



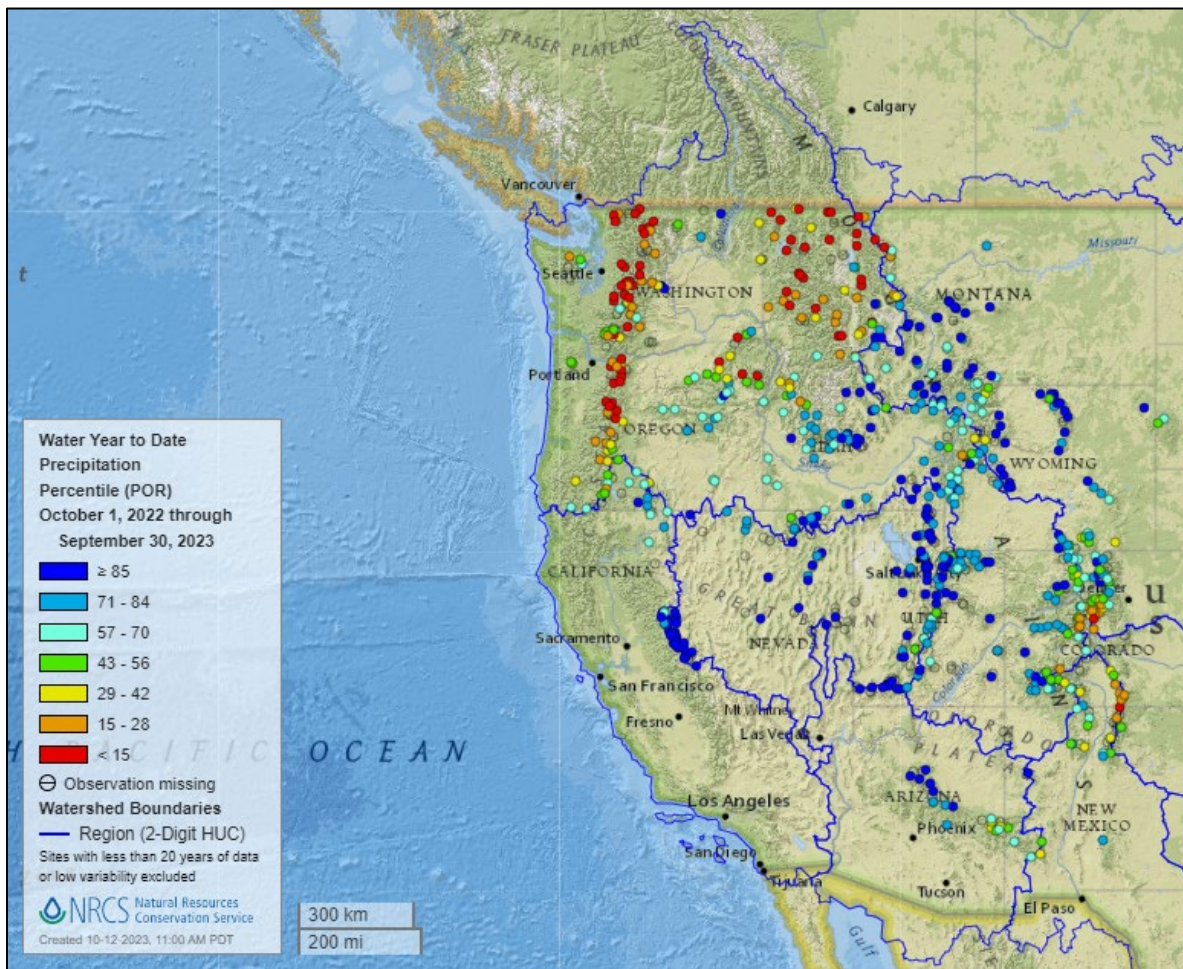
Water and Climate Update

October 12, 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
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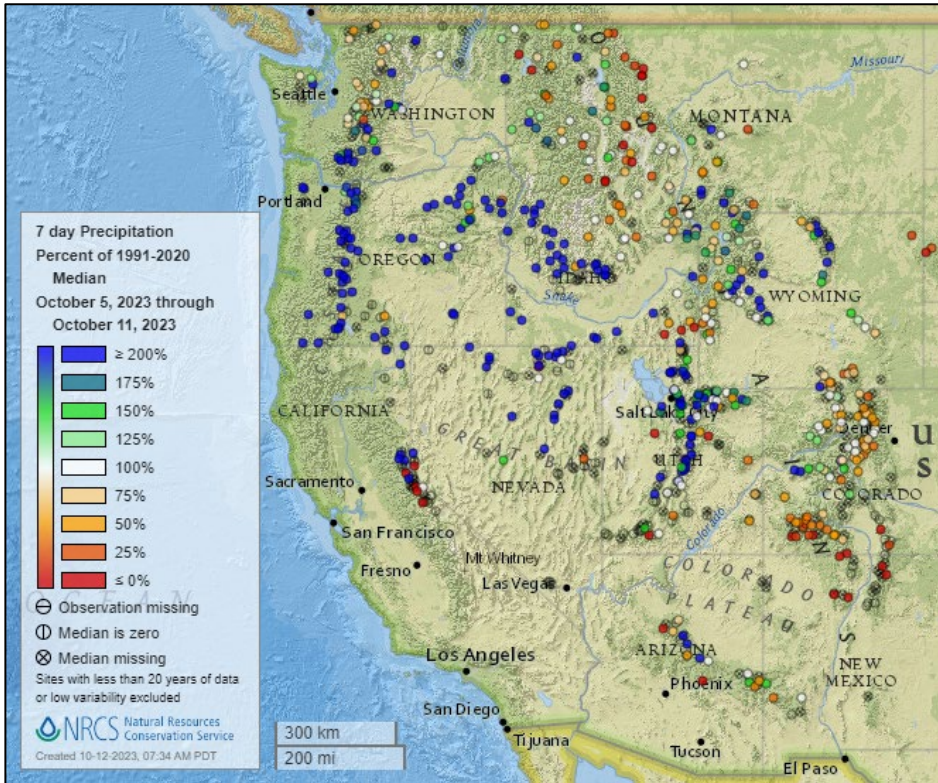
Contrasting precipitation levels measured in water year 2023



October marks the start of each new water year, which runs from October 1 to September 30. During this time of year, hydrologists review the precipitation patterns, seasonal snowpack amount, and the distribution, timing, and subsequent runoff from the previous year as they begin observing the conditions that kick off the new water year. Water year 2023 saw disproportionate amounts of annual precipitation received throughout the western U.S. The SNOTEL sites in the Pacific Northwest received some of the lowest annual precipitation amounts on record, while other locations in the intermountain west and southwestern U.S. received near-record high amounts of precipitation for the year. As water year 2024 begins, NRCS hydrologists will be observing fall precipitation and the start of seasonal snow accumulation that will shape water supplies later in the season.

Precipitation

Last 7 Days, NRCS SNOTEL Network

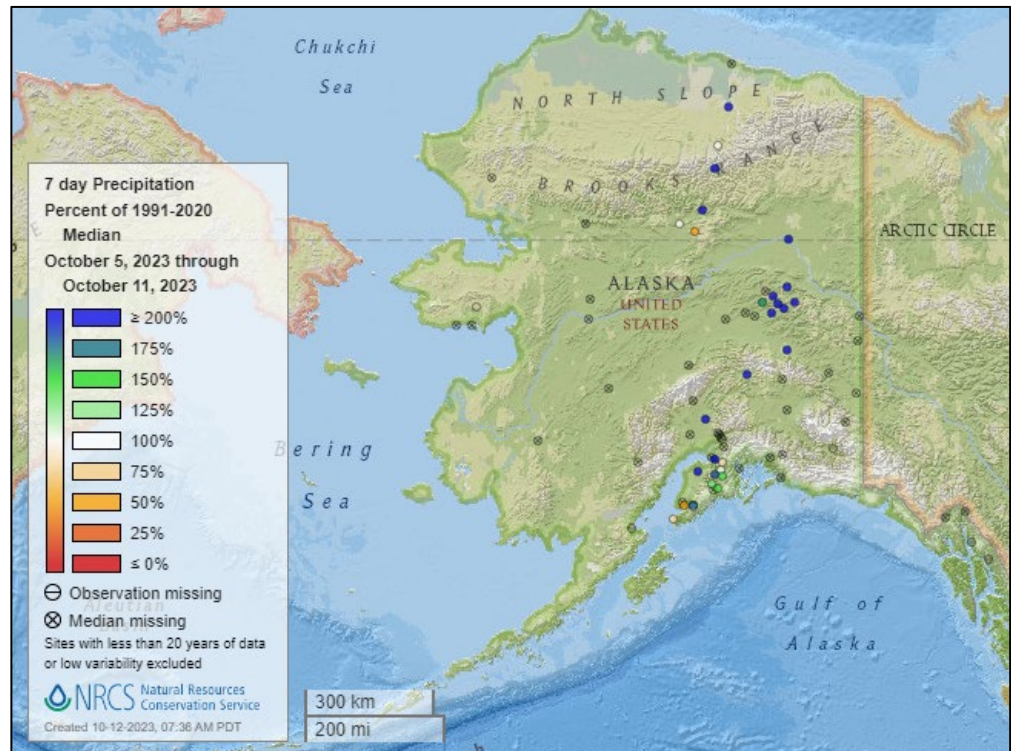


[7-day precipitation percent of median map](#)

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](#)



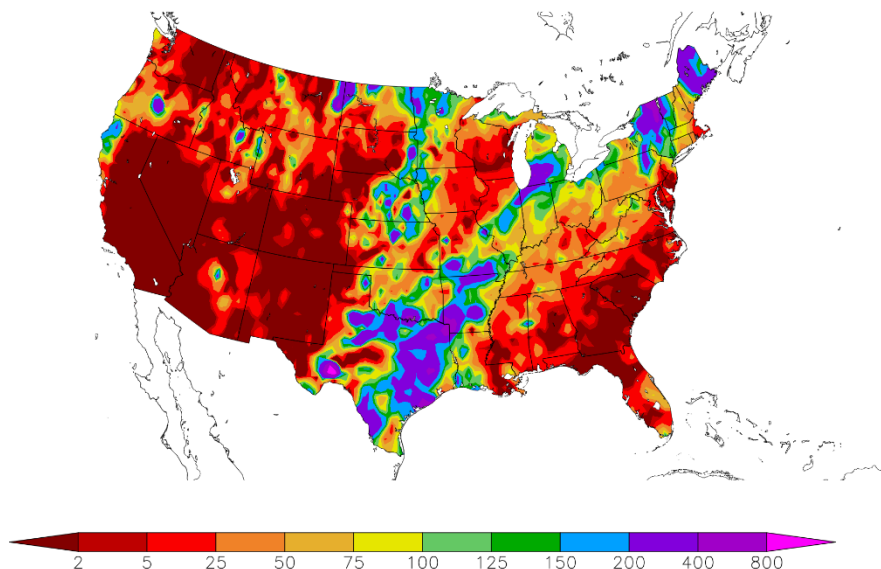
Last 7 Days, National Weather Service (NWS) Networks

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 (%)
10/4/2023 – 10/10/2023



Generated 10/11/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

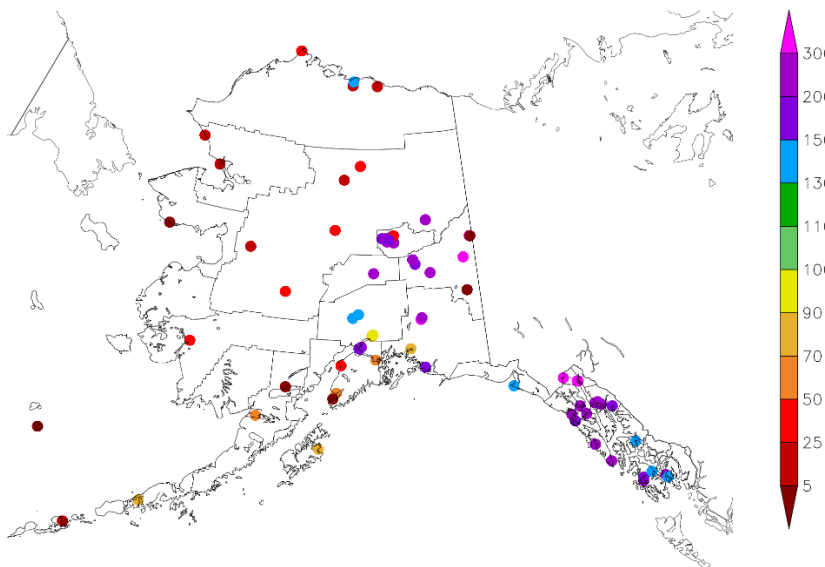
Last 7 Days, National Weather Service (NWS) Networks

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 (%)
10/4/2023 – 10/10/2023



Generated 10/11/2023 at HPRCC using provisional data.

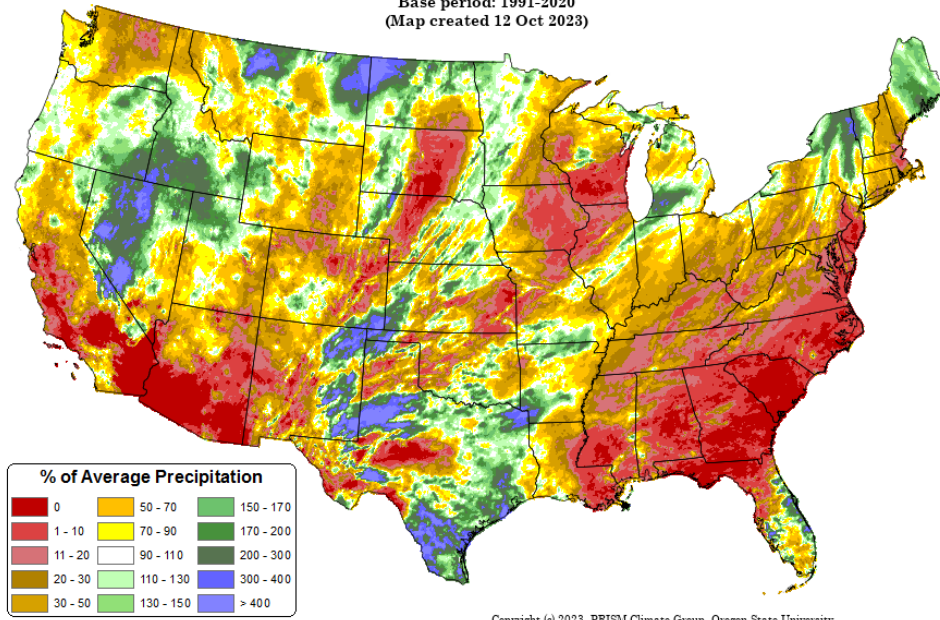
NOAA Regional Climate Centers

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

Source: PRISM

Total Precipitation Anomaly: 01 Oct 2023 - 11 Oct 2023
Period ending 7 AM EST 11 Oct 2023
Base period: 1991-2020
(Map created 12 Oct 2023)

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



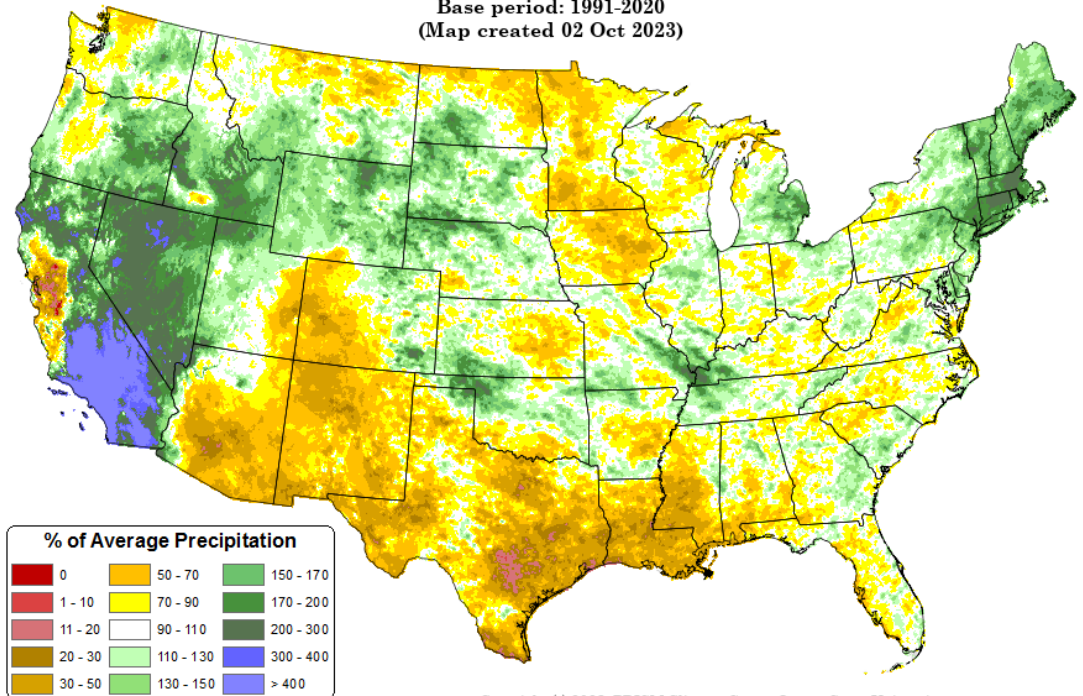
Copyright (c) 2023, PRISM Climate Group, Oregon State University

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

Source: PRISM

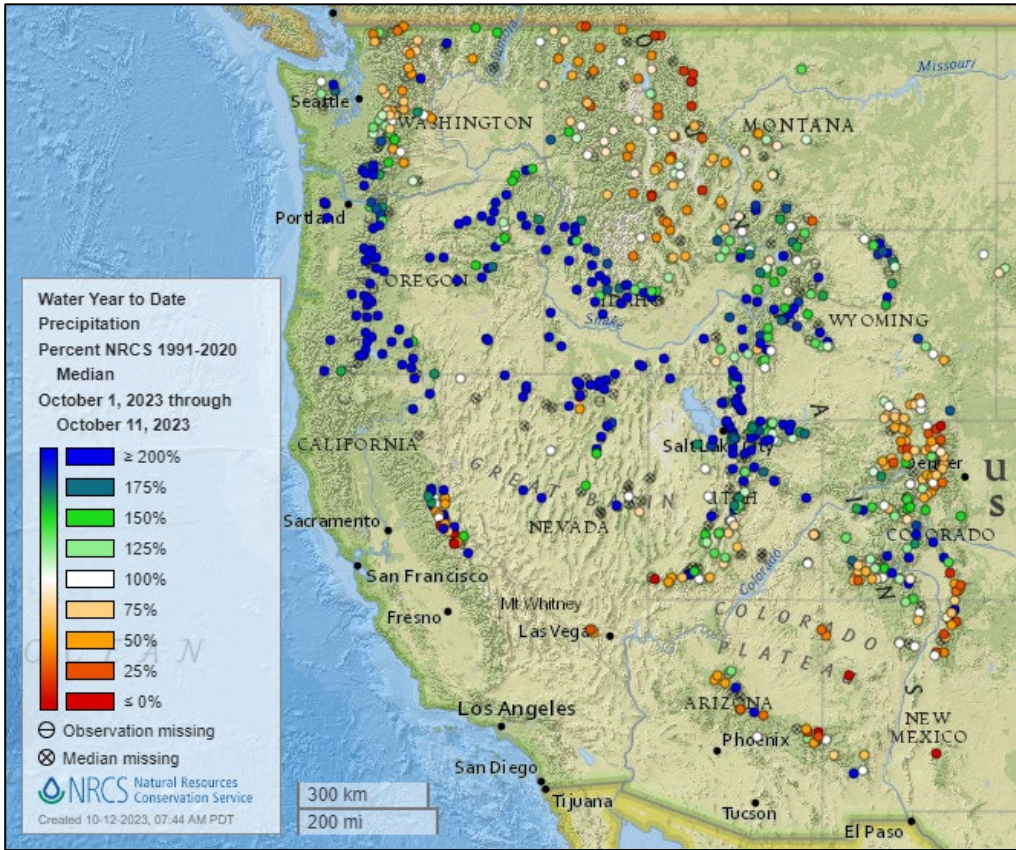
[July through September 2023 precipitation anomaly map](#)

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

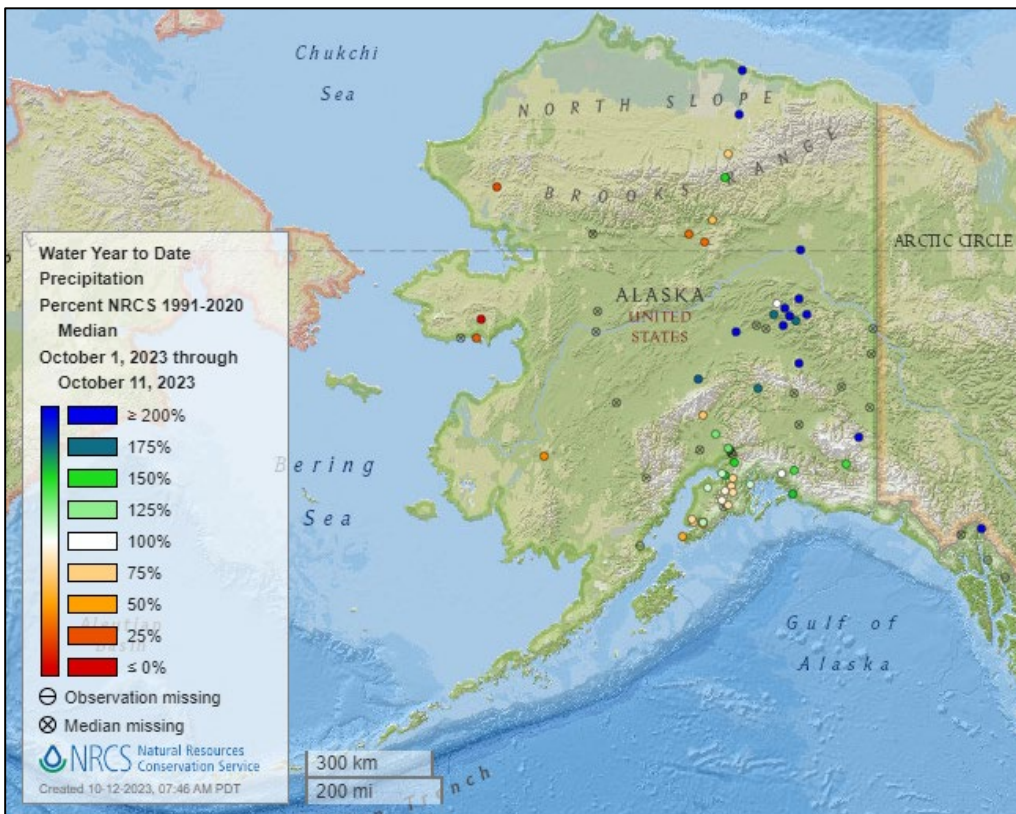


[2024 water year-to-date precipitation percent of median map](#)

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

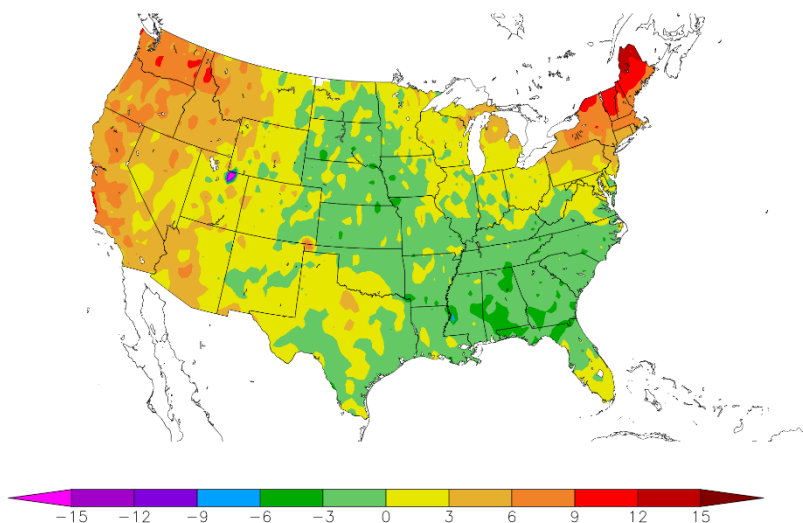
Last 7 Days, National Weather Service (NWS) Networks

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)
10/4/2023 – 10/10/2023



Generated 10/11/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

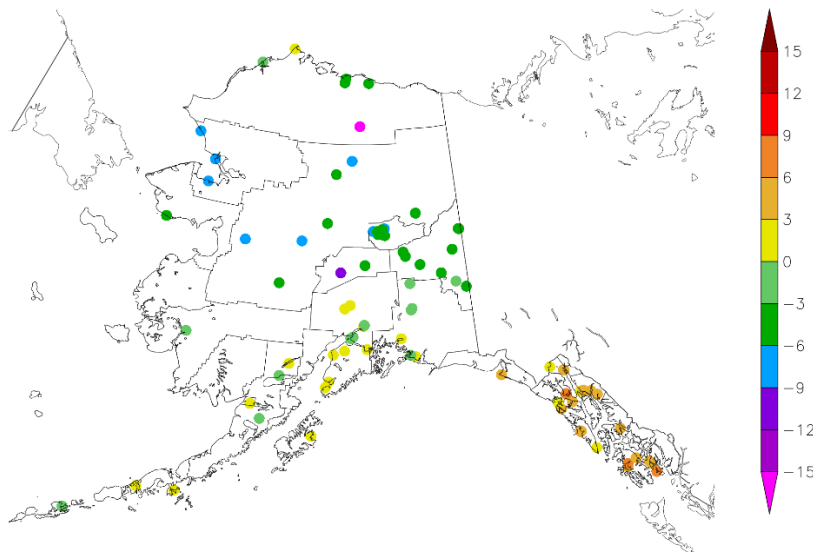
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
10/4/2023 – 10/10/2023



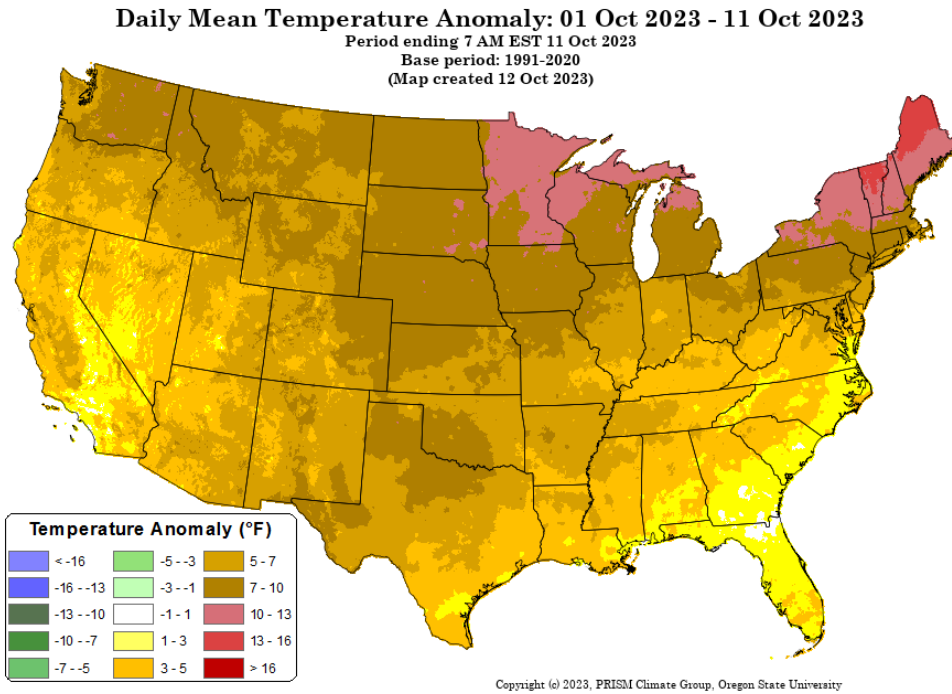
Generated 10/11/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

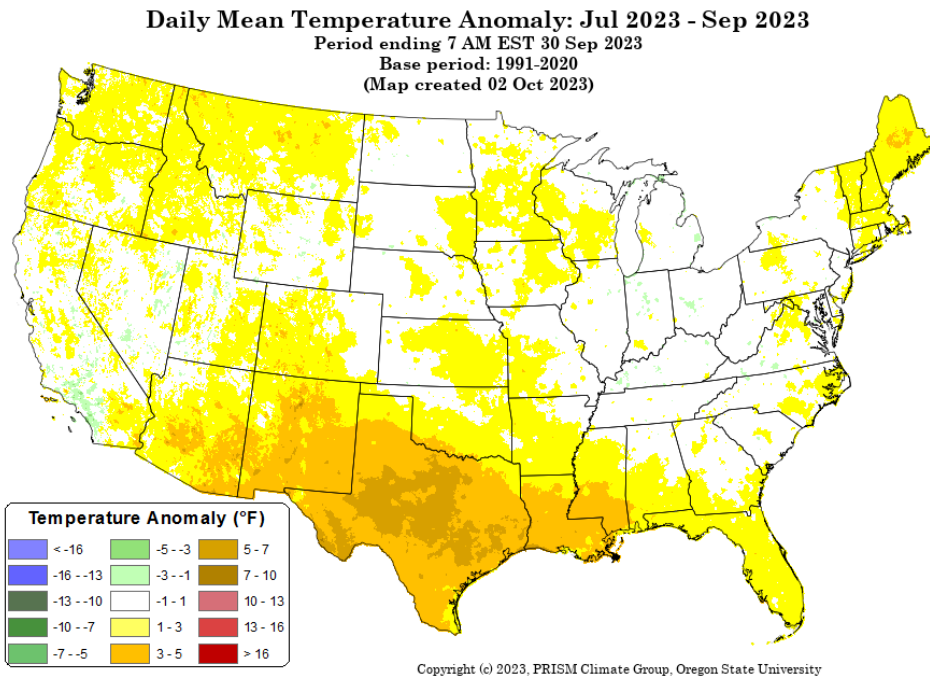
[Month-to-date national daily mean temperature anomaly map](#)



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

Source: PRISM

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



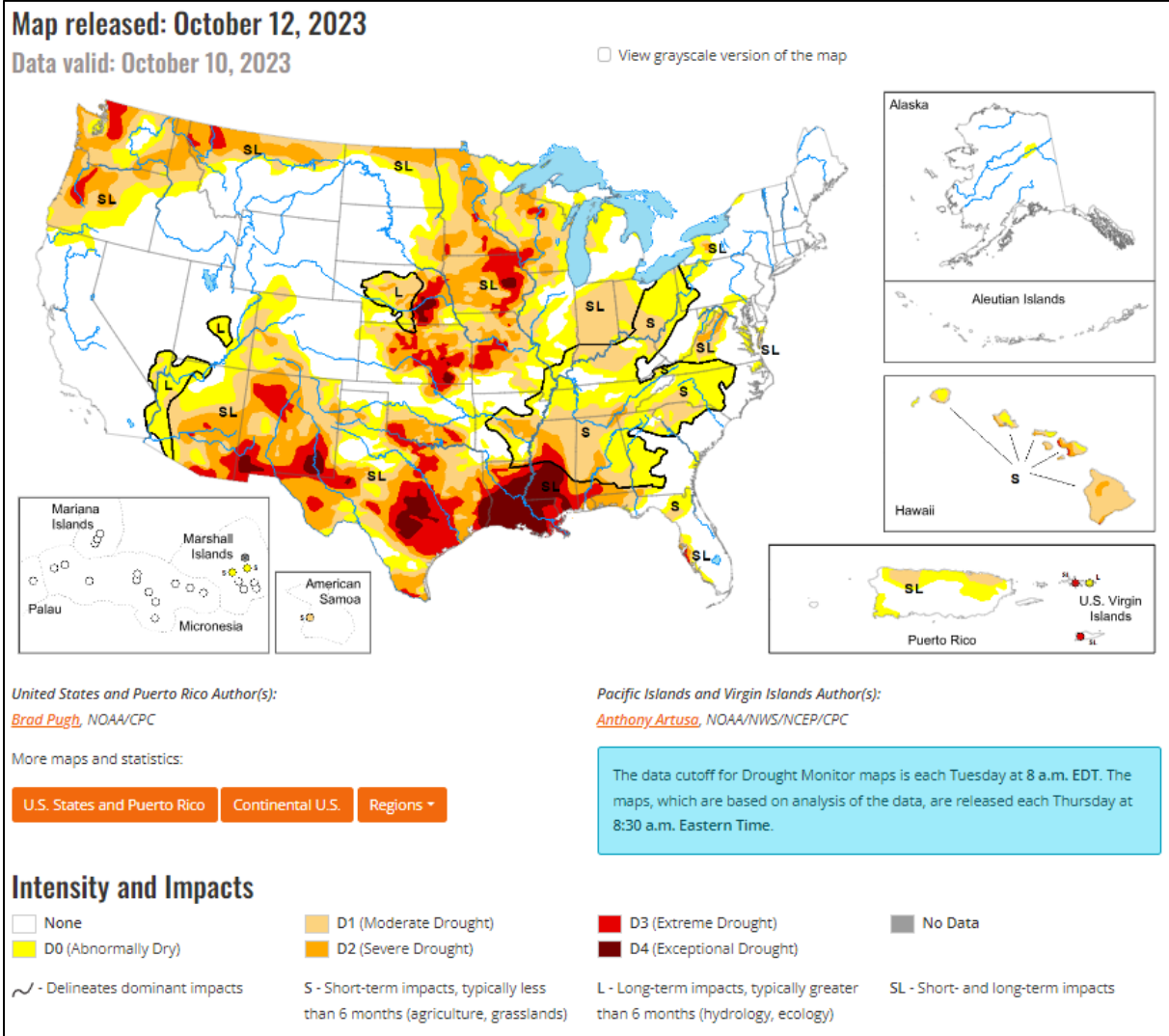
Drought

[U.S. Drought Monitor](#)

Source: National Drought Mitigation Center

[U.S. Drought Portal](#)

Source: NOAA



Current [National Drought Summary](#), October 10, 2023

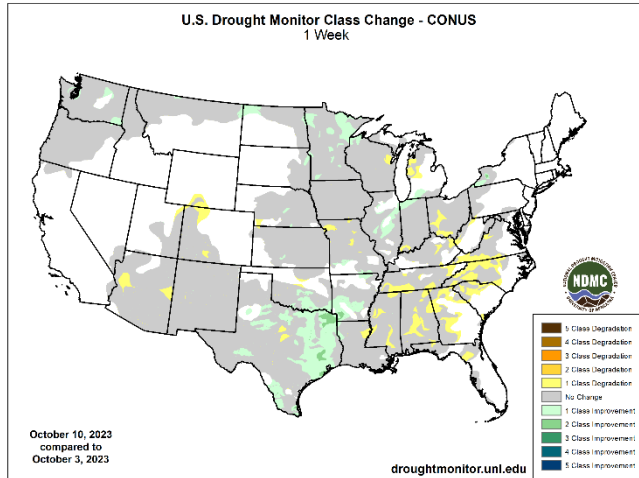
Source: National Drought Mitigation Center

“A strong cold front resulted in moderate to heavy precipitation across the Great Plains, Ozarks, and western Gulf Coast during the first week of October. The most widespread improvements were made to southern Arkansas, northwestern Louisiana, southeastern Oklahoma, and eastern to central Texas where more than 2 inches of precipitation was observed this past week. Following anomalous heat across the central U.S. to start October, the cold front ushered in much cooler temperatures from October 5 to 7. The first frost or freeze of the fall affected the Northern to Central Great Plains on October 7. As the cold front progressed eastward, drought-easing rainfall overspread parts of Illinois, northern Indiana, southern Michigan, and western New York. Further to the south, short-term drought continued to expand north and east across the Southeast. Following a wet September, minor improvements were warranted for parts of Washington. Heavy rainfall, associated with Tropical Storm Philippe, resulted in improving drought for eastern Puerto Rico. Drought continues to intensify across parts of Maui and the Big Island.”

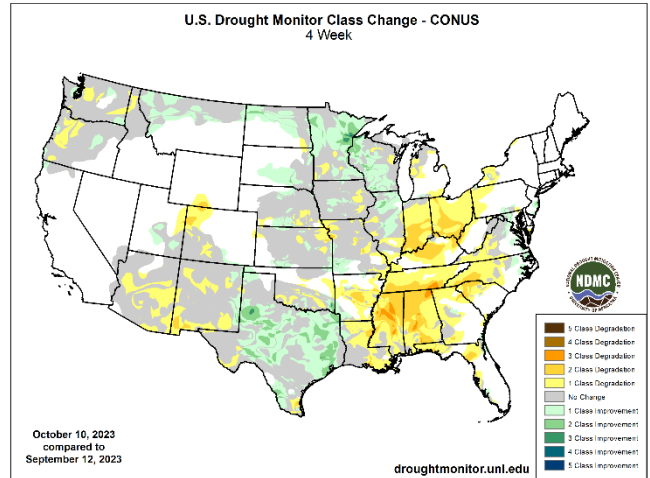
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

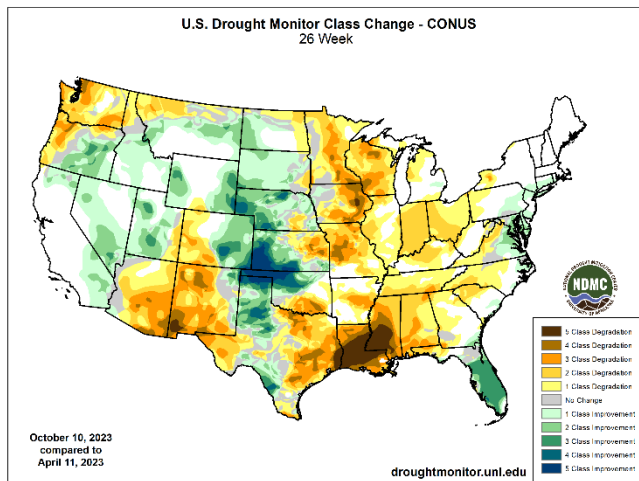
1 Week



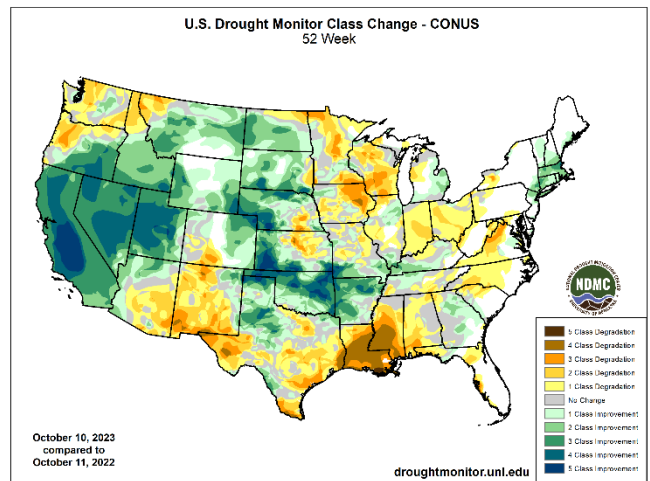
1 Month



6 Months



1 Year



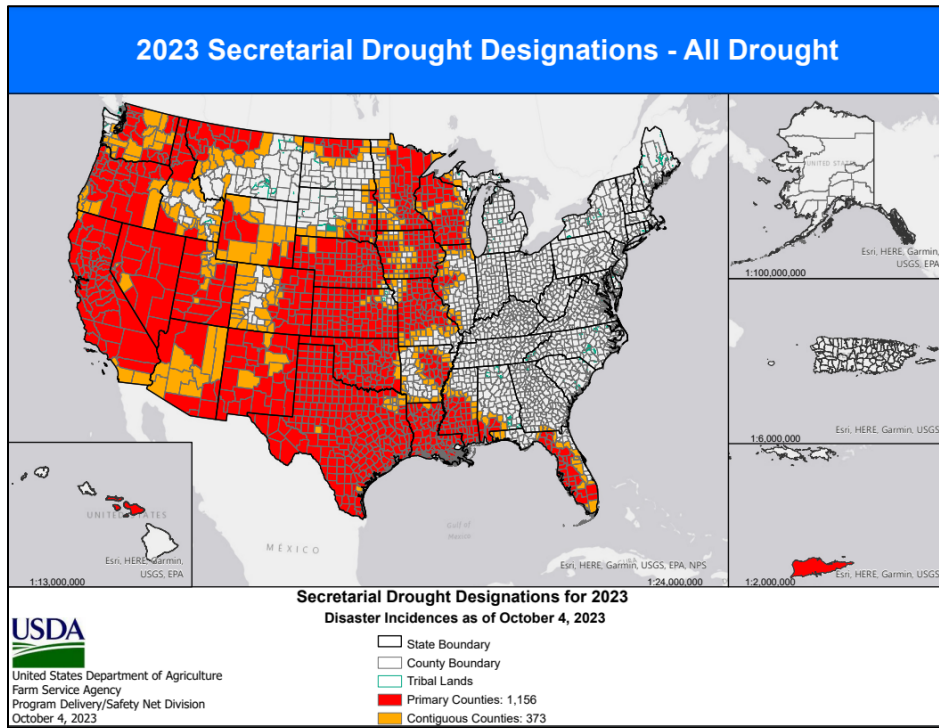
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

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](#)

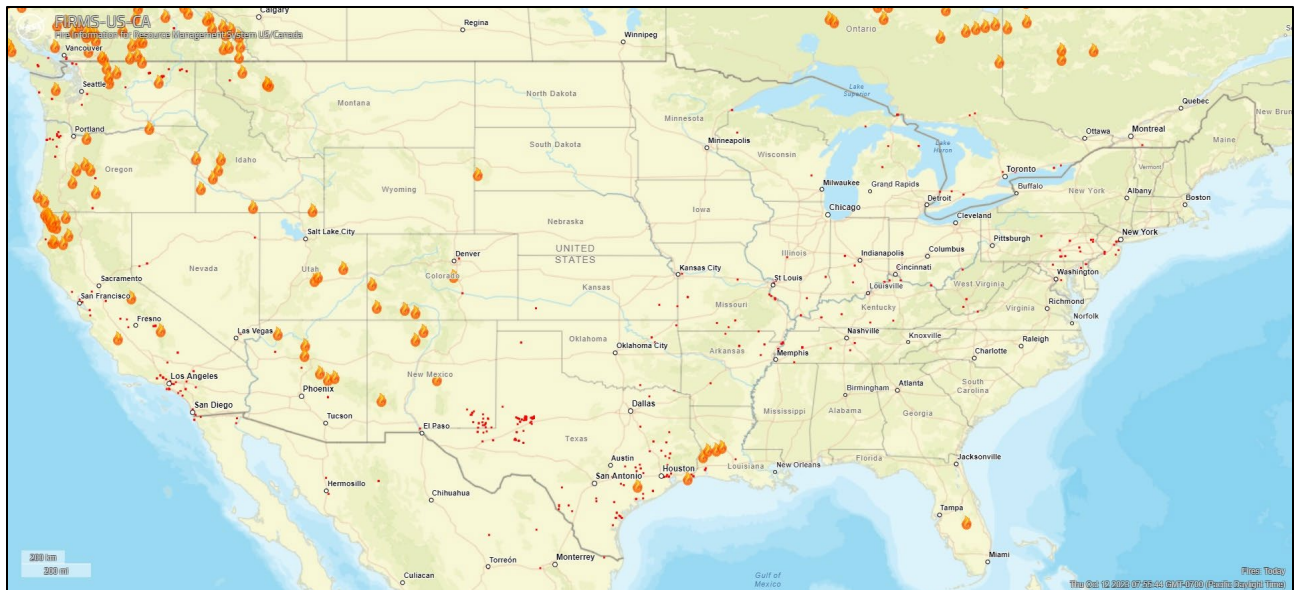
USDA Secretarial [Drought Designations](#)

Source: USDA Farm Service Agency



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

Source: NASA/USDA Forest Service



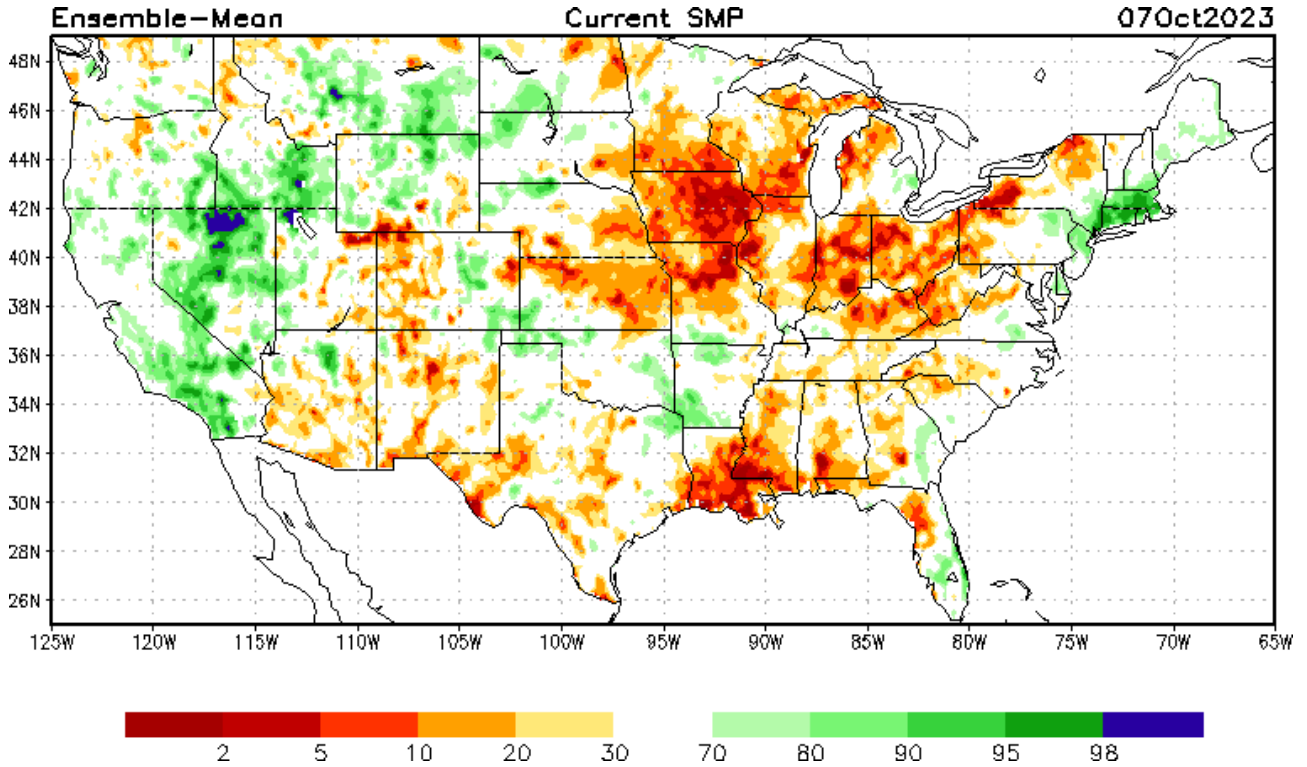
Highlighted Wildfire Resources

- [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

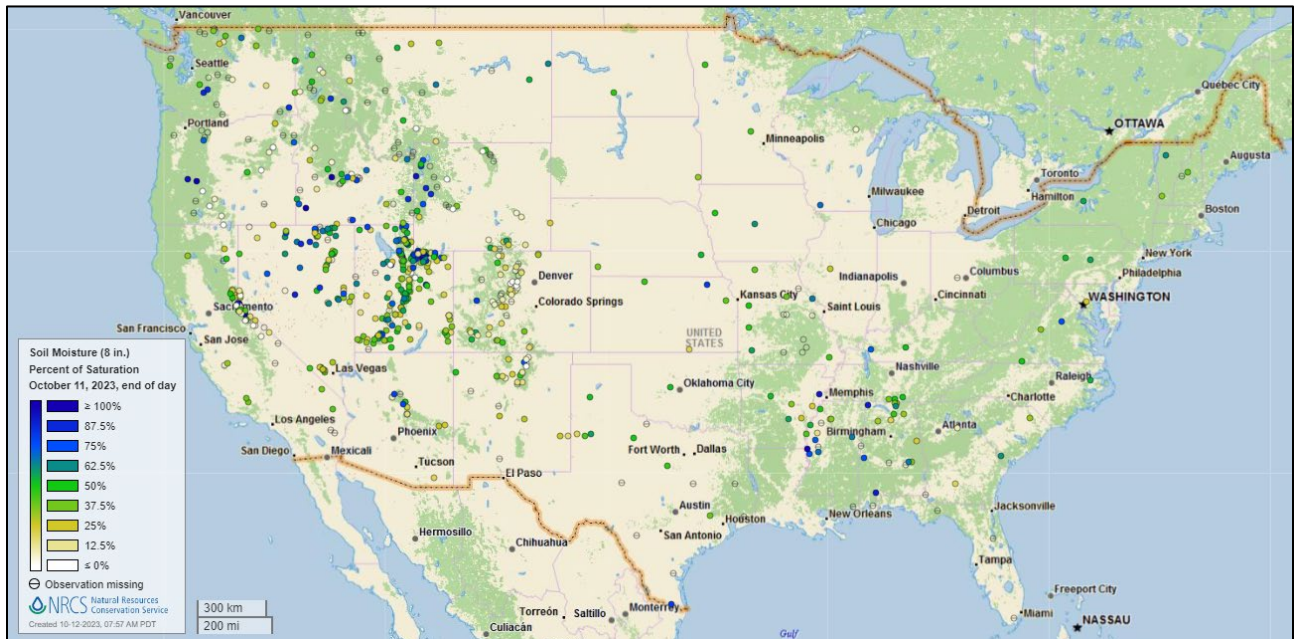


[Modeled soil moisture percentiles](#) as of October 07, 2023

Soil Moisture Percent of Saturation

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

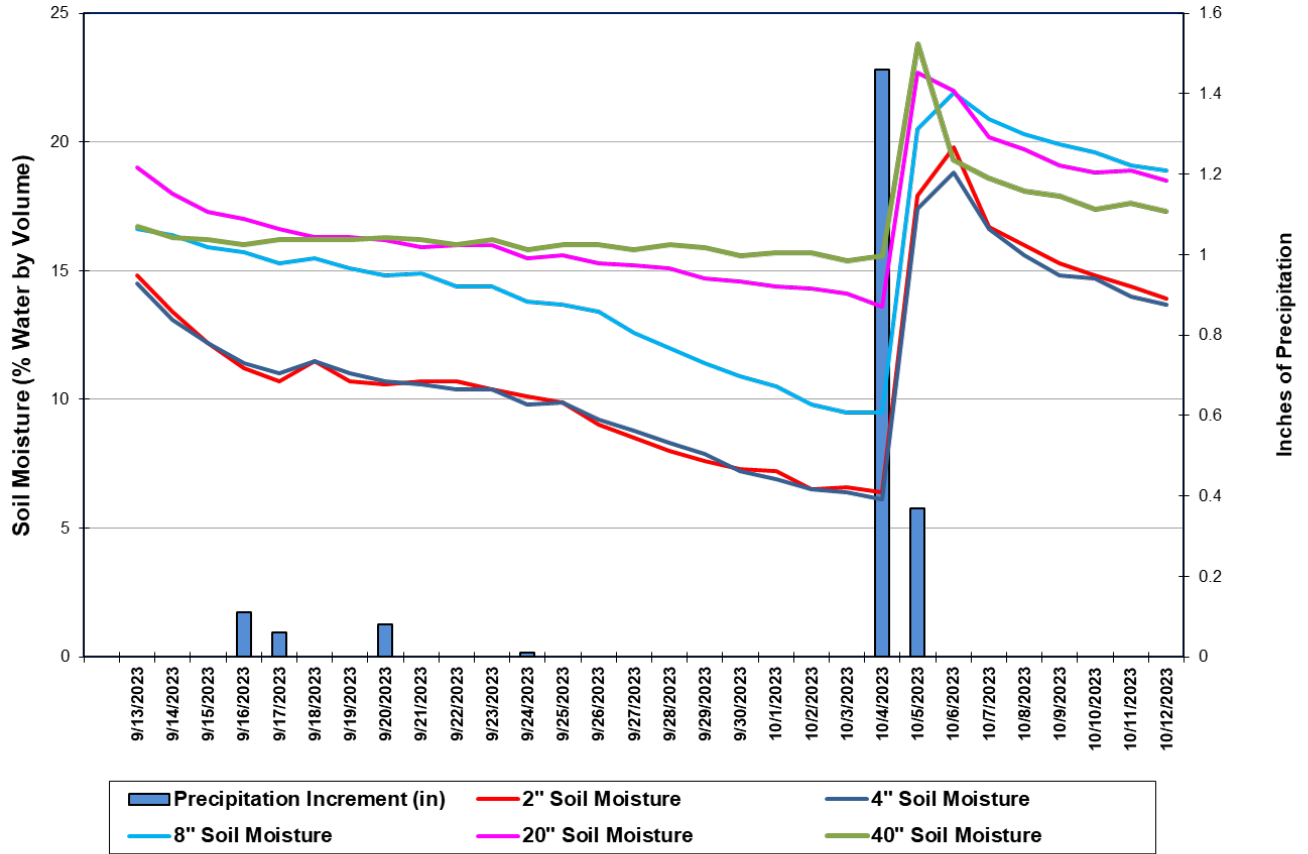
[U.S. soil moisture map at 8-inch depth:](#)



Soil Moisture

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

**Twin Pines Conservation Area, Missouri (SCAN site 2226)
Daily Mean Soil Moisture vs. Daily Precipitation**



This chart shows the precipitation and soil moisture for the last 30 days at the [Twin Pines Conservation Area](#) SCAN site in Missouri. Soil moisture levels increased sharply at all sensor depths after the site received 1.83 inches of precipitation between October 4-5. Total precipitation for the 30-day period was 2.09 inches.

Soil Moisture Data Portals

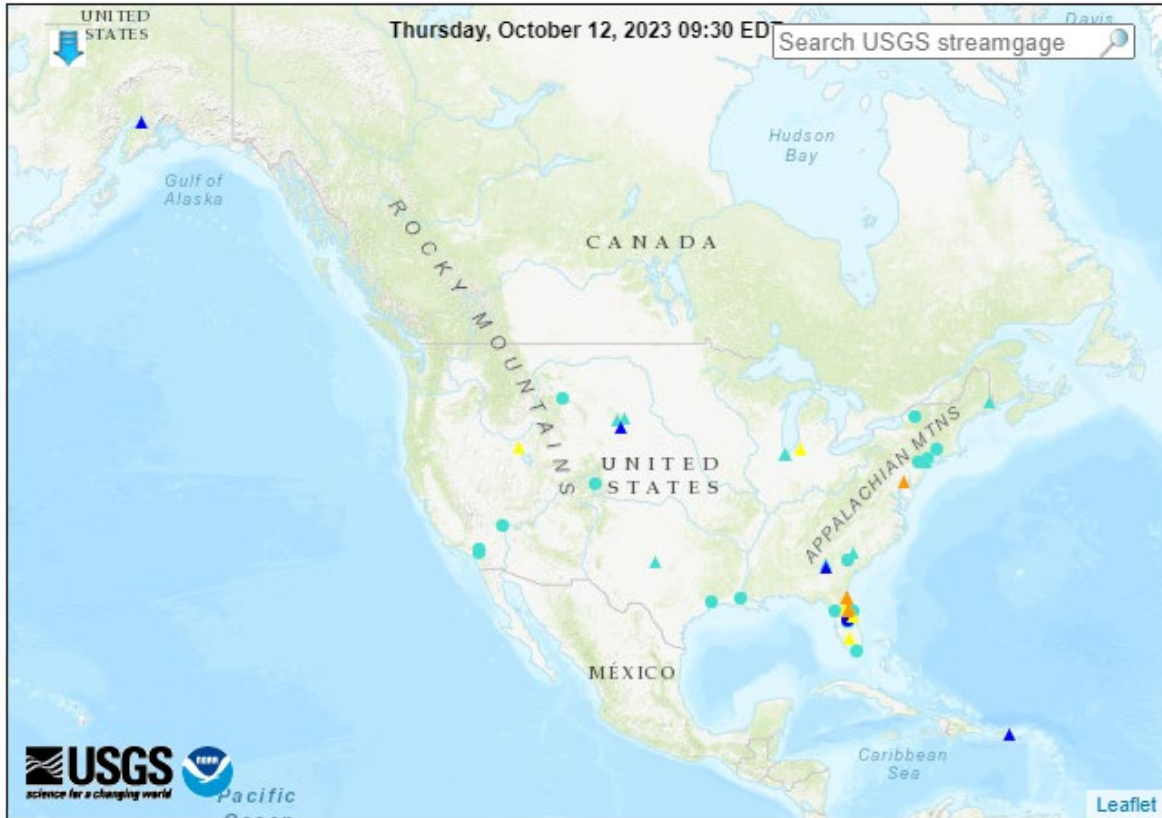
- [USCRN Soil Moisture](#)
- [National Soil Moisture Network](#)
- [NOAA Climate Prediction Center Soil Moisture](#)
- [NASA Grace](#)

Streamflow, Drought, Flood, and Runoff

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

Map of flood and high flow conditions

(5 in floods [minor: 5], 5 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

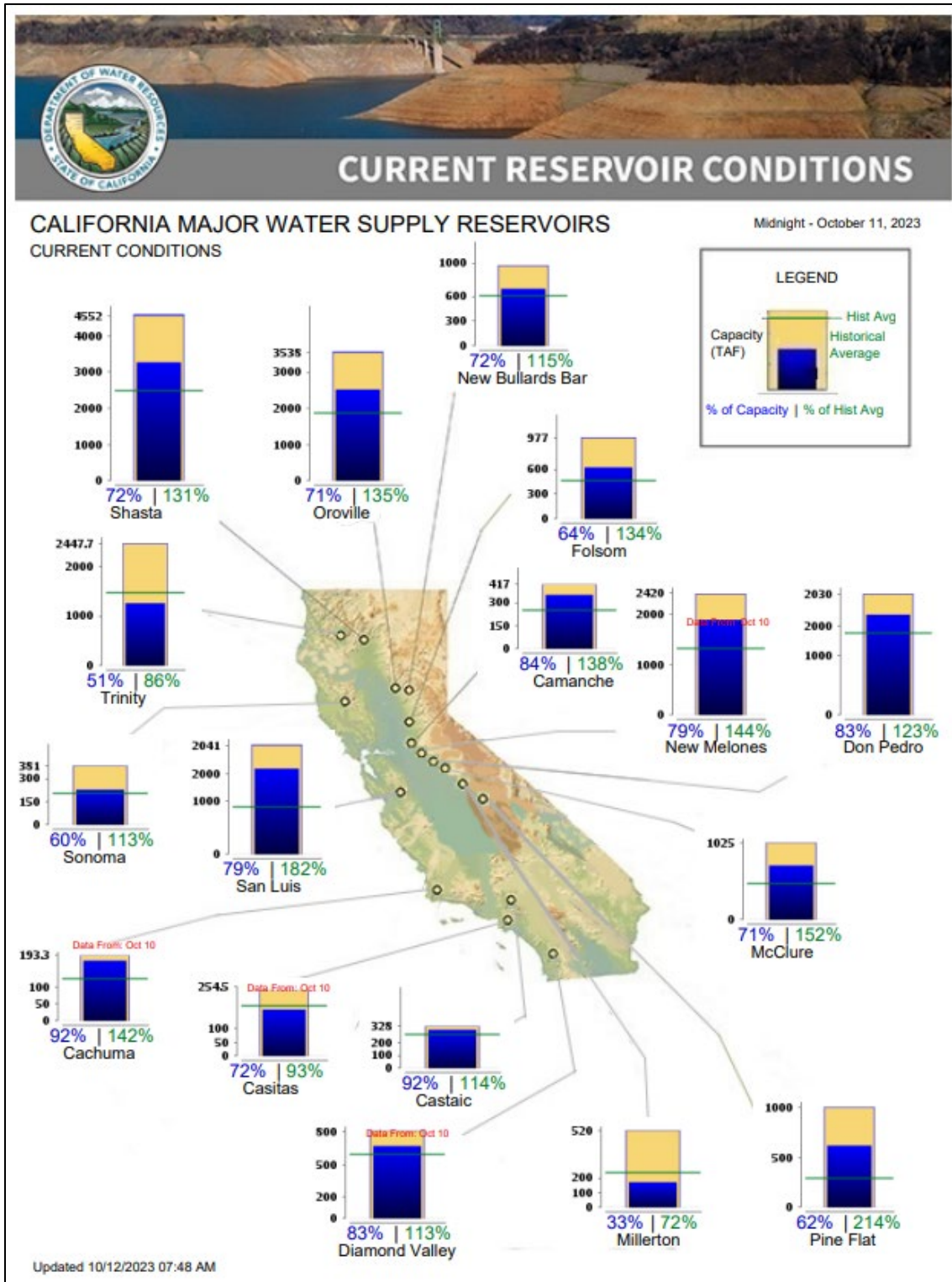
Hydromet Teacup Reservoir Depictions

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 12, 2023: “Rain in the southern Atlantic States should largely end later today, except across Florida’s peninsula. Meanwhile, a storm system currently crossing the central Plains will reach the eastern Corn Belt early Saturday and the middle Atlantic Coast by Saturday night. Additional rainfall associated with the storm will total 1 to 3 inches, mainly along an axis stretching from South Dakota and northern Nebraska to New Jersey and neighboring states. In the storm’s wake, most of the country will experience cool, dry weather, although showers will return during the weekend across the Pacific Northwest. Over the weekend and early next week, sub-freezing temperatures could extend as far south as the central High Plains, with scattered to widespread frost reaching into the upper Midwest. The NWS 6- to 10-day outlook for October 17 – 21 calls for the likelihood of below-normal temperatures from the Gulf Coast northward into the Ohio Valley, while warmer-than-normal weather will prevail along and west of a line from western Texas to northern Wisconsin. Meanwhile, near- or below-normal precipitation across most of the country should contrast with wetter-than-normal conditions in a few spots, including northern Washington, southern Florida, and an area along the Atlantic Coast from Virginia to southern New England.”

Weather Hazards Outlook: [October 14 – 18, 2023](#)

Source: NOAA Weather Prediction Center















U.S. Day 3-7 Hazards Outlook

[About the Hazards Outlook](#)

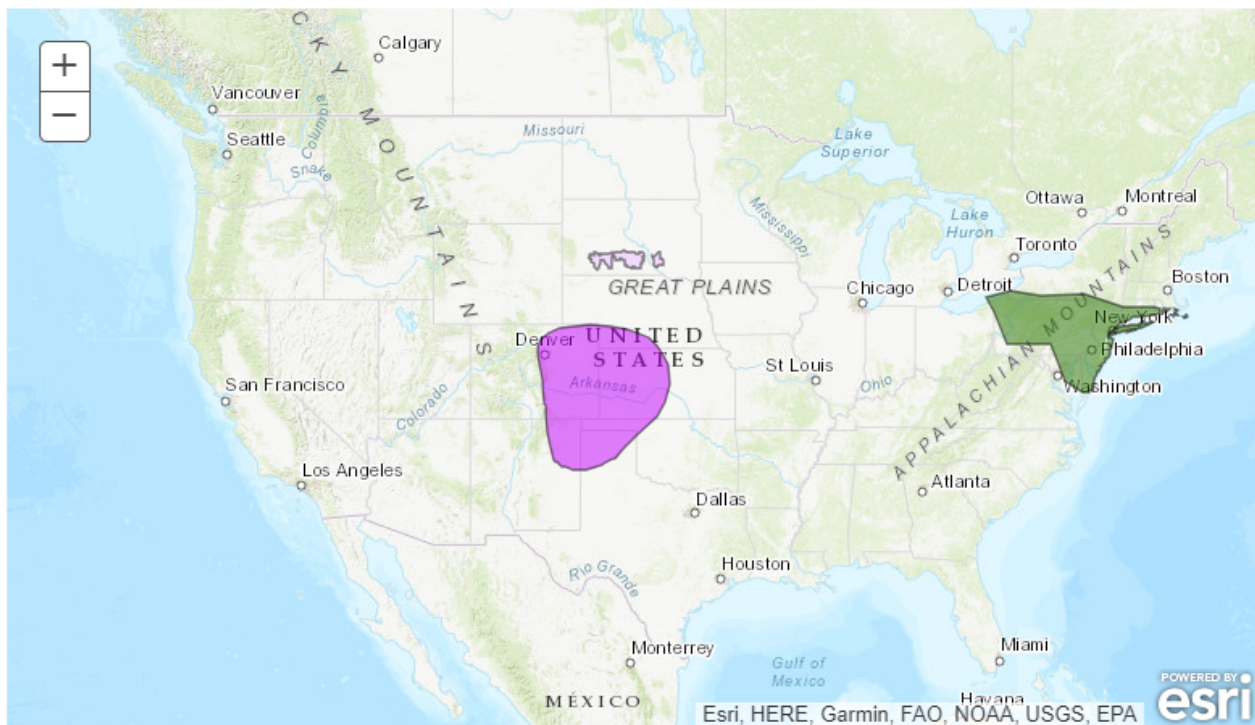
Created October 11, 2023

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 14, 2023 - October 18, 2023

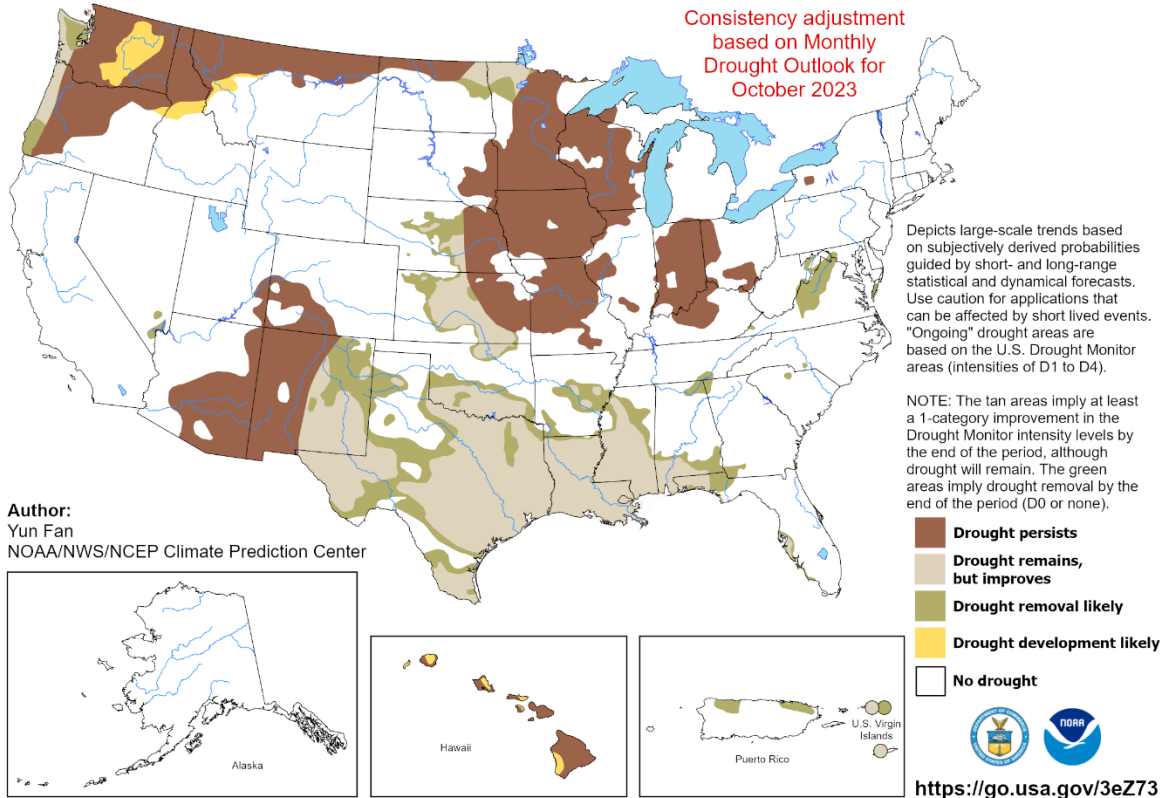


Seasonal Drought Outlook: [October 01 – December 31, 2023](#)

Source: National Weather Service

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

Valid for October 1 - December 31, 2023
Released September 30, 2023

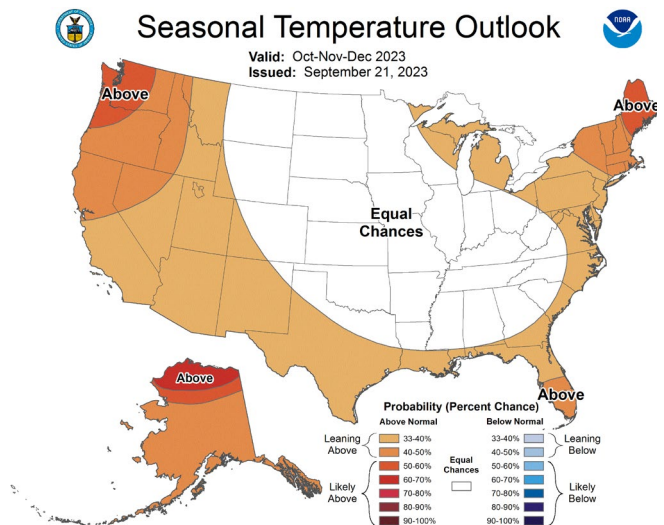
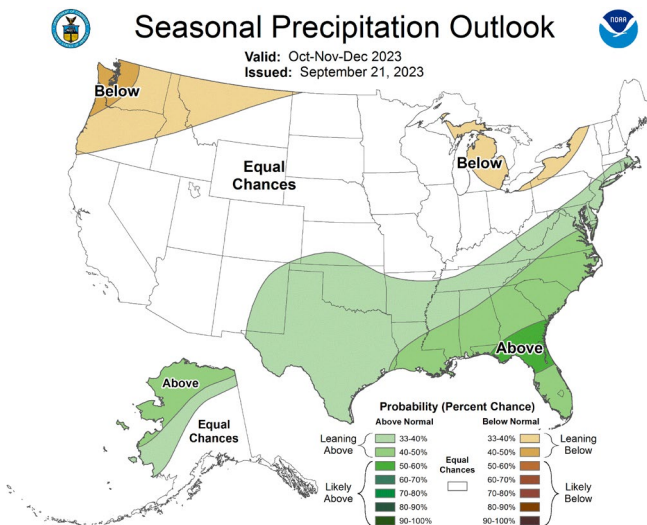


Climate Prediction Center Three-month Outlook

Source: National Weather Service

Precipitation

Temperature



[October-November-December 2023 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](#).