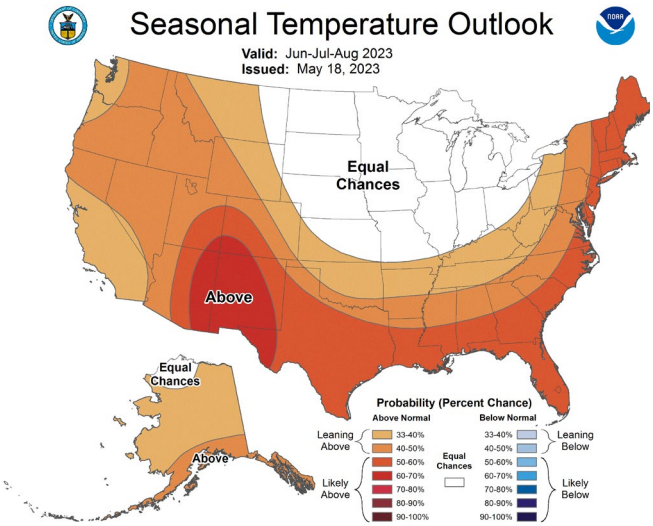
Climate Prediction Center Three-month Outlook

Source: National Weather Service

Precipitation



Temperature



June-July-August 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.