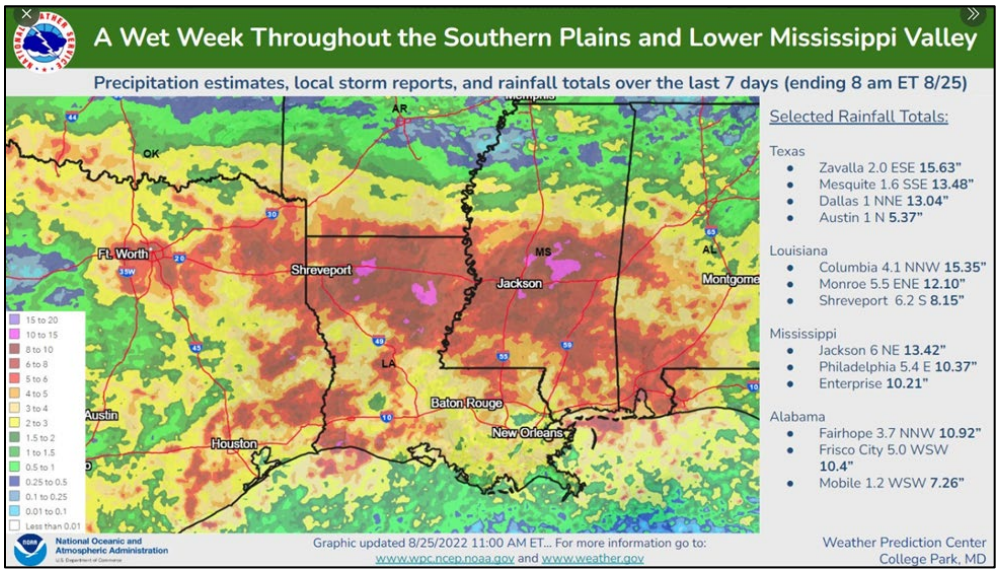
United States Department of Agriculture

Water and Climate Update

August 25, 2022

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.

Record-breaking Rainfall and Flooding Hits the South



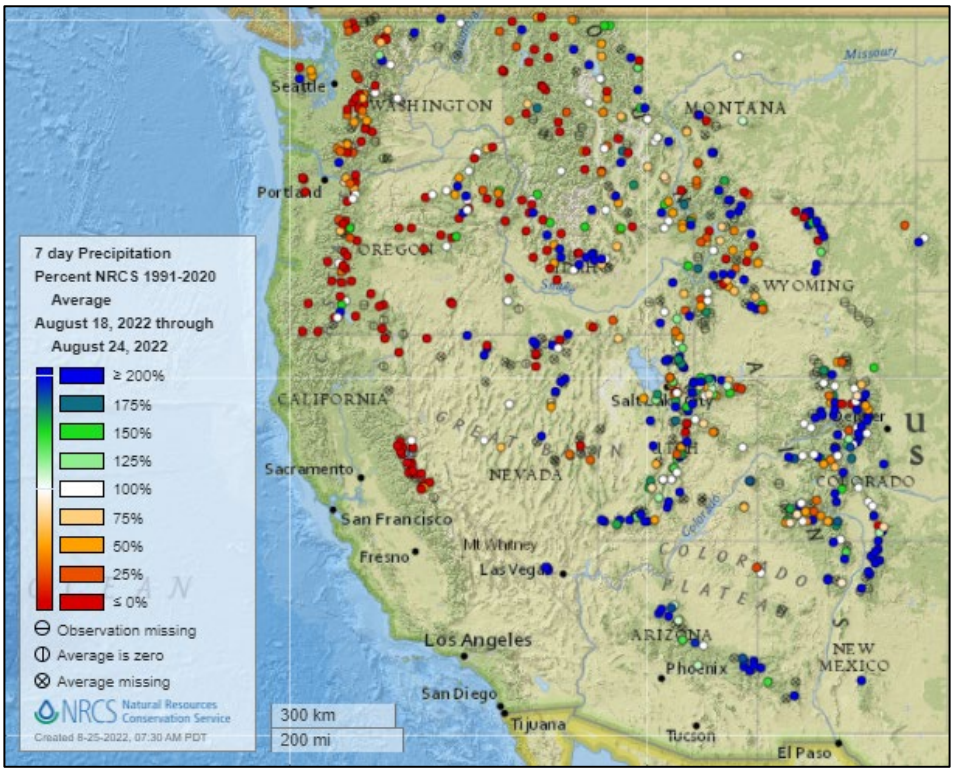
Record-breaking amounts of rain fell across the Southern Plains and Lower Mississippi River Valley this week, topping five inches across a wide area. The event set a record for the Dallas-Fort Worth (DFW) Metropolitan Area, with records dating back as far as 1899. The DFW International Airport reported receiving more than nine inches in 24 hours, surpassing the previous record. The highest reported total from the event was 15.63 inches recorded at the Zavalla 2.0 ESE National Weather Service station in Texas. While this rain provided much needed drought relief for some areas, the excessive rain in some parts produced extreme flooding. Over 9 million people were under flood watch across the South on August 23. Flooding caused hundreds of calls for water rescues, damaged homes and businesses, and closed roads.

Related:

Heavy rain, flooding target Louisiana, Mississippi as Dallas reels from downpours – ABC News
A day after North Texas' record-breaking flood, officials, residents survey the damage – The Dallas Morning News (TX)
Weather whiplash: Summer lurches from drought to flood – AP News
DFW weather: Flooding rains have ended, but lingering high water remains – KHOU11 (TX)
North Texas hit by 1-in-1,000-year flooding – Axios
Record Deluge Floods North Texas Roads, Rain Totals Nearing 15 Inches – NBC DFW (TX)
At least one dead in Dallas deluge that saw more than 15 inches in 24 hours – NBC News
Flood Videos, Pictures Show Mississippi Streets Submerged – Newsweek
Severity of flash flooding in Dallas area surprises residents as rescue crews respond to hundreds of calls for help - CNN

Precipitation

Last 7 Days, NRCS SNOTEL Network

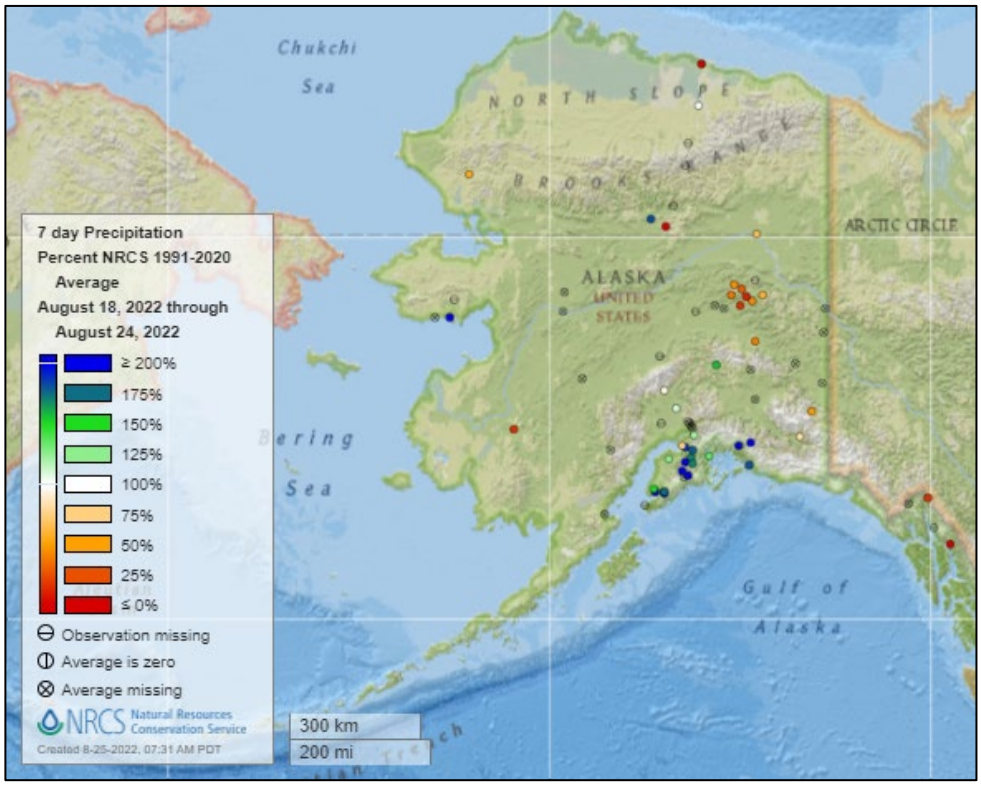


[7-day precipitation percent of average map]

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]

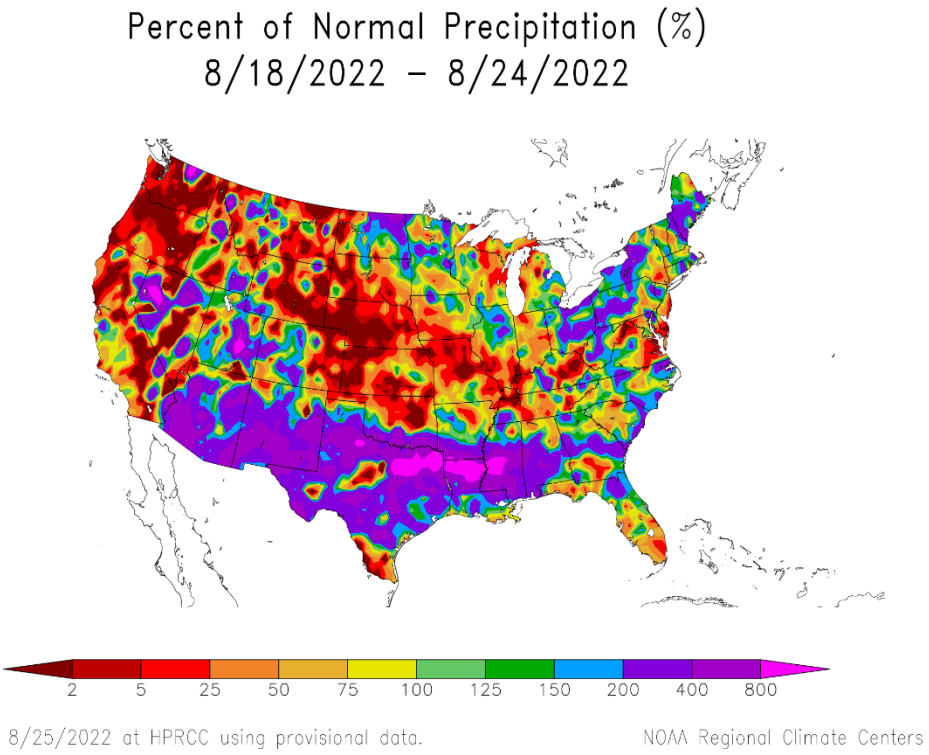


Last 7 Days, National Weather Service (NWS) Networks

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

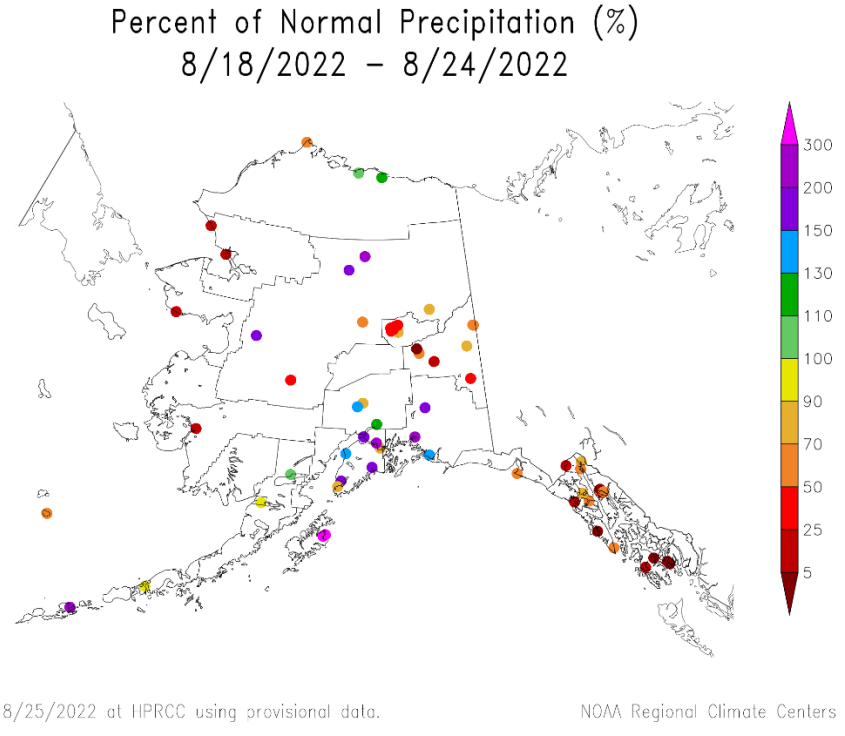


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

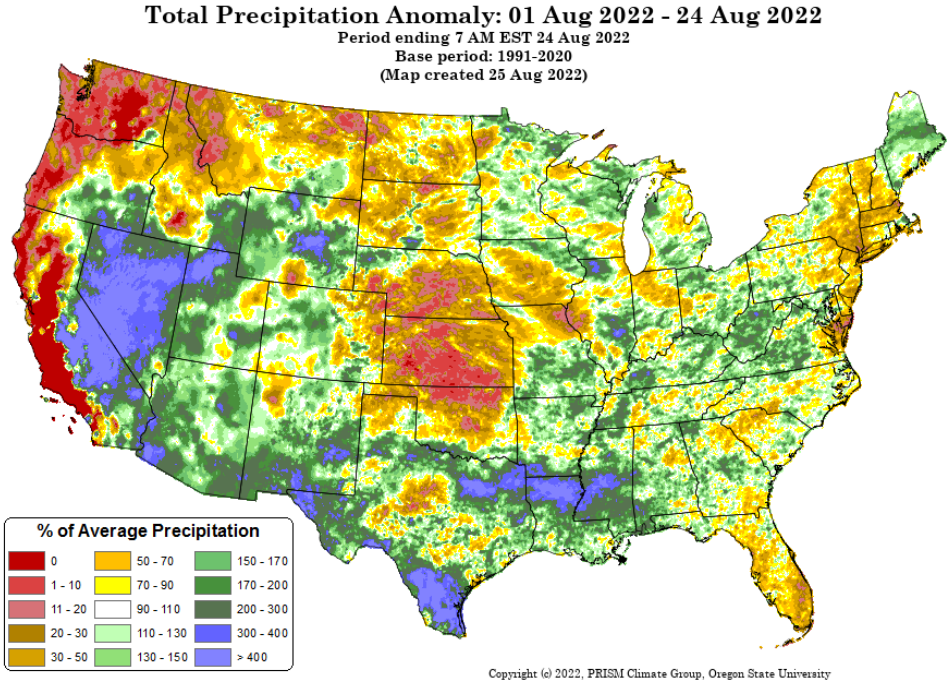
7-day precipitation anomaly map for Alaska.

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



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

Source: PRISM

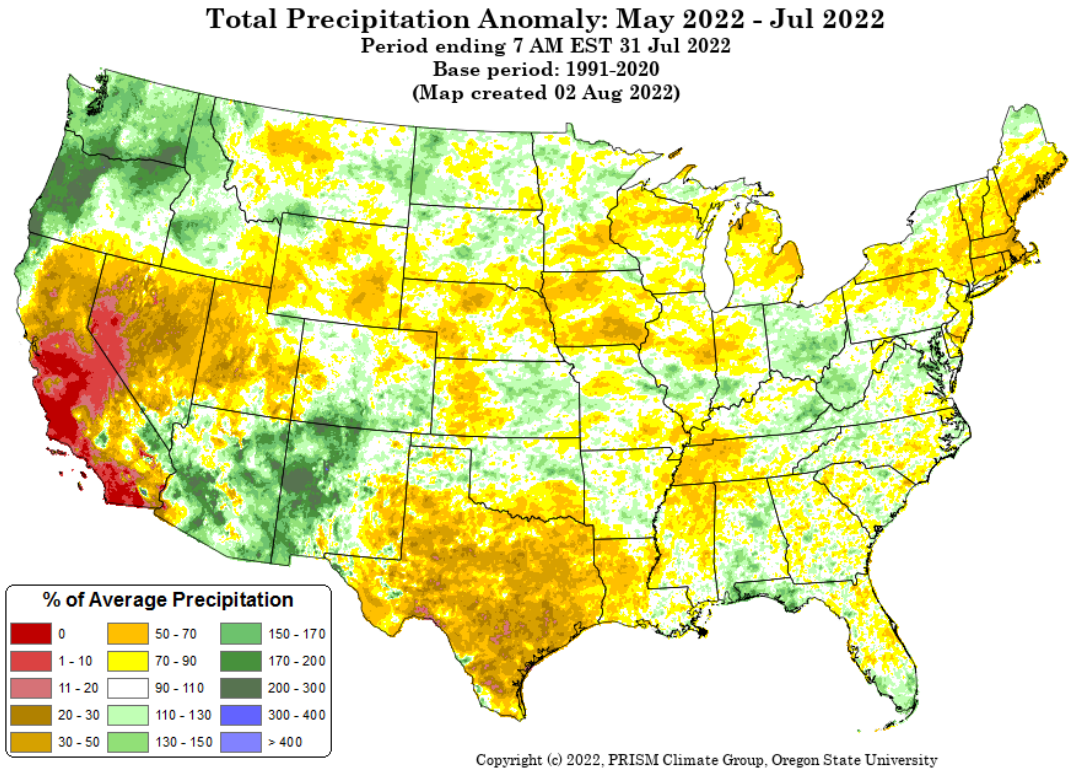


Month-to-date national total precipitation anomaly map

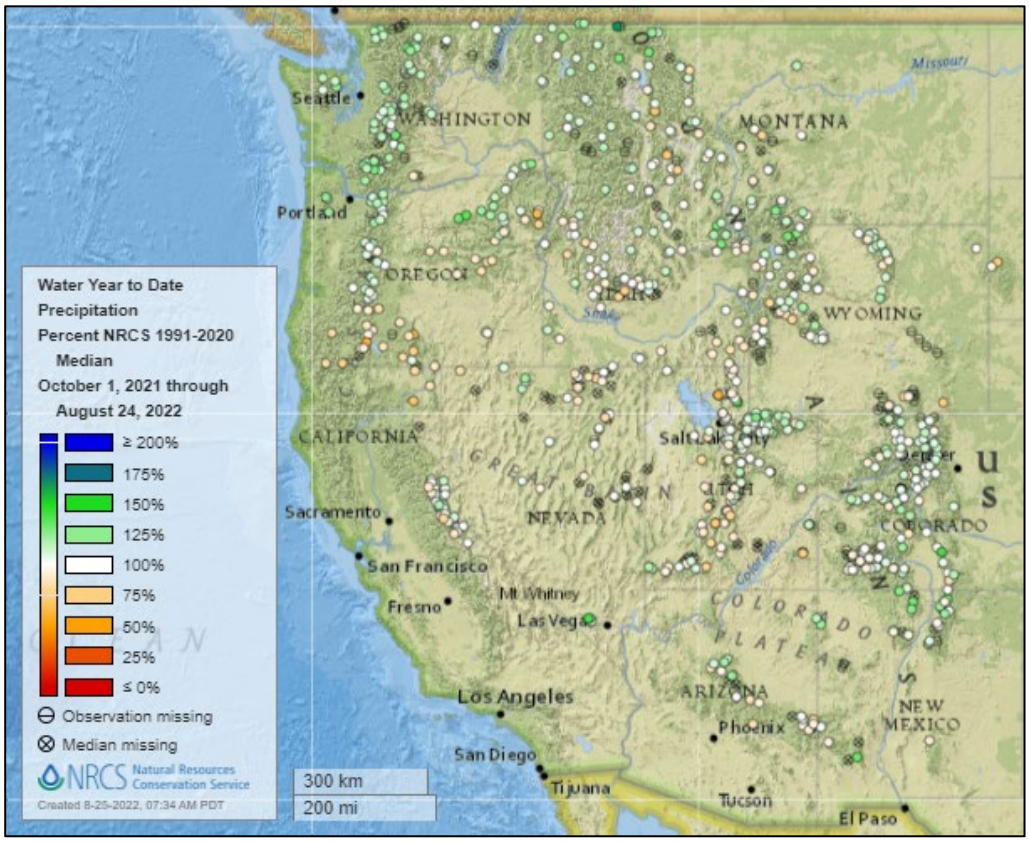
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

May through July 2022 precipitation anomaly map



Water Year-to-Date, NRCS SNOTEL Network

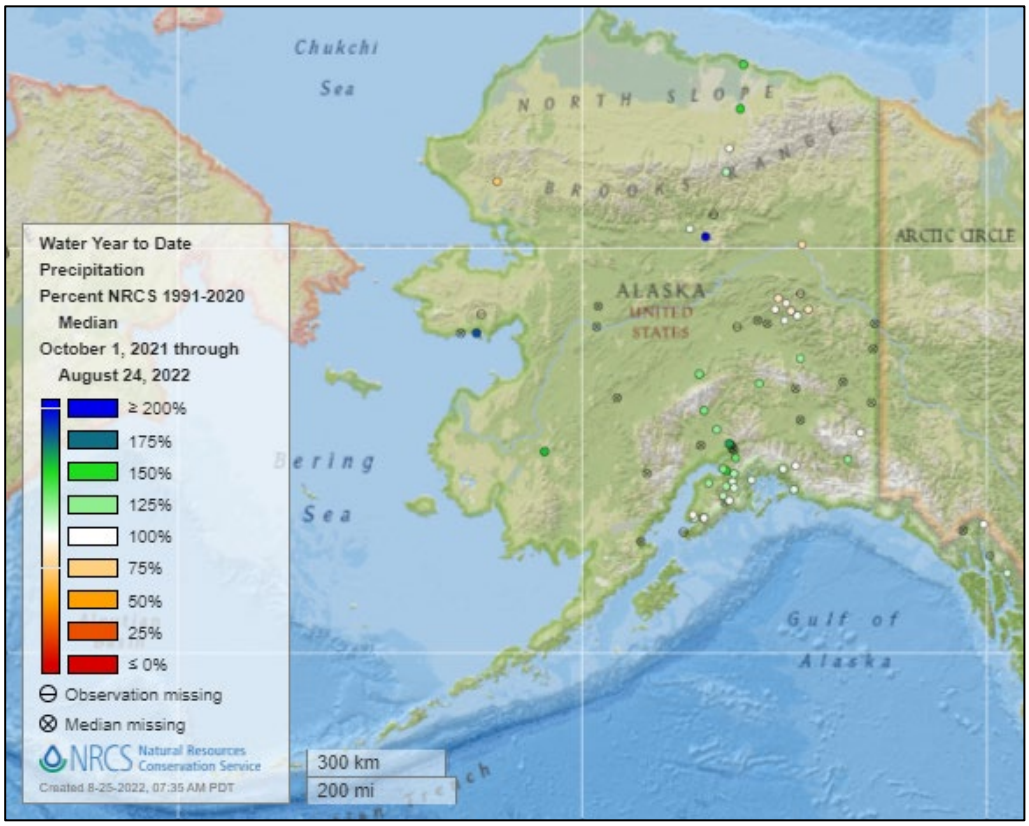


[2022 water year-to-date precipitation percent of median map]

See also:

[2022 water year-to-date precipitation percent of average map]

[2022 water year-to-date precipitation values (inches) map]



[Alaska 2022 water year-to-date precipitation percent of median map]

See also:

[Alaska 2022 water year-to-date precipitation percent of average map]

[Alaska 2022 water year-to-date precipitation values (inches) map]

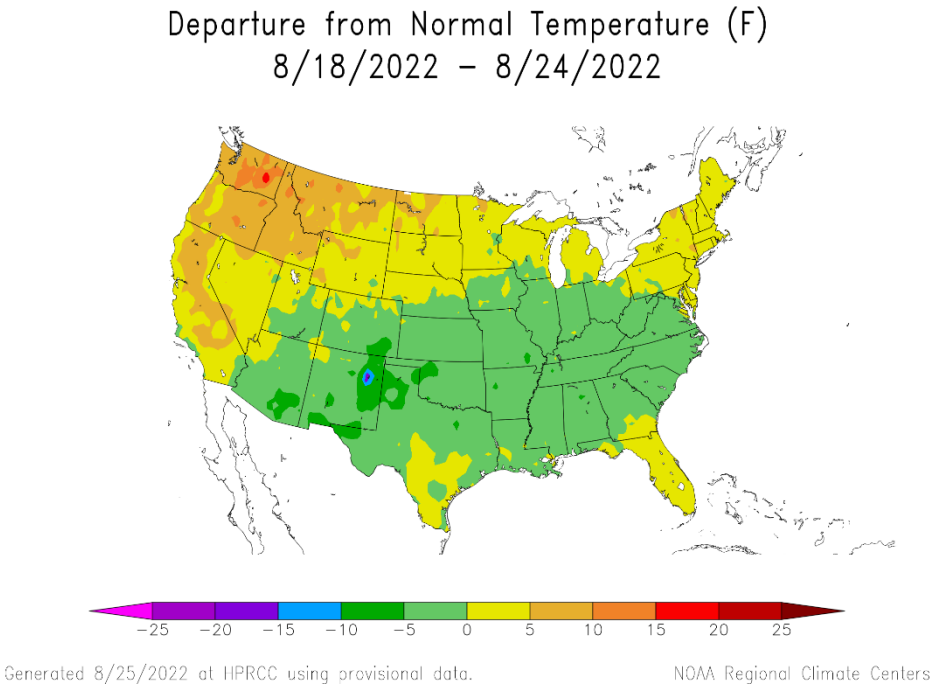
Temperature

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

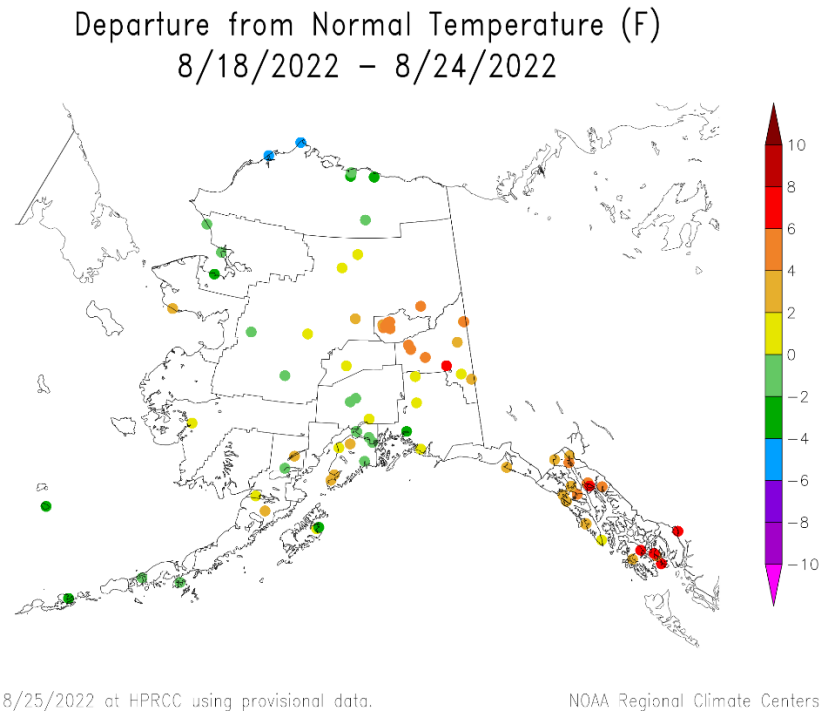


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

7-day temperature anomaly map for Alaska.

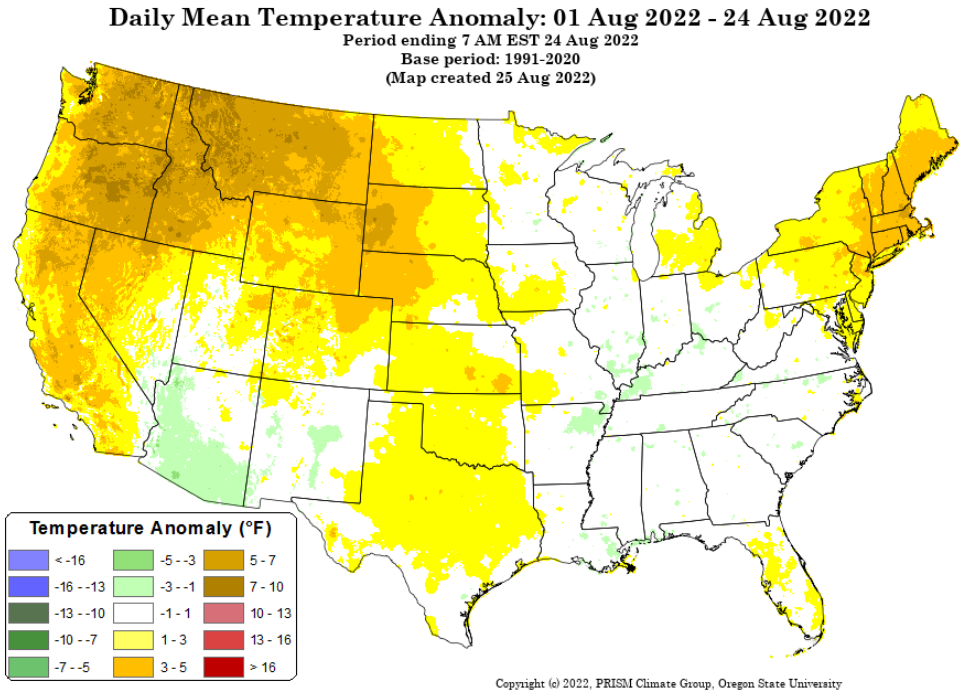
See also: 7-day temperature (° F) map



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

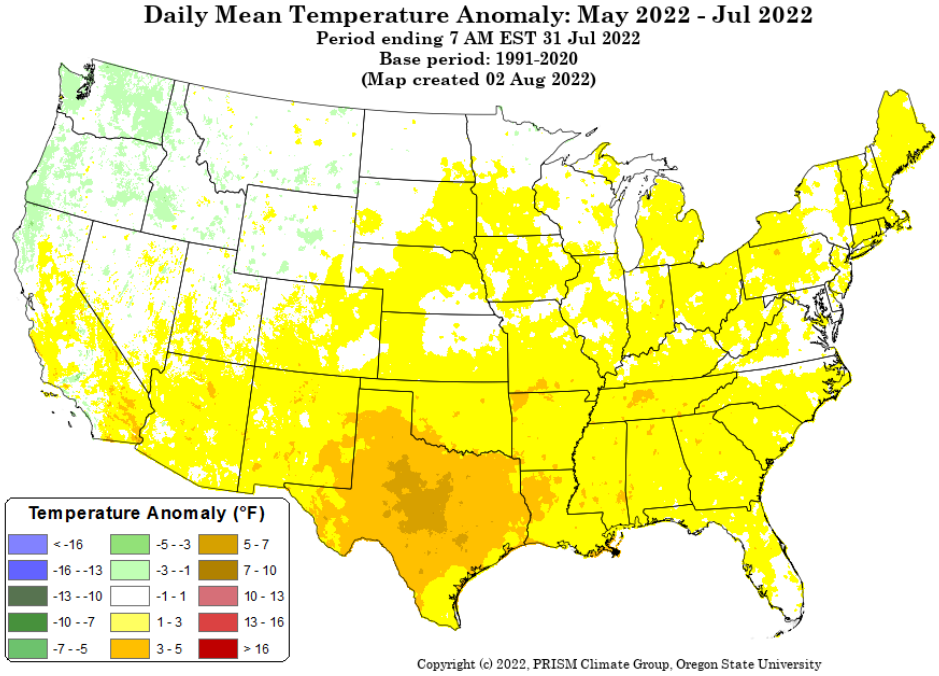
Source: PRISM

Month-to-date national daily mean temperature anomaly map



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

Source: PRISM

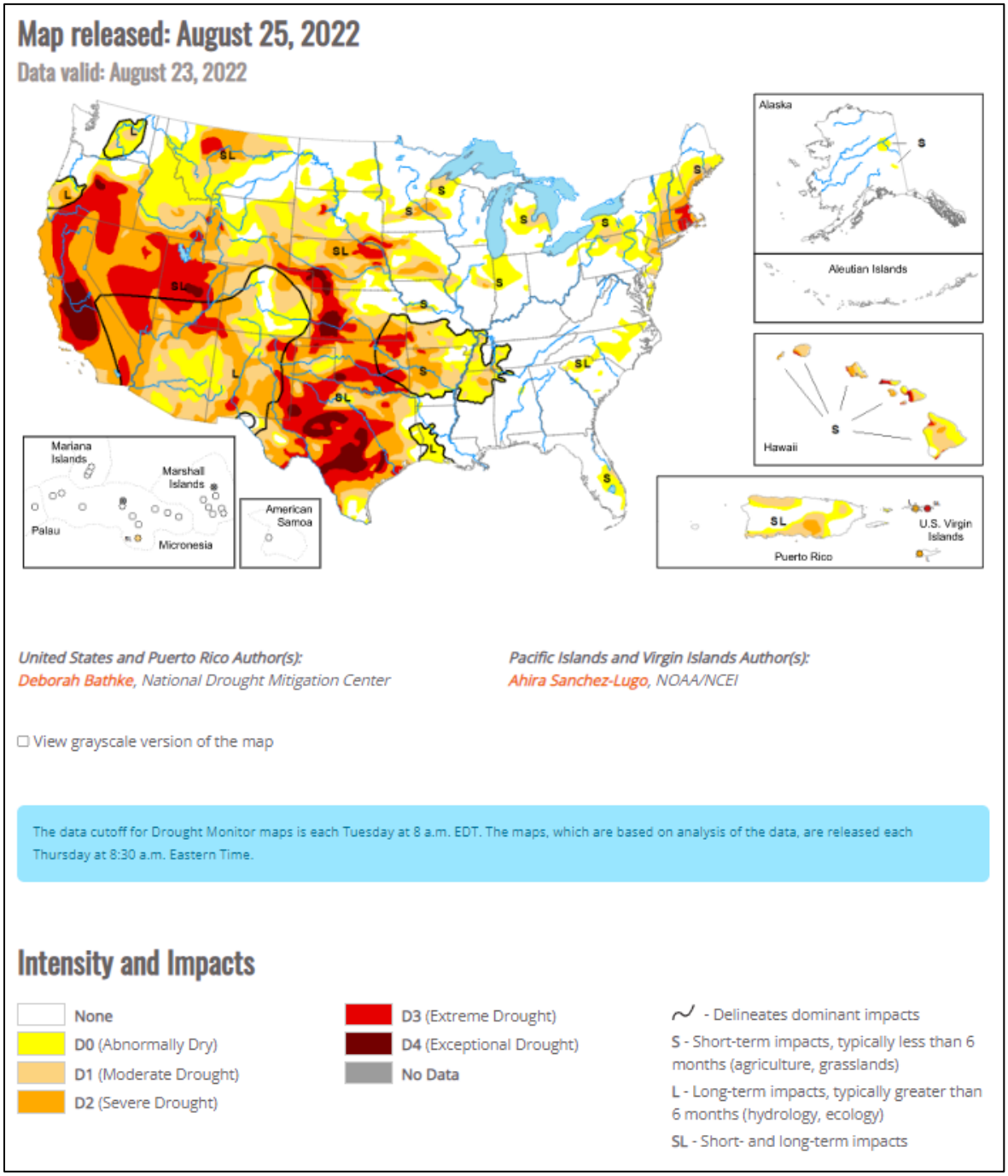


May through July 2022 daily mean temperature anomaly map

Drought

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

U.S. Drought Portal
Source: NOAA



Current National Drought Summary, August 23, 2022

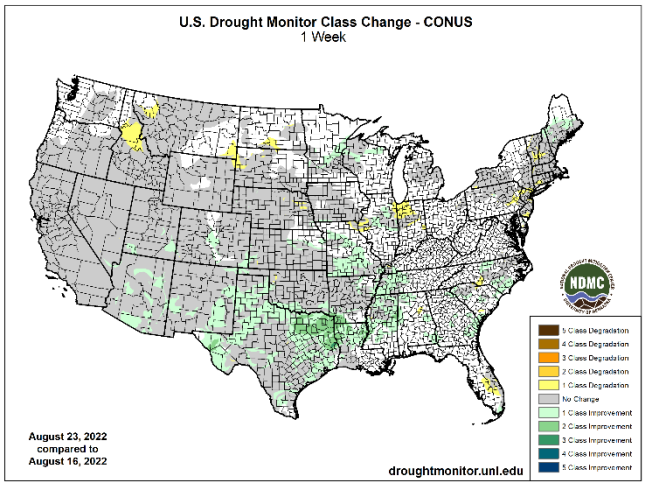
Source: National Drought Mitigation Center

“Record-breaking rainfall led to aggressive improvements in drought conditions across parts of the South. The heavy rainfall and flooding led to communications outages at the National Weather Service office leaving climatologists without access to important data and tools needed to fully analyze the effect of this event. The magnitude of this event meant prioritizing improvements on this week’s map in these areas and in the Southwest, where the Monsoon season remains active. Drought expanded in the Northwest was warm, dry conditions continued across the region. The Midwest, Southeast, and Northeast saw a mix of improvements and degradations.”

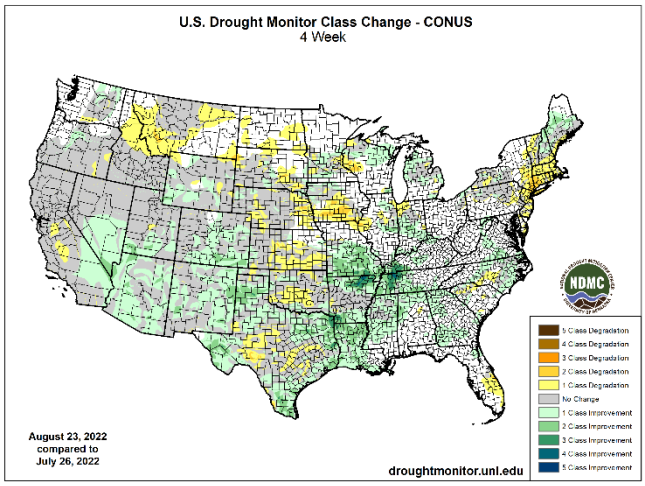
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

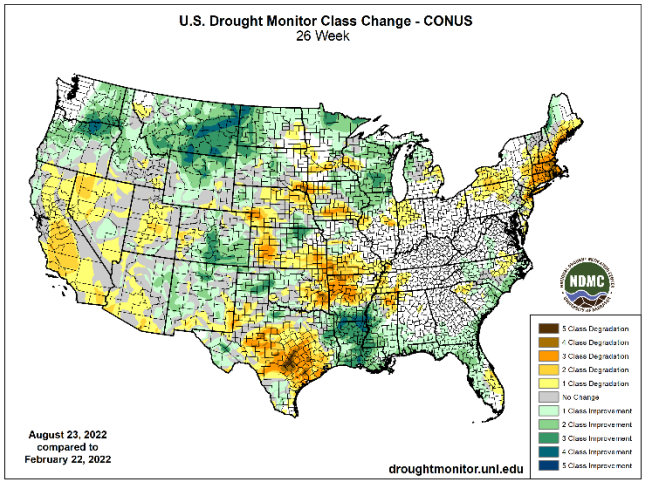
1 Week



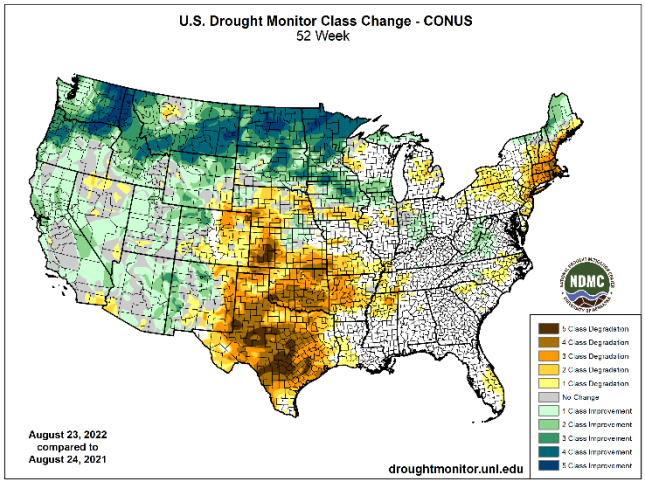
1 Month



6 Months



1 Year



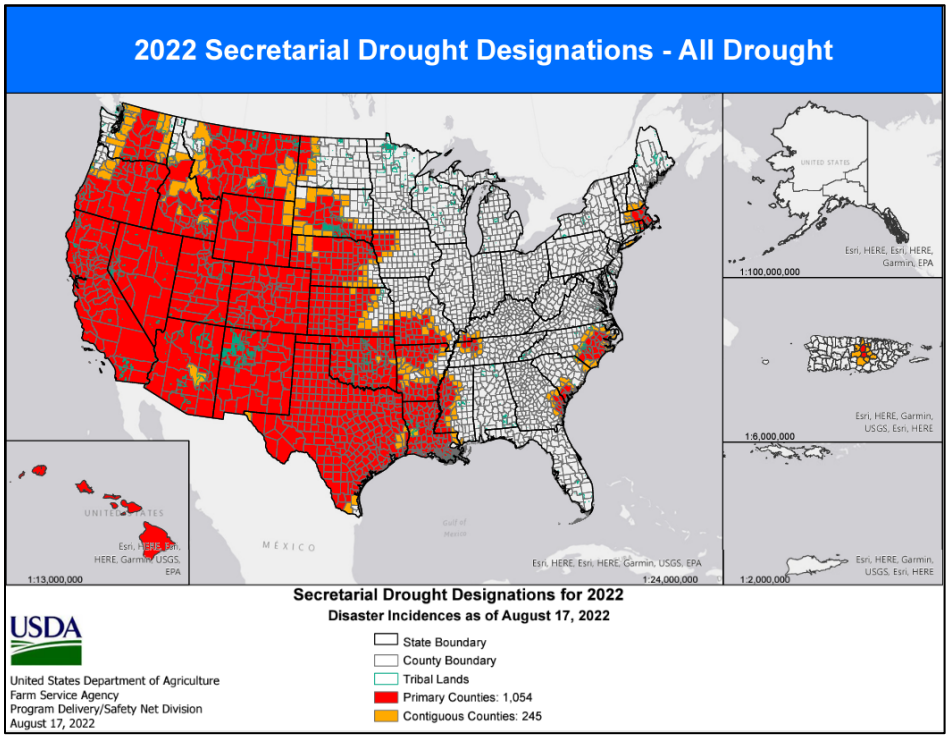
Changes in drought conditions over the last 12 months for the contiguous U.S.

Highlighted Drought Resources

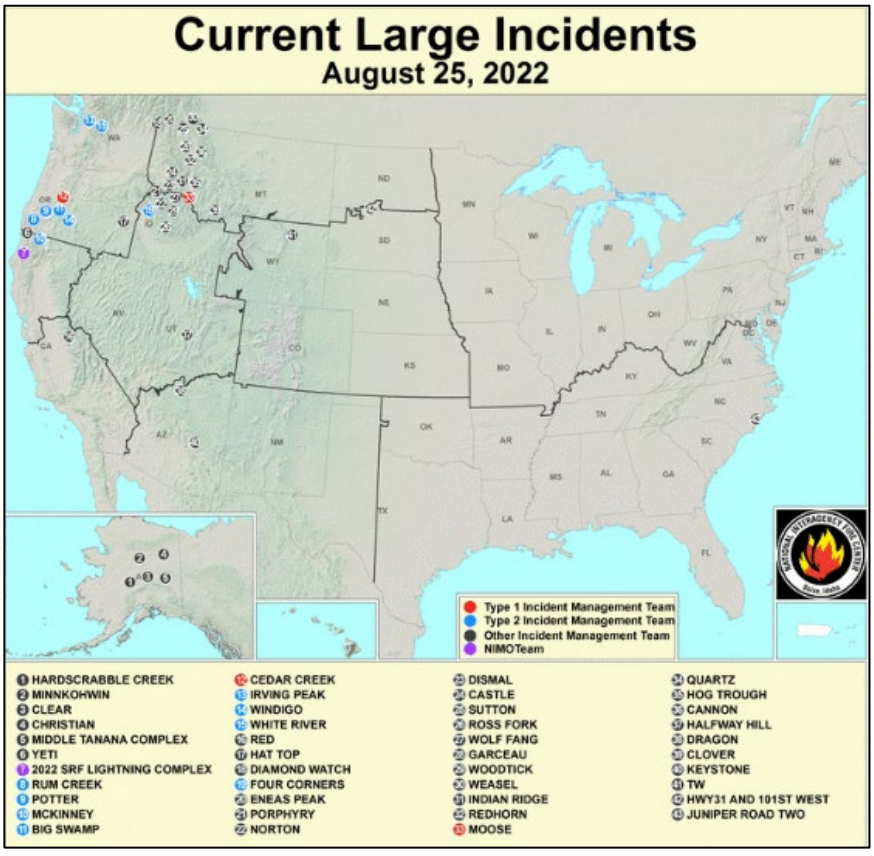
- Drought Impact Reporter
- Quarterly Regional Climate Impacts and Outlook
- U.S. Drought Portal Indicators and Monitoring
- U.S. Population in Drought, Weekly Comparison
- USDA Disaster and Drought Information

USDA Secretarial Drought Designations

Source: USDA Farm Service Agency



Wildfires: USDA Forest Service Active Fire Mapping



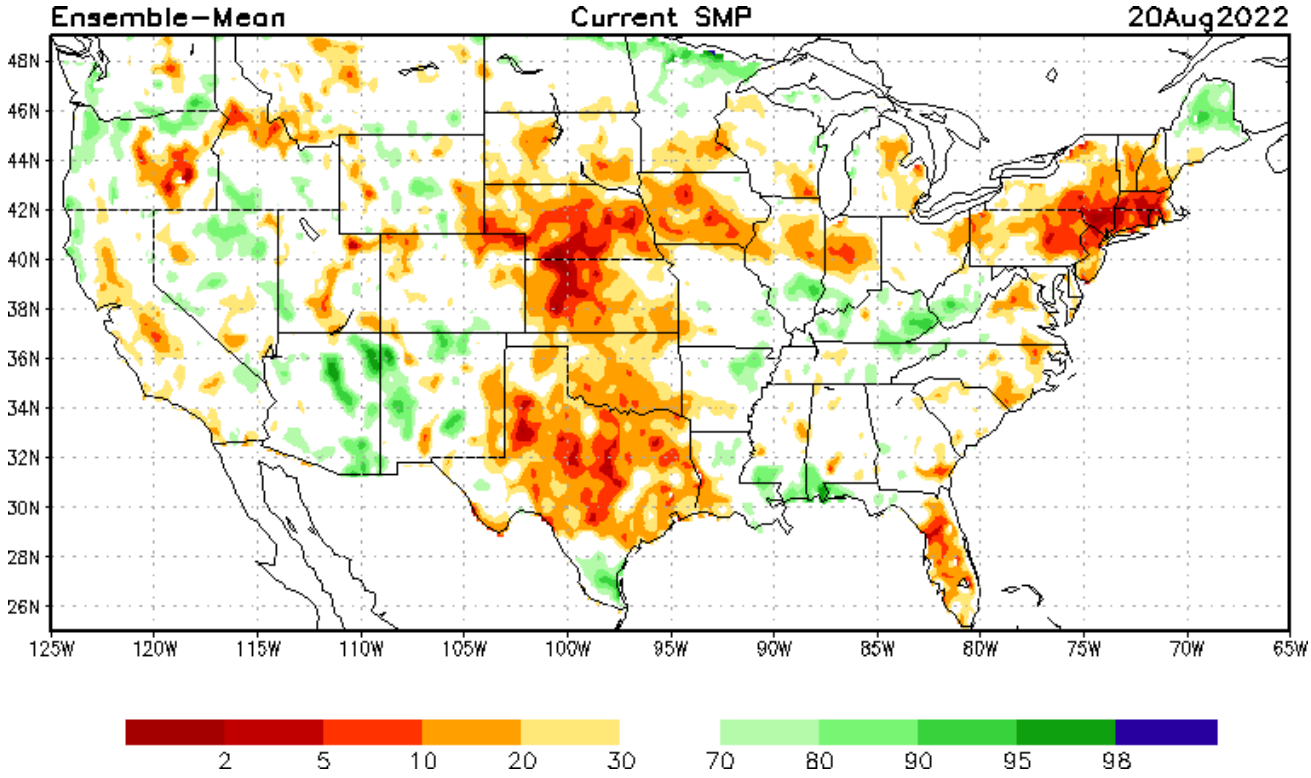
Highlighted Wildfire Resources

- 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

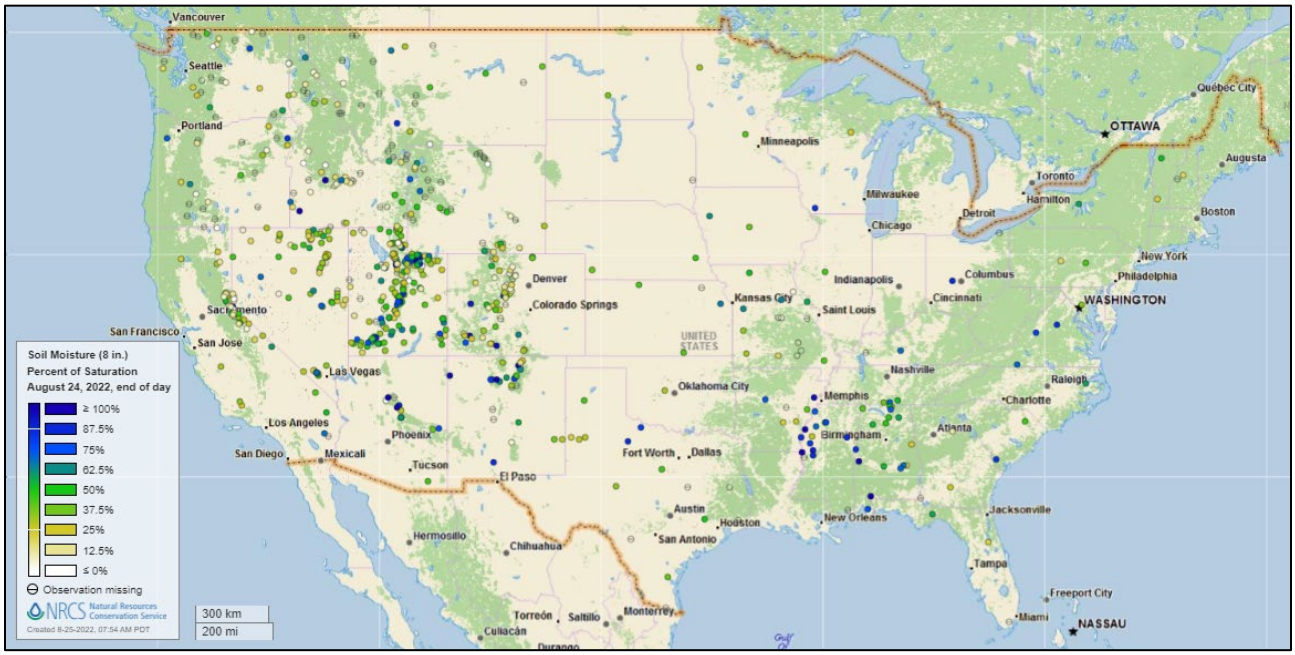


Modeled soil moisture percentiles as of August 20, 2022

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)

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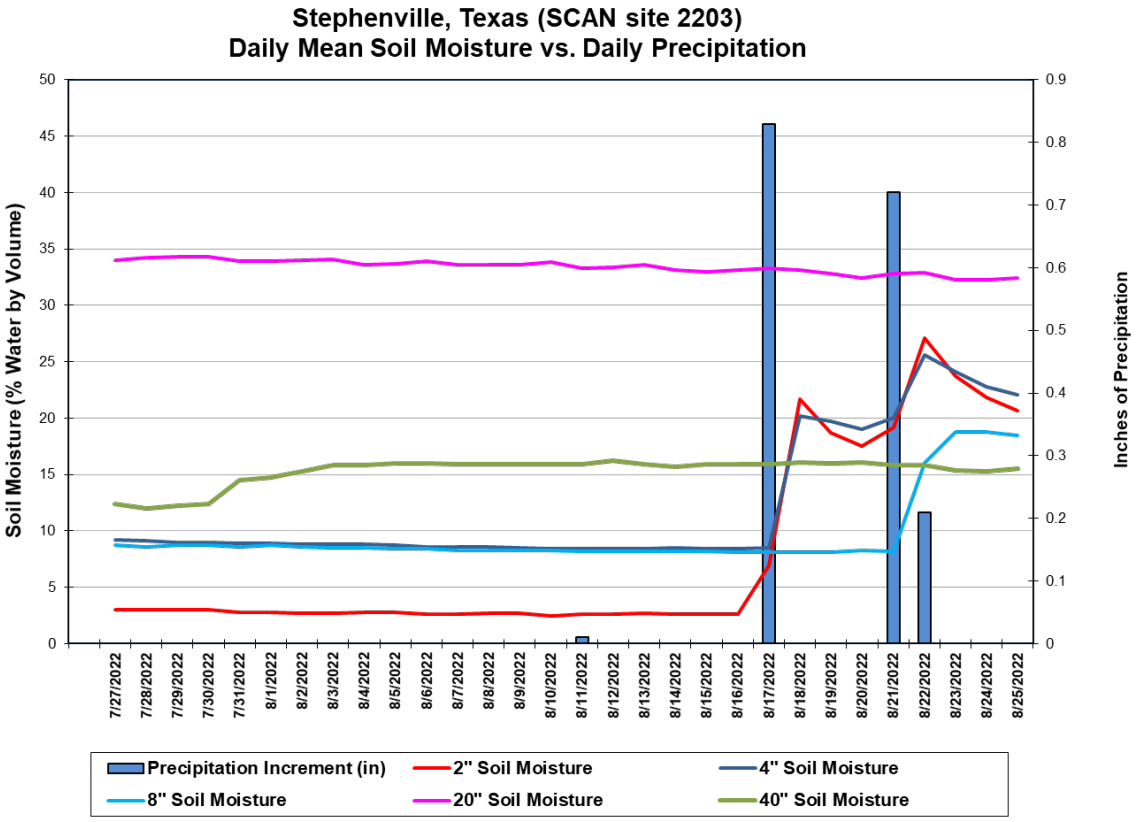


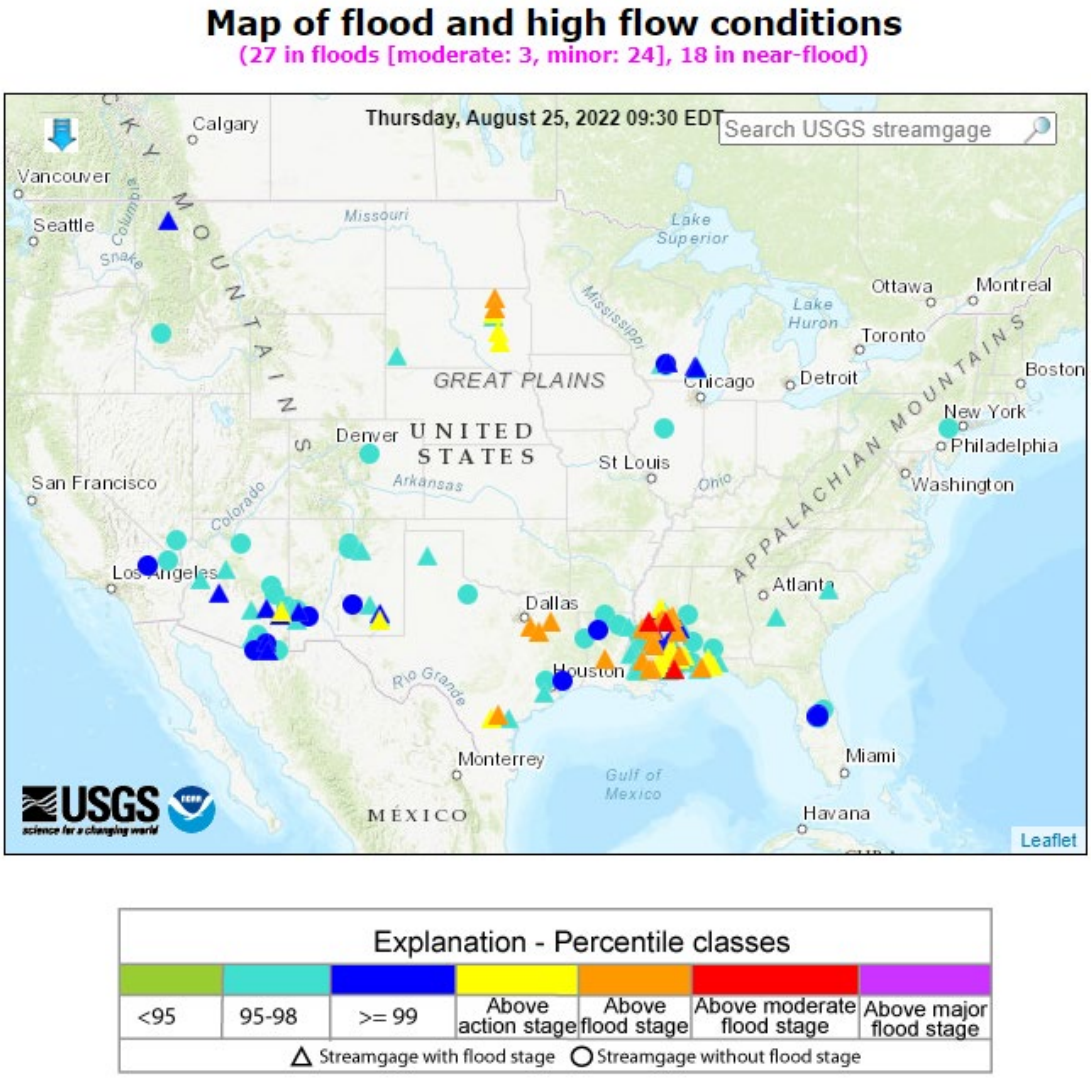
This chart shows the precipitation and soil moisture for the last 30 days at the Stephenville SCAN site in Texas. Precipitation events caused an increase in soil moisture levels at the -2, -4, and -8-inch soil sensor depths. The deeper sensors showed little change over the period. Total precipitation received during the period was 1.77 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

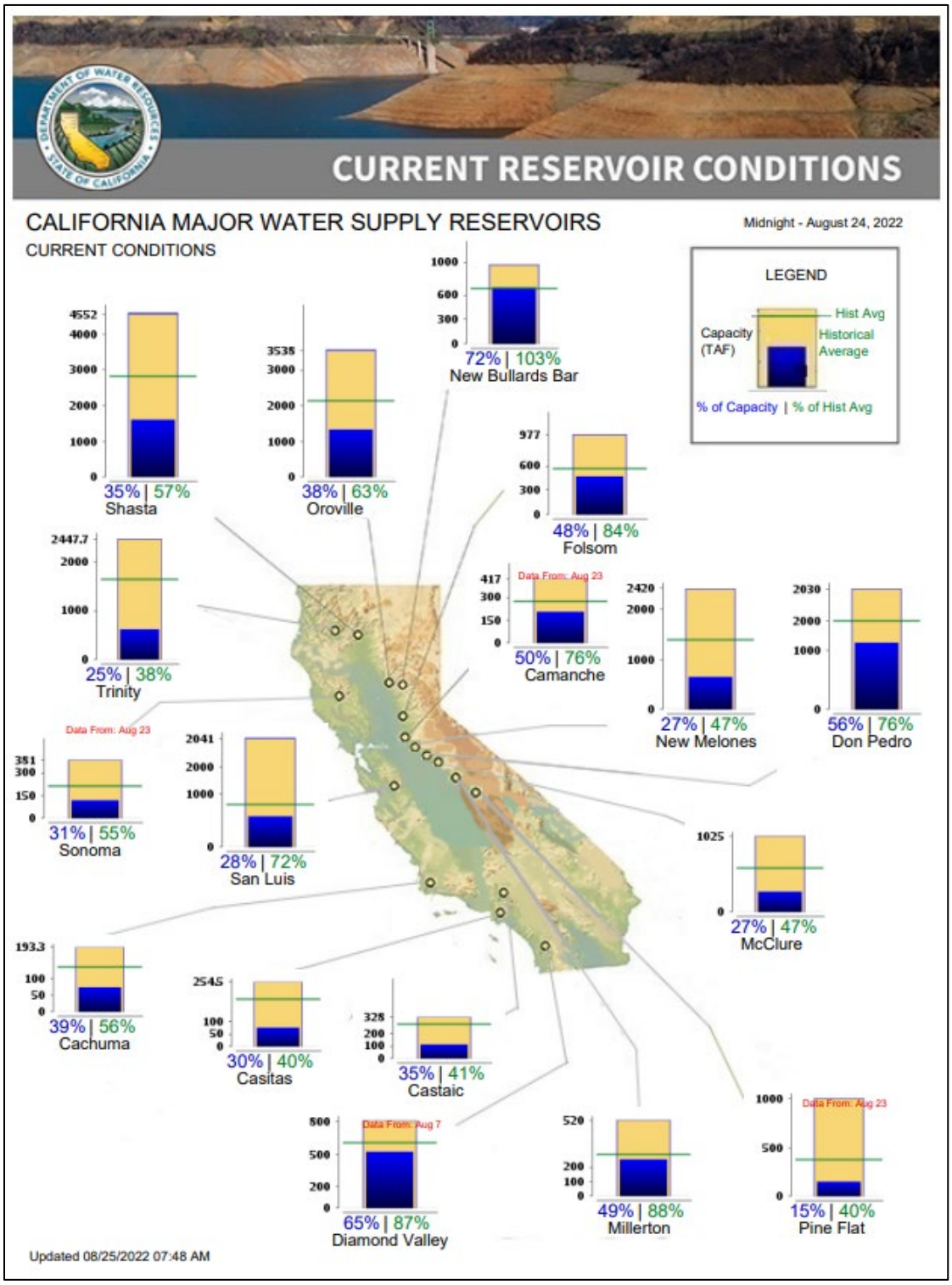
Hydromet Teacup Reservoir Depictions

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

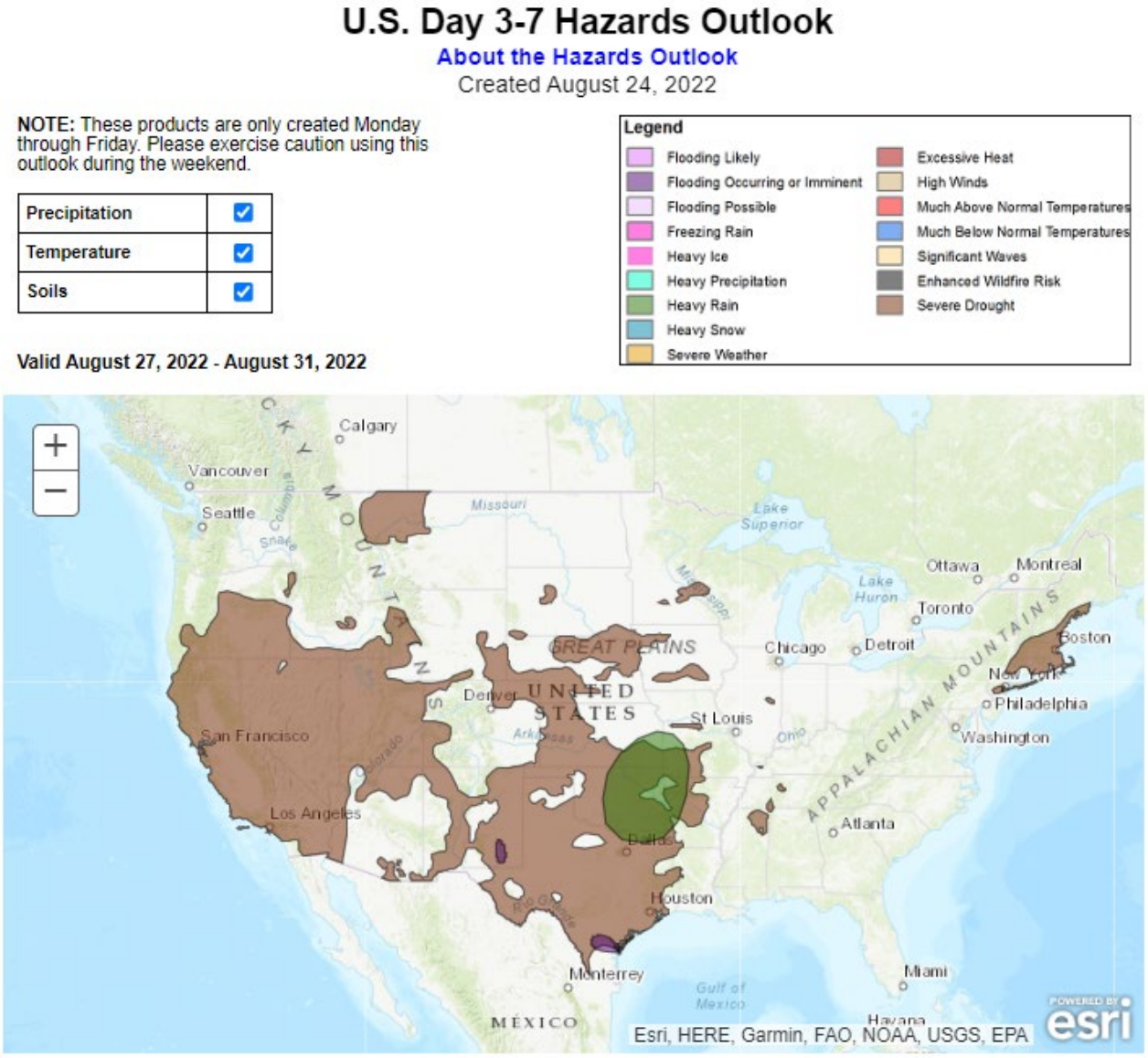
Agricultural Weather Highlights

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

National Outlook, Thursday, August 25, 2022: "Late-summer warmth will cover much of the country during the next several days, with weekend temperatures topping 90°F as far north as the Dakotas. By early next week, temperatures near or above 90°F will cover the central and eastern U.S., except in portions of the Great Lakes and Northeastern States. Meanwhile, occasional showers will occur nearly nationwide, although rainfall amounts will generally be light. In the South, however, 5-day rainfall totals could reach 2 to 4 inches or more from the central Gulf Coast region to the southern Atlantic Coast. Areas expected to receive little or no rain during the next 5 days include the mid-Atlantic, portions of the central and southern Plains, and the Far West. The NWS 6- to 10-day outlook for August 30 – September 3 calls for the likelihood of near- or above-normal temperatures nationwide, except for cooler-than-normal conditions in portions of the south-central U.S. Meanwhile, near- or below-normal rainfall across much of the northern and western U.S. should contrast with wetter-than-normal weather in western Washington, as well as most of the South and East."

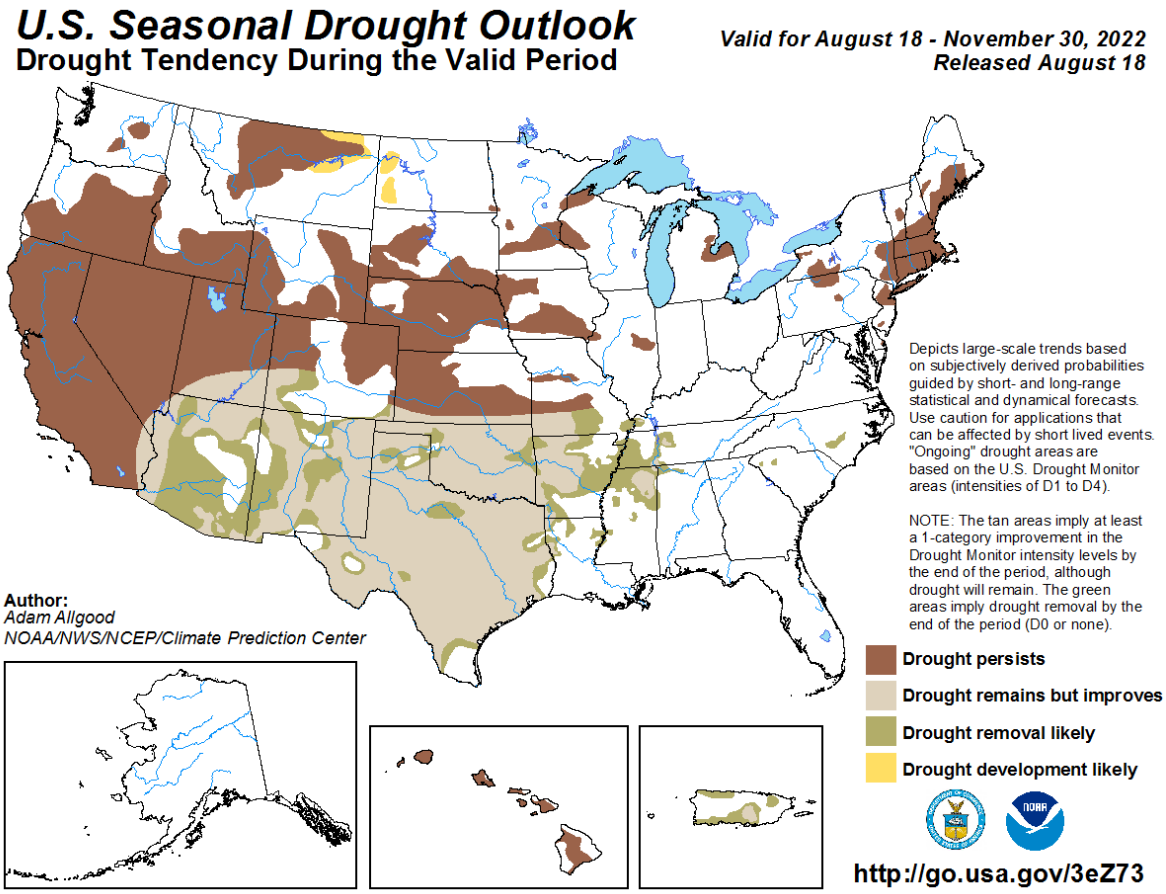
Weather Hazards Outlook: August 27 – 31, 2022

Source: NOAA Weather Prediction Center



Seasonal Drought Outlook: August 18 – November 30, 2022

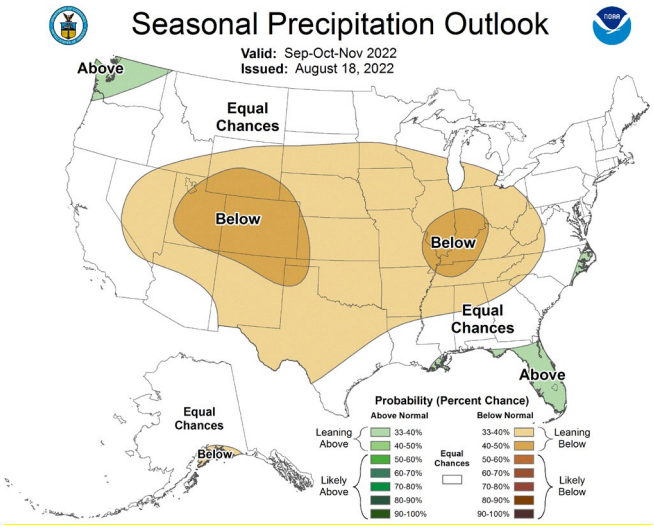
Source: National Weather Service



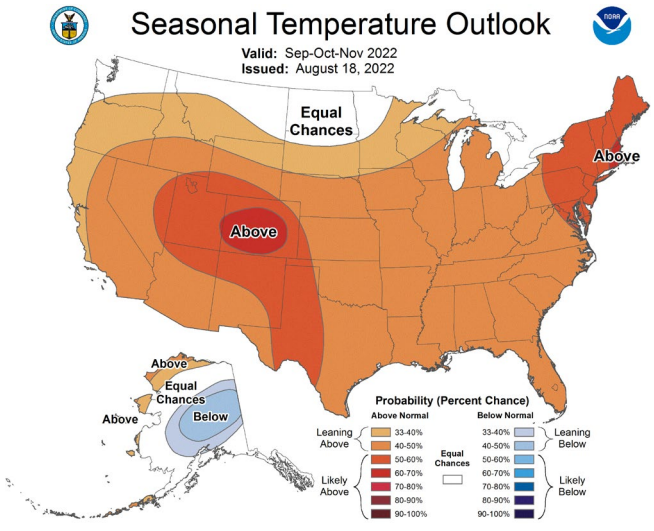
Climate Prediction Center 3-Month Outlook

Source: National Weather Service

Precipitation



Temperature



September-October-November 2022 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.