



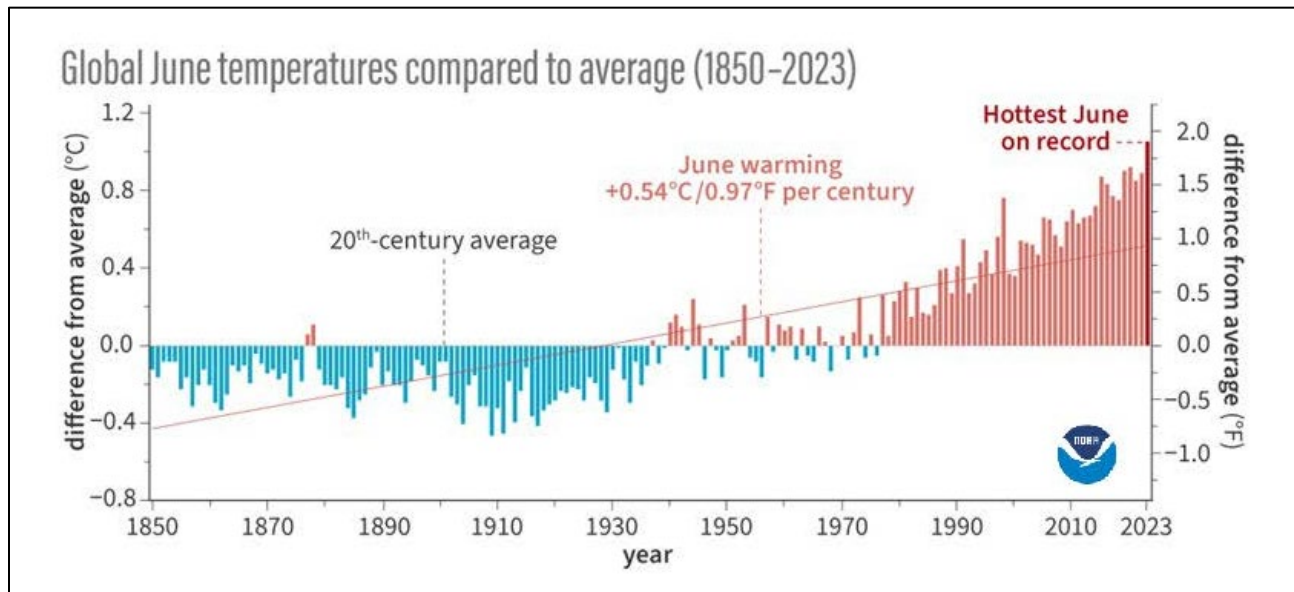
Water and Climate Update

July 27, 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		

Brutal heat continues to impact several U.S. regions



According to National Oceanic and Atmospheric Administration (NOAA), global temperatures during the month of June were the hottest since measurement began in 1850. Record-breaking heat continues to bear down on the southern U.S., bringing temperatures into the triple digits as it spreads to the Midwest and Northeast. The weather pattern associated with bringing the heat is also responsible for stagnant air, contributing to air quality concerns and drought declarations while it fuels wildfires. The extreme heat is also affecting areas beyond the land surface, as ocean temperatures reached 101.1°F in Florida on July 24, threatening marine life.

Related:

[US heat wave lingers in Southwest, intensifies in Midwest: Latest forecast](#) – ABC News

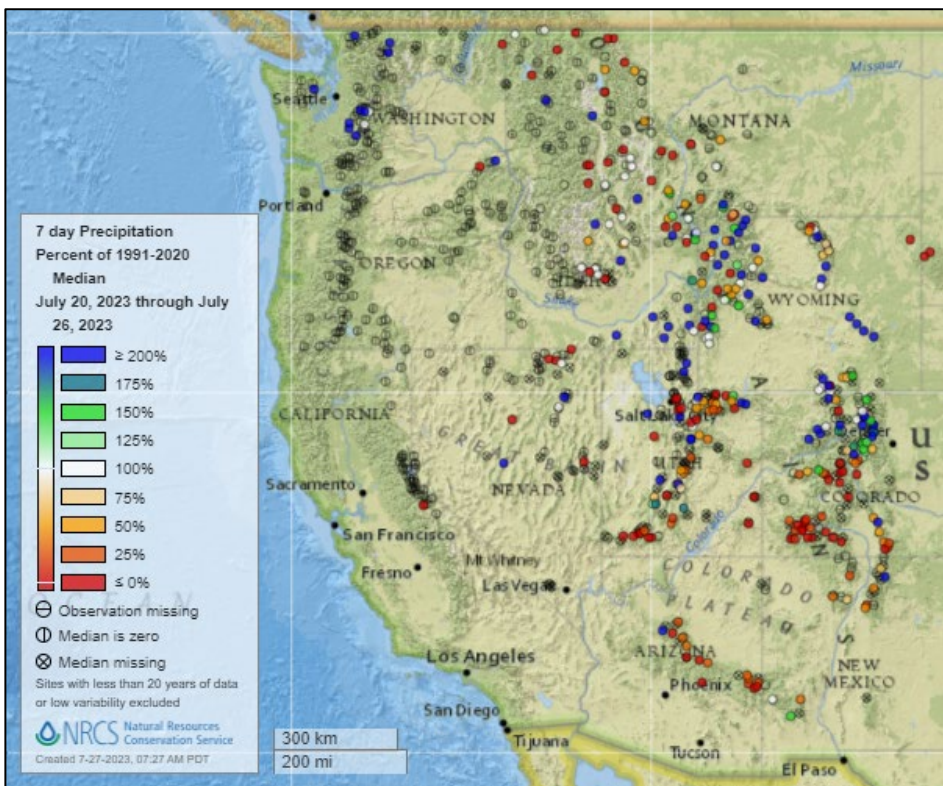
[Like a hot tub: Water temperatures off Florida soar over 100 degrees, stunning experts](#) – NBC News

[Deadly extreme heat is spreading, threatening coral reefs and fueling wildfires that compromise air quality](#) – CNN

[Global climate summary for June 2023](#) – National Oceanic and Atmospheric Administration (NOAA)

Precipitation

Last 7 Days, NRCS SNOTEL Network

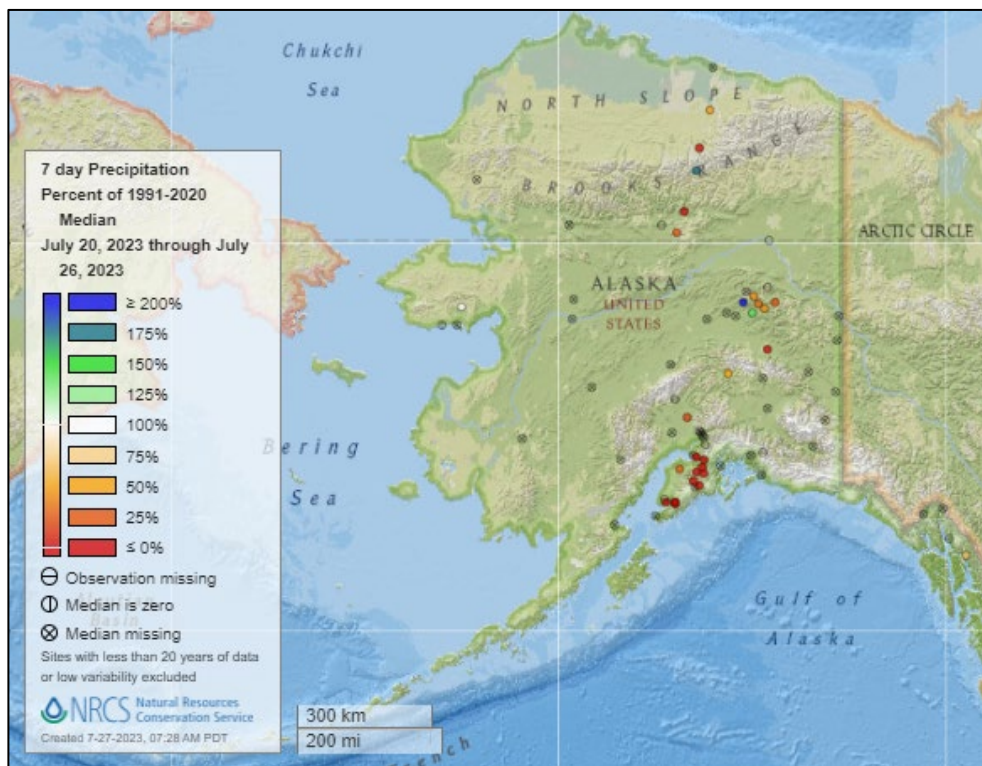


[7-day precipitation percent of median map](#)

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](#)



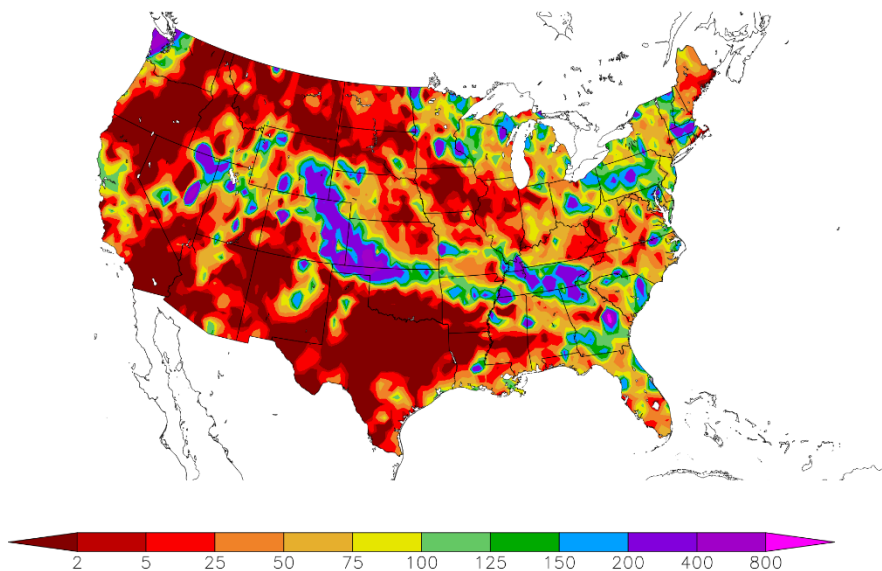
Last 7 Days, National Weather Service (NWS) Networks

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 (%)
7/20/2023 – 7/26/2023



Generated 7/27/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

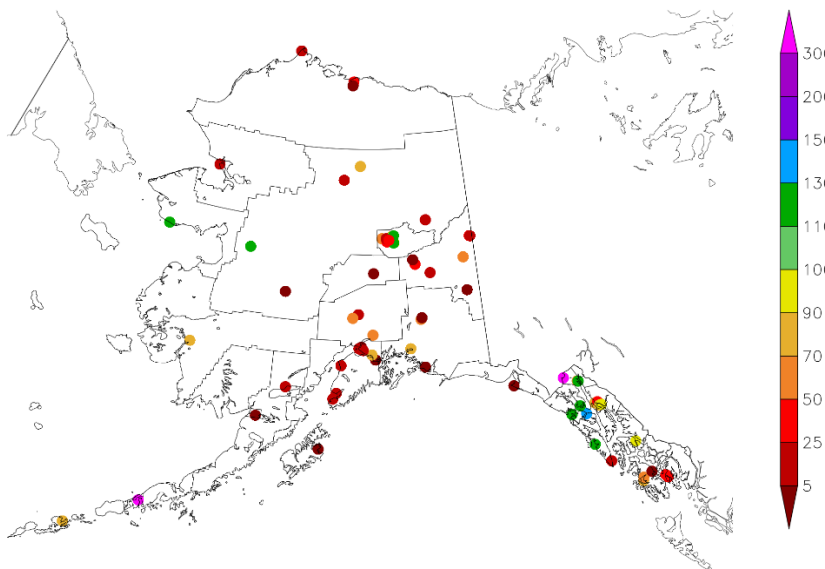
Last 7 Days, National Weather Service (NWS) Networks

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 (%)
7/20/2023 – 7/26/2023



Generated 7/27/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

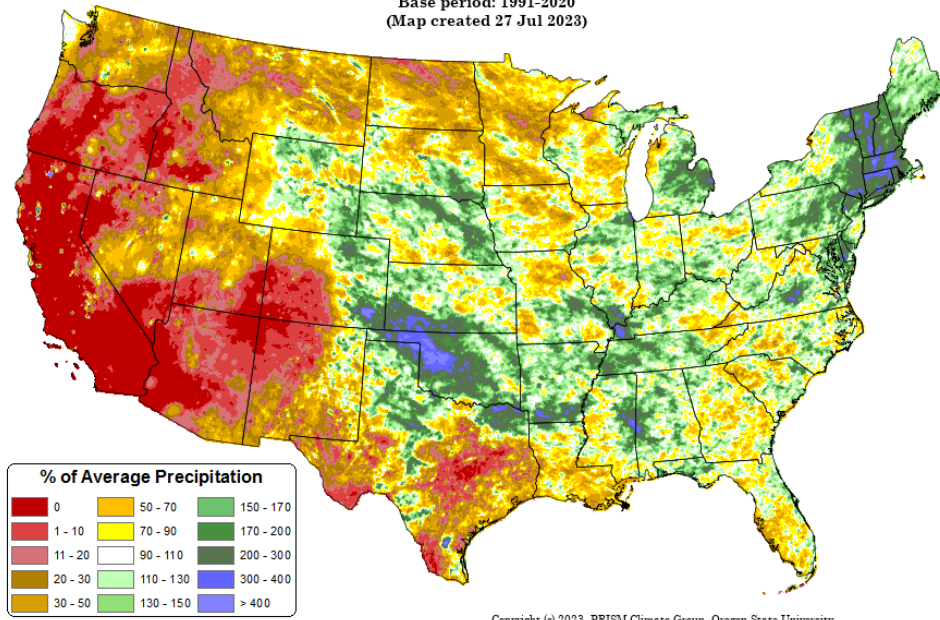
Total Precipitation Anomaly: 01 Jul 2023 - 26 Jul 2023

Period ending 7 AM EST 26 Jul 2023

Base period: 1991-2020

(Map created 27 Jul 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

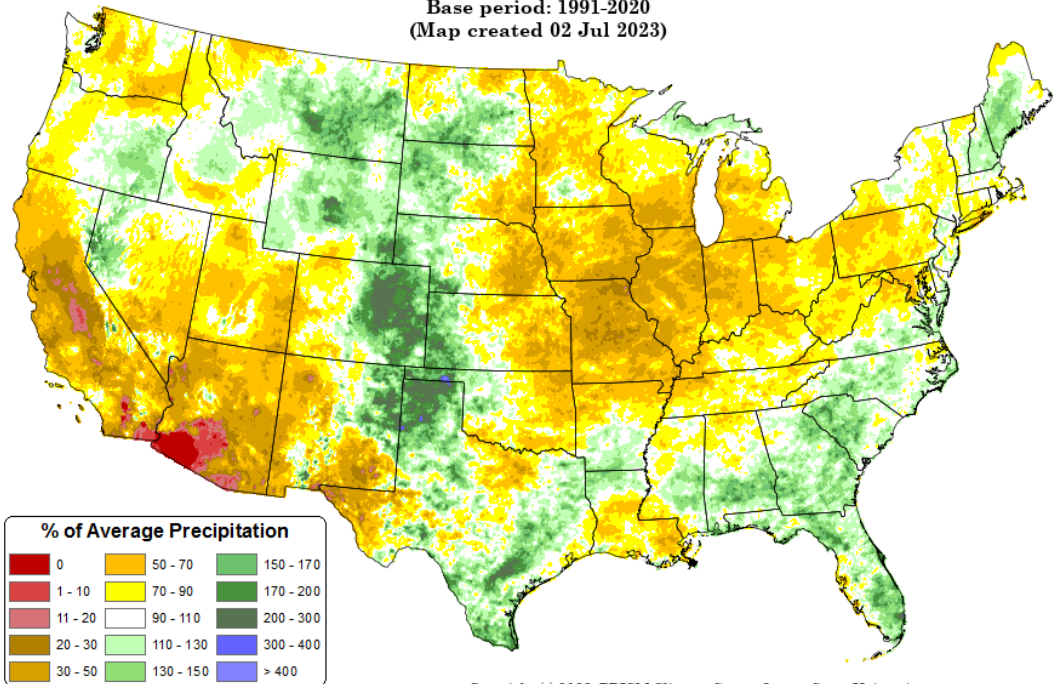
[April through June 2023 precipitation anomaly map](#)

Total Precipitation Anomaly: Apr 2023 - Jun 2023

Period ending 7 AM EST 30 Jun 2023

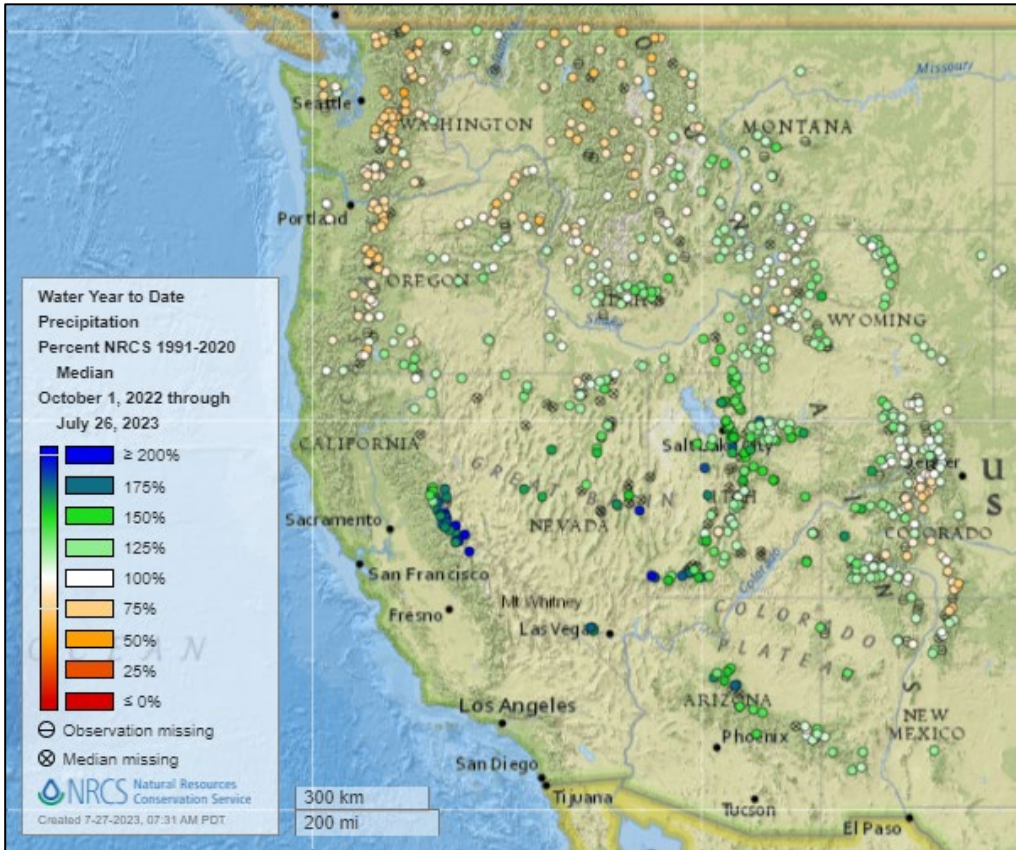
Base period: 1991-2020

(Map created 02 Jul 2023)



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Water Year-to-Date, NRCS SNOTEL Network

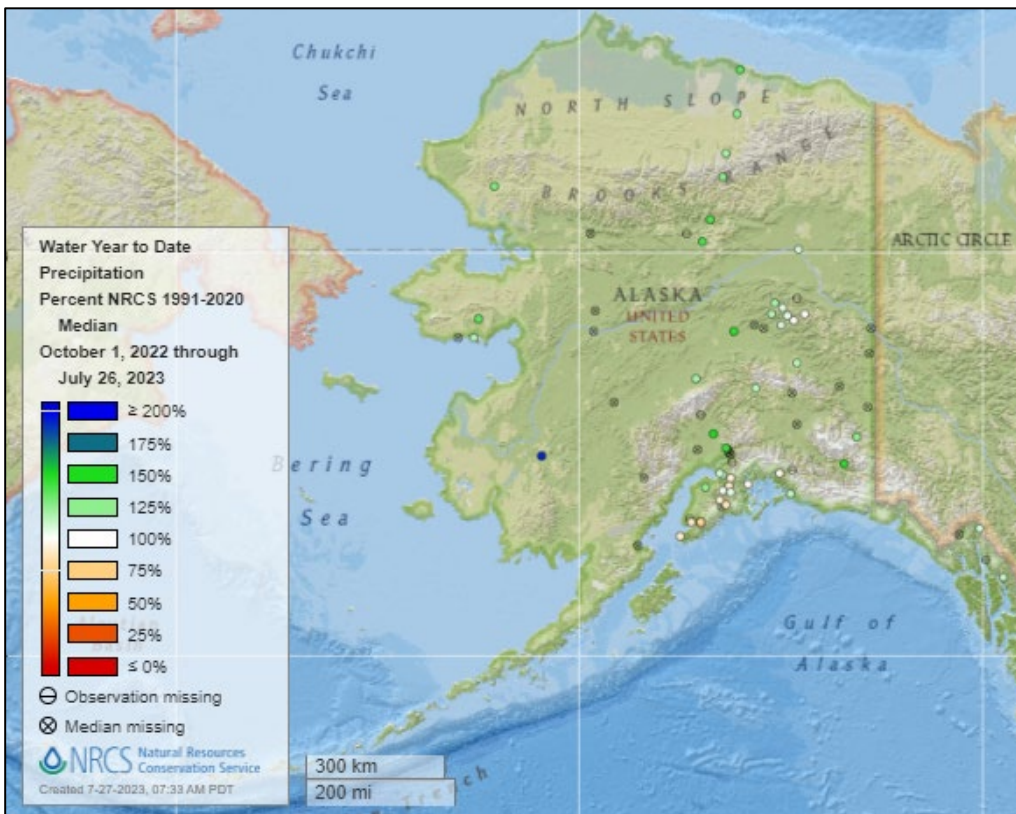


[2023 water year-to-date precipitation percent of median map](#)

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

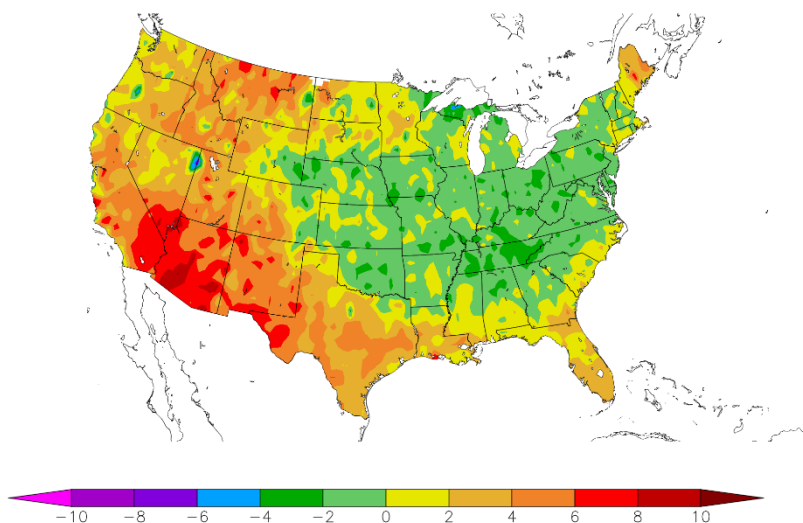
Last 7 Days, National Weather Service (NWS) Networks

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)
7/20/2023 – 7/26/2023



Generated 7/27/2023 at IPRCC using provisional data.

NOAA Regional Climate Centers

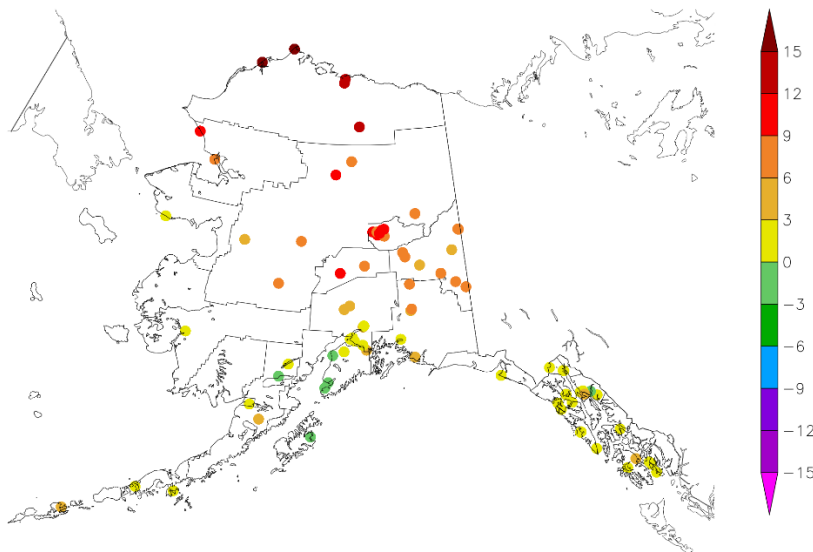
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
7/20/2023 – 7/26/2023



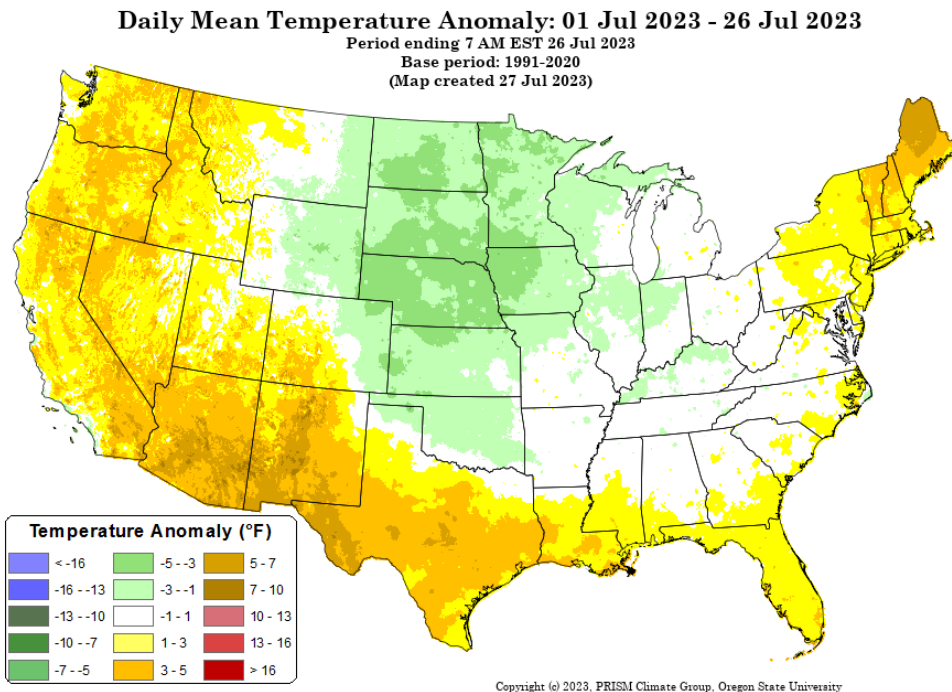
Generated 7/27/2023 at IPRCC using provisional data.

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

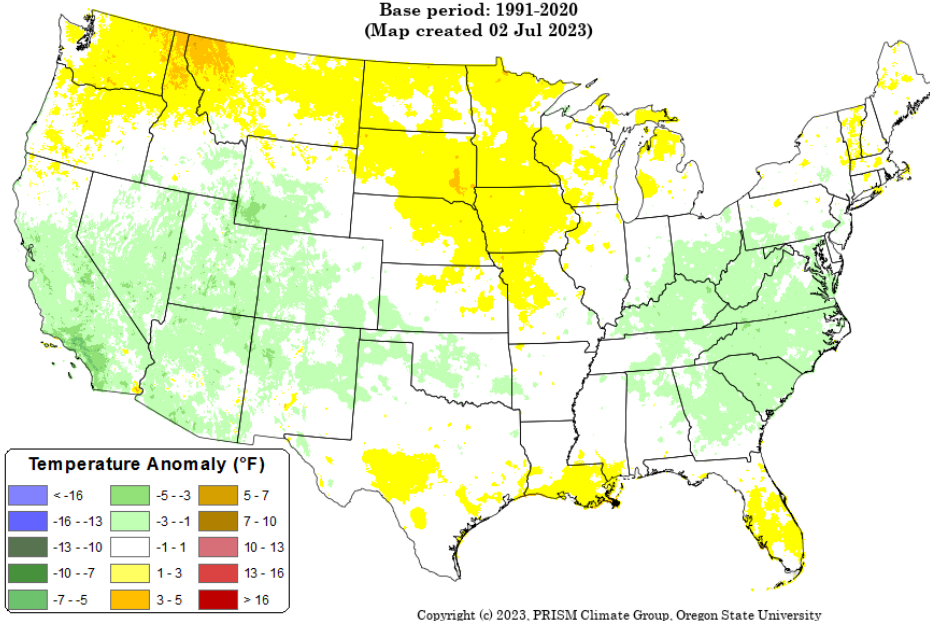
Daily Mean Temperature Anomaly: Apr 2023 - Jun 2023

Period ending 7 AM EST 30 Jun 2023

Base period: 1991-2020

(Map created 02 Jul 2023)

[April through June 2023 daily mean temperature anomaly map](#)



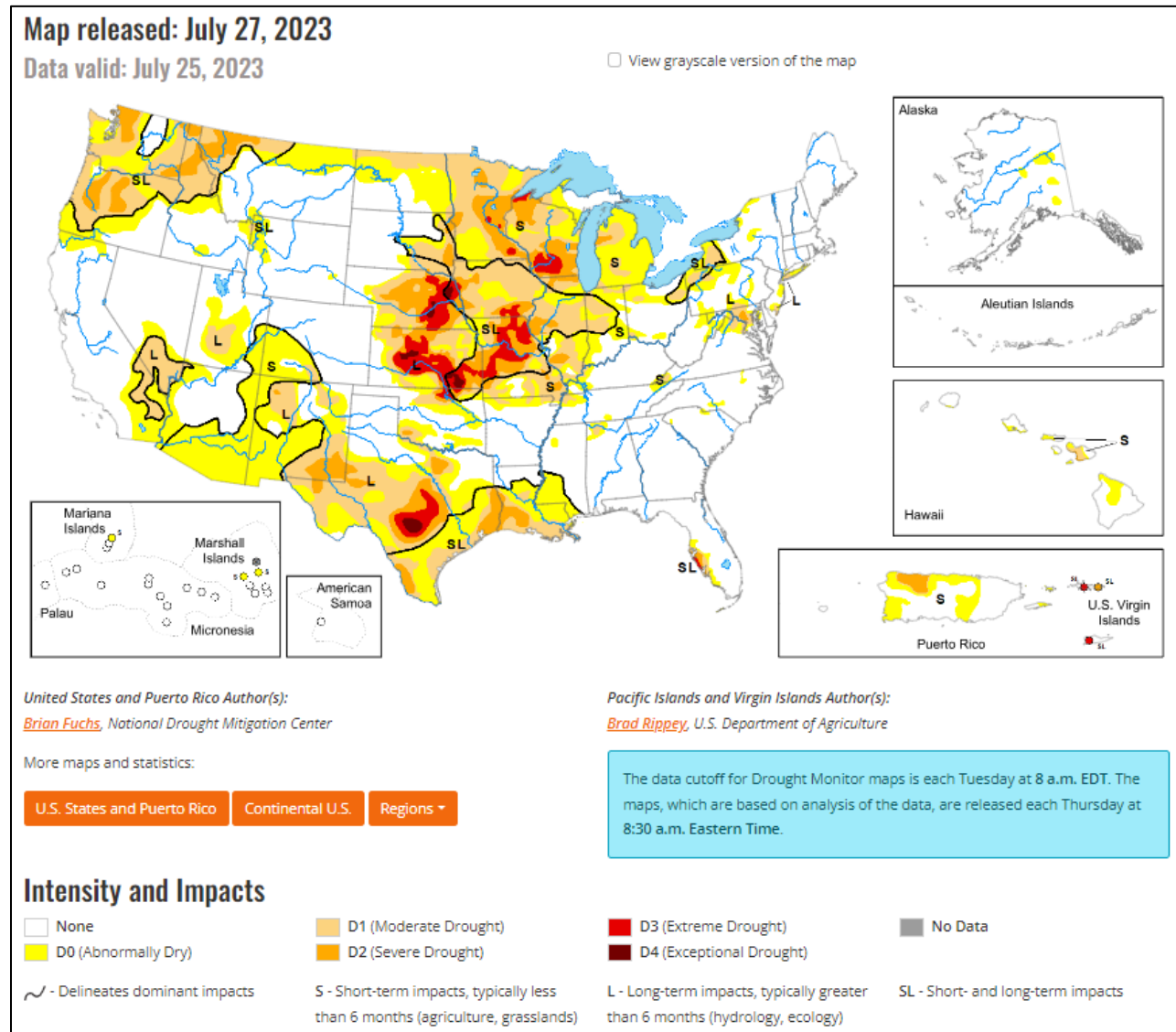
Drought

[U.S. Drought Monitor](#)

Source: National Drought Mitigation Center

[U.S. Drought Portal](#)

Source: NOAA



Current [National Drought Summary](#), July 25, 2023

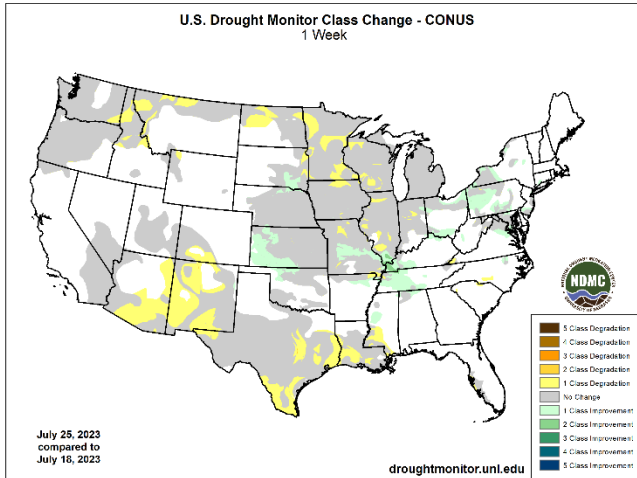
Source: National Drought Mitigation Center

“Areas of the High Plains, Central Plains, Midwest and South had the most active precipitation patterns over the last week. Record-setting rains were recorded over western Kentucky and the area had significant flooding. The monsoon season in the Southwest has remained quiet with record-setting heat dominating the region into the southern Plains. Temperatures were cooler than normal over most of the central Plains, Midwest and Mid-Atlantic with departures of 2-4 degrees below normal widespread. Temperatures in the West, Southwest, South and Southeast were warmer than normal, with some departures in Arizona 8-10 degrees above normal for the week and most other areas at least 2-4 degrees above normal.”

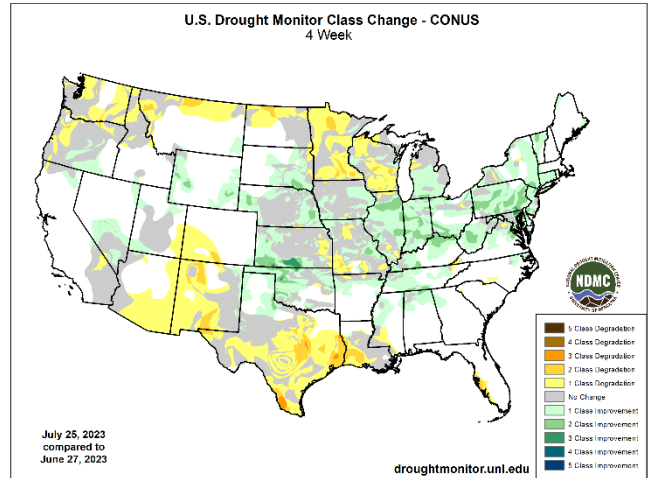
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

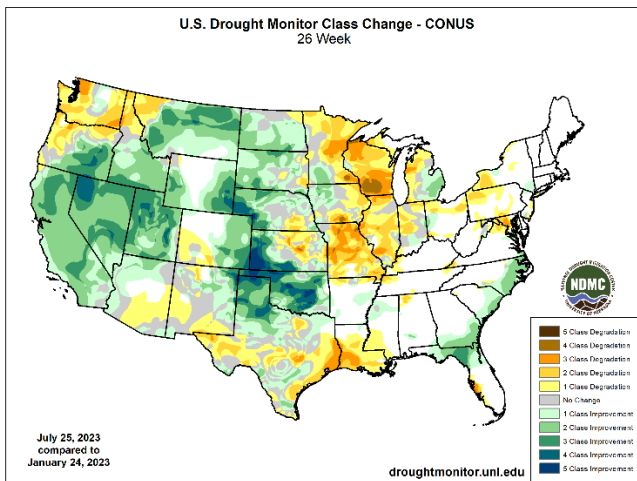
1 Week



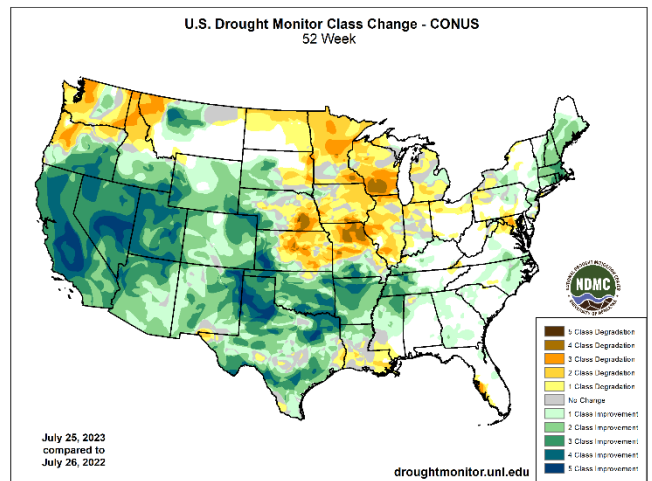
1 Month



6 Months



1 Year



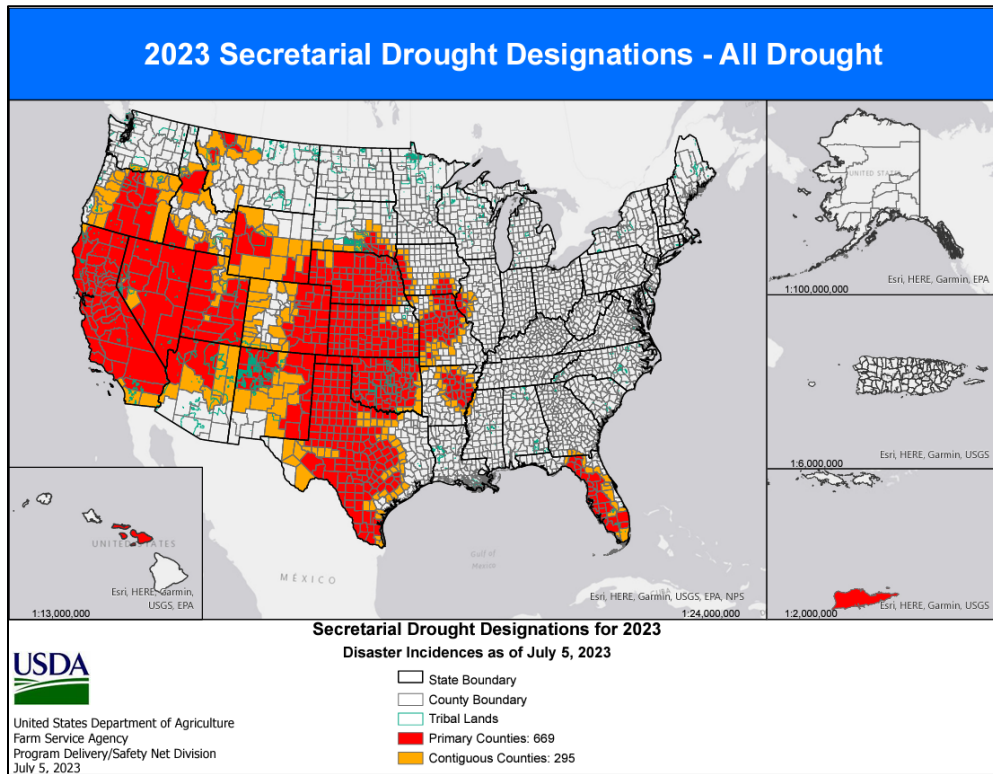
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

Highlighted Drought Resources

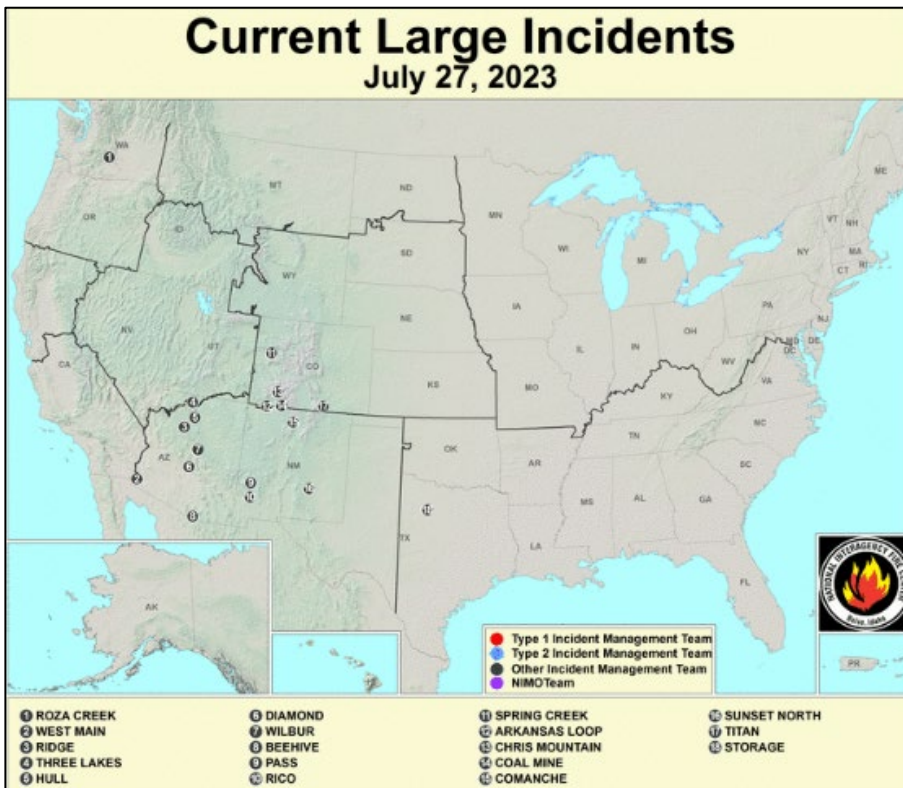
- [Drought Impact Reporter](#)
- [Quarterly Regional Climate Impacts and Outlook](#)
- [U.S. Drought Portal Indicators and Monitoring](#)
- [U.S. Population in Drought, Weekly Comparison](#)
- [USDA Disaster and Drought Information](#)

USDA Secretarial Drought Designations

Source: USDA Farm Service Agency



Wildfires: USDA Forest Service Active Fire Mapping



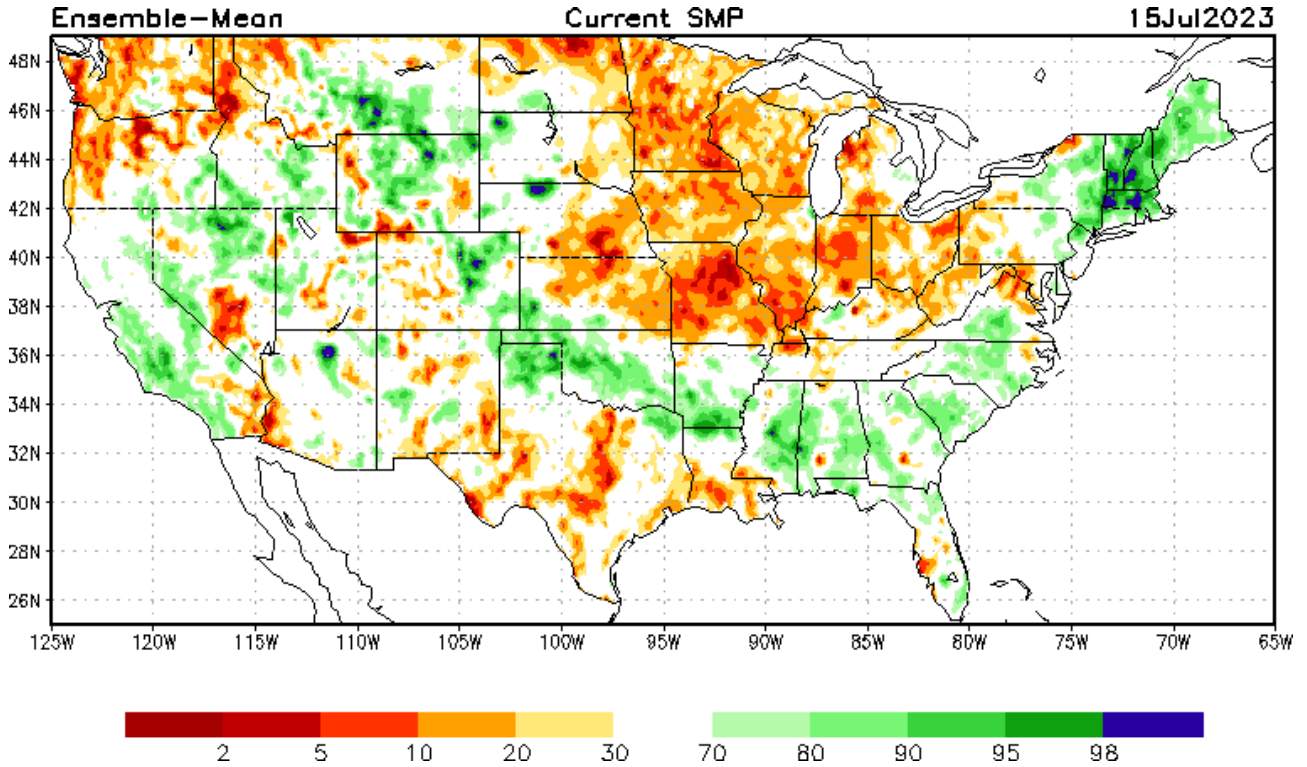
Highlighted Wildfire Resources

- [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

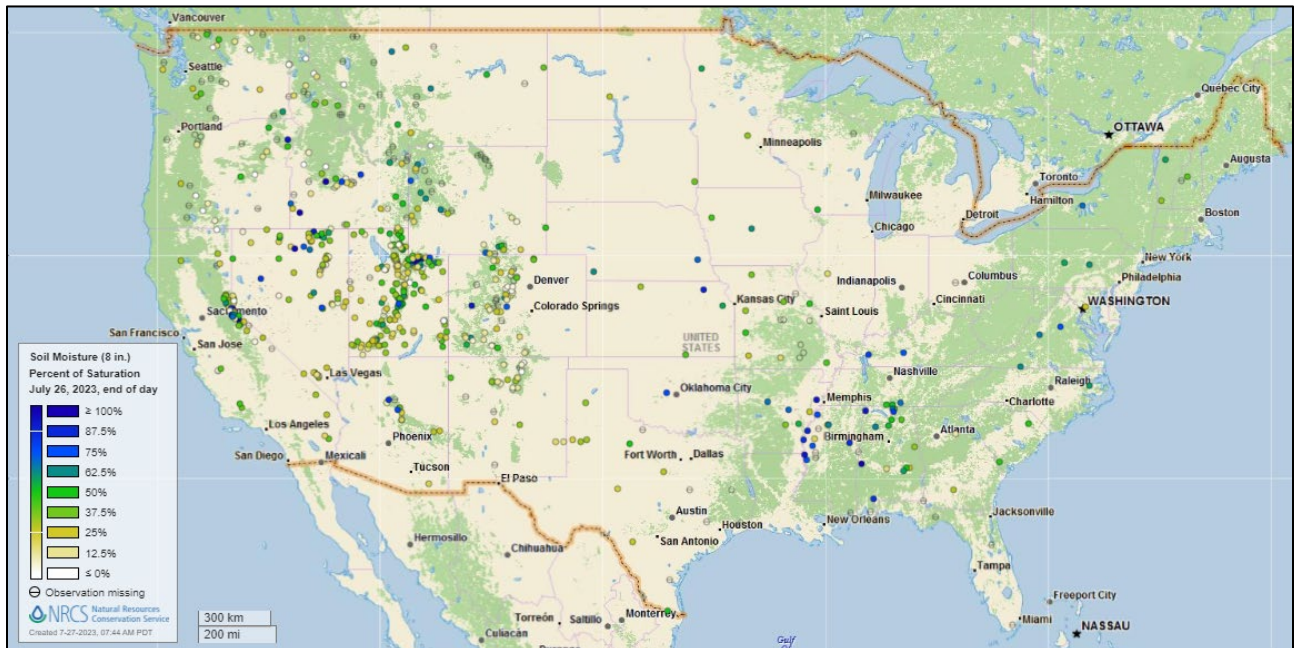


[Modeled soil moisture percentiles](#) as of July 15, 2023

Soil Moisture Percent of Saturation

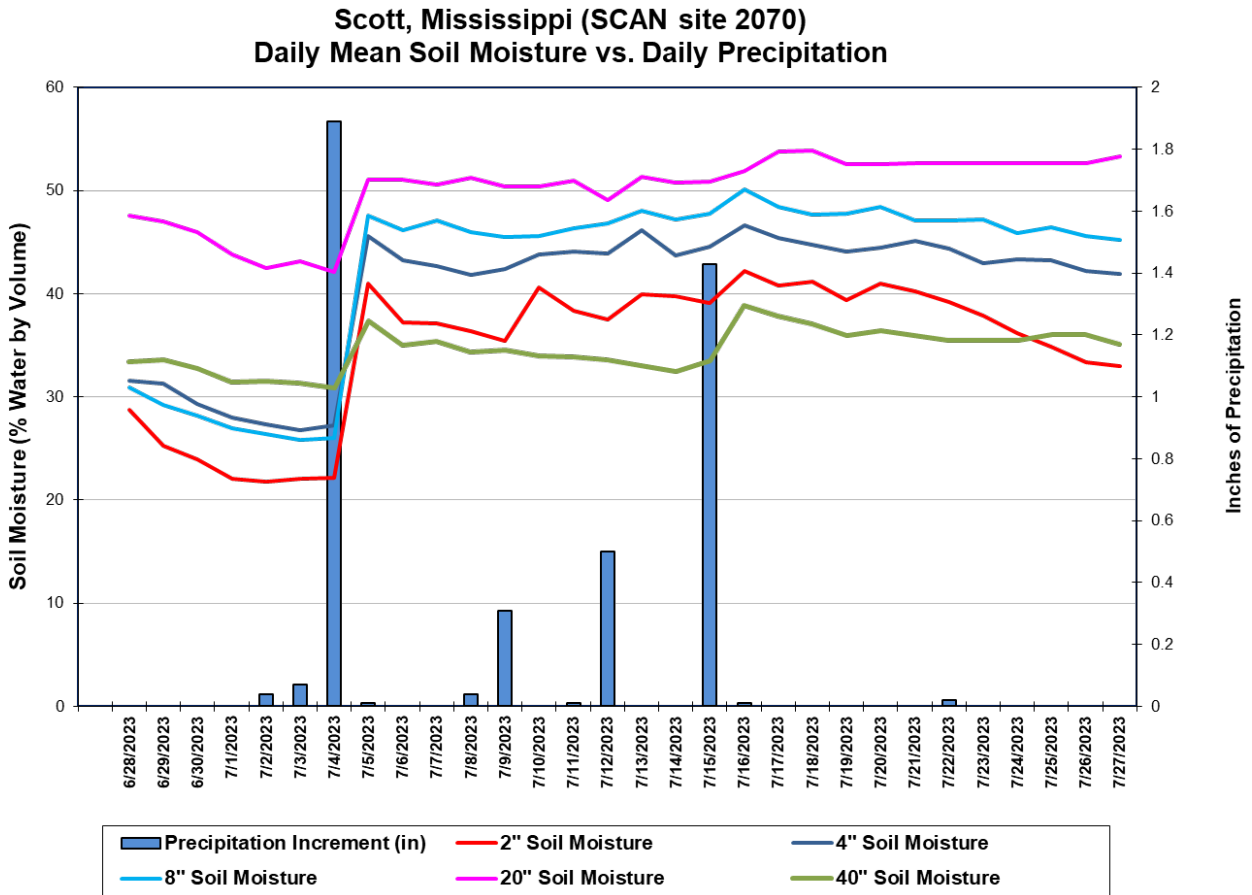
Source: NRCS SNOTEL and [Soil Climate Analysis Network](#) (SCAN)

[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 [Scott](#) SCAN site in Mississippi. After the site received 1.89 inches of precipitation on July 4, soil moisture levels increased at all sensor depths. Total precipitation for the 30-day period was 4.33 inches.

Soil Moisture Data Portals

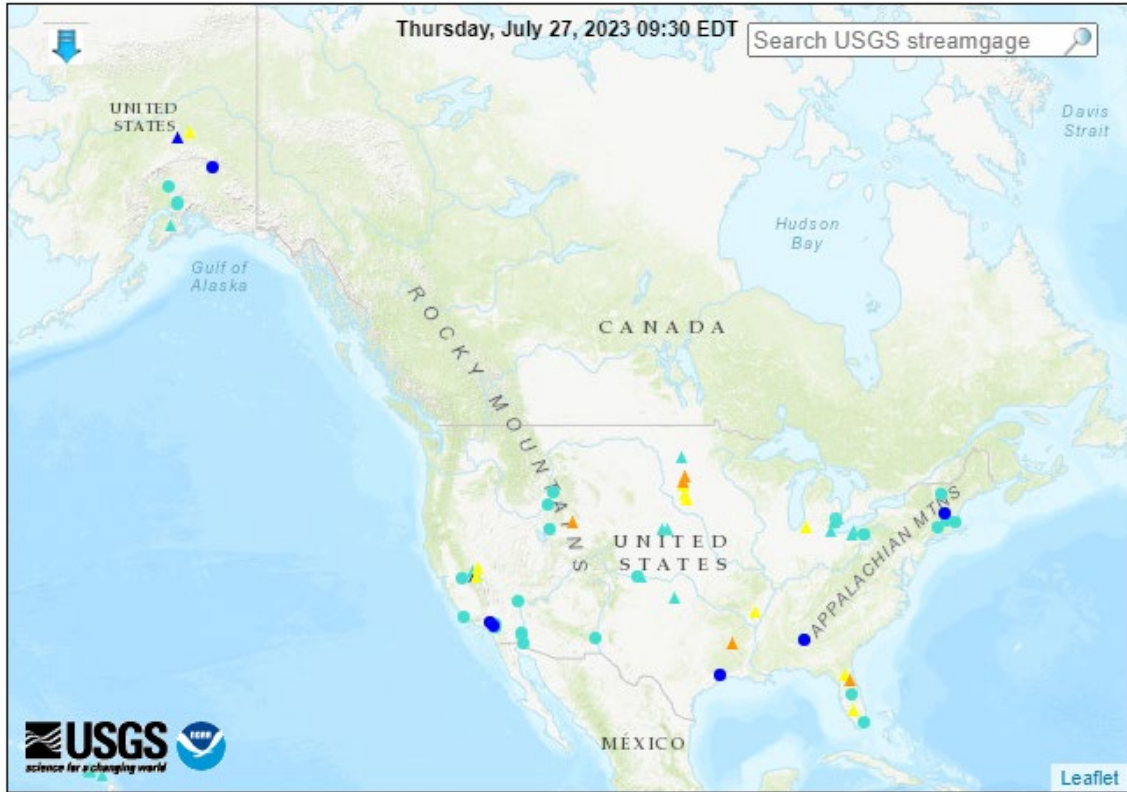
- [USCRN Soil Moisture](#)
- [National Soil Moisture Network](#)
- [NOAA Climate Prediction Center Soil Moisture](#)
- [NASA Grace](#)

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], 10 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

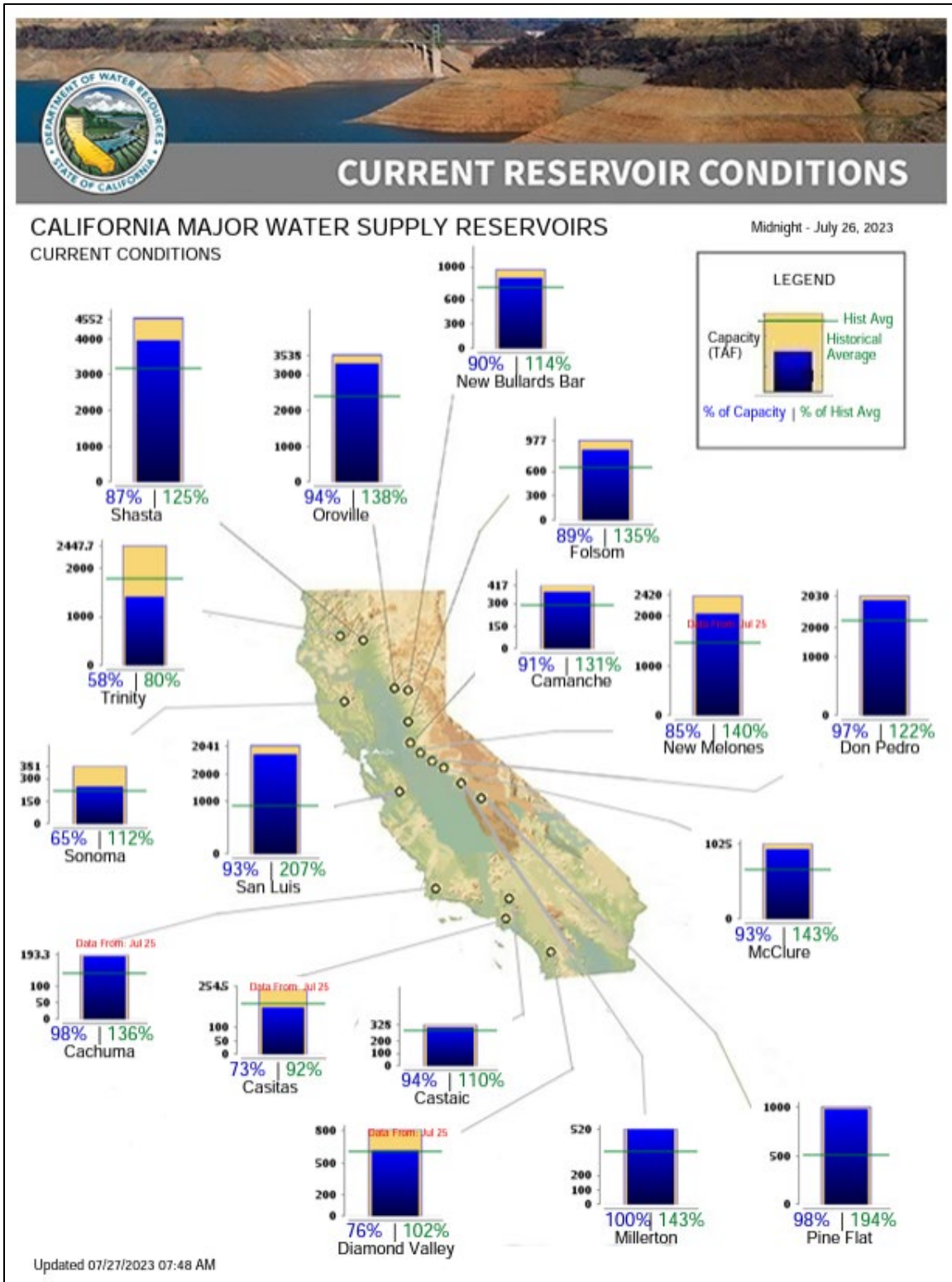
Hydromet Teacup Reservoir Depictions

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 July 27, 2023: “Midwestern heat will peak today or Friday, with maximum temperatures topping 100°F as far north as South Dakota and as far east as the middle Mississippi Valley. Eastern temperatures will approach or reach 100°F as far north as the mid-Atlantic. During the weekend, cooler air will overspread the Midwest, excluding the southern tier of the Corn Belt. Hot, humid conditions will linger, however, across the South. By early next week, heat will re-intensify across the central Plains and southwestern Corn Belt, with 100-degree temperatures extending into Kansas and Missouri. Heat will also prevail in much of the West. During the hot spell, significant rainfall will be limited to a few areas. Over the next 5 days, completely dry weather should cover much of the Far West and an area stretching from the southern Plains to the Mississippi Delta. In contrast, locally heavy showers will dot Florida’s peninsula, while “ring of fire” thunderstorms will occur around the northern periphery of a ridge of high pressure, extending from the northern Plains into the Northeast. Elsewhere, thundershowers associated with the Southwestern monsoon circulation will pepper the Four Corners States. The NWS 6- to 10-day outlook for August 1 – 5 calls for the likelihood of near- or above-normal temperatures and rainfall across most of the country. Cooler-than-normal conditions will be confined to the Northeast and parts of central California, while drier-than-normal weather should be limited to western Washington, the central Gulf Coast region, and portions of the Great Lakes States.”

Weather Hazards Outlook: [July 29 – August 02, 2023](#)

Source: NOAA Weather Prediction Center















U.S. Day 3-7 Hazards Outlook

[About the Hazards Outlook](#)

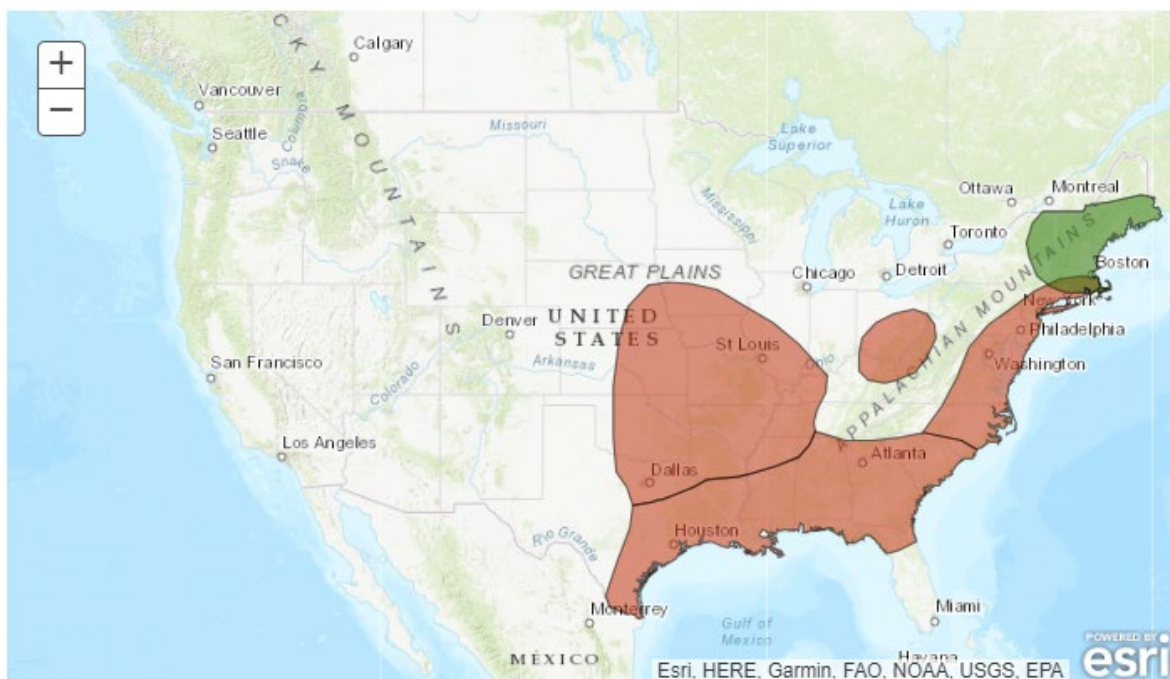
Created July 26, 2023

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 July 29, 2023 - August 02, 2023

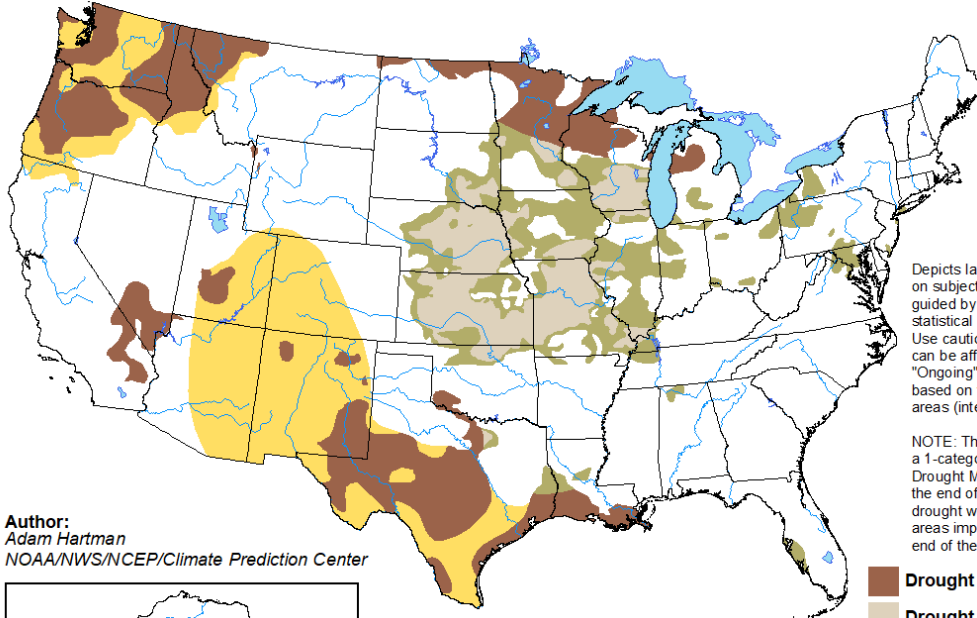


Seasonal Drought Outlook: [July 20 – October 31, 2023](#)

Source: National Weather Service

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

Valid for July 20 - October 31, 2023
Released July 20

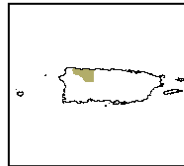
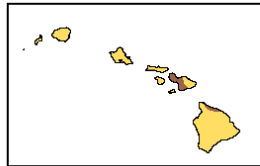
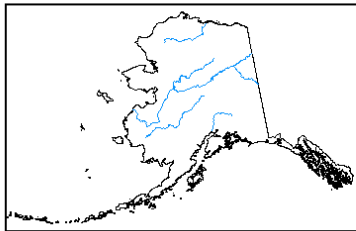


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

Author:
Adam Hartman
NOAA/NWS/NCEP/Climate Prediction Center

- Drought persists
- Drought remains but improves
- Drought removal likely
- Drought development likely



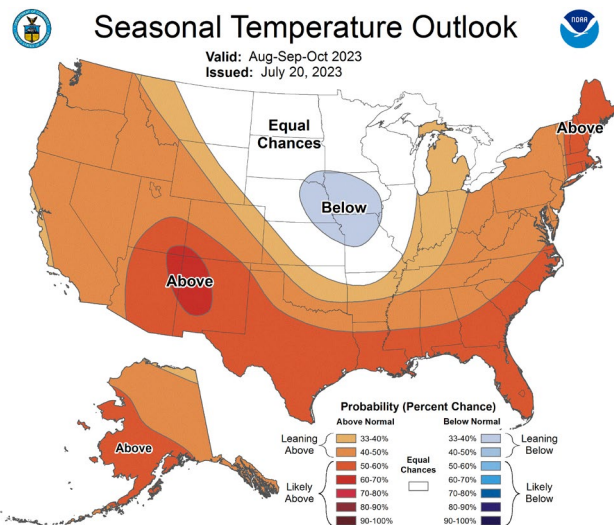
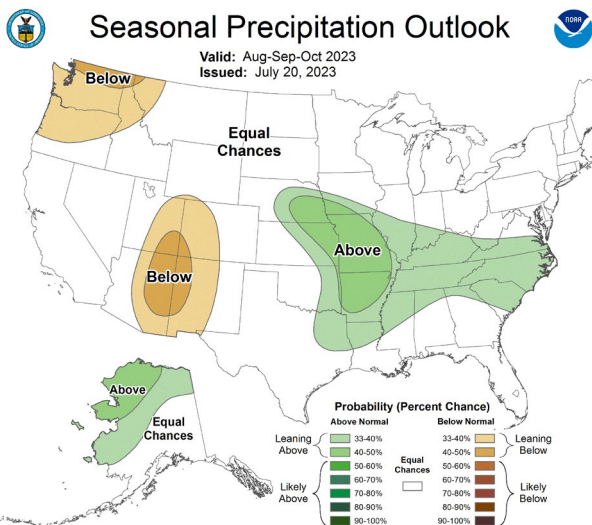
<http://go.usa.gov/3eZ73>

Climate Prediction Center Three-month Outlook

Source: National Weather Service

Precipitation

Temperature



[August-September-October 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](#).