



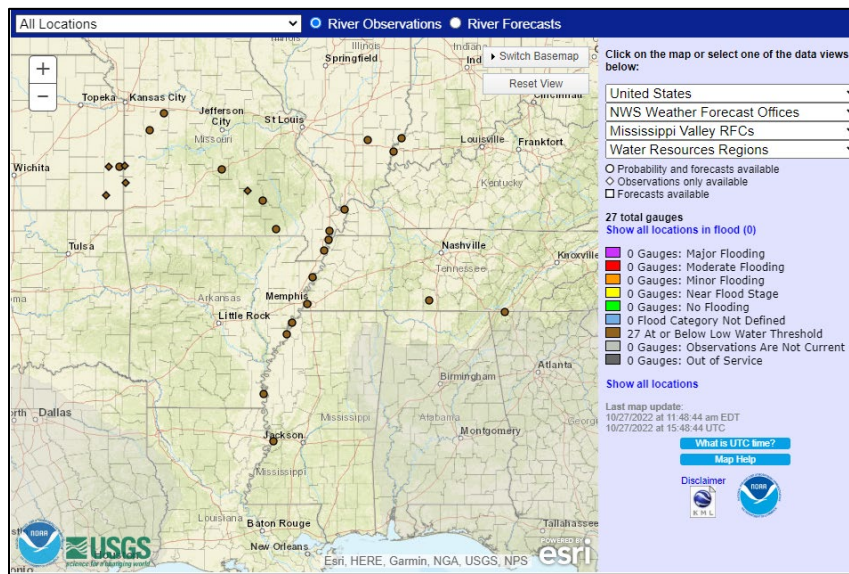
Water and Climate Update

October 27, 2022

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	12
Temperature.....	6	More Information	18
Drought	8		

Mississippi River water levels remain at near-record low



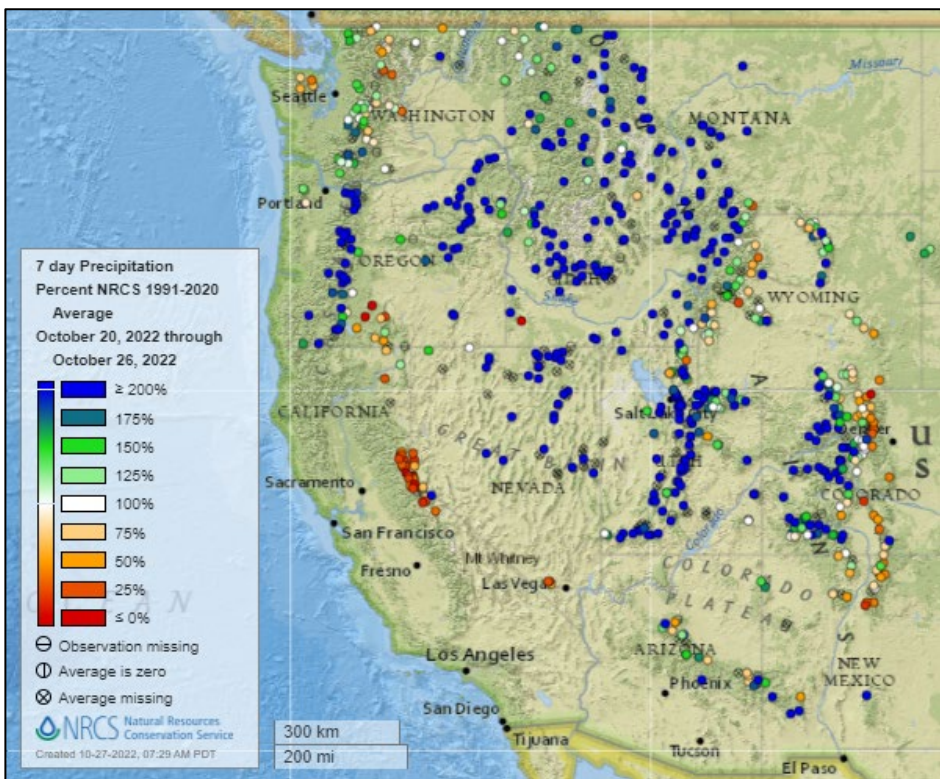
The Mississippi River has 27 U.S. Geological Survey streamflow gages reporting levels below the low water threshold category as of October 27, pictured in the graphic above. A new record-low level was reported in Memphis, Tennessee, where the Mississippi River reached -10.81 feet, beating the previous record of -10.70 feet set in 1988. The low water levels are a result of drought in the Mississippi River basin and come at a critical time for the shipping of crop harvests. The river serves as a major shipping route for most of the nation’s soybean and corn, as well as other grains grown in the central U.S. While some barges are stranded, others are moving cargo at reduced capacity to allow for travel through the river’s low water levels.

Related:

- [Low water disrupts industry along lower Mississippi River](#) – AP News
- [Mississippi River water levels continue to drop. Could they approach records?](#) – USA Today
- [1,500 barges stuck in vital Mississippi River shipping lanes as water levels drop precipitously low](#) – Yahoo News
- [Mississippi River at Memphis remains near record low level](#) – We Are Iowa (IA)
- [Record level Mississippi River low comes at crucial time](#) – KSLA-TV (LA)
- [Barge traffic bottlenecks and low water on Mississippi River loom during crop harvest](#) – Minneapolis Star Tribune (MN)
- [West Tennessee farmers struggle to get crops to market as drought drains Mississippi River](#) – Chattanooga Free Times Press (TN)
- [Shallow Mississippi River to persist as dry winter hits U.S. South - NOAA](#) - Reuters
- [Images show a dried-up Mississippi River amid worst drought in years](#) - MSN

Precipitation

Last 7 Days, NRCS SNOTEL Network

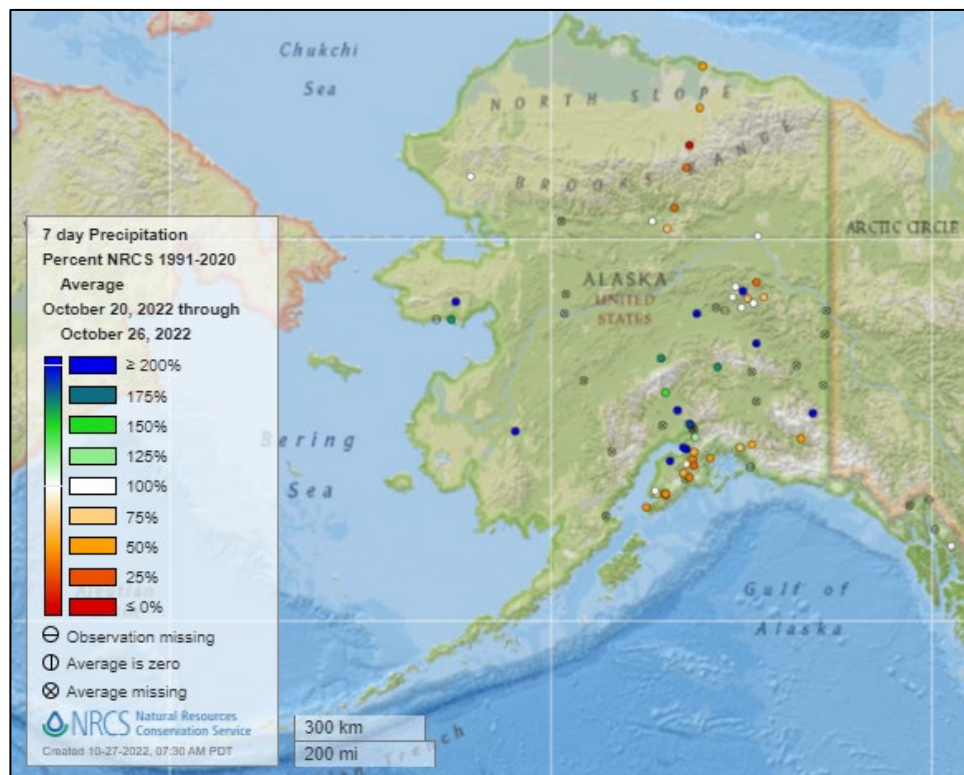


[7-day precipitation percent of average map](#)

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

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

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



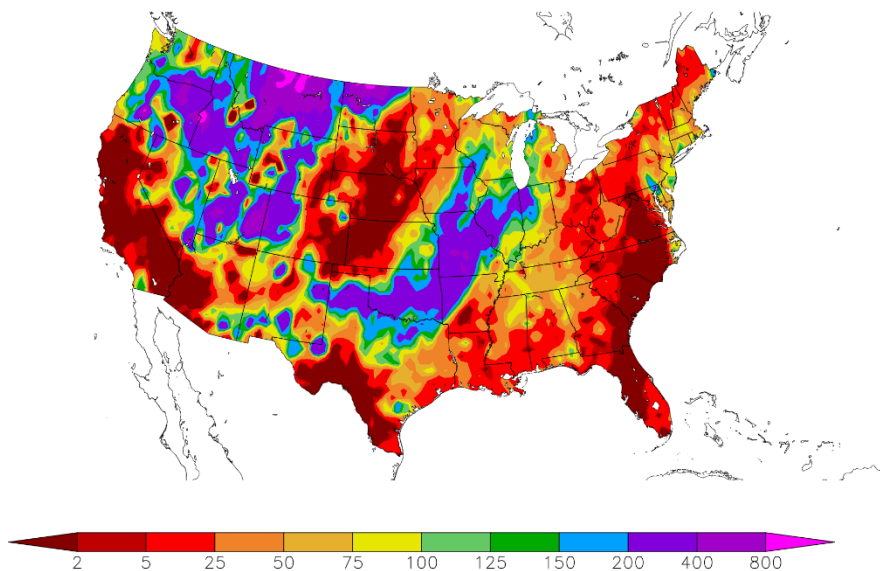
Last 7 Days, National Weather Service (NWS) Networks

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 (%)
10/20/2022 – 10/26/2022



Generated 10/27/2022 at HPRCC using provisional data.

NOAA Regional Climate Centers

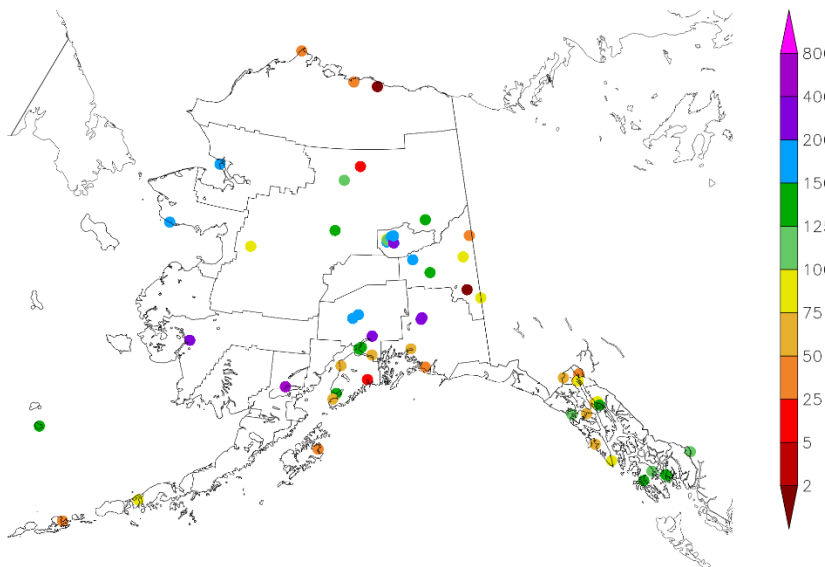
Last 7 Days, National Weather Service (NWS) Networks

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 (%)
10/20/2022 – 10/26/2022



Generated 10/27/2022 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

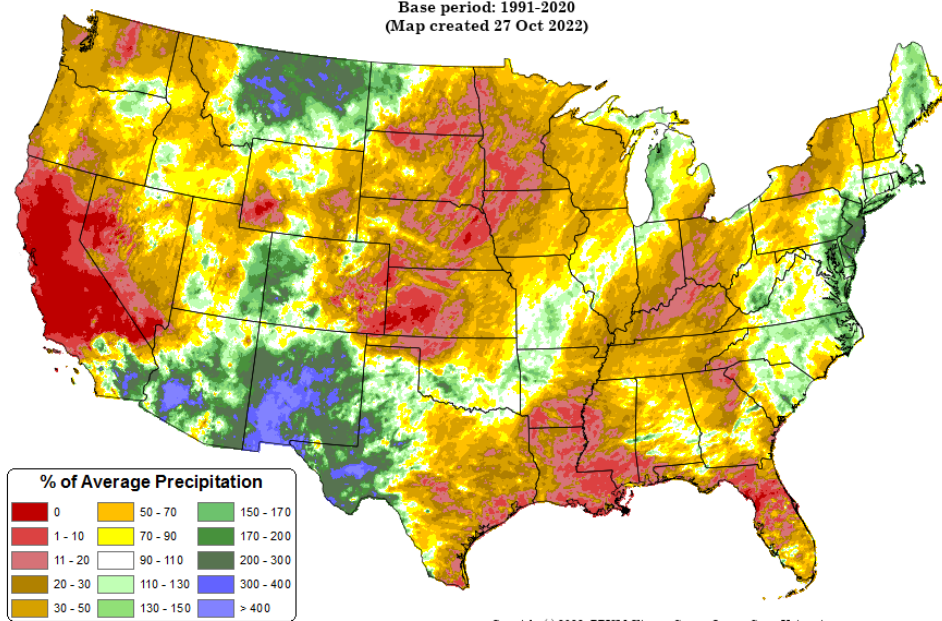
Total Precipitation Anomaly: 01 Oct 2022 - 26 Oct 2022

Period ending 7 AM EST 26 Oct 2022

Base period: 1991-2020

(Map created 27 Oct 2022)

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



Copyright (c) 2022, PRISM Climate Group, Oregon State University

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

Source: PRISM

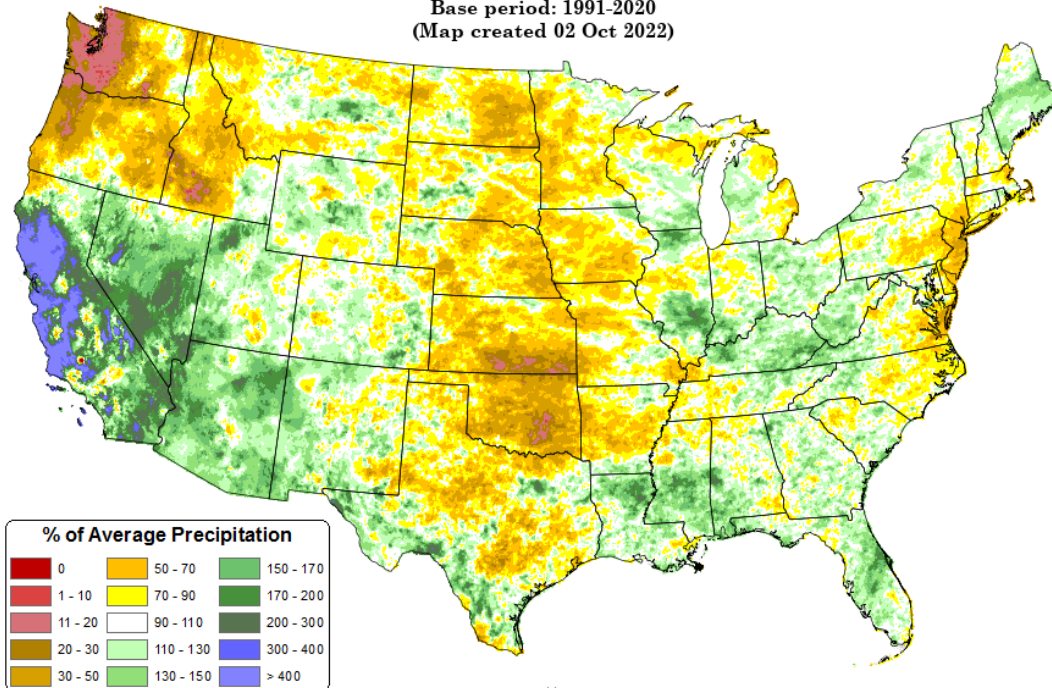
[July through September 2022 precipitation anomaly map](#)

Total Precipitation Anomaly: Jul 2022 - Sep 2022

Period ending 7 AM EST 30 Sep 2022

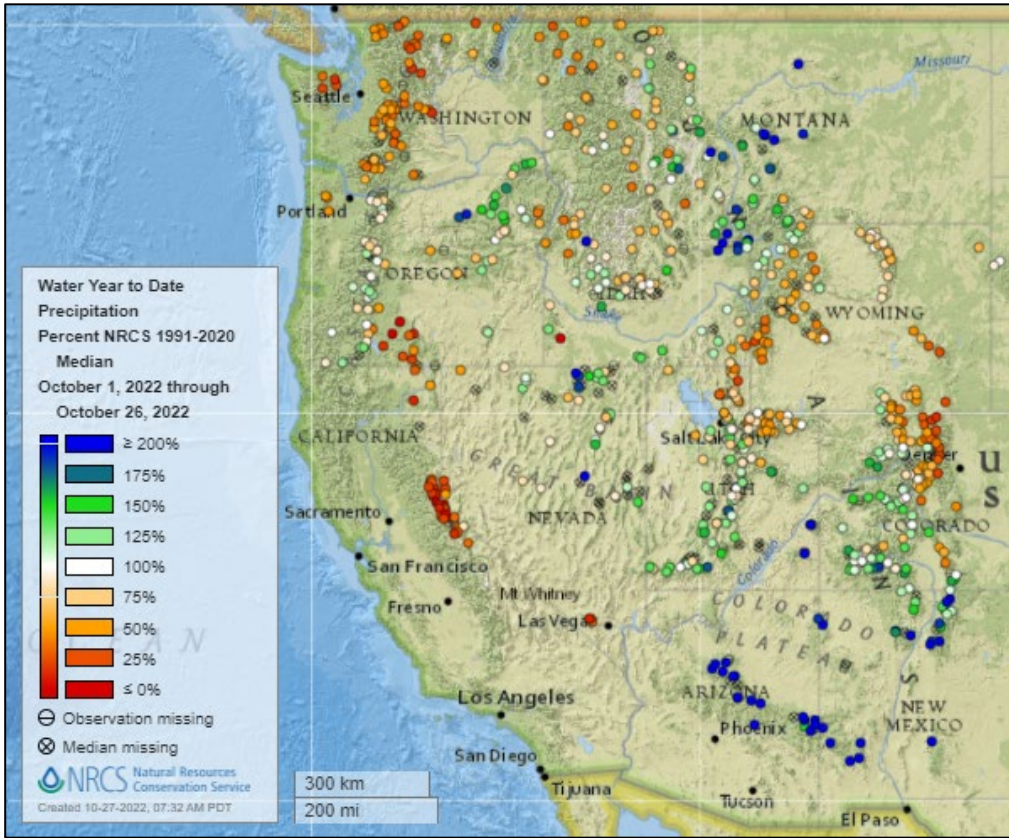
Base period: 1991-2020

(Map created 02 Oct 2022)



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Water Year-to-Date, NRCS SNOTEL Network

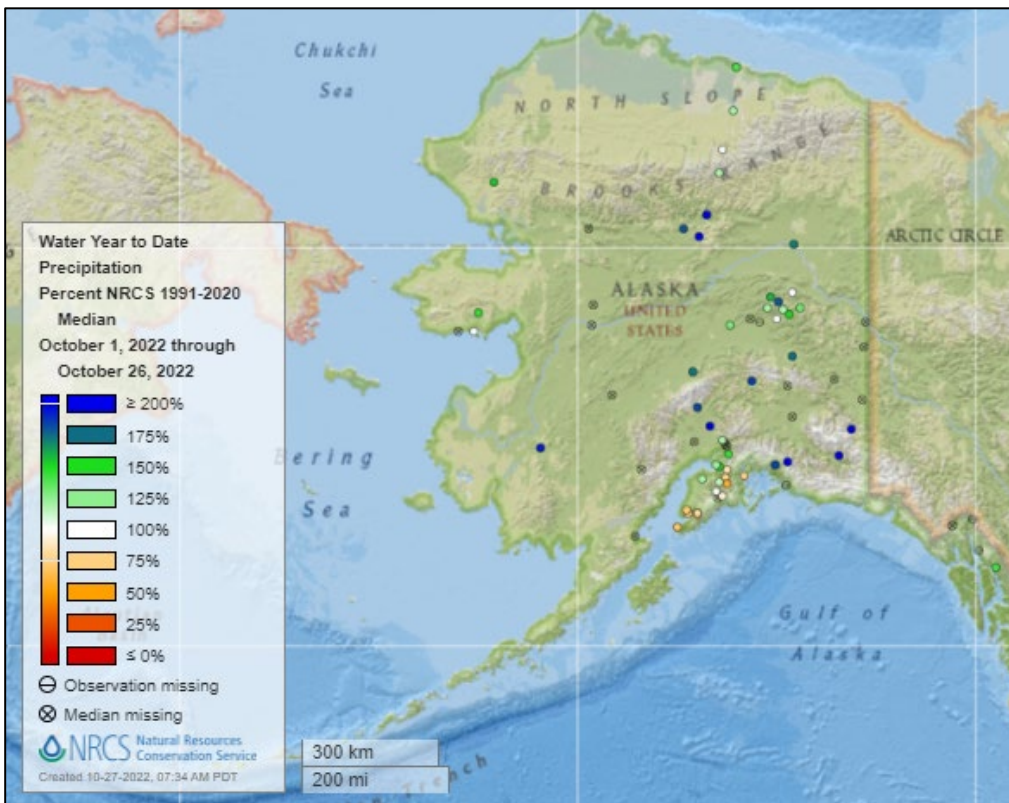


[2023 water year-to-date precipitation percent of median map](#)

See also:

[2023 water year-to-date precipitation percent of average map](#)

[2023 water year-to-date precipitation values \(inches\) map](#)



[Alaska 2023 water year-to-date precipitation percent of median map](#)

See also:

[Alaska 2023 water year-to-date precipitation percent of average map](#)

[Alaska 2023 water year-to-date precipitation values \(inches\) map](#)

Temperature

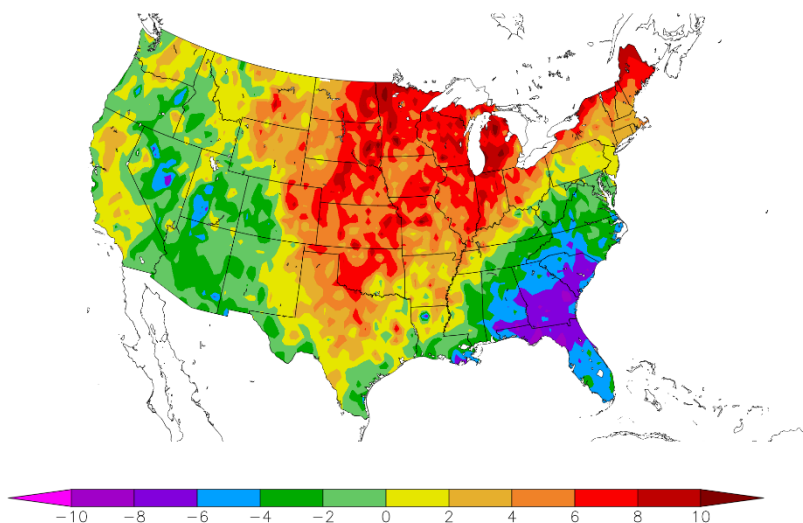
Last 7 Days, National Weather Service (NWS) Networks

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)
10/20/2022 – 10/26/2022



Generated 10/27/2022 at HPRCC using provisional data.

NOAA Regional Climate Centers

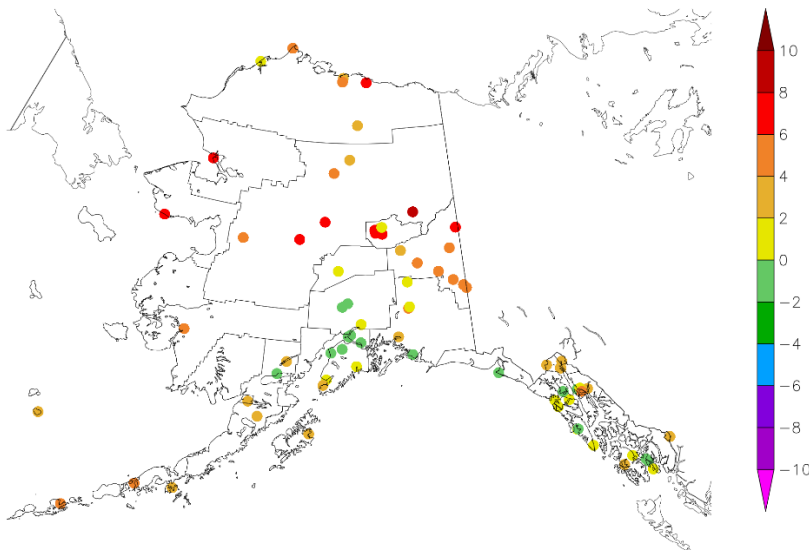
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
10/20/2022 – 10/26/2022



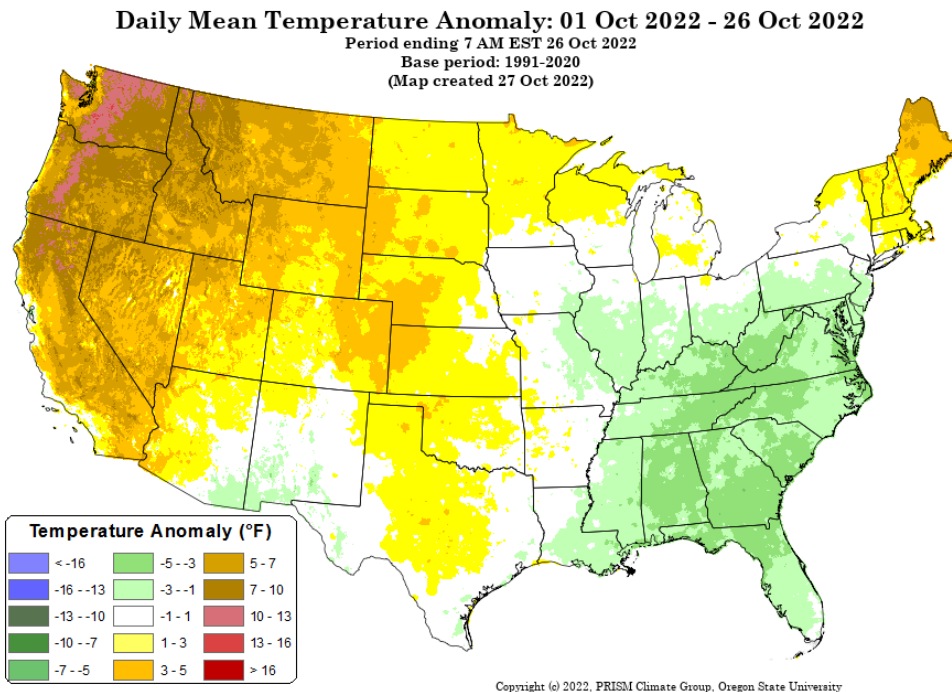
Generated 10/27/2022 at HPRCC using provisional data.

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

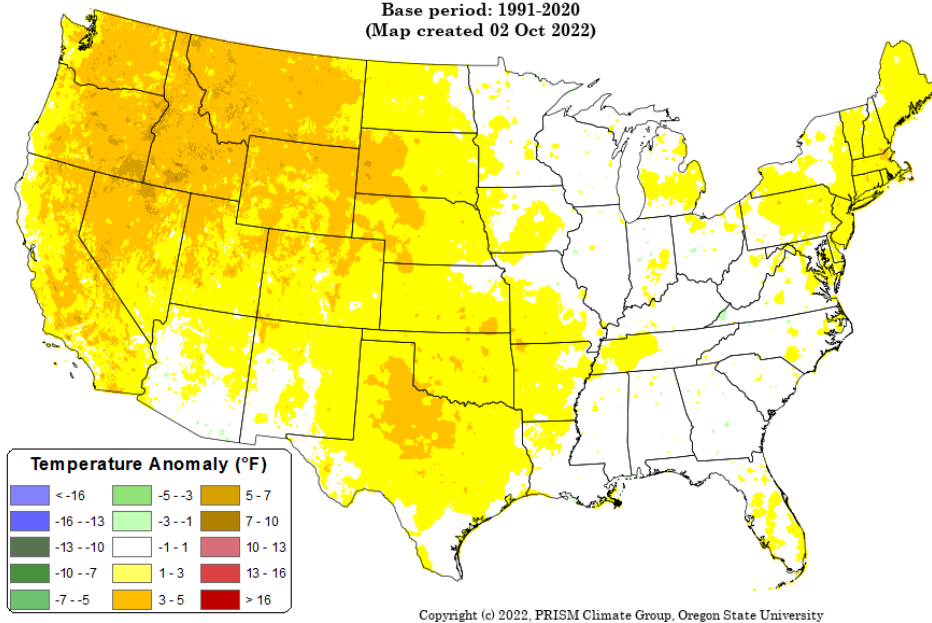
Daily Mean Temperature Anomaly: Jul 2022 - Sep 2022

Period ending 7 AM EST 30 Sep 2022

Base period: 1991-2020

(Map created 02 Oct 2022)

[July through September 2022 daily mean temperature anomaly map](#)



Drought

[U.S. Drought Monitor](#)

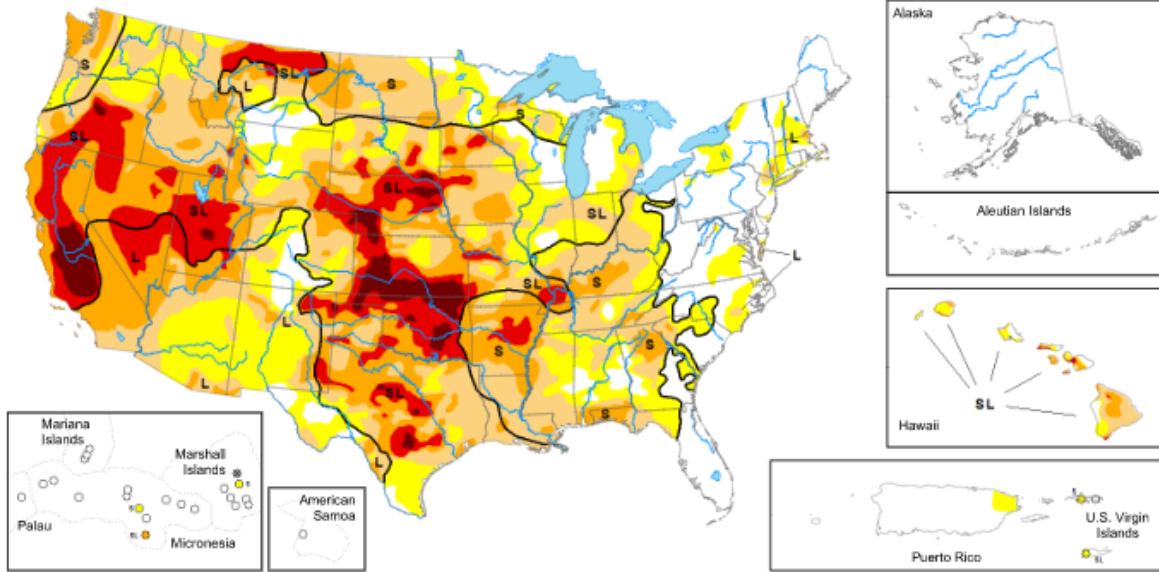
Source: National Drought Mitigation Center

[U.S. Drought Portal](#)

Source: NOAA

Map released: October 27, 2022

Data valid: October 25, 2022



*United States and Puerto Rico Author(s):
Adam Hartman, NOAA/NWS/NCEP/CPC*

*Pacific Islands and Virgin Islands Author(s):
Ahira Sanchez-Lugo, NOAA/NCEI*

View grayscale version of the map

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	D3 (Extreme Drought)	- Delineates dominant impacts
D0 (Abnormally Dry)	D4 (Exceptional Drought)	S - Short-term impacts, typically less than 6 months (agriculture, grasslands)
D1 (Moderate Drought)	No Data	L - Long-term impacts, typically greater than 6 months (hydrology, ecology)
D2 (Severe Drought)		SL - Short- and long-term impacts

Current [National Drought Summary](#), October 25, 2022

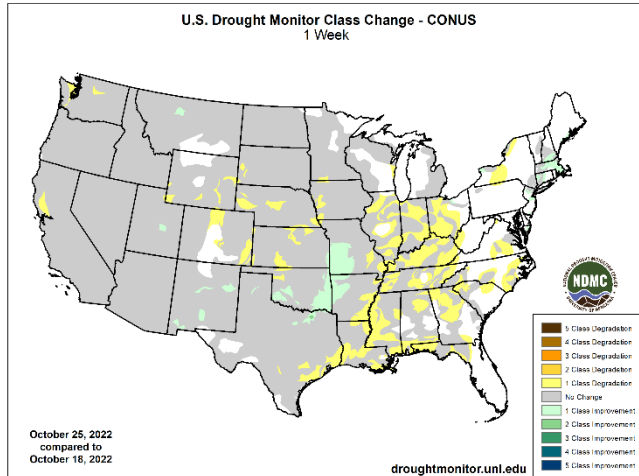
Source: National Drought Mitigation Center

“A large shift in the weather pattern occurred this week across the lower 48 states. Early in the week, low pressure exited the Great Lakes region, allowing temperatures to gradually moderate during the latter half of the week across portions of the eastern contiguous U.S. (CONUS). In the western CONUS, high pressure broke down as a strong storm system moved into the Pacific Northwest heading into the weekend. As this storm system moved eastward into the Great Plains through the weekend and leading up to Tuesday, October 25, many locations across the western and central CONUS experienced above-normal precipitation, with cooler than normal temperatures in the system’s wake. However, with surface high pressure early in the week followed by southerly flow ahead of the storm system, warm temperatures dominated much of the central CONUS for the week as whole, with above-normal average temperatures also extending northeastward into the Great Lakes and Northeast. Unfortunately, given the expanse of drought and abnormal dryness across the U.S., antecedent dryness led to another week of degradations for many not receiving rainfall, even in areas where temperatures were cooler than normal this week. Warm conditions and high winds further exacerbated conditions in drier areas across the Great Plains. Fortunately, in areas seeing the heaviest rainfall amounts, particularly across the Southern Plains and Ozarks, some improvements were also warranted.”

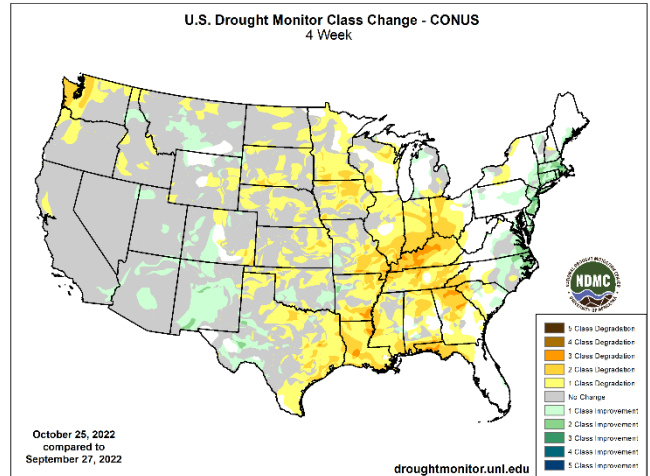
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

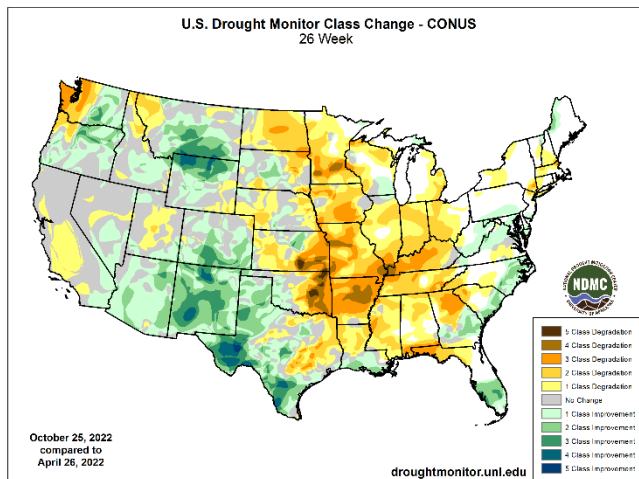
1 Week



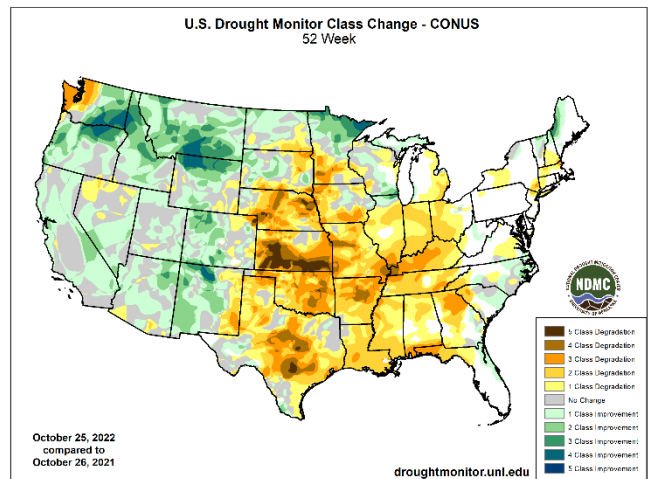
1 Month



6 Months



1 Year



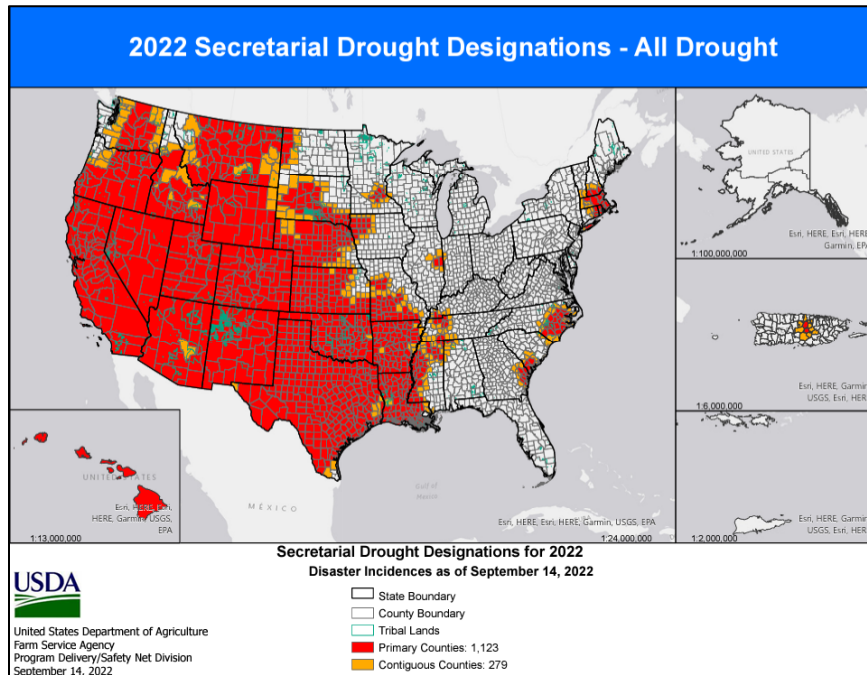
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

Highlighted Drought Resources

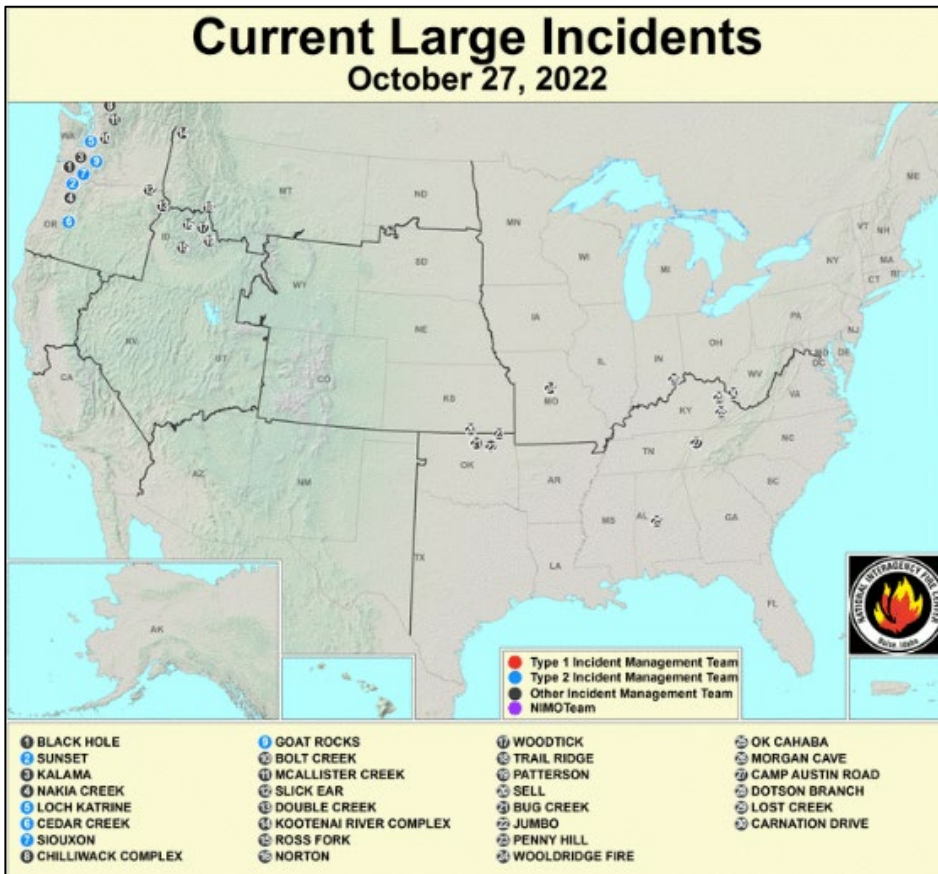
- [Drought Impact Reporter](#)
- [Quarterly Regional Climate Impacts and Outlook](#)
- [U.S. Drought Portal Indicators and Monitoring](#)
- [U.S. Population in Drought, Weekly Comparison](#)
- [USDA Disaster and Drought Information](#)

USDA Secretarial Drought Designations

Source: USDA Farm Service Agency



Wildfires: USDA Forest Service Active Fire Mapping



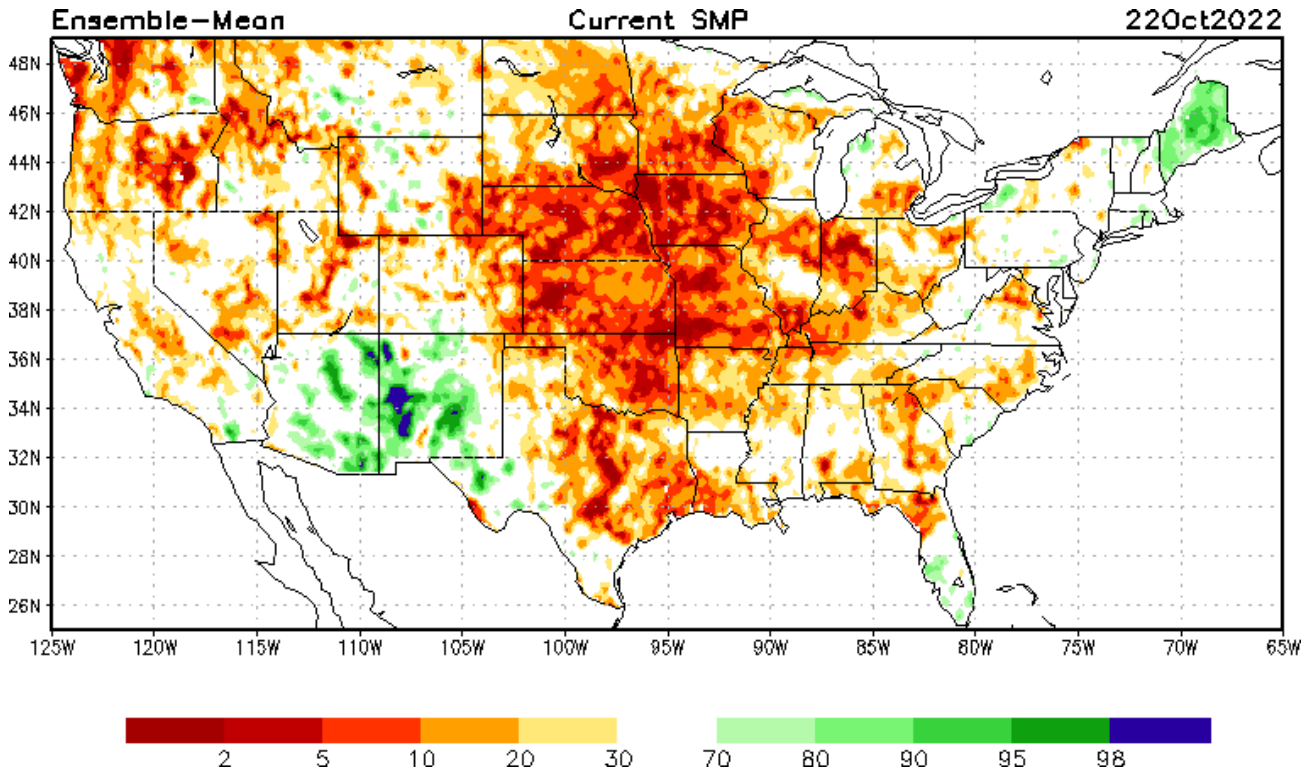
Highlighted Wildfire Resources

- [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

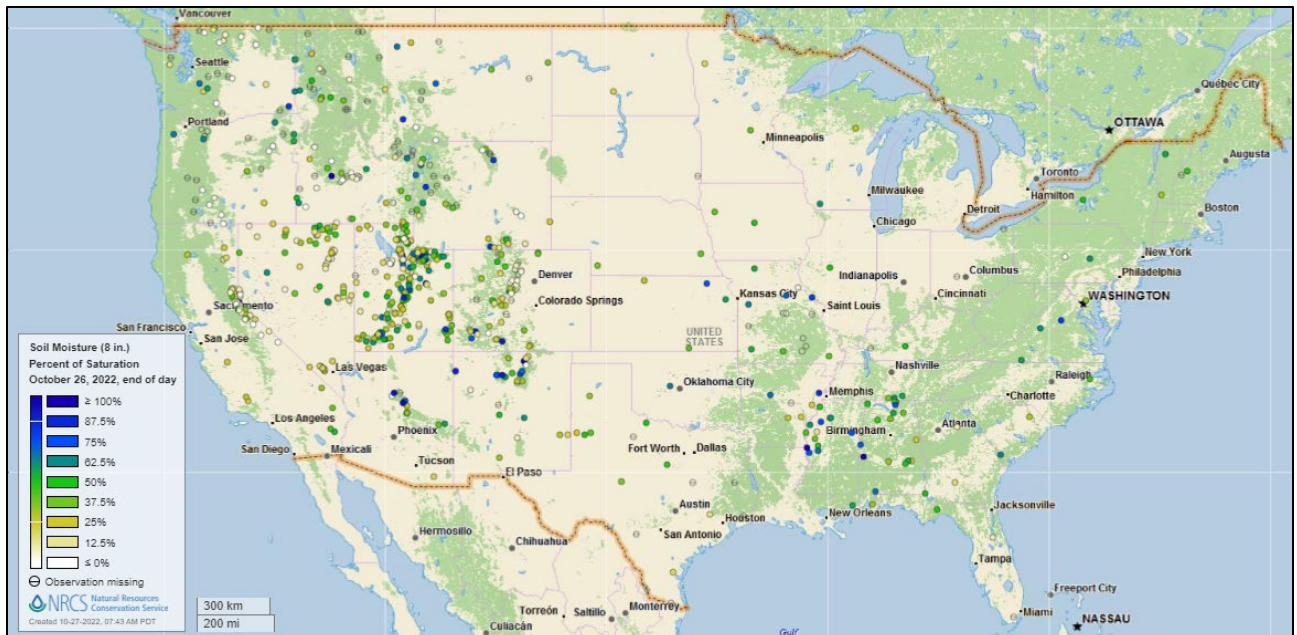


[Modeled soil moisture percentiles](#) as of October 22, 2022

Soil Moisture Percent of Saturation

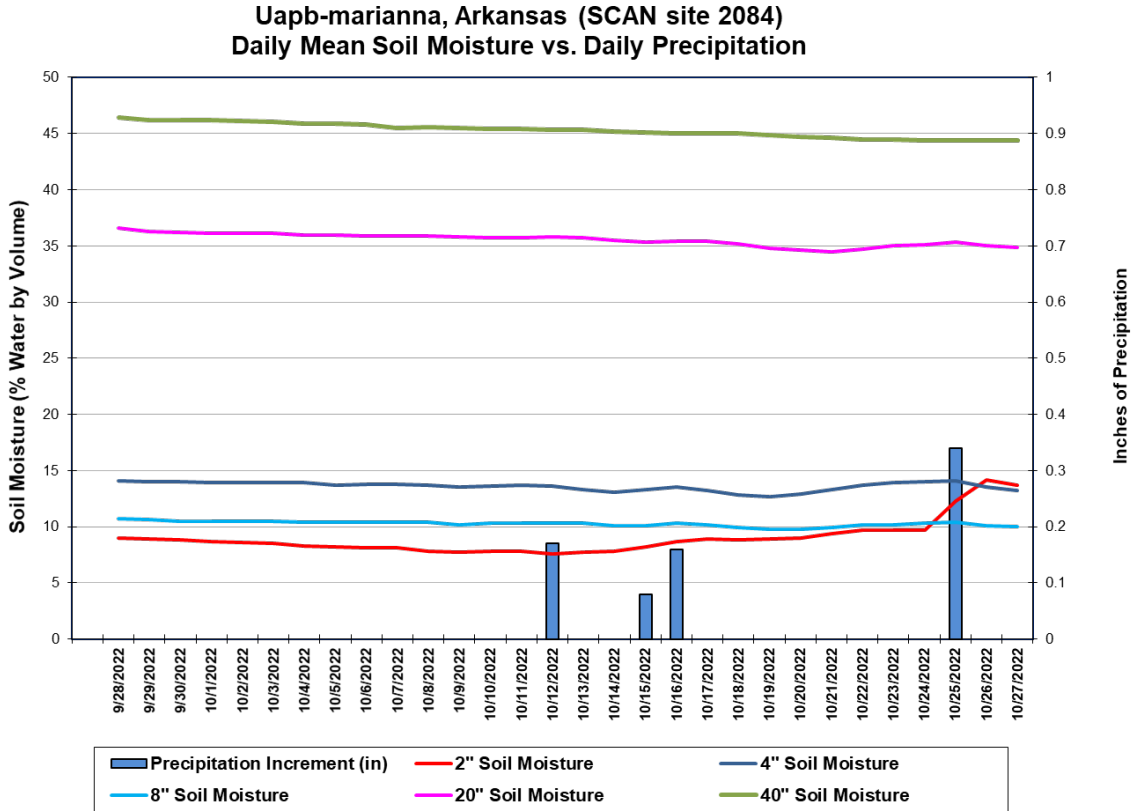
Source: NRCS SNOTEL and [Soil Climate Analysis Network](#) (SCAN)

[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 [Uapb-Marianna](#) SCAN site in Arkansas. The precipitation received during the period resulted in a slight increase in soil moisture reported by the -2 and -4-inch sensors. Total precipitation for the period was 0.75 inches.

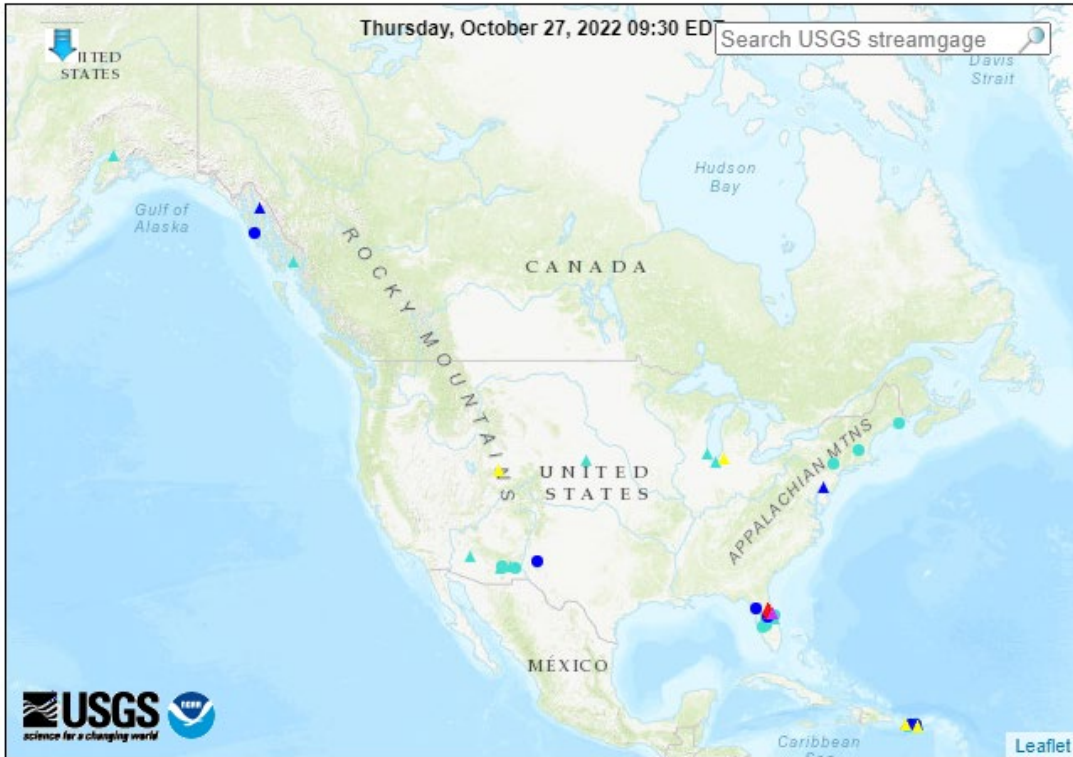
Soil Moisture Data Portals

- [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 (4 in floods [major: 1, moderate: 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

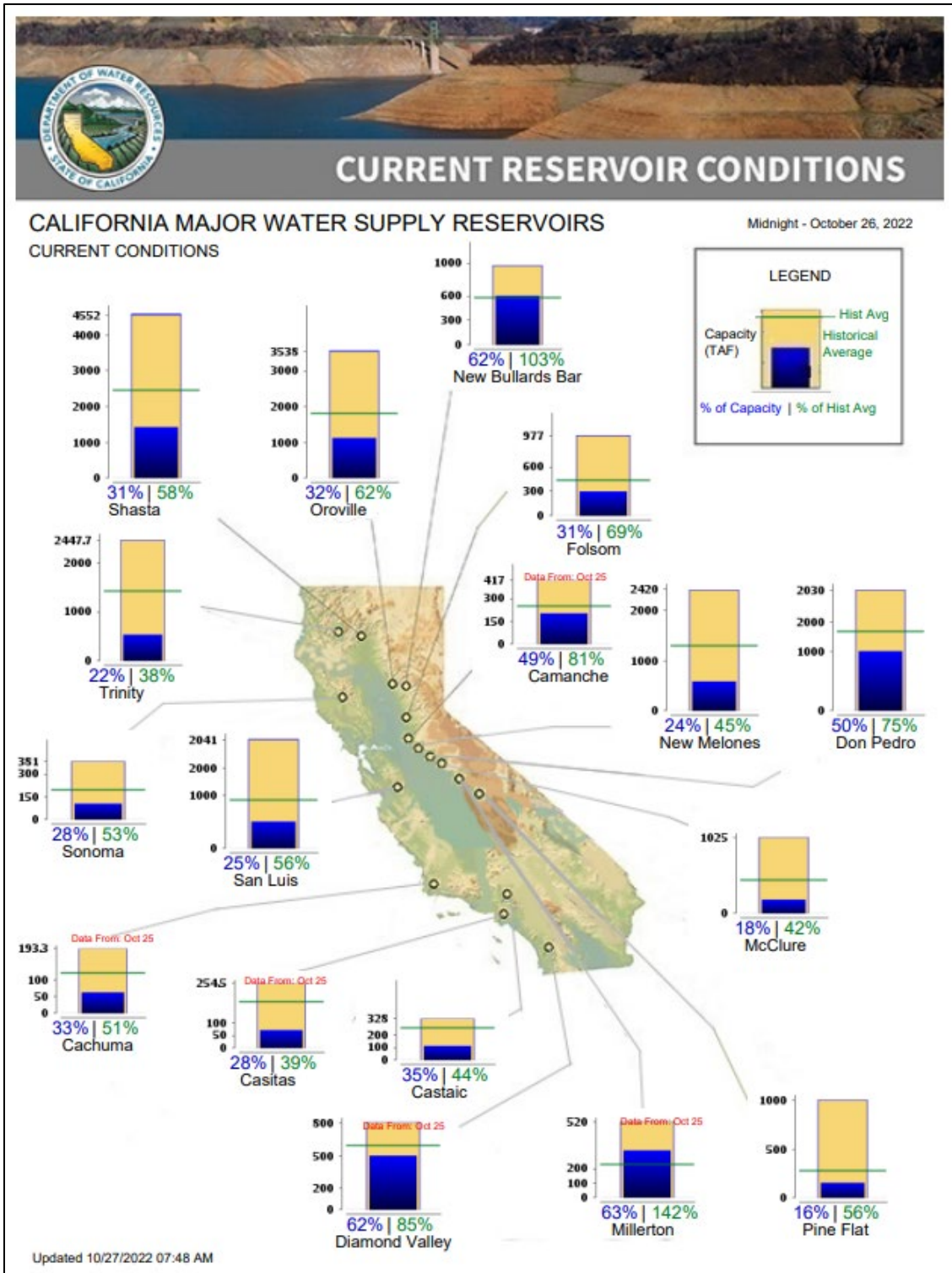
Hydromet Teacup Reservoir Depictions

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 27, 2022: “Below-normal temperatures nearly nationwide will be gradually replaced by warmer weather in the western and central U.S. Even with the warming trend, temperatures above 80°F should be largely limited to peninsular Florida, southern Texas, and the Desert Southwest. Meanwhile, a low-pressure system emerging from the western U.S. will cross the southern Plains on Friday and reach the Atlantic Coast early next week. Five-day rainfall associated with that system could reach 1 to 2 inches, especially from the southern Plains to the southern Appalachians. Elsewhere, occasional showers will continue in the Northwest, but little or no precipitation will occur during the next 5 days in much of California, the Great Basin, and the Southwest, as well as the northern Plains and upper Midwest. The NWS 6- to 10-day outlook for November 1 – 5 calls for the likelihood of above-normal temperatures across the eastern half of the country, while cooler-than-normal conditions will cover the northern High Plains and the West. Meanwhile, below-normal precipitation in much of the East should contrast with wetter-than-normal weather throughout the western and central U.S.”

Weather Hazards Outlook: [October 29 – November 02, 2022](#)

Source: NOAA Weather Prediction Center

U.S. Day 3-7 Hazards Outlook

[About the Hazards Outlook](#)

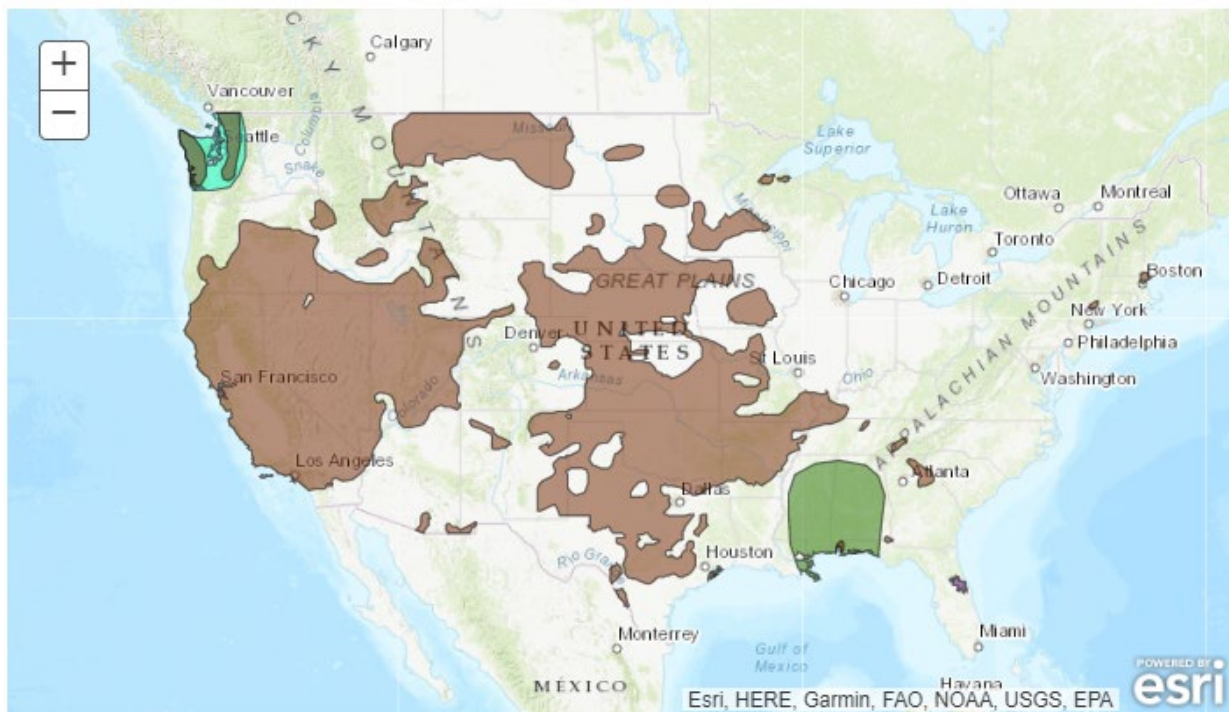
Created October 26, 2022

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"/>
Soils	<input checked="" type="checkbox"/>

Legend			
	Flooding Likely		Excessive Heat
	Flooding Occurring or Imminent		High Winds
	Flooding Possible		Much Above Normal Temperatures
	Freezing Rain		Much Below Normal Temperatures
	Heavy Ice		Significant Waves
	Heavy Precipitation		Enhanced Wildfire Risk
	Heavy Rain		Severe Drought
	Heavy Snow		
	Severe Weather		

Valid October 29, 2022 - November 02, 2022

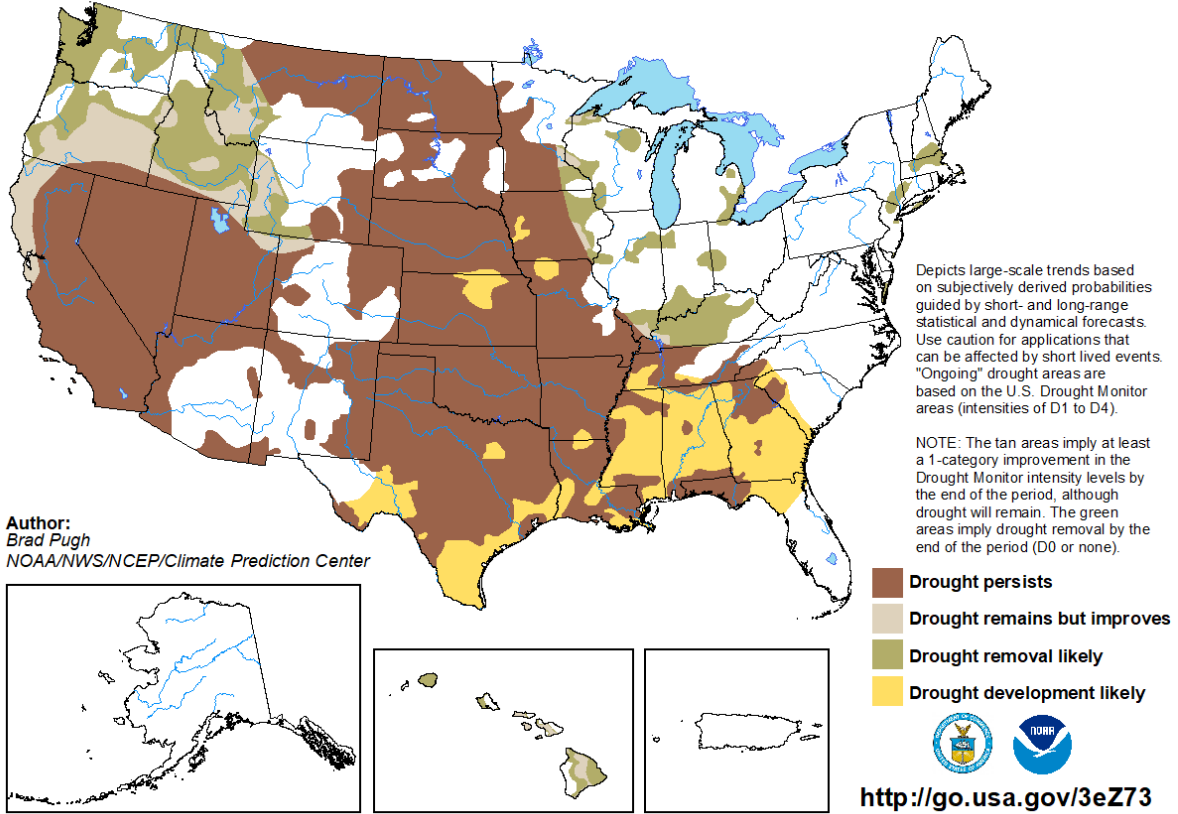


Seasonal Drought Outlook: [October 20, 2022 – January 31, 2023](#)

Source: National Weather Service

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

Valid for October 20, 2022 - January 31, 2023
Released October 20, 2022

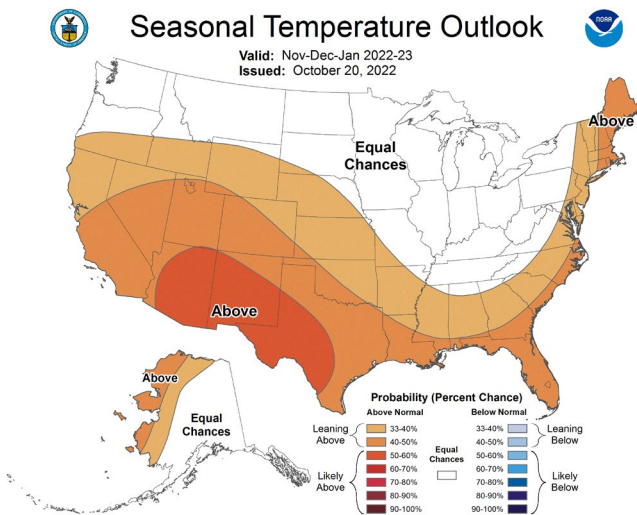
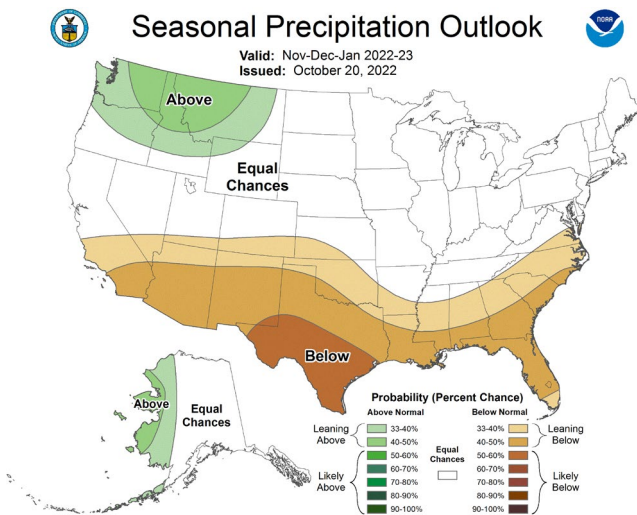


Climate Prediction Center 3-Month Outlook

Source: National Weather Service

Precipitation

Temperature



[November-December-January 2022-2023 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](#).