



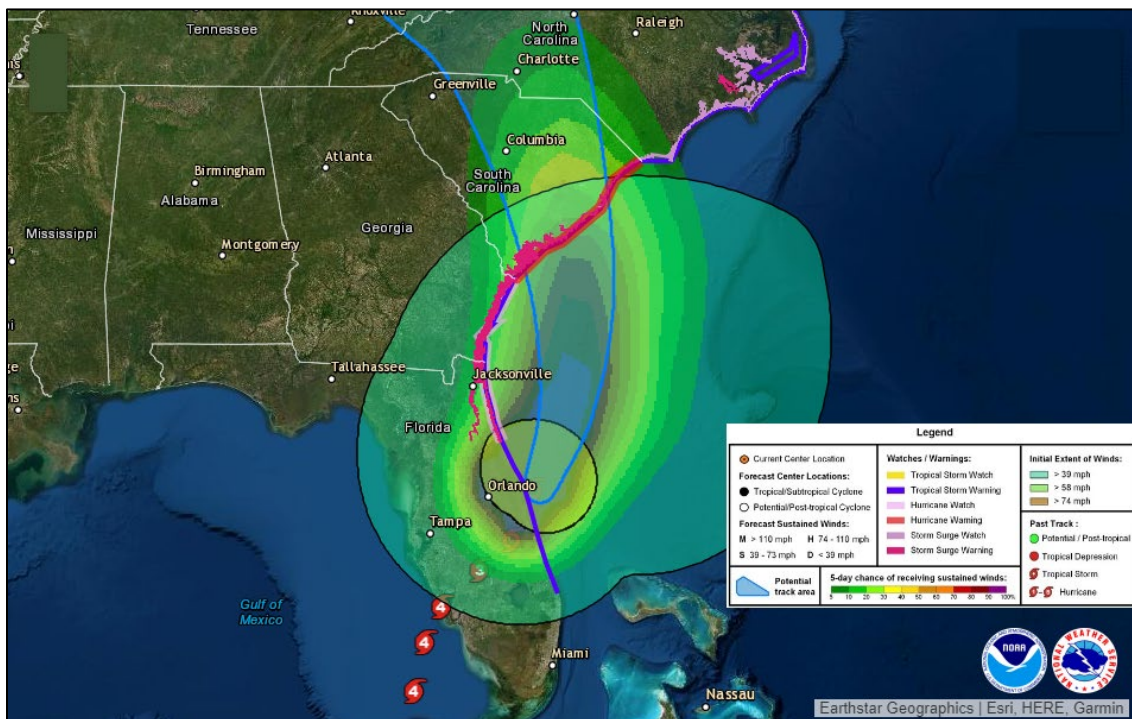
Water and Climate Update

September 29, 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		

Hurricane Ian causes severe damage across Florida



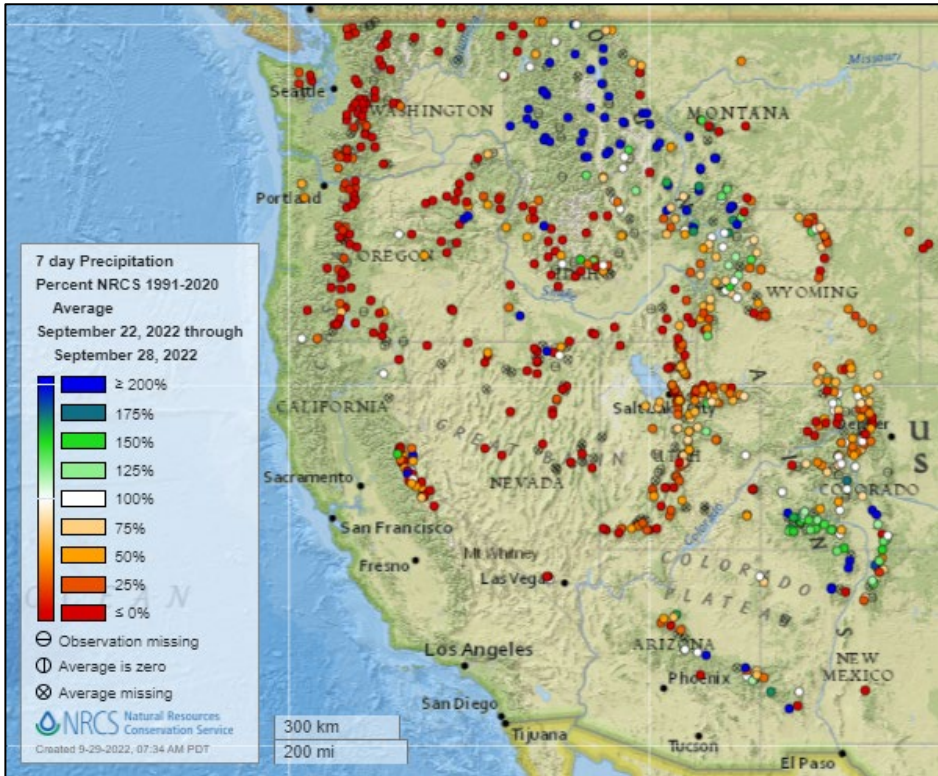
Hurricane Ian came ashore south of Punta Gorda in central Florida as a Category 4 hurricane on September 28 at 4:30 pm EDT. The powerful storm has been ranked as one of the worst in Florida’s history, with tropical-force winds extending 415 miles. Ian’s landfall brought destructive waves, tidal surge, winds topping 155 mph, tornadoes, heavy rain, and widespread, life-threatening flooding. Downed trees and other damage from the storm have left 2.7 million Florida residents without power. The hurricane weakened to a tropical storm as it exited Florida’s eastern coast, though it is forecasted to strengthen to a hurricane again by the evening of September 29 and make landfall in South Carolina on September 30.

Related:

- [People trapped, 2.5M without power as Ian drenches Florida](#) – AP News
- [Hurricane Ian downgraded to tropical storm as it exits Florida](#) – Sun Sentinal
- [Hurricane Ian Sucks Tampa Bay Dry Ahead Of Landfall](#) – HuffPost
- [Hurricane Ian nears Florida landfall with 155 mph winds](#) – AP News
- [Hurricane Ian batters Florida’s Gulf Coast with catastrophic fury](#) - Reuters
- [Hurricane Ian on brink of Category 5 status as it nears Florida landfall today: Live updates](#) - CNN
- [Hurricane Ian live updates: Storm strengthens to Category 4 as it nears Florida](#) – NBC News
- [Hundreds of hospitals on Atlantic and Gulf Coasts at risk of flooding as Ian hits Florida](#) – ABC News

Precipitation

Last 7 Days, NRCS SNOTEL Network

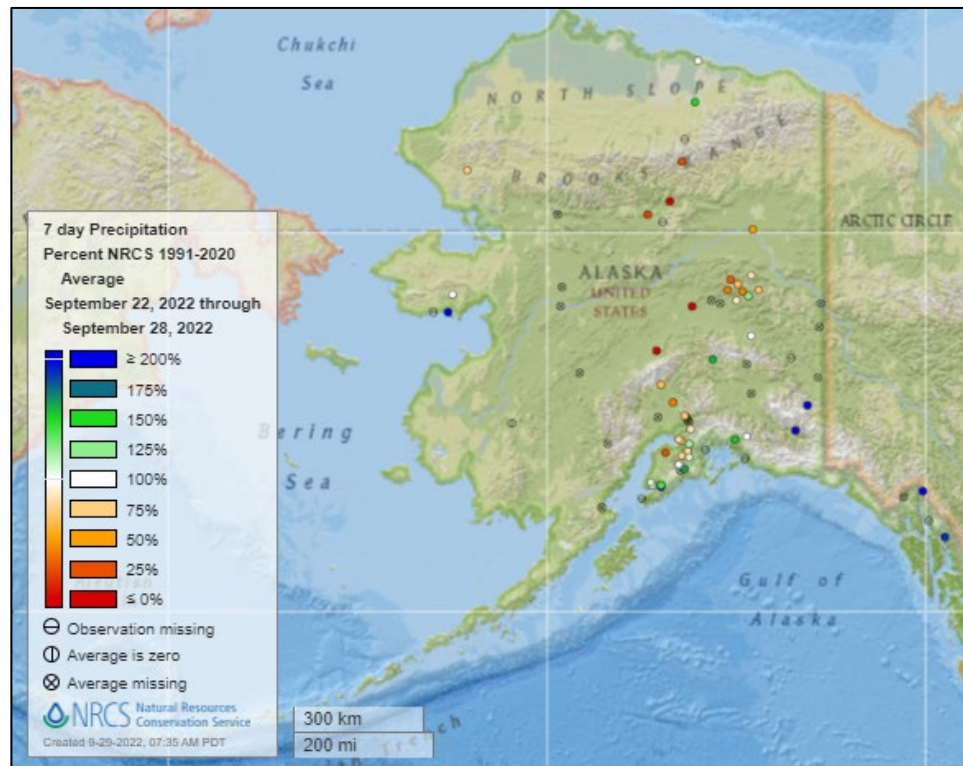


[7-day precipitation percent of average map](#)

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](#)



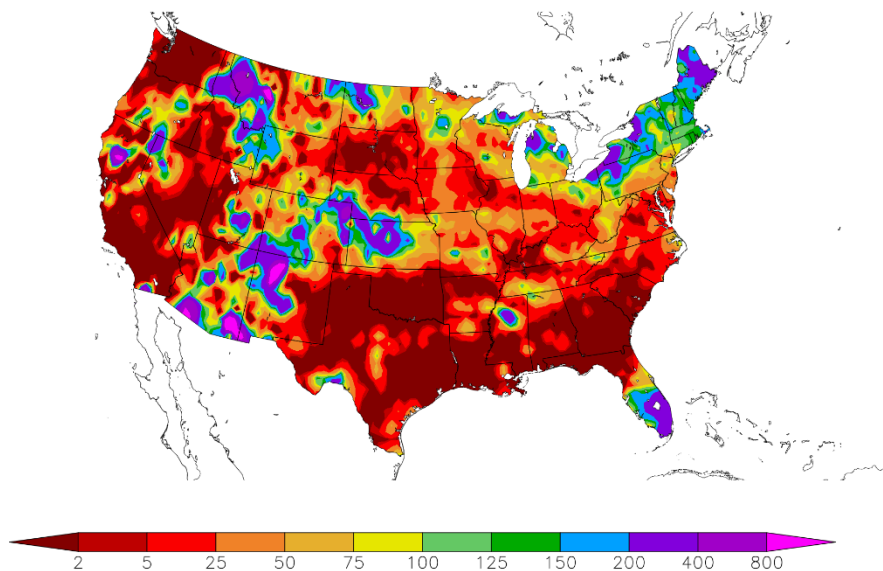
Last 7 Days, National Weather Service (NWS) Networks

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 (%)
9/22/2022 – 9/28/2022



Generated 9/29/2022 at HPRCC using provisional data.

NOAA Regional Climate Centers

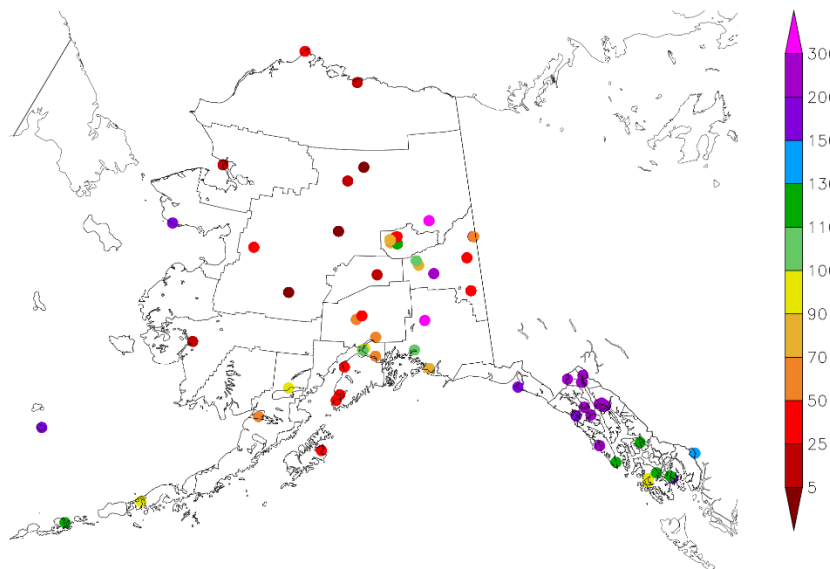
Last 7 Days, National Weather Service (NWS) Networks

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 (%)
9/22/2022 – 9/28/2022



Generated 9/29/2022 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

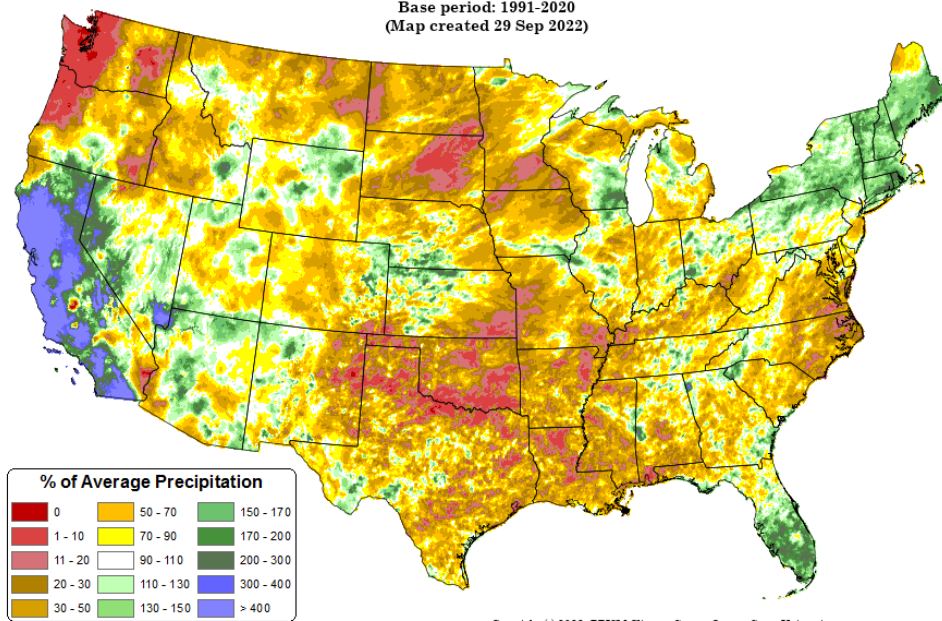
Total Precipitation Anomaly: 01 Sep 2022 - 28 Sep 2022

Period ending 7 AM EST 28 Sep 2022

Base period: 1991-2020

(Map created 29 Sep 2022)

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



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

Source: PRISM

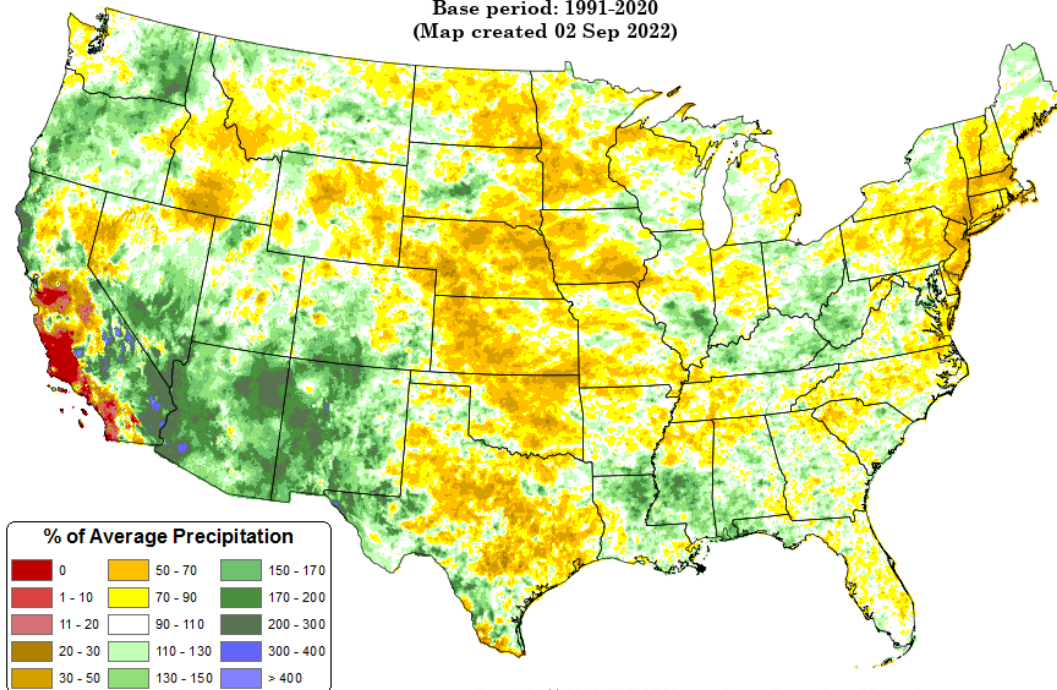
[June through August 2022 precipitation anomaly map](#)

Total Precipitation Anomaly: Jun 2022 - Aug 2022

Period ending 7 AM EST 31 Aug 2022

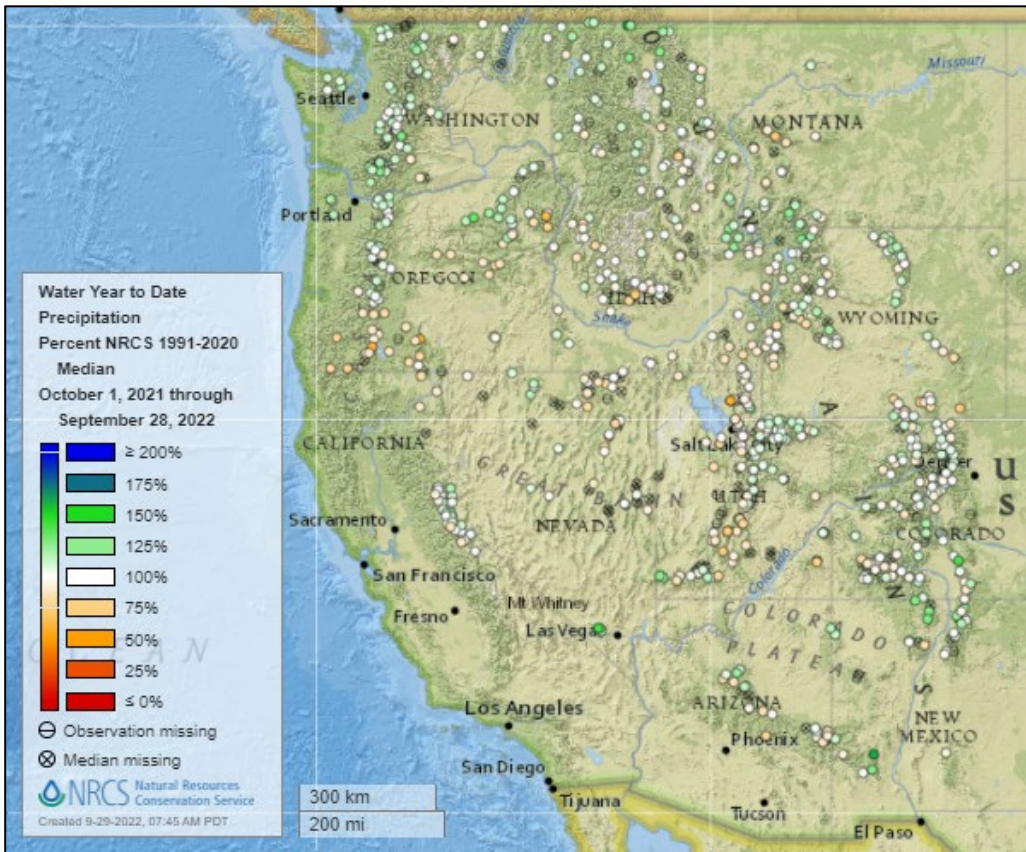
Base period: 1991-2020

(Map created 02 Sep 2022)



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Water Year-to-Date, NRCS SNOTEL Network

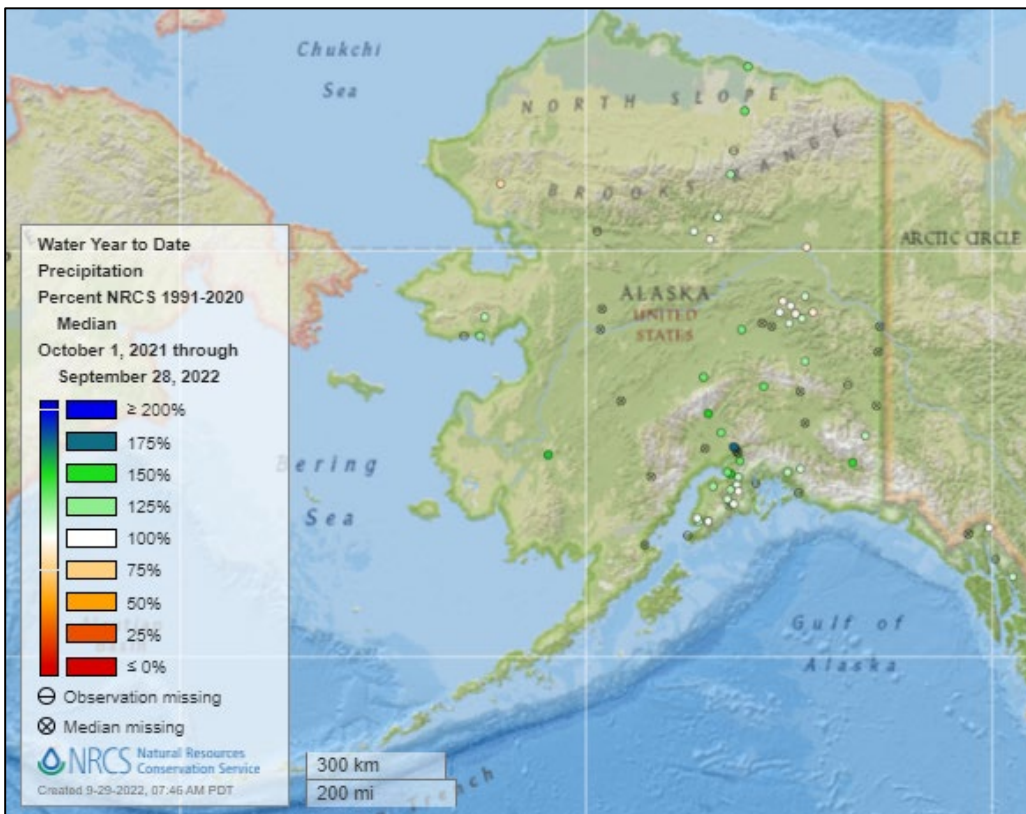


[2022 water year-to-date precipitation percent of median map](#)

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

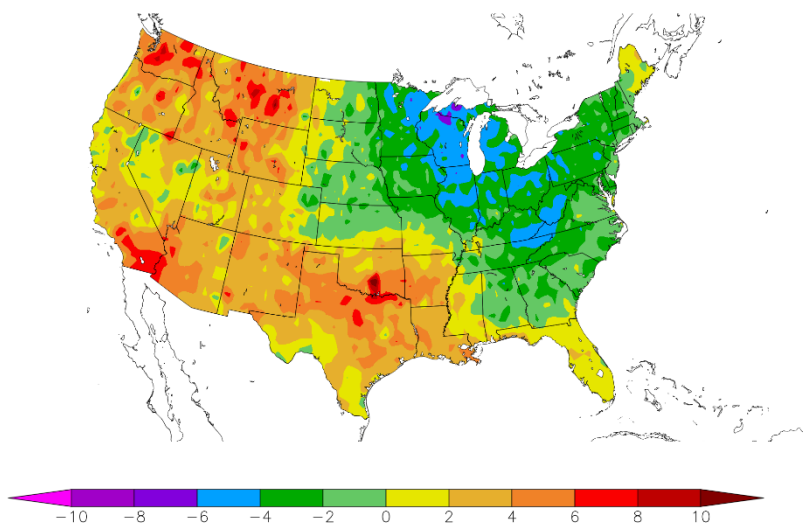
Last 7 Days, National Weather Service (NWS) Networks

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)
9/22/2022 – 9/28/2022



Generated 9/29/2022 at HPRCC using provisional data.

NOAA Regional Climate Centers

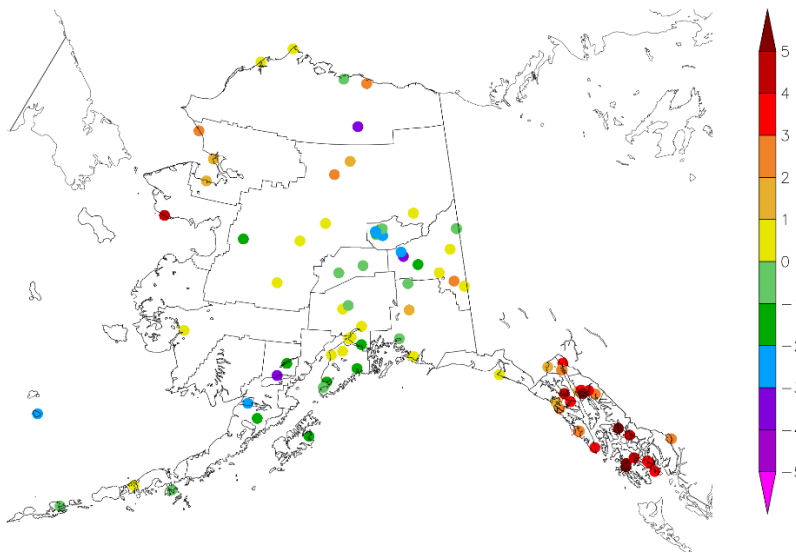
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
9/22/2022 – 9/28/2022



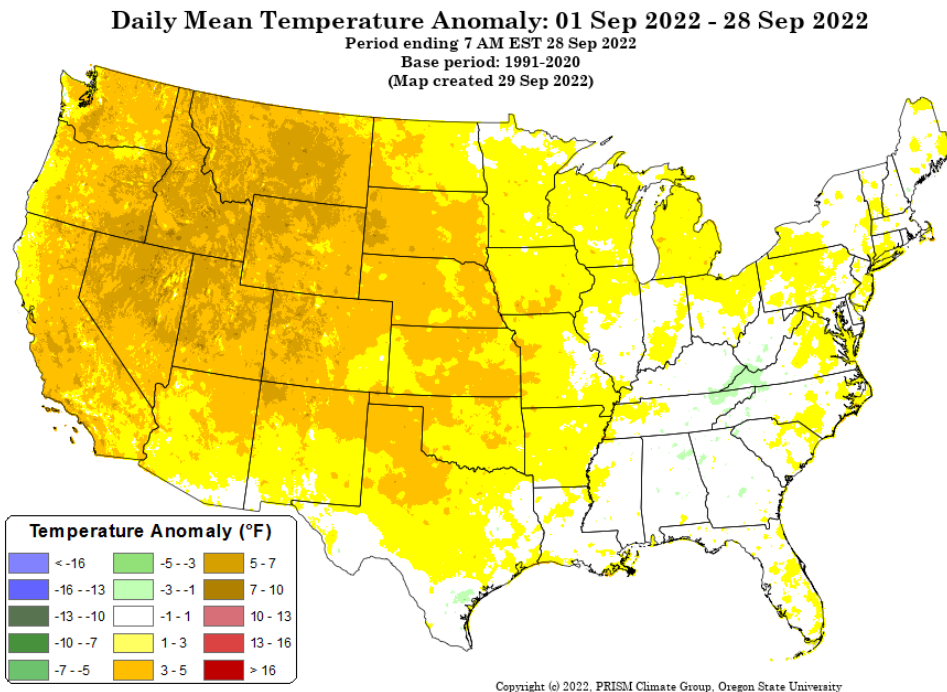
Generated 9/29/2022 at HPRCC using provisional data.

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

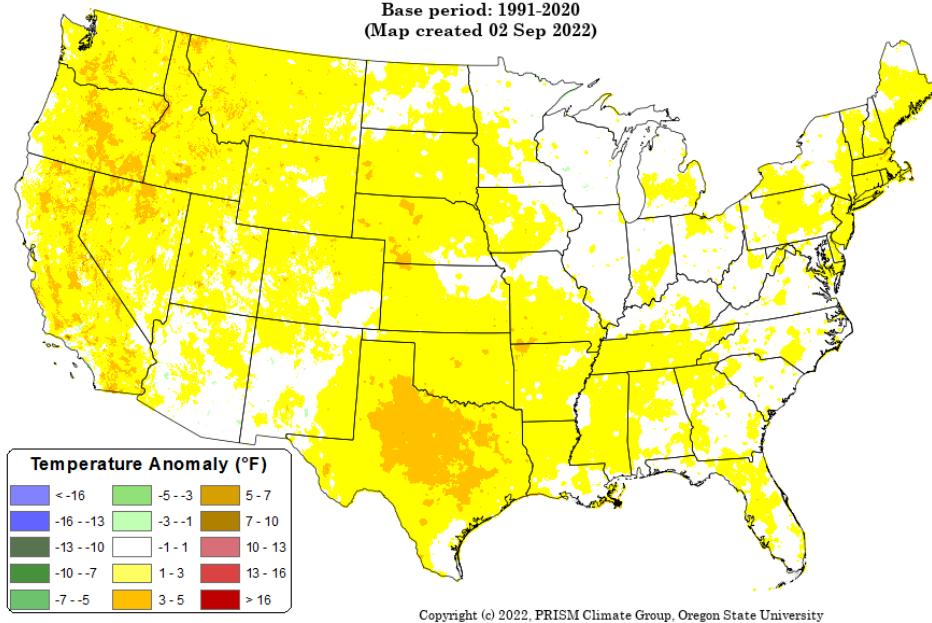
Daily Mean Temperature Anomaly: Jun 2022 - Aug 2022

Period ending 7 AM EST 31 Aug 2022

Base period: 1991-2020

(Map created 02 Sep 2022)

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



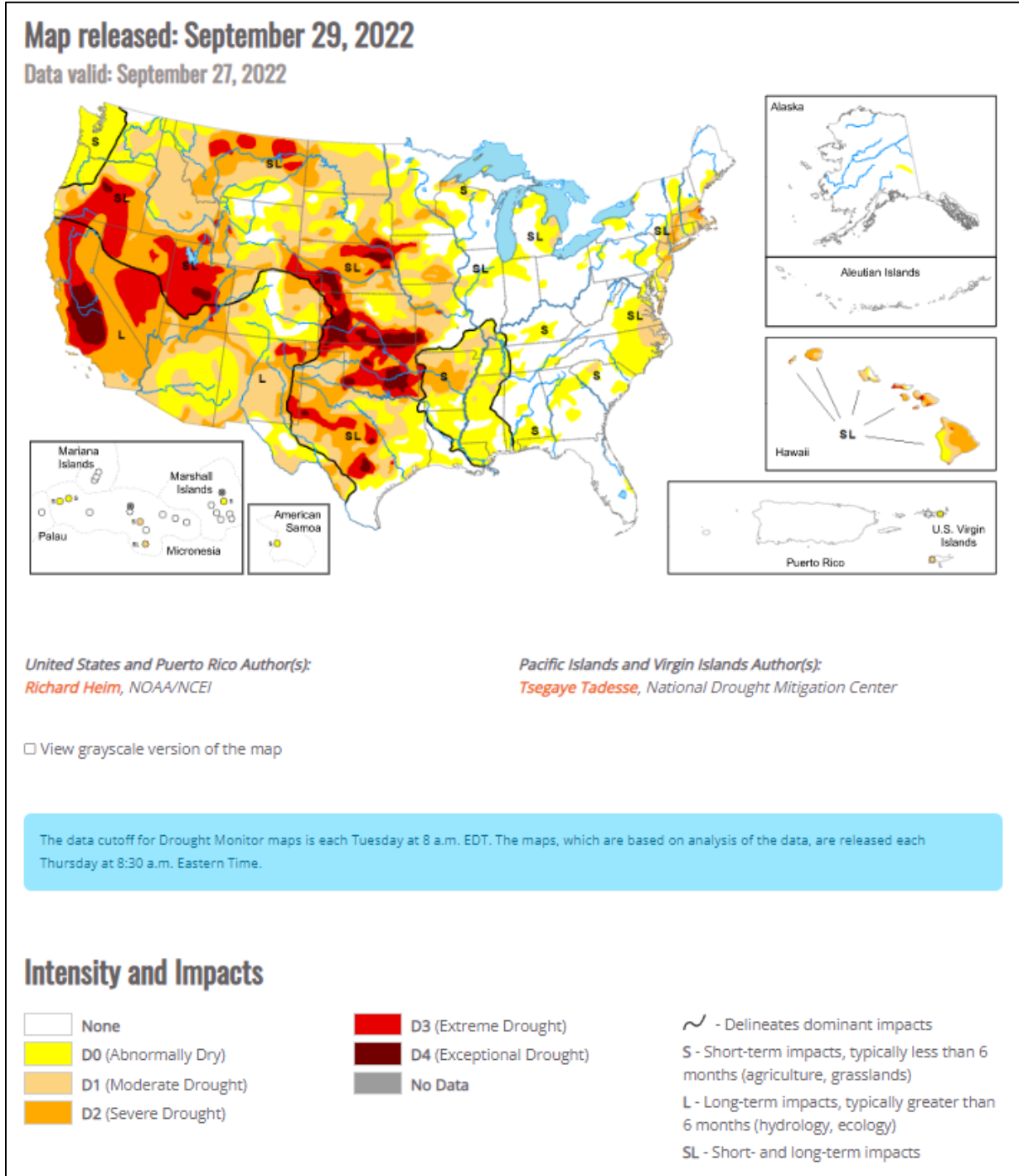
Drought

[U.S. Drought Monitor](#)

Source: National Drought Mitigation Center

[U.S. Drought Portal](#)

Source: NOAA



Current [National Drought Summary](#), September 27, 2022

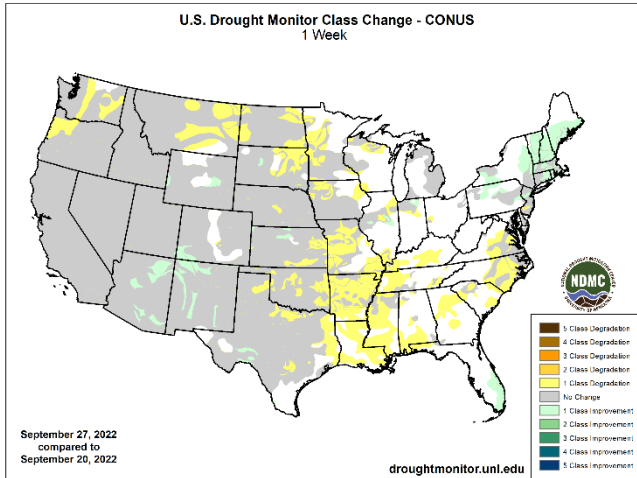
Source: National Drought Mitigation Center

“Two upper-level weather systems danced across the contiguous U.S. (CONUS) during this U.S. Drought Monitor (USDM) week (September 21-27). One partner of the pair was an upper-level low pressure trough which twirled from the West Coast to the northern Plains then migrated to the Northeast. The other partner was a high-pressure ridge. As they did a kind of do-si-do, the ridge swung from the southern Plains to the western CONUS. Other players danced at the periphery – Hurricane Fiona moved across the Canadian Maritime Provinces, spreading rain over New England at the beginning of the week, while Hurricane Ian brought rain and wind to southern Florida as it bore down on the state just as the week ended. The high-pressure ridge brought hot temperatures to the southern states at first, then to the West later in the period. The trough generated a storm track across the northern states, then sent a large cold front into the Southeast as the period ended. Monsoon showers joined in over the Southwest in these waning days of summer. The end result was a weekly precipitation pattern that was wetter than normal over parts of the West, southern Plains, Great Lakes, Northeast, and southern Florida. The rain missed large parts of the West, which received little to no precipitation, and much of the Plains, Mississippi to Ohio Valleys, and Southeast to Mid-Atlantic states were drier than normal as well. Temperatures for the week averaged warmer than normal over the southern Plains to Lower Mississippi Valley and across parts of the Southwest and Northwest. The week ended up cooler than normal from the northern Plains to Northeast and into parts of the Southeast. The hot temperatures and continued dry conditions, especially in the South, further dried soils. According to the U.S. Department of Agriculture (USDA), national topsoil moisture rated very short to short (dry or very dry) reached 54%, a high for the year to date and very close to the recent maximum of 56% achieved on October 18, 2020. This is the third year in a row that a peak greater than 50% has occurred. Drought and abnormal dryness contracted where it rained in the Southwest, Northeast, and southern Florida. Drought and abnormal dryness expanded where it didn’t rain, including the Northwest, Great Plains to Mississippi Valley, and Mid-Atlantic states.”

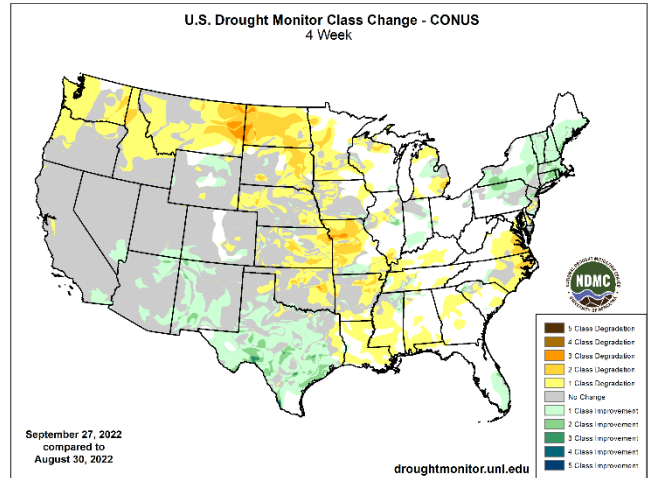
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

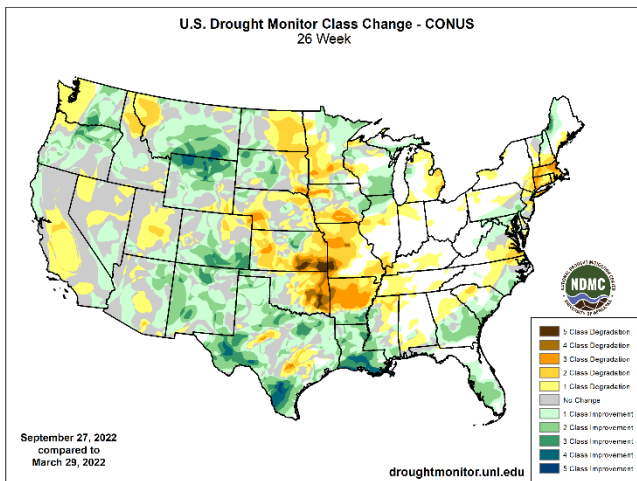
1 Week



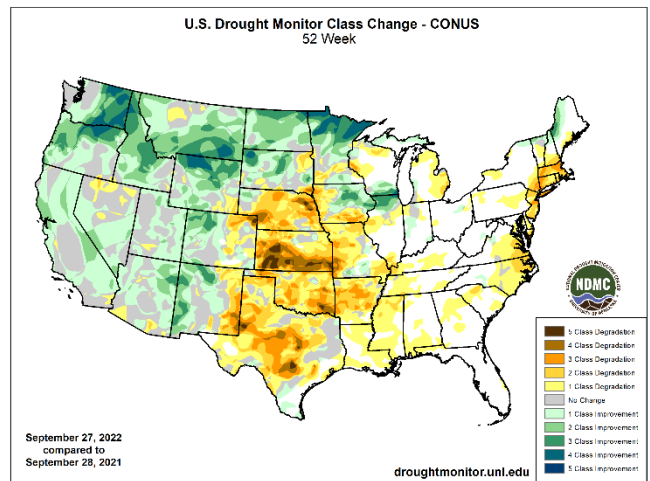
1 Month



6 Months



1 Year



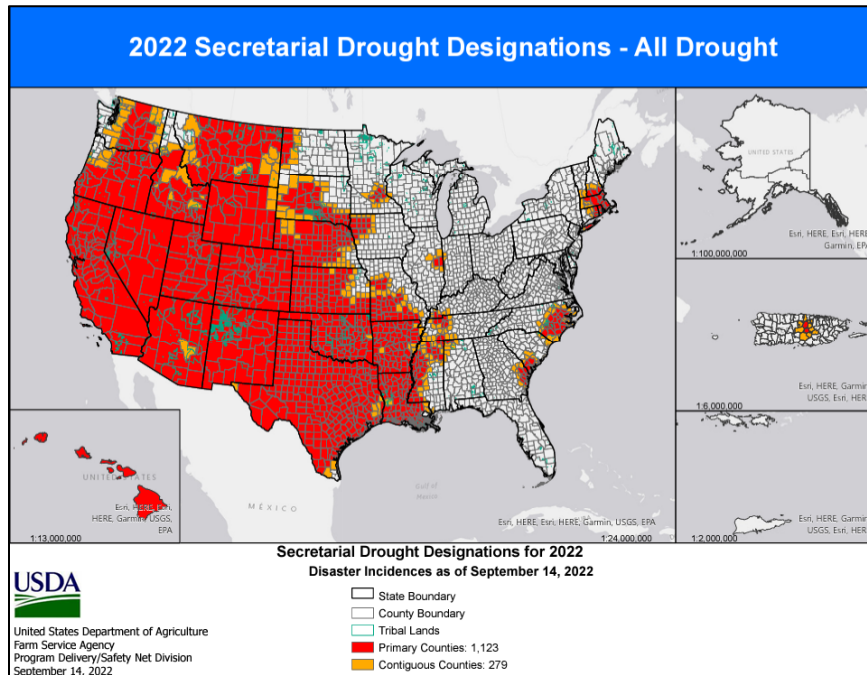
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

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



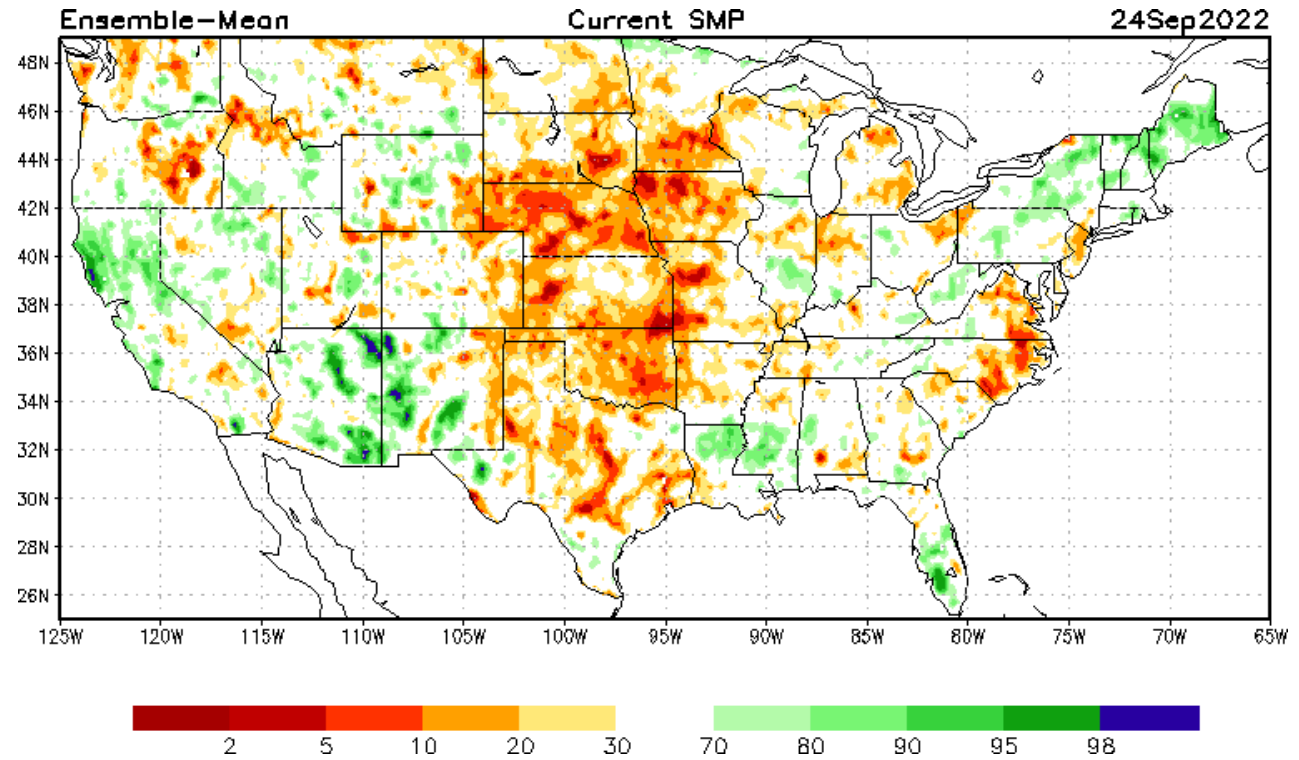
**Highlighted
Wildfire
Resources**

- [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

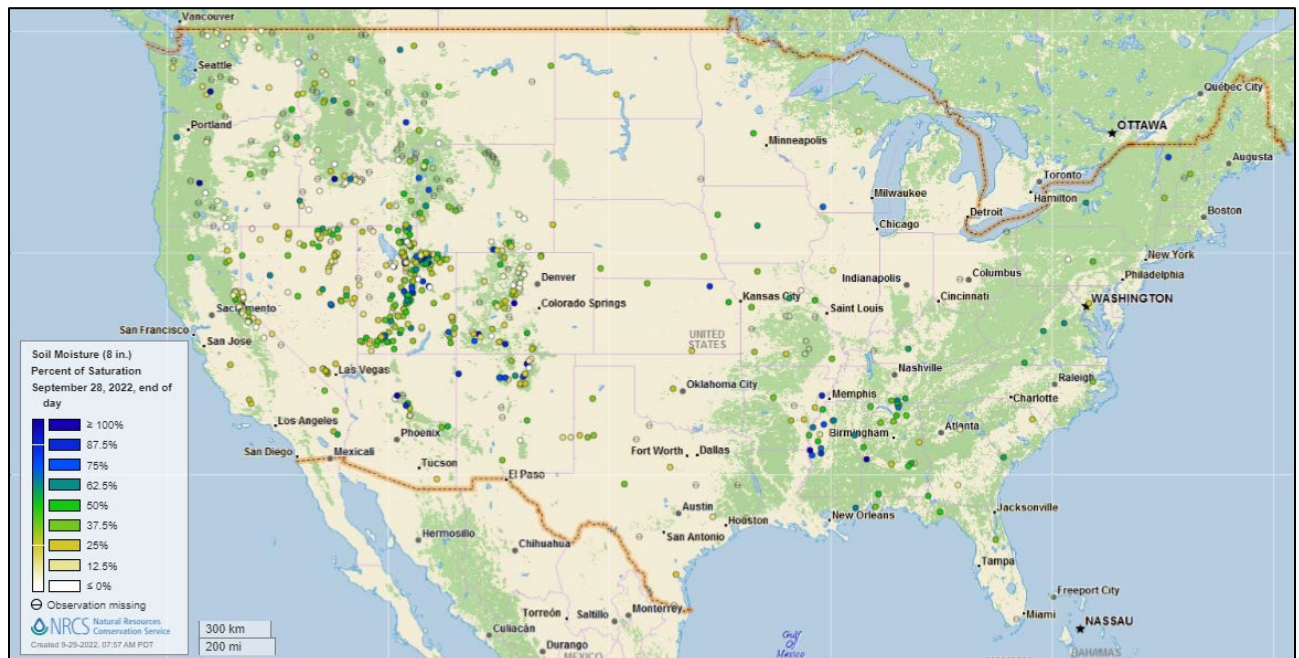


[Modeled soil moisture percentiles](#) as of September 24, 2022

Soil Moisture Percent of Saturation

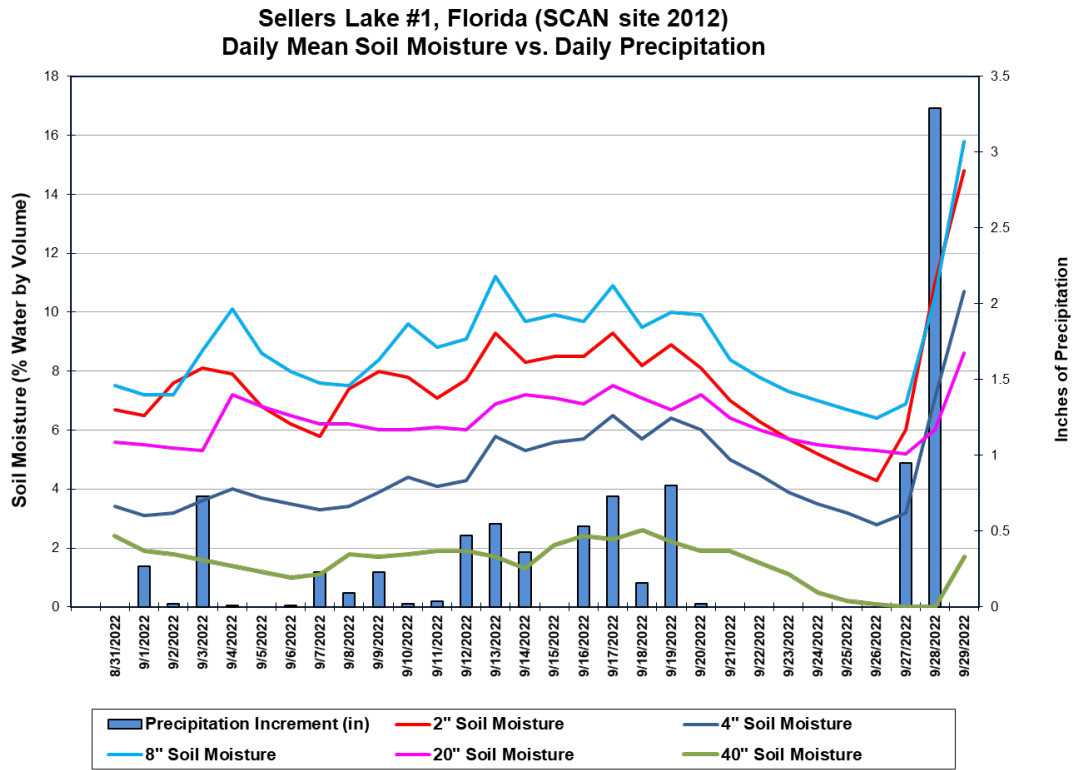
Source: NRCS SNOTEL and [Soil Climate Analysis Network \(SCAN\)](#)

[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 [Sellers Lake #1](#) SCAN site in Florida. Soil moisture levels increased at all sensor depths after the site received 3.29 inches of precipitation from Tropical Storm Ian on September 28. Total precipitation for the period was 9.51 inches.

Soil Moisture Data Portals

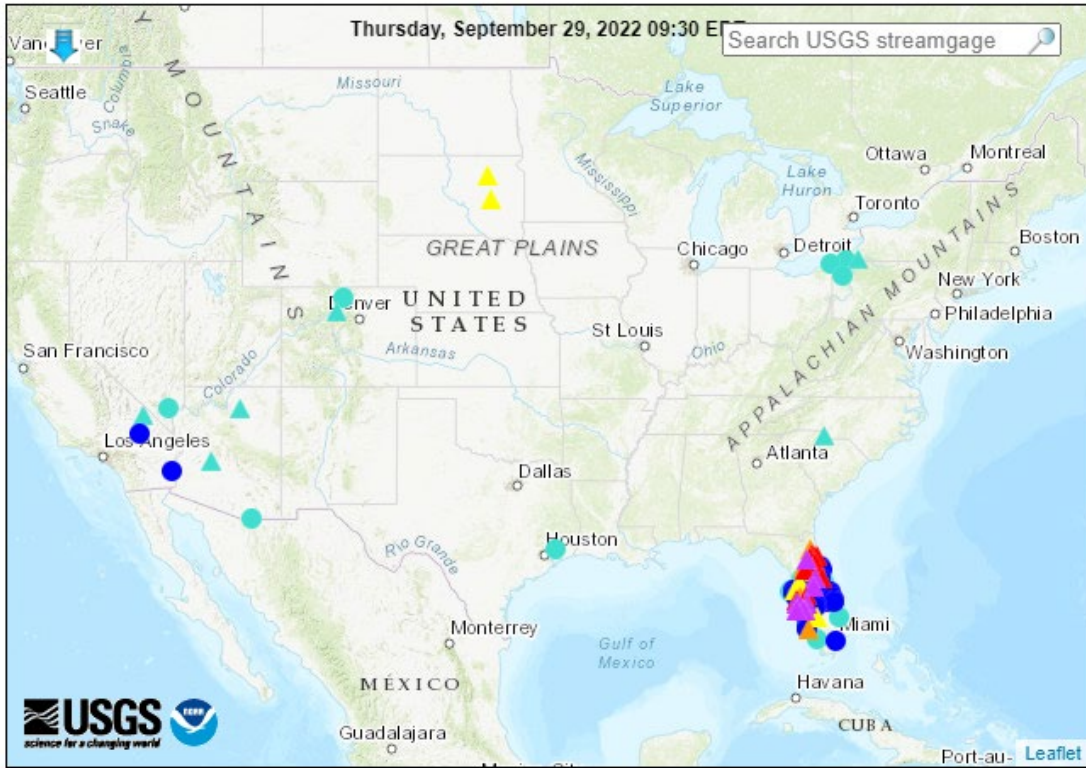
- [USCRN Soil Moisture](#)
- [National Soil Moisture Network](#)
- [NOAA Climate Prediction Center Soil Moisture](#)
- [NASA Grace](#)

Streamflow, Drought, Flood, and Runoff

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

Map of flood and high flow conditions

(25 in floods [major: 9, moderate: 11, 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
			△ Streamgage with flood stage	○ Streamgage without flood stage		

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

Reservoir Storage

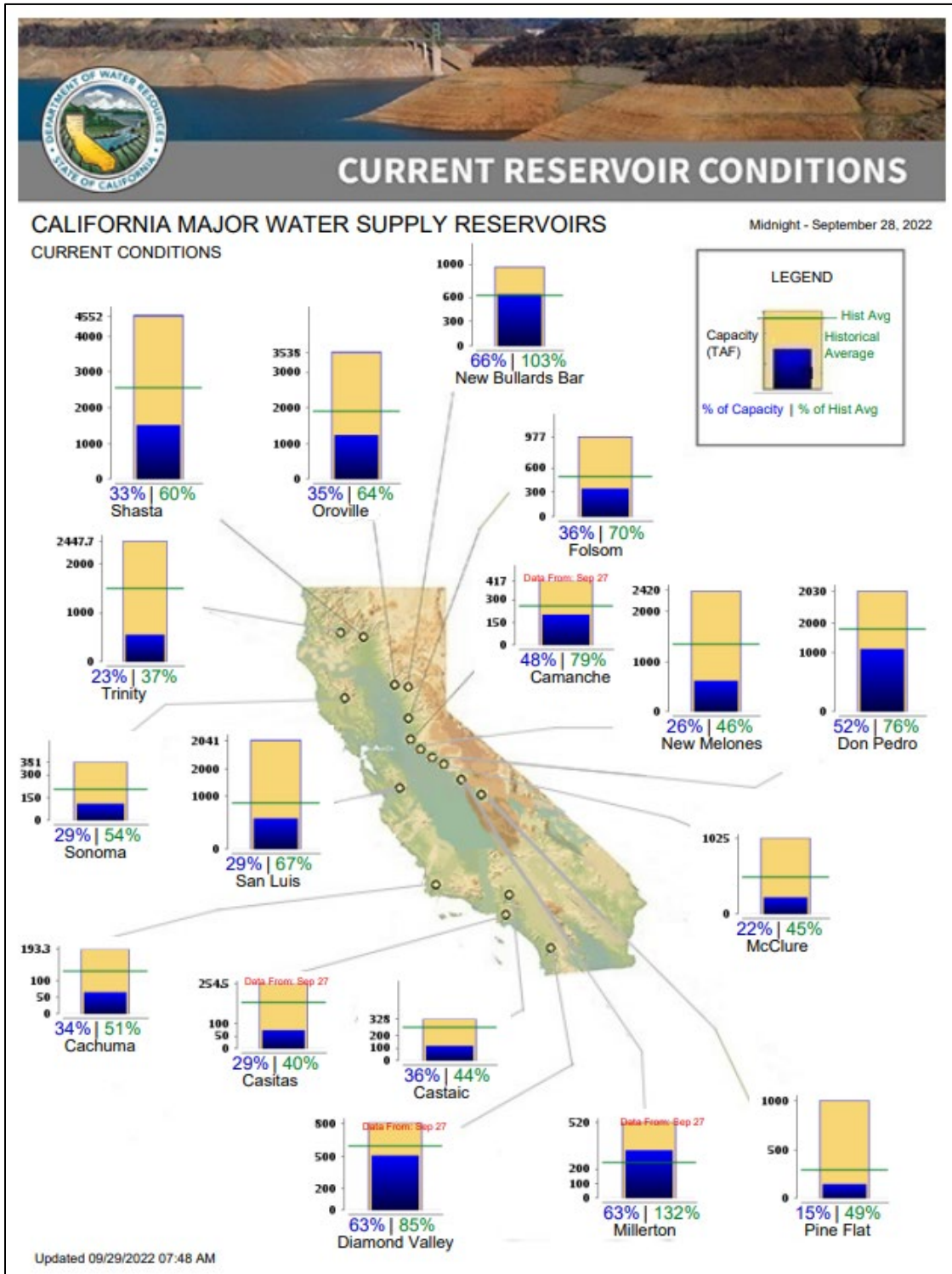
Hydromet Teacup Reservoir Depictions

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, September 29, 2022: “Ian will spend the remainder of today and Friday morning over coastal waters of the western Atlantic Ocean before making a likely final landfall in South Carolina. Ongoing threats associated with Tropical Storm Ian include flash flooding, damaging wind gusts, a modest storm surge, and isolated tornadoes. Southeastern cotton bolls, ranging from 66 to 80% open, could be harmed over the next few days by wet, windy weather. Other unharvested Southeastern summer crops, including corn, peanuts, and soybeans, should be more resilient to wind and rain than cotton. Through early next week, additional Southeastern rainfall could total 4 to 8 inches, with isolated totals near 12 inches. In contrast, dry weather will prevail during the next 5 days in the Mississippi Valley, Far West, Great Lakes and Northeastern States, and the southeastern half of the Plains. Widespread showers will occur, however, from the Four Corners States to northern sections of the Rockies and High Plains. The NWS 6- to 10-day outlook for October 4 – 8 calls for near- or above-normal temperatures and near- or below-normal rainfall across most of the country. Cooler-than-normal conditions will be mostly confined to the Atlantic Coast States, while wetter-than-normal weather should be limited to the Southwest.”

Weather Hazards Outlook: [October 01 – 05, 2022](#)

Source: NOAA Weather Prediction Center





U.S. Day 3-7 Hazards Outlook

[About the Hazards Outlook](#)

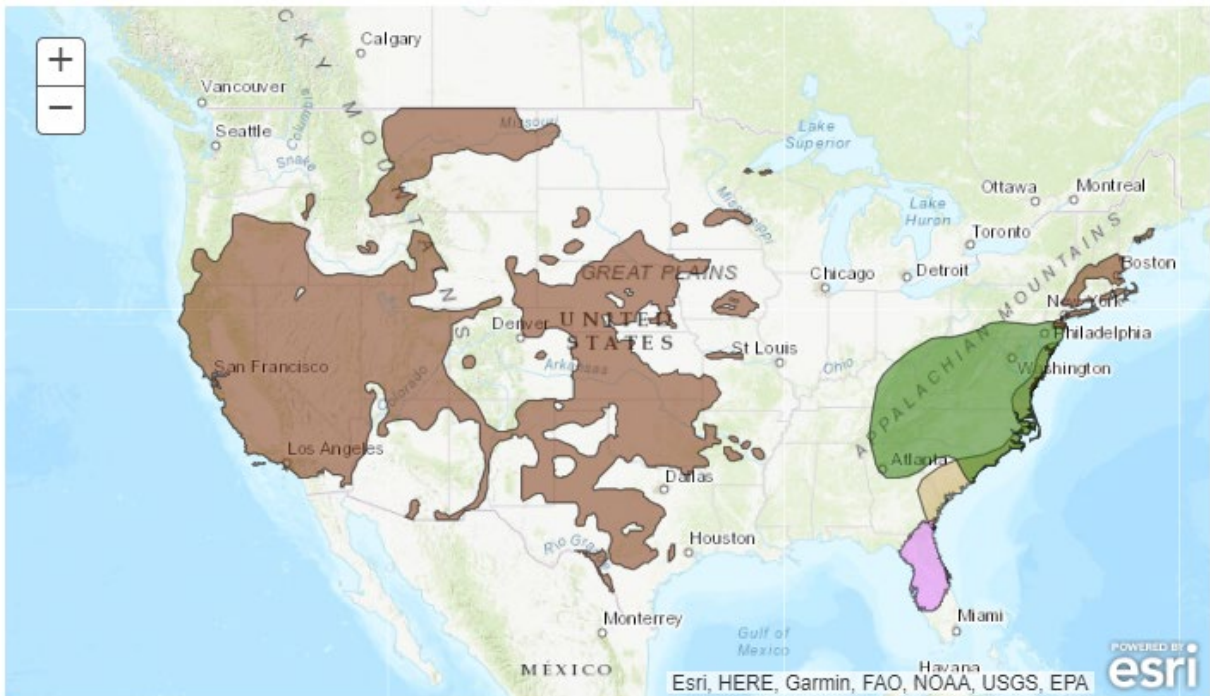
Created September 28, 2022

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 01, 2022 - October 05, 2022

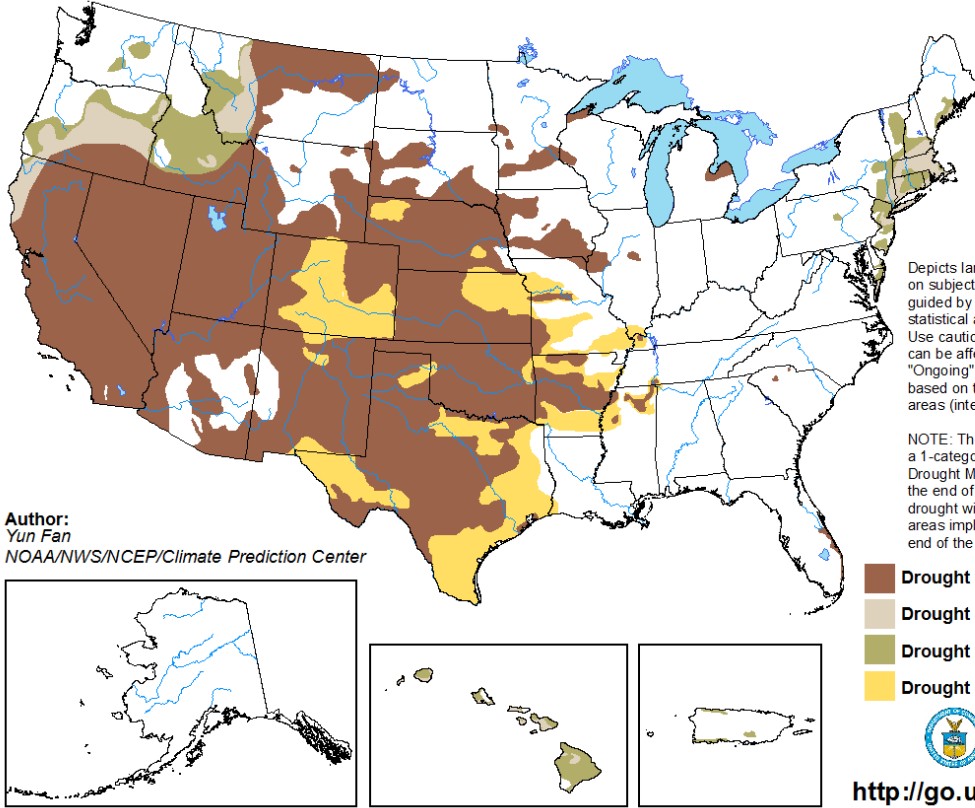


Seasonal Drought Outlook: [September 15 – December 31, 2022](#)

Source: National Weather Service

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

Valid for September 15 - December 31, 2022
Released September 15

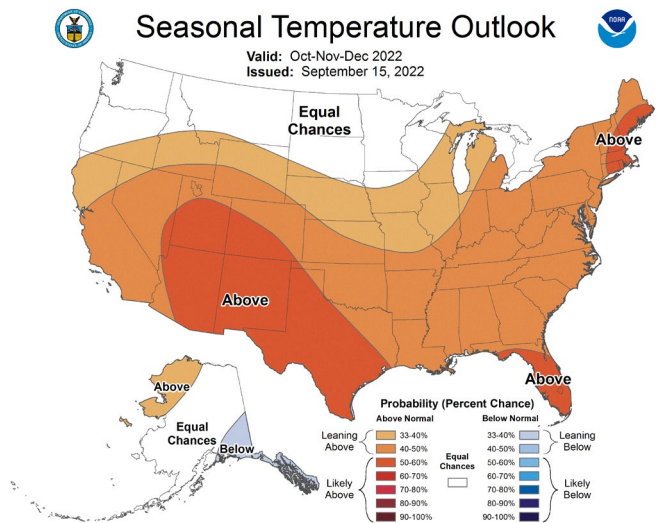
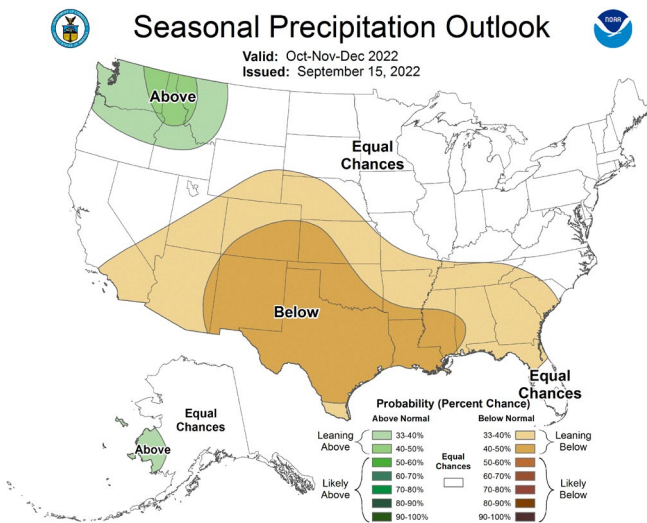


Climate Prediction Center 3-Month Outlook

Source: National Weather Service

Precipitation

Temperature



[October-November-December 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](#).