



United States Department of Agriculture

Water and Climate Update

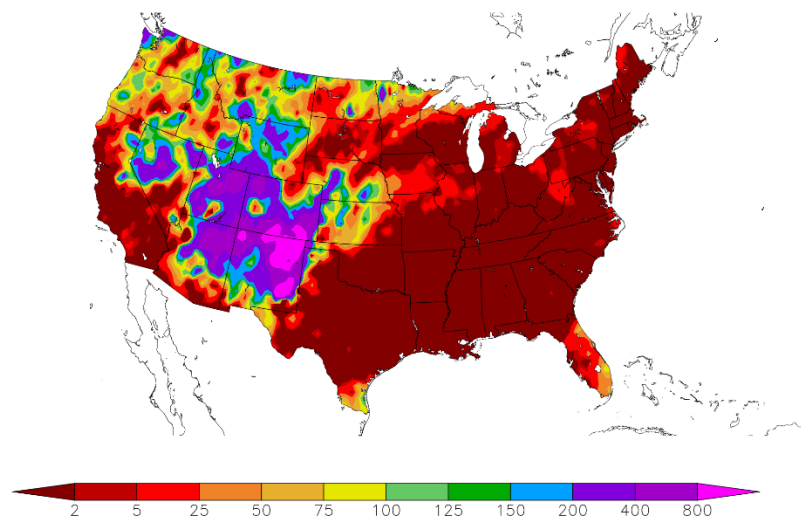
October 24, 2024

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.

Precipitation	2	Other Climatic and Water Supply Indicators	11
Temperature.....	6	More Information	17
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Record rainfall causes severe flooding in New Mexico

Percent of Normal Precipitation (%)
10/17/2024 – 10/23/2024



Generated 10/24/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

A powerful storm swept through the southwestern U.S. between October 19-20, bringing excessive rainfall that caused dangerous flash flooding in New Mexico. The storm deposited 5.78 inches of precipitation in Roswell, New Mexico on October 19, breaking the daily rainfall record for the city set in 1901. The downpour produced dangerous flash floods that caused two fatalities and required the rescue of over 300 people by the New Mexico National Guard. The record-breaking event flooded numerous homes and businesses and forced the closure of all roads leading in and out of the city on October 20.

Related:

[At least 2 dead and hundreds rescued in severe New Mexico flash flooding](#) – CNN

[2 dead, hundreds rescued in 'dangerous' New Mexico flash flooding](#) – ABC News

[Severe flooding shuts down all roads in and out of Roswell, New Mexico](#) – KVIA (NM)

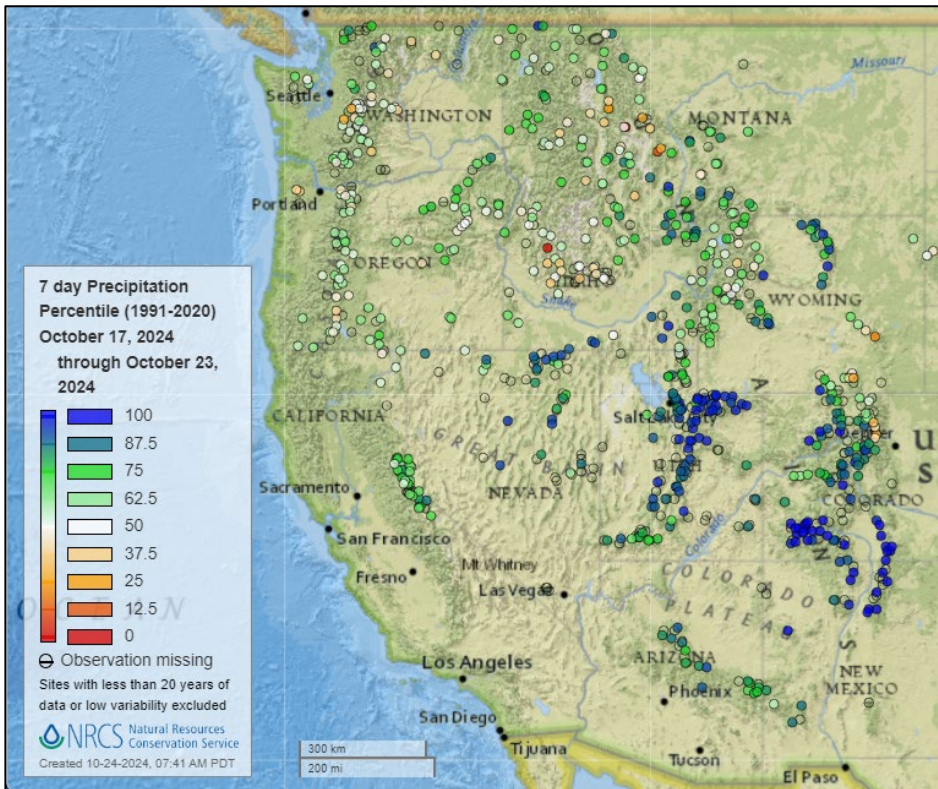
[2 Dead, Hundreds Rescued in 'Historic' New Mexico Floods](#) – The New York Times

[2 dead, 309 people rescued after severe flooding in New Mexico](#) – NBC News

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment.

Precipitation

Last 7 Days, NRCS SNOTEL Network

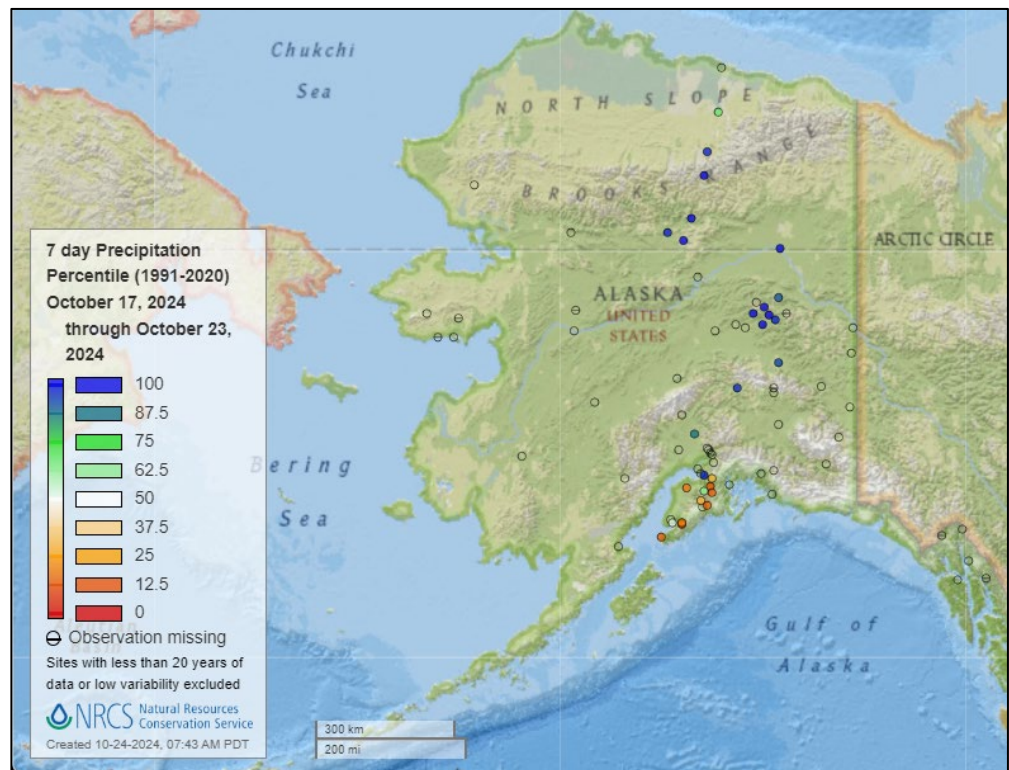


[7-day precipitation
percentile map](#)

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

[Alaska 7-day
precipitation
percentile map](#)

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



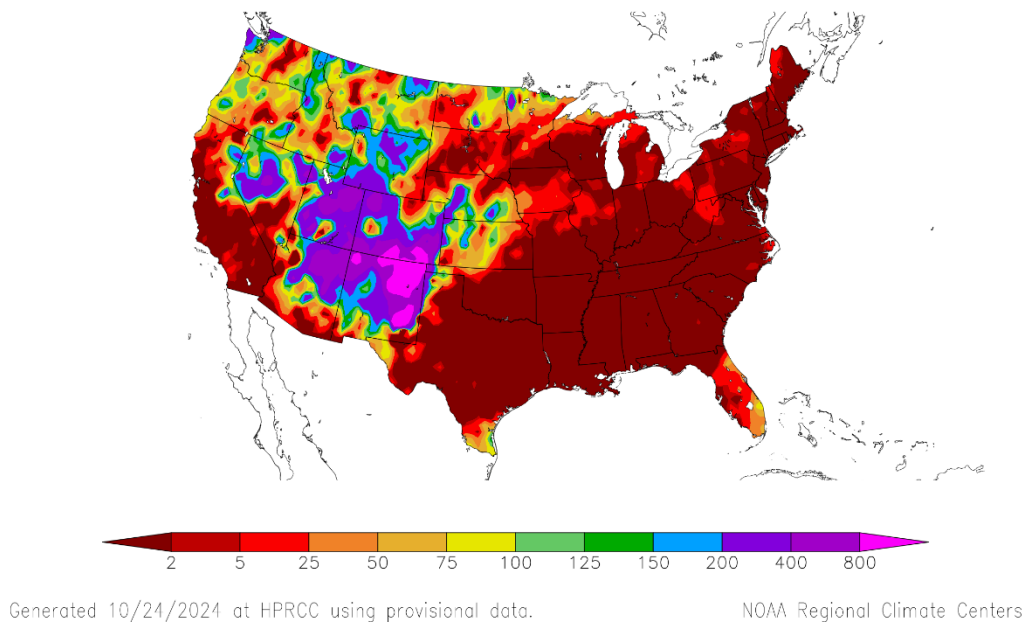
Last 7 Days, National Weather Service (NWS) Networks

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](#)

Percent of Normal Precipitation (%)
10/17/2024 – 10/23/2024



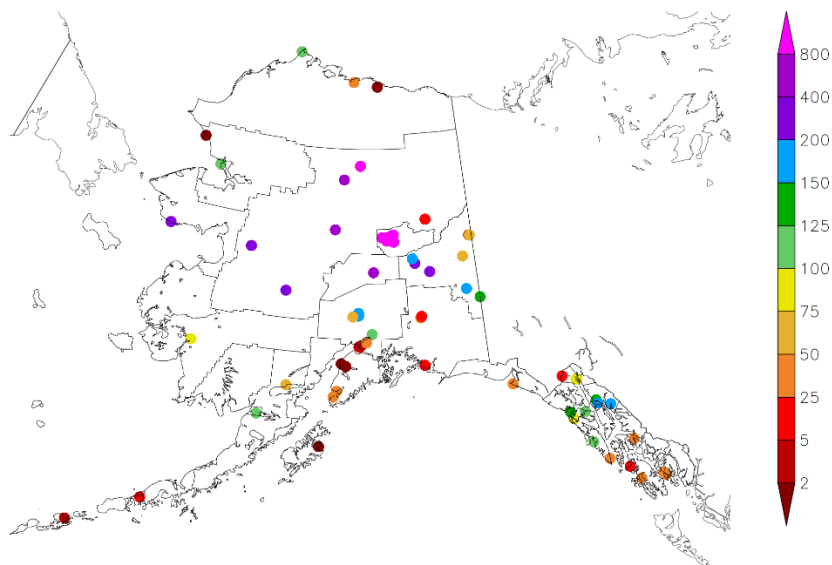
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)
10/17/2024 – 10/23/2024



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

Source: PRISM

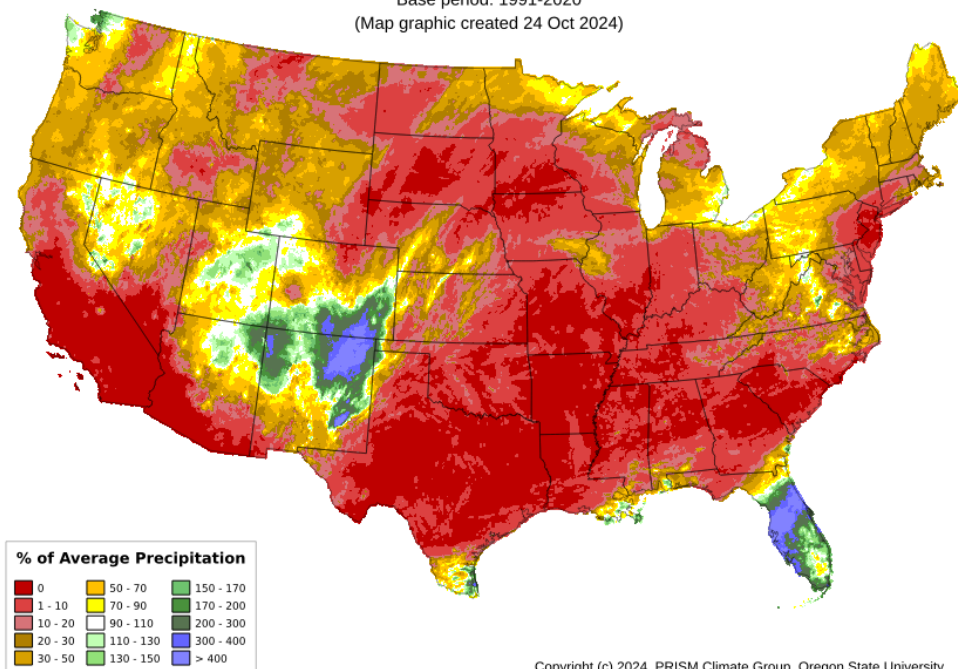
Total Precipitation Anomaly: 01 Oct 2024 - 23 Oct 2024

Period ending 7 AM EST 23 Oct 2024

Base period: 1991-2020

(Map graphic created 24 Oct 2024)

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



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

Source: PRISM

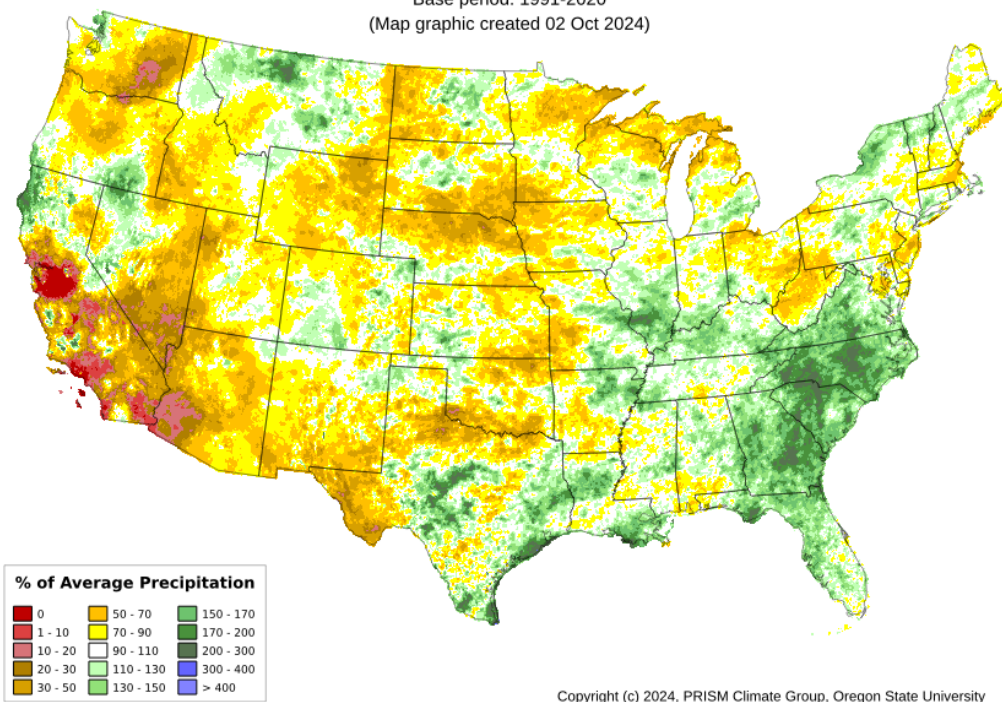
[July through September 2024 precipitation anomaly map](#)

Total Precipitation Anomaly: Jul 2024 - Sep 2024

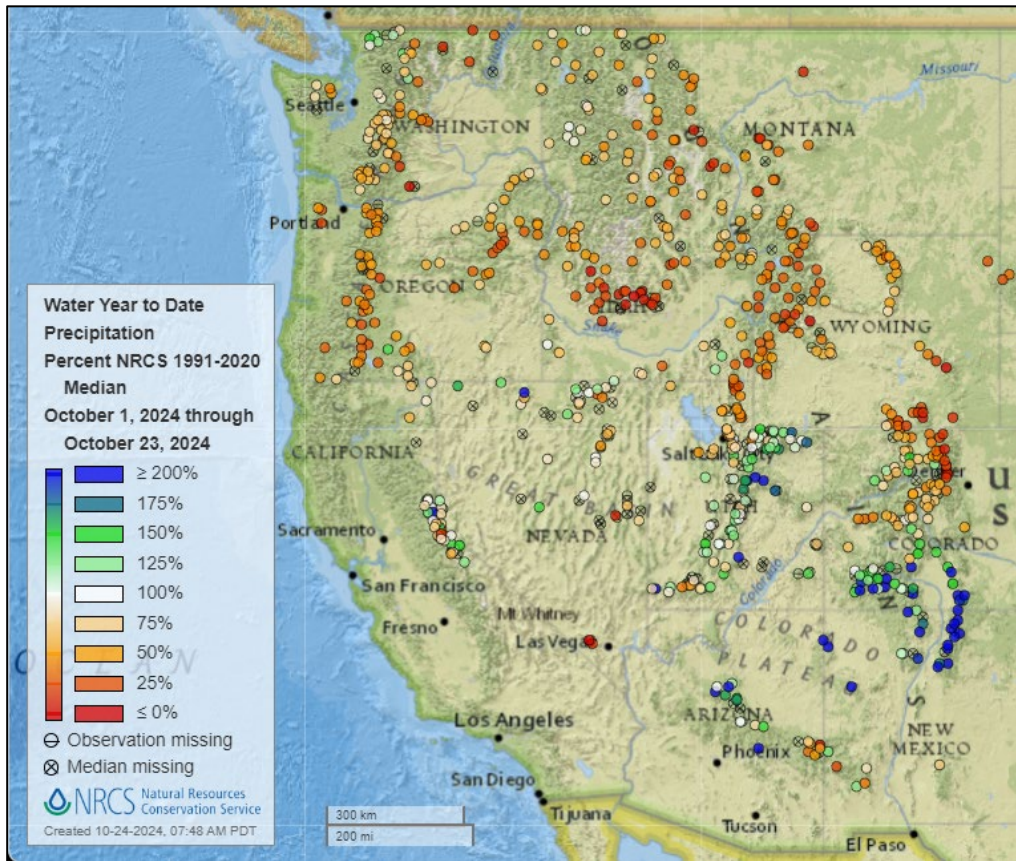
Period ending 7 AM EST 30 Sep 2024

Base period: 1991-2020

(Map graphic created 02 Oct 2024)



Water Year-to-Date, NRCS SNOTEL Network

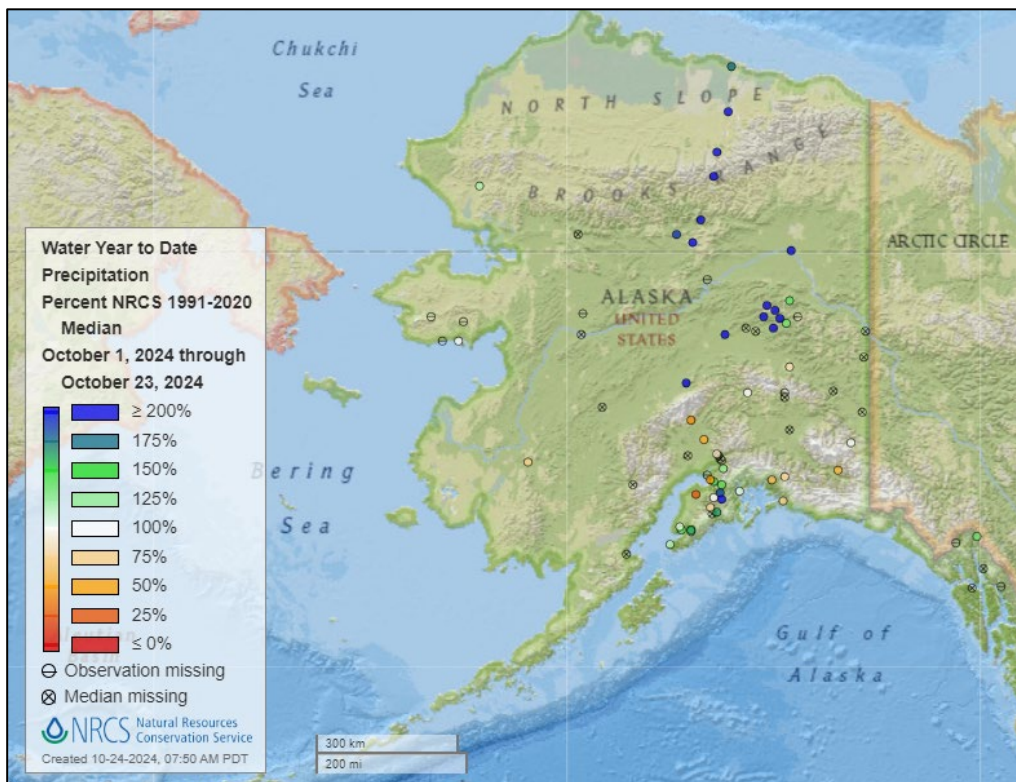


[2025 water year-to-date precipitation percent of median map](#)

See also:

[2025 water year-to-date precipitation percent of average map](#)

[2025 water year-to-date precipitation values \(inches\) map](#)



[Alaska 2025 water year-to-date precipitation percent of median map](#)

See also:

[Alaska 2025 water year-to-date precipitation percent of average map](#)

[Alaska 2025 water year-to-date precipitation values \(inches\) map](#)

Temperature

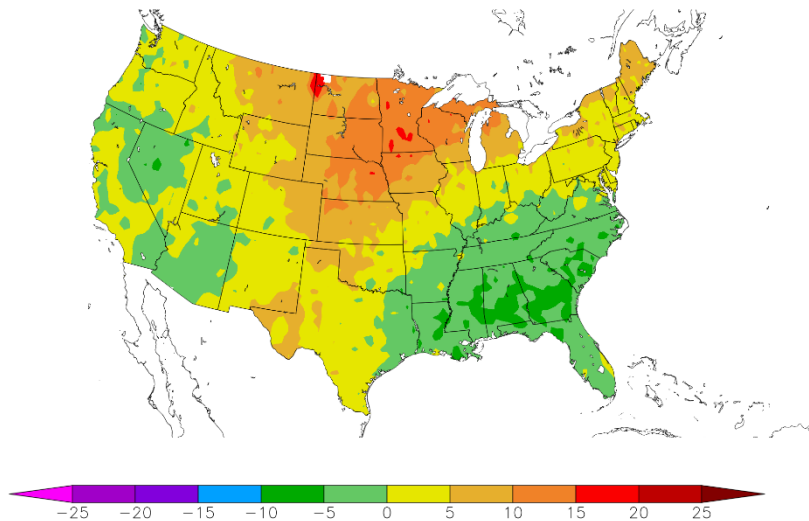
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
10/17/2024 – 10/23/2024



Generated 10/24/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

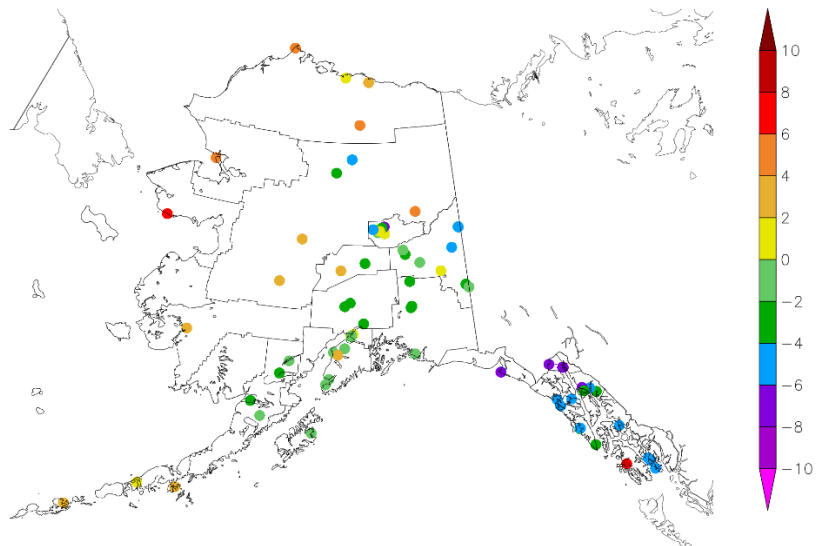
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
10/17/2024 – 10/23/2024



Generated 10/24/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

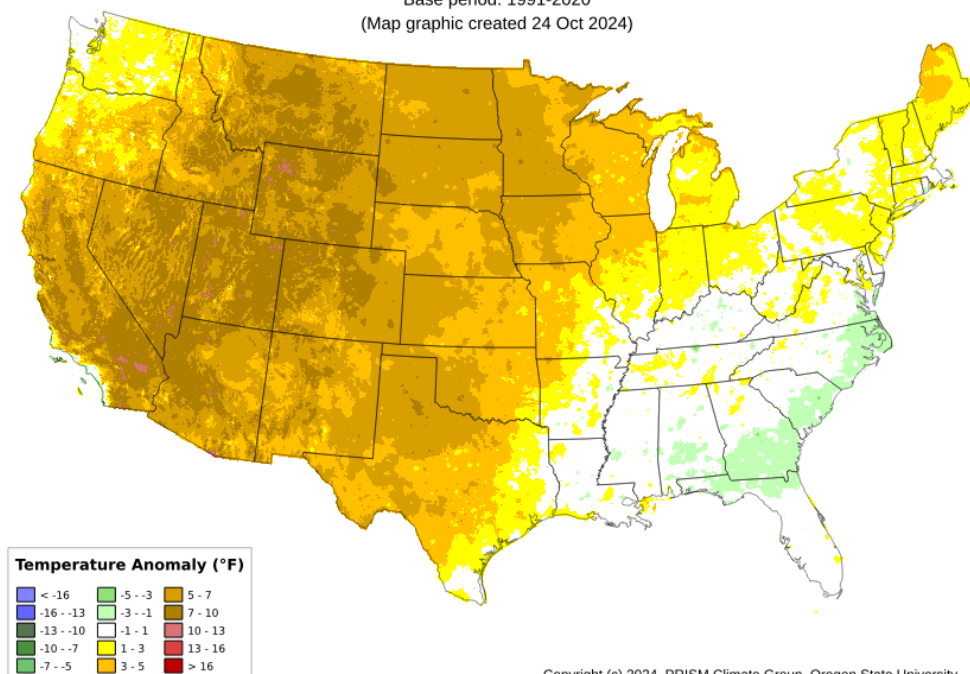
[Month-to-date
national daily
mean
temperature
anomaly map](#)

Daily Mean Temperature Anomaly: 01 Oct 2024 - 23 Oct 2024

Period ending 7 AM EST 23 Oct 2024

Base period: 1991-2020

(Map graphic created 24 Oct 2024)



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

Source: PRISM

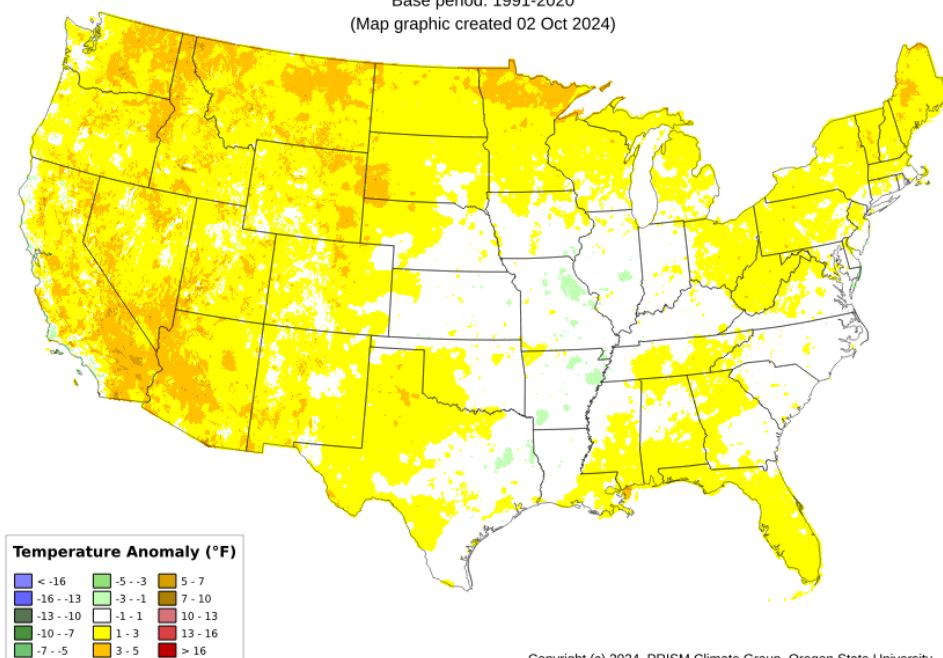
Daily Mean Temperature Anomaly: Jul 2024 - Sep 2024

Period ending 7 AM EST 30 Sep 2024

Base period: 1991-2020

(Map graphic created 02 Oct 2024)

[July through
September 2024 daily
mean temperature
anomaly map](#)



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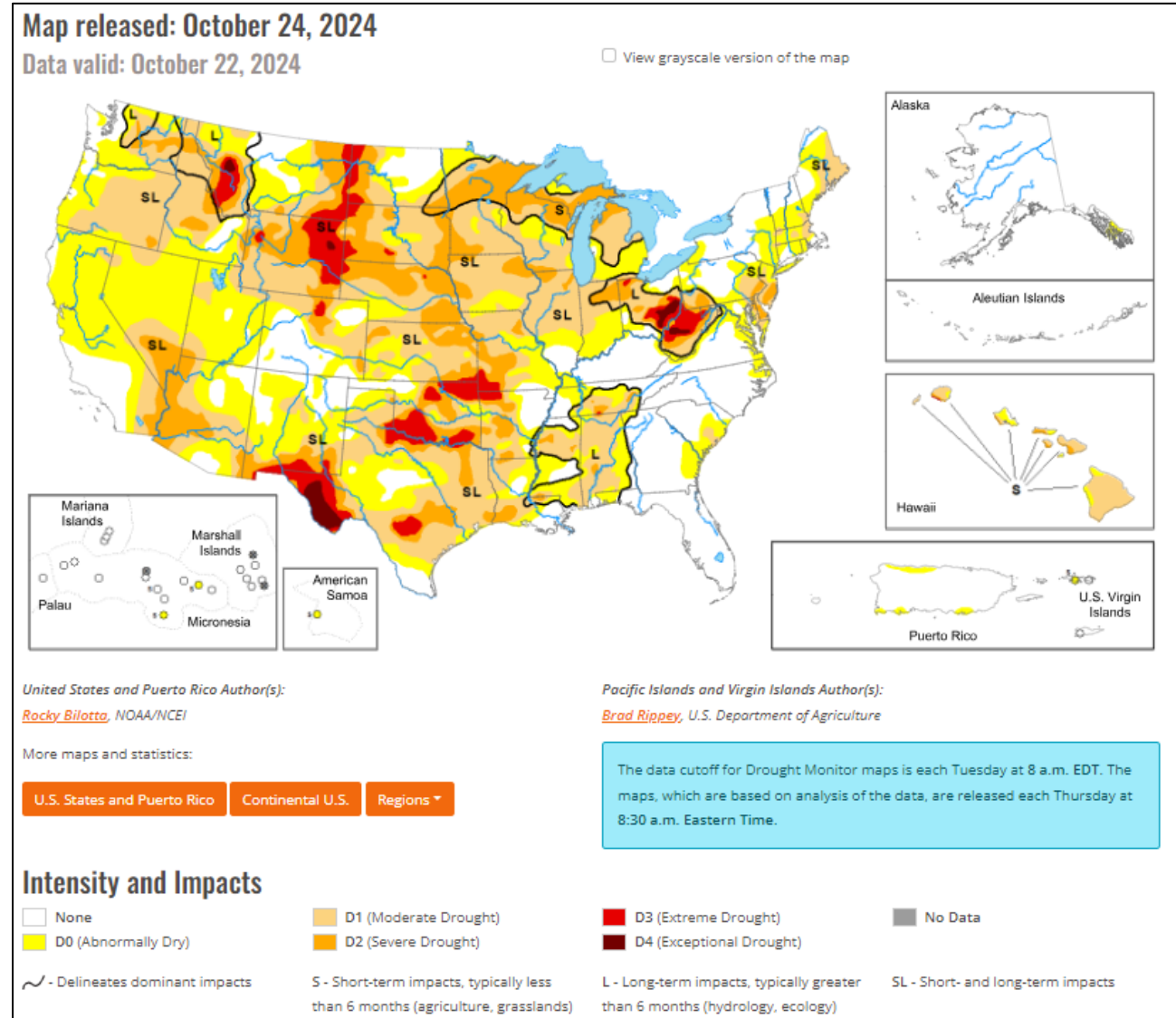
Drought

[U.S. Drought Monitor](#)

Source: National Drought Mitigation Center

[U.S. Drought Portal](#)

Source: NOAA



Current [National Drought Summary](#), October 22, 2024

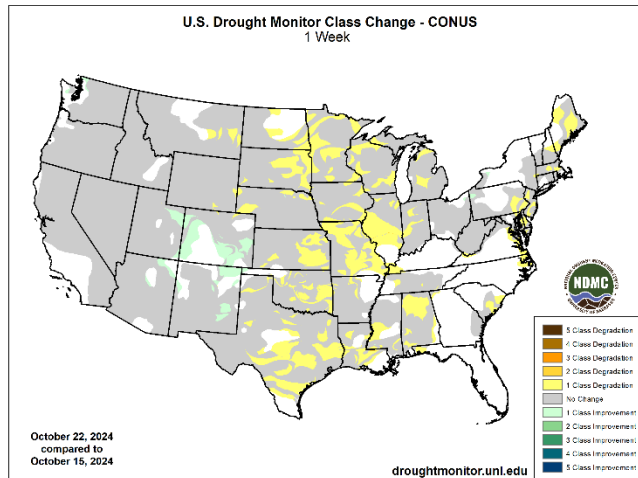
Source: National Drought Mitigation Center

"Precipitation fell across much of the U.S. over the past week, while heavier amounts were observed over parts of the Pacific Northwest and Southwest. Portions of New Mexico, Utah, Colorado and Washington reported rainfall totals between 3 to 5 inches above normal, while precipitation totals were below normal across much of the eastern U.S. Warmer-than-normal temperatures were observed across much of the U.S. this week. Temperature departures ranging between 6 to 15 degrees F above normal were observed from the northern Rockies to northern portions of the Midwest. Cooler-than-normal temperatures were observed from eastern portions of Texas to the Mid-Atlantic, and in parts of the Great Bains and Southwest. The Southeast observed temperatures between 3 to 9 degrees F below normal this week."

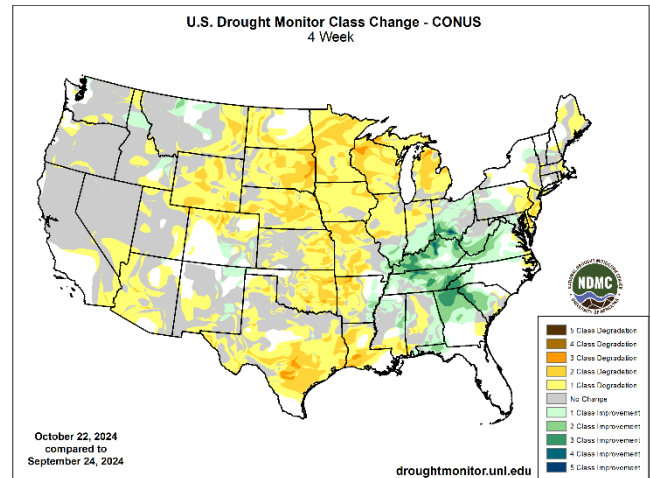
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

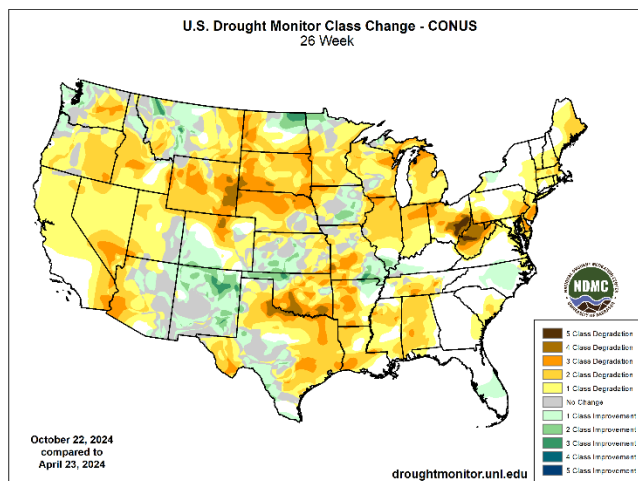
1 Week



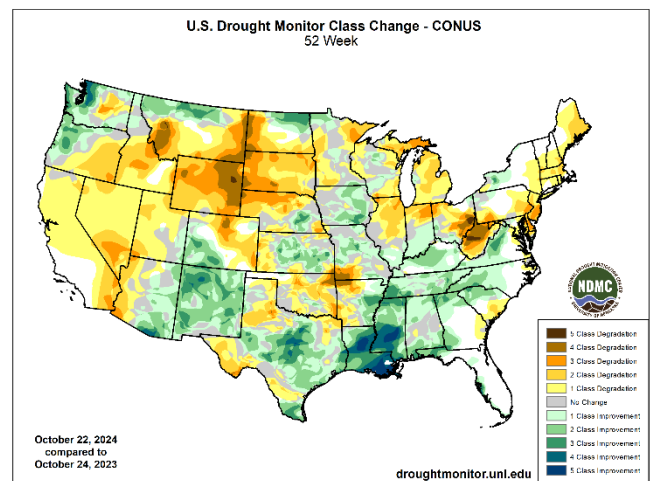
1 Month



6 Months



1 Year



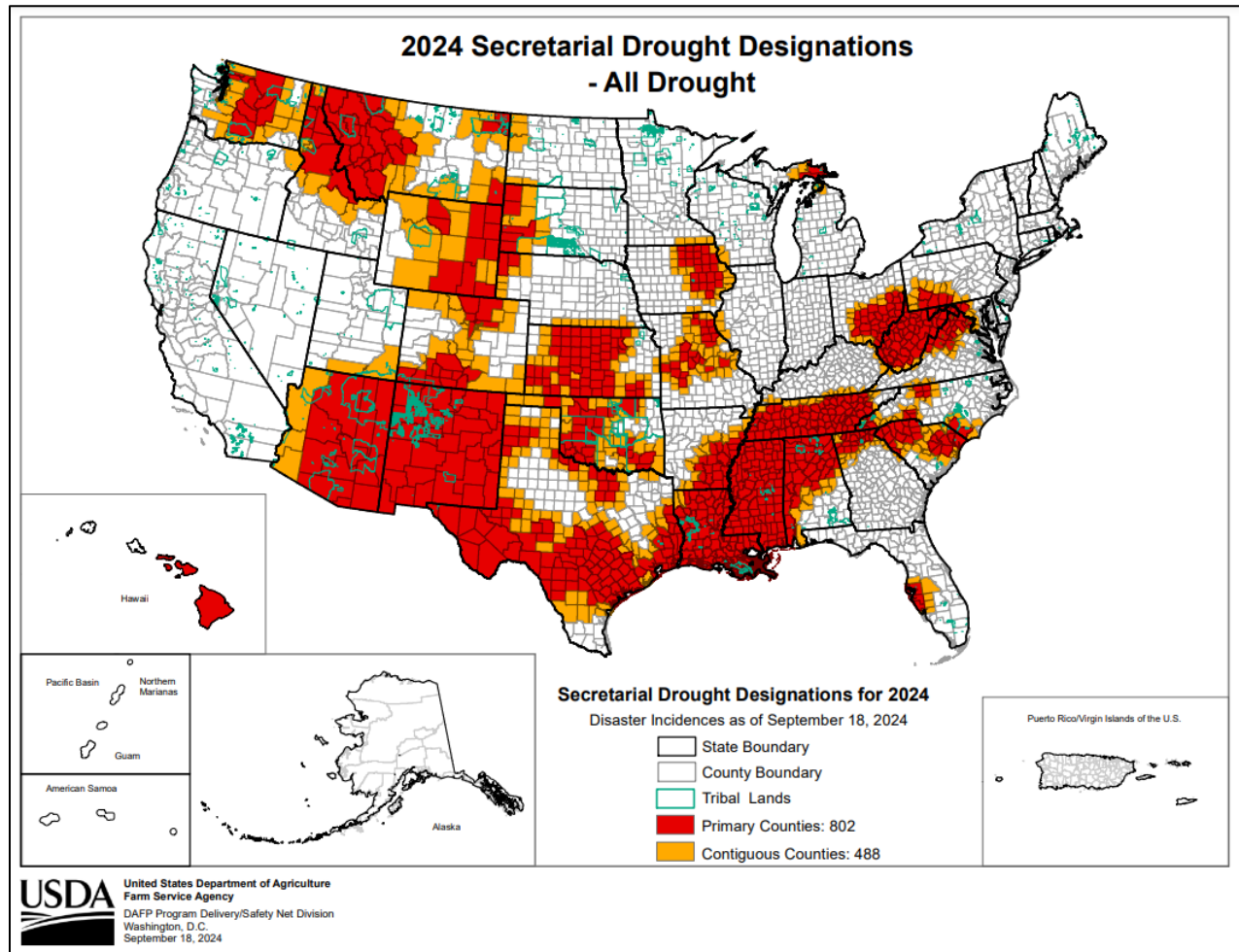
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

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](#)

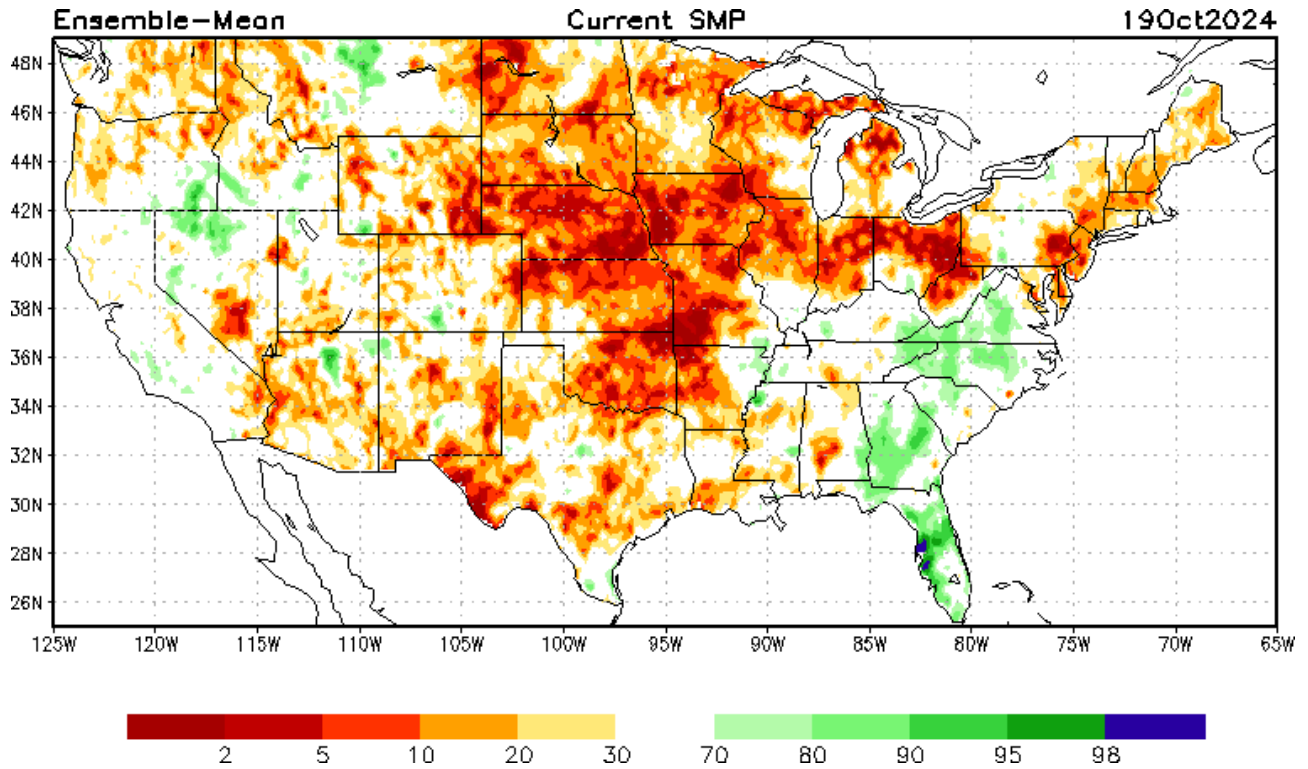
Source: USDA Farm Service Agency



Other Climatic and Water Supply Indicators

Soil Moisture

Source: NOAA National Centers for Environmental Prediction

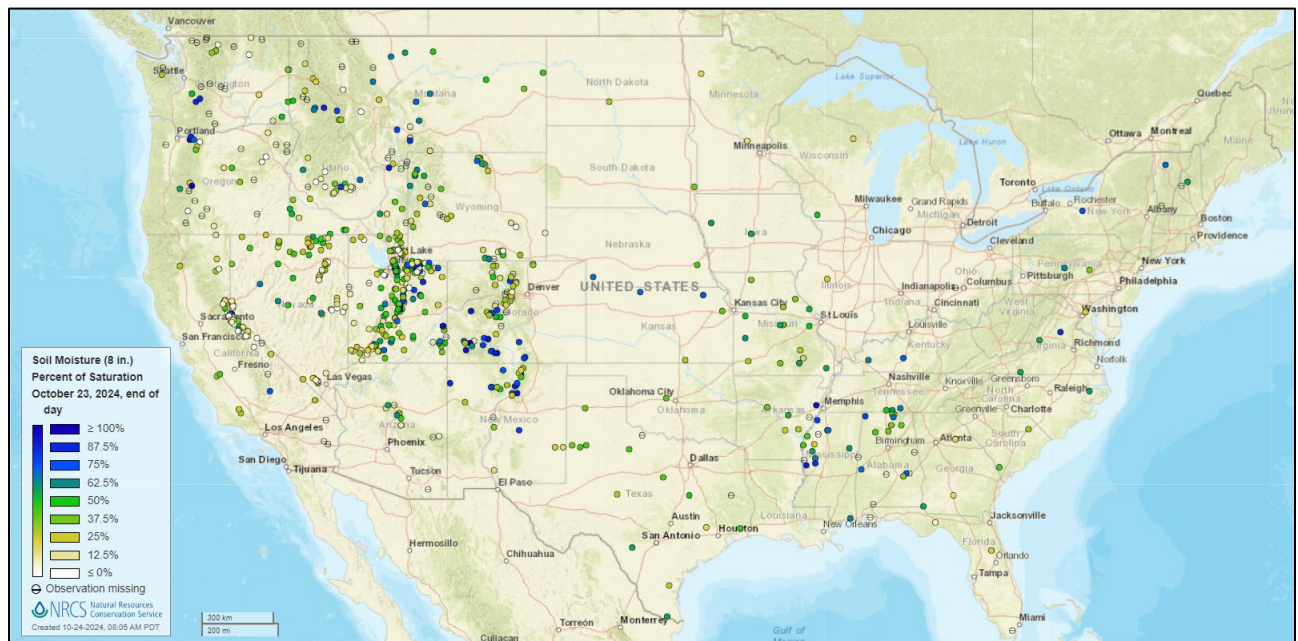


[Modeled soil moisture percentiles](#) as of October 19, 2024

Soil Moisture Percent of Saturation

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

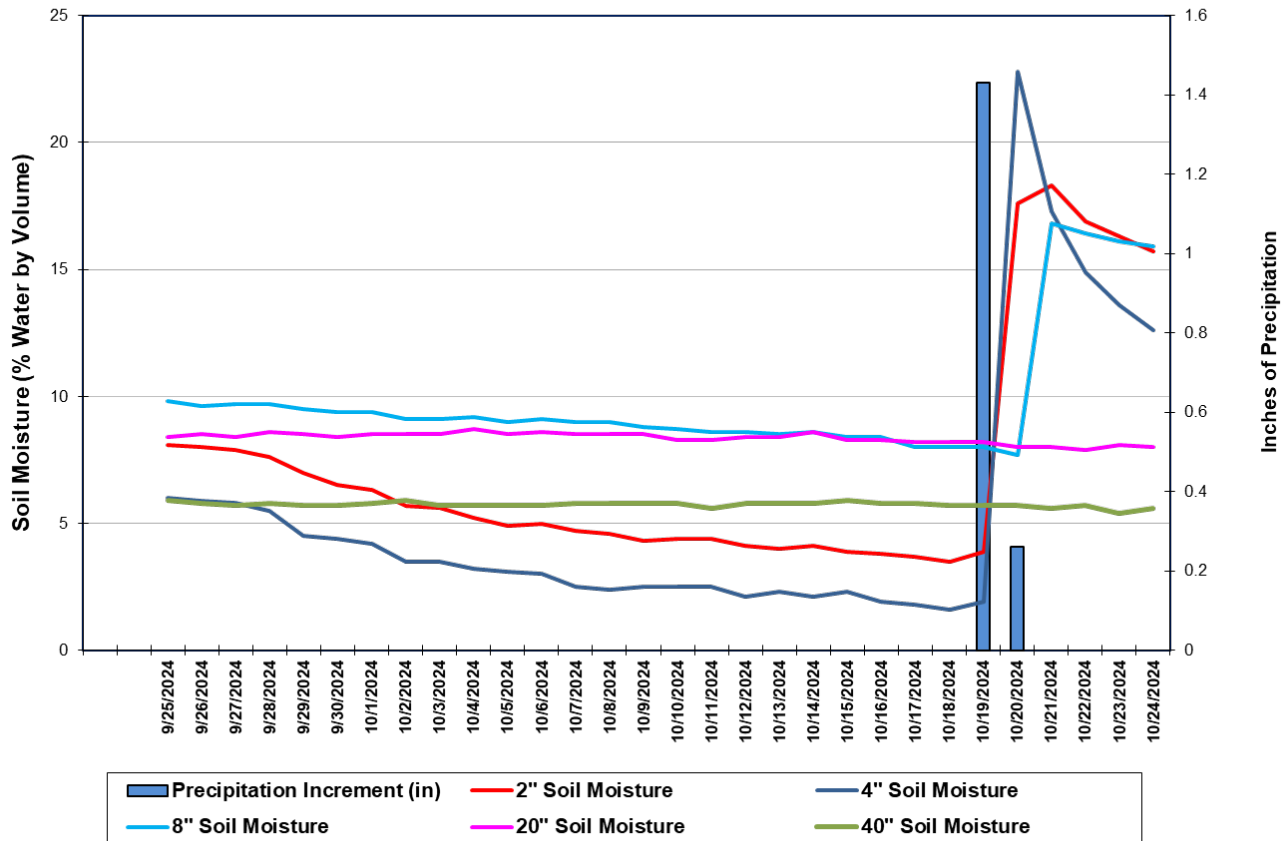
[U.S. soil moisture map at 8-inch depth:](#)



Soil Moisture

Source: NRCS [Soil Climate Analysis Network](#) (SCAN)

Adams Ranch #1, New Mexico (SCAN site 2015) Daily Mean Soil Moisture vs. Daily Precipitation



This chart shows the precipitation and soil moisture for the last 30 days at the [Adams Ranch #1](#) SCAN site in New Mexico. After storm activity brought 1.69 inches of precipitation to the site between October 19-20, soil sensors two, four, and eight inches beneath land surface recorded a pronounced increase in soil moisture. The deepest soil sensors, 20 and 40 inches beneath land surface, recorded little-to-no change in soil moisture throughout the period. Total precipitation for the 30-day period was 1.69 inches.

Soil Moisture Data Portals

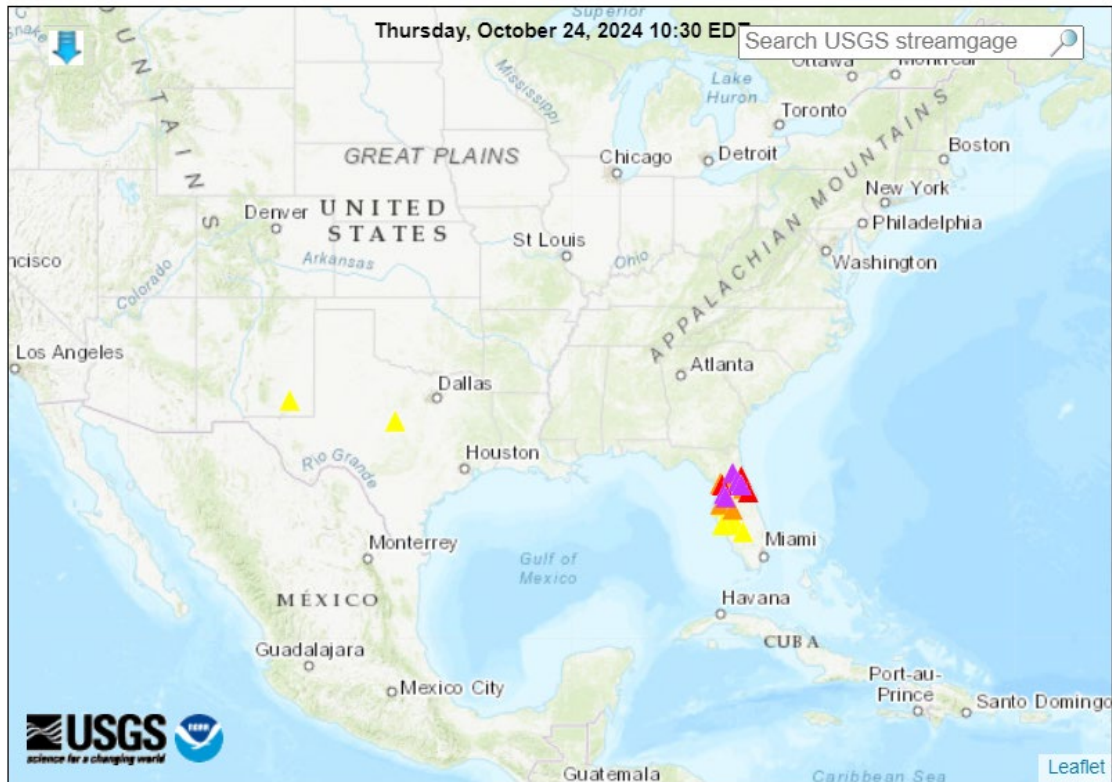
- [USCRN Soil Moisture](#)
- [National Soil Moisture Network](#)
- [NOAA Climate Prediction Center Soil Moisture](#)
- [NASA Grace](#)

Streamflow, Drought, Flood, and Runoff

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

Map of flood and high flow conditions

(16 in floods [major: 5, moderate: 3, minor: 8], 8 in near-flood)



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

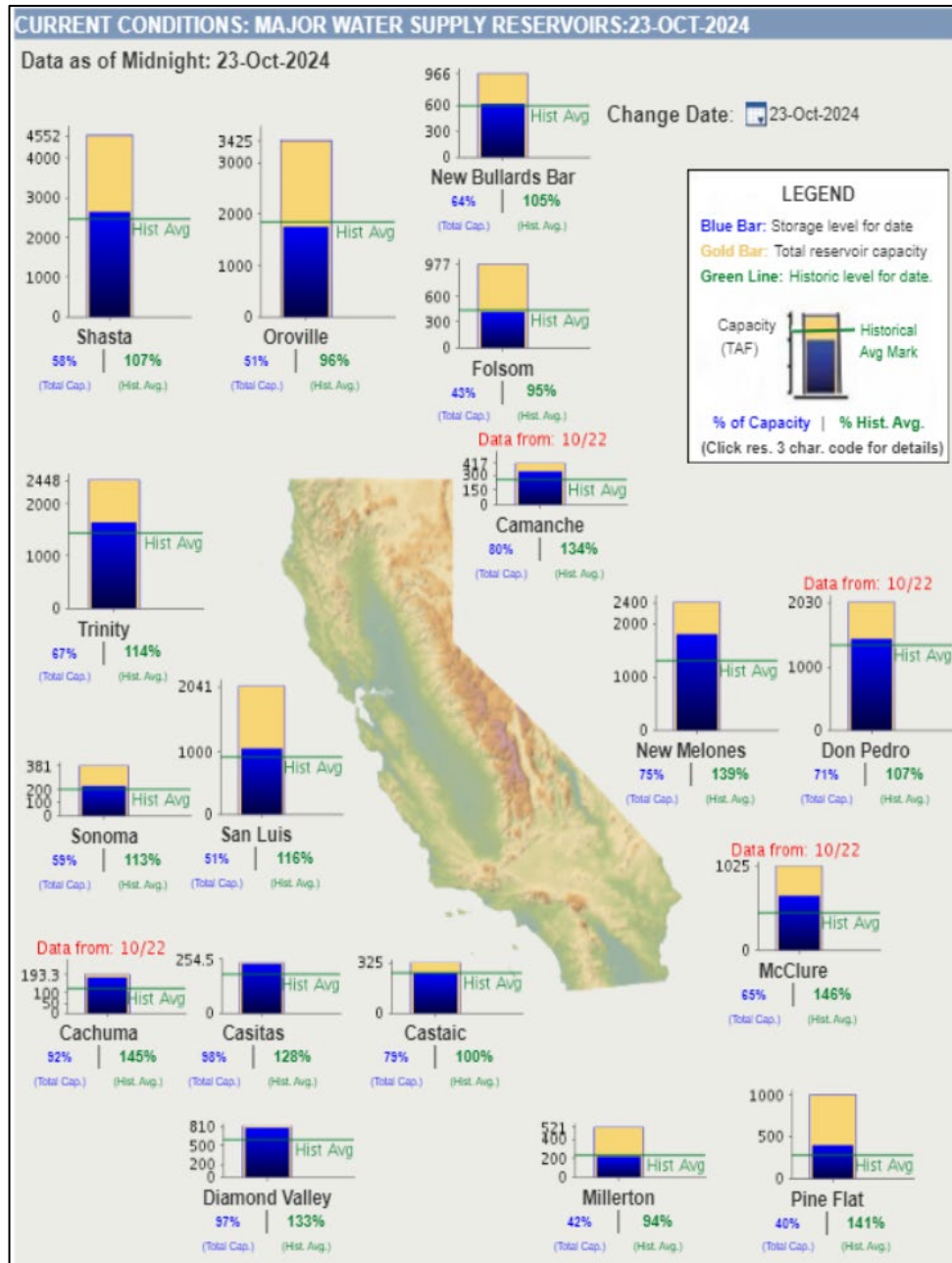
Hydromet Teacup Reservoir Depictions

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 October 24, 2024: “Many areas of the country—including the Plains, South, and Atlantic Coast States, will remain mostly dry during the next 5 days. However, parts of the Midwest will receive generally light rain, mainly later today into Friday, followed by significant precipitation in the Pacific Northwest during the weekend. By early next week, a storm system moving inland across the western U.S. will produce some rain and snow. Meanwhile, temperatures will fluctuate as fast-moving cold fronts cross the nation, with some of the coldest air of the season arriving early next week in the West. The NWS 6- to 10-day outlook for October 29 – November 2 calls for the likelihood of above-normal temperatures in most areas from the Plains to the East Coast, while cooler-than-normal conditions will cover the West. Meanwhile, near- or above-normal precipitation across most of the country should contrast with drier-than-normal weather in parts of California and the middle and northern Atlantic States. The upper Midwest will have the greatest likelihood of experiencing wet weather.”

Weather Hazards Outlook: [October 26 – 30, 2024](#)

Source: NOAA Weather Prediction Center

U.S. Day 3-7 Hazards Outlook

[About the Hazards Outlook](#)

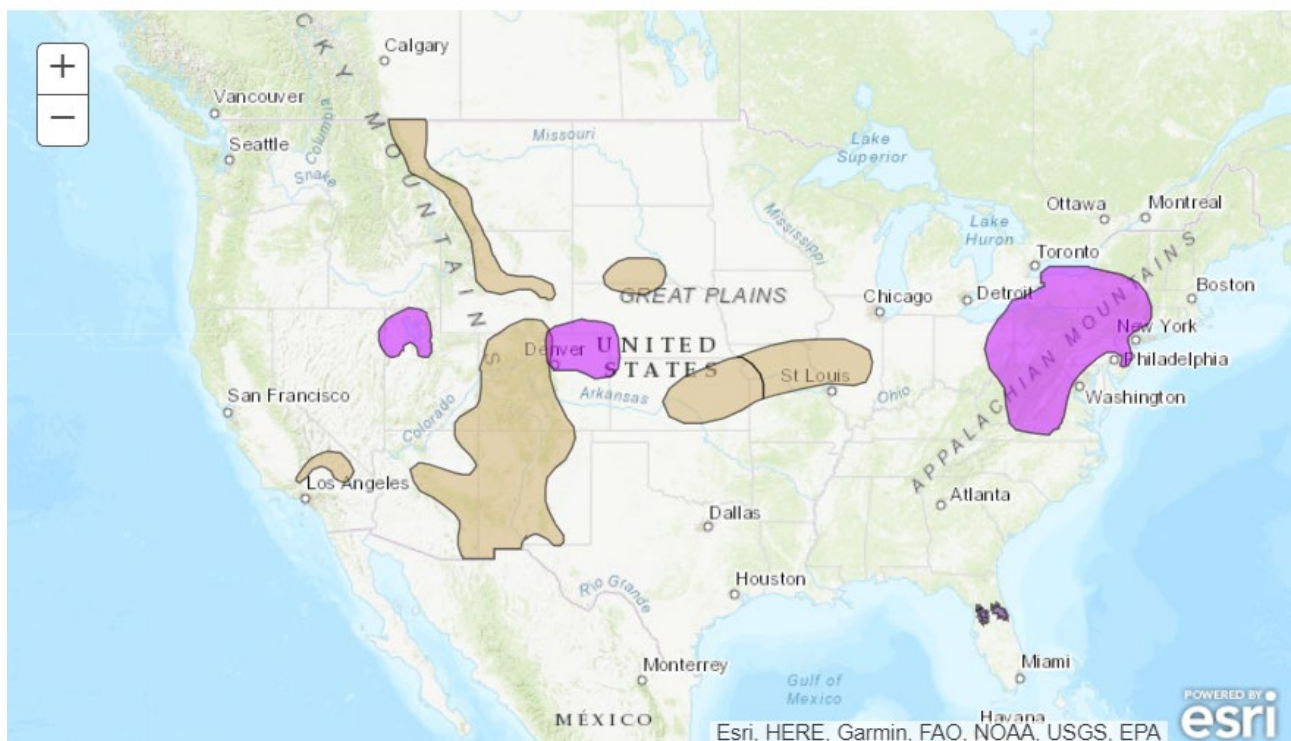
Created October 23, 2024

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

Precipitation	☒
Temperature	☒
Wildfires	☒
Soils	☐

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

Valid October 26, 2024 - October 30, 2024

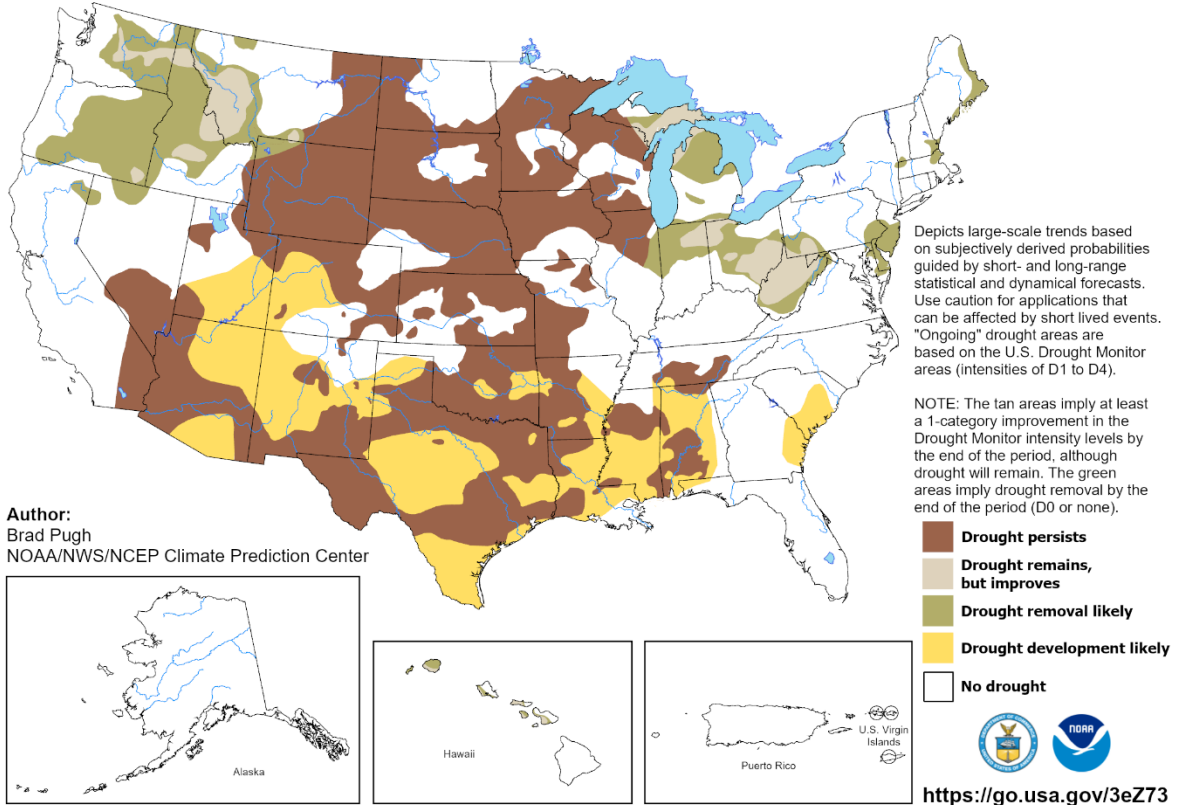


Seasonal Drought Outlook: [October 17, 2024 – January 31, 2025](#)

Source: National Weather Service

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

Valid for October 17, 2024 - January 31, 2025
Released October 17, 2024

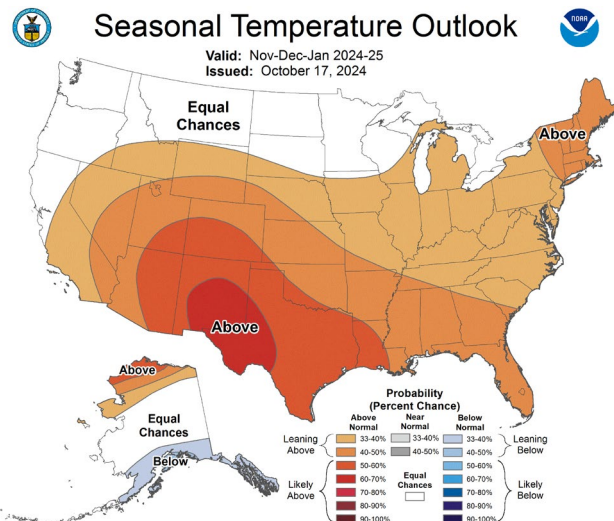
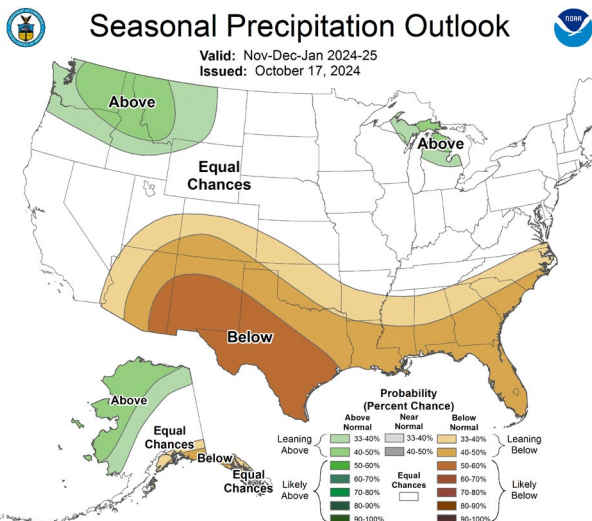


Climate Prediction Center Three-month Outlook

Source: National Weather Service

[Precipitation](#)

[Temperature](#)



[November-December-January 2024-2025 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](#).