



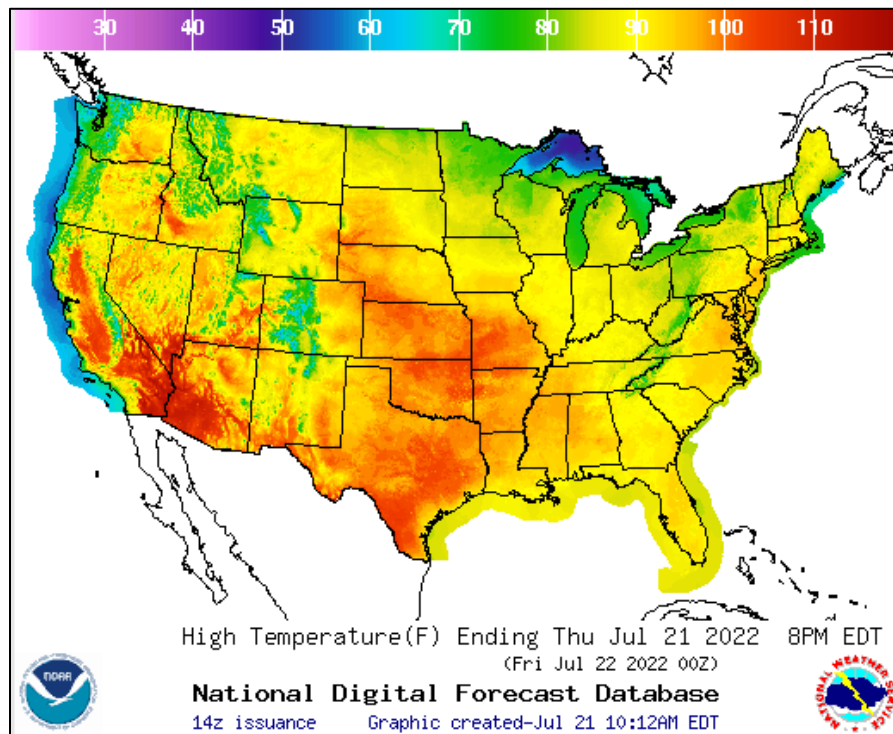
Water and Climate Update

July 21, 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		

Massive heat wave blankets much of the nation



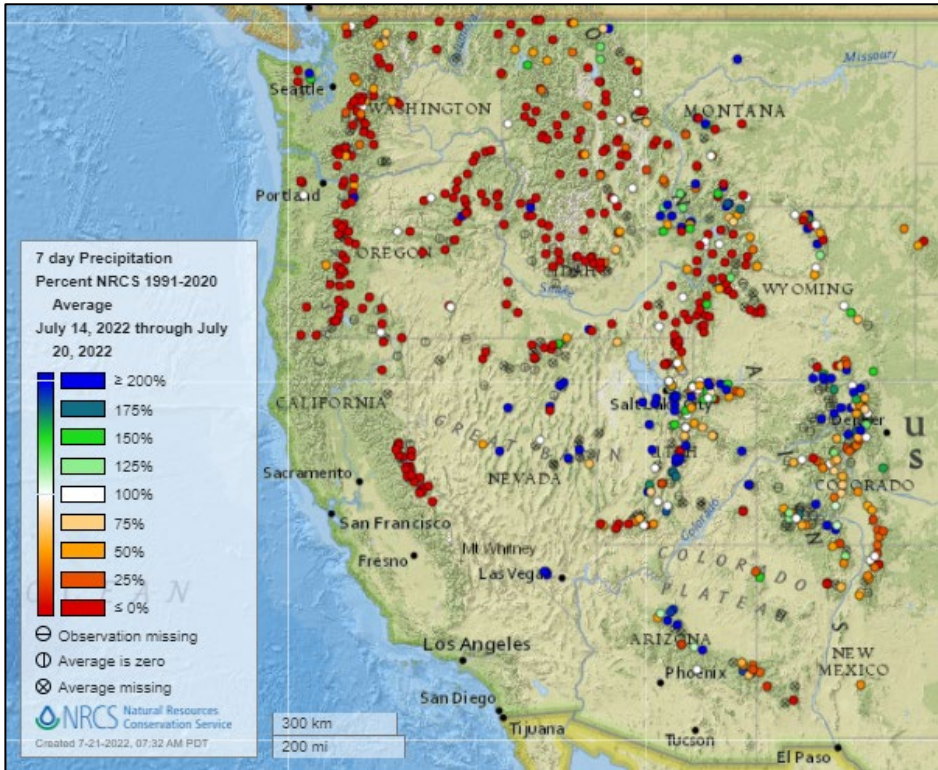
Over 60 temperature records have been tied or broken across the country this week, as dangerously high temperatures blanket much of the U.S. according to the NWS Weather Prediction Center. More temperature records are expected to be topped this week, with more than 100 million people across 28 states living under excessive heat warnings or heat advisories for dangerously high temperatures as of July 21. High energy and water usage are expected, and residents across the country are urged to check on vulnerable neighbors and make use of emergency shelters if needed during the heat wave.

Related:

- [Unrelenting heat wave spreads from South into Northeast: Latest forecast](#) – ABC News
- [Record-breaking U.S. heat wave bakes Americans](#) – Reuters
- [Grim warnings issued as oppressive US heat wave spreads](#) – CNN
- [U.S. heat wave: Over 100 million people under alerts in 28 states](#) – Washington Post
- ['Dominating the entire country': Unrelenting, coast-to-coast heat wave scorches US](#) – USA Today
- [North Texas heat wave continues; hottest days in 4 years coming](#) – CBS News DFW (TX)
- [The heat is in no rush to leave South Texas](#) – KRISTV.com (TX)
- ['A bad heatwave' strikes New Mexico as southeast region struggles with drought](#) – Carlsbad Current-Argus (NM)

Precipitation

Last 7 Days, NRCS SNOTEL Network

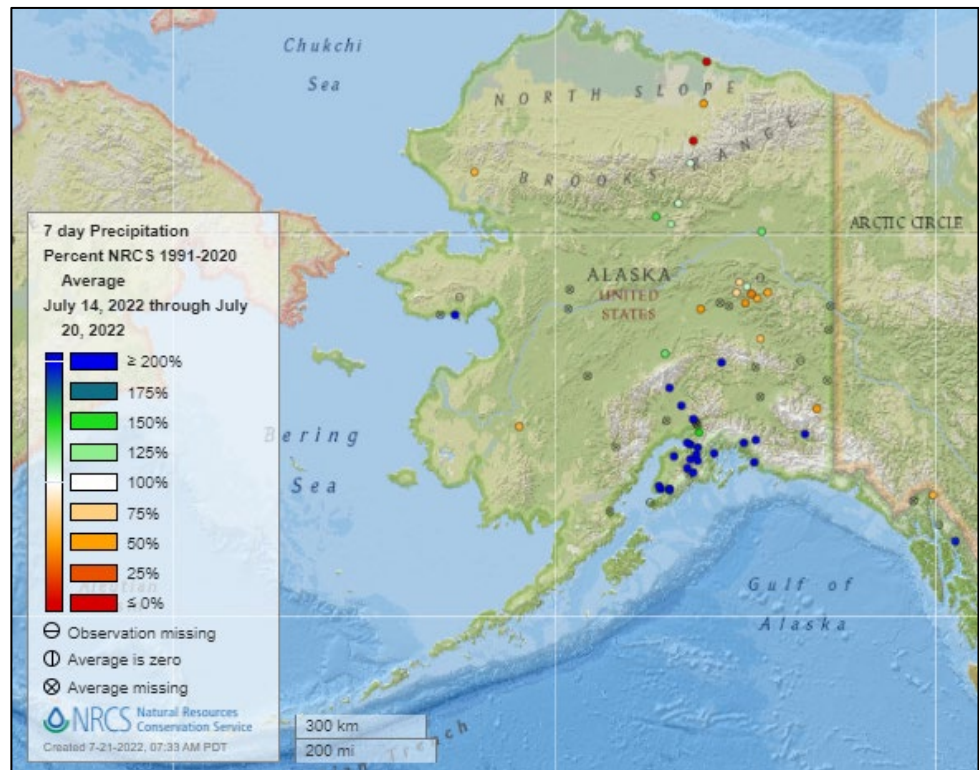


[7-day precipitation percent of average map](#)

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](#)



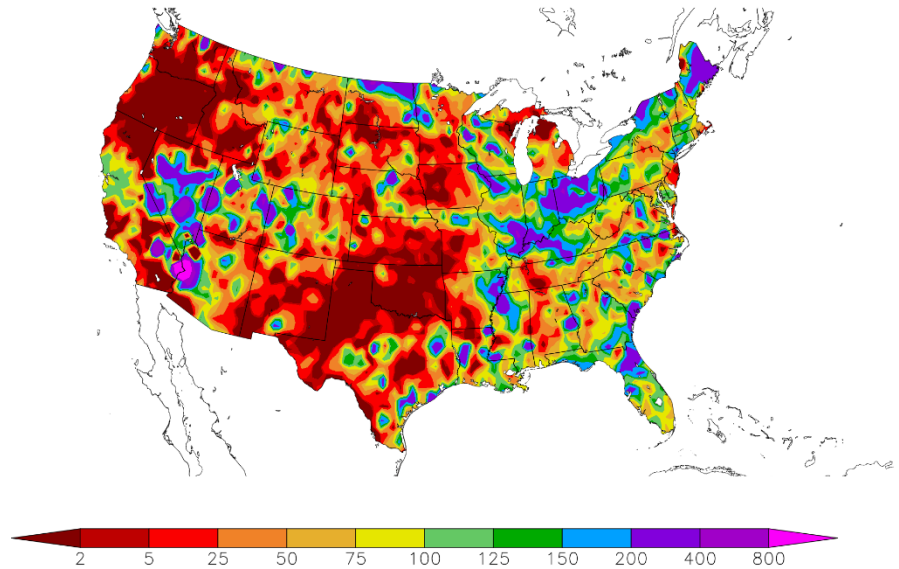
Last 7 Days, National Weather Service (NWS) Networks

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 (%)
7/14/2022 – 7/20/2022



Generated 7/21/2022 at HPRCC using provisional data.

NOAA Regional Climate Centers

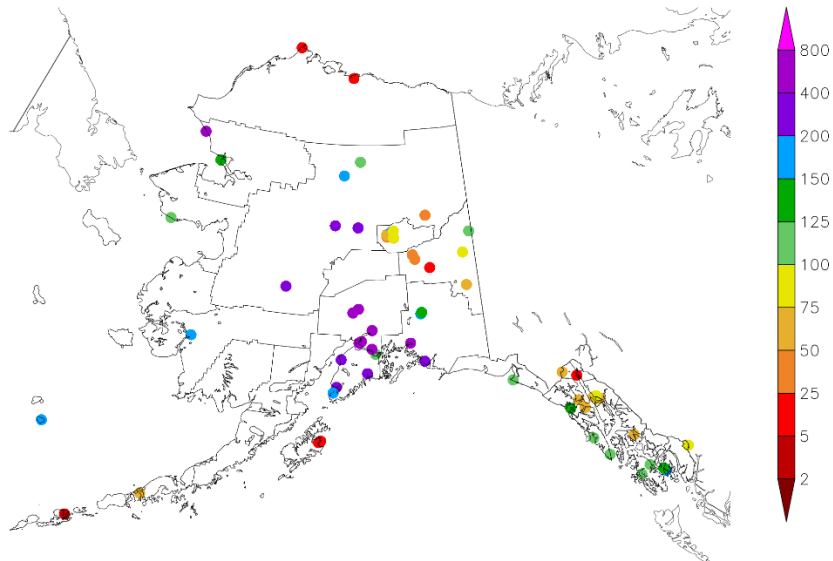
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)
7/14/2022 – 7/20/2022



Generated 7/21/2022 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

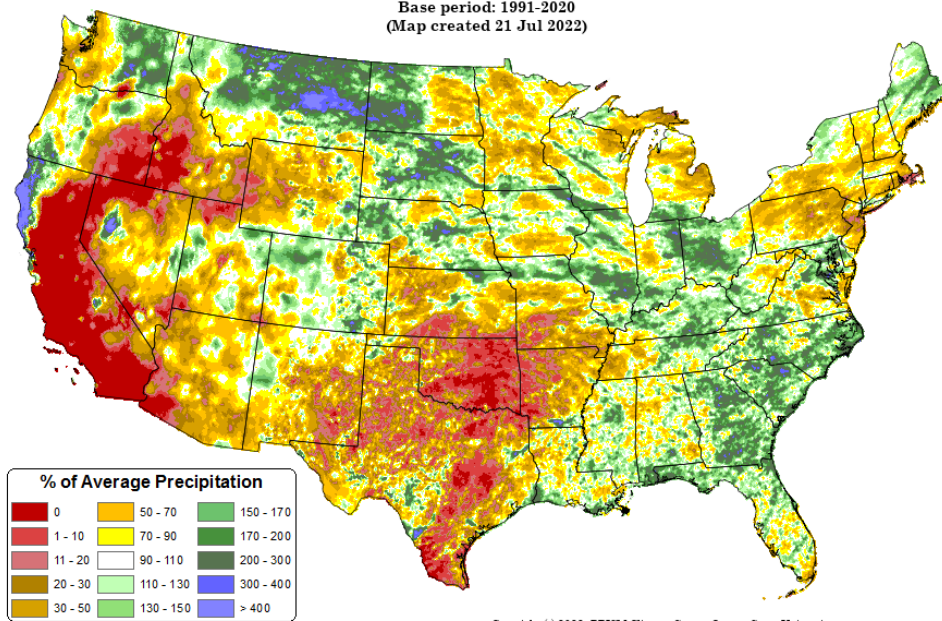
Total Precipitation Anomaly: 01 Jul 2022 - 20 Jul 2022

Period ending 7 AM EST 20 Jul 2022

Base period: 1991-2020

(Map created 21 Jul 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

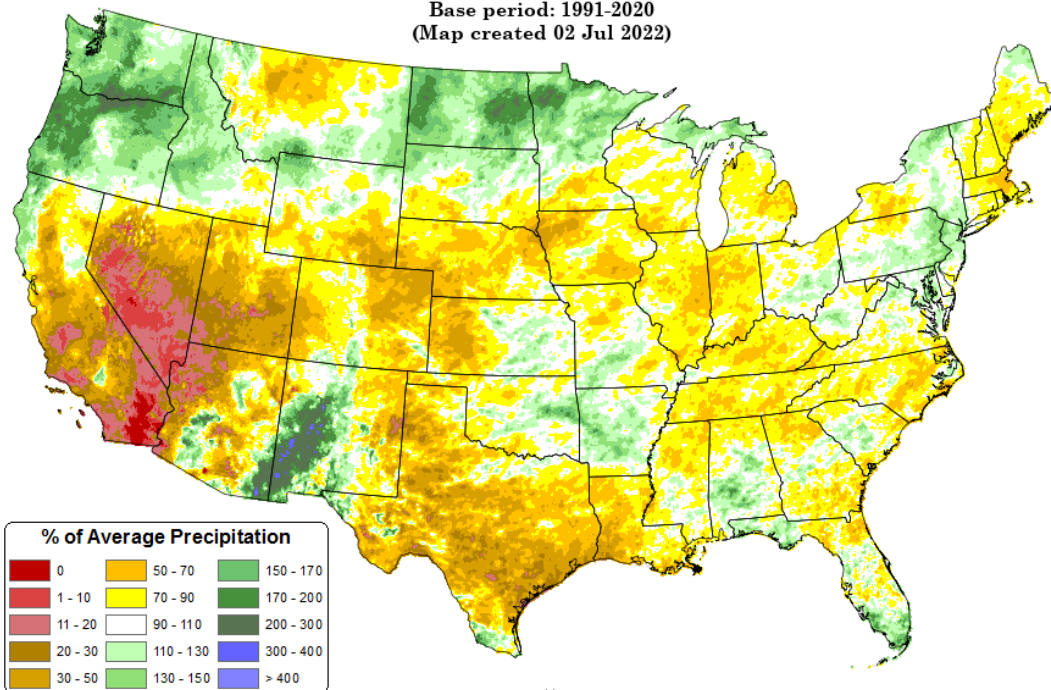
[April through June 2022 precipitation anomaly map](#)

Total Precipitation Anomaly: Apr 2022 - Jun 2022

Period ending 7 AM EST 30 Jun 2022

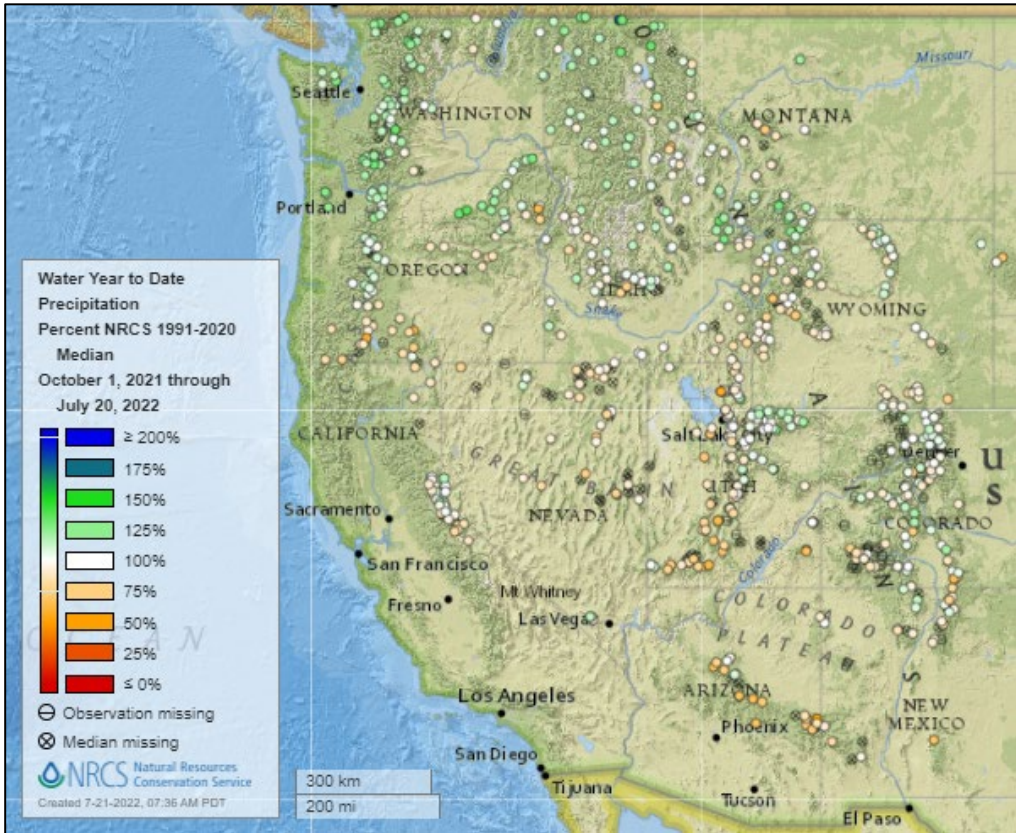
Base period: 1991-2020

(Map created 02 Jul 2022)



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Water Year-to-Date, NRCS SNOTEL Network

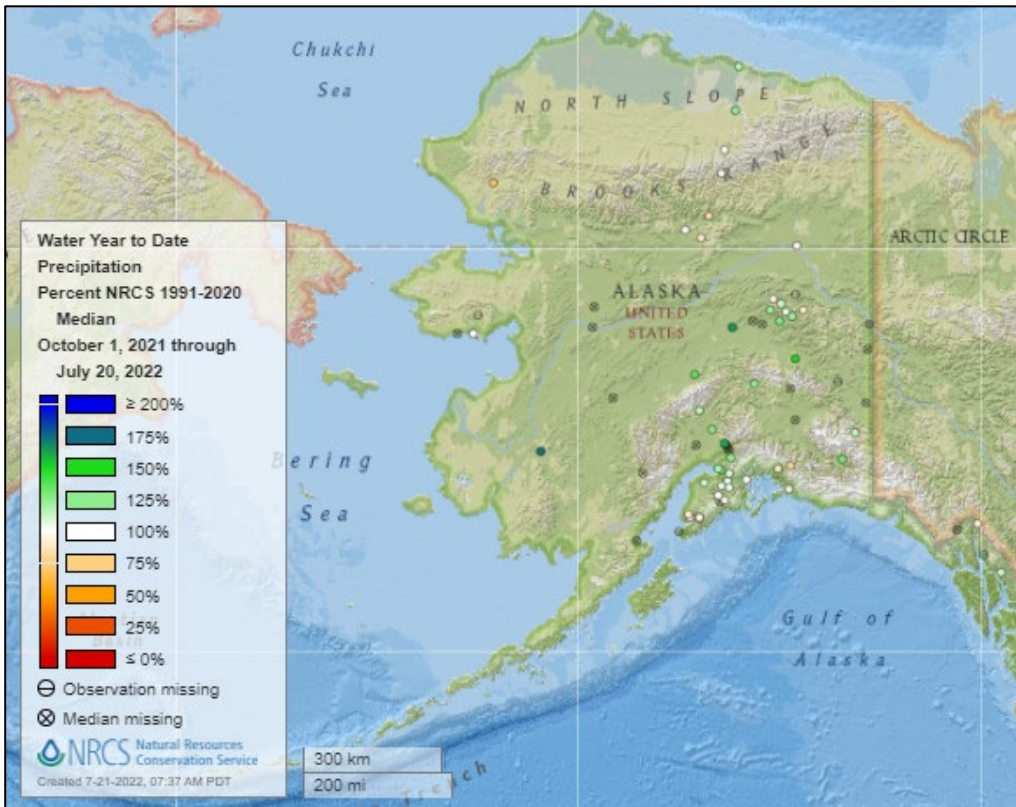


[2022 water year-to-date precipitation percent of median map](#)

See also:

[2022 water year-to-date precipitation percent of average map](#)

[2022 water year-to-date precipitation values \(inches\) map](#)



[Alaska 2022 water year-to-date precipitation percent of median map](#)

See also:

[Alaska 2022 water year-to-date precipitation percent of average map](#)

[Alaska 2022 water year-to-date precipitation values \(inches\) map](#)

Temperature

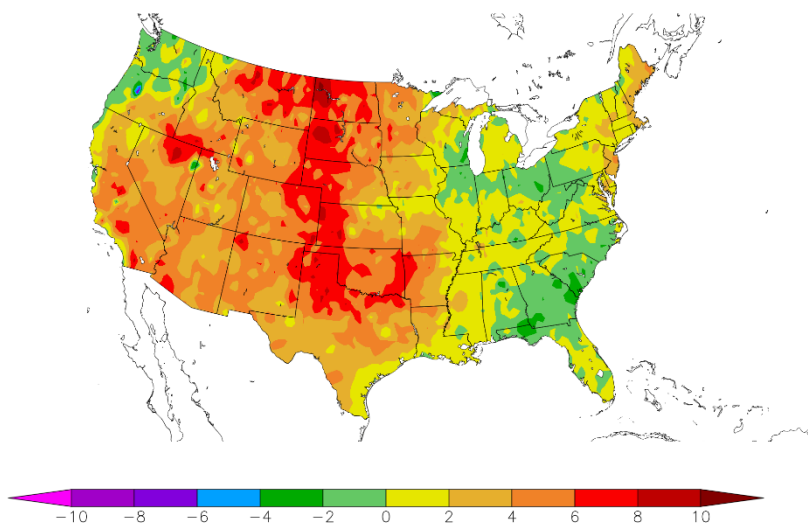
Last 7 Days, National Weather Service (NWS) Networks

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)
7/14/2022 – 7/20/2022



Generated 7/21/2022 at HPRCC using provisional data.

NOAA Regional Climate Centers

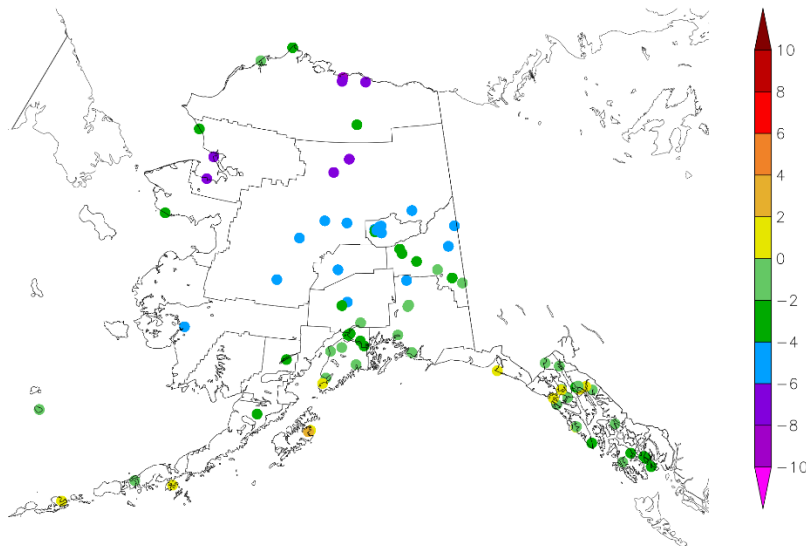
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
7/14/2022 – 7/20/2022



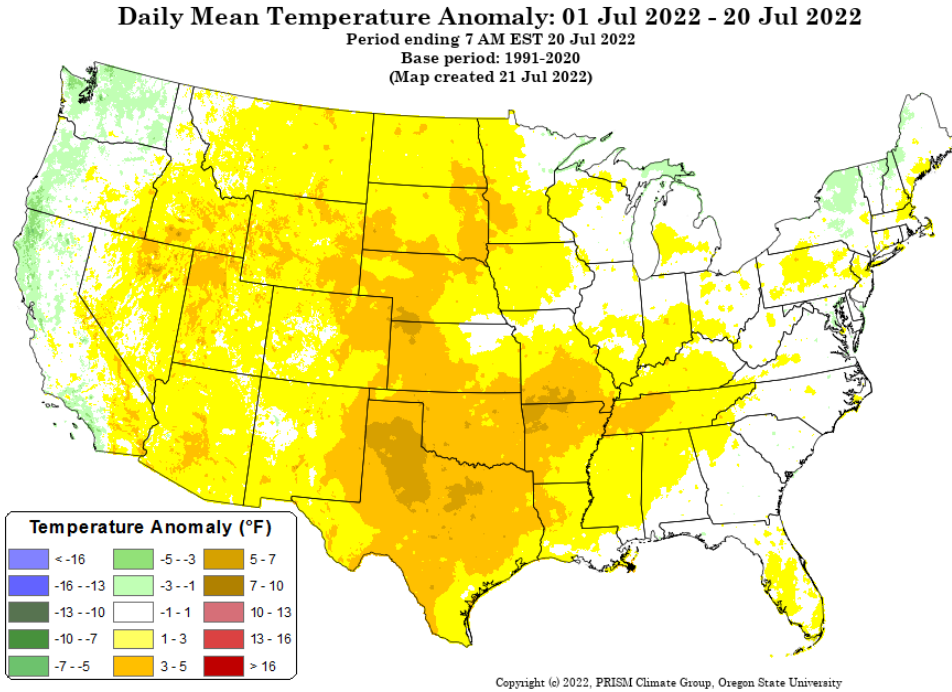
Generated 7/21/2022 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

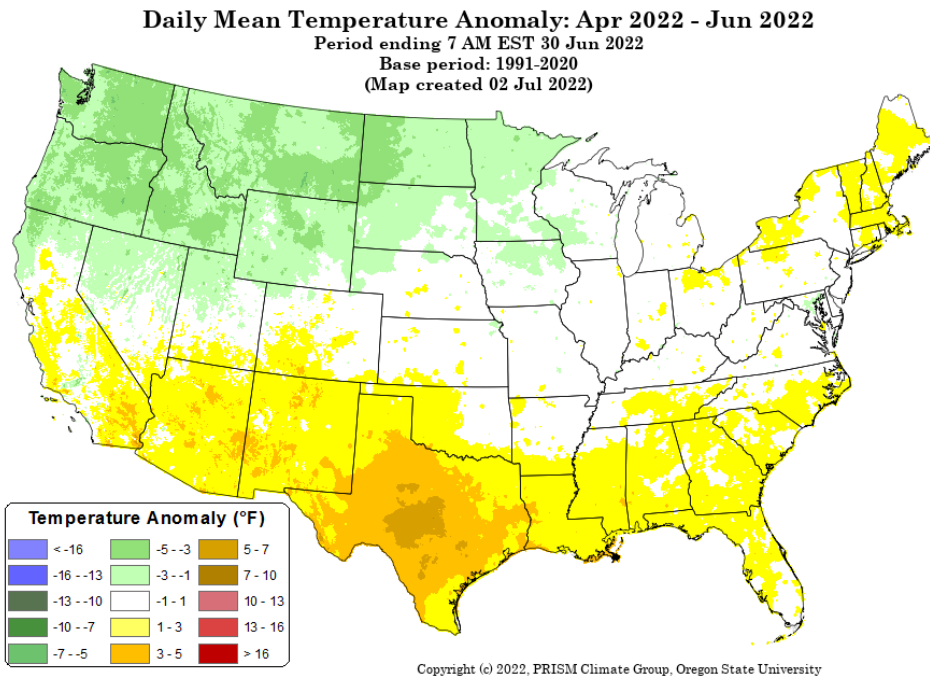
[Month-to-date national daily mean temperature anomaly map](#)



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

Source: PRISM

[April through June 2022 daily mean temperature anomaly map](#)



Drought

[U.S. Drought Monitor](#)

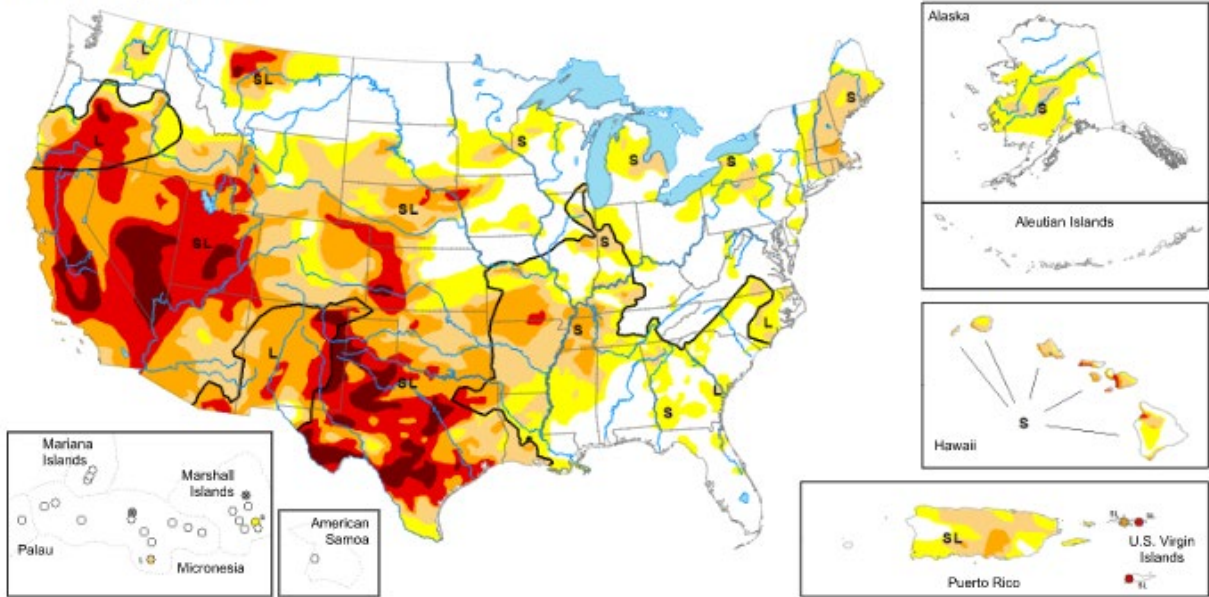
Source: National Drought Mitigation Center

[U.S. Drought Portal](#)

Source: NOAA

Map released: July 21, 2022

Data valid: July 19, 2022



United States and Puerto Rico Author(s):
Brian Fuchs, National Drought Mitigation Center

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
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)

- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data

- Delineates dominant impacts
- S - Short-term impacts, typically less than 6 months (agriculture, grasslands)
- L - Long-term impacts, typically greater than 6 months (hydrology, ecology)
- SL - Short- and long-term impacts

Current [National Drought Summary](#), July 19, 2022

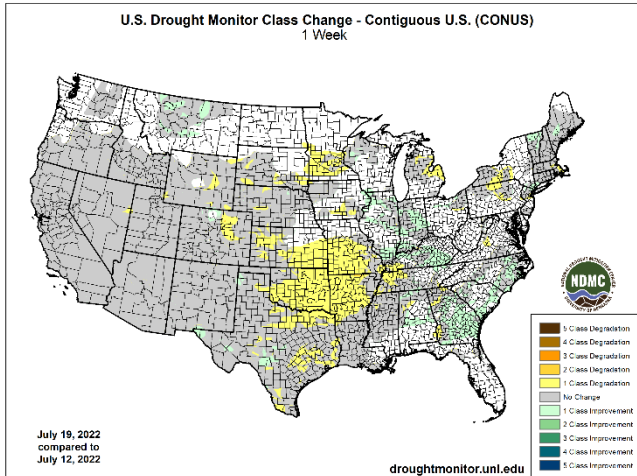
Source: National Drought Mitigation Center

“Most of the eastern third of the U.S. recorded precipitation during the last week, with only a few pockets that missed out. Portions of the Midwest and into the Southeast had some amounts over 3 inches for the week and even widespread 5+ inch amounts in the coastal areas of Florida, and some rain at the end of the period allowed for much of New England to stay status quo for the week and even see a few improvements. The areas with the most rain also had the coolest temperatures, with much of the Midwest and Southeast cooler than normal for the week with departures of 2-4 degrees below normal. Warmer-than-normal temperatures dominated the western half of the country with areas from Montana to Texas recording temperatures that were 6-8 degrees above normal. The coastal areas of the Pacific Northwest were cooler than normal while the Great Basin was warmer than normal with departures of 6-8 degrees above normal. With the dryness and heat, the flash drought that has been developing in the central to southern Plains developed even more this week with the wet conditions of May and June quickly being forgotten.”

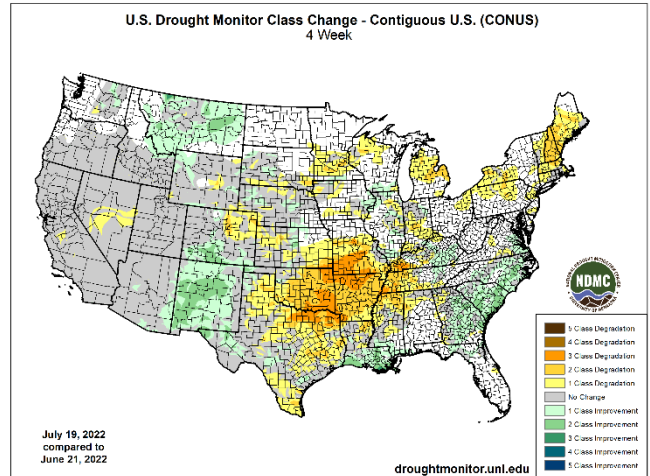
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

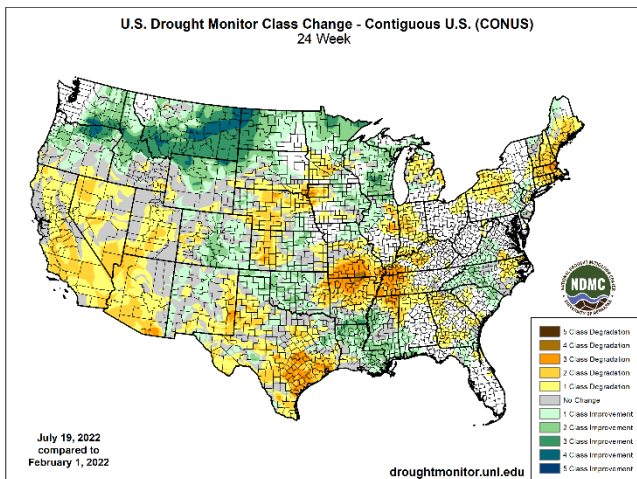
1 Week



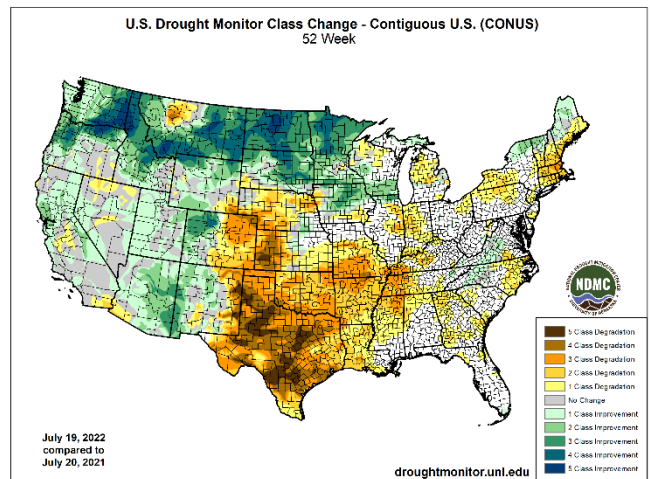
1 Month



6 Months



1 Year



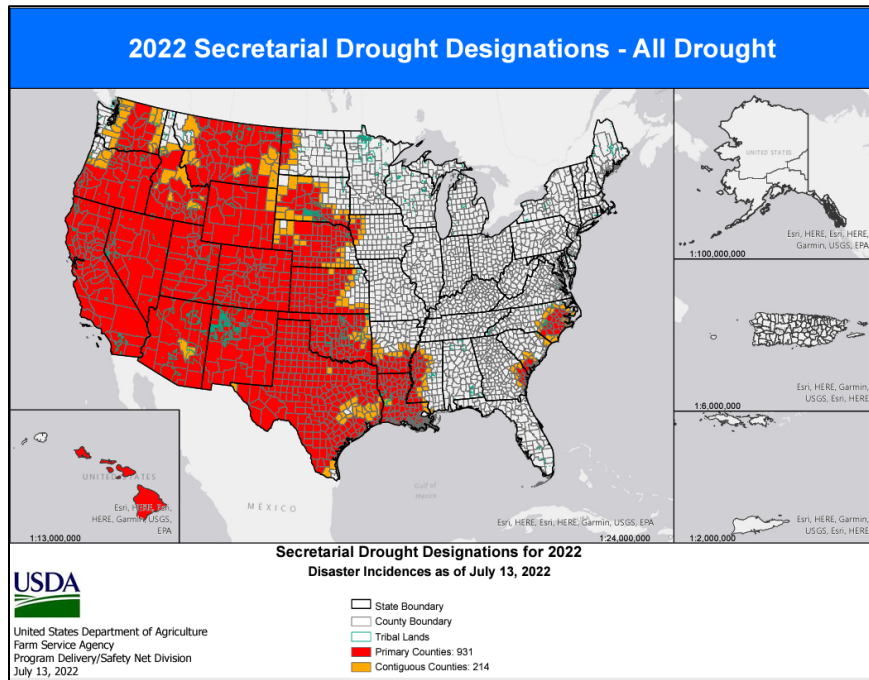
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

Highlighted Drought Resources

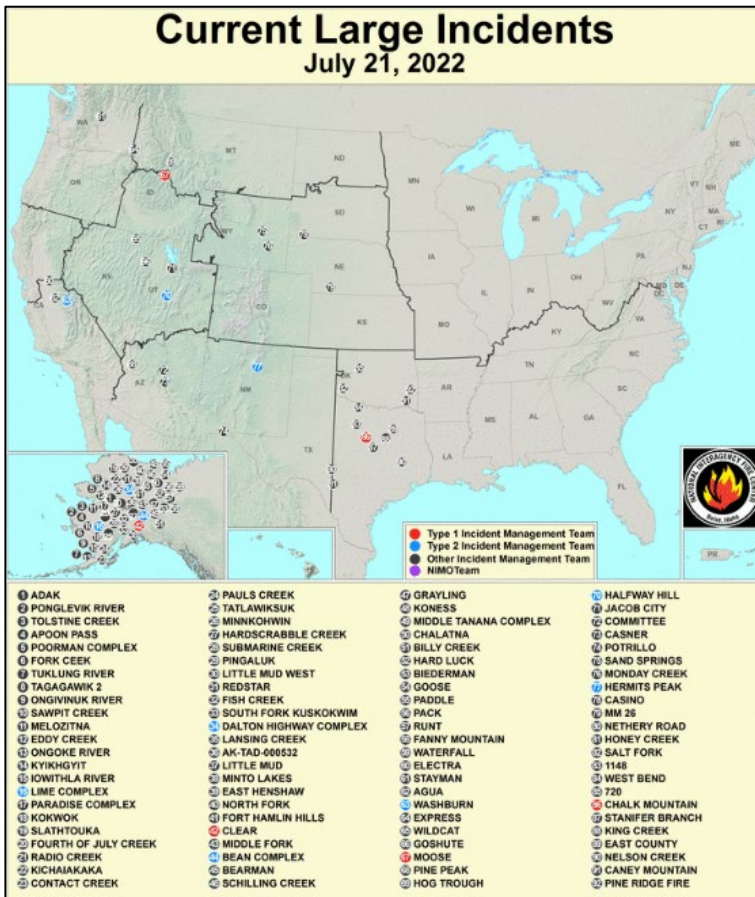
- [Drought Impact Reporter](#)
- [Quarterly Regional Climate Impacts and Outlook](#)
- [U.S. Drought Portal Indicators and Monitoring](#)
- [U.S. Population in Drought, Weekly Comparison](#)
- [USDA Disaster and Drought Information](#)

USDA Secretarial Drought Designations

Source: USDA Farm Service Agency



Wildfires: USDA Forest Service Active Fire Mapping



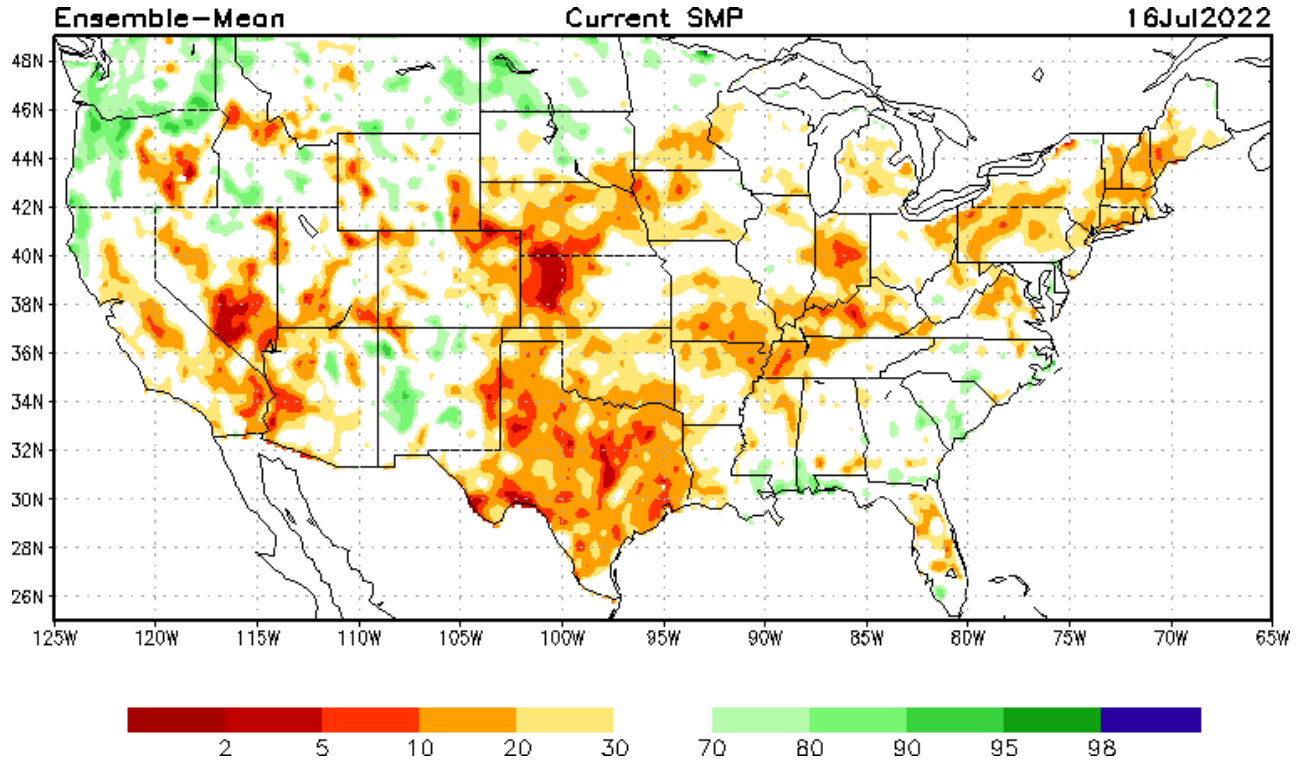
Highlighted Wildfire Resources

- [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

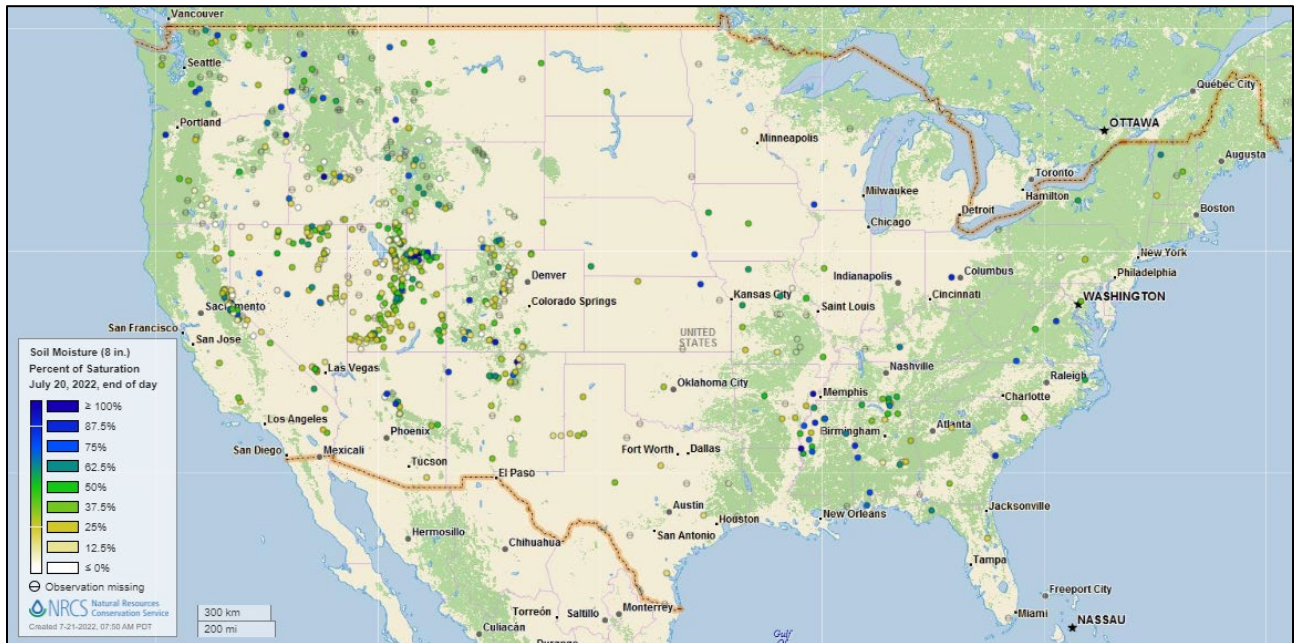


[Modeled soil moisture percentiles](#) as of July 16, 2022

Soil Moisture Percent of Saturation

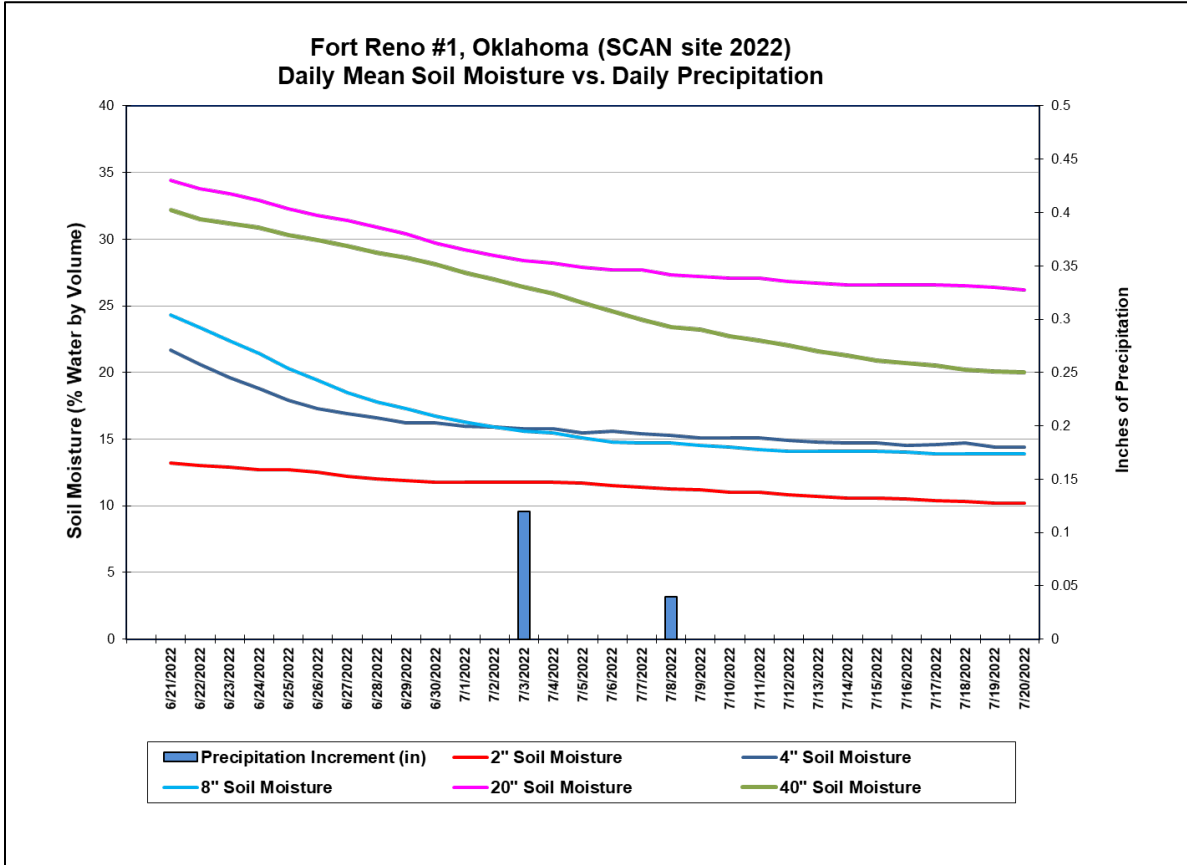
Source: NRCS SNOTEL and [Soil Climate Analysis Network](#) (SCAN)

[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 [Fort Reno #1](#) SCAN site in Oklahoma. Soil moisture levels at all sensor depths have decreased over the period. Total precipitation received during the period was 0.16 inches.

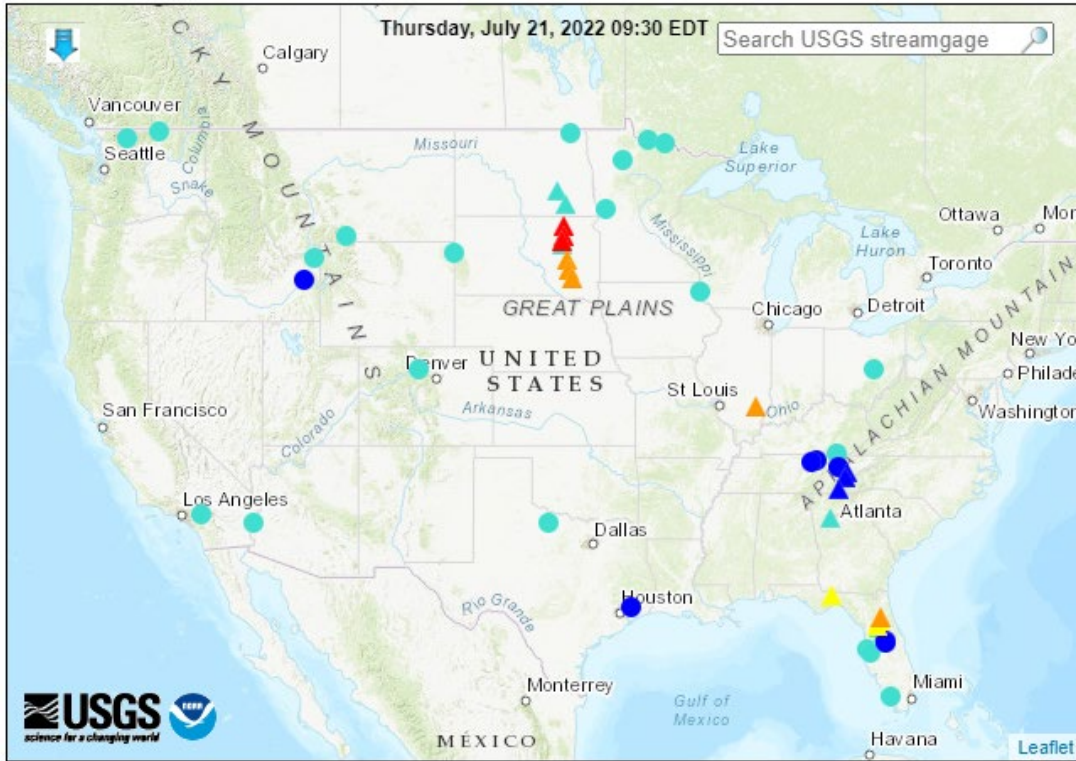
Soil Moisture Data Portals

- [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
 (8 in floods [moderate: 3, 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
			△ Streamgauge with flood stage	○ Streamgauge without flood stage		

[WaterWatch: Streamflow, drought, flood, and runoff conditions](#)

Reservoir Storage

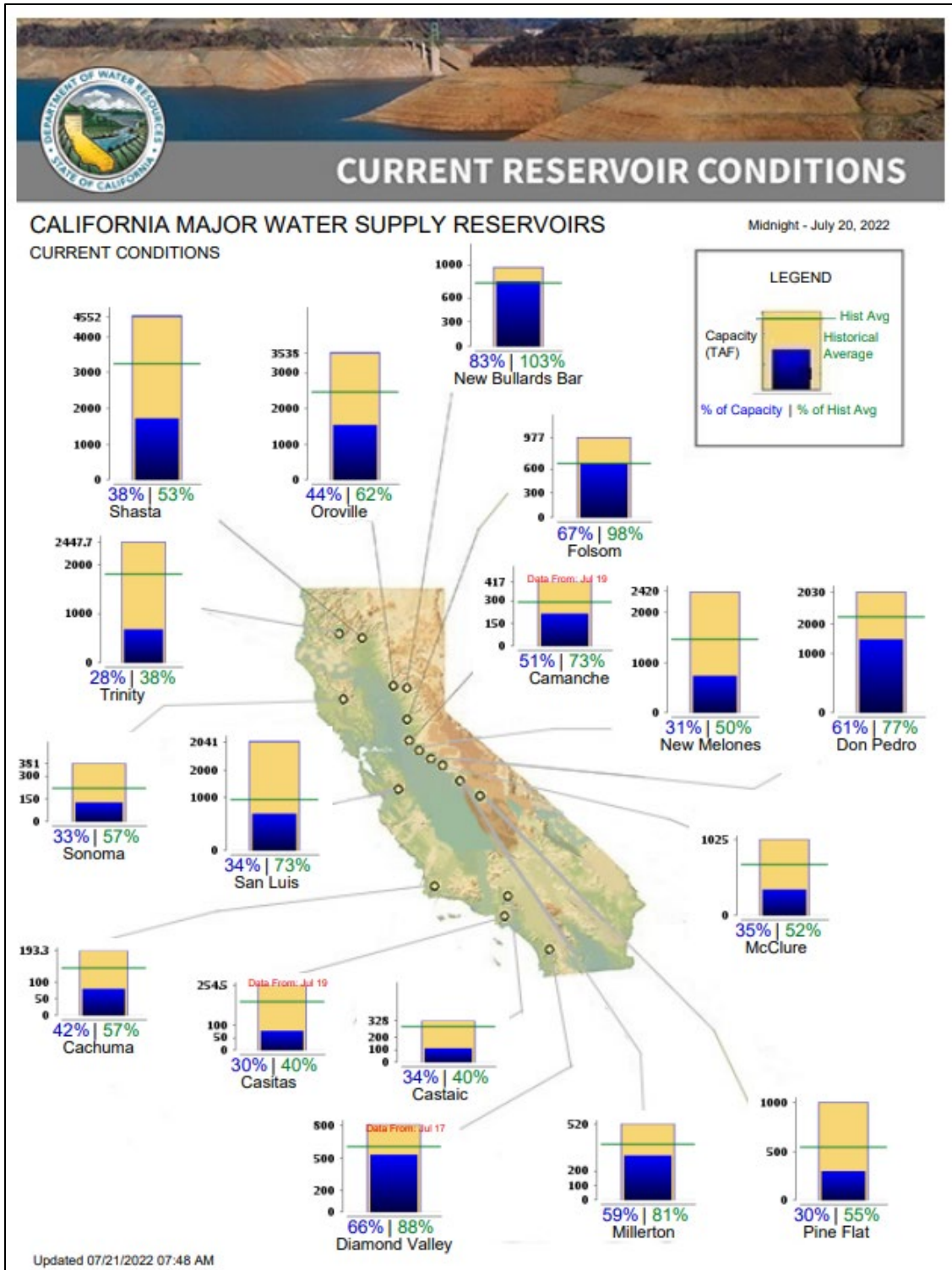
Hydromet Teacup Reservoir Depictions

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 21, 2022: “Coast-to-coast high pressure will maintain above-normal temperatures into next week across much of the country. However, from the northern Plains into the Northeast, temperatures will remain mostly below stressful levels for reproductive to filling summer crops. Farther south, hot conditions will persist through the weekend from the central and southern Plains to the East Coast. In fact, extreme heat will dominate portions of the southern and western U.S. into next week. Meanwhile, negligible rain will fall during the next 5 days in the south-central U.S. and the Far West. In contrast, showers will become more active in several areas as the Southwestern monsoon circulation becomes better established and as several cold fronts cross the northern U.S. Five-day rainfall totals could reach 1 to 2 inches or more in the Midwest, East, and Southwest. The NWS 6- to 10-day outlook for July 26 – 30 calls for the likelihood of near- or above-normal temperatures and rainfall across much of the country. Cooler-than-normal conditions will be confined to the Desert Southwest and from the northern Plains into the upper Great Lakes region, while drier-than-normal weather should be limited to parts of the Southeast and from the Pacific Northwest to the northern High Plains.”

Weather Hazards Outlook: [July 23 – 27, 2022](#)

Source: NOAA Weather Prediction Center

U.S. Day 3-7 Hazards Outlook

[About the Hazards Outlook](#)

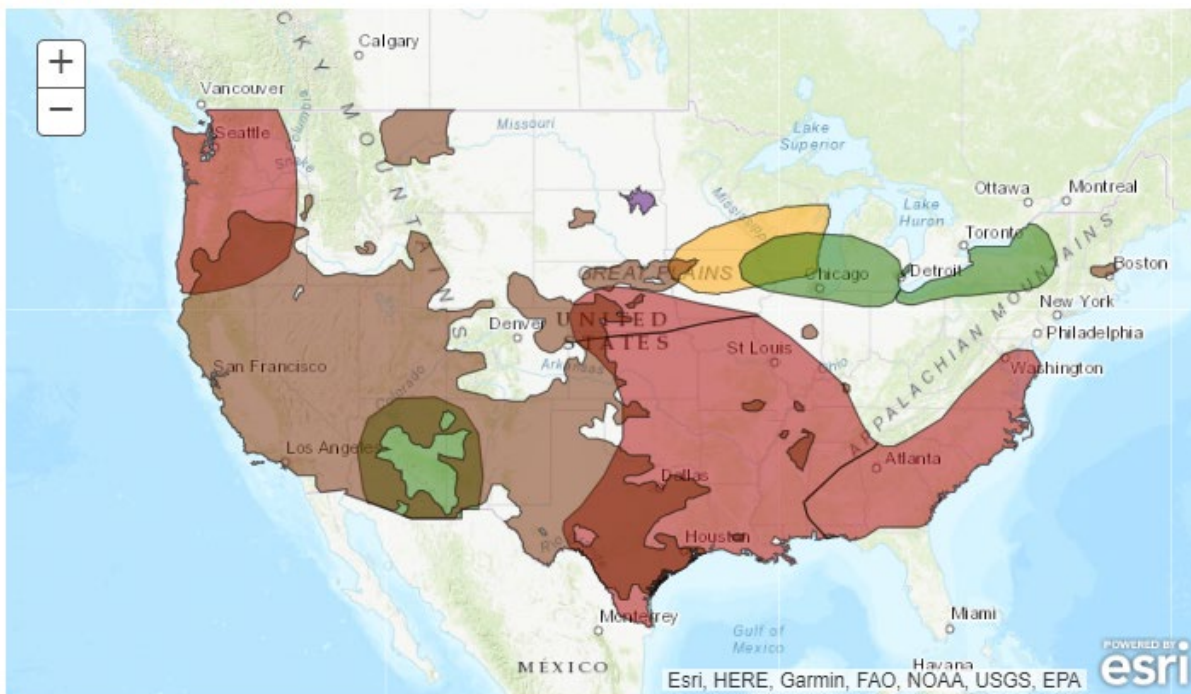
Created July 20, 2022

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 July 23, 2022 - July 27, 2022

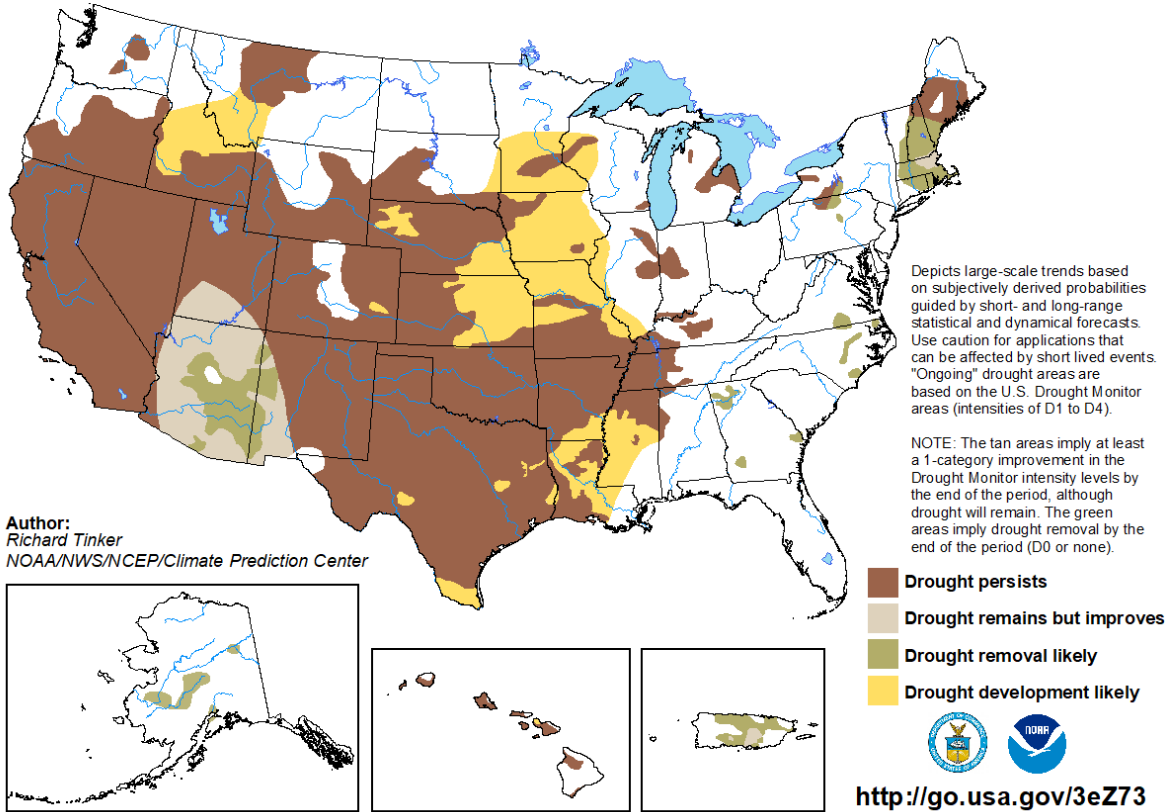


Seasonal Drought Outlook: [July 21 – October 31, 2022](#)

Source: National Weather Service

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

Valid for July 21 - October 31, 2022
Released July 21

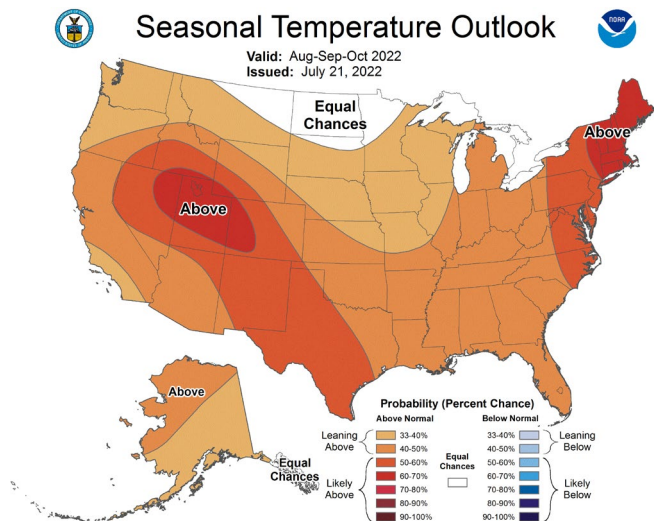
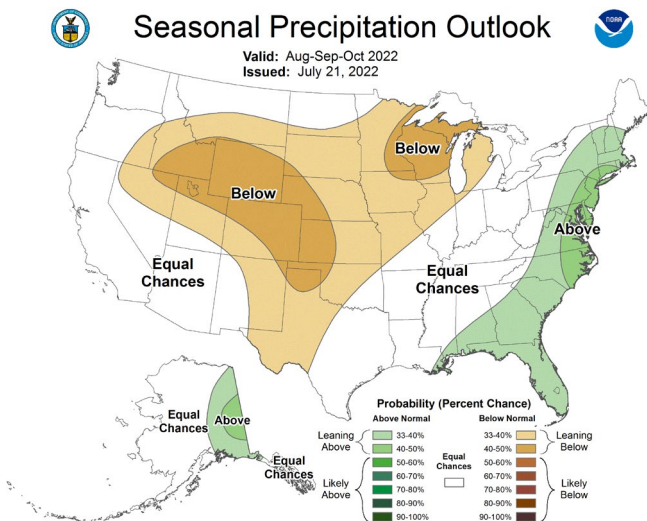


Climate Prediction Center 3-Month Outlook

Source: National Weather Service

Precipitation

Temperature



[August-September-October 2022 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](#).