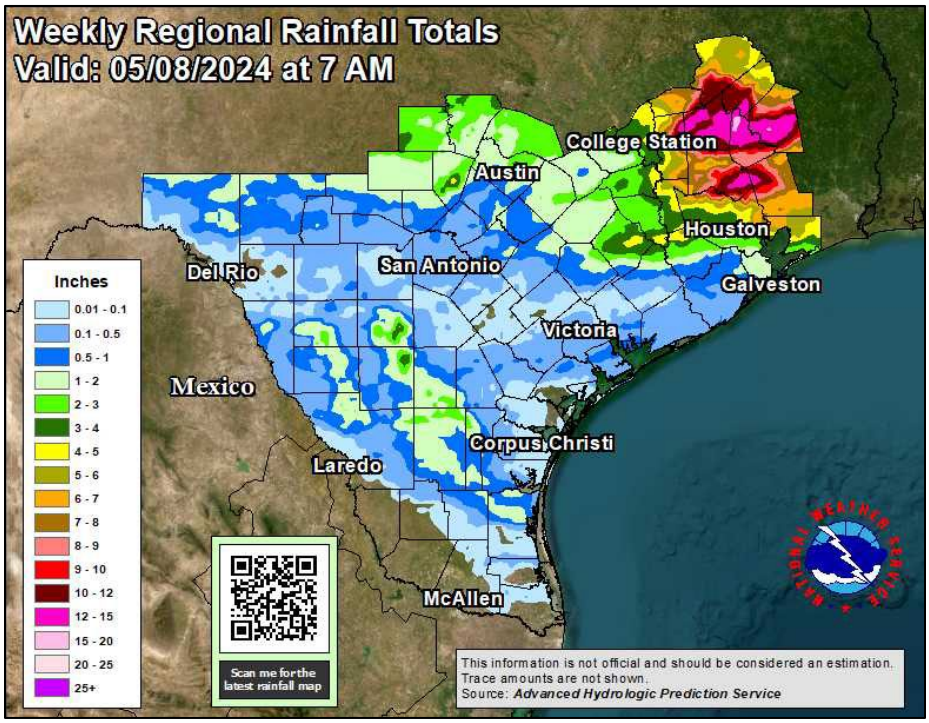
United States Department of Agriculture

Water and Climate Update

May 09, 2024

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.

Severe weather impacts multiple U.S. regions in early May



May 6-8 brought a variety of severe weather to the Midwest, Great Plains, and southern U.S. Unstable atmospheric conditions produced over 100 tornadoes spanning from Arkansas to Michigan, according to the Storm Prediction Center (SPC). The SPC also listed over 1,000 storm reports across the region during the period, including baseball-sized hail in Missouri and powerful winds reported over 70 mph. The first week of May brought over a foot of rain to a section of Texas north of Houston, prompting rescue efforts after the downpour caused hazardous floods.

Related:

Officials survey immense tornado damage in Michigan as millions brace for severe weather – USA Today

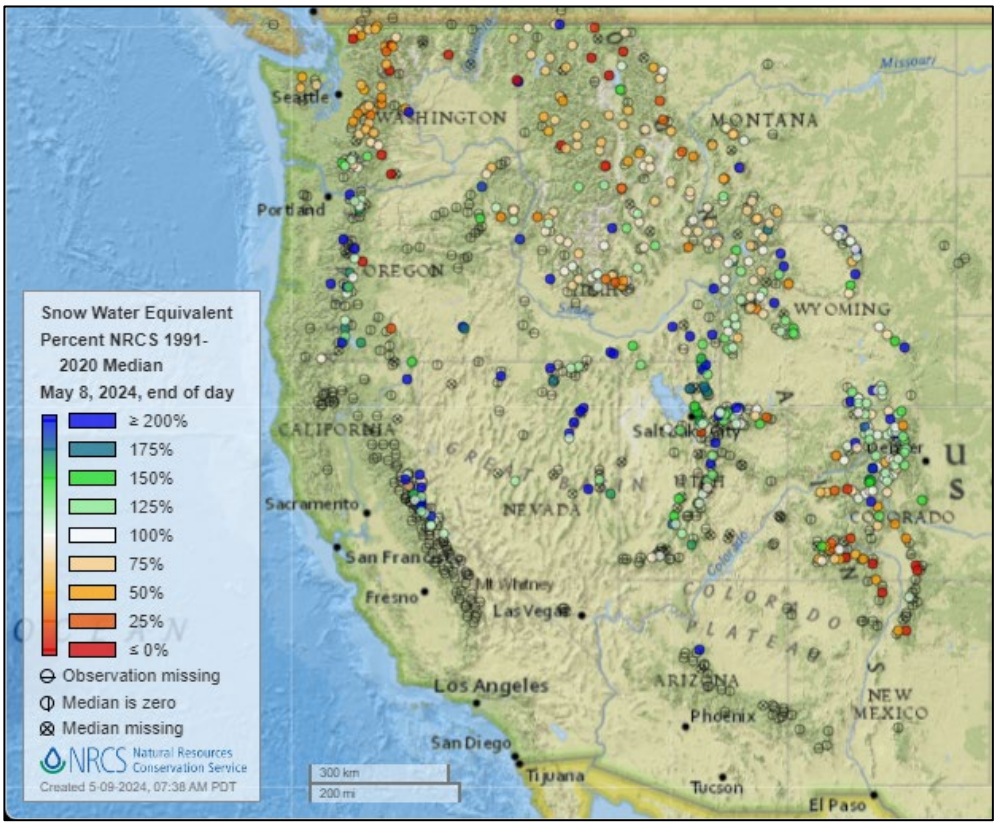
Confirmed tornado hit near Pittsburgh International Airport during early morning storms, NWS says – WXPI (Pittsburgh, PA)

Floodwaters start receding around Houston area as recovery begins following rescues and evacuations – AP News

See the scope of flooding in East Texas – Texas Tribune

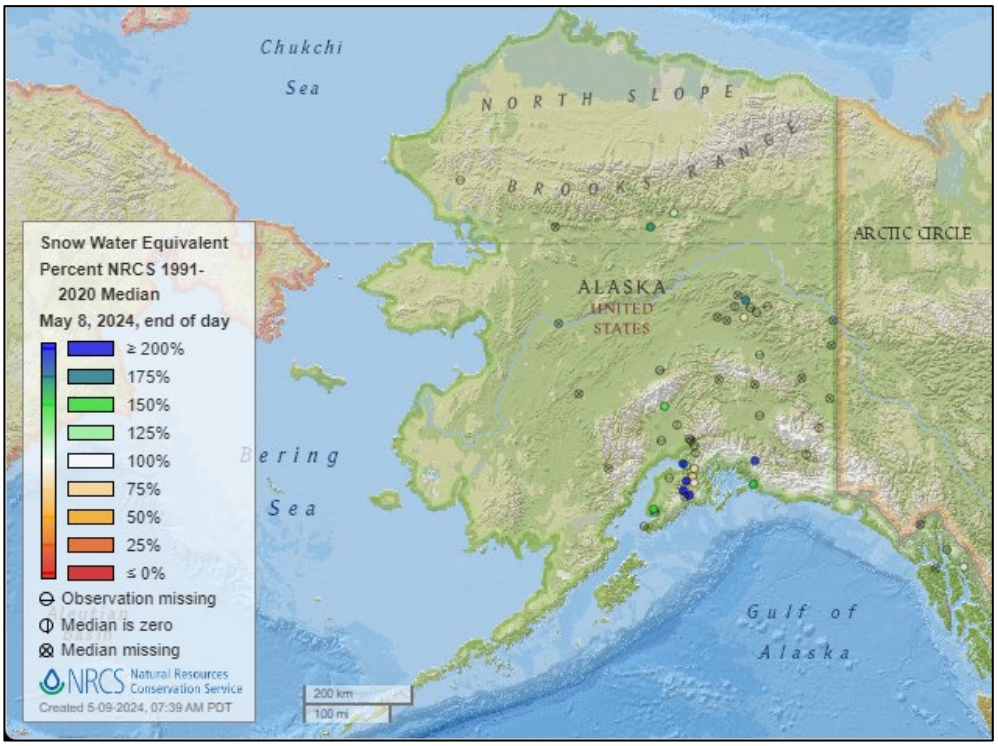
Storm Prediction Center – NOAA, National Weather Service

Snow



[Snow water equivalent percent of median map]

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

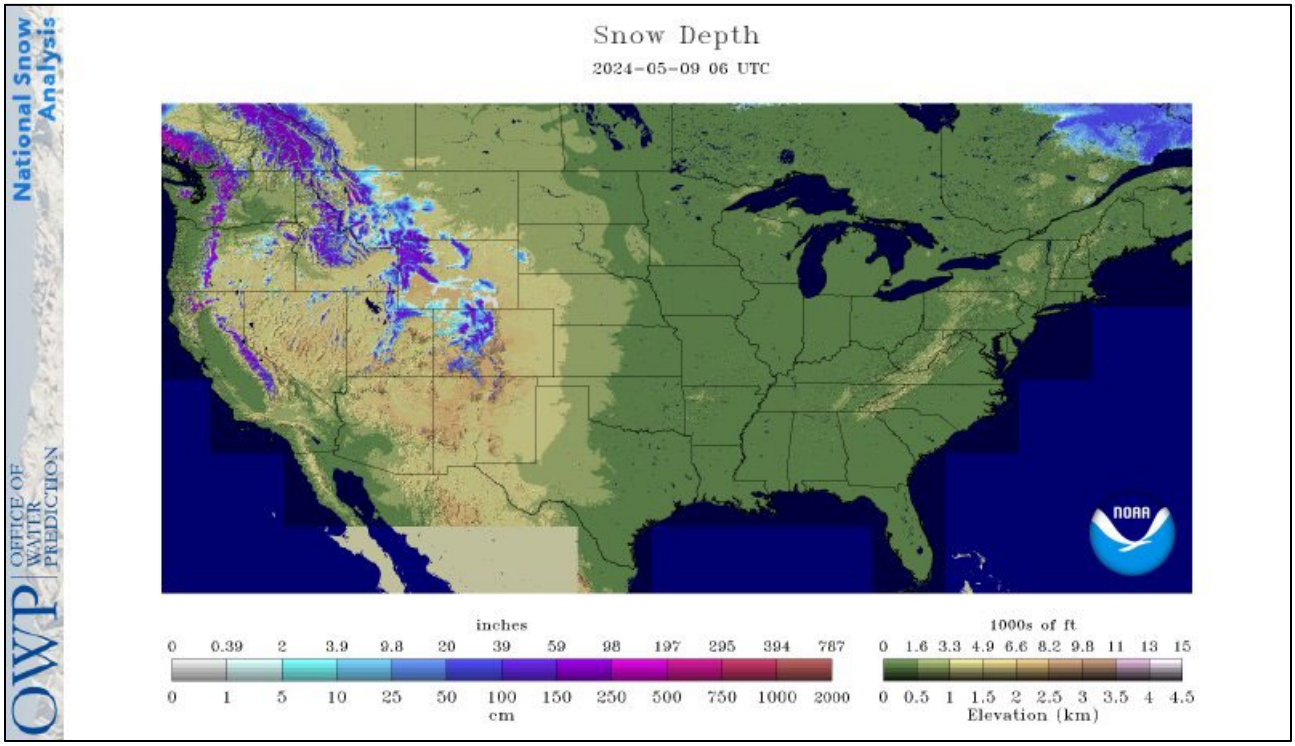


[Alaska snow water equivalent percent of median map]

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

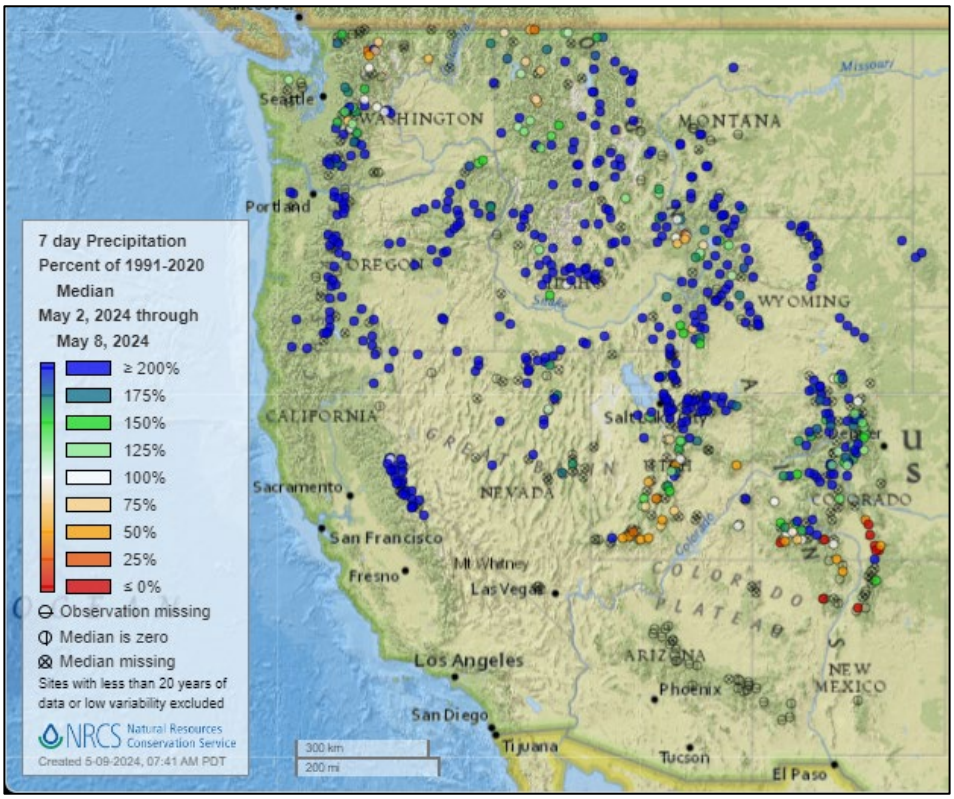
Current Snow Depth, National Weather Service Snow Analysis

Source: NOAA NWS National Operational Hydrologic Remote Sensing Center



Precipitation

Last 7 Days, NRCS SNOTEL Network

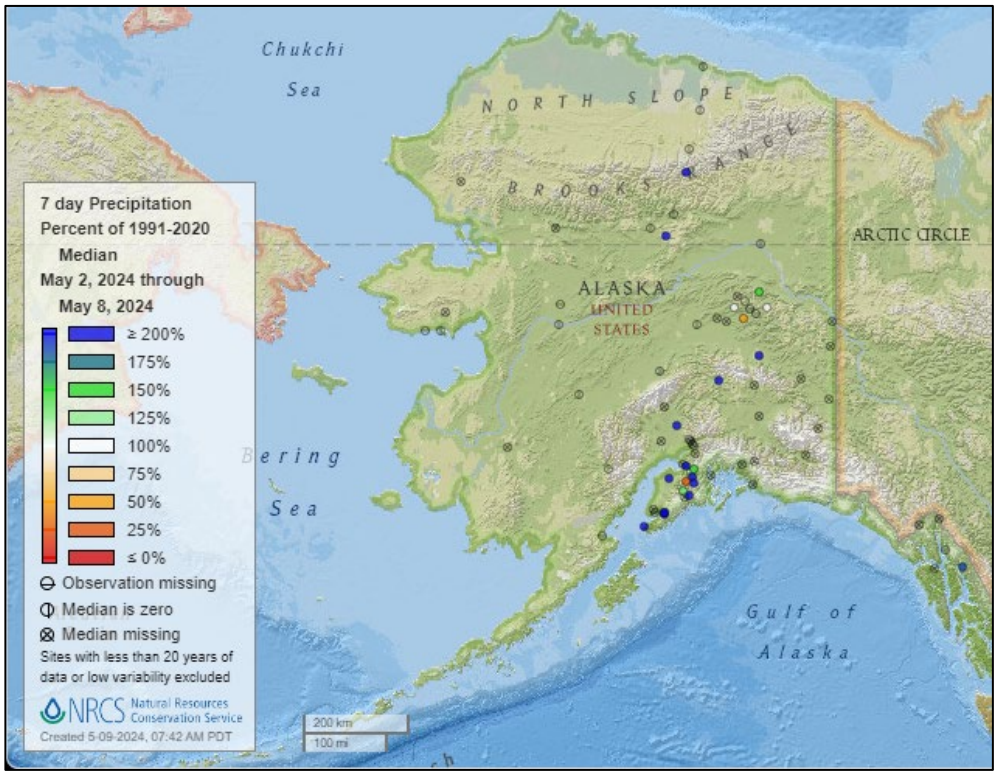


[7-day precipitation percent of median map]

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]

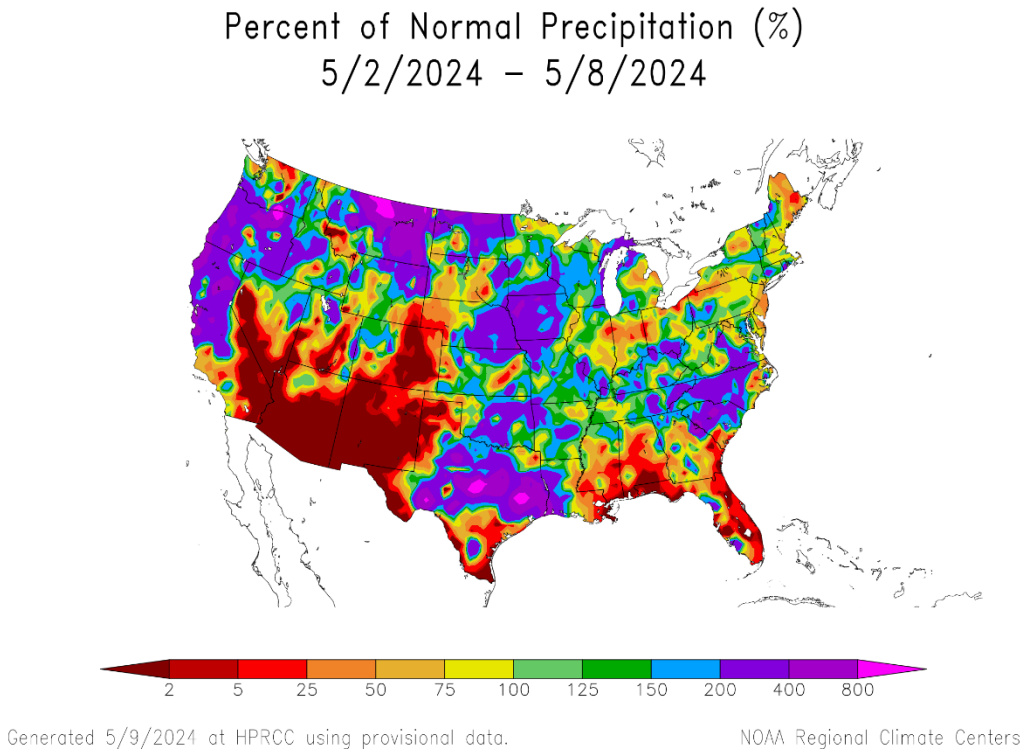


Last 7 Days, National Weather Service (NWS) Networks

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]

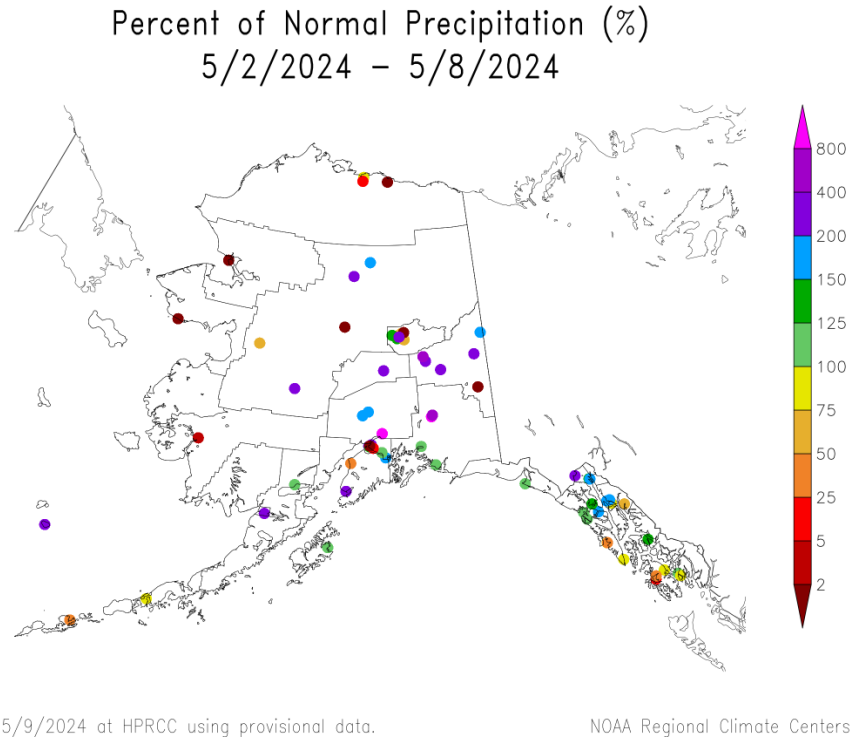


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

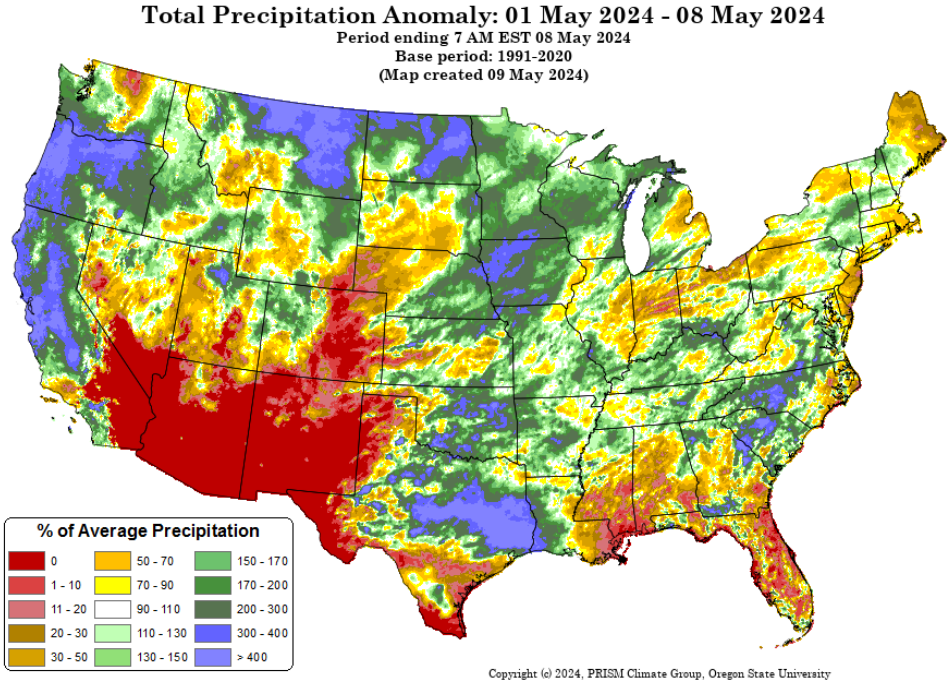
[7-day precipitation percent of normal map] for Alaska.

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



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

Source: PRISM

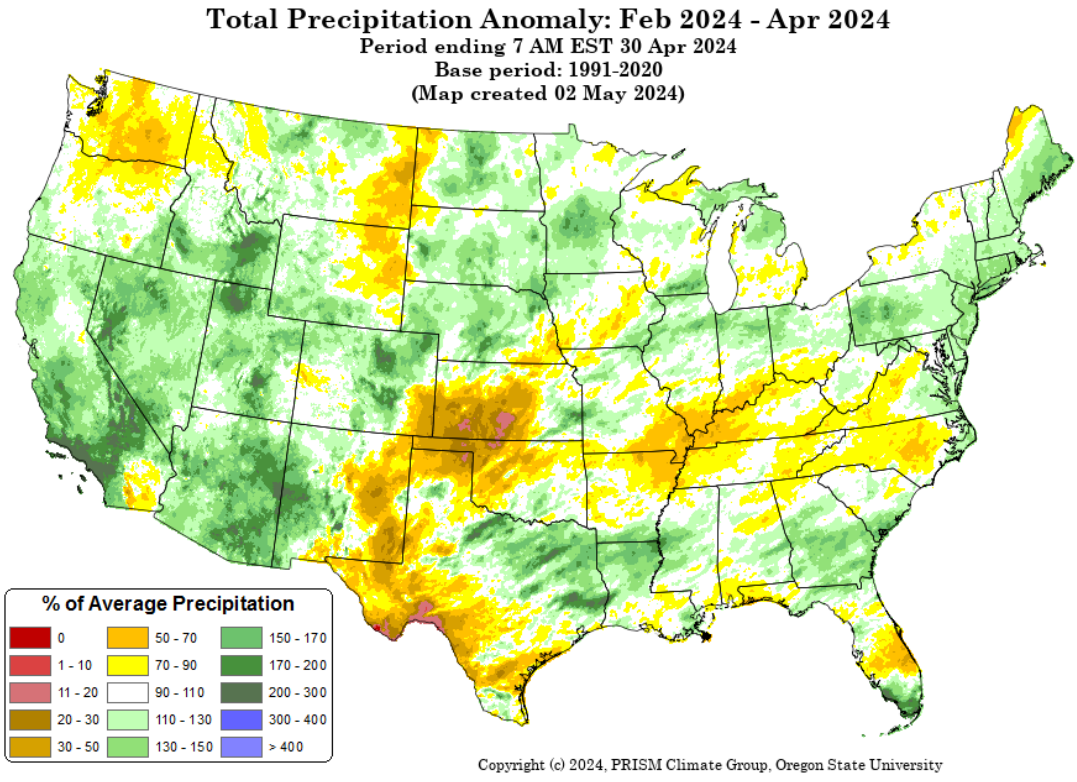


Month-to-date national total precipitation anomaly map

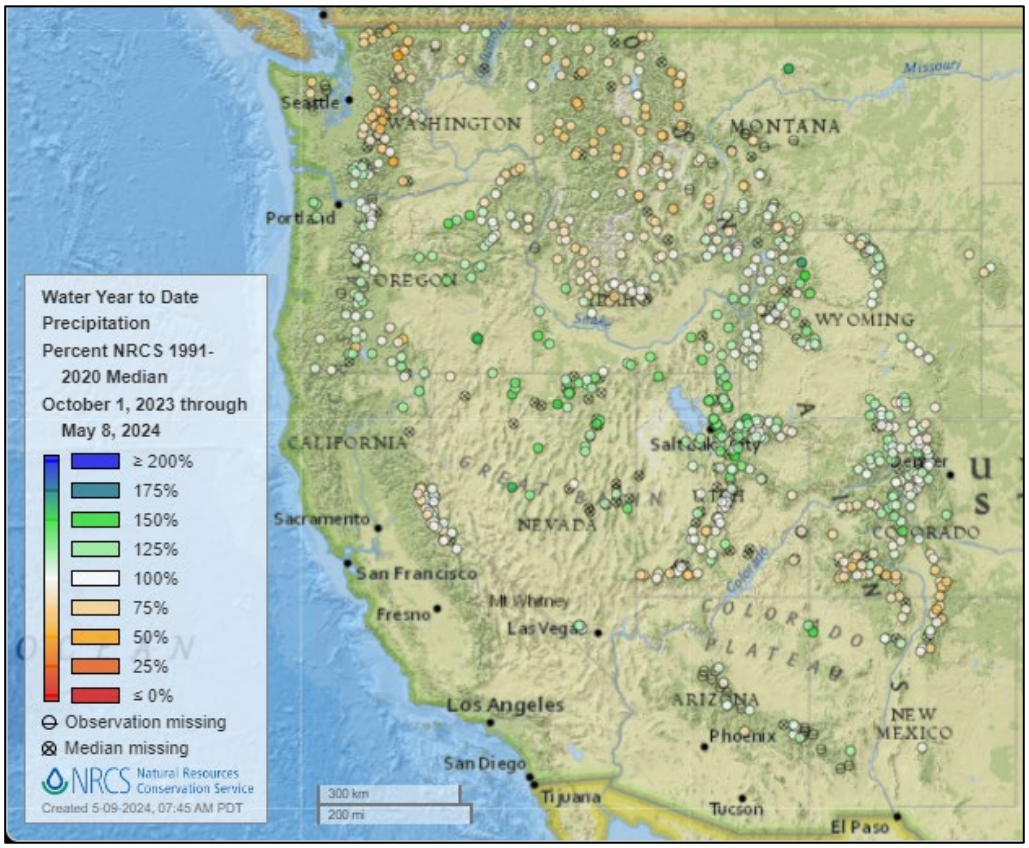
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

February through April 2024 precipitation anomaly map



Water Year-to-Date, NRCS SNOTEL Network

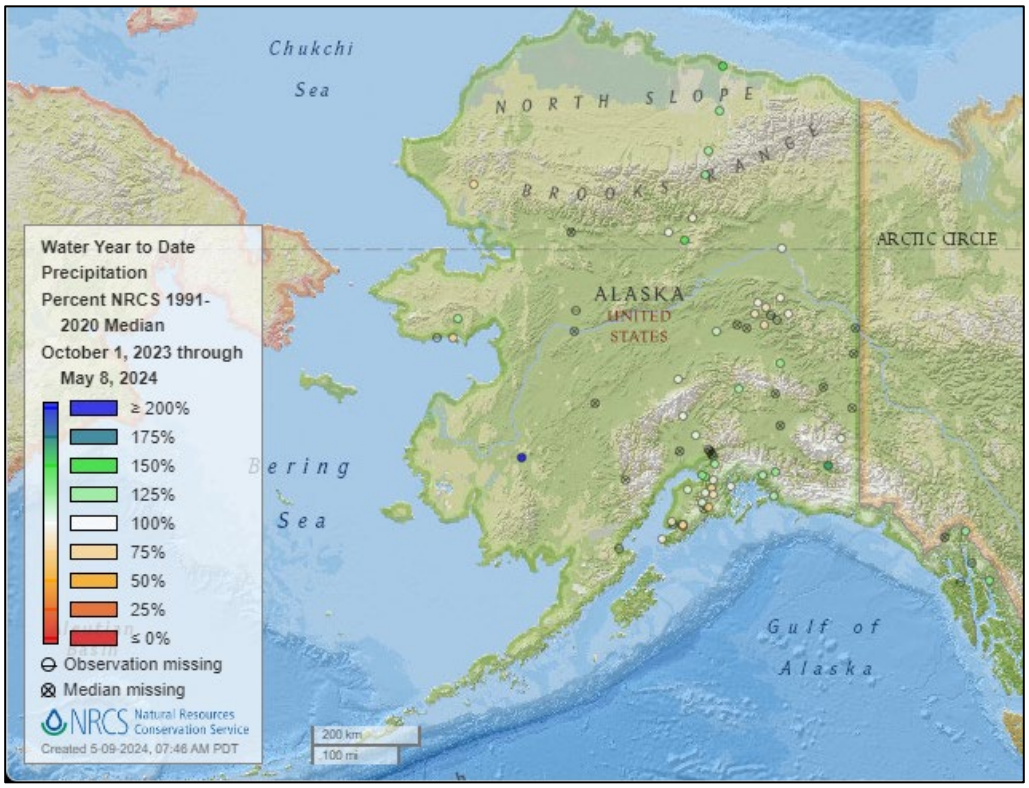


[2024 water year-to-date precipitation percent of median map]

See also:

[2024 water year-to-date precipitation percent of average map]

[2024 water year-to-date precipitation values (inches) map]



[Alaska 2024 water year-to-date precipitation percent of median map]

See also:

[Alaska 2024 water year-to-date precipitation percent of average map]

[Alaska 2024 water year-to-date precipitation values (inches) map]

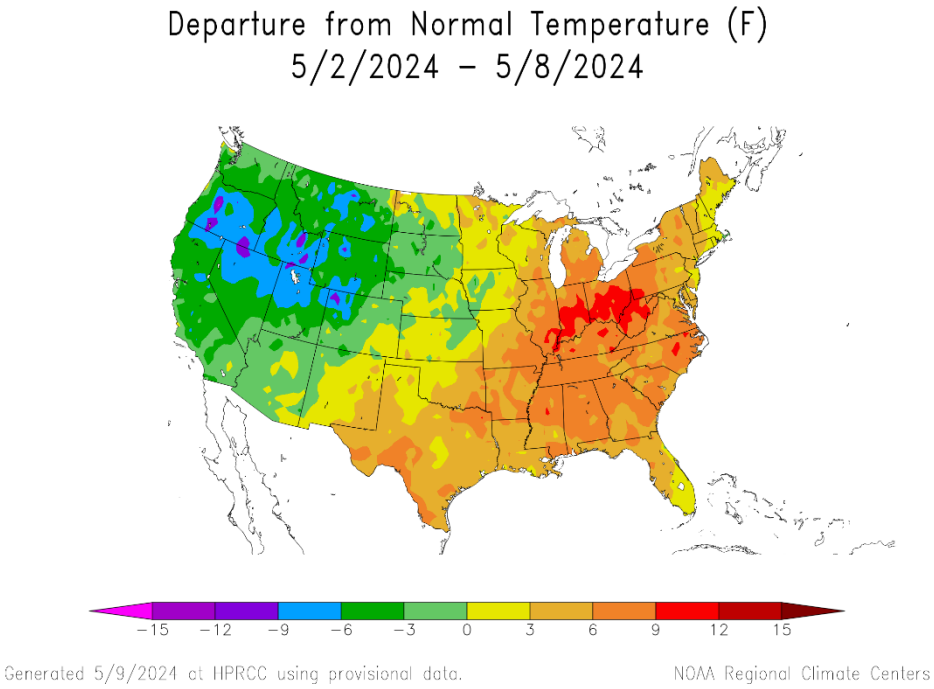
Temperature

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

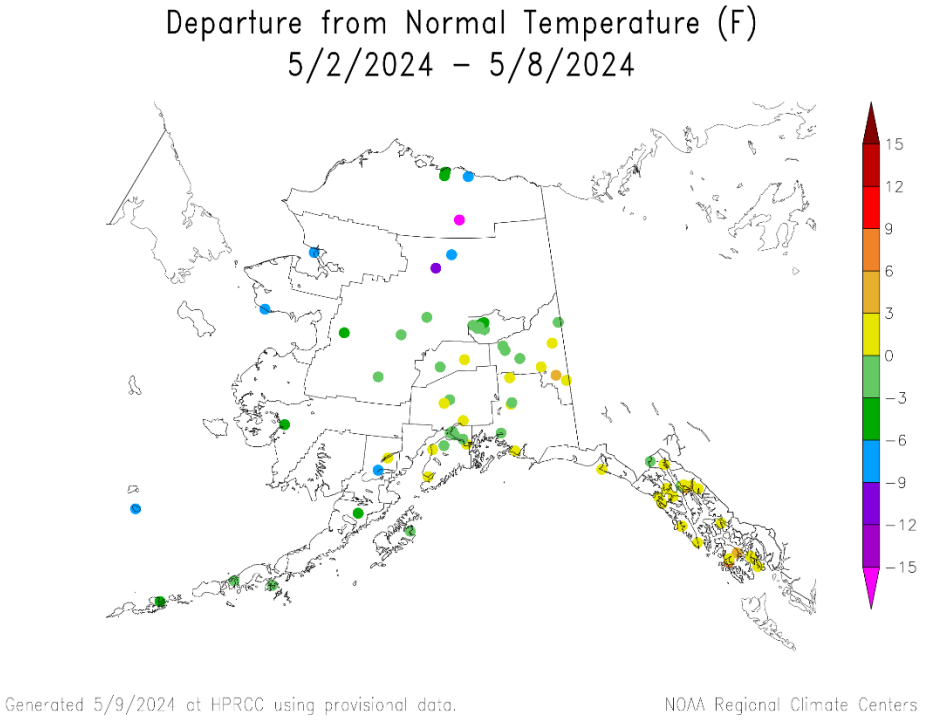


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

7-day temperature anomaly map for Alaska.

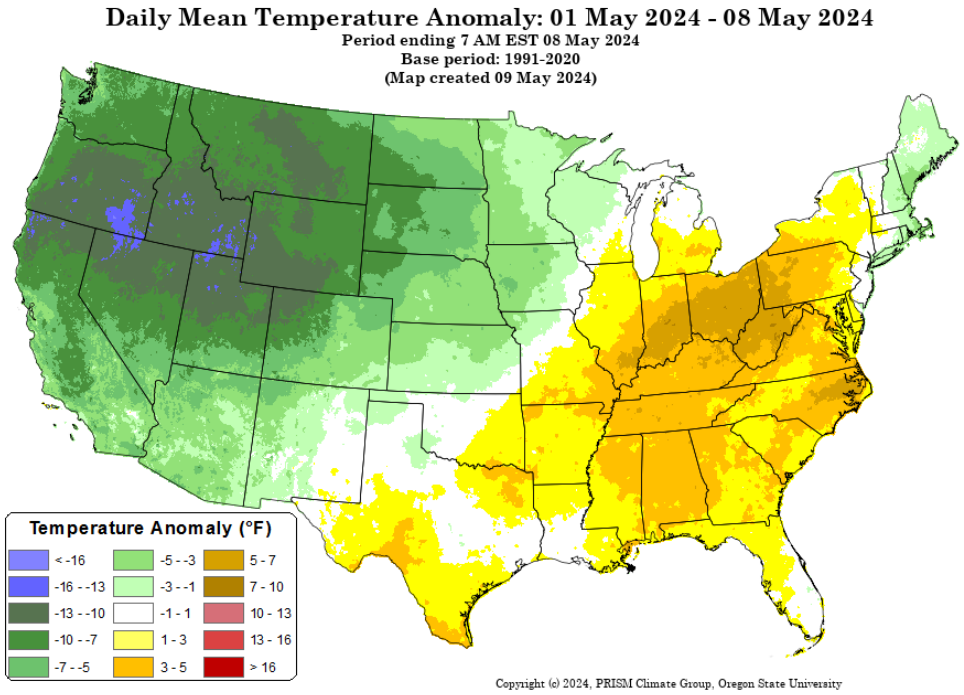
See also: 7-day temperature (° F) map



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

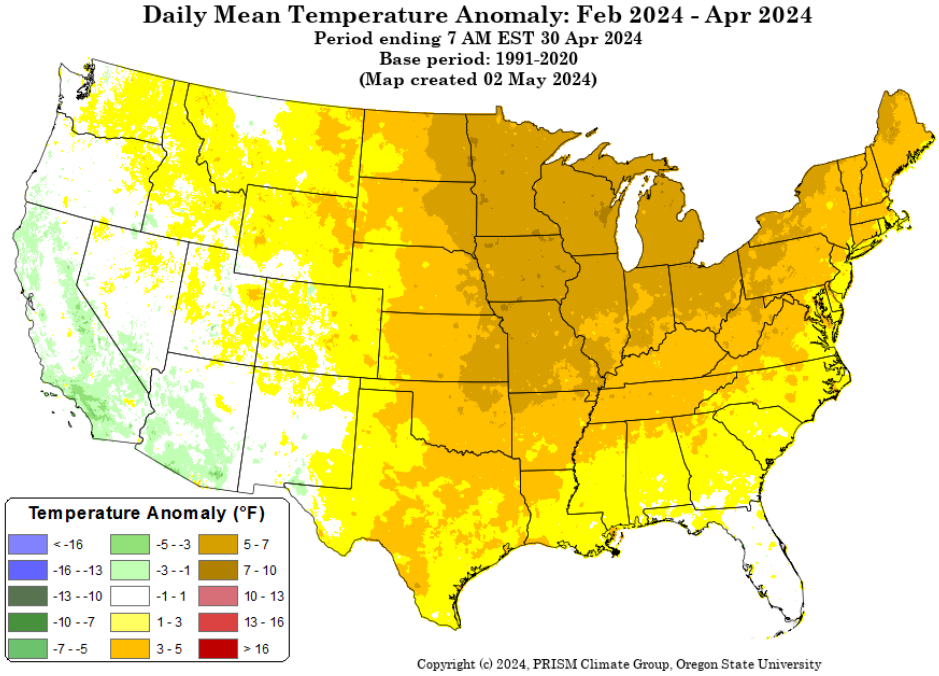
Source: PRISM

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 2024 daily mean temperature anomaly map

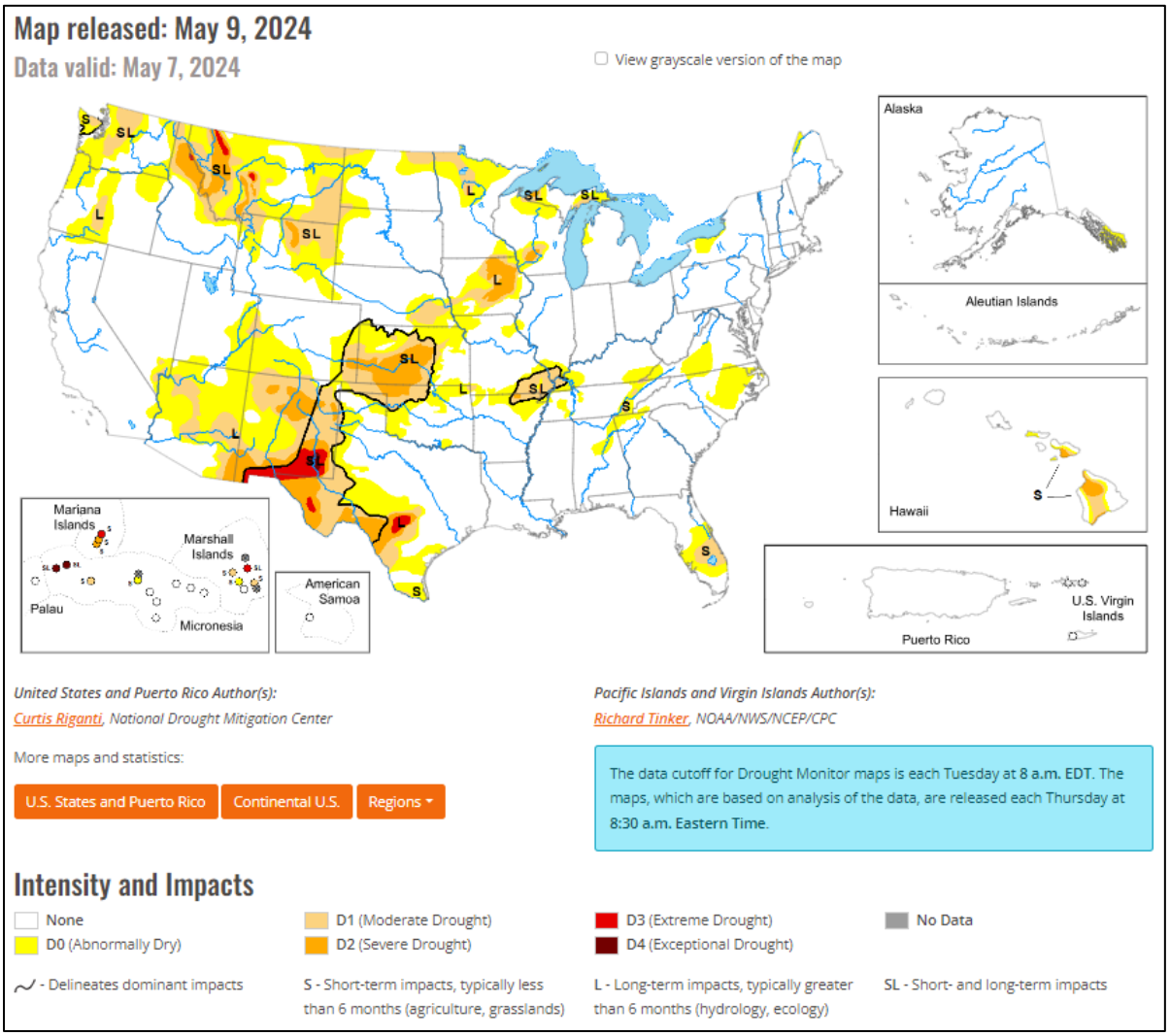
Drought

U.S. Drought Monitor

Source: National Drought Mitigation Center

U.S. Drought Portal

Source: NOAA



Current National Drought Summary, May 07, 2024

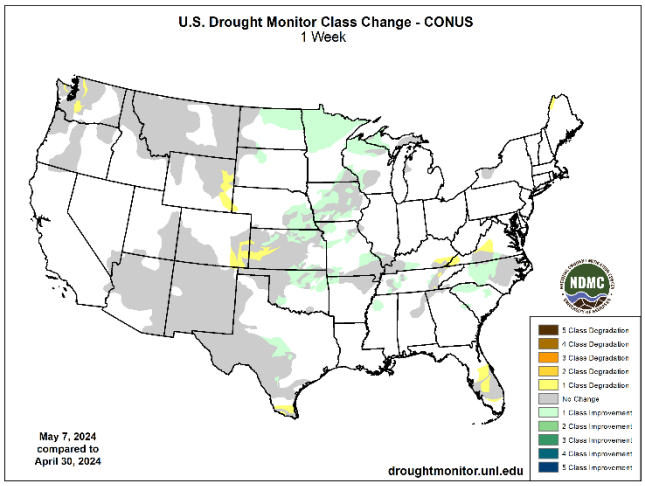
Source: National Drought Mitigation Center

“Heavy precipitation fell in western Oregon and adjacent southwest Washington and northwest California this week, and across large portions of the central U.S., as a series of storm systems caused continued bouts of severe thunderstorms and unfortunately included more significant tornadoes. The wet weather across portions of the Great Plains and Midwest led to either scattered or widespread improvements to ongoing drought or abnormal dryness, dependent on precipitation amounts, improvements to soil moisture and streamflow, and the degree of long-term dryness remaining in different locations. In Virginia, the Carolinas, and eastern Tennessee and Kentucky, heavy rains or lack thereof this week led to localized improvements or degradations in areas of short-term moderate drought or abnormal dryness. Very dry weather for the past few months led to increased fire danger in parts of the Florida Peninsula, and short-term moderate drought and abnormal dryness expanded in coverage. In southwest Kansas and adjacent eastern Colorado, mostly to the west of where this week’s showers and thunderstorms occurred, flash drought conditions continued and severe and moderate drought expanded in coverage. In Hawaii, wet weather continued on the windward sides of the islands, and some improvement to conditions occurred in Lanai and western Maui. Another wet week in Puerto Rico allowed for the removal of abnormal dryness from the northwest corner of the island.”

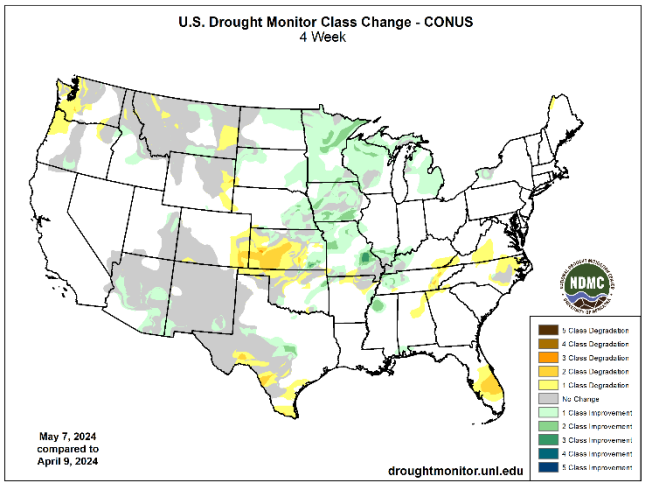
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

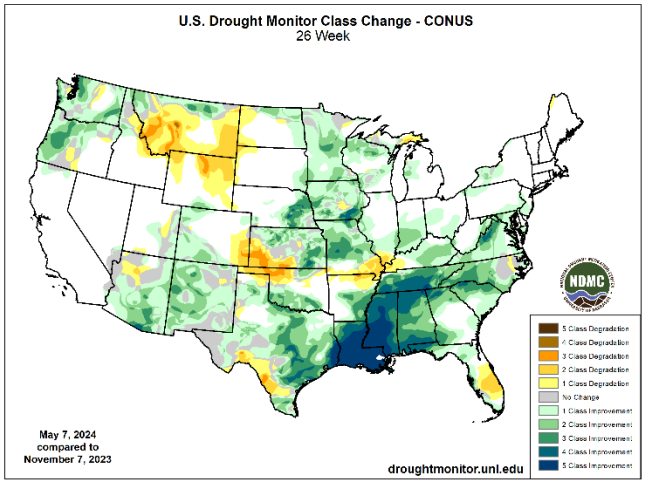
1 Week



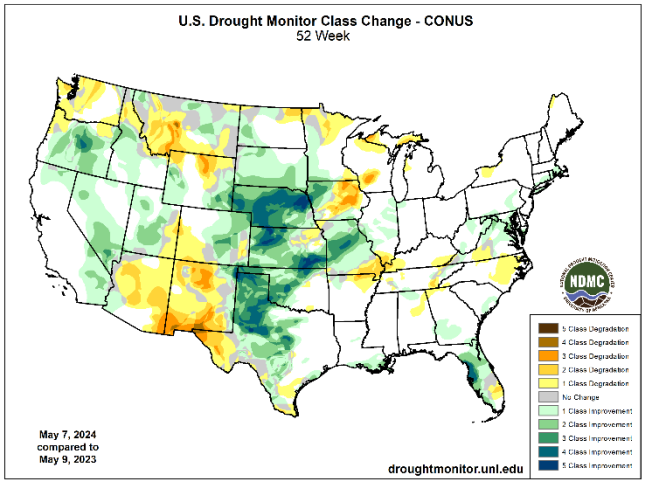
1 Month



6 Months



1 Year



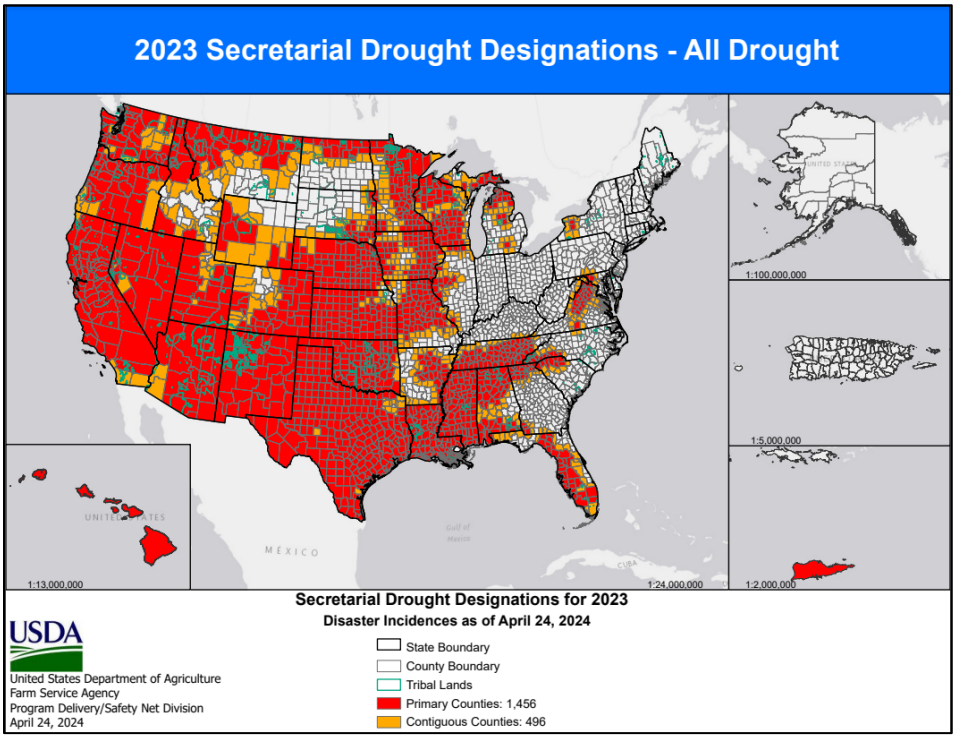
Changes in drought conditions over the last 12 months for the contiguous U.S.

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

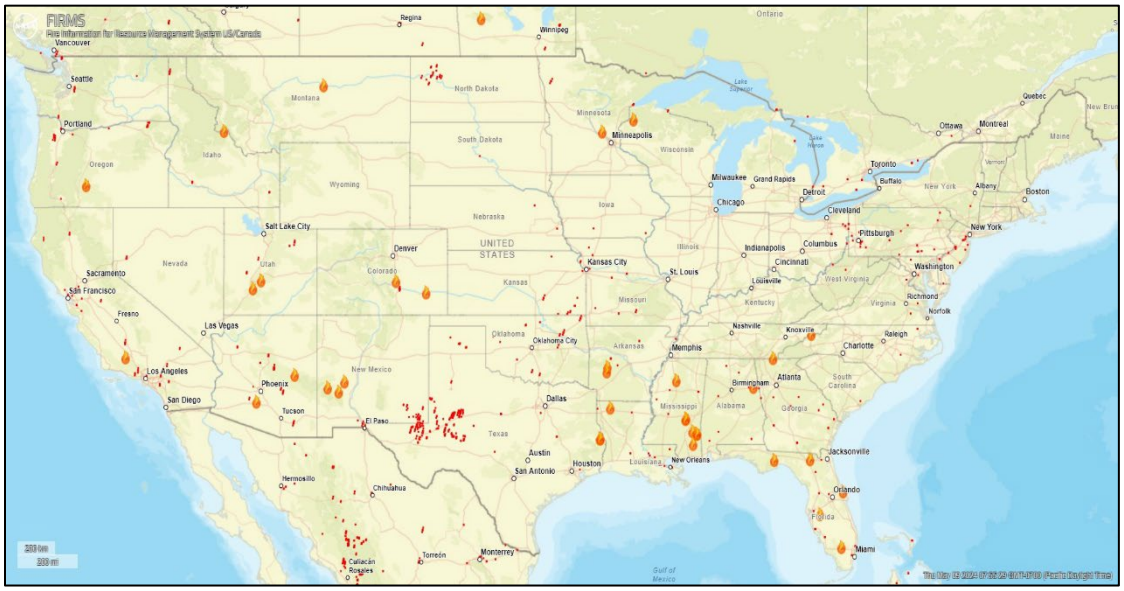
USDA Secretarial Drought Designations

Source: USDA Farm Service Agency



Wildfires: Fire Information for Resource Management System US/Canada

Source: NASA/USDA Forest Service



Current active wildfires larger than 1,000 acres in size

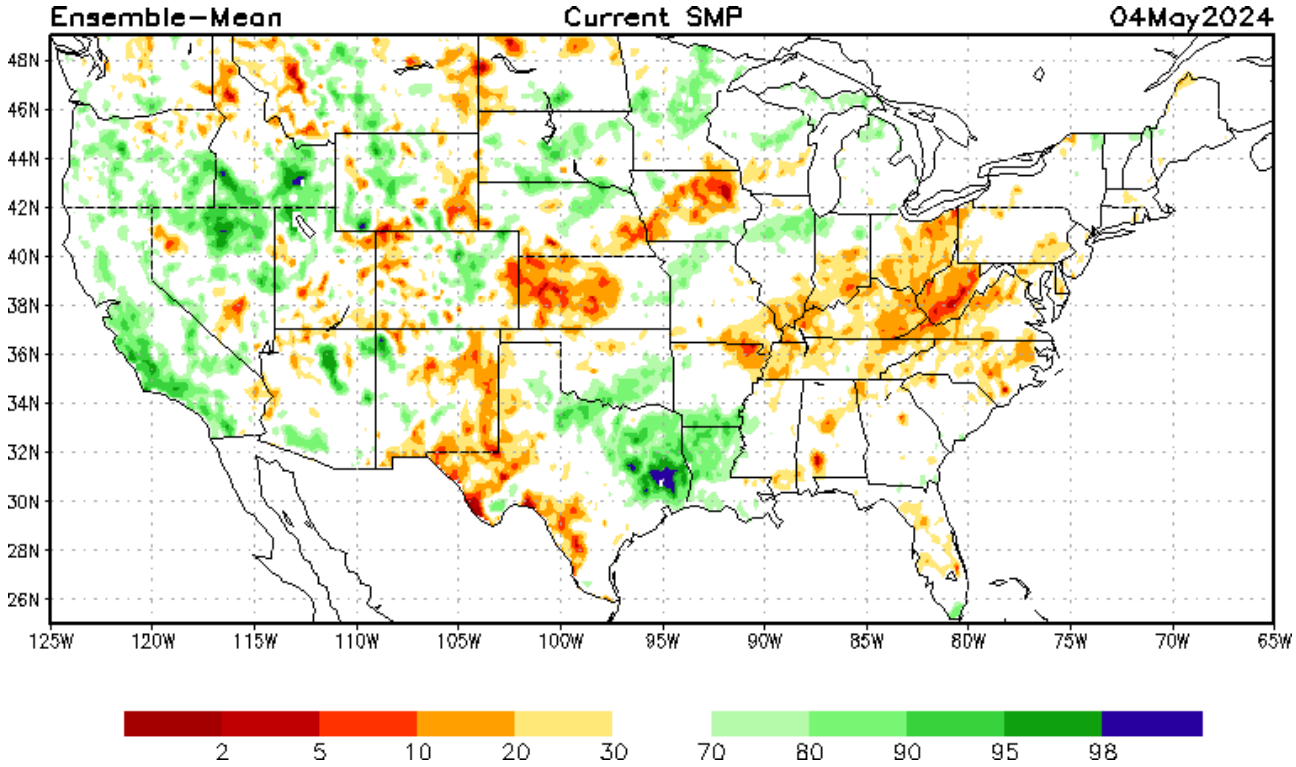
Highlighted Wildfire Resources

- National Interagency Fire Center
- InciWeb Incident Information System
- Significant Wildland Fire Potential Outlook

Other Climatic and Water Supply Indicators

Soil Moisture

Source: NOAA National Centers for Environmental Prediction

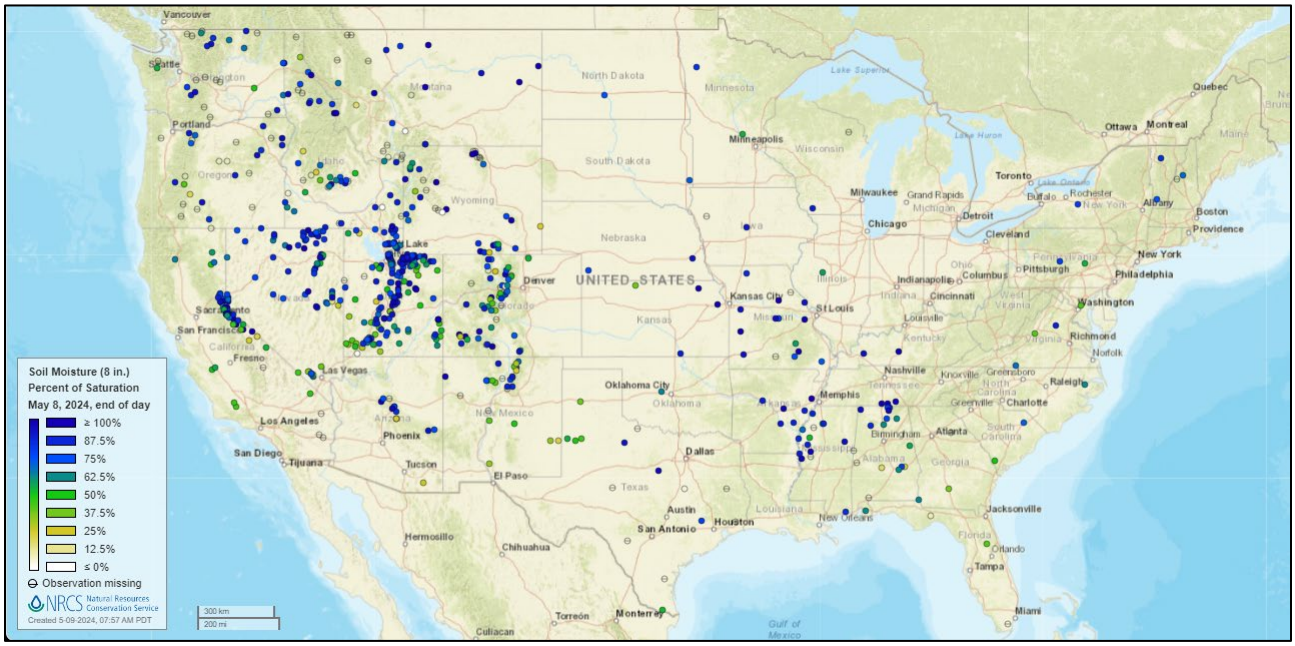


Modeled soil moisture percentiles as of May 04, 2024

Soil Moisture Percent of Saturation

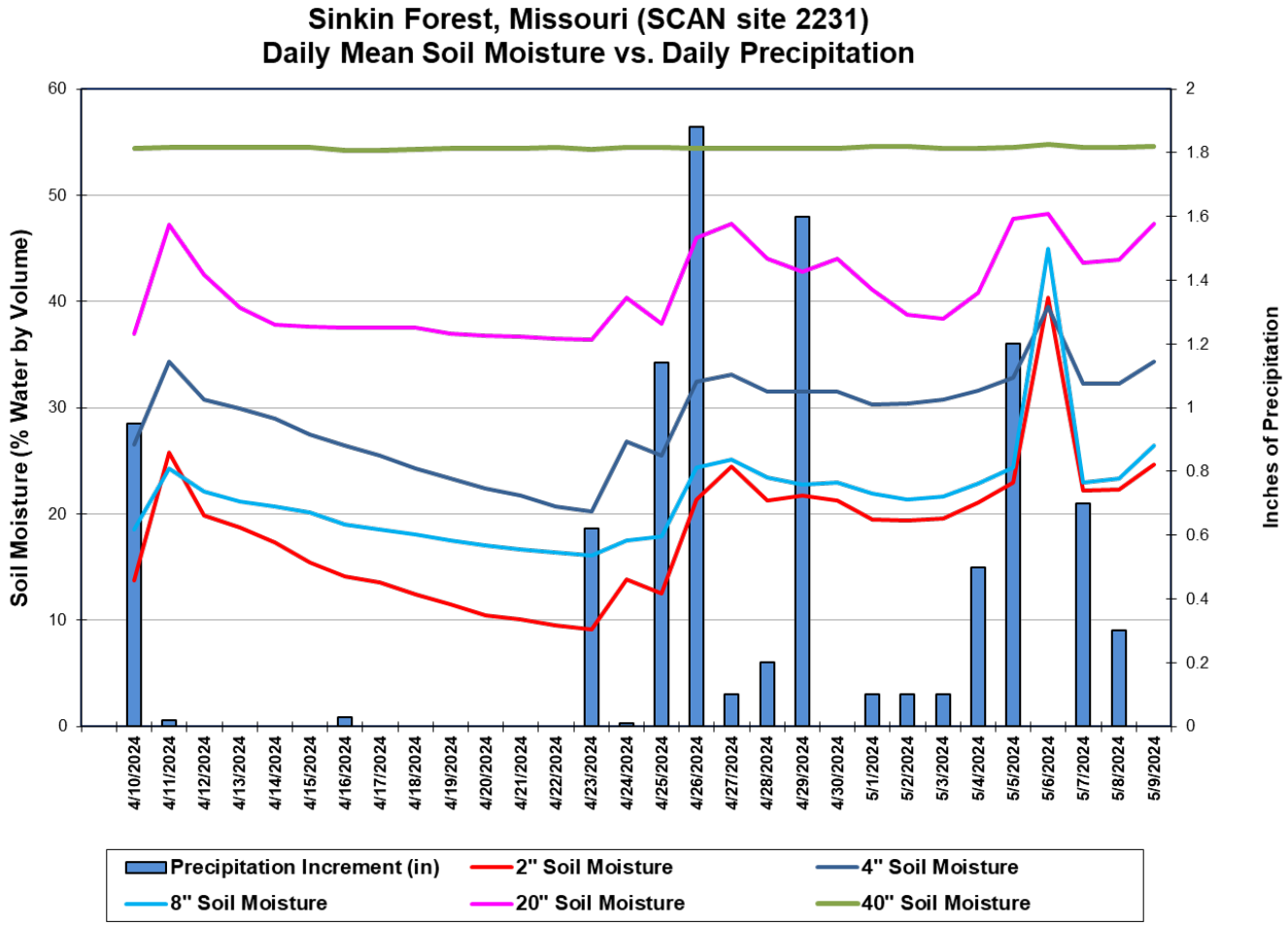
Source: NRCS SNOTEL and Soil Climate Analysis Network (SCAN)

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



Soil Moisture

Source: NRCS Soil Climate Analysis Network (SCAN)



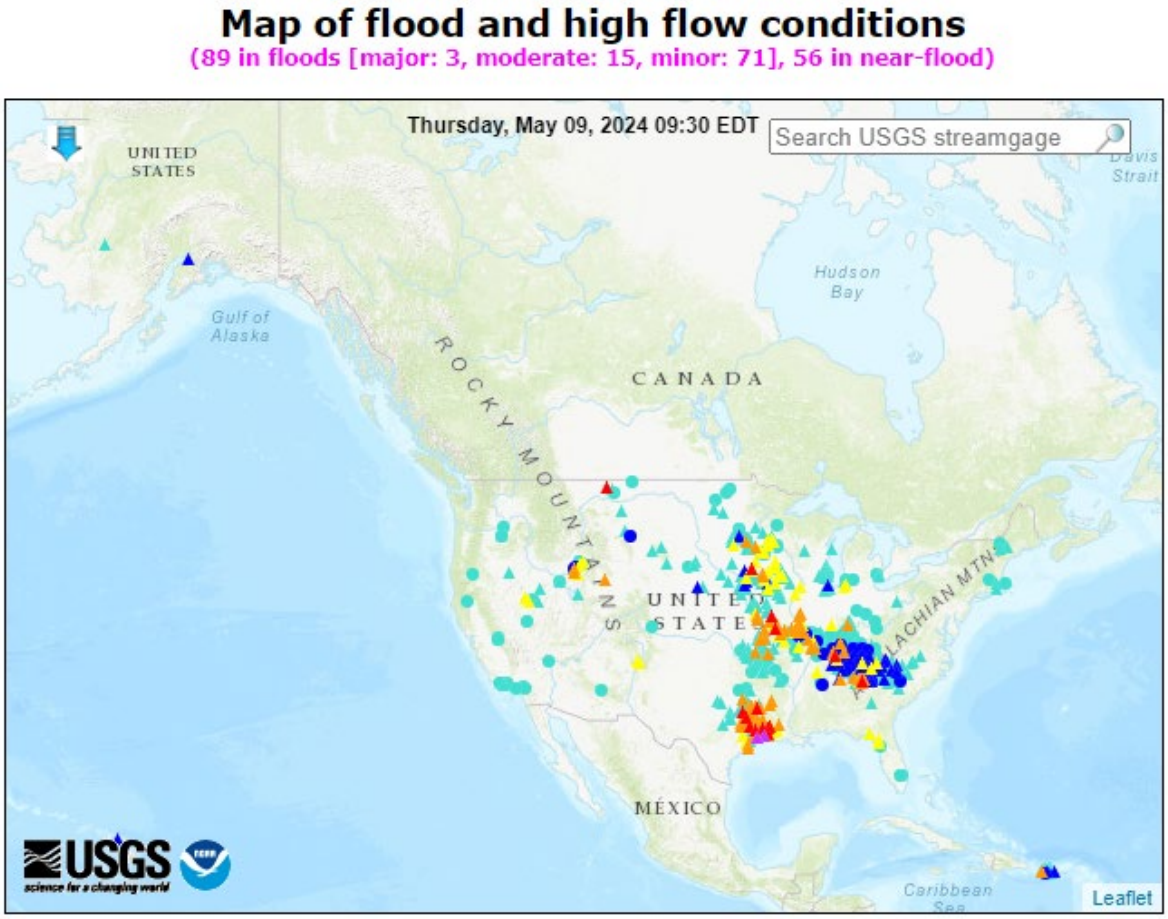
This chart shows the precipitation and soil moisture for the last 30 days at the Sinkin Forest SCAN site in Missouri. Soil sensors at all depths except the -40-inch sensor indicate a general decrease in soil moisture at the site between April 12-23. Storm systems moved through the area between April 23 and May 8, depositing 8.55 inches of precipitation in that span, with pronounced fluctuation in soil moisture indicated at all sensor depths except the -40-inch sensor. Total precipitation for the 30-day period was 9.55 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

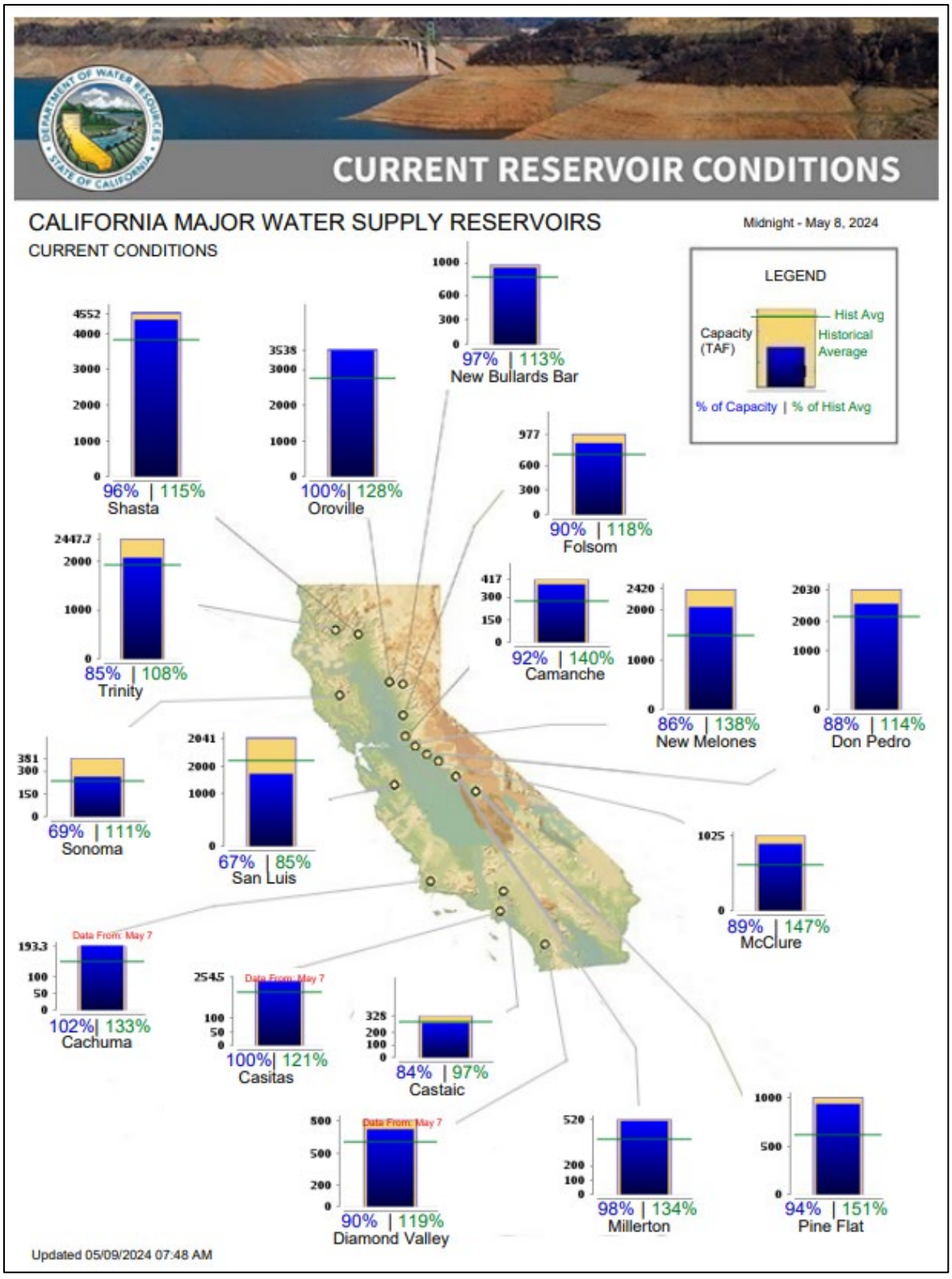
Hydromet Teacup Reservoir Depictions

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

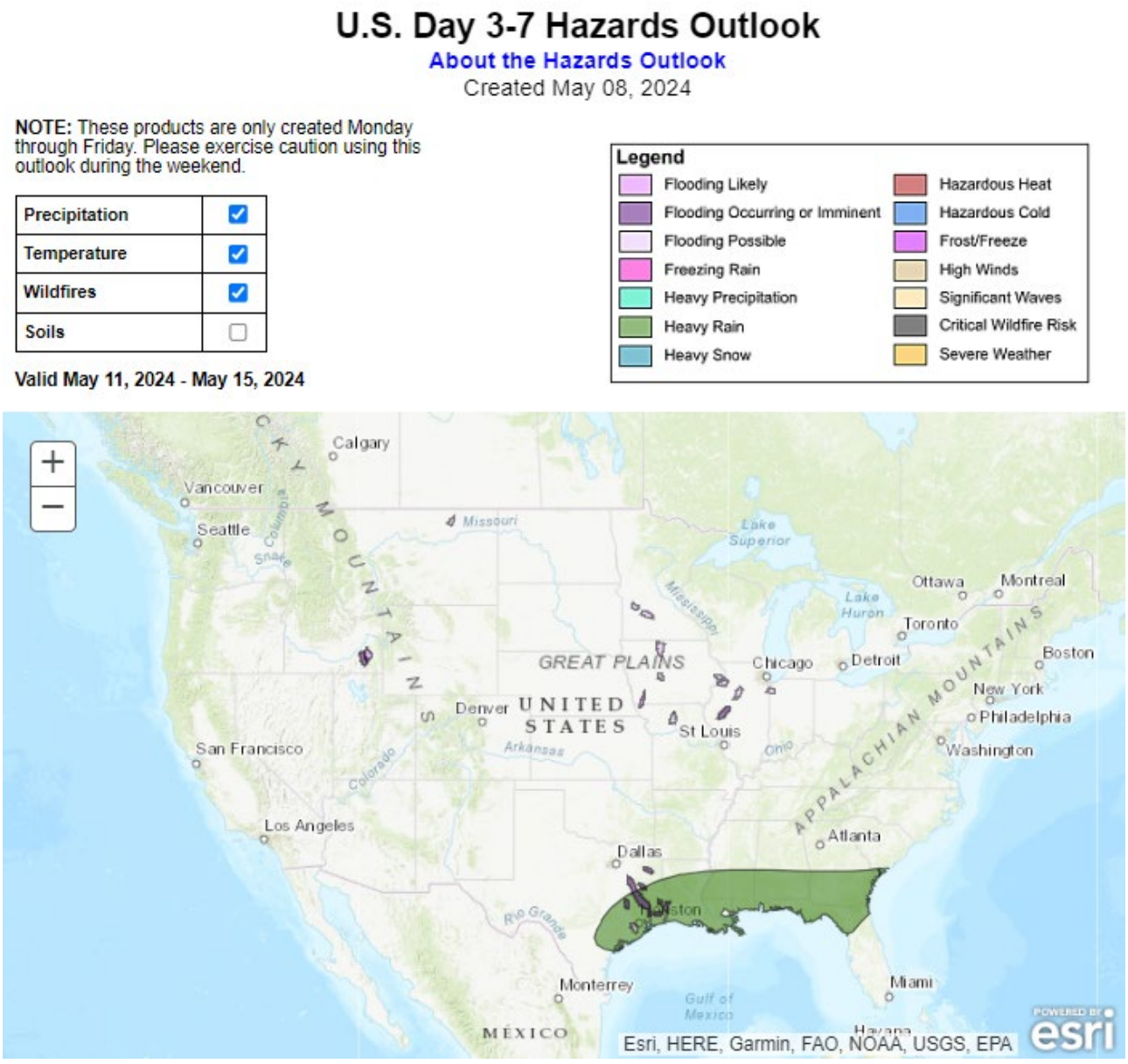
Agricultural Weather Highlights

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

National Outlook, Thursday May 09, 2024: "The threat of additional severe thunderstorms will shift into the South later today and toward the southern Atlantic Coast by Friday. Subsequently, much of the country will experience a brief period of tranquil weather, with warmth arriving in the West and cool conditions overspreading much of the central and eastern U.S. During the weekend, showers will develop across central and southern sections of the Rockies and High Plains, with rain becoming heavier by Monday while spreading into the middle and lower Mississippi Valley and the Gulf Coast States. Five-day rainfall totals should reach 2 to 4 inches or more along and near an axis stretching from eastern Texas to southern Georgia. In contrast, little or no rain will fall during the next 5 days across southern Florida, the north-central U.S., and areas west of the Rockies. The NWS 6- to 10-day outlook for May 14 – 18 calls for the likelihood of near- or above-normal temperatures and precipitation nearly nationwide. Cooler-than-normal conditions will be confined to parts of western Washington, while drier-than-normal weather should be limited to portions of western Texas and an area stretching from northern California and the Pacific Northwest to the northern Rockies."

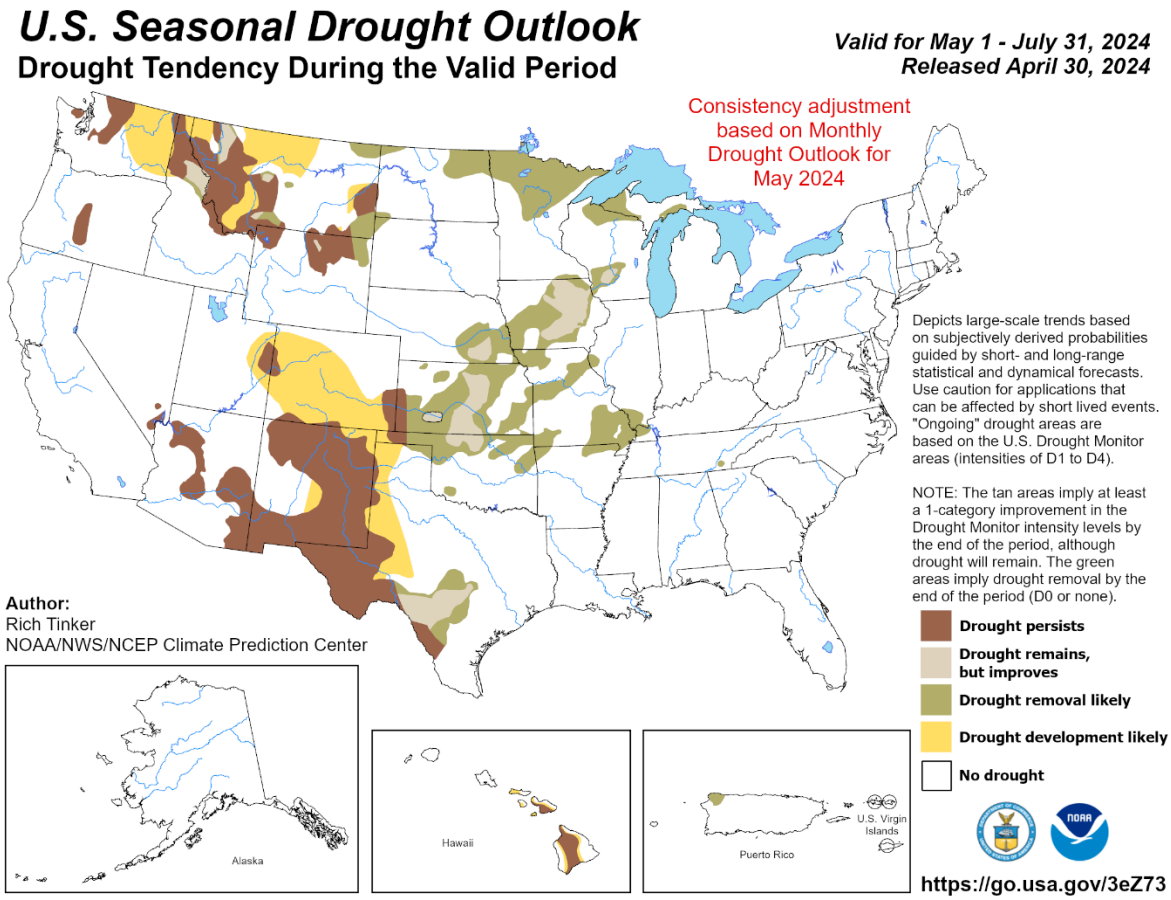
Weather Hazards Outlook: May 11 – 15, 2024

Source: NOAA Weather Prediction Center



Seasonal Drought Outlook: May 01 – July 31, 2024

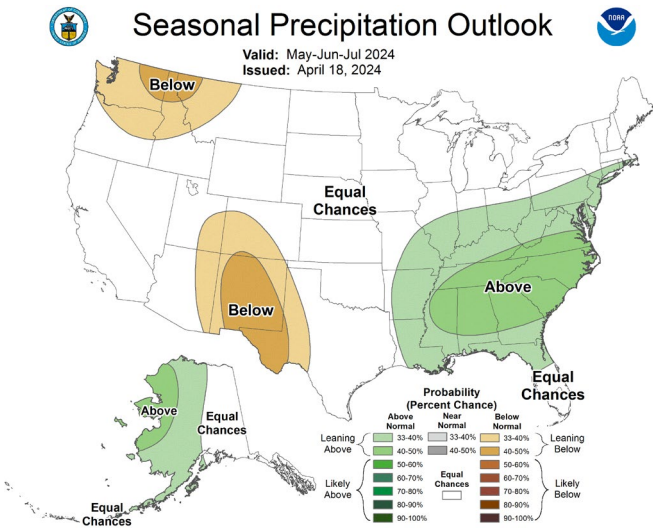
Source: National Weather Service



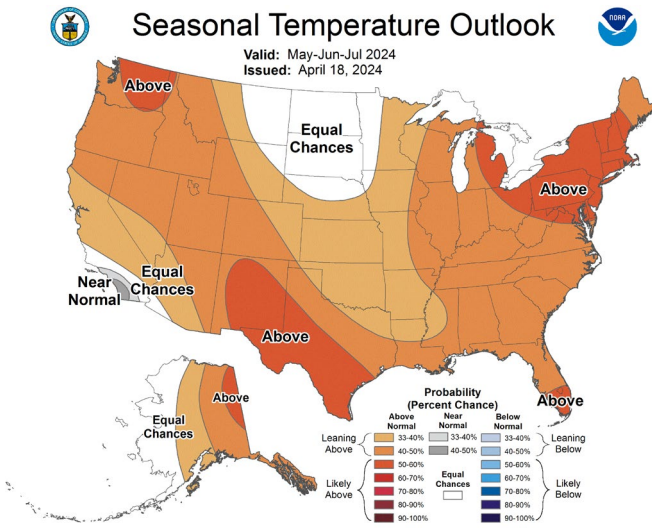
Climate Prediction Center Three-month Outlook

Source: National Weather Service

Precipitation



Temperature



May-June-July 2024 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.