



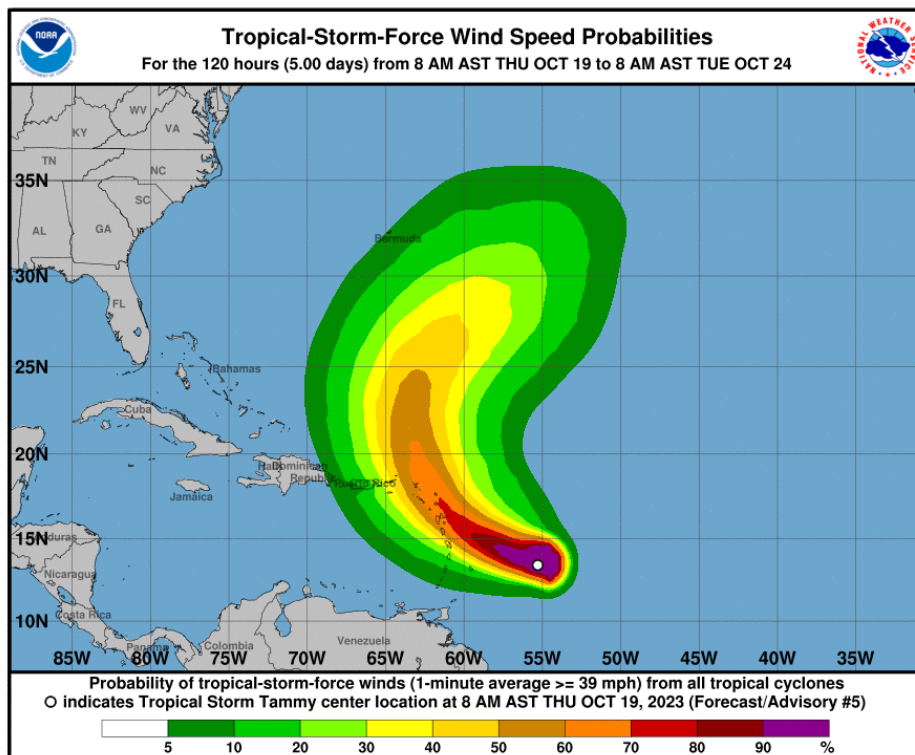
Water and Climate Update

October 19, 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.

Precipitation	2	Other Climatic and Water Supply Indicators	11
Temperature.....	6	More Information	17
Drought	8		

Storm development monitored in Atlantic and Pacific Oceans



Tropical Storm Tammy is expected to brush the Caribbean this weekend, bringing heavy rainfall in its wake and possibly developing into a hurricane in the Atlantic Ocean. Meanwhile, category 4 Hurricane Norma is churning towards Mexico in the Pacific Ocean near the southern tip of Baja California Peninsula and is also expected to bring heavy rainfall. The exact path or impacts of either storm is currently unknown, but the National Hurricane Center will be providing updates on the progression of each storm. Hurricane season typically wraps up by the end of November, and according to the National Hurricane Center, the 2023 season has brought an above-average amount of hurricanes.

Related:

<https://www.nhc.noaa.gov/> – National Hurricane Center

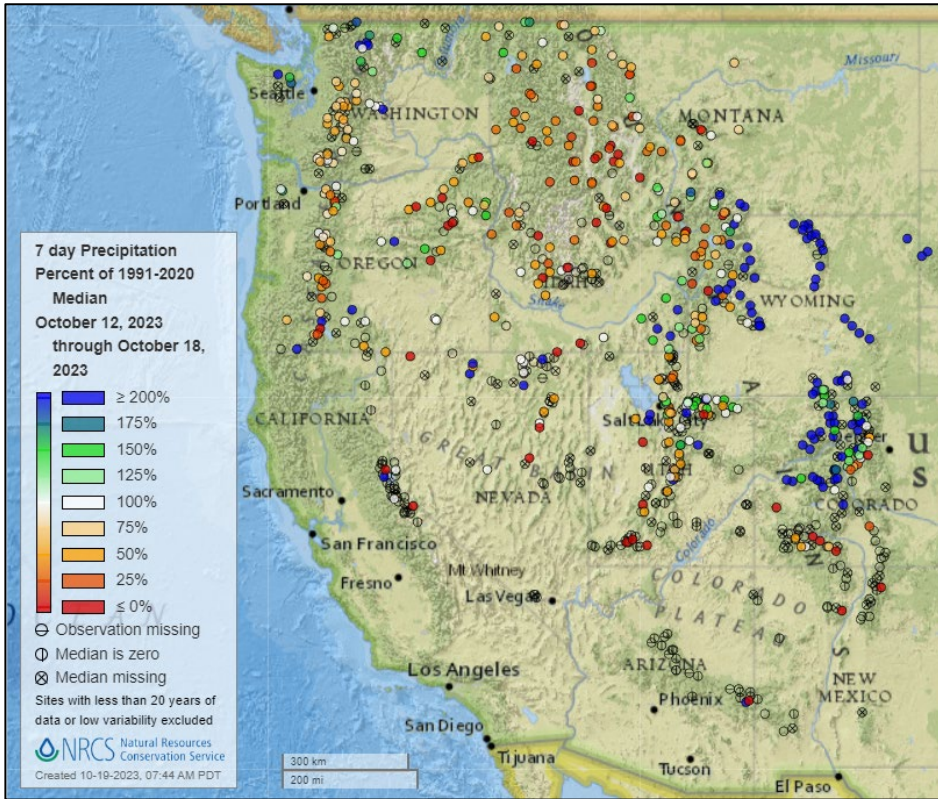
[Tropical Storm Tammy expected to drop heavy rain on the Caribbean this weekend](#) – NPR

[Tropical Storm Tammy tracker: See path of storm as it moves east of Caribbean](#) – USA Today

[Hurricane Norma rapidly strengthens on a path toward Los Cabos in Mexico](#) – AP News

Precipitation

Last 7 Days, NRCS SNOTEL Network

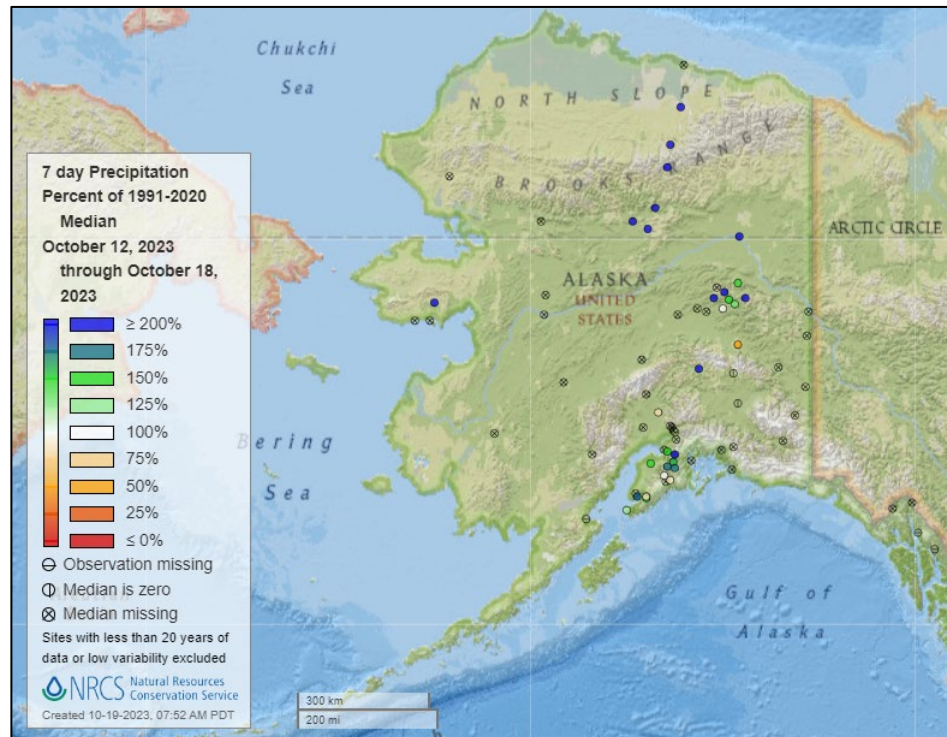


[7-day precipitation percent of median map](#)

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](#)



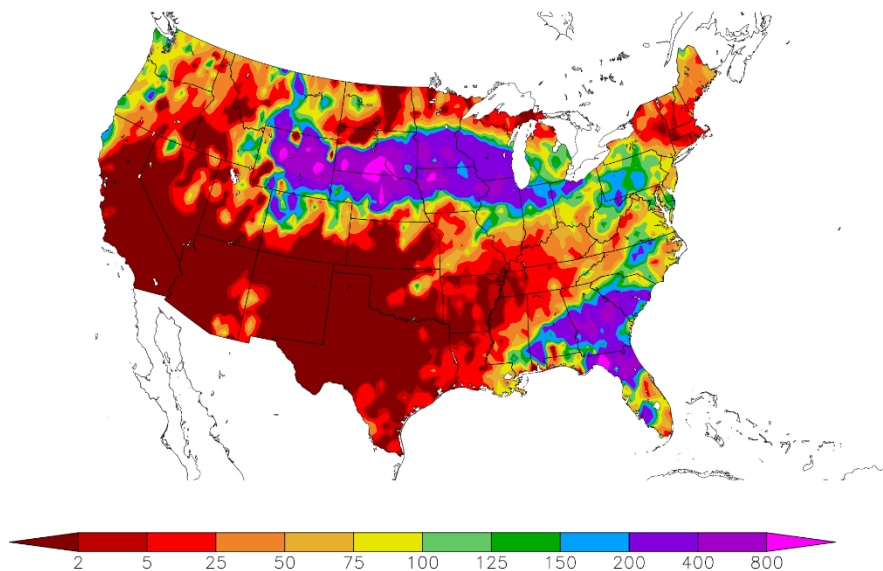
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)
10/12/2023 – 10/18/2023



Generated 10/19/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

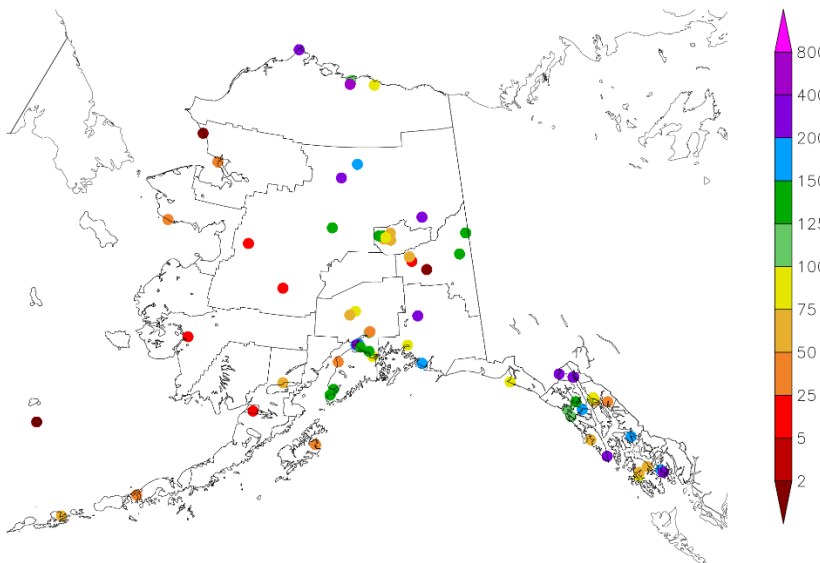
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)
10/12/2023 – 10/18/2023



Generated 10/19/2023 at HPRCC using provisional data.

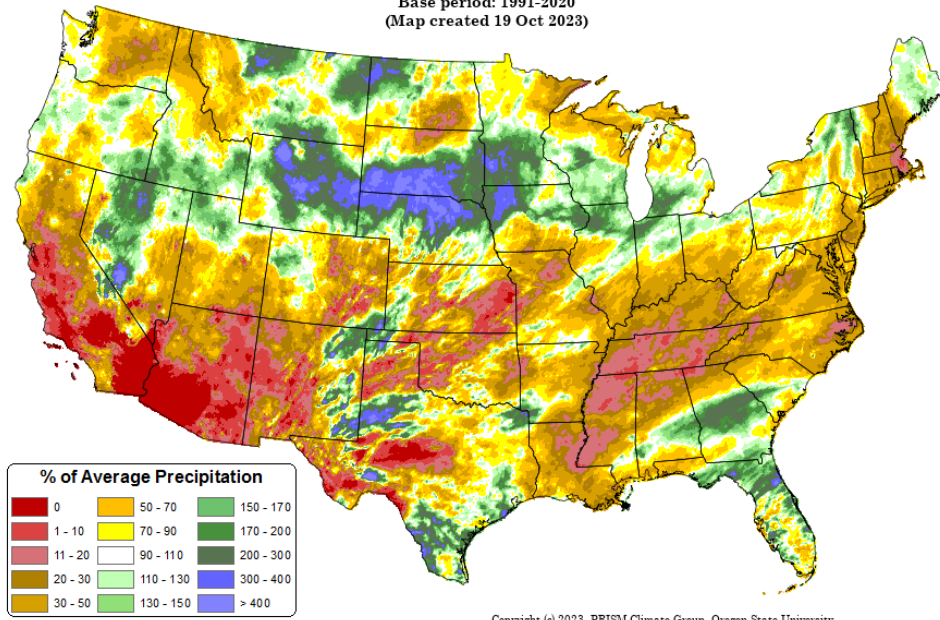
NOAA Regional Climate Centers

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

Source: PRISM

Total Precipitation Anomaly: 01 Oct 2023 - 18 Oct 2023
Period ending 7 AM EST 18 Oct 2023
Base period: 1991-2020
(Map created 19 Oct 2023)

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



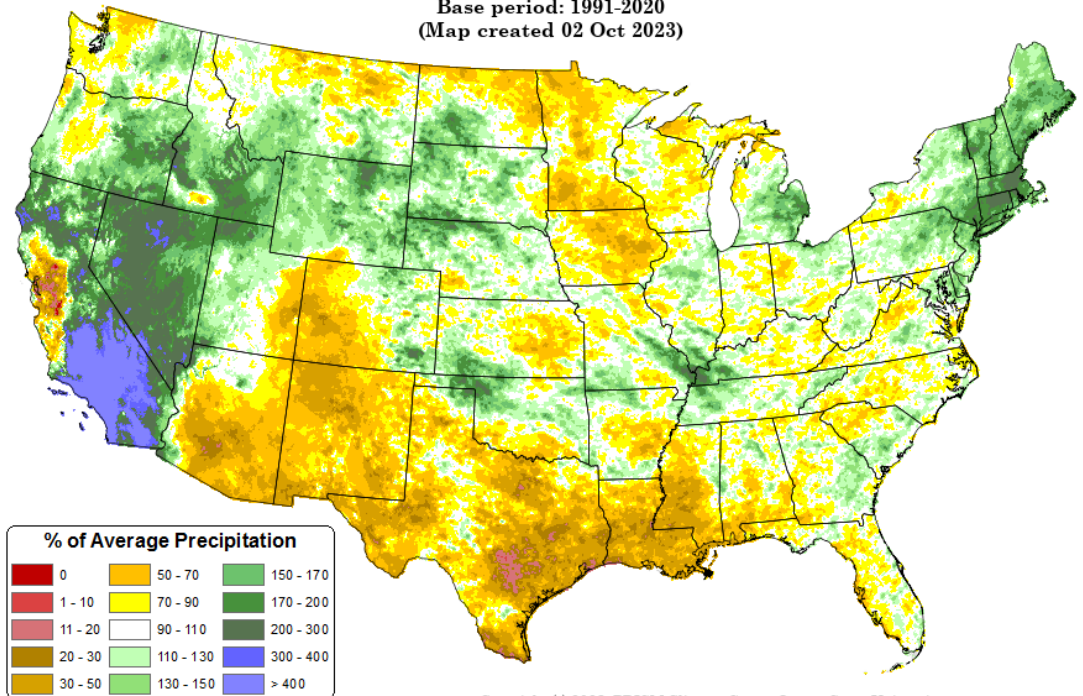
Copyright (c) 2023, PRISM Climate Group, Oregon State University

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

Source: PRISM

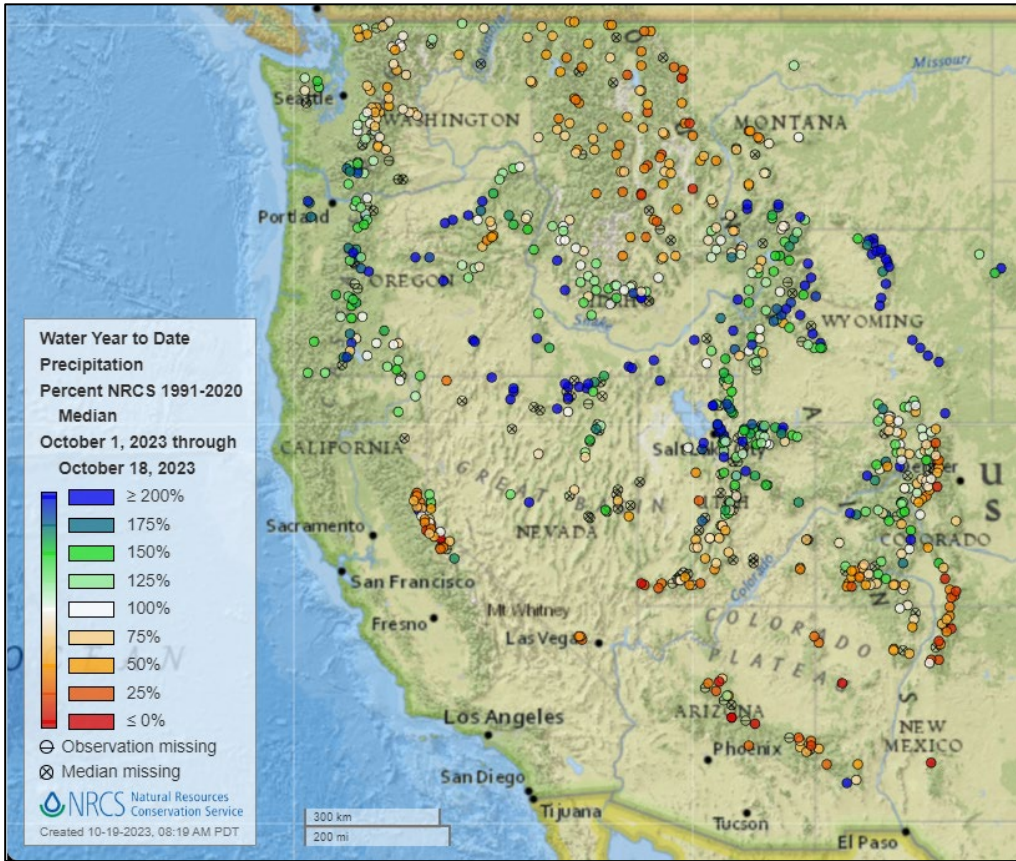
[July through September 2023 precipitation anomaly map](#)

Total Precipitation Anomaly: Jul 2023 - Sep 2023
Period ending 7 AM EST 30 Sep 2023
Base period: 1991-2020
(Map created 02 Oct 2023)



Copyright (c) 2023, PRISM Climate Group, Oregon State University

Water Year-to-Date, NRCS SNOTEL Network

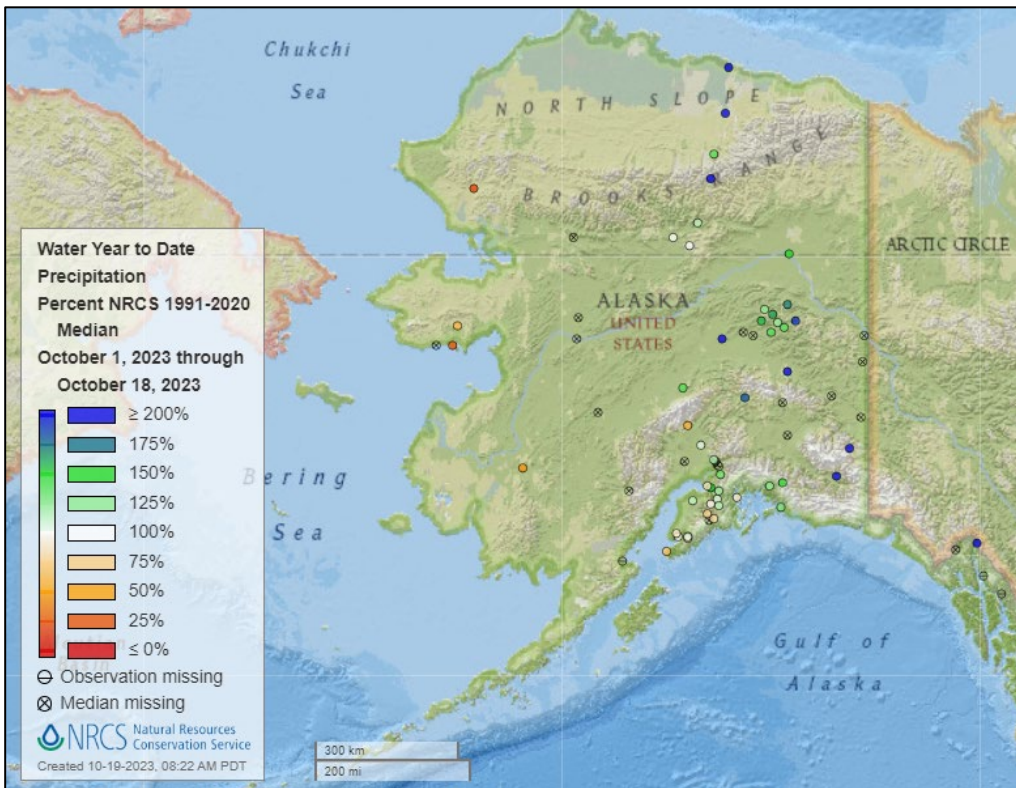


[2024 water year-to-date precipitation percent of median map](#)

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

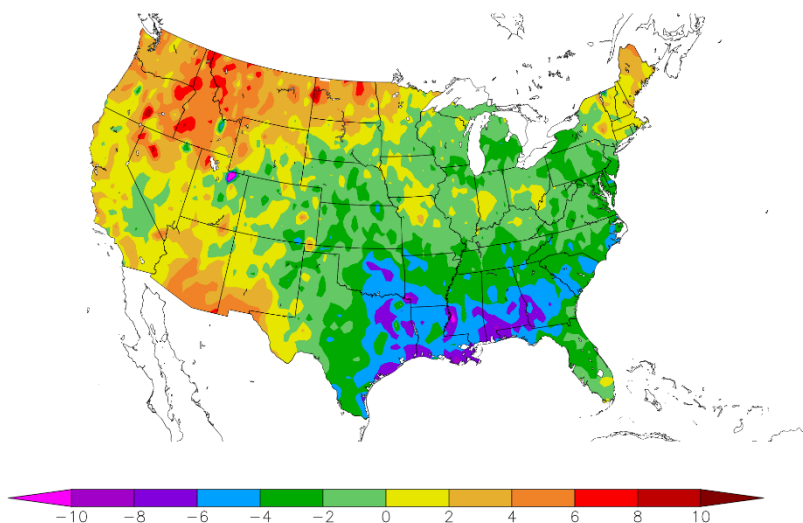
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
10/12/2023 – 10/18/2023



Generated 10/19/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

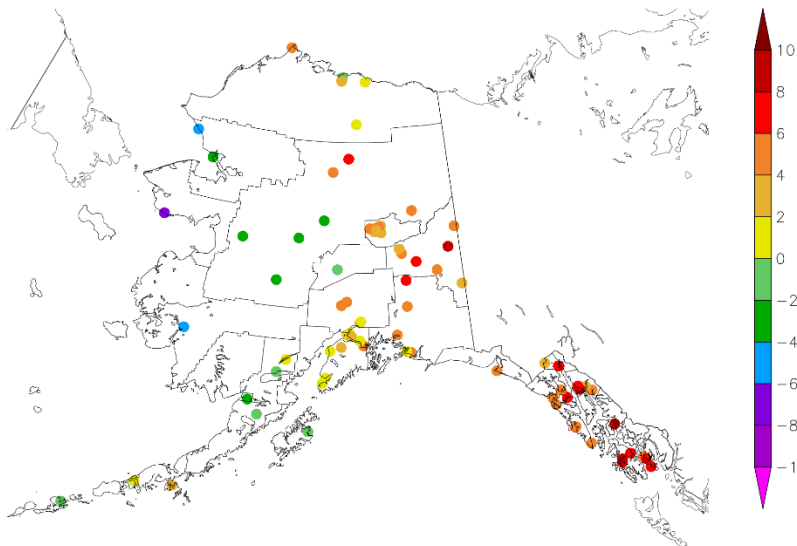
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
10/12/2023 – 10/18/2023



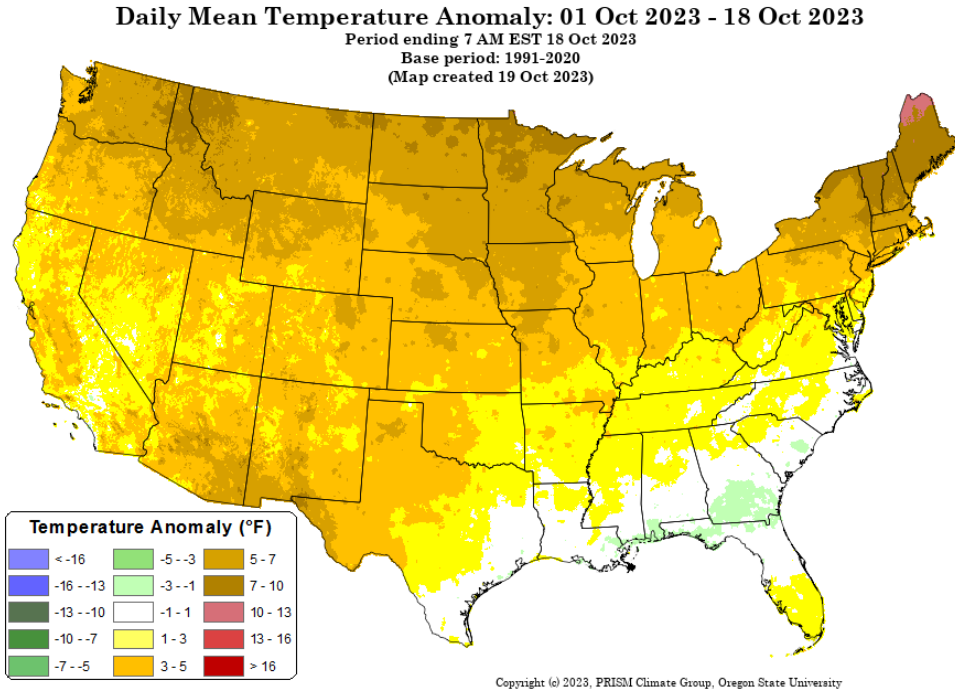
Generated 10/19/2023 at HPRCC using provisional data.

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](#)



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

Source: PRISM

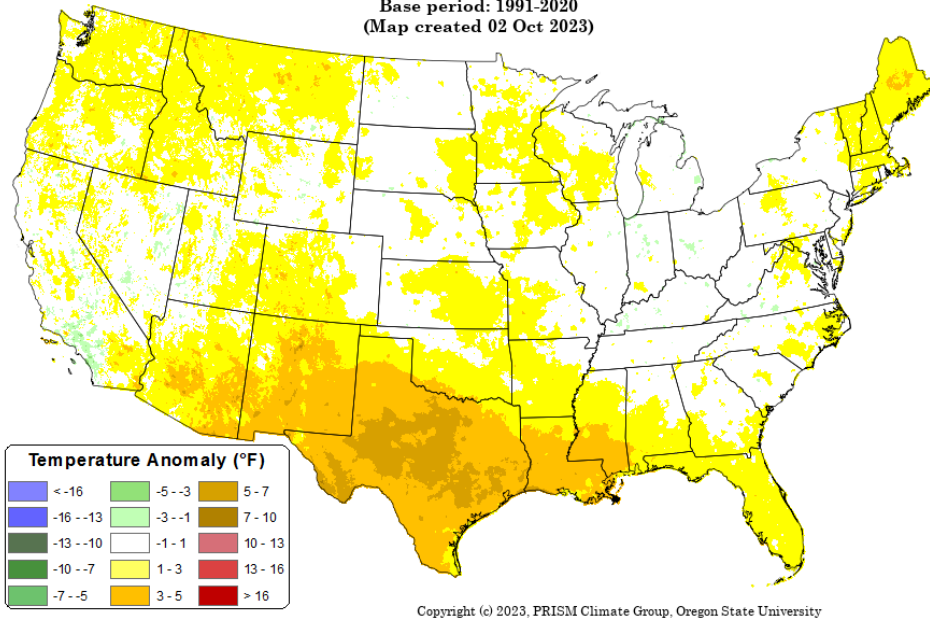
Daily Mean Temperature Anomaly: Jul 2023 - Sep 2023

Period ending 7 AM EST 30 Sep 2023

Base period: 1991-2020

(Map created 02 Oct 2023)

[July through September 2023 daily mean temperature anomaly map](#)



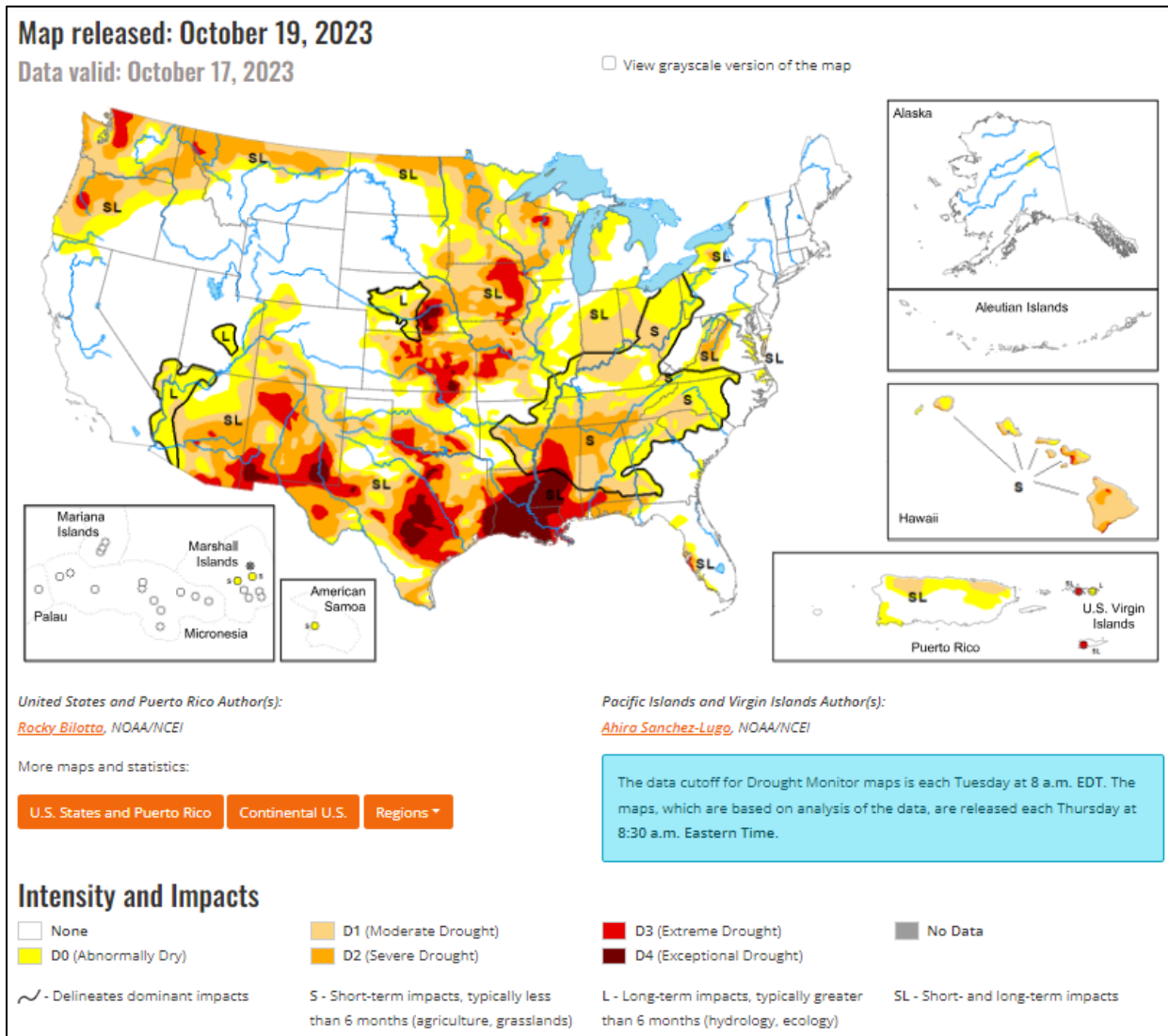
Drought

[U.S. Drought Monitor](#)

Source: National Drought Mitigation Center

[U.S. Drought Portal](#)

Source: NOAA



[Current National Drought Summary, October 17, 2023](#)

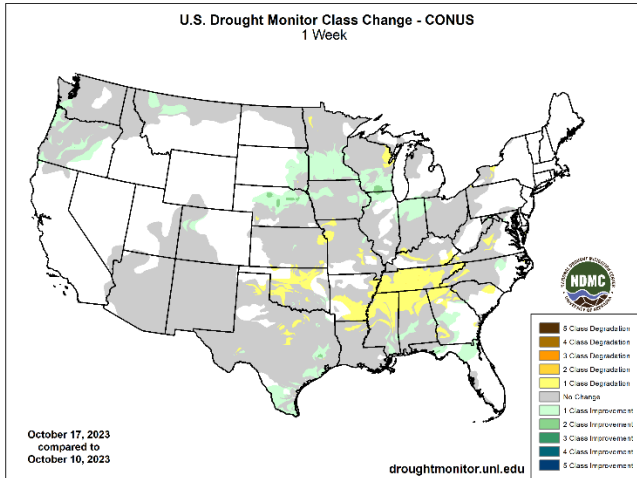
Source: National Drought Mitigation Center

“An intense low-pressure system moved across the contiguous U.S., bringing heavy precipitation (greater than 2 inches) across much of the central Plains and Midwest this week. While in the southeast, upper-level energy moving across the Southeast brought rain over parts of Alabama, Georgia, South Carolina, and northern Florida, before moving into the southern Mid-Atlantic. The most widespread improvements were made to northern Nebraska, eastern South Dakota, southern Minnesota, southern Wisconsin, northern Indiana and southern Texas where more well above normal precipitation was observed this past week. Dry conditions continued across much of the Southern region, with widespread degradations occurring across the Tennessee Valley, central Mississippi Valley and northern parts of the southern Plains. Following a wet September, minor improvements were warranted for parts of Washington. In Hawaii, drought continues to intensify across parts of Kauai and the Big Island.”

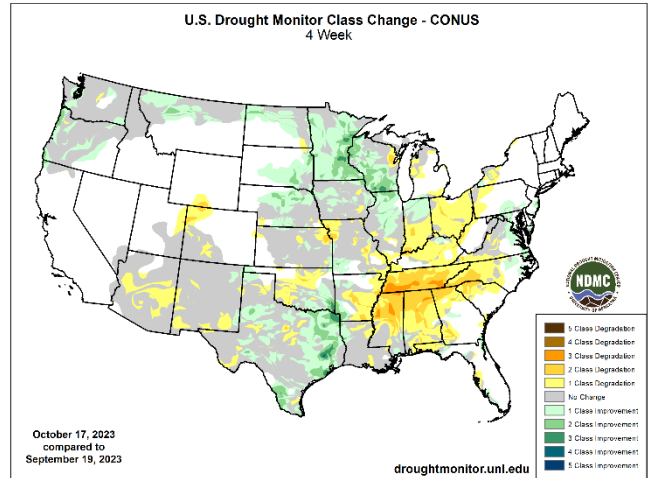
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

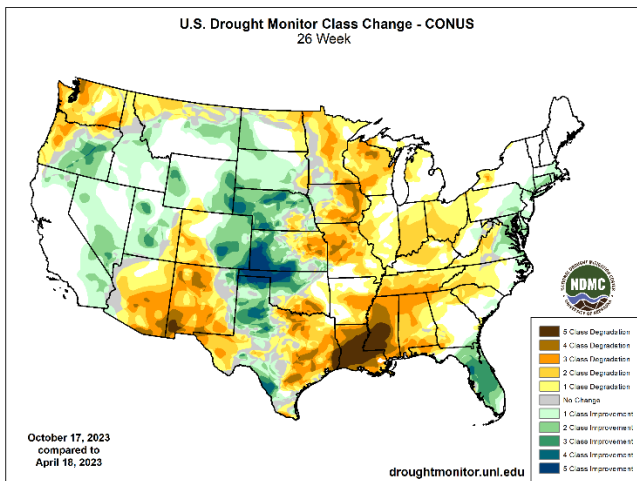
1 Week



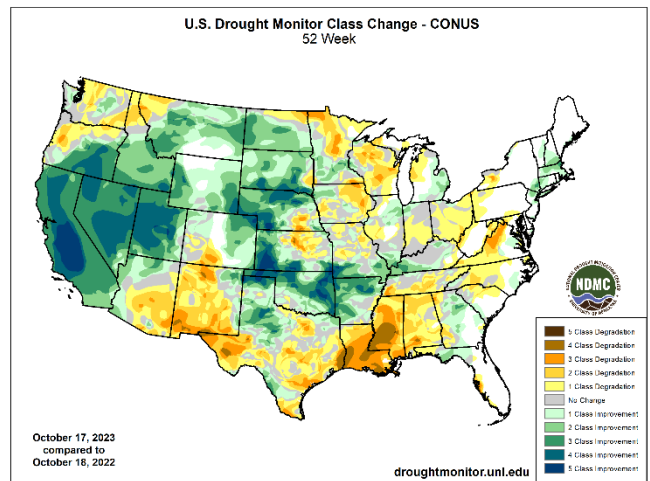
1 Month



6 Months



1 Year



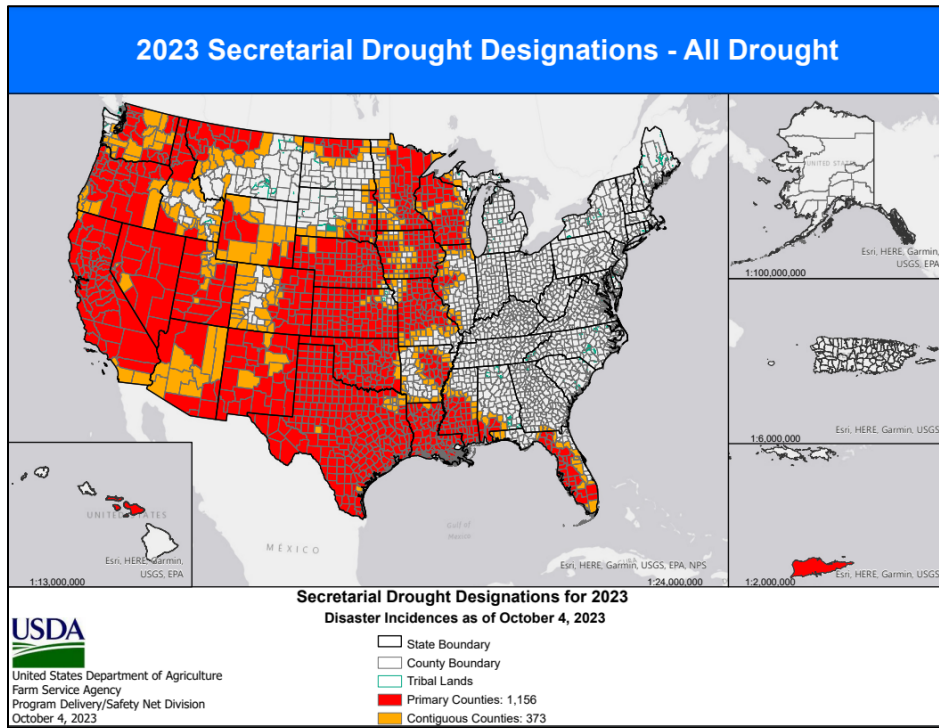
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

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](#)

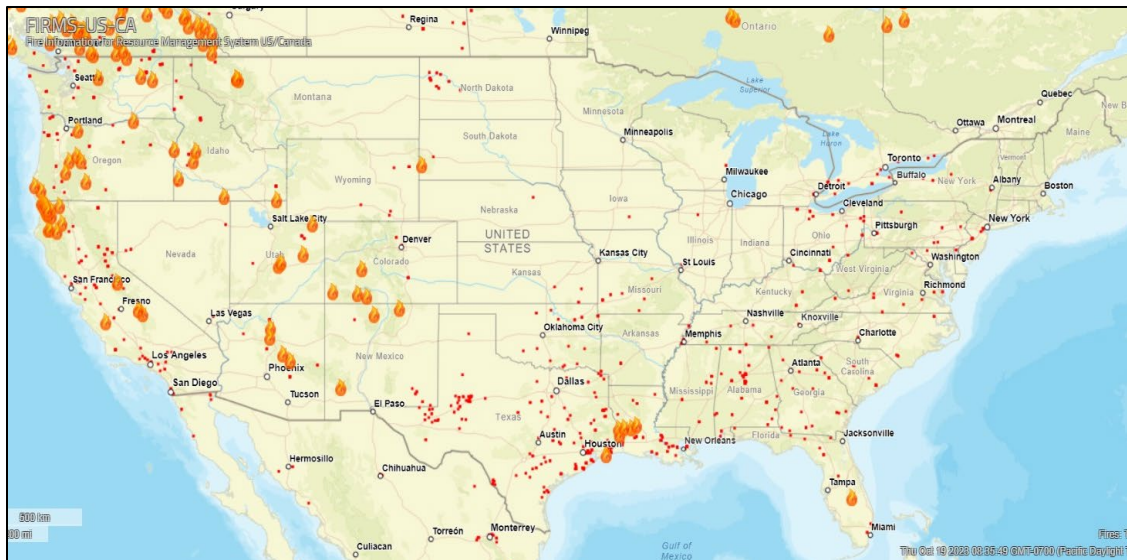
USDA Secretarial [Drought Designations](#)

Source: USDA Farm Service Agency



Wildfires: [Fire Information for Resource Management System US/Canada](#)

Source: NASA/USDA Forest Service



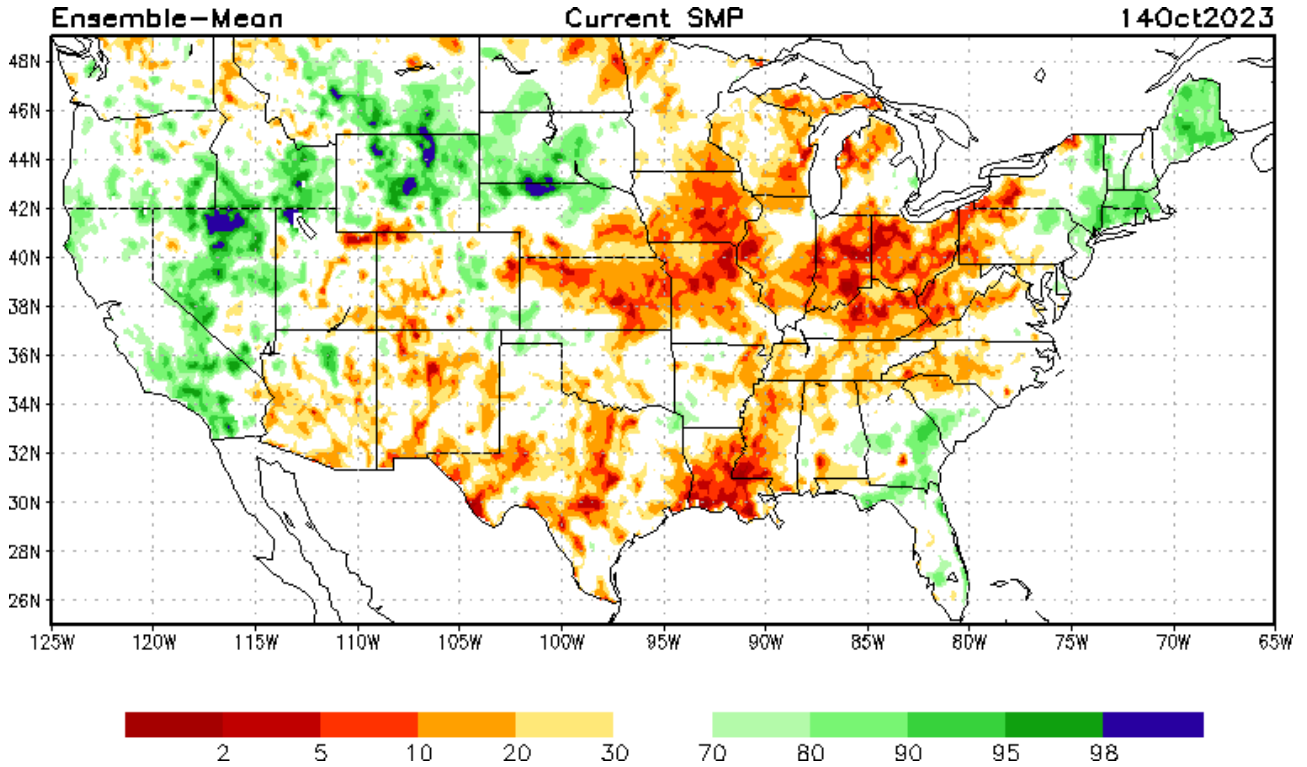
Highlighted Wildfire Resources

- [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

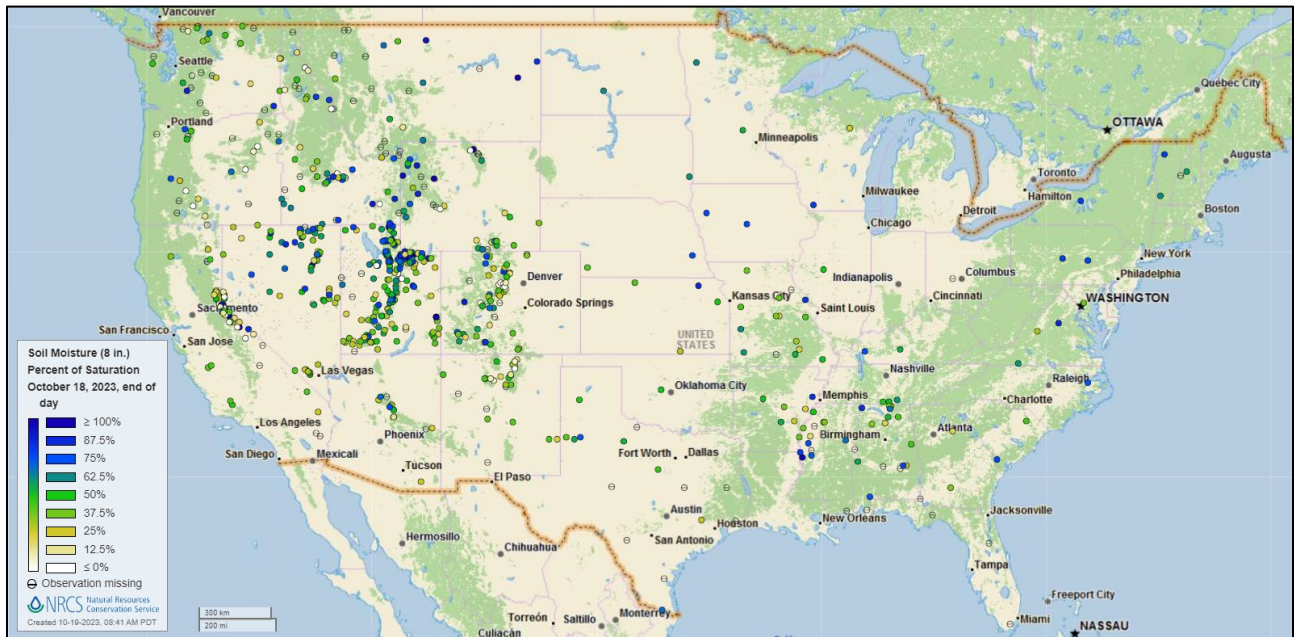


[Modeled soil moisture percentiles](#) as of October 14, 2023

Soil Moisture Percent of Saturation

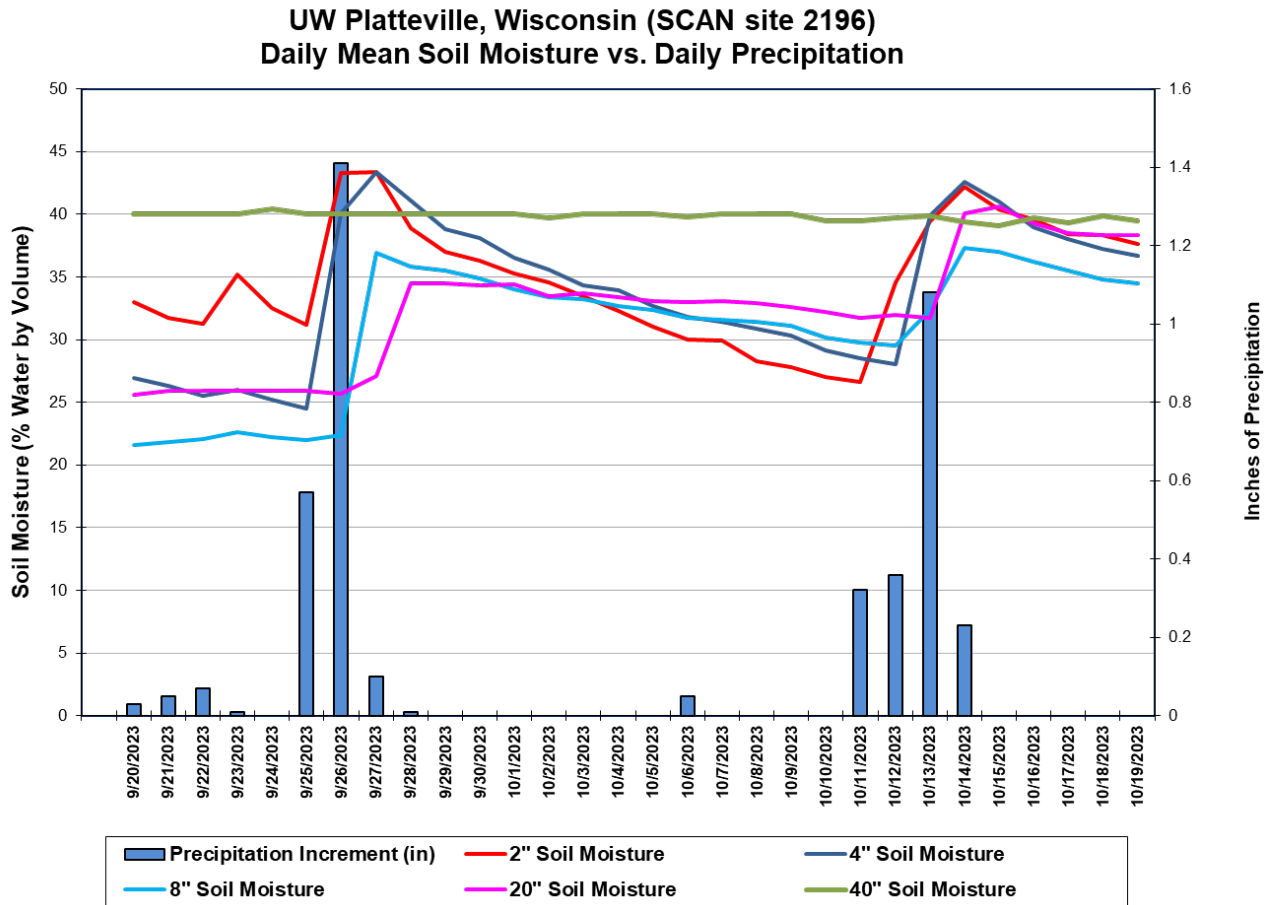
Source: NRCS SNOTEL and [Soil Climate Analysis Network](#) (SCAN)

[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 [UW Platteville](#) SCAN site in Wisconsin. Soil sensors at all depths except the -40-inch sensor indicated a sharp increase in soil moisture after the site experienced two strong precipitation events over the period. Total precipitation for the 30-day period was 4.29 inches.

Soil Moisture Data Portals

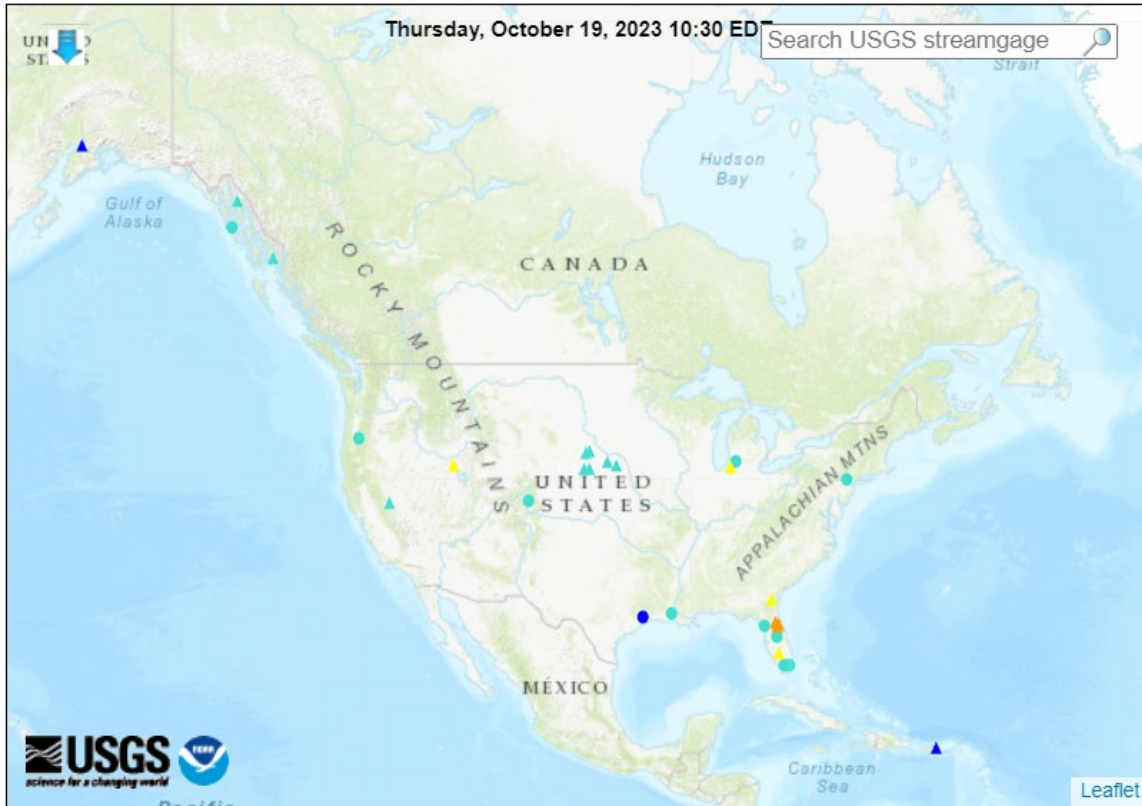
- [USCRN Soil Moisture](#)
- [National Soil Moisture Network](#)
- [NOAA Climate Prediction Center Soil Moisture](#)
- [NASA Grace](#)

Streamflow, Drought, Flood, and Runoff

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

Map of flood and high flow conditions

(3 in floods [minor: 3], 4 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

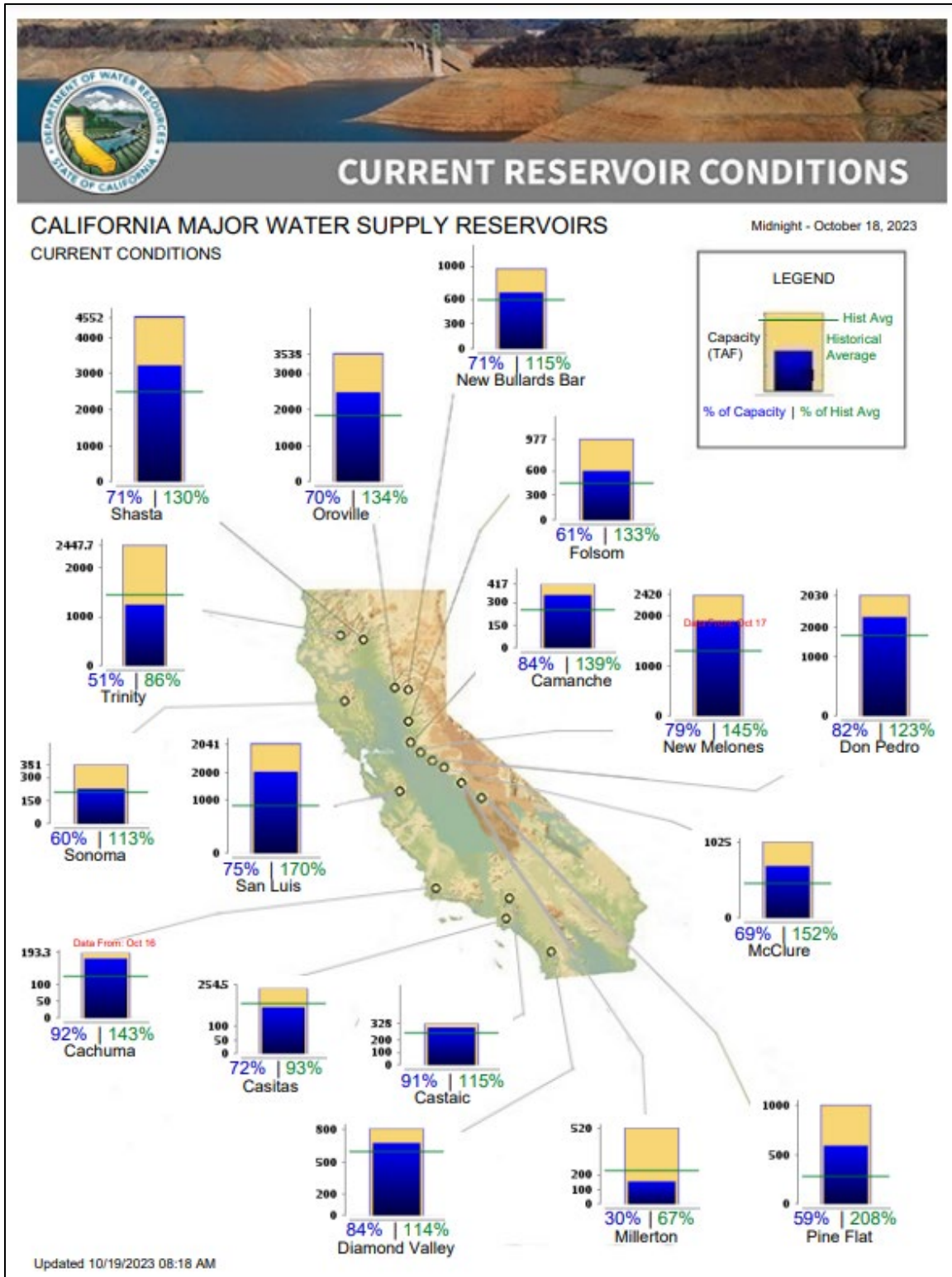
Hydromet Teacup Reservoir Depictions

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 19, 2023: “A low-pressure system currently traversing the Midwest will intensify along the northern Atlantic Coast by Saturday. Storm-total rainfall could reach 1 to 2 inches or more in the Northeast, parts of which remain quite wet from earlier precipitation events. Cool, windy weather will trail the storm, with widespread frost and freezes expected early next week from the Ohio Valley and the Great Lakes States into the Northeast. Meanwhile, a new storm system will arrive in the West, accompanied by rain and snow showers and colder weather. By early next week, markedly colder air will begin to overspread northern sections of the Rockies and Plains. Eventually, the Western storm system may begin to entrain tropical moisture associated with Hurricane Norma, currently centered over the eastern Pacific Ocean off the Mexican coast. The NWS 6- to 10-day outlook for October 24 – 28 calls for above-normal temperatures along and east of a line from the southern Rockies to Lake Superior, while colder-than-normal conditions will cover the northern Plains and much of the West. Late in the month, the coldest air of the season should engulf northern sections of the Rockies and Plains. Meanwhile, near- or above-normal precipitation across most of the country should contrast with drier-than-normal weather in northern California and environs, as well as portions of the Atlantic Coast States from the Carolinas to Maine.”

Weather Hazards Outlook: [October 21 – 25, 2023](#)

Source: NOAA Weather Prediction Center















U.S. Day 3-7 Hazards Outlook

[About the Hazards Outlook](#)

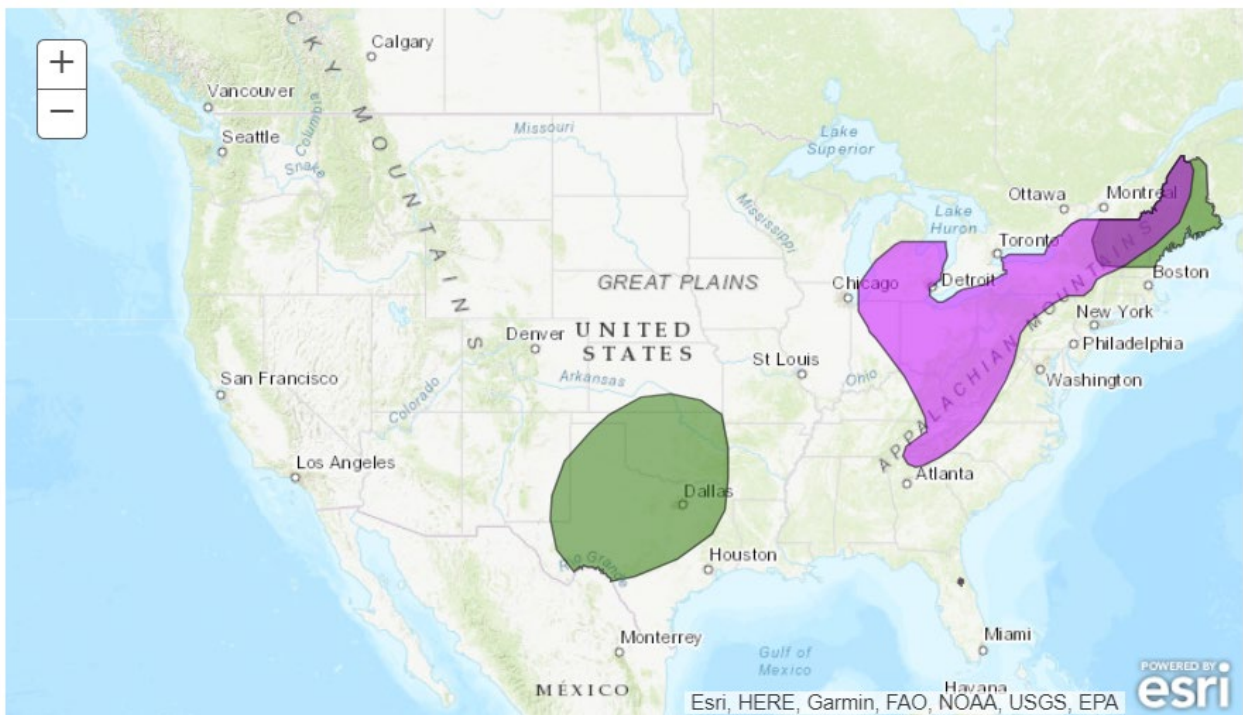
Created October 18, 2023

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 October 21, 2023 - October 25, 2023

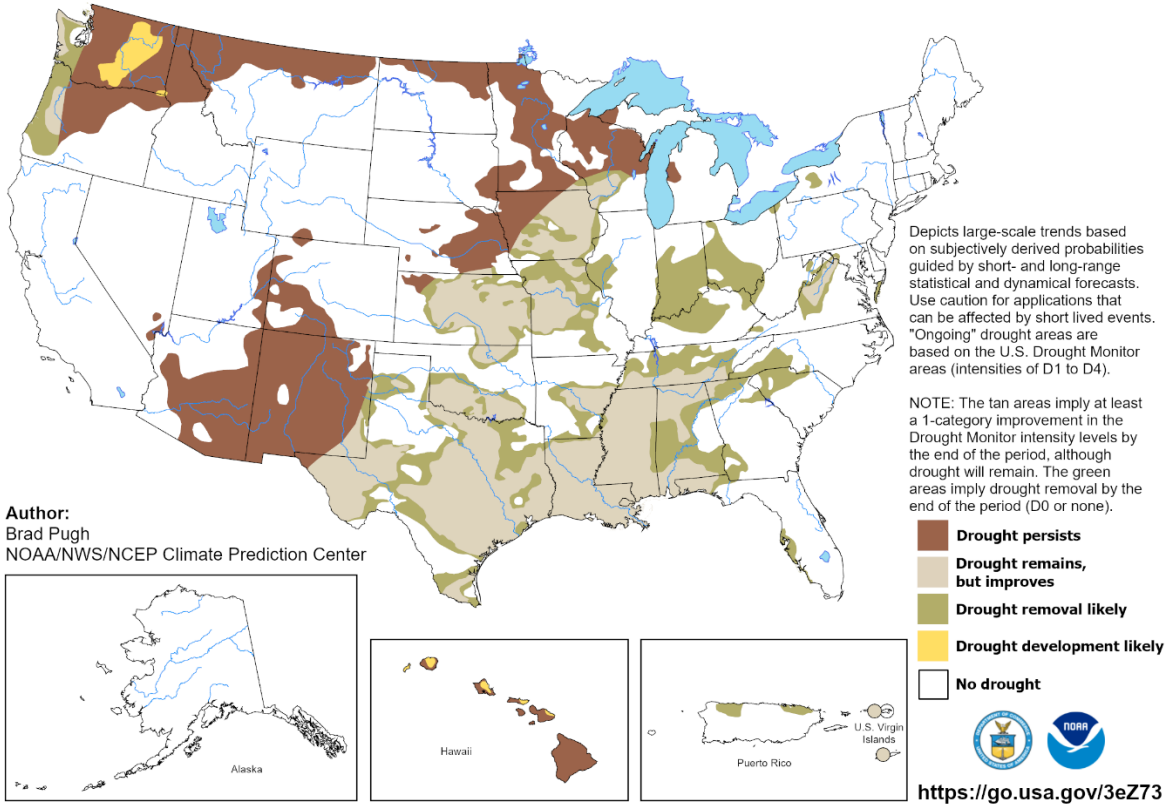


Seasonal Drought Outlook: [October 19, 2023 – January 31, 2024](#)

Source: National Weather Service

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

Valid for October 19, 2023 - January 31, 2024
Released October 19, 2023

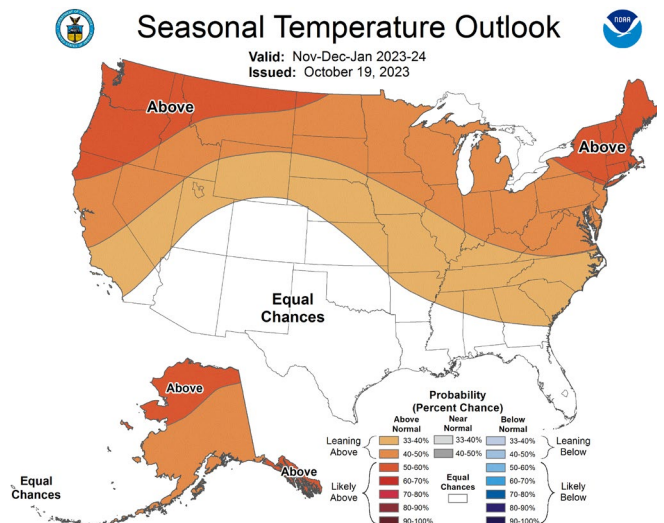
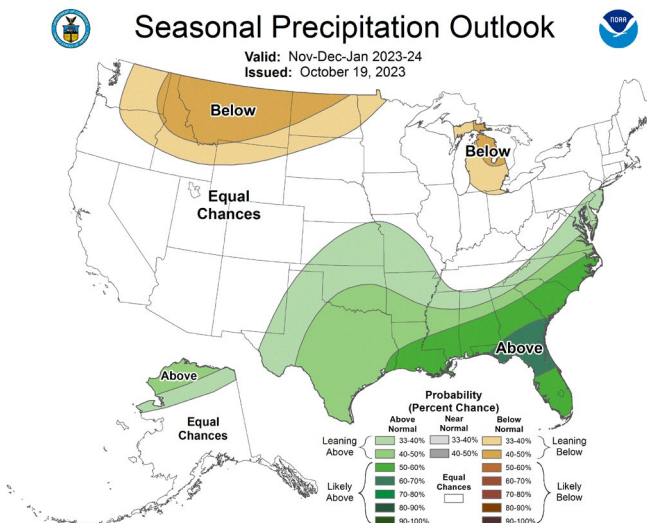


Climate Prediction Center Three-month Outlook

Source: National Weather Service

Precipitation

Temperature



[November-December-January 2023-2024 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](#).