



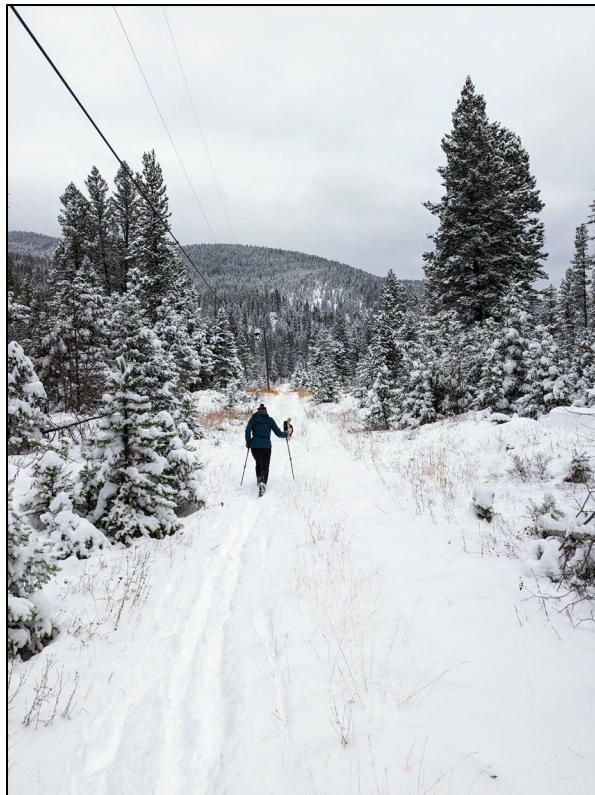
Water and Climate Update

October 26, 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		

Early-season snowfall hits the Pacific Northwest



*NRCS Hydrologist Lexi Landers ski-touring fresh October snow
Photo by Jack Landers*

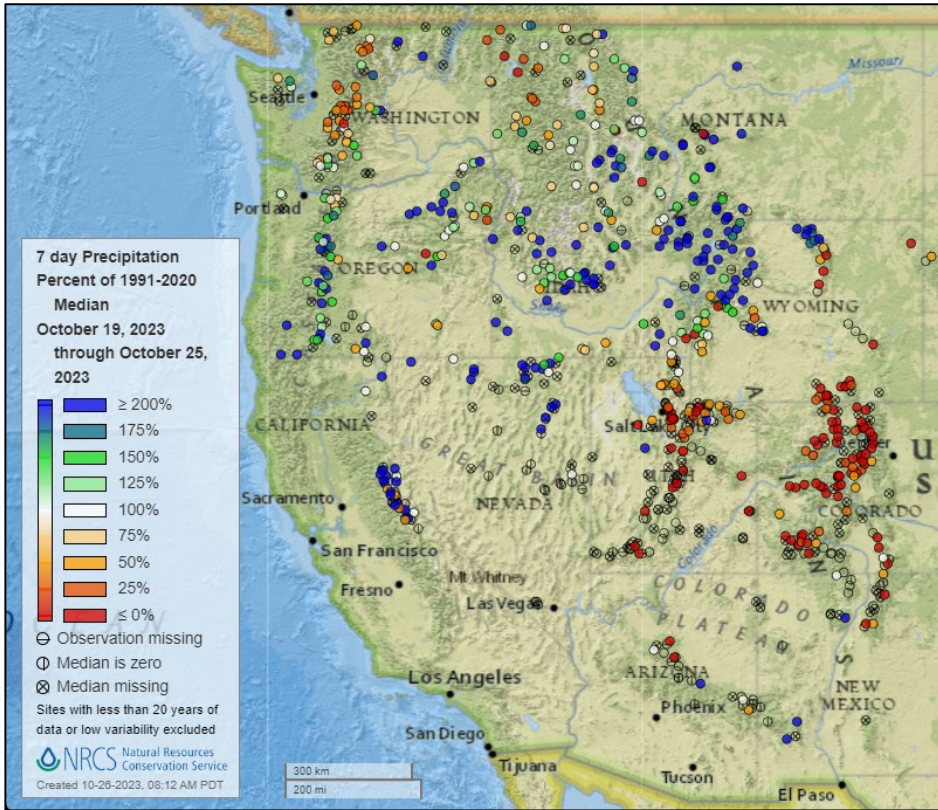
The northwestern U.S. and Northern Plains received the first significant snowfall of the season in late October. As of the morning of October 26, many locations in the northern Cascades and northern Rockies received a foot or more of snow from the first winter-like storm of the season, which began October 23. As the storm progresses eastward, more snow is expected through October 27 in the Northern Plains. The early-season snow will play a role in delighting winter recreationalists and shaping the spring and summer water supply picture in 2024.

Related:

- [Up to a foot of snow blankets areas of Helena, Montana in 1st storm of season: See photos](#) - USA Today
- [Storm system begins moving into North Dakota; Bismarck could see up to 11 inches of snow](#) - Bismarck Tribune, Bismark ND
- [Wyoming Resort Wakes Up To 15+ Inches Of Snow](#) - Powder Magazine

Precipitation

Last 7 Days, NRCS SNOTEL Network

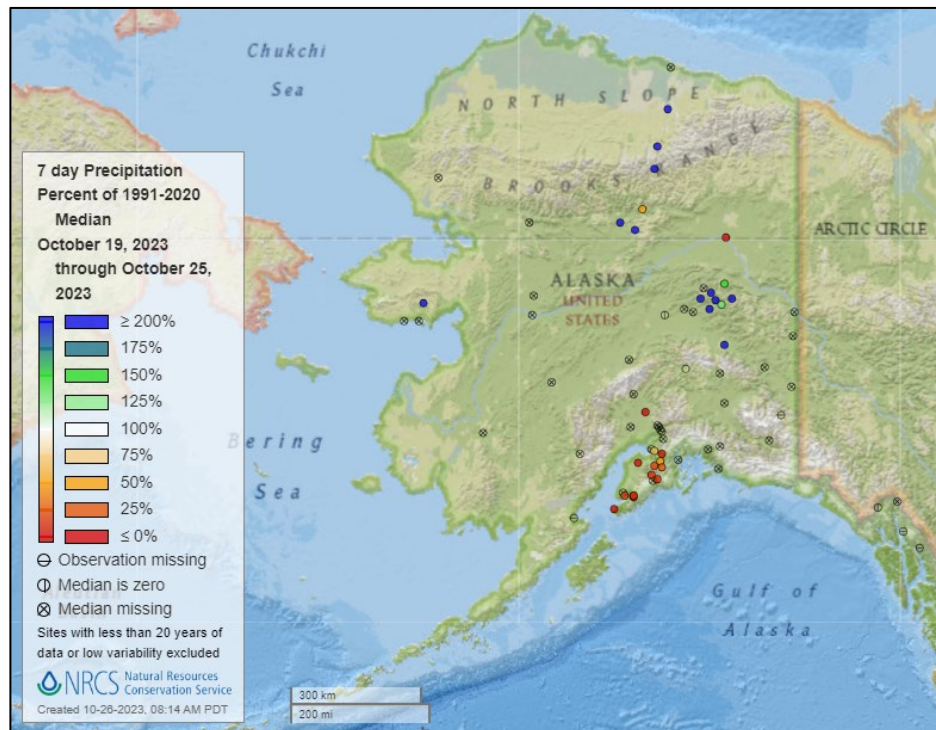


[7-day precipitation percent of median map](#)

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](#)



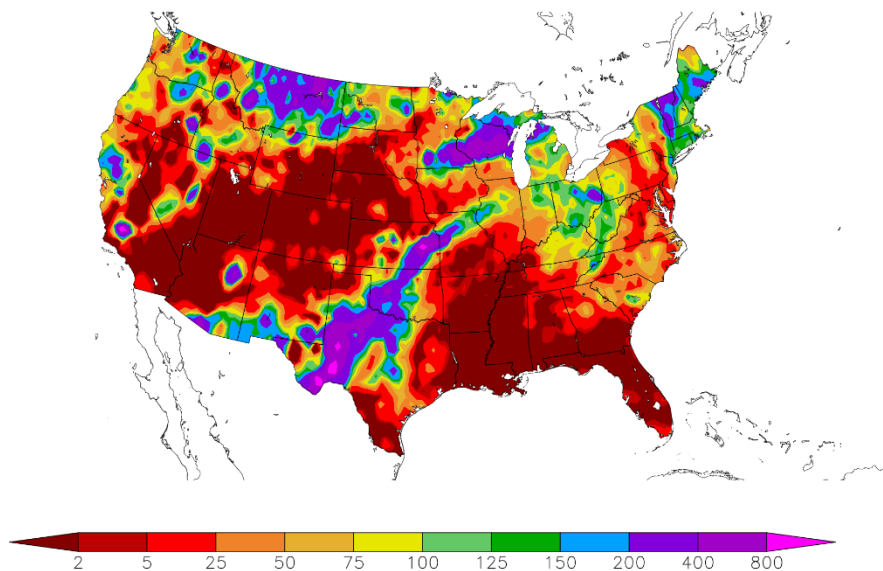
Last 7 Days, National Weather Service (NWS) Networks

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 (%)
10/19/2023 – 10/25/2023



Generated 10/26/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

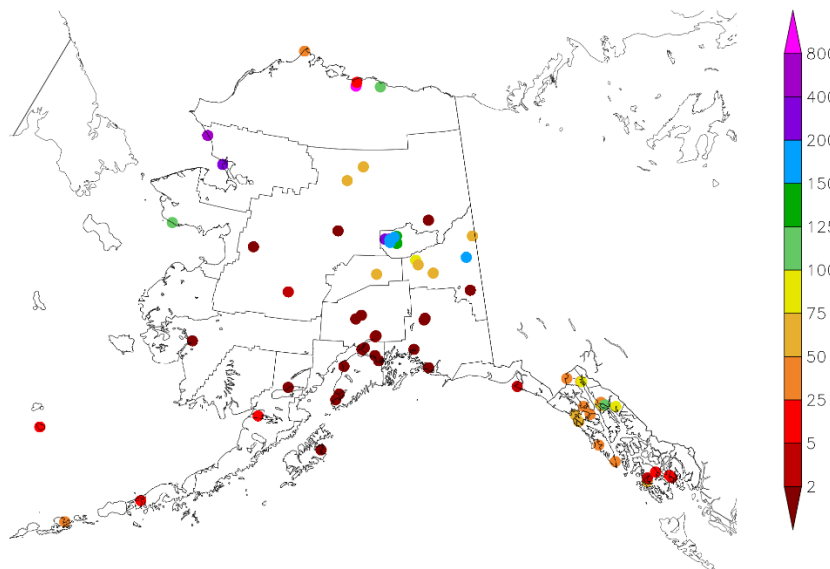
Last 7 Days, National Weather Service (NWS) Networks

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 (%)
10/19/2023 – 10/25/2023



Generated 10/26/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

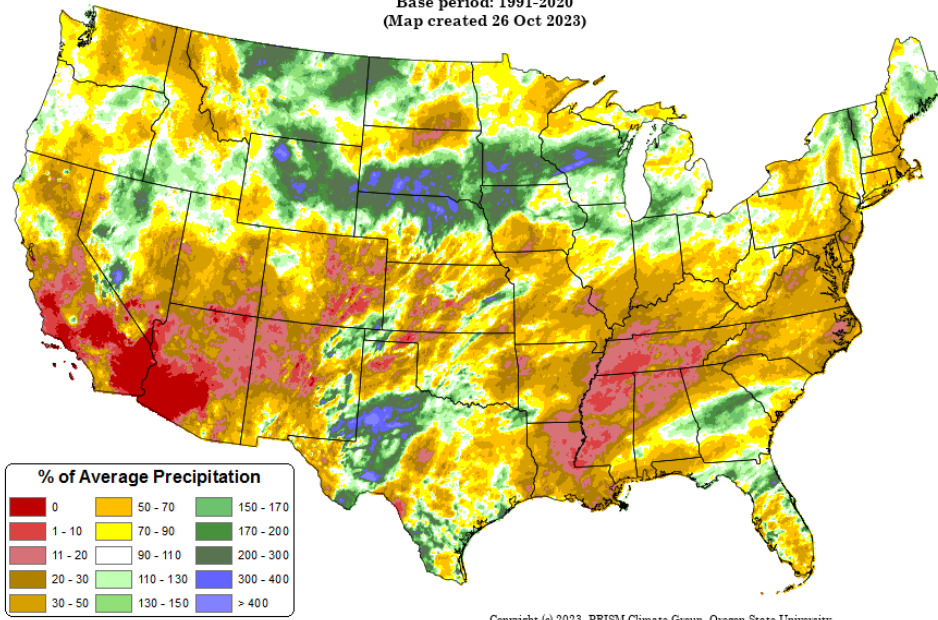
Total Precipitation Anomaly: 01 Oct 2023 - 25 Oct 2023

Period ending 7 AM EST 25 Oct 2023

Base period: 1991-2020

(Map created 26 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

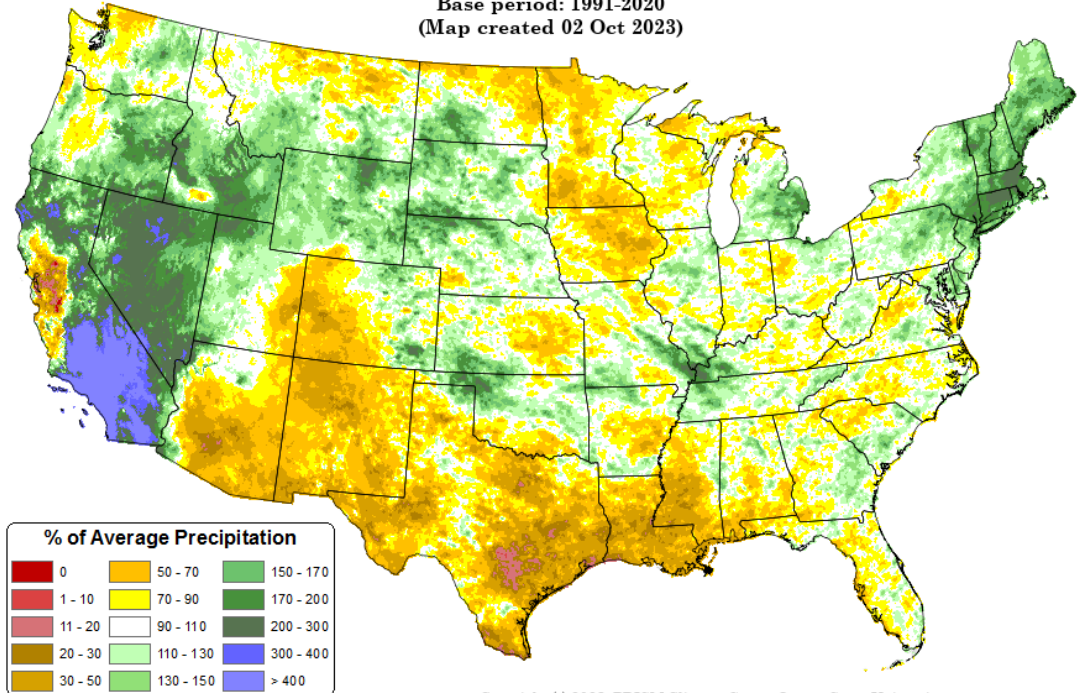
[July through September 2023 precipitation anomaly map](#)

Total Precipitation Anomaly: Jul 2023 - Sep 2023

Period ending 7 AM EST 30 Sep 2023

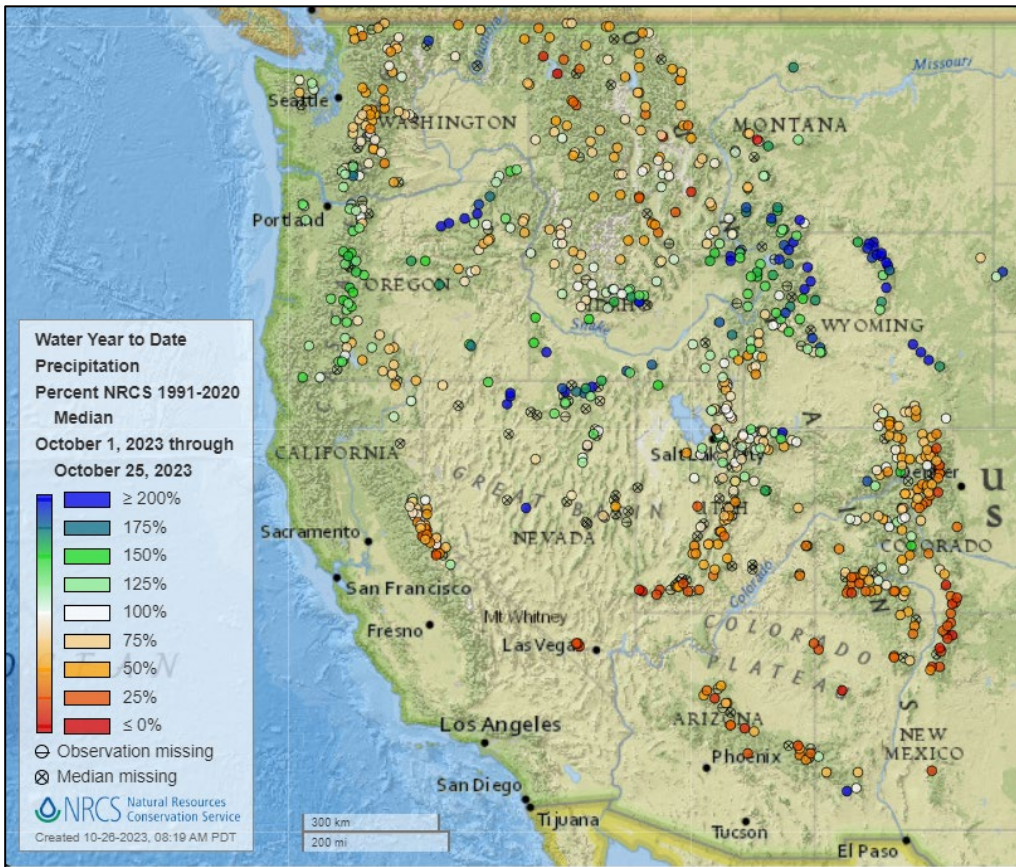
Base period: 1991-2020

(Map created 02 Oct 2023)



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Water Year-to-Date, NRCS SNOTEL Network

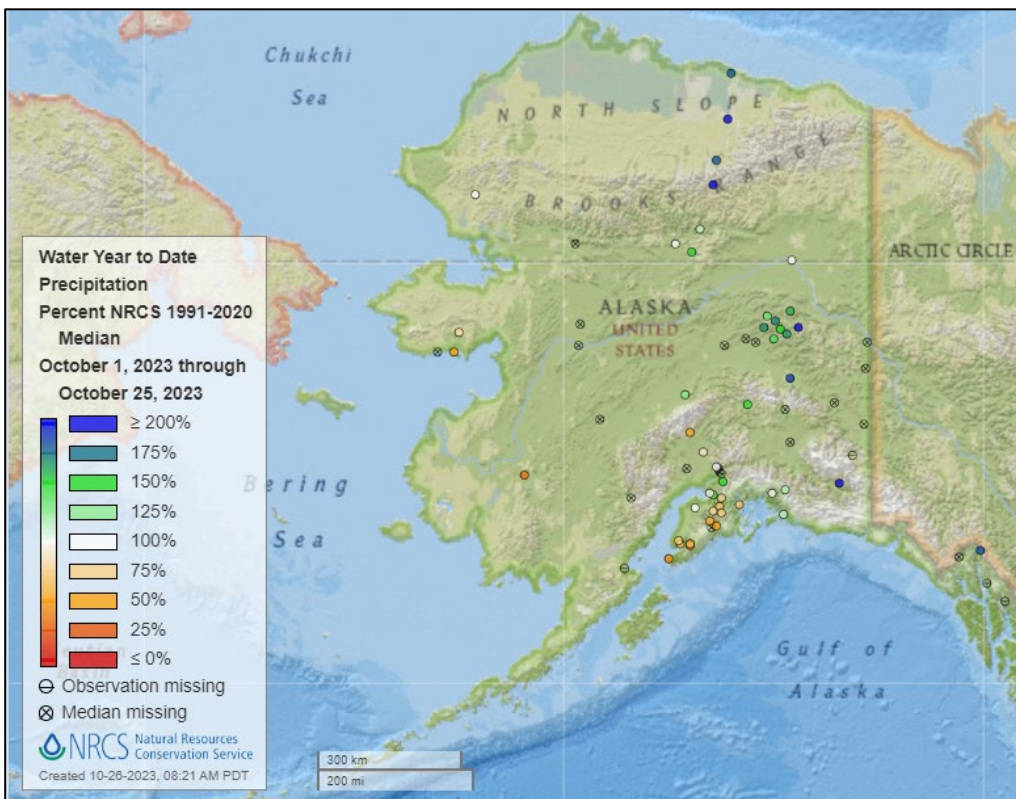


[2024 water year-to-date precipitation percent of median map](#)

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

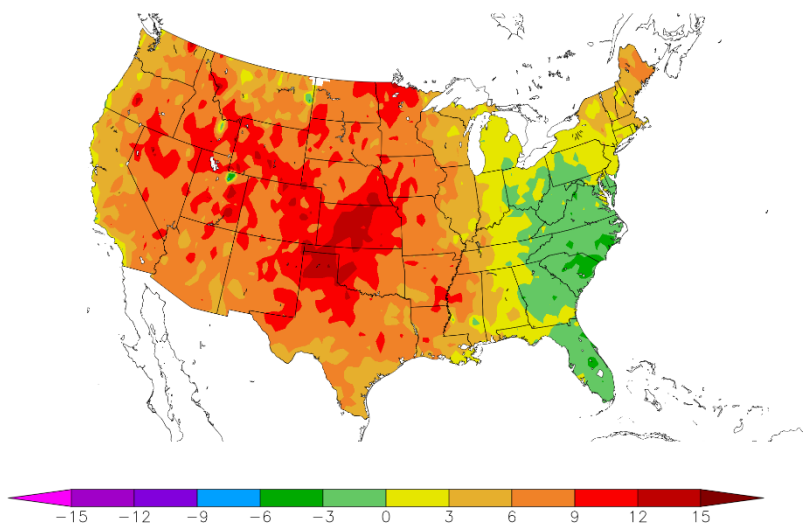
Last 7 Days, National Weather Service (NWS) Networks

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)
10/19/2023 – 10/25/2023



Generated 10/26/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

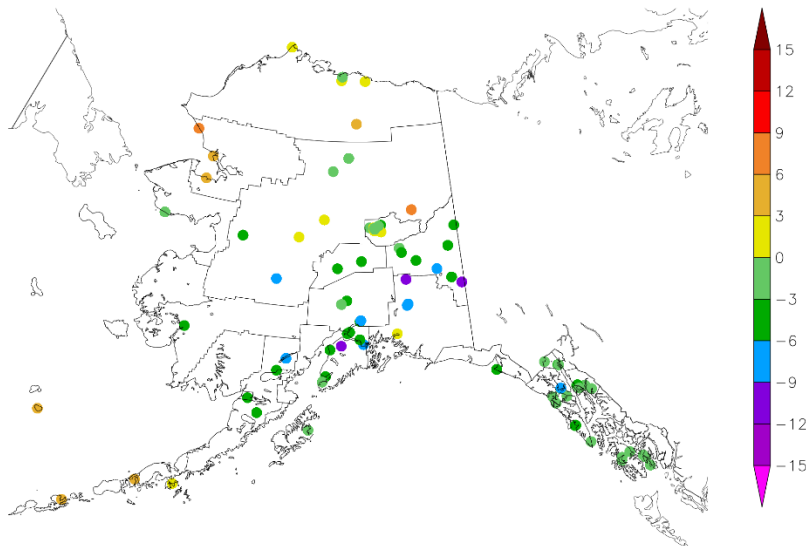
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
10/19/2023 – 10/25/2023



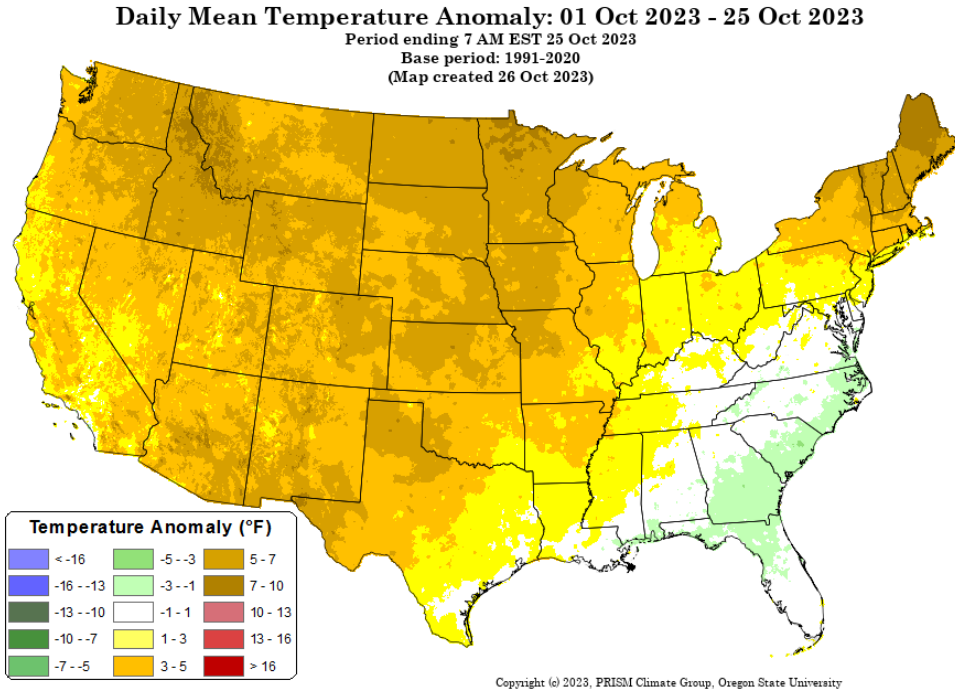
Generated 10/26/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

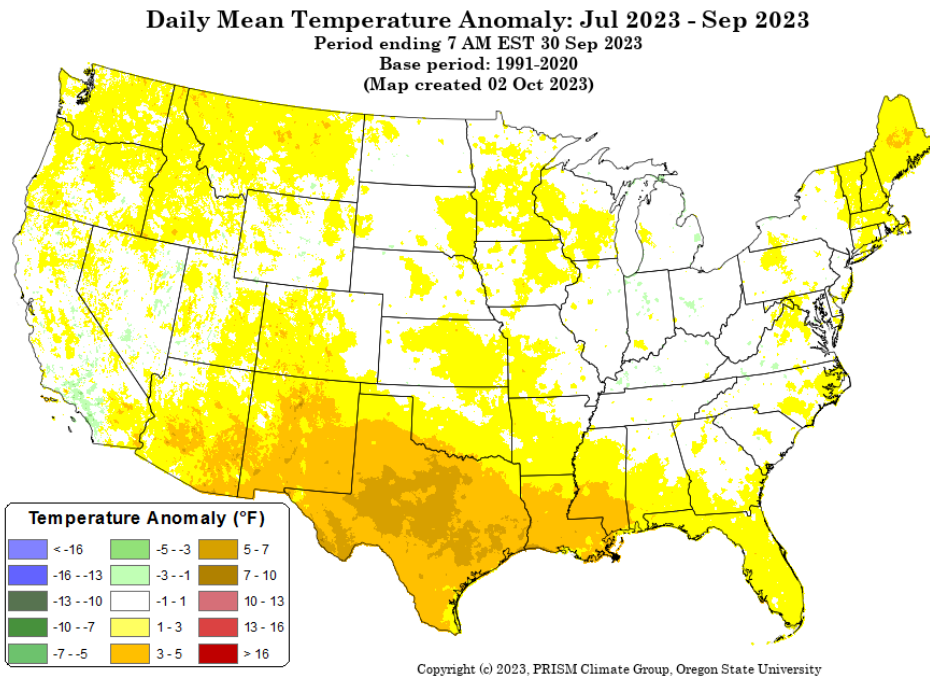
[Month-to-date national daily mean temperature anomaly map](#)



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

Source: PRISM

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



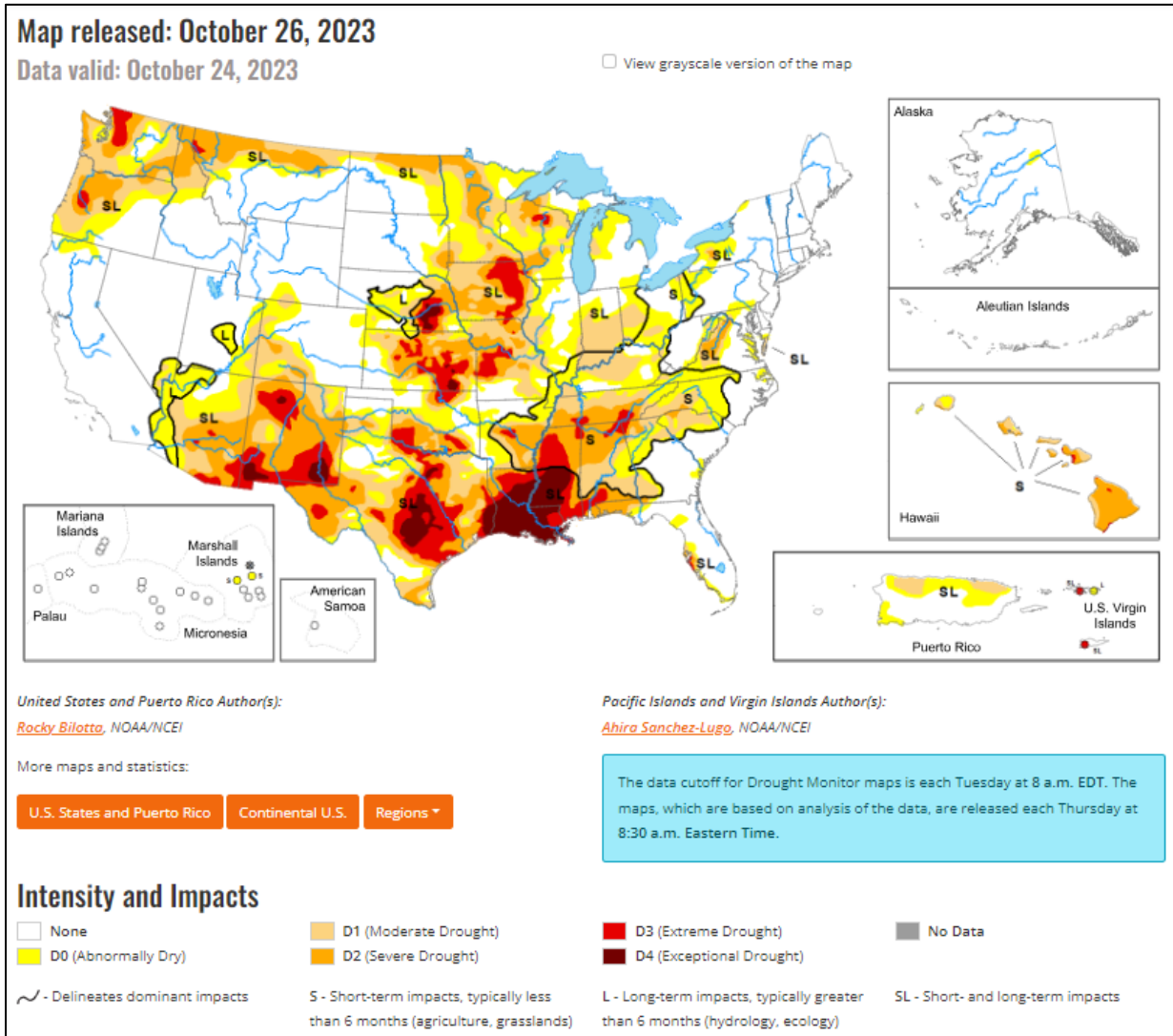
Drought

[U.S. Drought Monitor](#)

Source: National Drought Mitigation Center

[U.S. Drought Portal](#)

Source: NOAA



Current [National Drought Summary](#), October 24, 2023

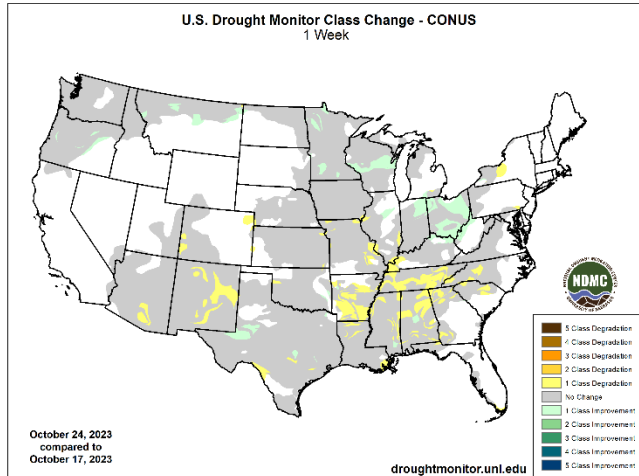
Source: National Drought Mitigation Center

“A strong upper-level ridge dominated much of the western U.S., providing anomalously warm temperatures, by as much as 20 degrees above average, and dry conditions over the central and western parts of the country. While a front extending from the Great Lakes to the Gulf Coast produced rain over parts of Ohio Valley and Great Lakes before moving eastward and bringing rain to parts of the Northeast and Southeast. The most widespread improvements were made to parts of eastern Texas, central Wisconsin and in parts of the Ohio River Valley, where 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 Southeast. In the Southwest, near- to record-warm temperatures coupled with below-normal precipitation for the month, resulted in degradation in the southern parts of the region. In Hawaii, drought continues to intensify across all islands, while no changes occurred on Kauai.”

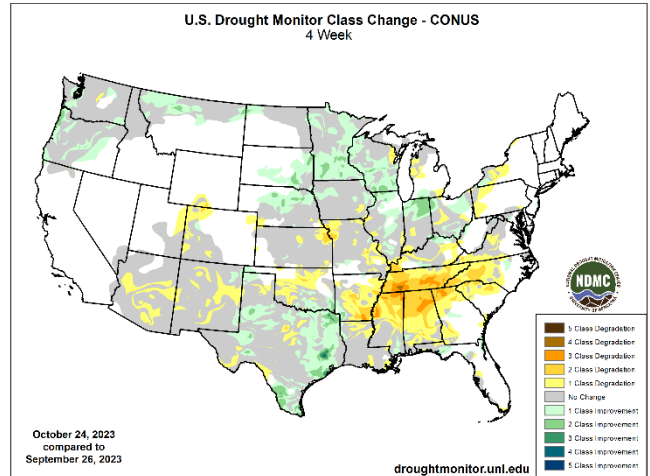
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

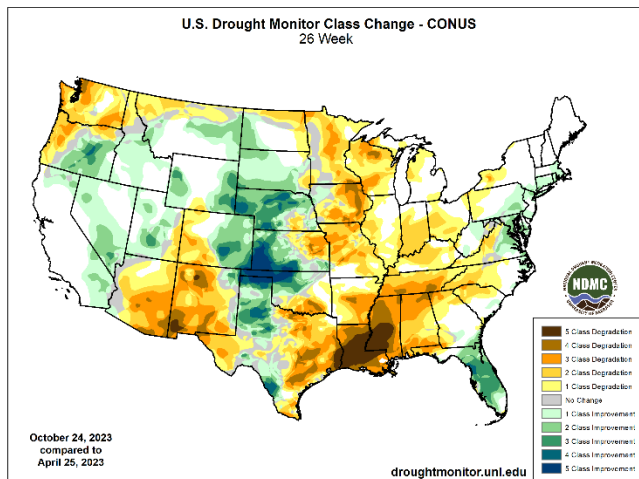
1 Week



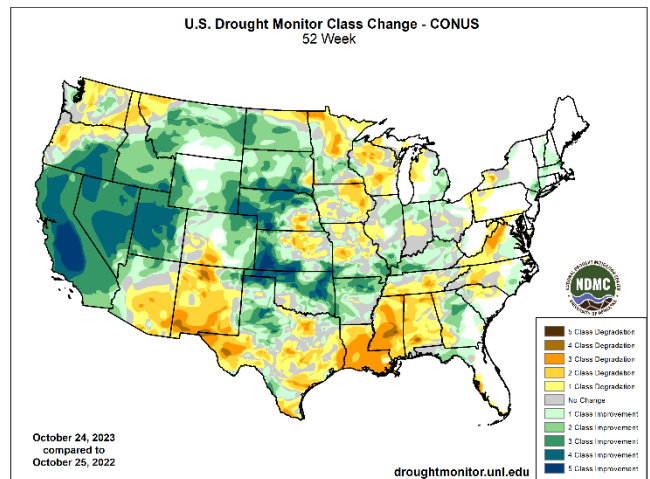
1 Month



6 Months



1 Year



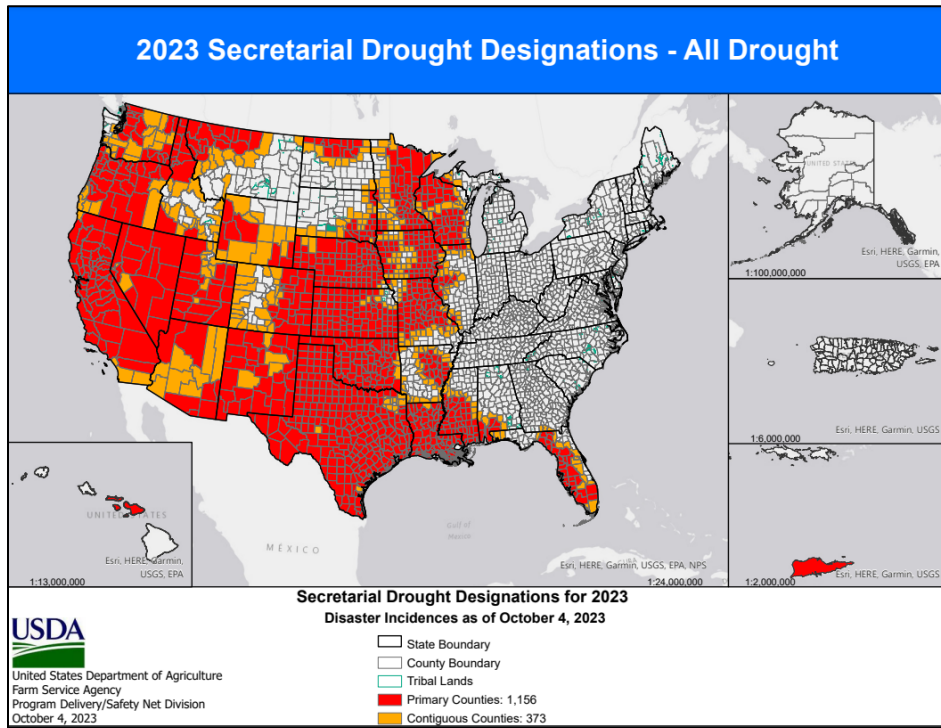
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

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](#)

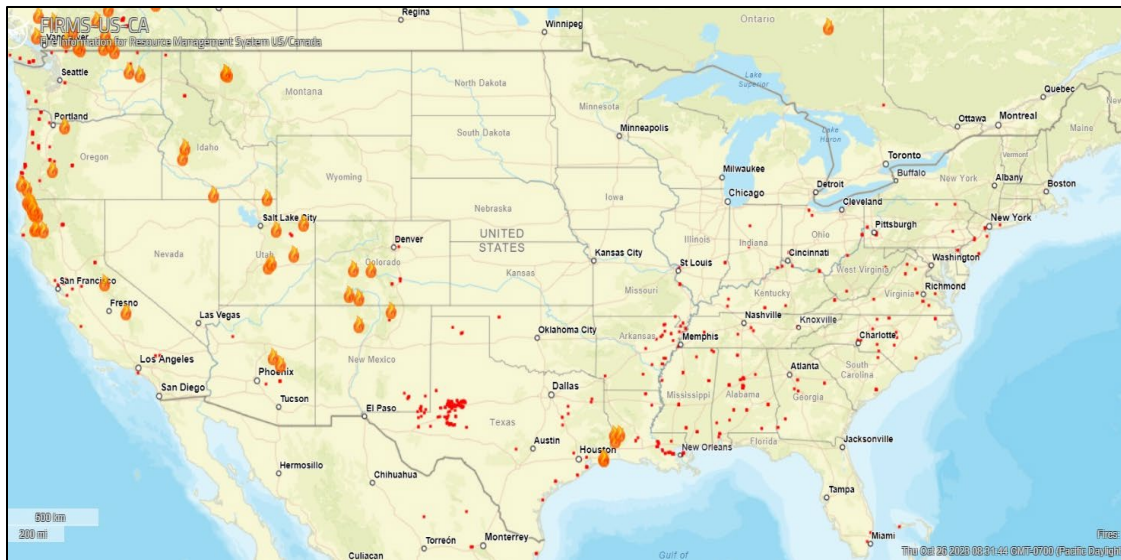
USDA Secretarial [Drought Designations](#)

Source: USDA Farm Service Agency



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

Source: NASA/USDA Forest Service



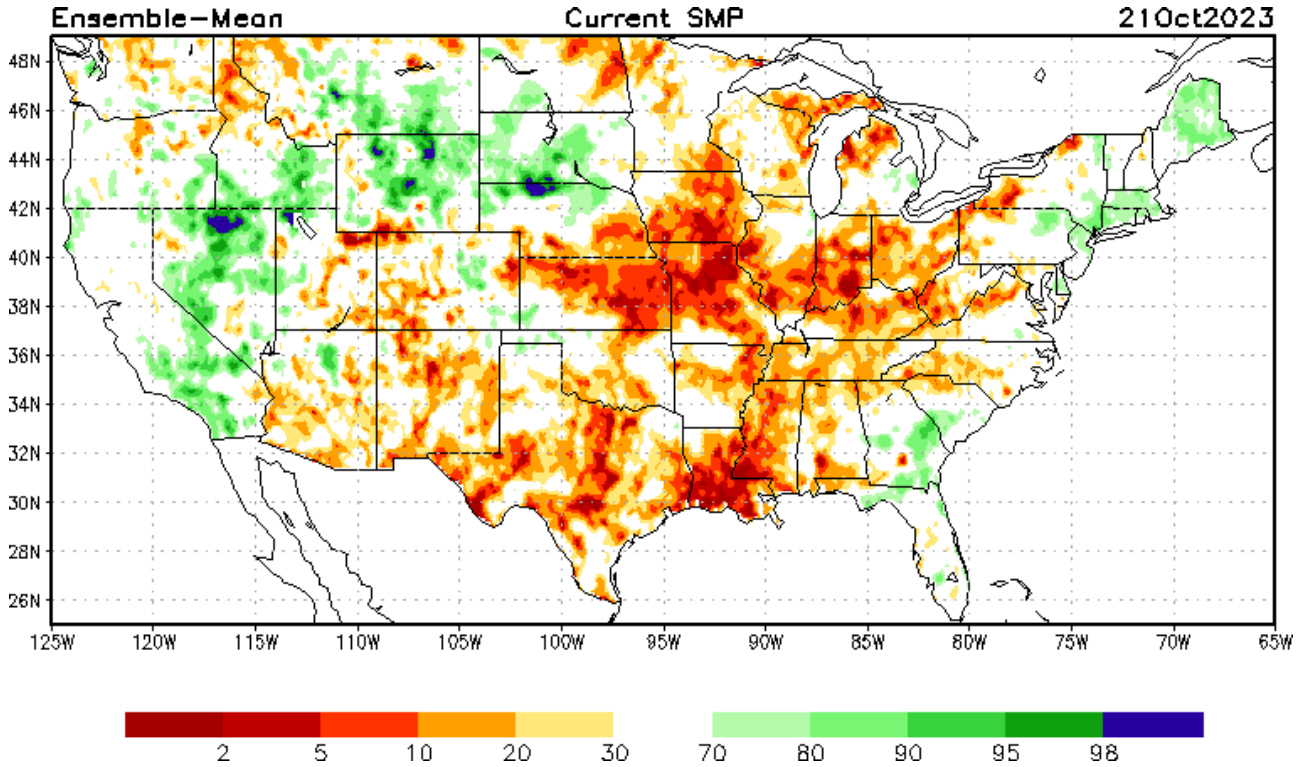
Highlighted Wildfire Resources

- [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

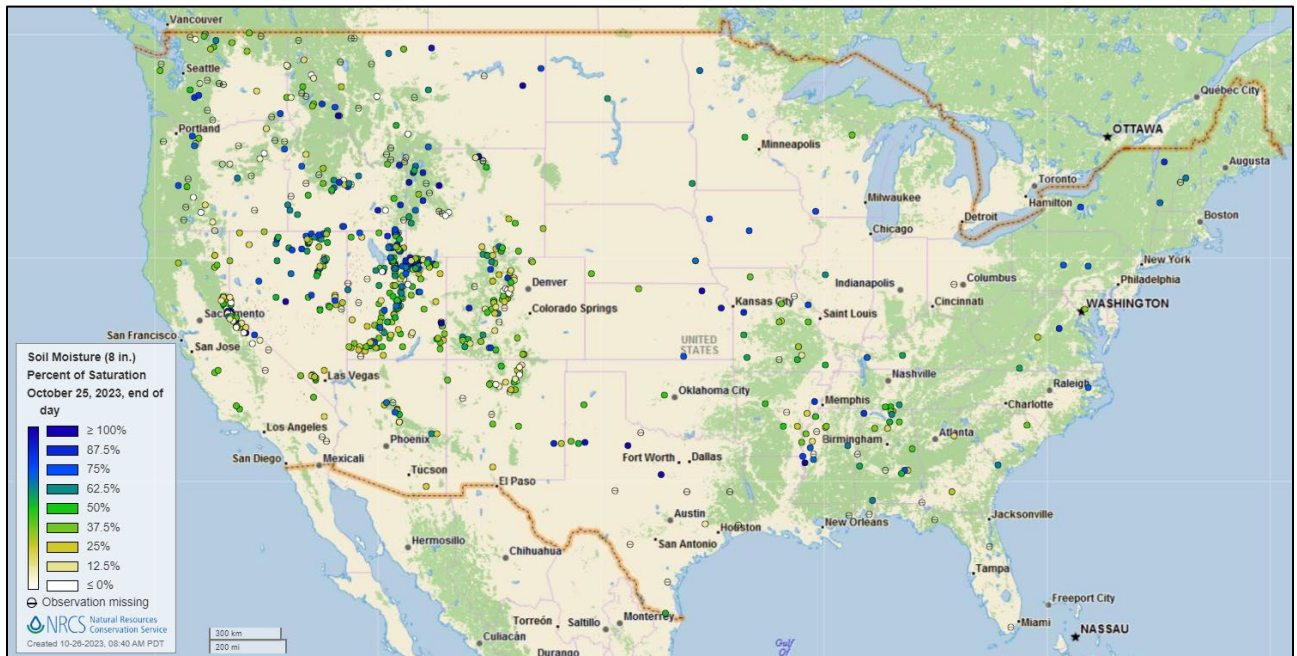


[Modeled soil moisture percentiles](#) as of October 21, 2023

Soil Moisture Percent of Saturation

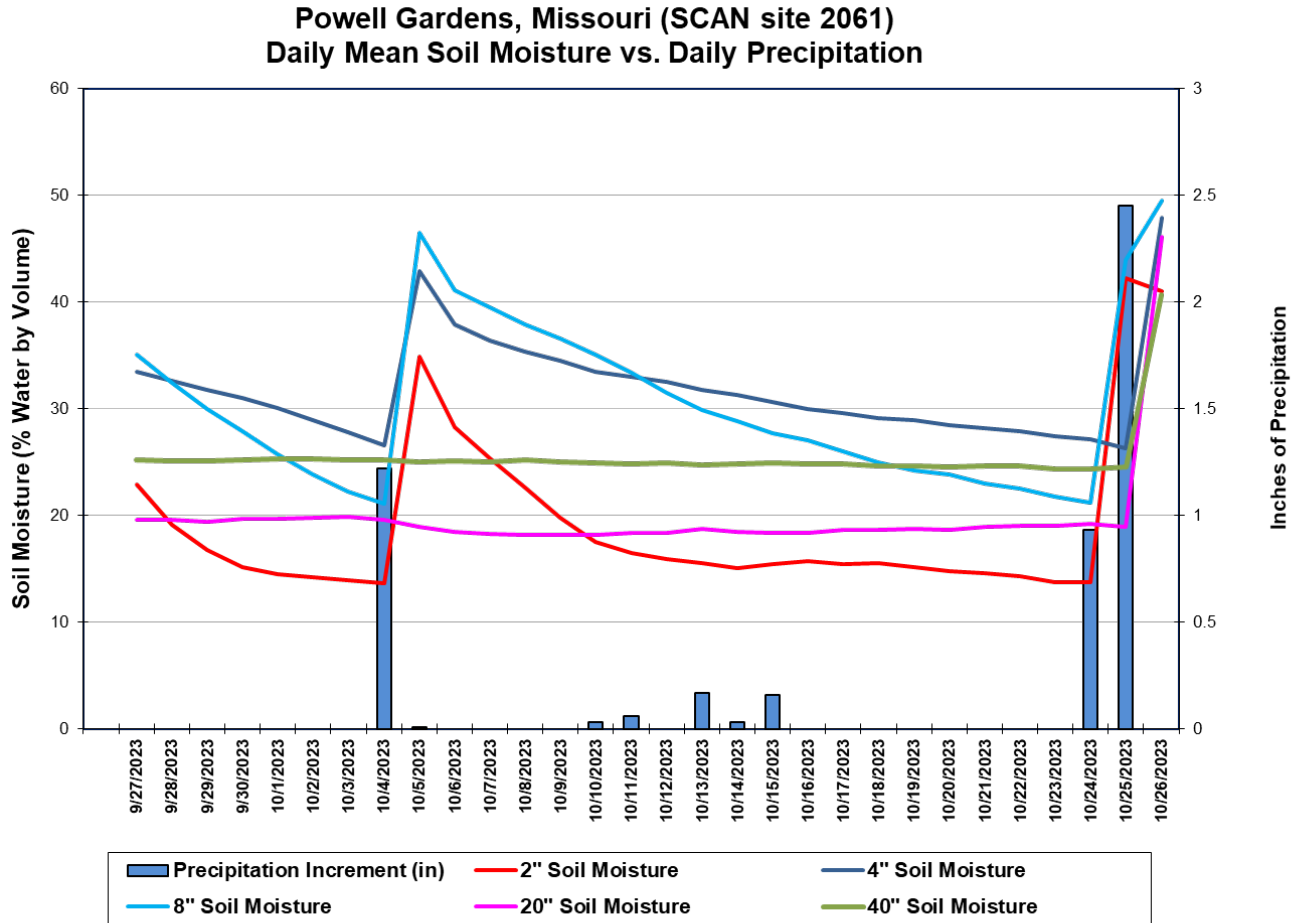
Source: NRCS SNOTEL and [Soil Climate Analysis Network](#) (SCAN)

[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 [Powell Gardens](#) SCAN site in Missouri. After the site received 1.22 inches of precipitation on October 4, the more shallow soil sensors at the -2, -4, and -8-inch depths responded with an increase in soil moisture while the deeper sensors indicated little-to-no change. Later in the period, a strong storm brought 3.38 inches of precipitation to the site between October 24-25, with sensors at all depths indicating an increase in soil moisture. Total precipitation for the 30-day period was 5.06 inches.

Soil Moisture Data Portals

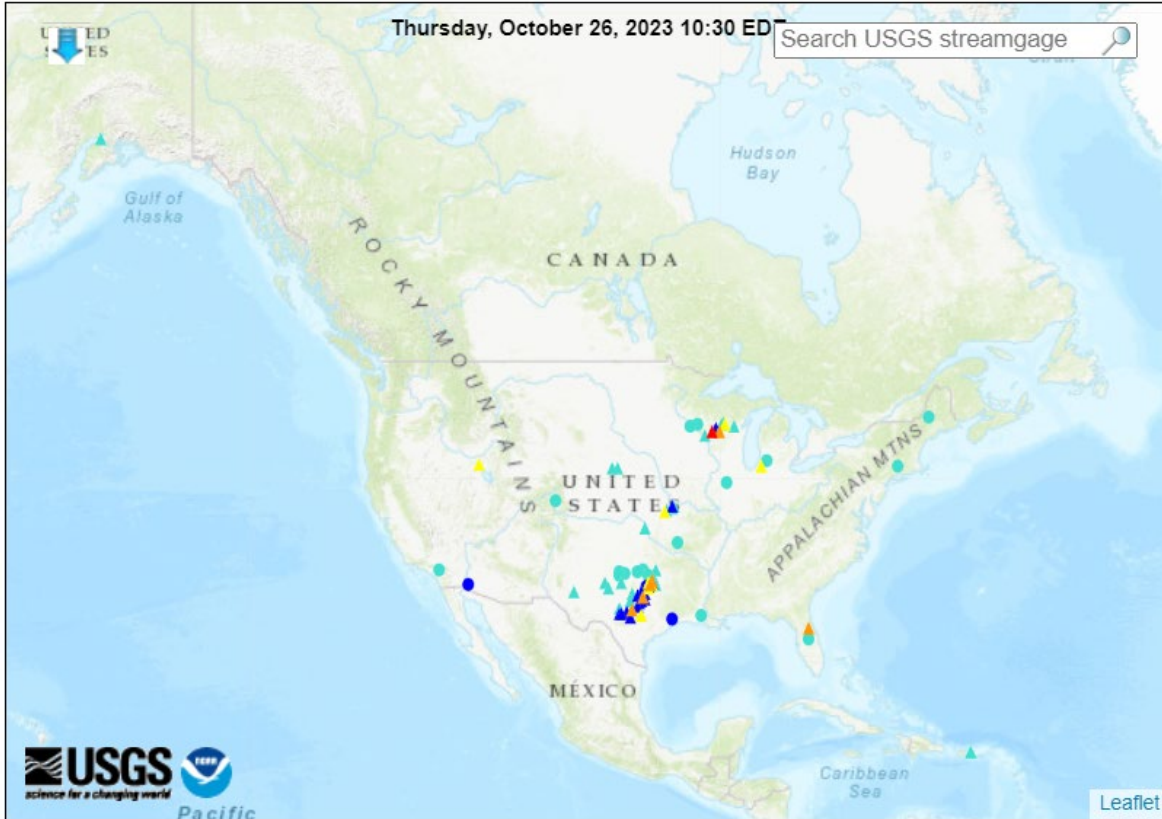
- [USCRN Soil Moisture](#)
- [National Soil Moisture Network](#)
- [NOAA Climate Prediction Center Soil Moisture](#)
- [NASA Grace](#)

Streamflow, Drought, Flood, and Runoff

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

Map of flood and high flow conditions

(7 in floods [moderate: 1, minor: 6], 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

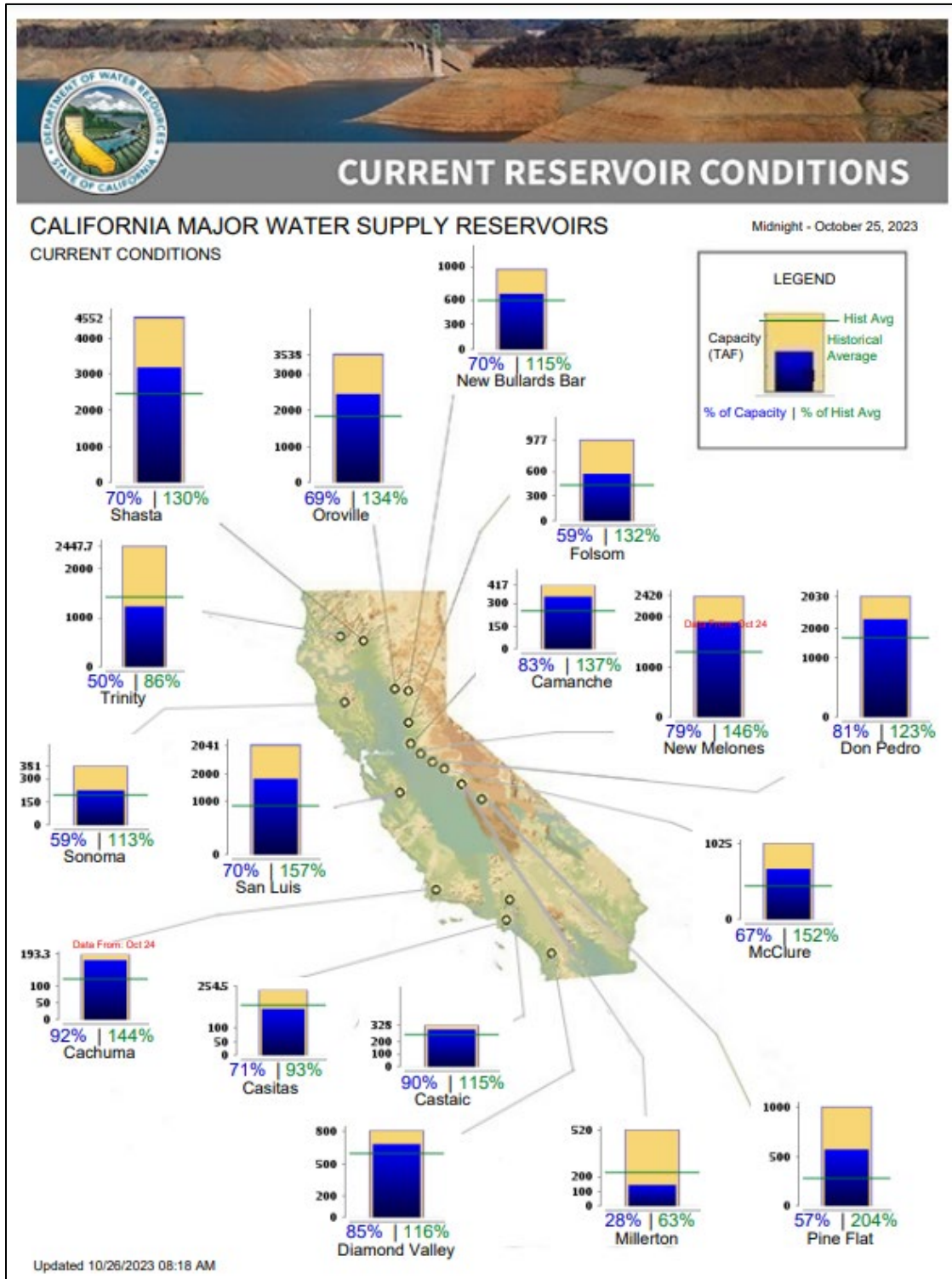
Hydromet Teacup Reservoir Depictions

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 26, 2023: “Wintry weather across the northern Plains will end by early Friday, although very cold conditions will linger through the weekend. In fact, scattered sub-zero temperatures may occur into early next week in parts of Montana and North Dakota. Additionally, hard freezes (temperatures of 28°F or below) will likely be observed by the end of October along and northwest of a line from northern Texas into the Ohio Valley. In areas such as the central Plains, where there will be little or no freshly fallen snow to provide insulation, emerging winter wheat may be burned back by temperatures as low as 10 to 15°F. Farther east, additional rainfall from central and eastern Texas into the Ohio Valley could total 1 to 4 inches or more. In contrast, warm, dry weather will prevail during the next 5 days in much of the Southeast, while cool, dry conditions will cover the Far West. The NWS 6- to 10-day outlook for October 31 – November 4 calls for the likelihood of near- or below-normal temperatures and precipitation across much of the country. Warmer-than-normal weather will be confined to the southern tip of Florida and areas along and near the Pacific Coast, while wetter-than-normal conditions should be limited to northern California, the Northwest, and the southern Atlantic region.”

Weather Hazards Outlook: [October 28 – November 01, 2023](#)

Source: NOAA Weather Prediction Center















U.S. Day 3-7 Hazards Outlook

[About the Hazards Outlook](#)

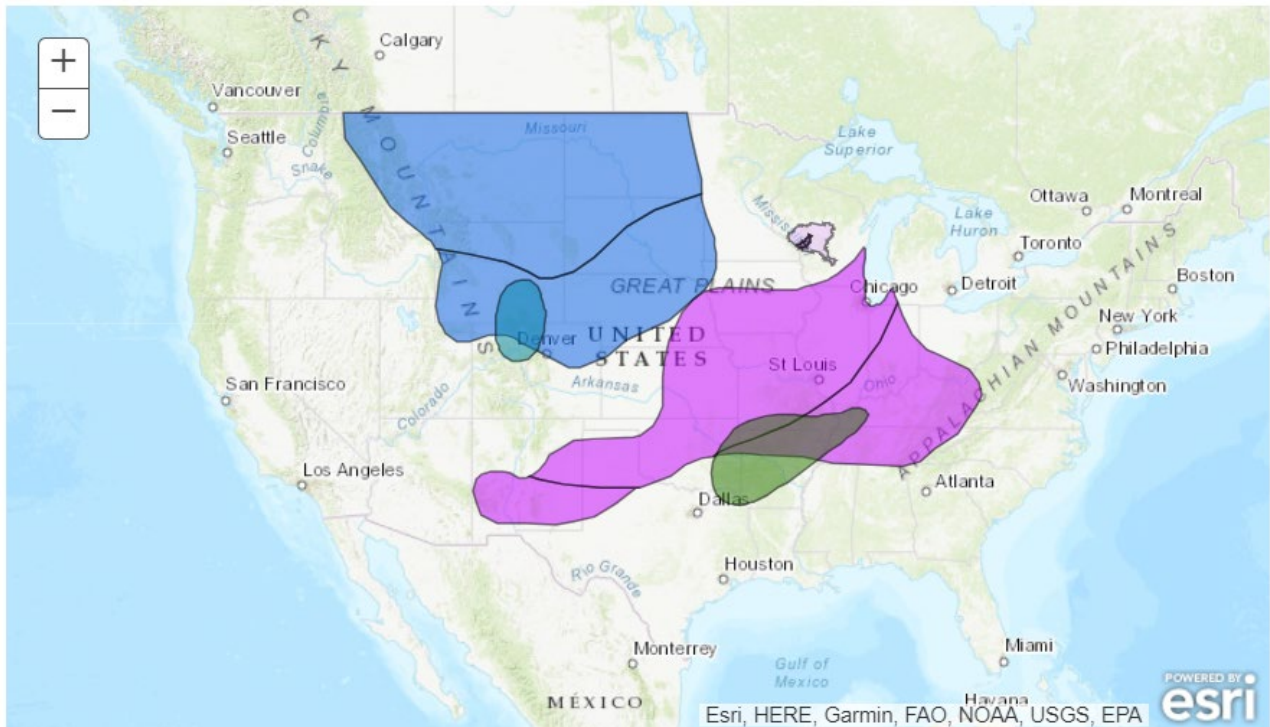
Created October 25, 2023

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 28, 2023 - November 01, 2023

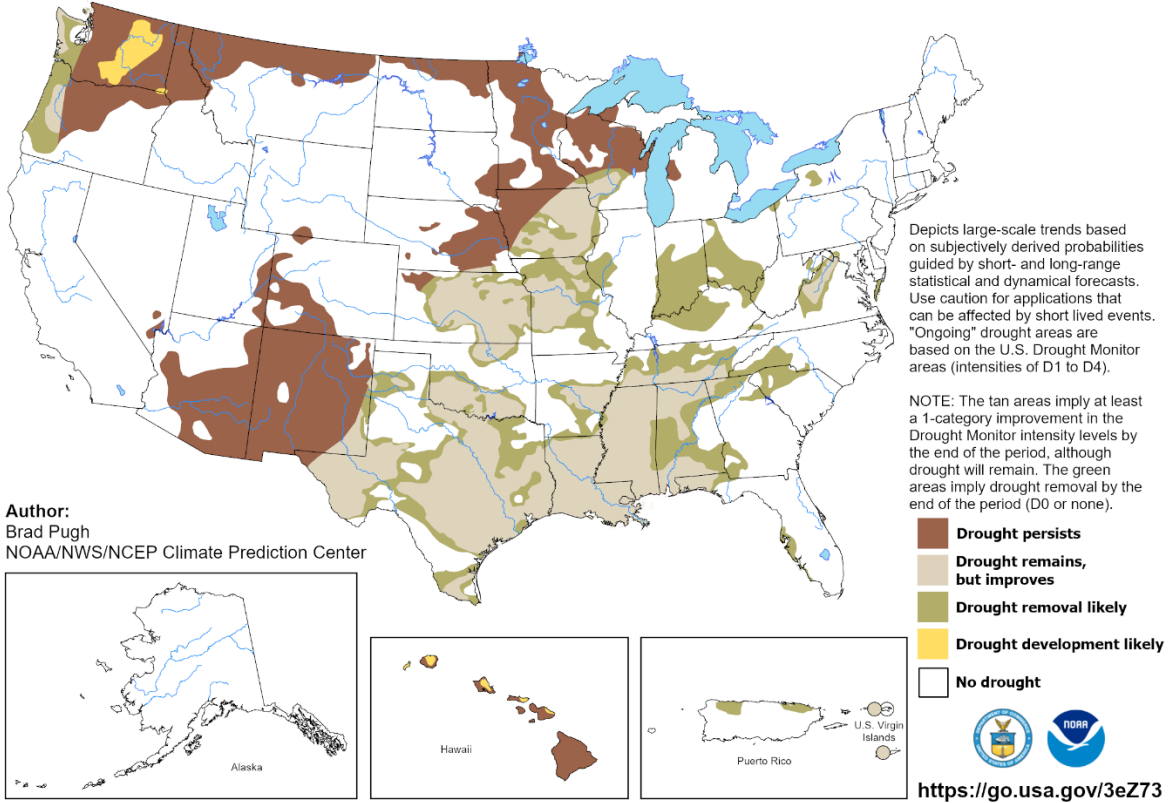


Seasonal Drought Outlook: [October 19, 2023 – January 31, 2024](#)

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

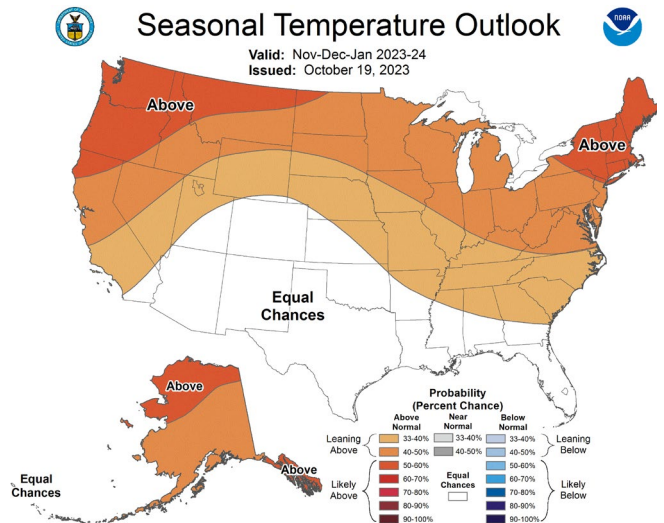
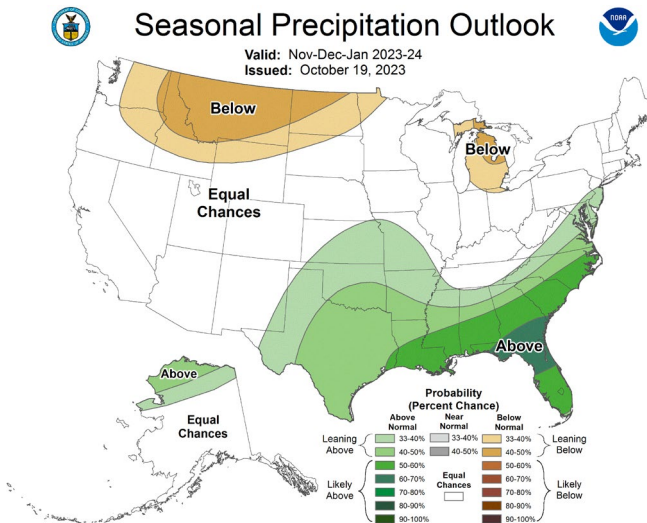


Climate Prediction Center Three-month Outlook

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](#).