



United States Department of Agriculture

Water and Climate Update

June 27, 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.

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Excessive Midwest rainfall causes severe flooding



Photo by Warrior Sports Photography, via weather.gov

Powerful storms inundated parts of the Midwest between June 20-22, bringing widespread rainfall totals of 5 to 10 inches to the affected areas during the three-day period. The excessive precipitation caused rivers to overtop their banks, with severe flooding impacting numerous counties across Minnesota, Iowa, and South Dakota. The floods have caused two fatalities and damaged or destroyed homes, businesses, roads, agricultural operations, and power infrastructure in the region. Additional storm activity has been forecasted for June 27 and 28 in areas already impacted by flooding.

Related:

[Minnesota's Rapidan Dam at risk of 'failure' amid severe flooding](#) – ABC News

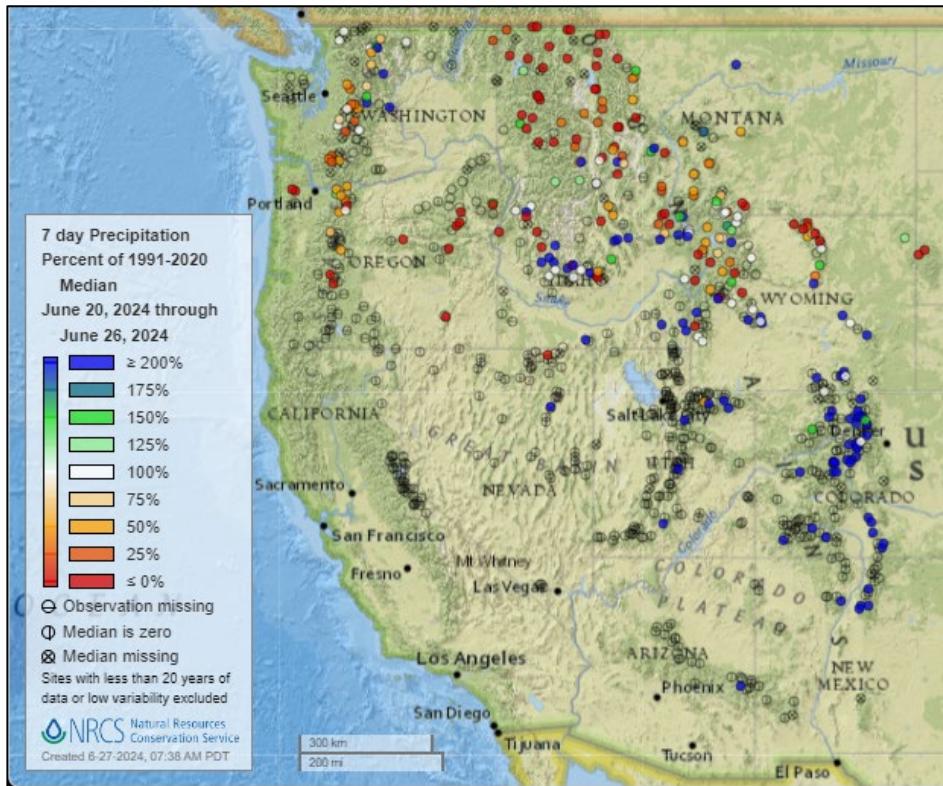
[Two people die from floods ravaging US midwest as more storms forecasted](#) – The Guardian

[Swollen river claims house next to Minnesota dam as flooding and extreme weather grip the Midwest](#) – AP News

[Historic floods wash away homes and memories in Iowa and Minnesota](#) – NBC News

Precipitation

Last 7 Days, NRCS SNOTEL Network



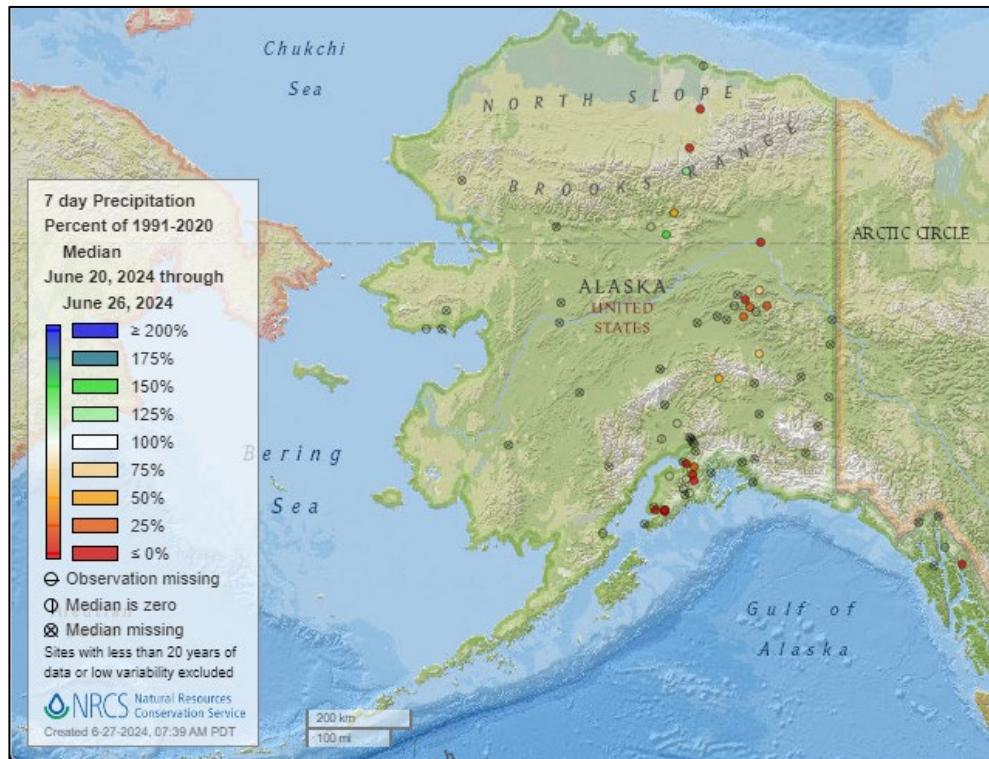
[7-day precipitation percent of median map](#)

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](#)



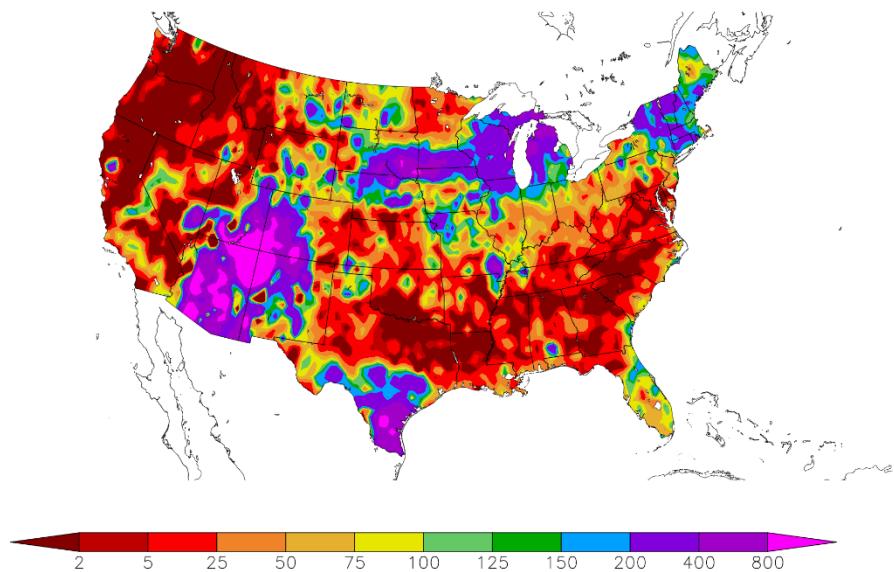
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day precipitation percent of normal map](#) for the continental U.S.

Percent of Normal Precipitation (%)
6/20/2024 – 6/26/2024

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



Generated 6/27/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

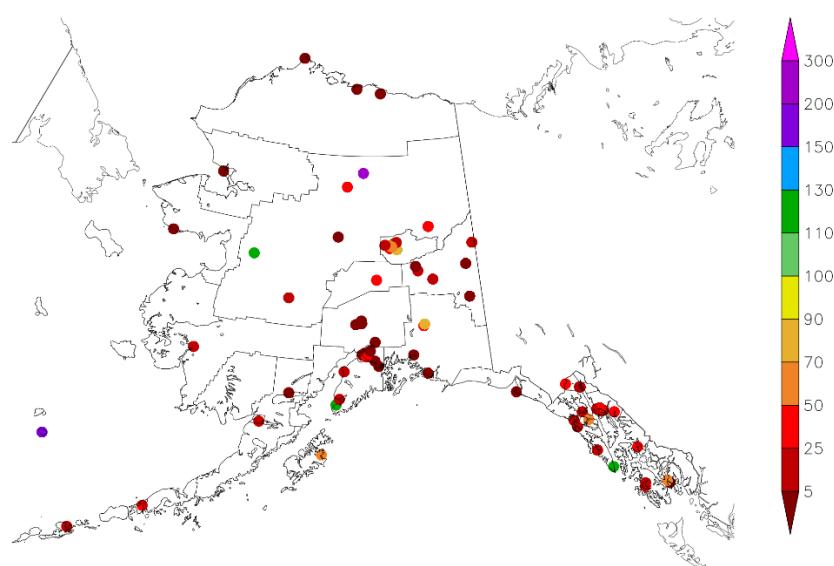
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

Percent of Normal Precipitation (%)
6/20/2024 – 6/26/2024

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

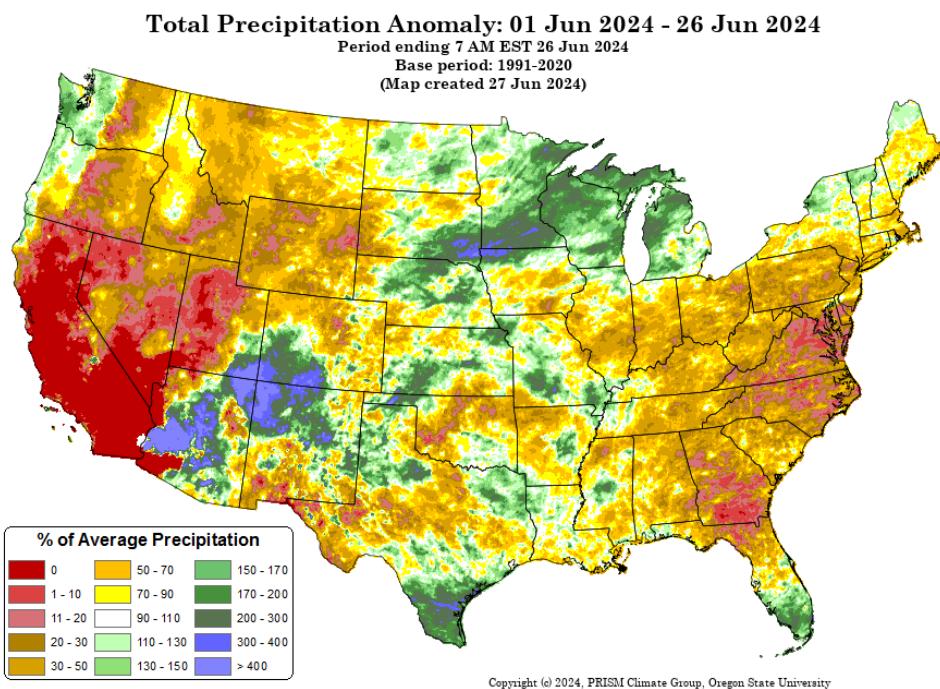


Generated 6/27/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

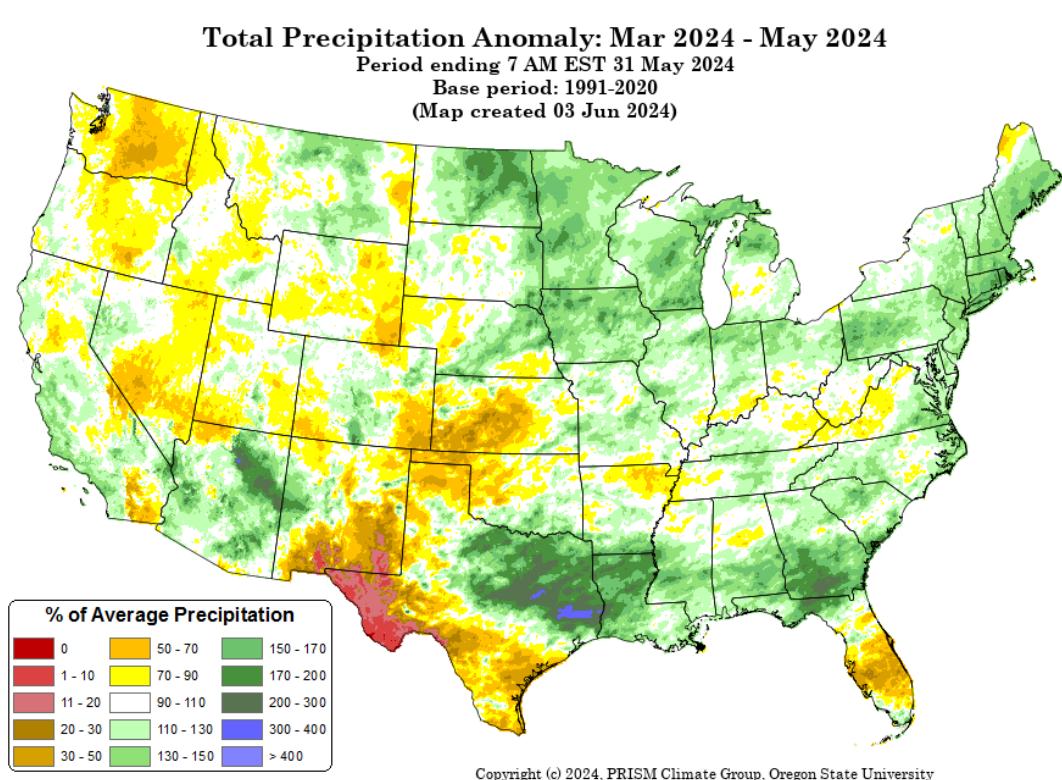


[Month-to-date national total precipitation anomaly map](#)

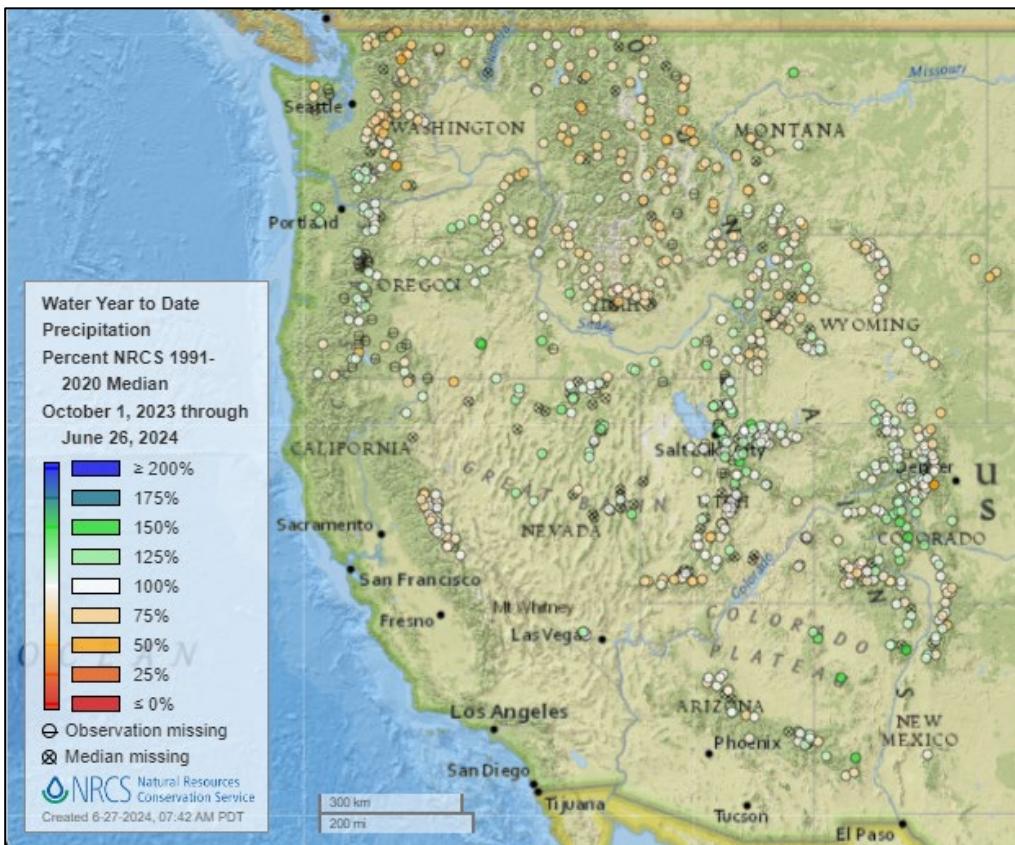
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

[March through May 2024 precipitation anomaly map](#)



Water Year-to-Date, NRCS SNOTEL Network

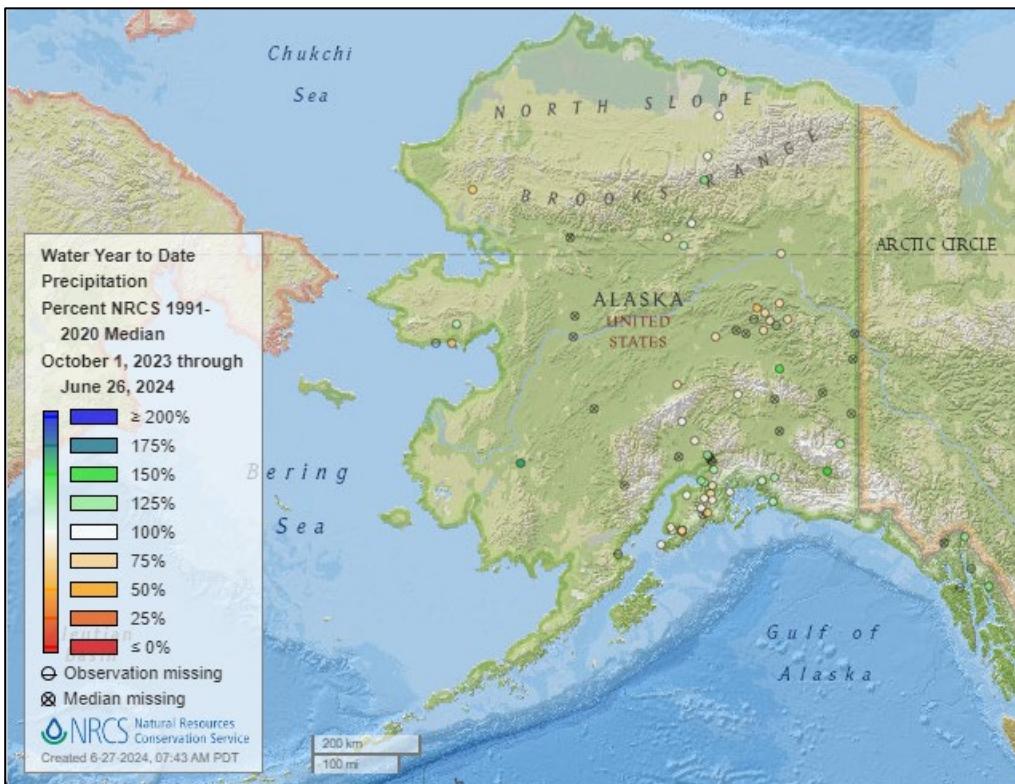


[2024 water year-to-date precipitation percent of median map](#)

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

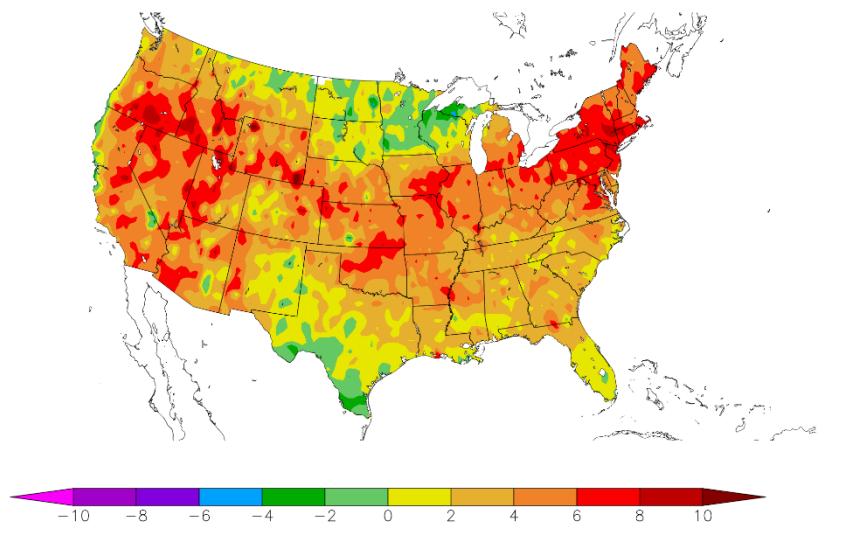
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day temperature anomaly map](#) for the contiguous U.S.

See also: [7-day temperature \(\$^{\circ}\$ F\) map](#)

Departure from Normal Temperature (F)
6/20/2024 – 6/26/2024



Generated 6/27/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

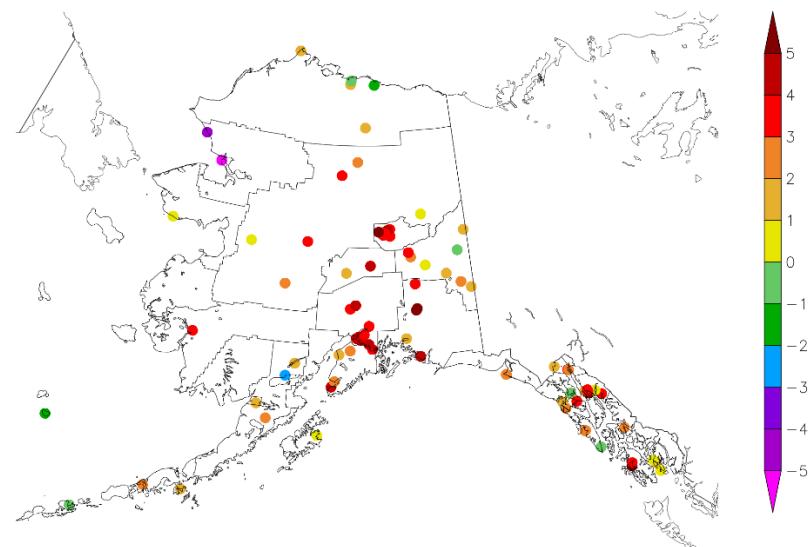
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

See also:
[7-day temperature \(\$^{\circ}\$ F\) map](#)

Departure from Normal Temperature (F)
6/20/2024 – 6/26/2024



Generated 6/27/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

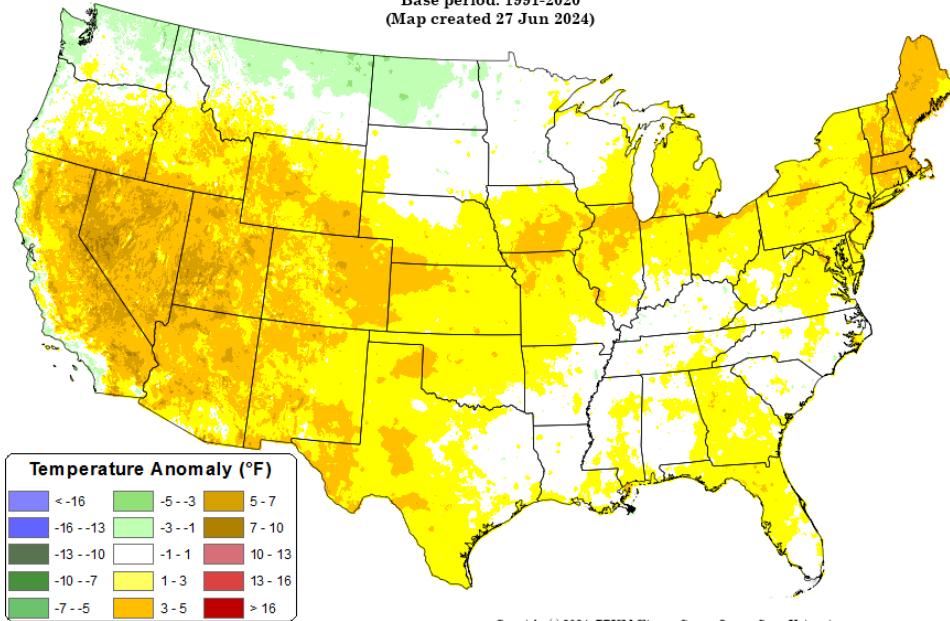
Month-to-Date, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

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

Daily Mean Temperature Anomaly: 01 Jun 2024 - 26 Jun 2024

Period ending 7 AM EST 26 Jun 2024
Base period: 1991-2020
(Map created 27 Jun 2024)



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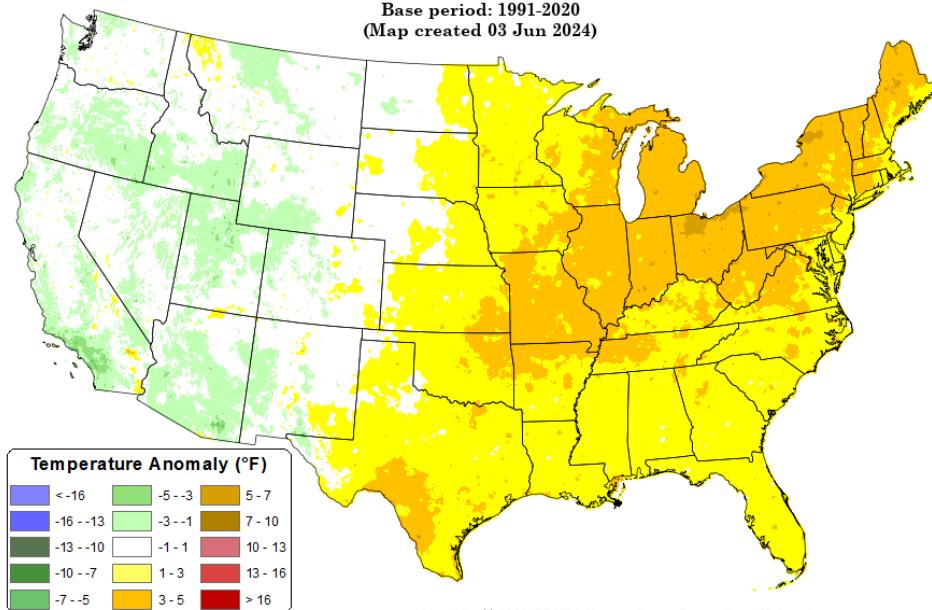
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

Daily Mean Temperature Anomaly: Mar 2024 - May 2024

Period ending 7 AM EST 31 May 2024
Base period: 1991-2020
(Map created 03 Jun 2024)

[March through May
2024 daily mean
temperature anomaly
map](#)



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Drought

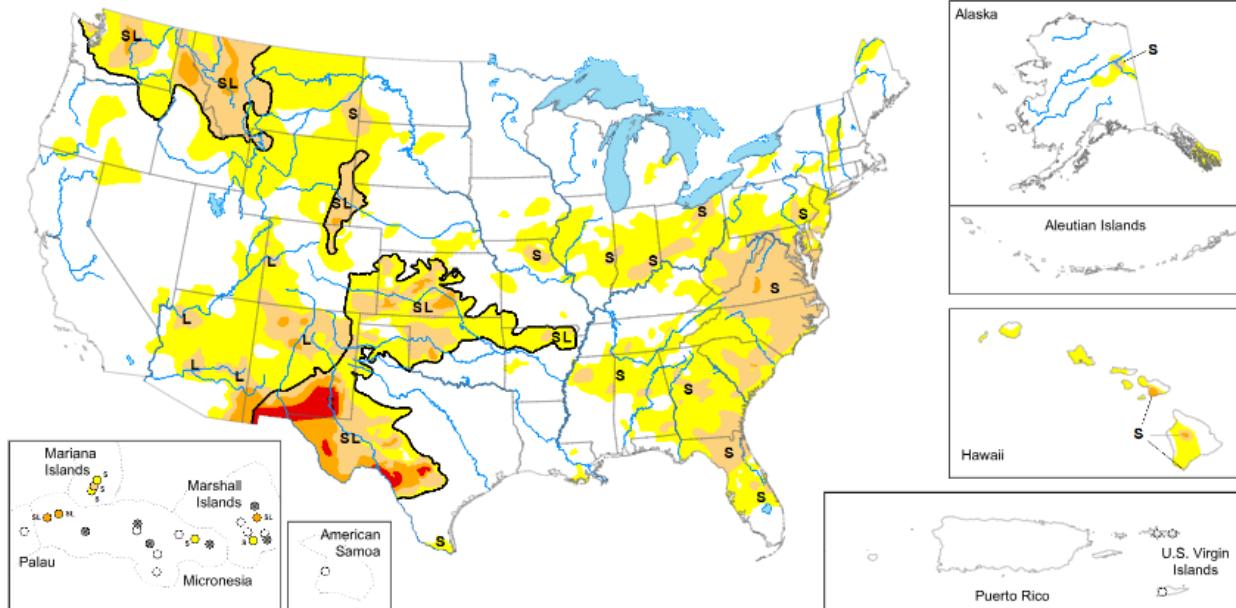
[U.S. Drought Monitor](#)

Source: National Drought Mitigation Center

Map released: June 27, 2024

Data valid: June 25, 2024

View grayscale version of the map



United States and Puerto Rico Author(s):

[Adam Hartman](#), NOAA/NWS/NCEP/CPC

More maps and statistics:

[U.S. States and Puerto Rico](#)

[Continental U.S.](#)

[Regions ▾](#)

Pacific Islands and Virgin Islands Author(s):

[Rocky Bilotta](#), NOAA/NCEI

The data cutoff for Drought Monitor maps is each Tuesday at 8 a.m. EDT. The maps, which are based on analysis of the data, are released each Thursday at 8:30 a.m. Eastern Time.

Intensity and Impacts

None

D0 (Abnormally Dry)

D1 (Moderate Drought)

D2 (Severe Drought)

D3 (Extreme Drought)

D4 (Exceptional Drought)

No Data

~ - Delineates dominant impacts

S - Short-term impacts, typically less

than 6 months (agriculture, grasslands)

L - Long-term impacts, typically greater

than 6 months (hydrology, ecology)

SL - Short- and long-term impacts

Current National Drought Summary, June 25, 2024

Source: National Drought Mitigation Center

"Much of the eastern contiguous U.S. (CONUS), south of the Great Lakes, received little to no rainfall, and this is on top of several weeks of below normal rainfall leading up to last week. In addition, temperatures have remained hot for many locations. This combination of antecedent dryness, much below normal rainfall, and hot temperatures has resulted in rapidly deteriorating conditions, particularly across the Ohio Valley, Mid-Atlantic, and Southeast, with large increases in abnormally dry (D0) and moderate drought (D1) conditions. Conversely, southern Texas, the Four Corners region, and the Upper Midwest and Northern Plains experienced several rounds of heavy rainfall. Some locations across southern Texas (associated with Tropical Storm Alberto) and the north-central CONUS received well in excess of 5 inches of rainfall that led to flash and river flooding, as well as improvements to drought conditions. Some localized flooding also occurred in portions of the Four Corners region, associated with a surge of tropical moisture from the remnants of Tropical Storm Alberto that came ashore in northern Mexico late last week. Across much of the western CONUS, conditions are starting to dry out a bit, particularly in the Pacific Northwest and northern Rockies. In Alaska, moderate drought was introduced in the eastern interior Mainland, where warm and dry weather continues, elevating fire concerns. In Hawaii, trade winds are lacking moisture resulting in below normal rainfall across the islands and the widespread expansion of abnormal dryness. Puerto Rico continues to remain drought-free."

National Drought Summary – Looking Ahead

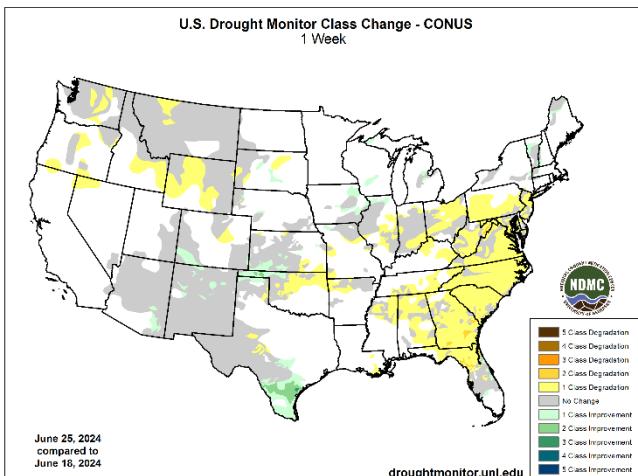
"During the next five days (June 27 - July 1), a couple of storm systems and trailing frontal boundaries are forecast to bring periods of rainfall to portions of the eastern U.S. These storm systems are likely to usher in some cooler than normal air behind them, particularly across the northern tier of the lower 48 states. Temperatures are expected to remain predominantly warmer than normal across the southern tier of the U.S., with excessive heat also possible across the Gulf Coast states.

The Climate Prediction Center's 6-10 day outlook (valid July 2 - 6), favors enhanced chances of above average temperatures across the southern two-thirds of the lower 48 states and near to below normal chances across the northern tier states. Near to below normal temperatures are also favored in the Desert Southwest, due to the increased potential for above normal precipitation. Below normal precipitation is favored across parts of California and Nevada, and across the southeastern U.S. Increased above normal precipitation chances are favored elsewhere across the lower 48 states, with the highest chances across portions of the Southwest and Midwest."

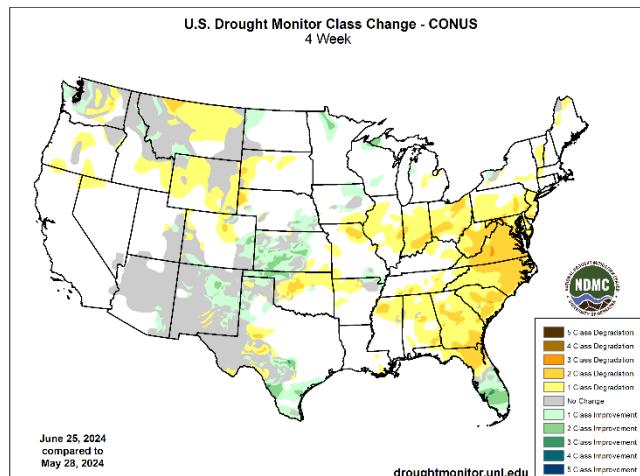
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

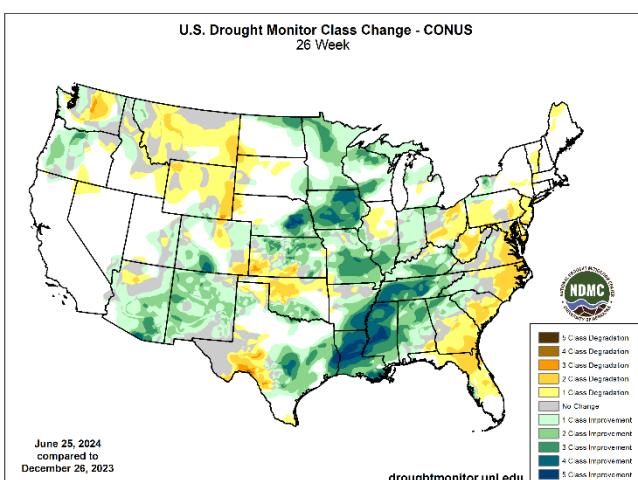
1 Week



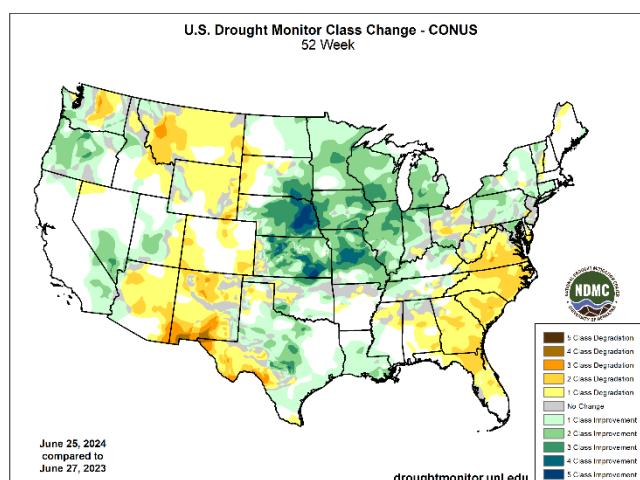
1 Month



6 Months



1 Year



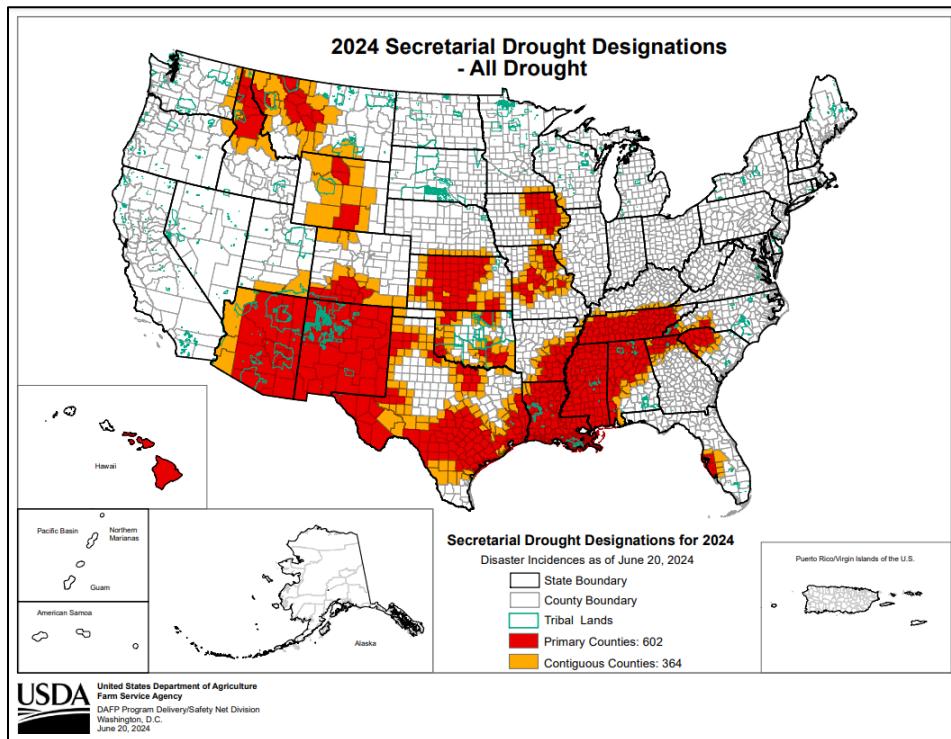
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

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



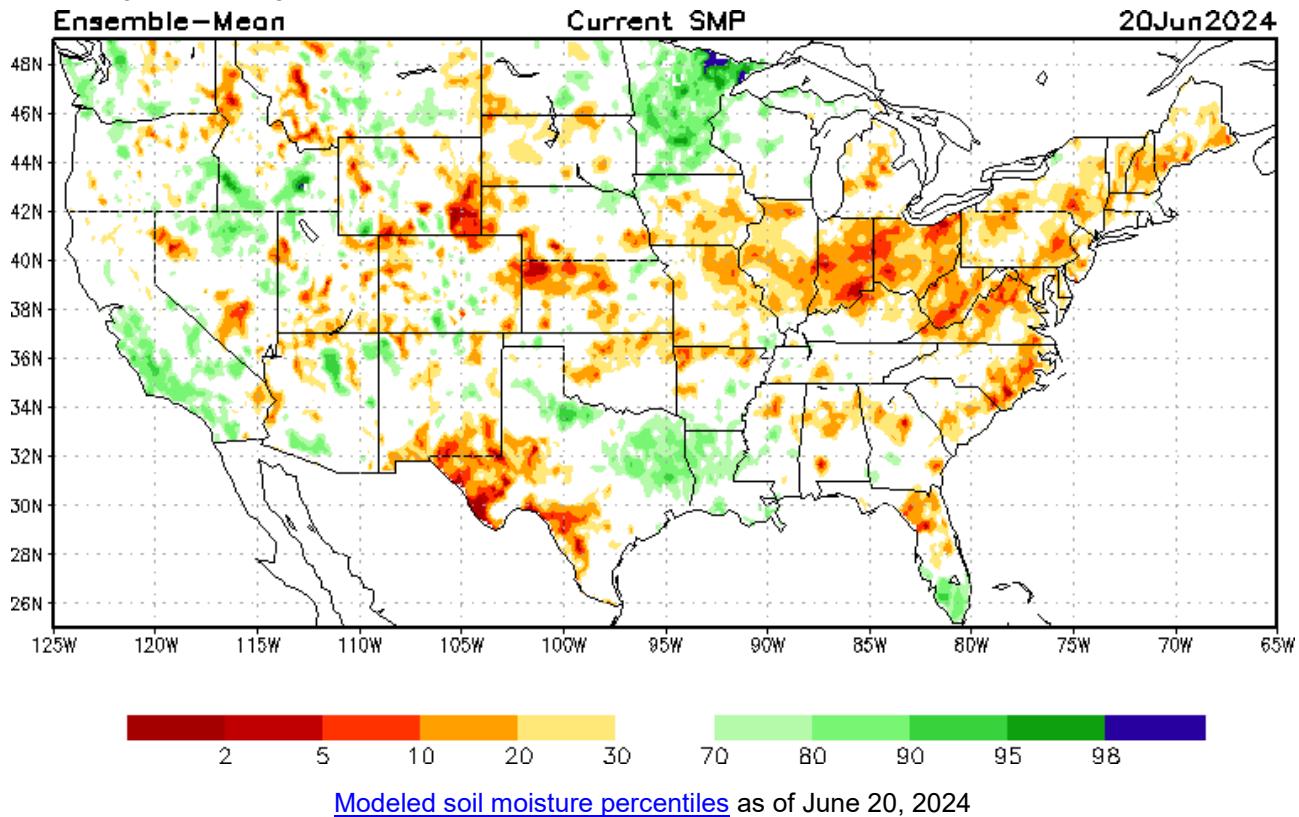
Highlighted Wildfire Resources

- [National Interagency Fire Center](#)
- [InciWeb Incident Information System](#)
- [Significant Wildland Fire Potential Outlook](#)

Other Climatic and Water Supply Indicators

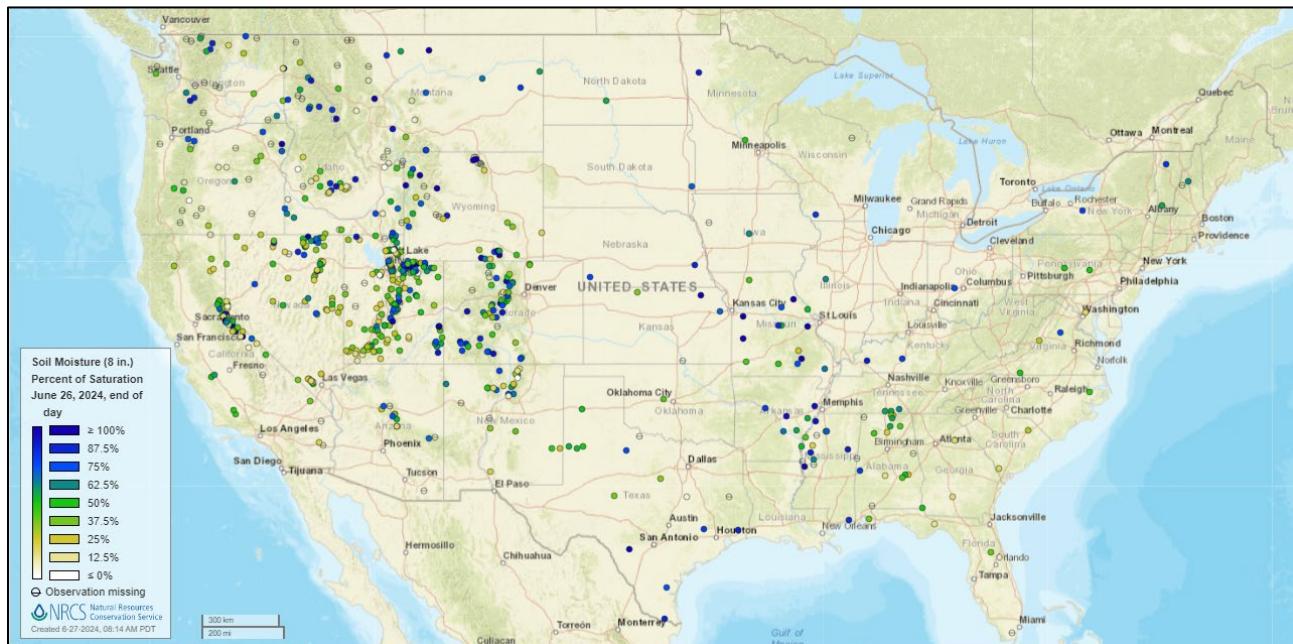
Soil Moisture

Source: NOAA National Centers for Environmental Prediction



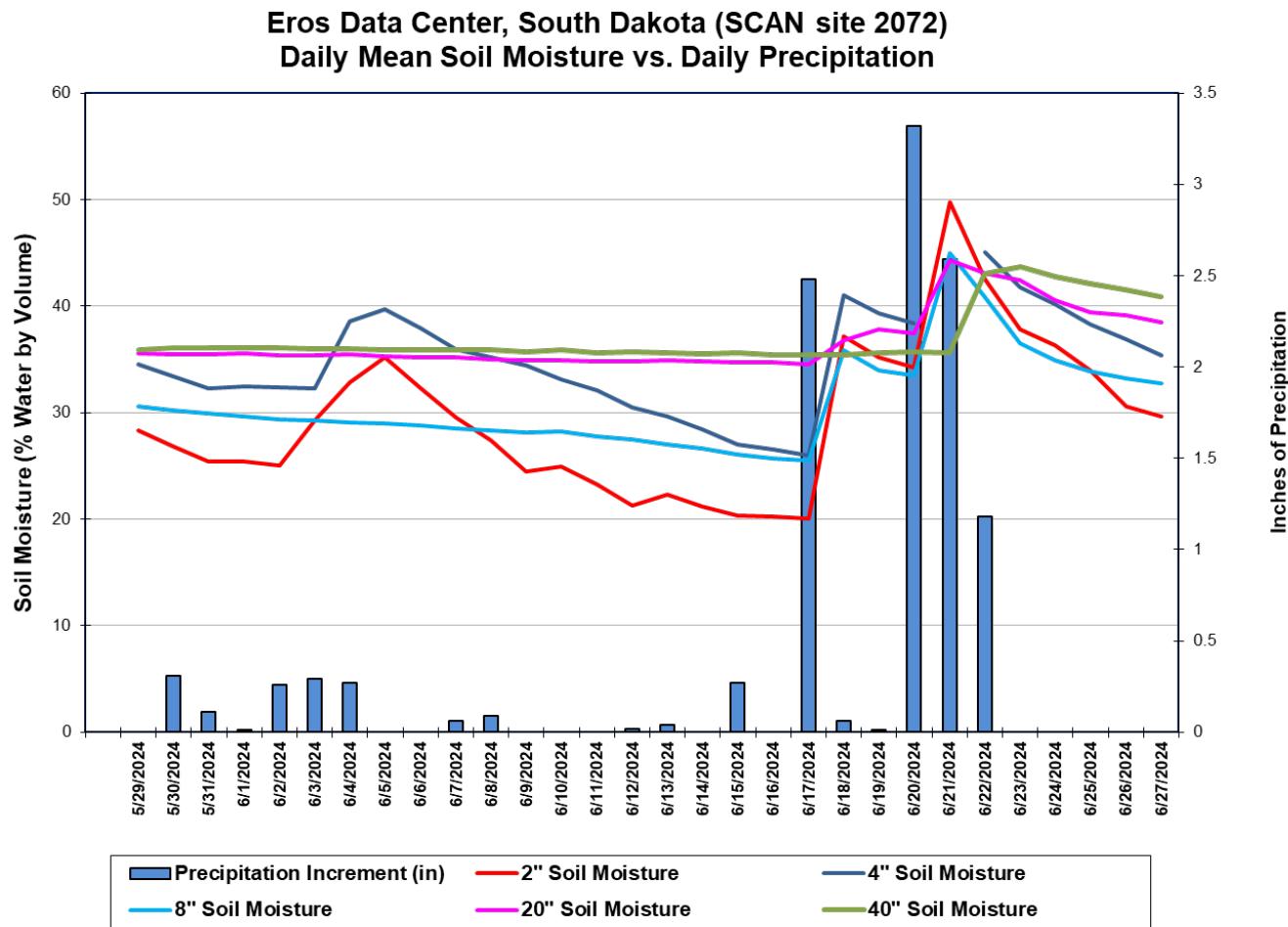
Soil Moisture Percent of Saturation

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 [Eros Data Center](#) SCAN site in South Dakota. Powerful storms moving through the area between June 17-22 brought a combined 9.64 inches of precipitation to the site. Soil sensors at all depths recorded a pronounced increase in soil moisture during this six-day span. Total precipitation for the 30-day period was 11.37 inches.

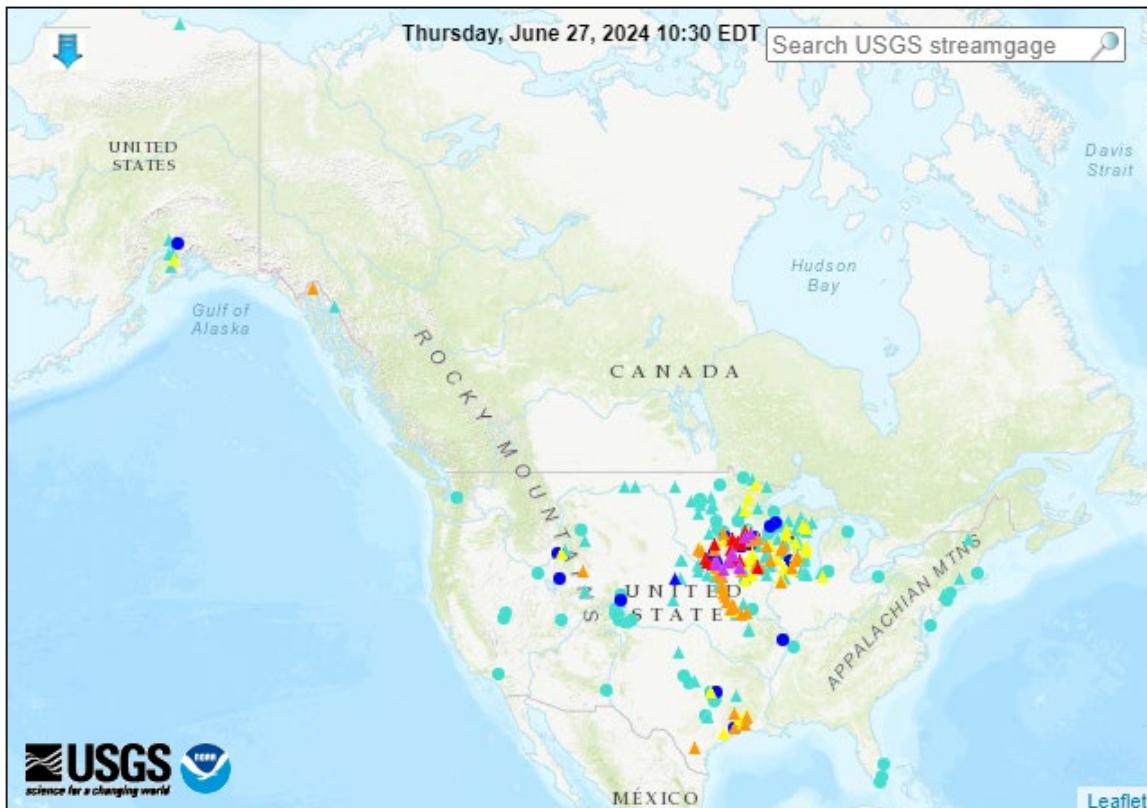
Soil Moisture Data Portals

- [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](#)

Map of flood and high flow conditions (68 in floods [major: 10, moderate: 15, minor: 43], 43 in near-flood)



Explanation - Percentile classes							
<95	95-98	>= 99	Above action stage flood 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

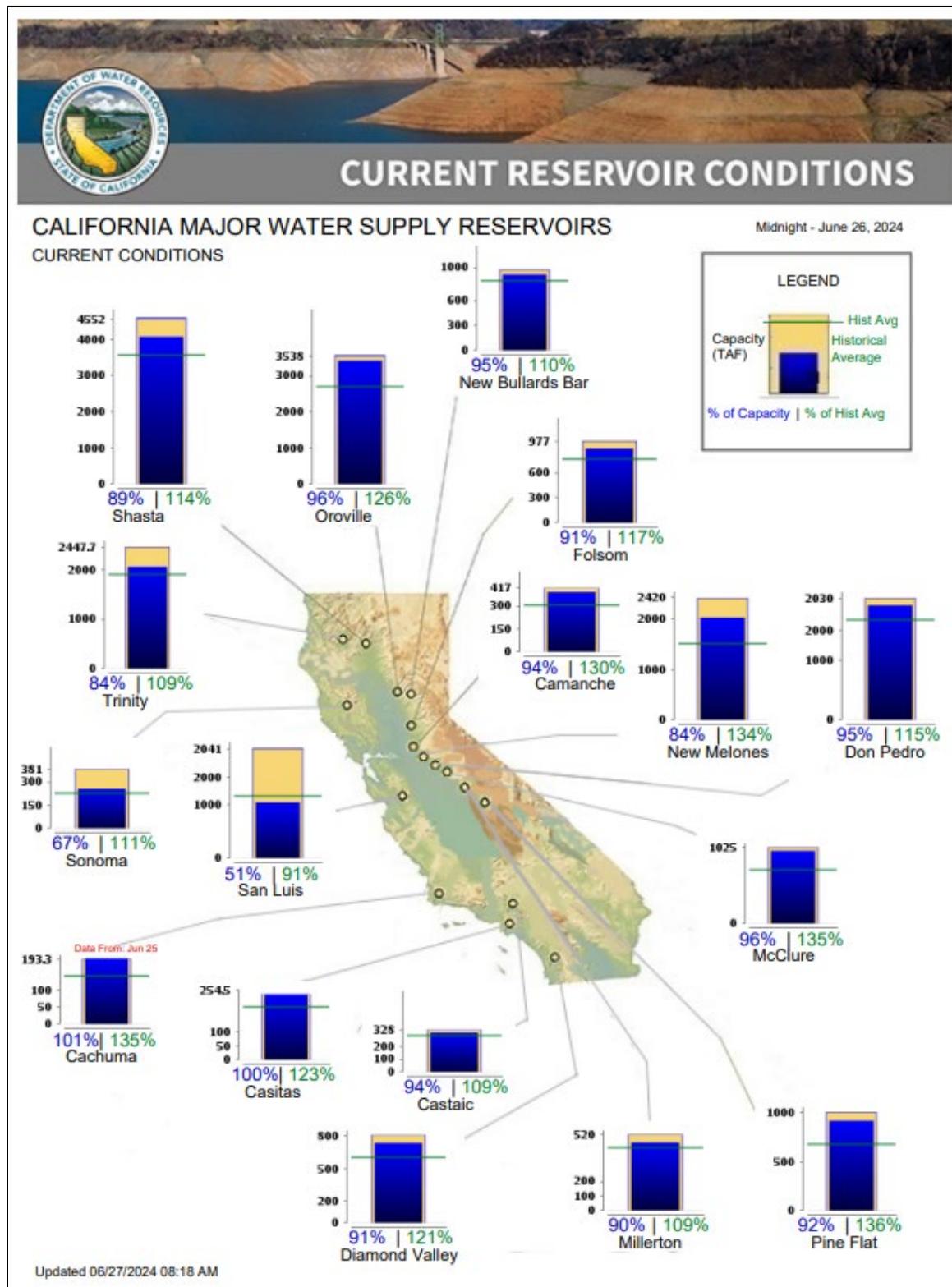
Hydromet Teacup Reservoir Depictions

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 June 27, 2024: "A strong cold front crossing the East Coast States is bringing an end to the recent eastern heat wave while generating much-needed showers on parched topsoils in the Mid-Atlantic and Southeast. Meanwhile, a developing low trekking along the Canadian border coupled with a trailing cold front will generate widespread showers and locally severe thunderstorms as it marches east across the Plains Friday, Midwest on Saturday, and Atlantic Coast States on Sunday. The two fronts combined will provide sorely needed rain (1-2 inches) in the Southeast but unwelcome 2-inch rainfall totals in the western Corn Belt. Farther west, precipitation will primarily be limited to monsoon showers in the Four Corners. The NWS 6- to 10-day outlook for July 2 – 6 calls for above-normal rainfall across the Four Corners and from the Northwest eastward across the Plains, Midwest, and New England. Conversely, drier-than-normal weather is expected over the Southeastern and Gulf Coast States and from central California into the Great Basin. Abnormal warmth is likely from California eastward to the central and southern Atlantic Coast, with the highest heat chances anchored over the Southeast and Gulf Coast States. Cooler-than-normal weather will be confined to the northwestern quarter of the nation and southern Arizona."

Weather Hazards Outlook: [June 27 – July 01, 2024](#)

Source: NOAA Weather Prediction Center

U.S. Day 3-7 Hazards Outlook

About the Hazards Outlook

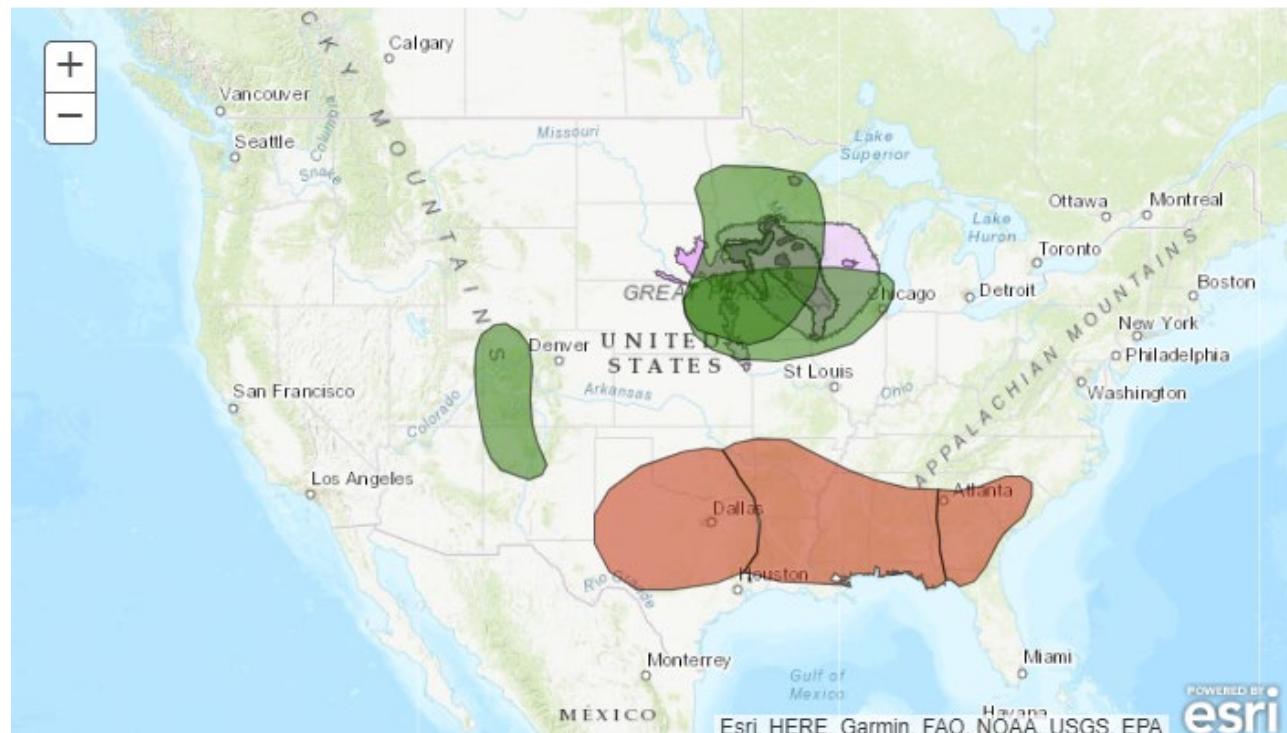
Created June 24, 2024

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

Precipitation	<input checked="" type="checkbox"/>
Temperature	<input checked="" type="checkbox"/>
Wildfires	<input checked="" type="checkbox"/>
Soils	<input type="checkbox"/>

Legend	
Flooding Likely	Hazardous Heat
Flooding Occurring or Imminent	Hazardous Cold
Flooding Possible	Frost/Freeze
Freezing Rain	High Winds
Heavy Precipitation	Significant Waves
Heavy Rain	Critical Wildfire Risk
Heavy Snow	Severe Weather

Valid June 27, 2024 - July 01, 2024

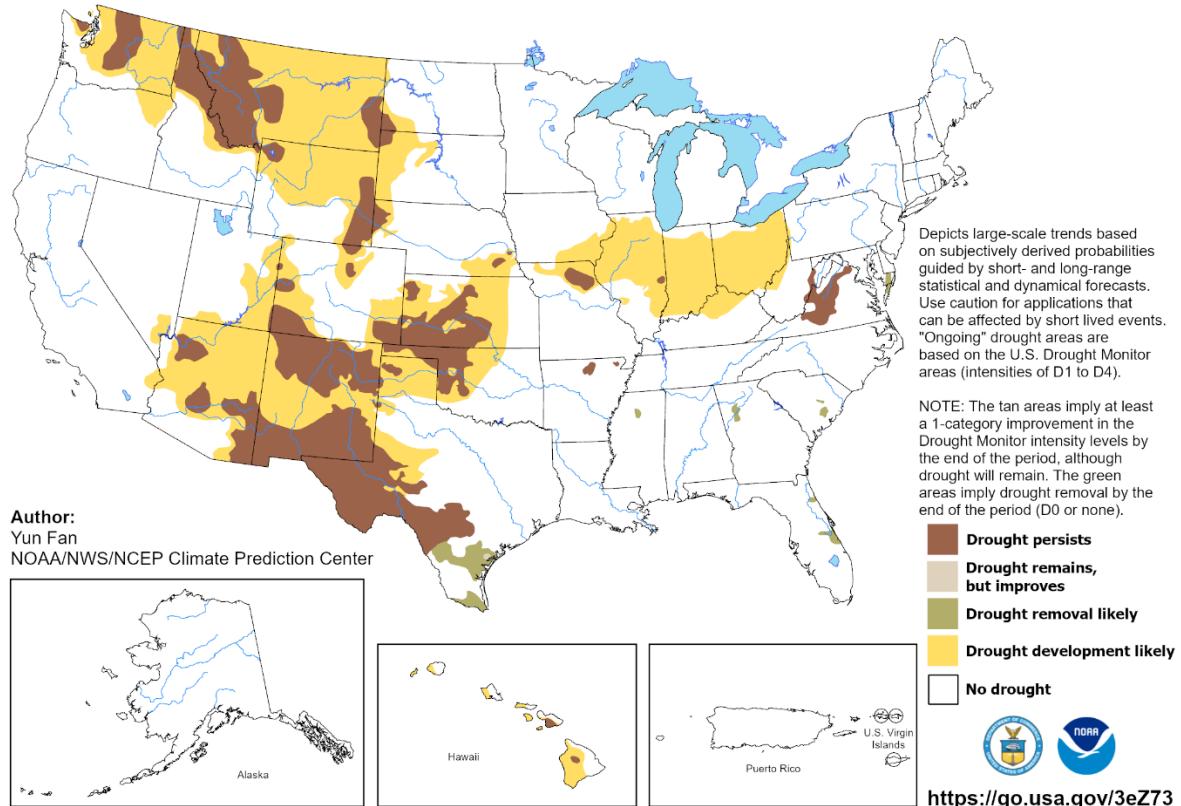


Seasonal Drought Outlook: June 20 – September 30, 2024

Source: National Weather Service

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

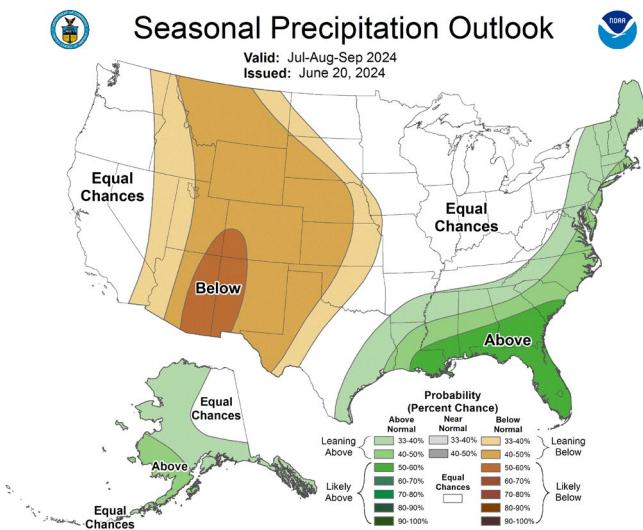
Valid for June 20 - September 30, 2024
Released June 20, 2024



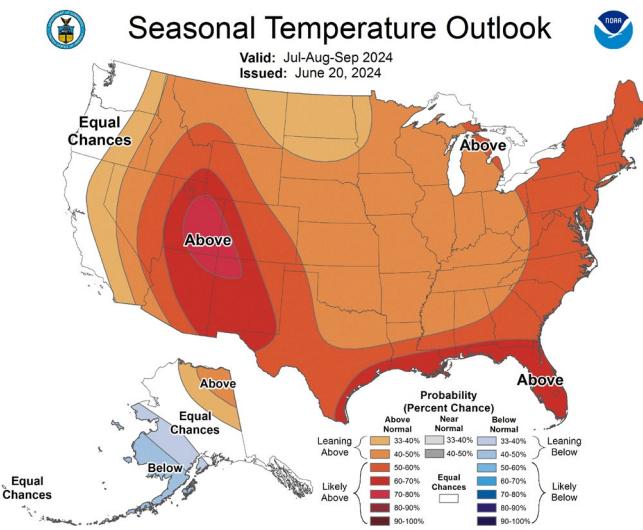
Climate Prediction Center Three-month Outlook

Source: National Weather Service

Precipitation



Temperature



[July-August-September 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](#).