



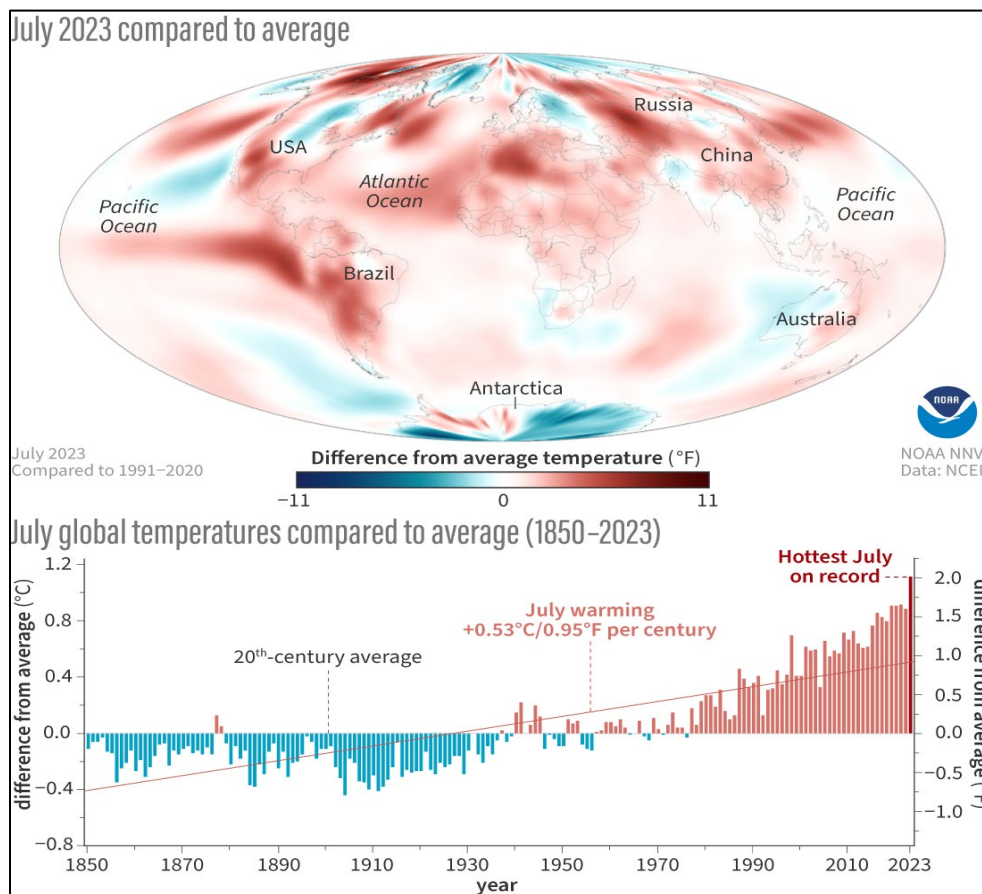
# Water and Climate Update

## August 17, 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		

### Summer 2023 heat continues to set new records



As many locations in the U.S. have been experiencing unprecedented summer heat this year, the earth has set a new record for the hottest July since the records began in 1850, according to the National Oceanic and Atmospheric Administration (NOAA). Not only was July 2023 the hottest July ever recorded, it was also the all-time hottest month ever compared to any other month in the calendar year in the 173 years of record. June 2023 was also ranked the hottest June on record, according to NOAA.

**Related:**

[NASA Clocks July 2023 as Hottest Month on Record Ever Since 1880](#). – NASA

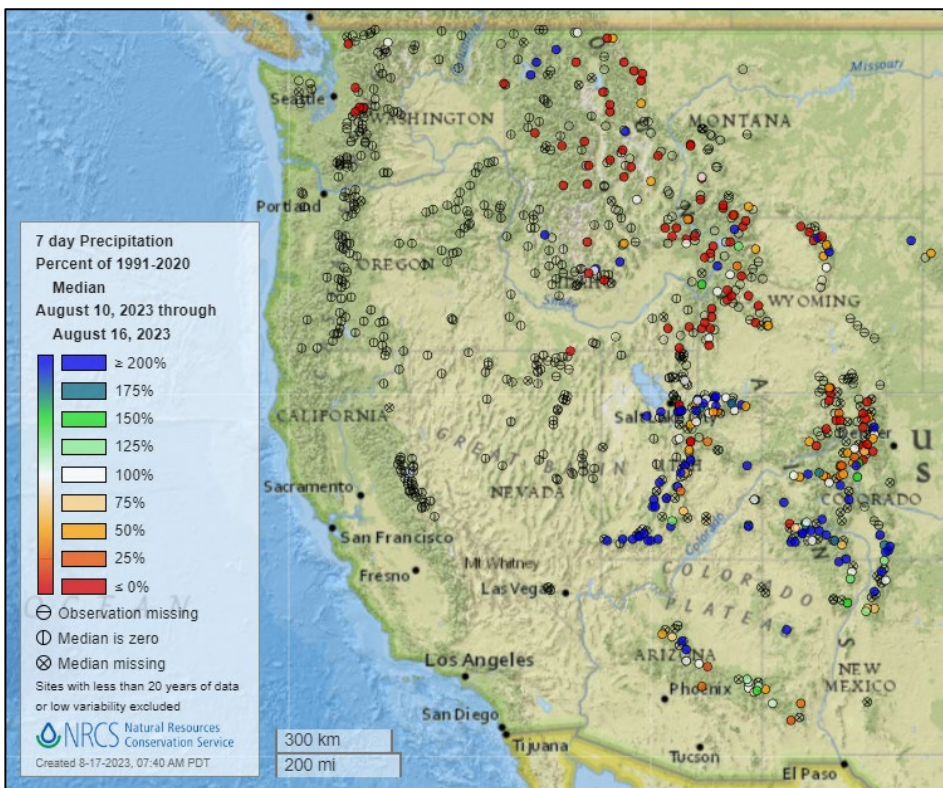
[Global climate summary for July 2023](#) – NOAA

[Heat bakes Pacific Northwest and continues in the South, Louisiana declares emergency](#) - USA

**Today**

# Precipitation

## Last 7 Days, NRCS SNOTEL Network

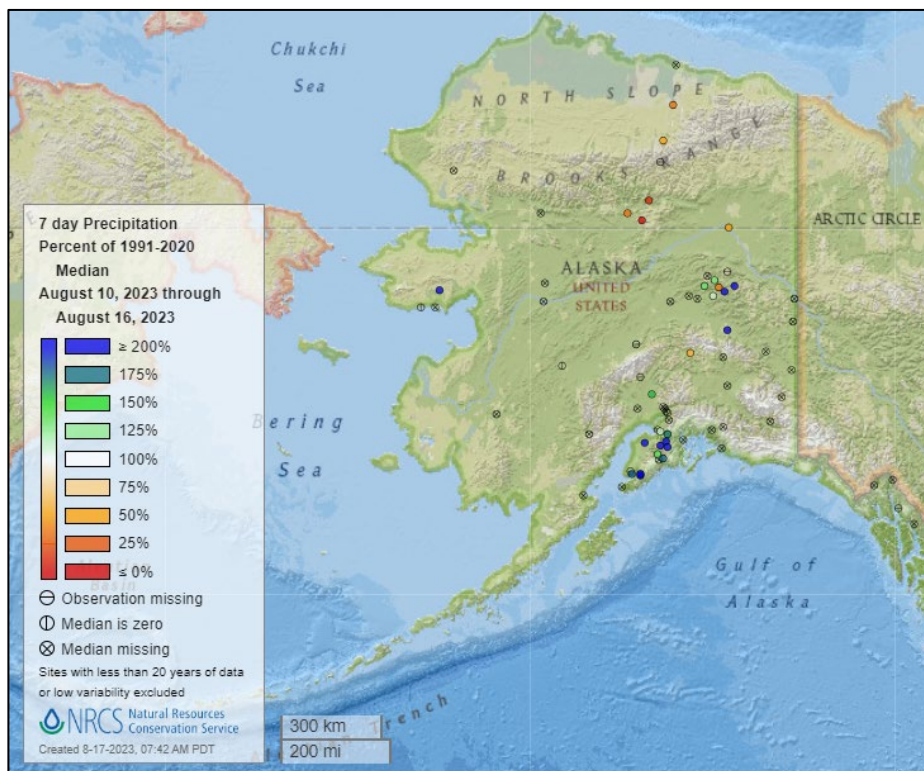


[7-day precipitation percent of median map](#)

**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](#)



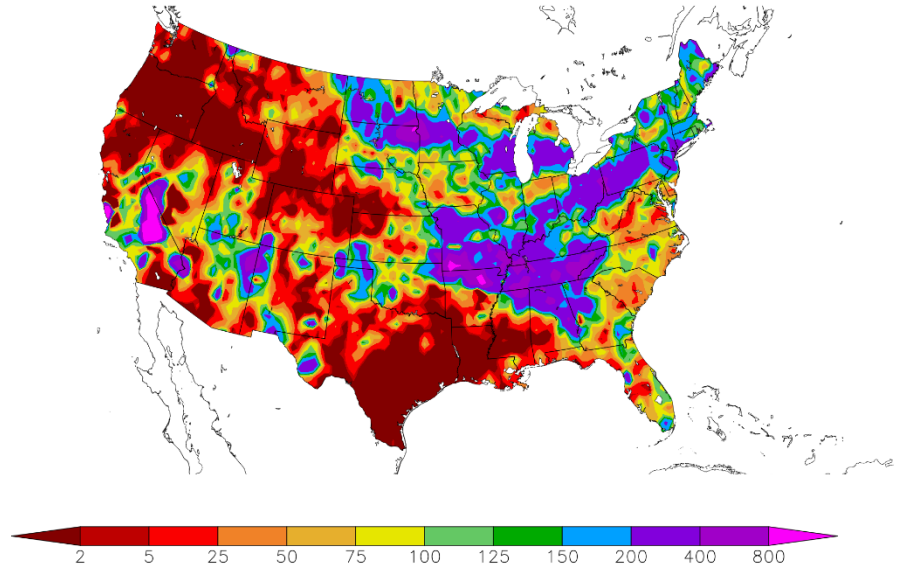
### Last 7 Days, National Weather Service (NWS) Networks

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 (%)  
8/10/2023 – 8/16/2023



Generated 8/17/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

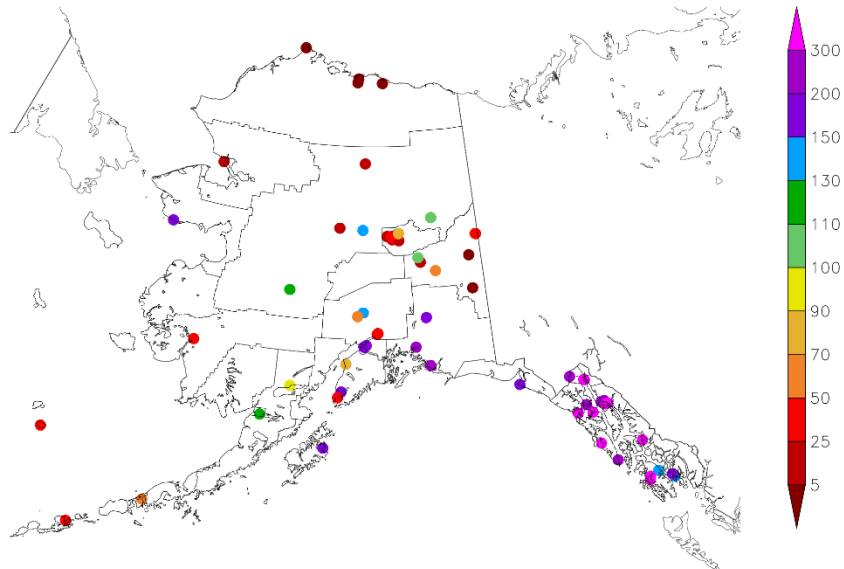
### Last 7 Days, National Weather Service (NWS) Networks

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 (%)  
8/10/2023 – 8/16/2023



Generated 8/17/2023 at HPRCC using provisional data.

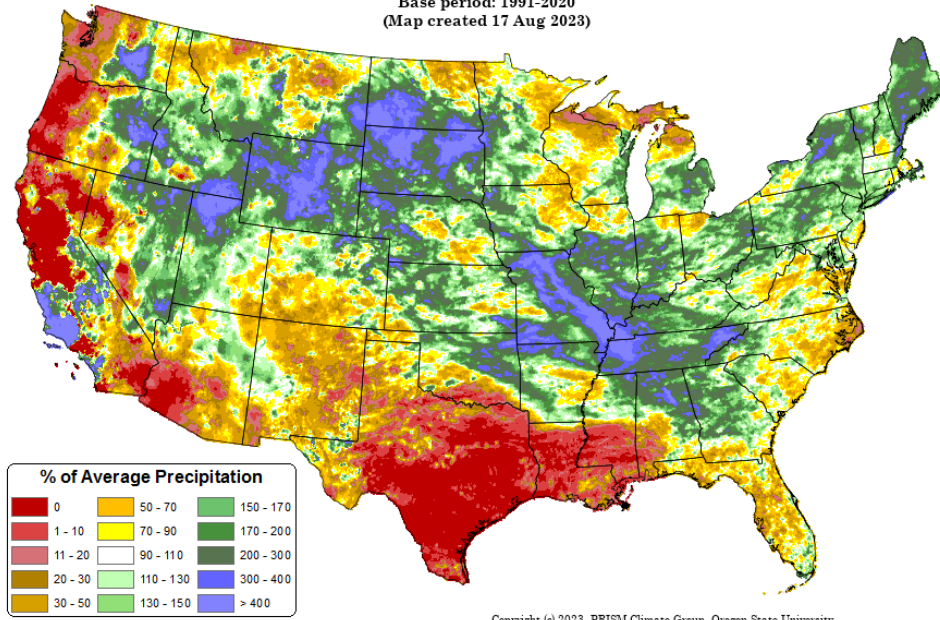
NOAA Regional Climate Centers

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

Source: PRISM

Total Precipitation Anomaly: 01 Aug 2023 - 16 Aug 2023  
Period ending 7 AM EST 16 Aug 2023  
Base period: 1991-2020  
(Map created 17 Aug 2023)

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



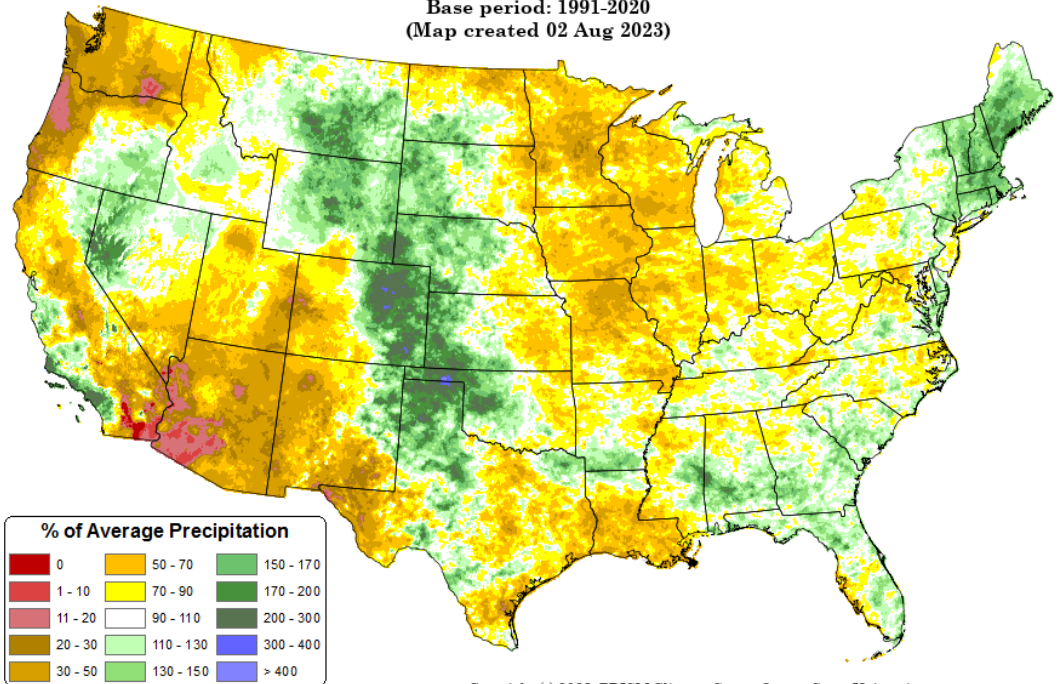
Copyright (c) 2023, PRISM Climate Group, Oregon State University

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

Source: PRISM

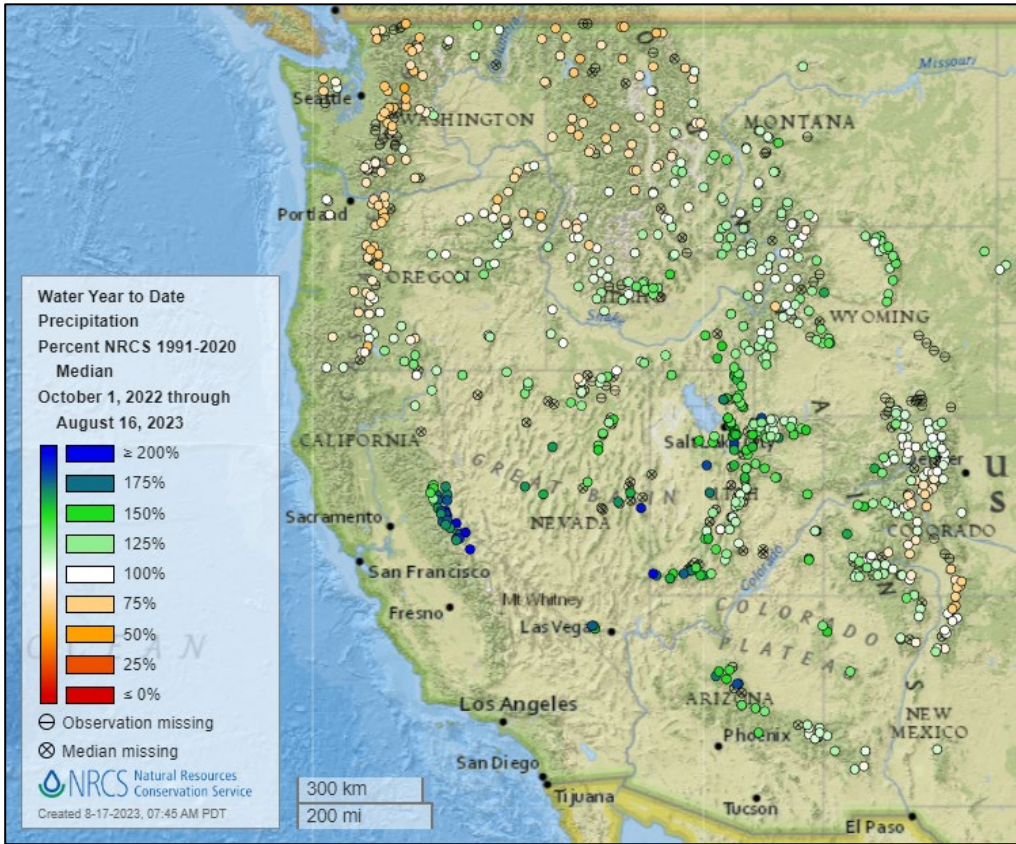
[May through July 2023 precipitation anomaly map](#)

Total Precipitation Anomaly: May 2023 - Jul 2023  
Period ending 7 AM EST 31 Jul 2023  
Base period: 1991-2020  
(Map created 02 Aug 2023)



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

Water Year-to-Date, NRCS SNOTEL Network

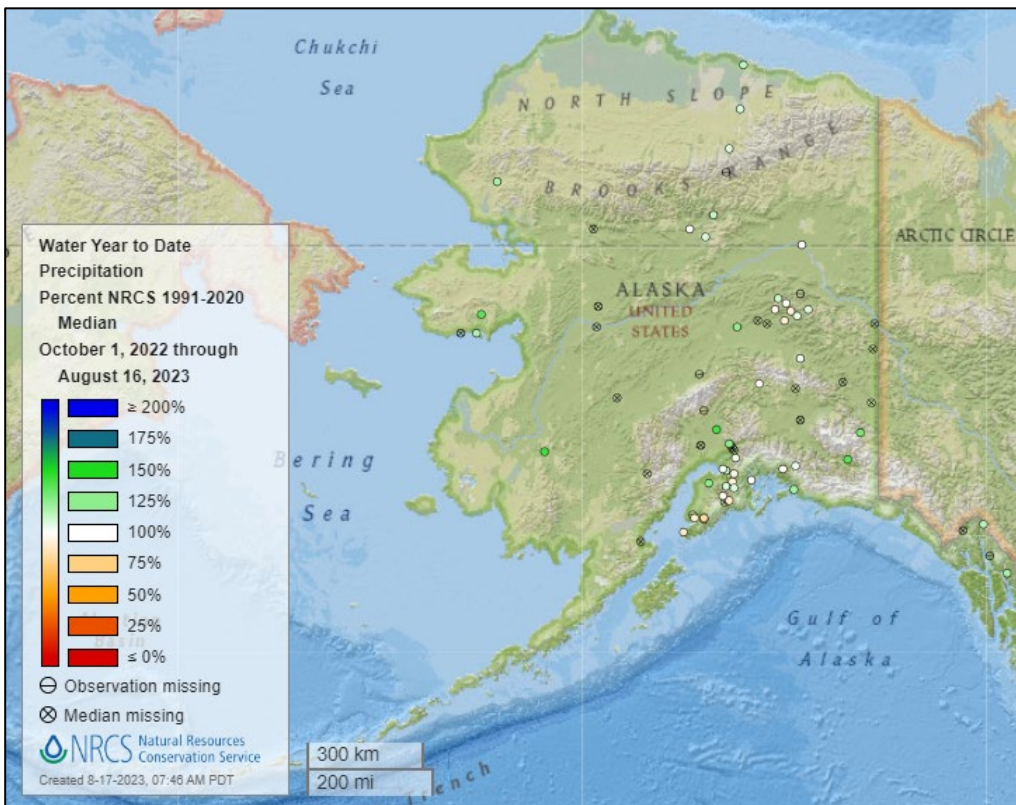


[2023 water year-to-date precipitation percent of median map](#)

**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

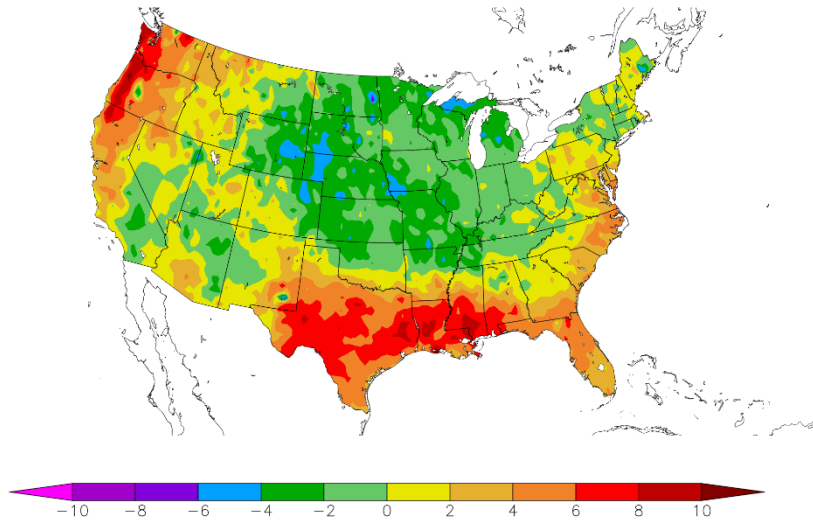
### Last 7 Days, National Weather Service (NWS) Networks

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)  
8/10/2023 – 8/16/2023



Generated 8/17/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

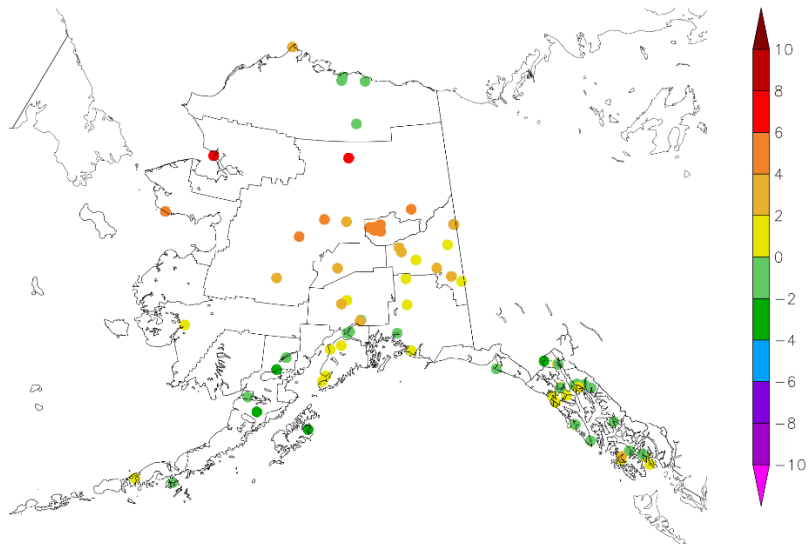
### Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)  
8/10/2023 – 8/16/2023



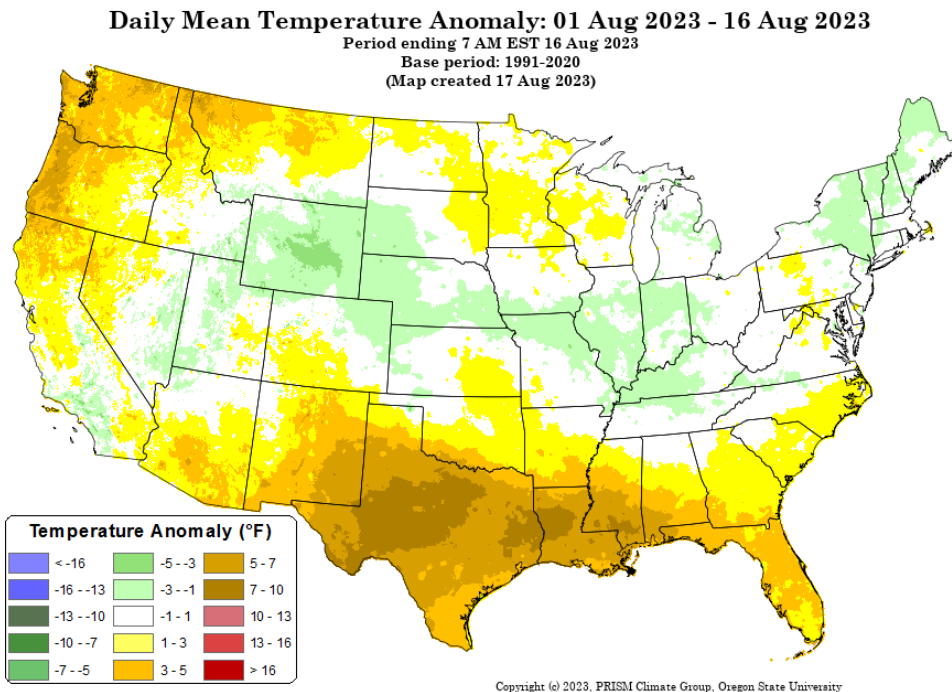
Generated 8/17/2023 at HPRCC using provisional data.

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

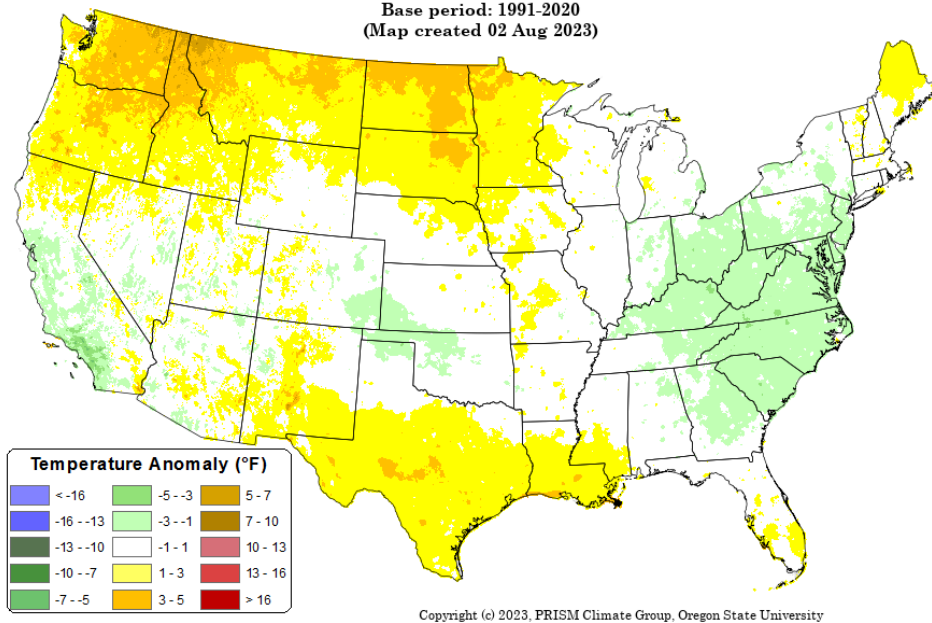
#### Daily Mean Temperature Anomaly: May 2023 - Jul 2023

Period ending 7 AM EST 31 Jul 2023

Base period: 1991-2020

(Map created 02 Aug 2023)

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



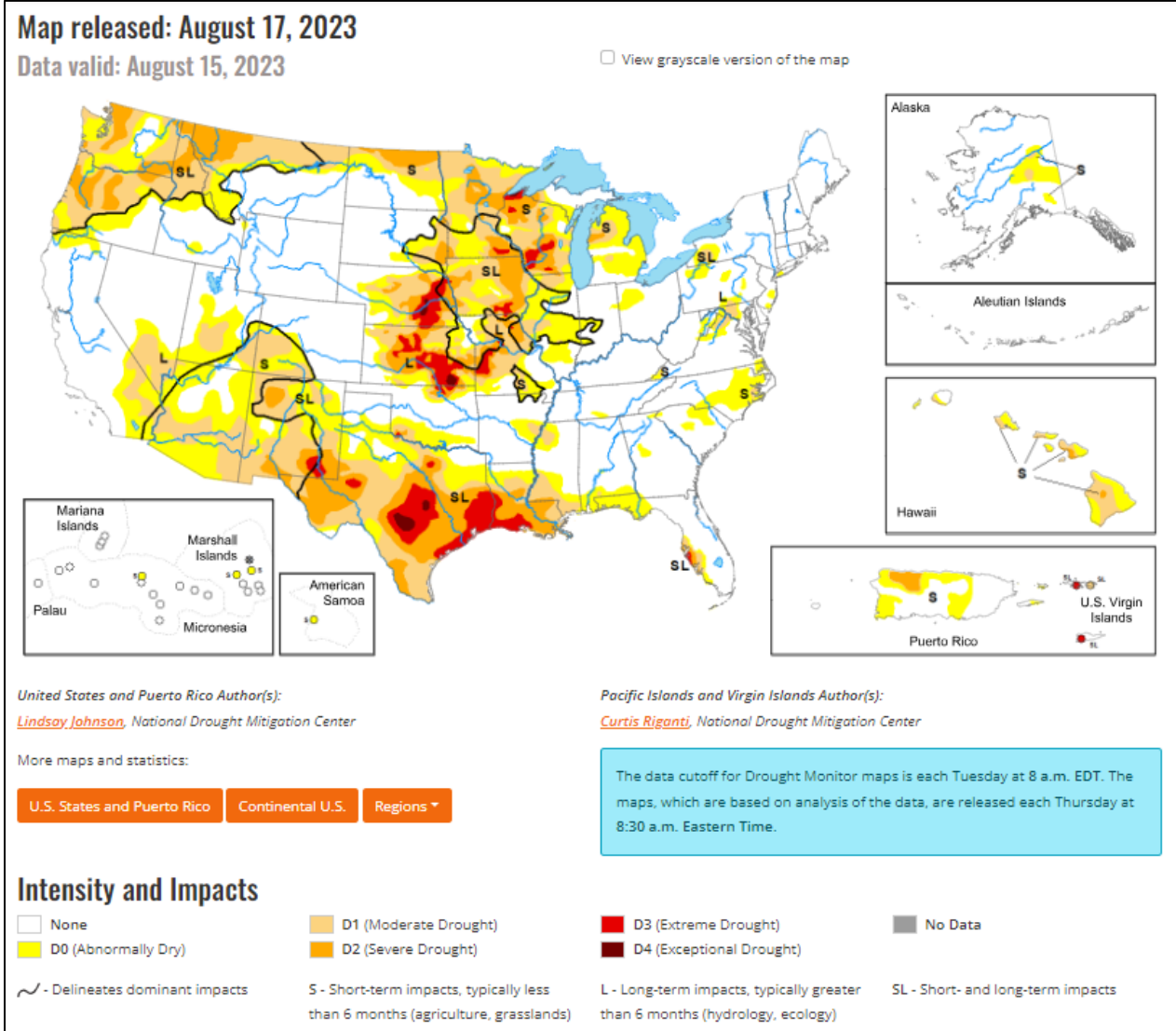
# Drought

## [U.S. Drought Monitor](#)

Source: National Drought Mitigation Center

## [U.S. Drought Portal](#)

Source: NOAA



## Current [National Drought Summary](#), August 15, 2023

Source: National Drought Mitigation Center

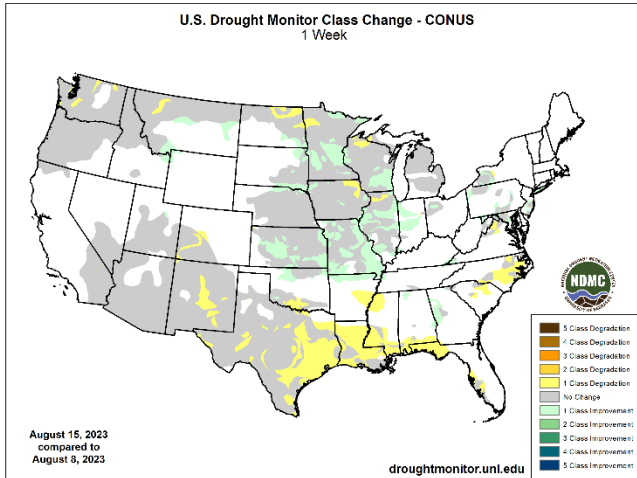
“Conditions continued from last week with the southern part of the country, where above-normal temperatures and mostly dry weather across the Rio Grande Valley, Texas, and the lower Mississippi Valley saw drought conditions continue to deteriorate. Drought intensified across Texas and the lower Mississippi Valley, particularly in eastern Texas, Louisiana and south-central Mississippi. The Monsoon remains suppressed with increasing short-term drought across Arizona, New Mexico and southwest Colorado. Frequent rounds of heavy rainfall occurred from the Northeast into the central Mississippi valley, into southern Missouri and the upper Midwest. The continuing west conditions are improving drought across parts of the Corn Belt and much of the southern and central Midwest. Farther to the north, drought continues to intensify across northern Wisconsin, North Dakota, Montana and Washington. Hawai'i continued to experience dry conditions, particularly on the leeward side of the islands. Conditions that came to a peak on August 8th with deadly Lahaina Fire on Maui.”



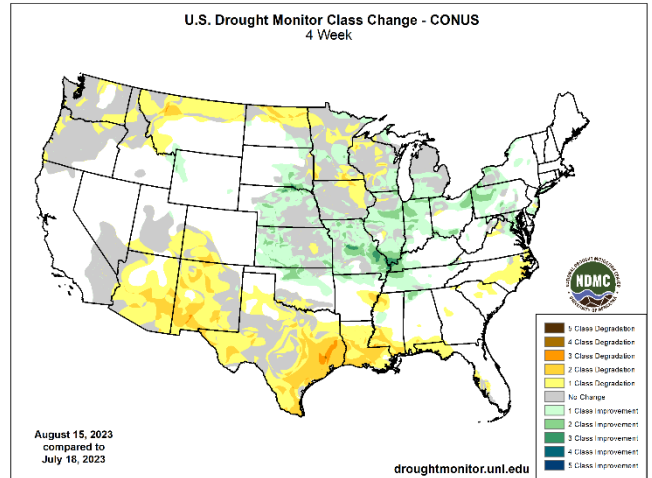
## Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

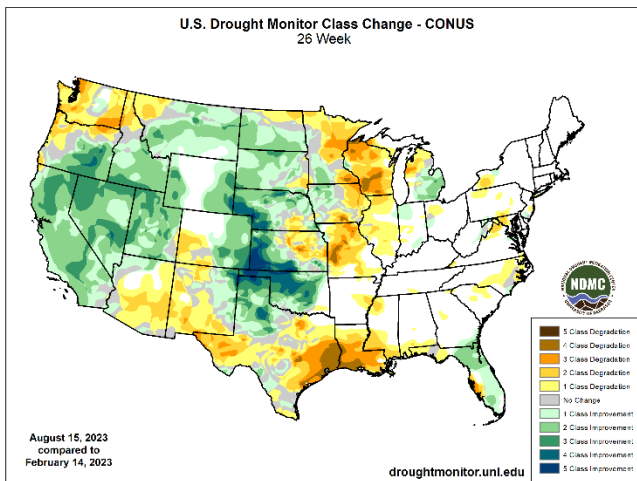
### 1 Week



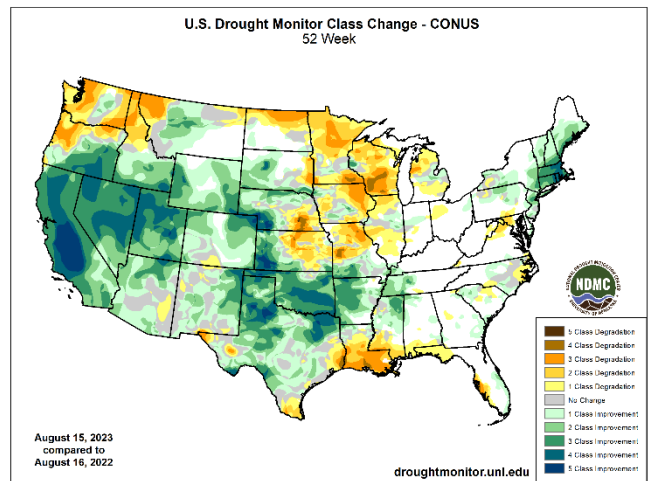
### 1 Month



### 6 Months



### 1 Year



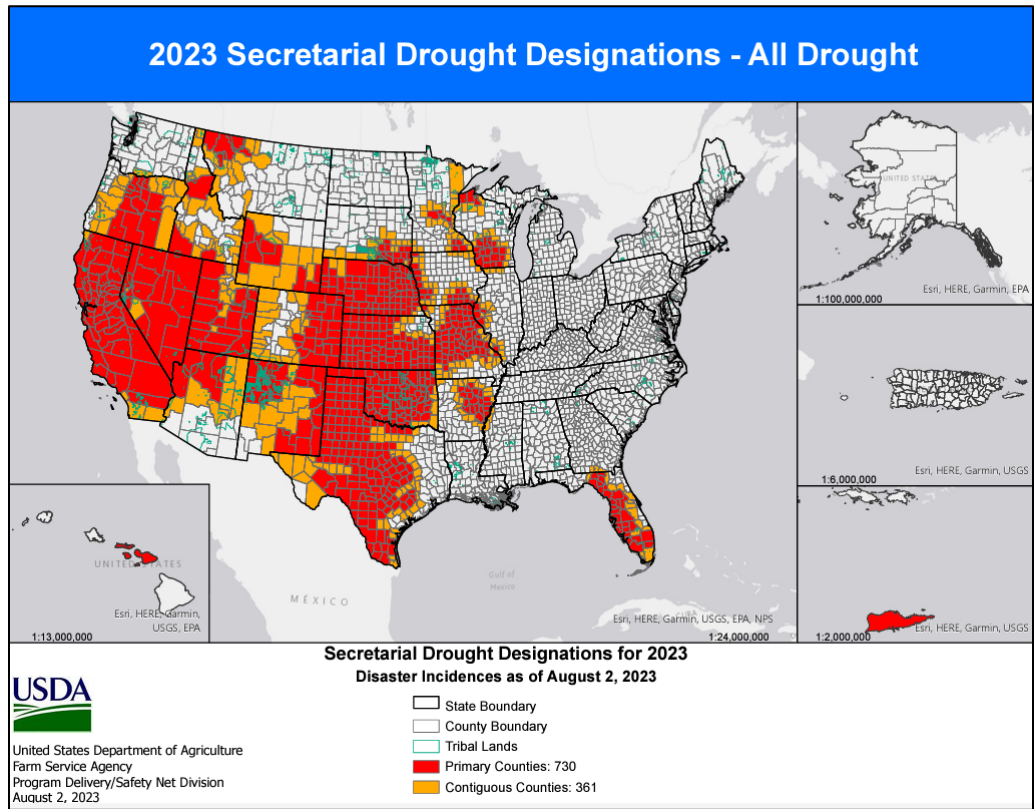
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

## 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](#)

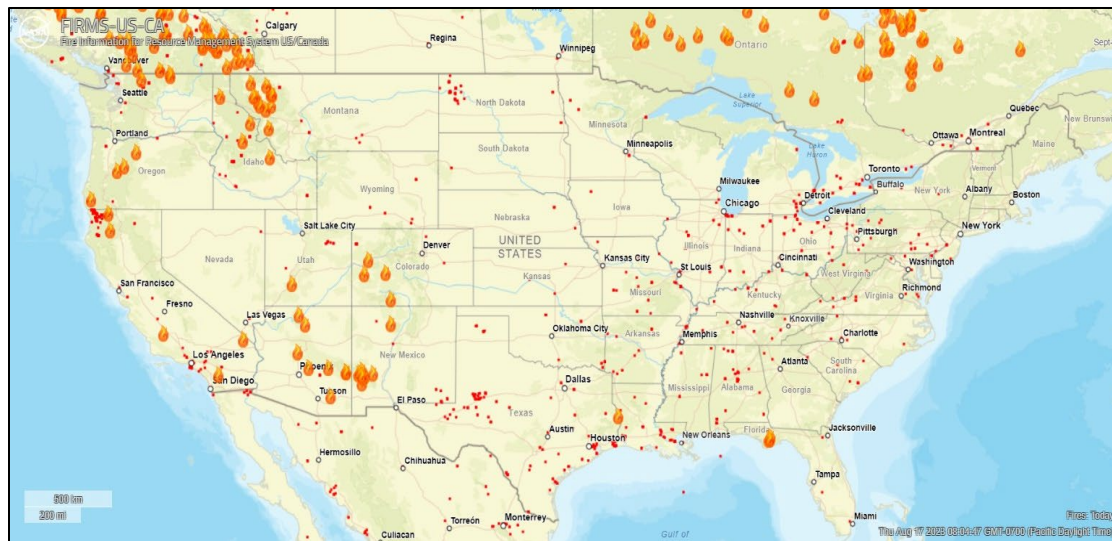
### USDA Secretarial Drought Designations

Source: USDA Farm Service Agency



### Wildfires: Fire Information for Resource Management System US/Canada

Source: NASA/USDA Forest Service



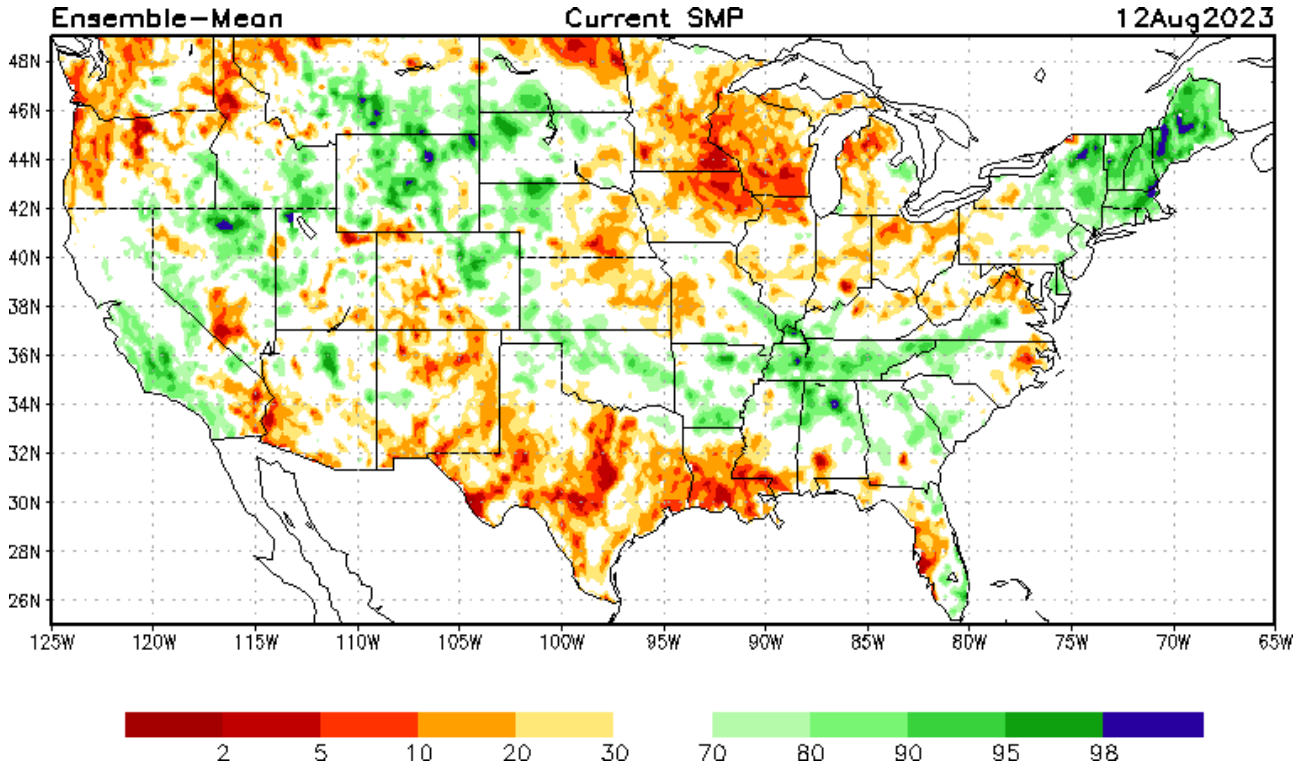
#### Highlighted Wildfire Resources

- [National Interagency Fire Center](#)
- [InciWeb Incident Information System](#)
- [Significant Wildland Fire Potential Outlook](#)

## Other Climatic and Water Supply Indicators

### Soil Moisture

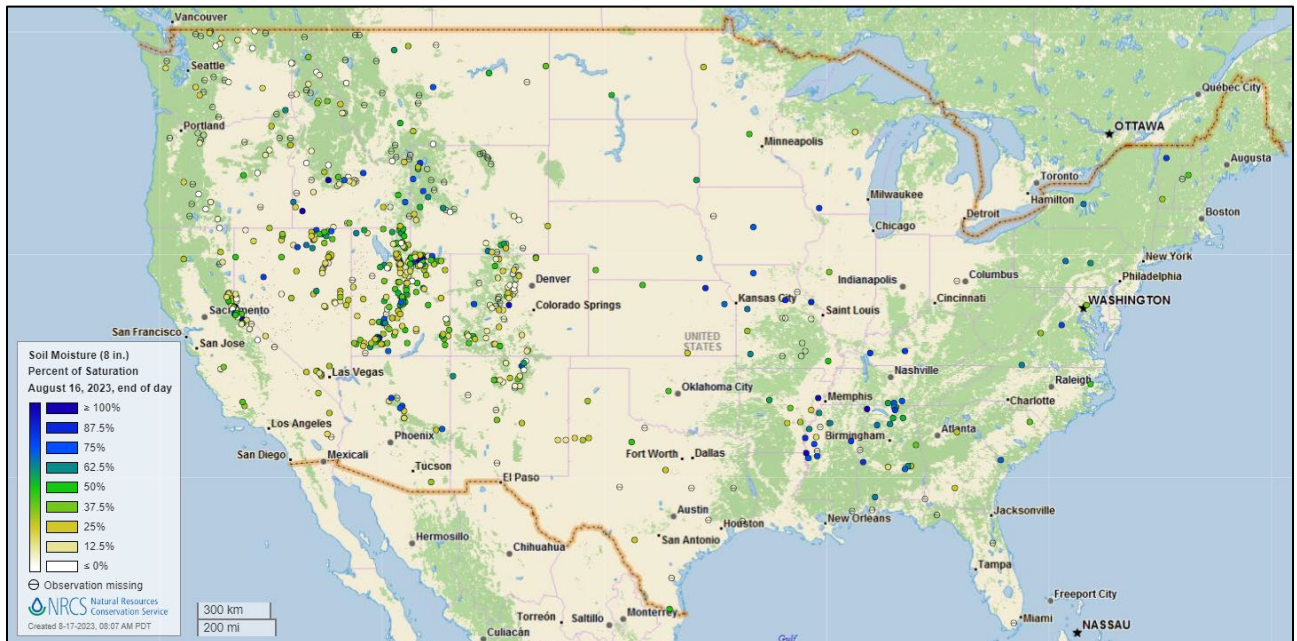
Source: NOAA National Centers for Environmental Prediction



### Soil Moisture Percent of Saturation

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

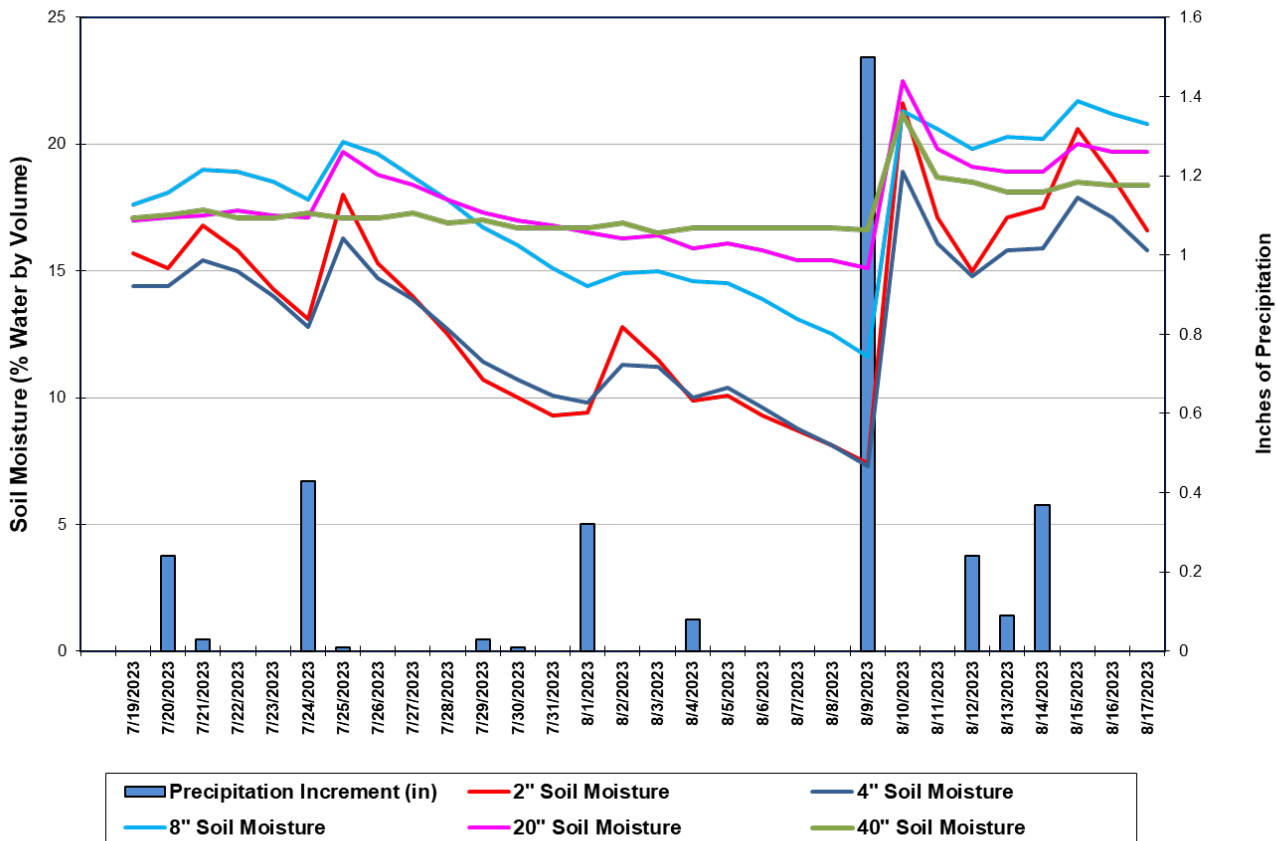
[U.S. soil moisture map at 8-inch depth:](#)



**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. After a storm brought 1.5 inches of precipitation to the site on August 9, soil sensors at every depth simultaneously reported an increase in soil moisture. Total precipitation for the 30-day period was 3.35 inches.

**Soil Moisture Data Portals**

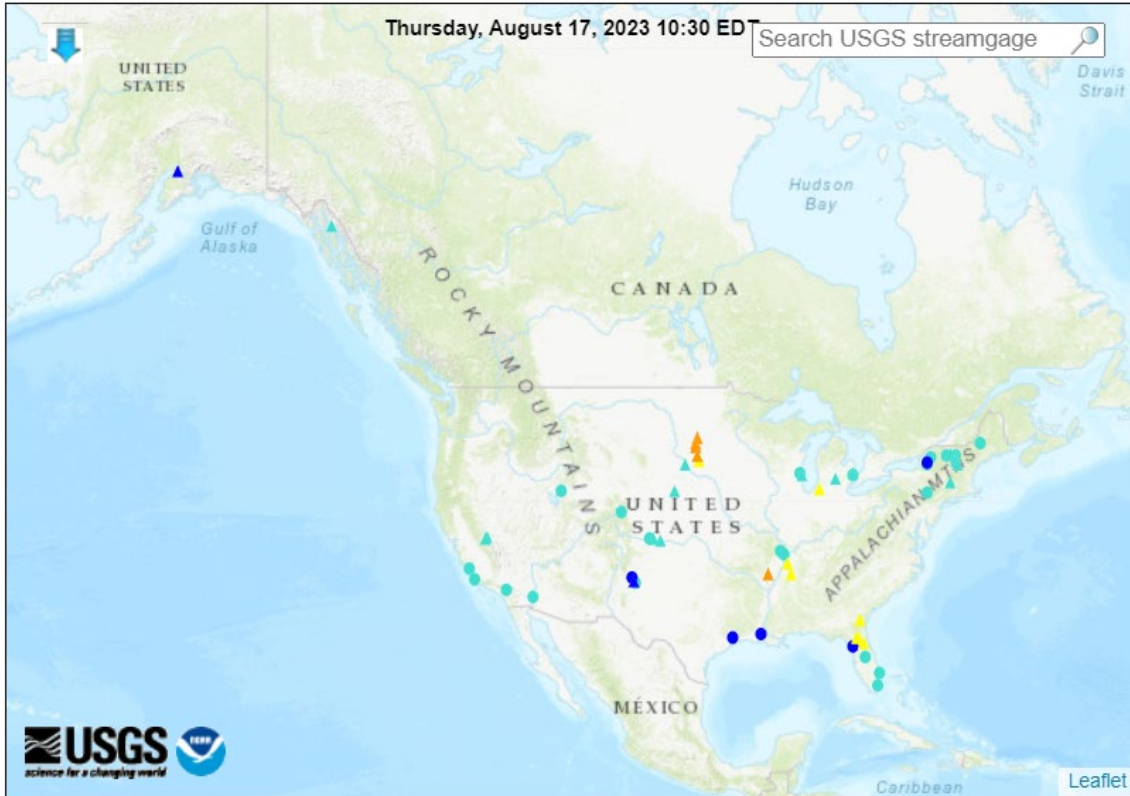
- [USCRN Soil Moisture](#)
- [National Soil Moisture Network](#)
- [NOAA Climate Prediction Center Soil Moisture](#)
- [NASA Grace](#)

### 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], 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

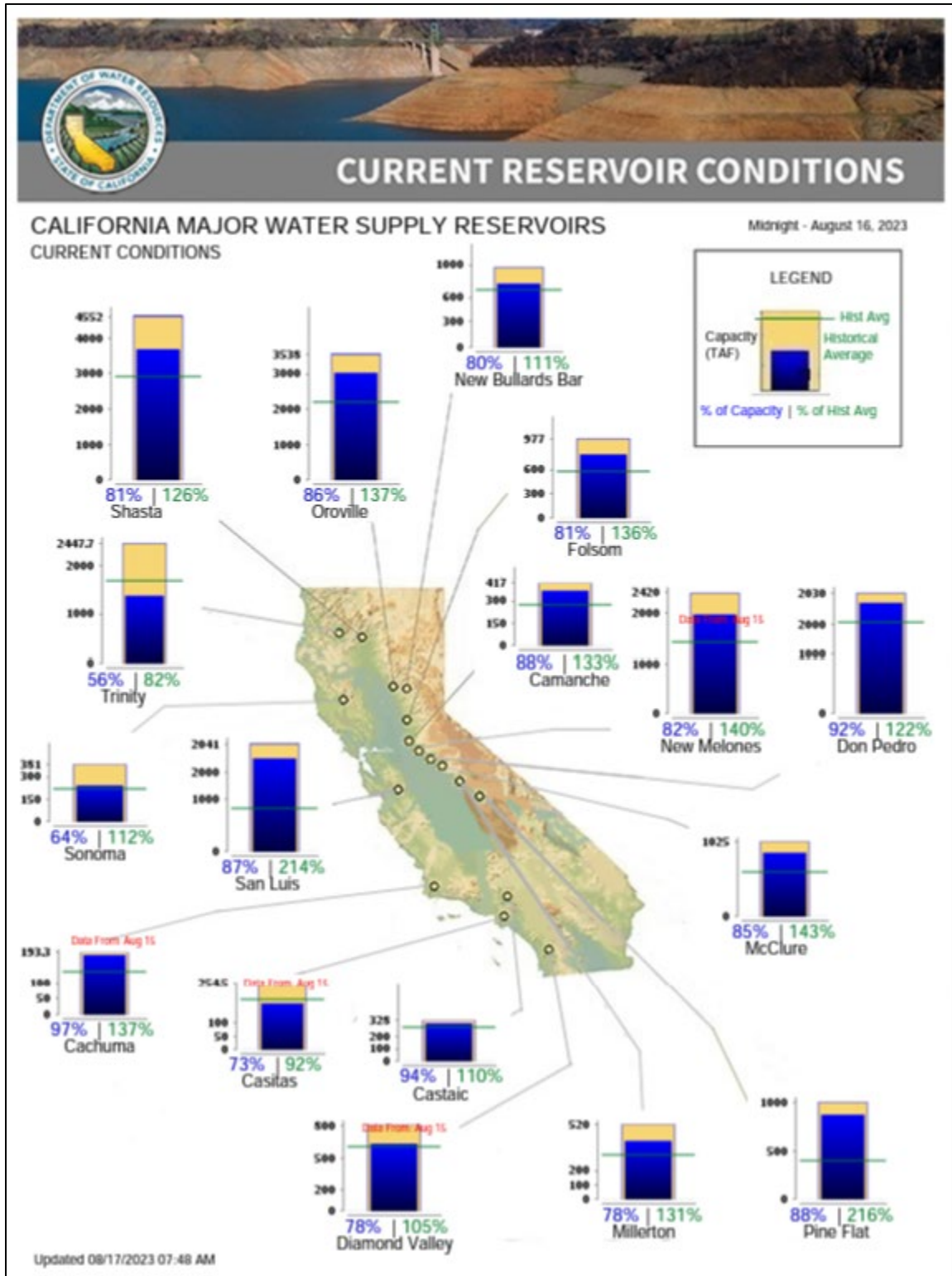
#### Hydromet Teacup Reservoir Depictions

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 August 17, 2023:** “Eastern Pacific Hurricane Hilary has the potential to bring significant rainfall- and wind-related impacts to southern California, the southern Great Basin, and the Desert Southwest during the weekend and early next week, although the storm will become a post-tropical cyclone and rapidly weaken after making landfall in northwestern Mexico or southern California. Early estimates indicate that rainfall could total 5 to 10 inches in areas that typically only receive a few inches of rain per year. By early next week, the interaction between lingering tropical moisture and a Pacific cold front could result in locally heavy showers spreading as far north as the northern Rockies and northern High Plains. Meanwhile, a punishing heat wave will grip much of the South and the nation’s mid-section, including the western Corn Belt, where temperatures approaching or reaching 100°F could adversely affect filling summer crops. Negligible precipitation will accompany the late-summer heat. In contrast, daily thundershowers across Florida’s peninsula should lead to 5-day rainfall totals of 2 to 6 inches, with locally higher amounts. The NWS 6- to 10-day outlook for August 22 – 26 calls for the likelihood of above-normal temperatures nationwide, except for cooler-than-normal conditions in the Northeast and parts of the Desert Southwest. Meanwhile, near- or below-normal rainfall across much of the central and eastern U.S. should contrast with wetter-than-normal weather in New England, southern sections of Florida and Texas, and west of a line stretching from southeastern Arizona to the Dakotas.”

### Weather Hazards Outlook: August 19 – 23, 2023

Source: NOAA Weather Prediction Center















## U.S. Day 3-7 Hazards Outlook

About the Hazards Outlook

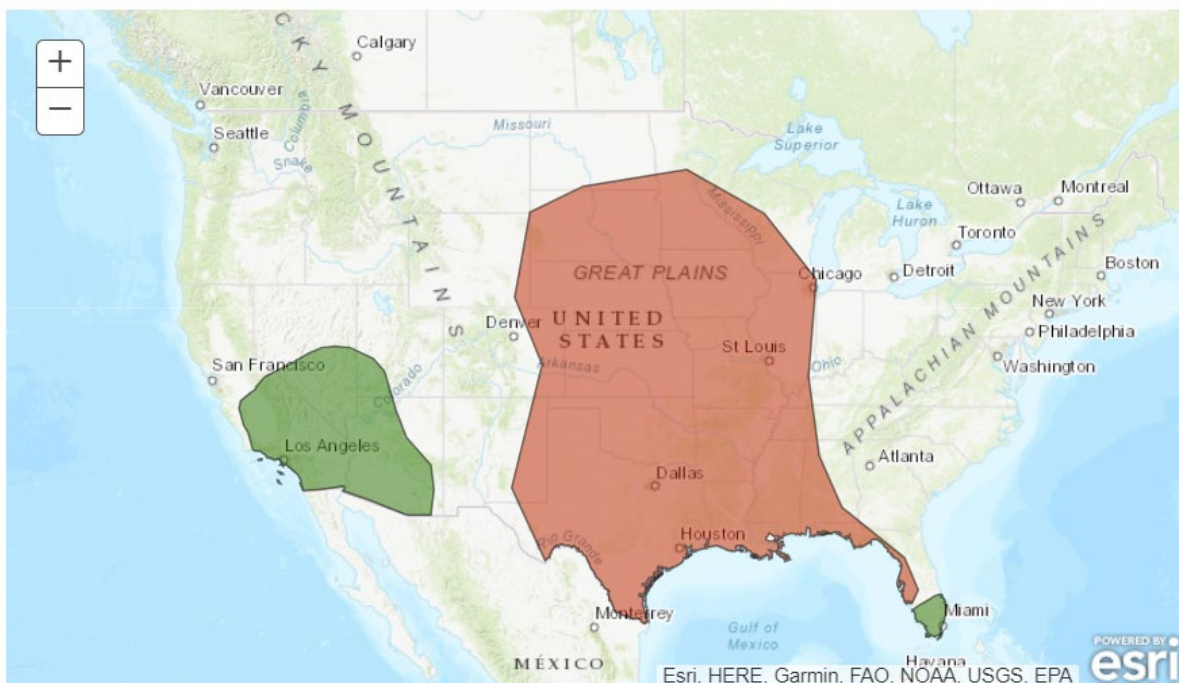
Created August 16, 2023

**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 August 19, 2023 - August 23, 2023

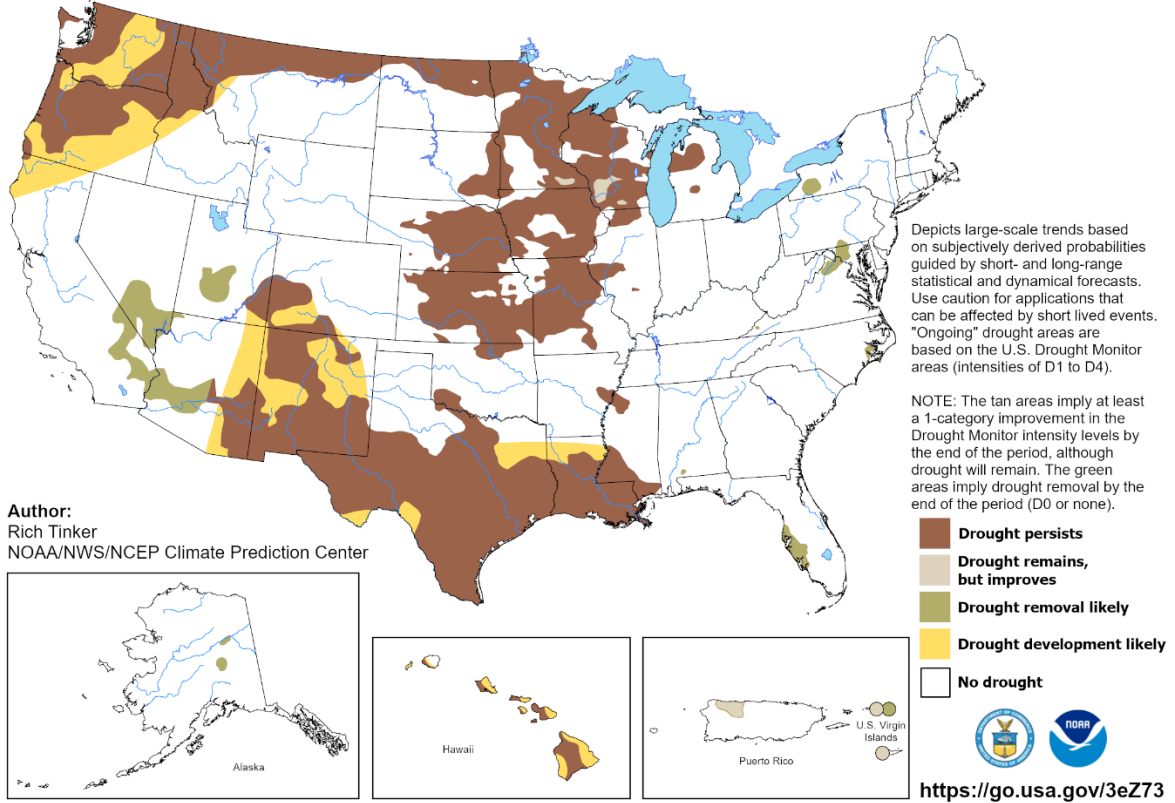


**Seasonal Drought Outlook: [August 17 – November 30, 2023](#)**

Source: National Weather Service

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

Valid for August 17 - November 30, 2023  
Released August 17, 2023

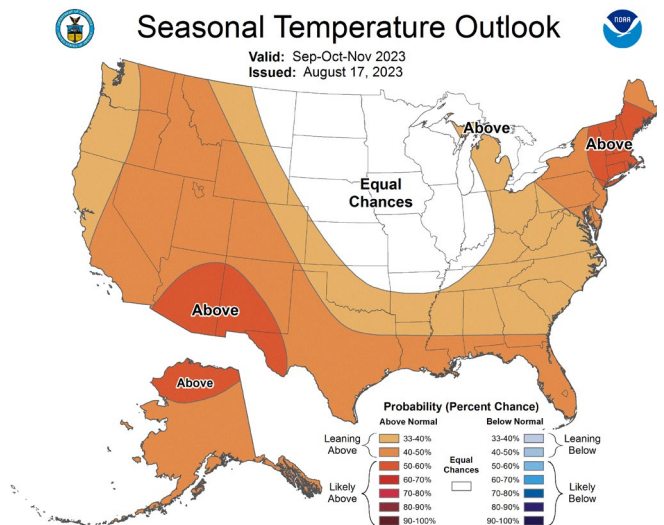
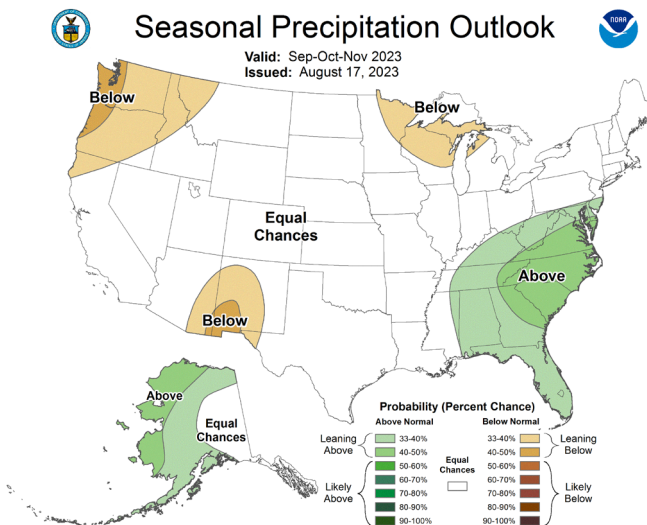


**Climate Prediction Center Three-month Outlook**

Source: National Weather Service

[Precipitation](#)

[Temperature](#)



[September-October-November 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](#).