

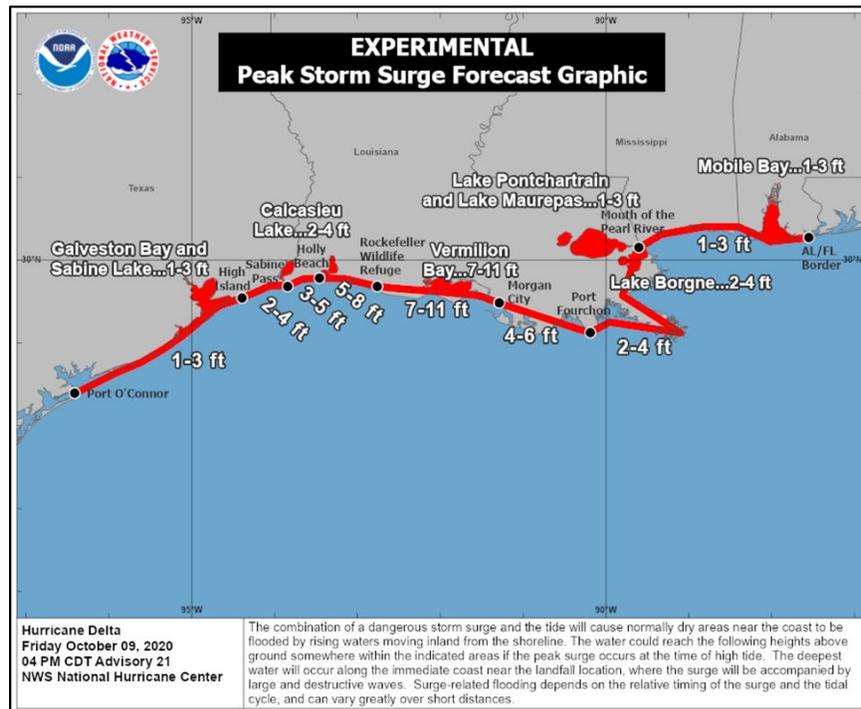
# Water and Climate Update

## October 15, 2020

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 .....	1	Other Climatic and Water Supply Indicators .....	11
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### Hurricane Delta makes landfall in Louisiana



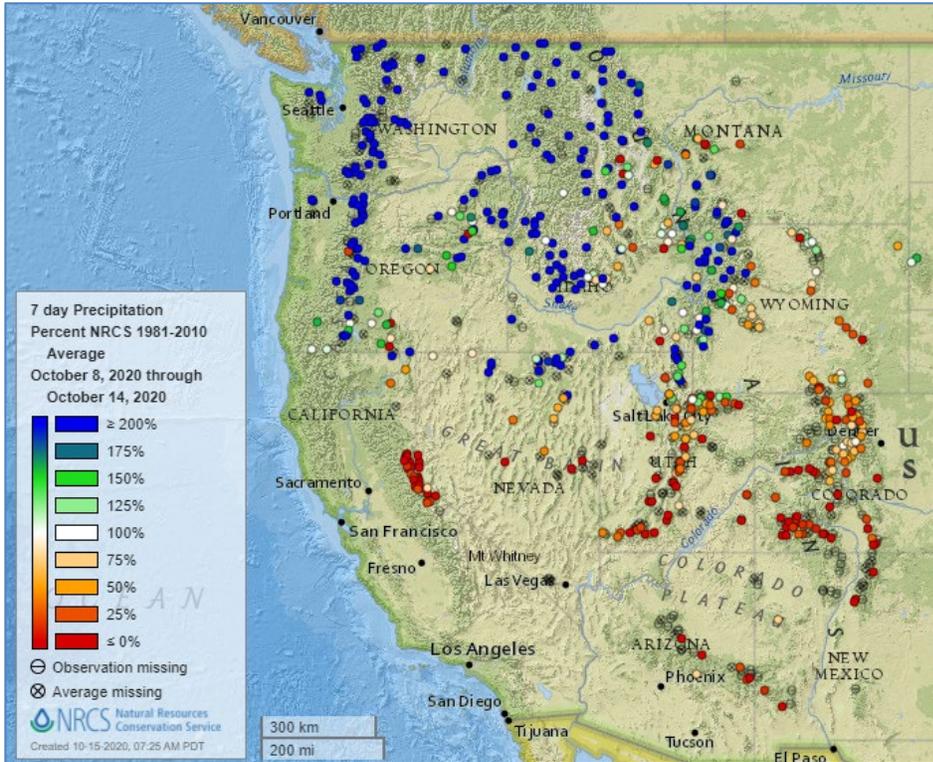
Hurricane Delta made landfall near Creole, Louisiana, on Friday as a Category 2 hurricane with sustained winds of nearly 100 mph. This was only 13 miles from the landfall of Category 4 Hurricane Laura on August 27. This was the tenth hurricane to make landfall in the U.S. this year, setting a new record. Rainfall ranged from 6 to 17.5 inches, with many locations exceeding 12 inches of rain. Peak storm surge flooding in one location was at 9.3 feet. Damage was widespread with over 850,000 without power.

**Related:**

- [Hurricane Delta by the numbers: 101 mph winds and 9.3-foot surge in coastal Louisiana](#) – The Washington Post
- [Record-breaking hurricane season could pass into history as drenching Delta exits Gulf Coast](#) – USA Today
- [Map shows Hurricane Delta the seventh of eight named Gulf storms in 2020](#) – NOLA (LA)
- [Monthly Atlantic Tropical Weather Summary](#) – NOAA National Hurricane Center
- [Over 200,000 Still Without Power From Hurricane Delta on U.S. Gulf Coast](#) – US News & World Report
- [Hundreds of homes flooded and destroyed by Hurricane Delta](#) – CNBC

## Precipitation

### Last 7 Days, NRCS SNOTEL Network

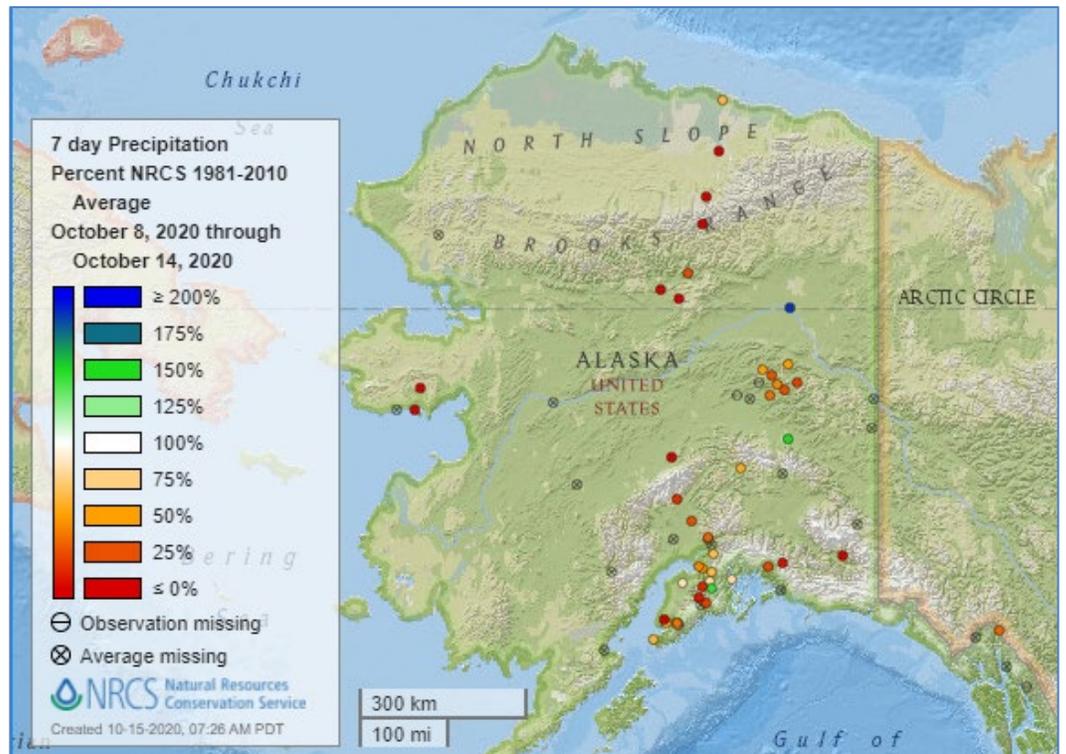


[7-day precipitation percent of average map](#)

**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](#)



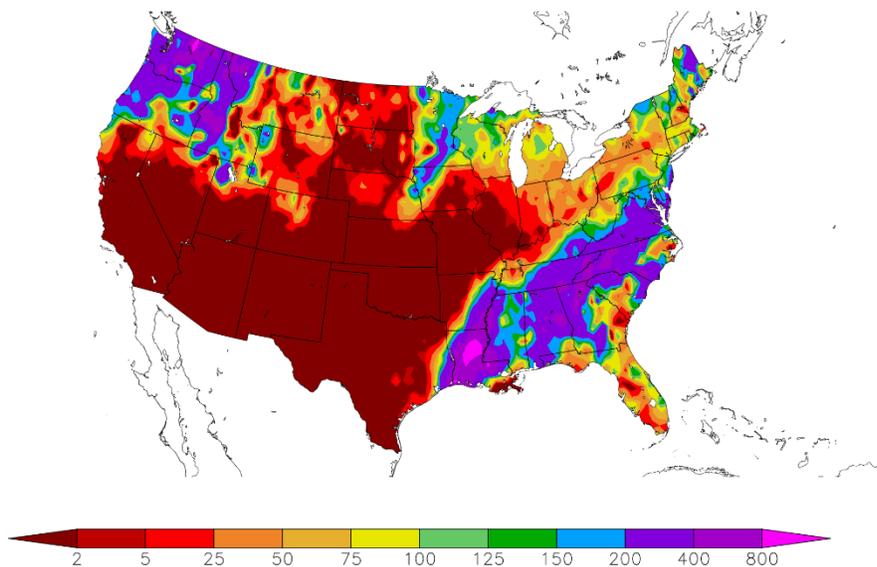
### Last 7 Days, National Weather Service (NWS) Networks

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 (%)  
10/7/2020 – 10/13/2020



Generated 10/14/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

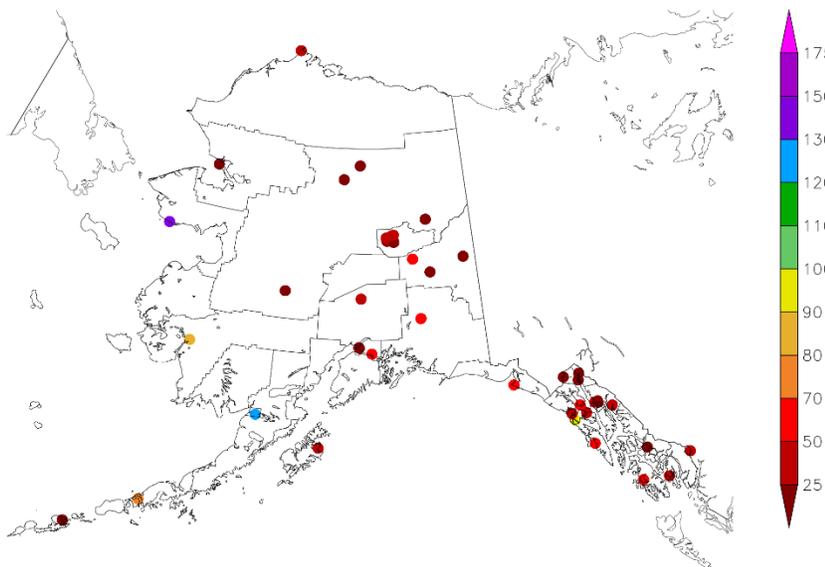
### Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)  
10/7/2020 – 10/13/2020



Generated 10/14/2020 at HPRCC using provisional data.

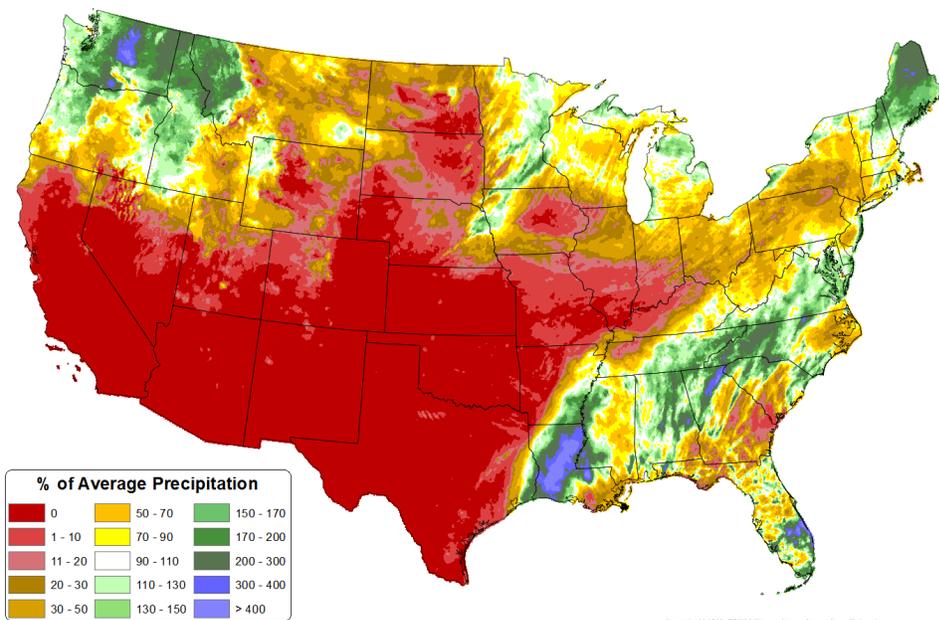
NOAA Regional Climate Centers

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

Source: PRISM

Total Precipitation Anomaly: 01 Oct 2020 - 14 Oct 2020  
Period ending 7 AM EST 14 Oct 2020  
Base period: 1981-2010  
(Map created 15 Oct 2020)

[Month-to-date national total precipitation percent of average map](#)



Copyright (c) 2020, PRISM Climate Group, Oregon State University

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

Source: PRISM

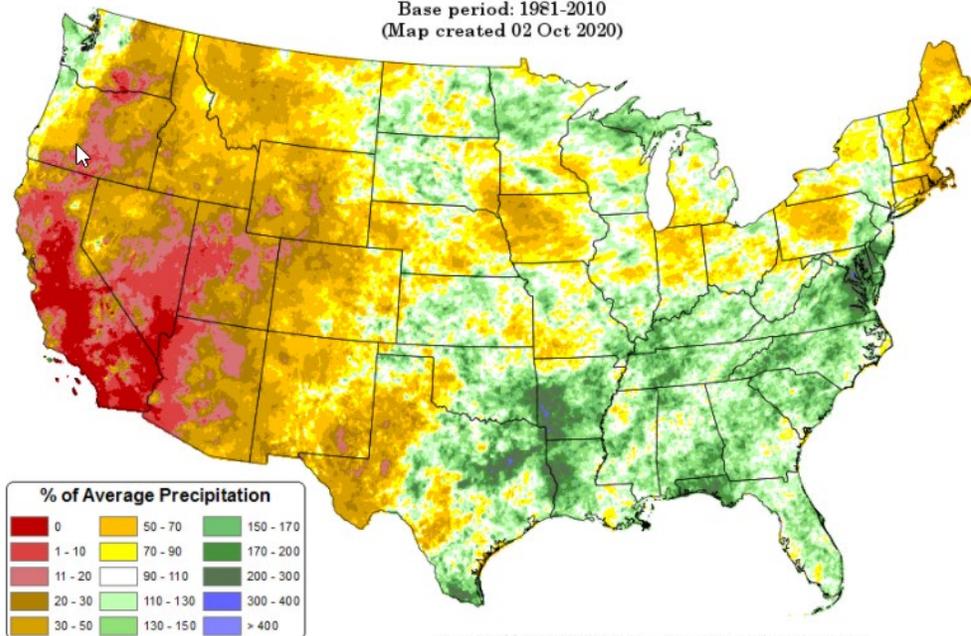
[July through September precipitation percent of average map](#)

Total Precipitation Anomaly: Jul 2020 - Sep 2020

Period ending 7 AM EST 30 Sep 2020

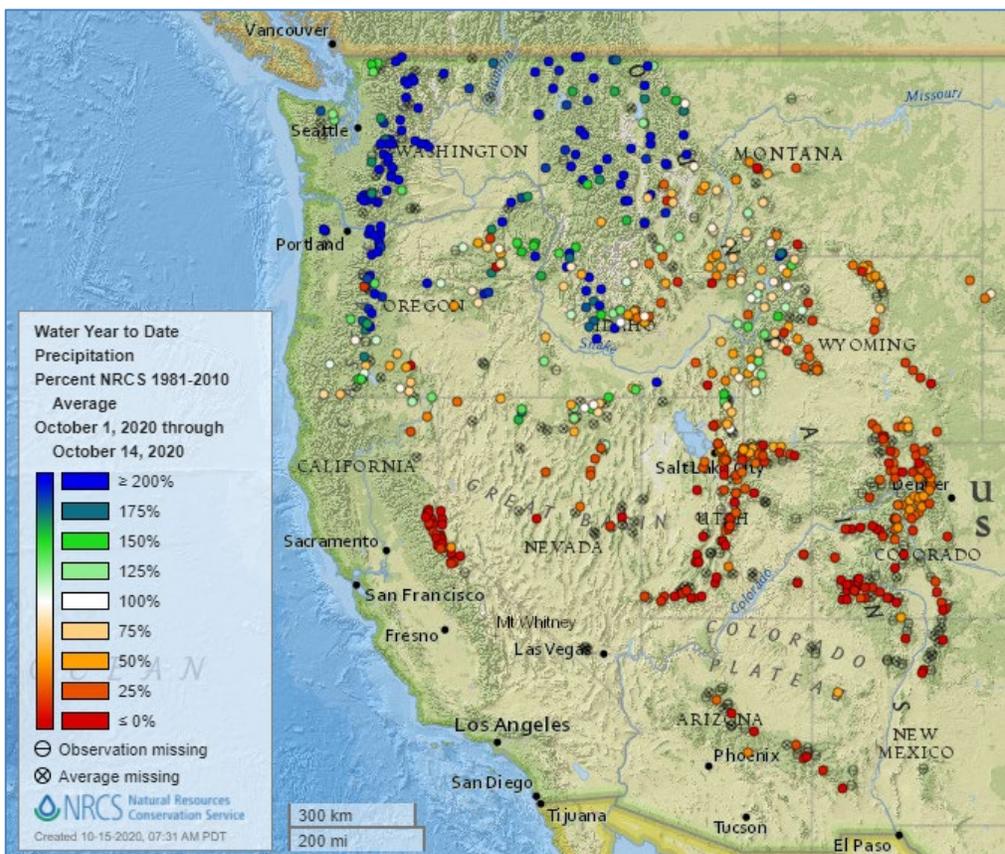
Base period: 1981-2010

(Map created 02 Oct 2020)



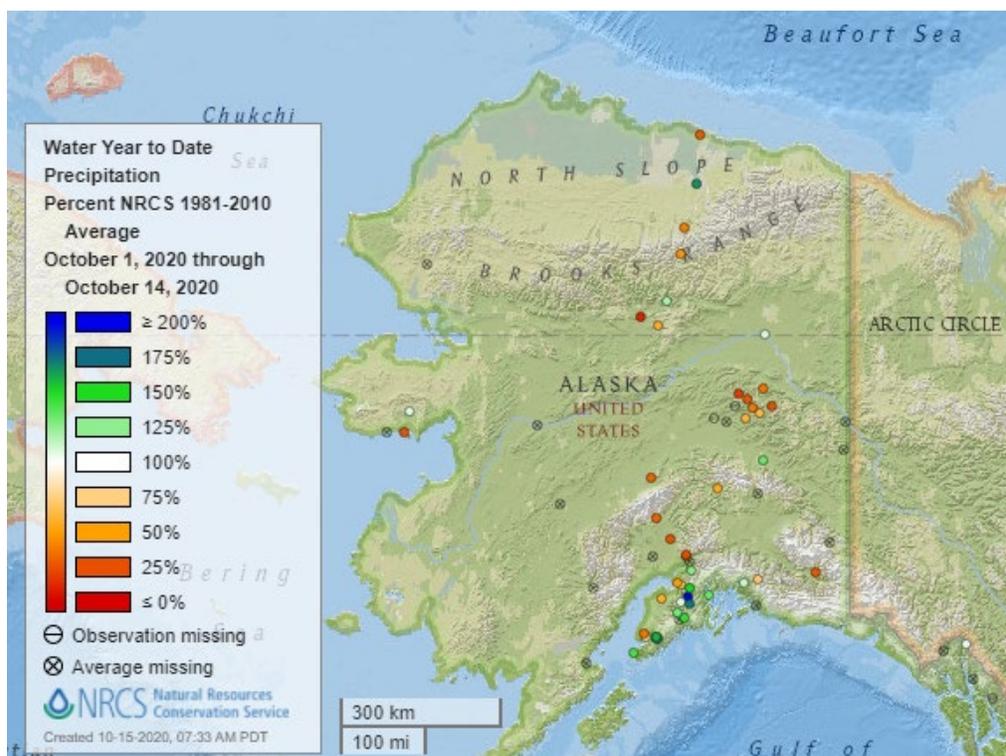
Copyright (c) 2020, PRISM Climate Group, Oregon State University

Water Year-to-Date, NRCS SNOTEL Network



[2021 water year-to-date precipitation percent of average map](#)

**See also:**  
[2021 water year-to-date precipitation values \(inches\) map](#)



[Alaska 2021 water year-to-date precipitation percent of average map](#)

**See also:**  
[Alaska 2021 water year-to-date precipitation values \(inches\) map](#)

## Temperature

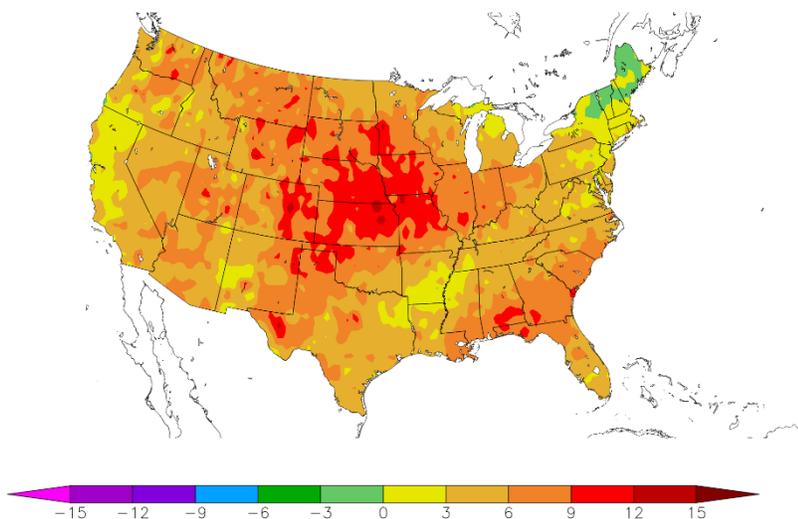
### Last 7 Days, National Weather Service (NWS) Networks

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)  
10/7/2020 – 10/13/2020



Generated 10/14/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

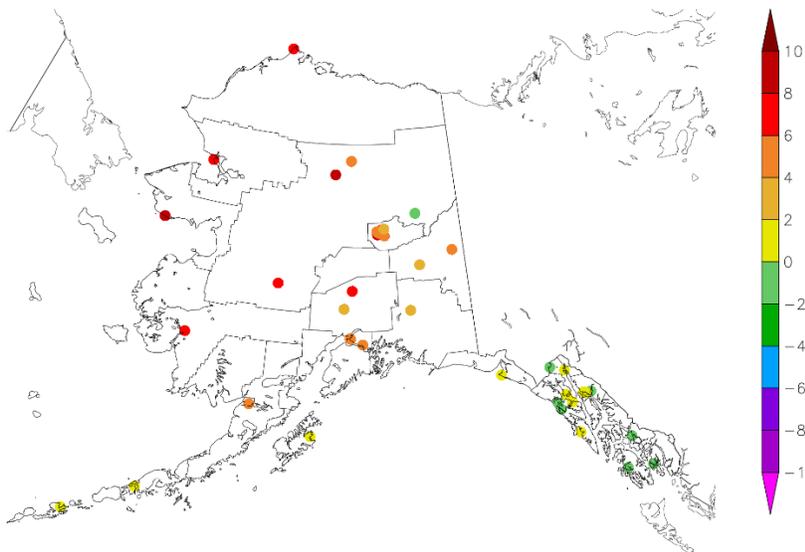
### Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)  
10/7/2020 – 10/13/2020



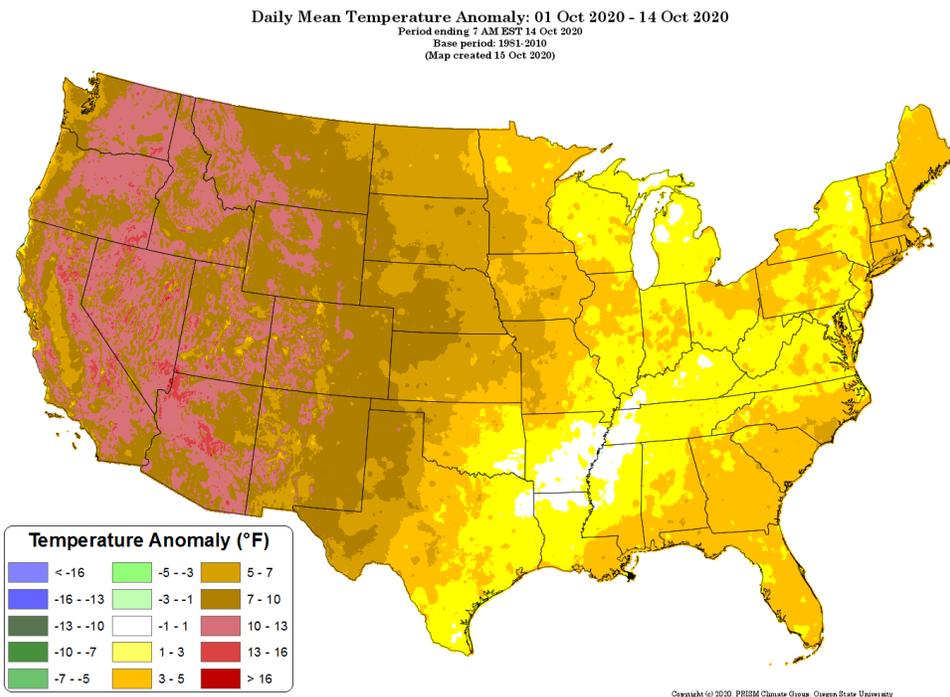
Generated 10/14/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

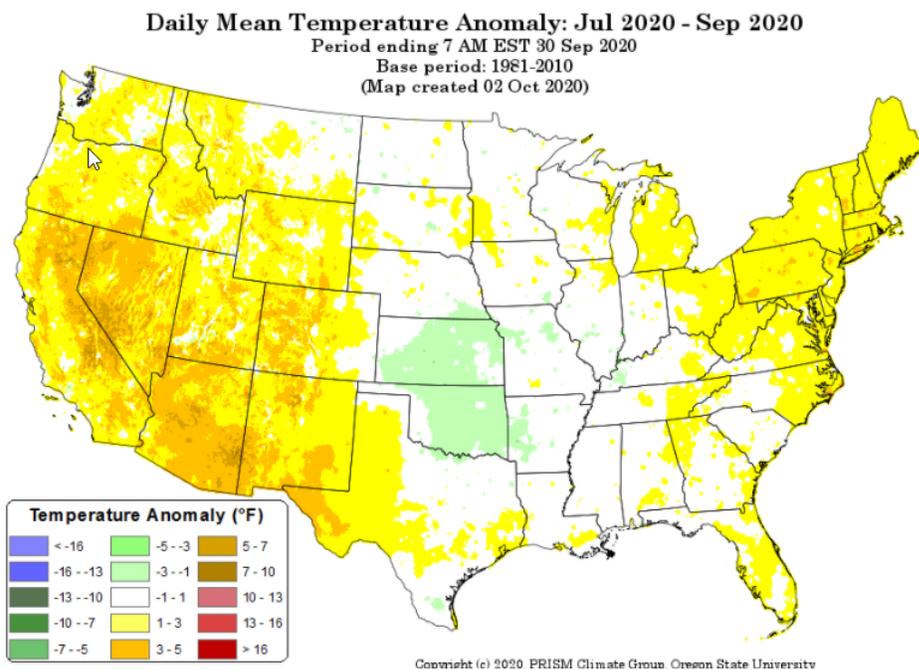
[Month-to-date national daily mean temperature anomaly map](#)



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

Source: PRISM

[July through September 2020 daily mean temperature anomaly map](#)



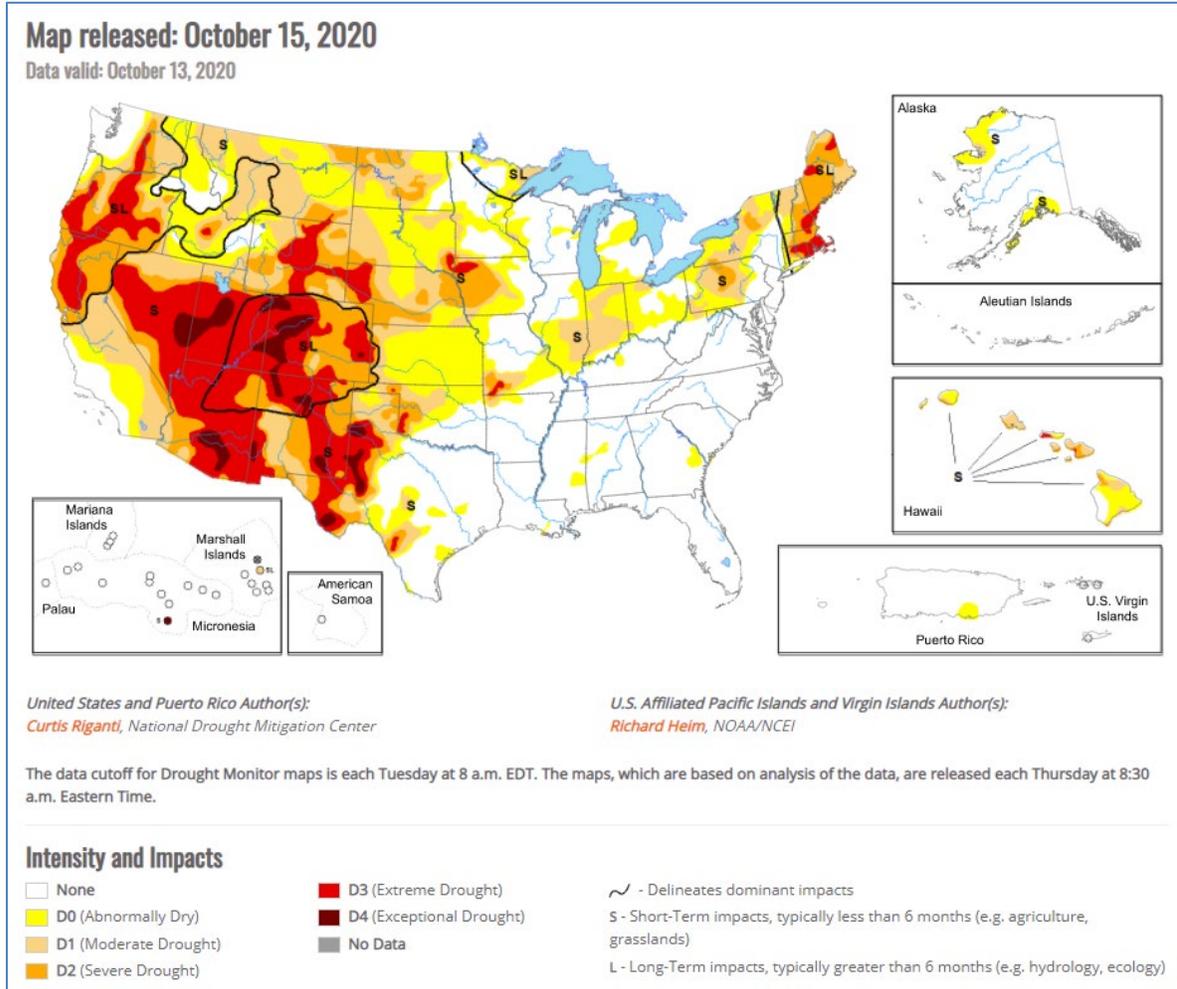
## Drought

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

Source: National Drought Mitigation Center

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

Source: NOAA



### Current [National Drought Summary](#), October 15, 2020

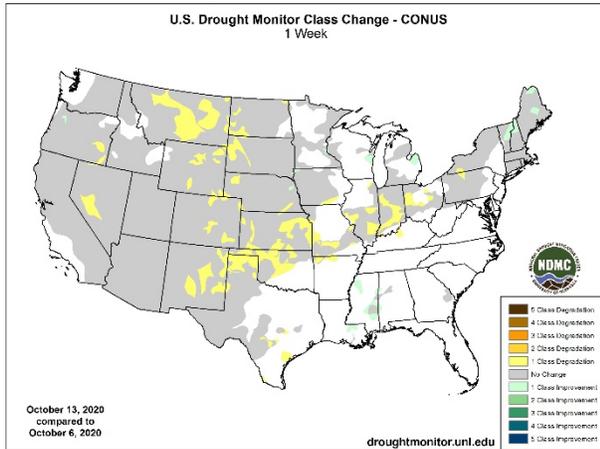
Source: National Drought Mitigation Center

“A dry pattern continued this past week over large portions of the continental United States, with a few exceptions being areas impacted by Hurricane Delta or its remnants, parts of the Upper Midwest and middle Missouri River Valley, and parts of the Northeast. In areas of the Northeast that received an inch or two of rain, some improvements were made in the ongoing drought areas there. As a storm system and associated cold front brought showers and thunderstorms to parts of the Middle and Upper Missouri River Valley and to the Upper Midwest, some improvements were made to ongoing drought there. Abnormal dryness abated in a few areas of Louisiana and Mississippi, which received copious rainfall from Hurricane Delta. Degradations or persistence of ongoing drought was common in parts of the Midwest, Great Plains, and West that received little or no precipitation this week. Temperatures this week were warmer than normal across most of the Lower 48. The central Great Plains and middle Missouri River Valley were the warmest compared to normal, with temperatures from 9 to 12 degrees above normal common. New England experienced milder conditions this week, with a few below-normal readings taking place in northern Vermont, New Hampshire, and Maine.”

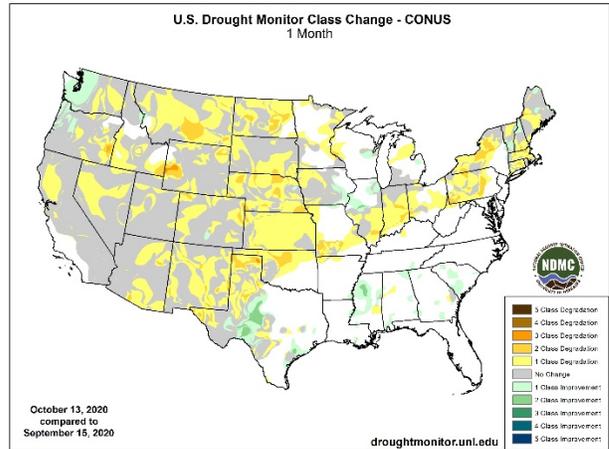
## Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

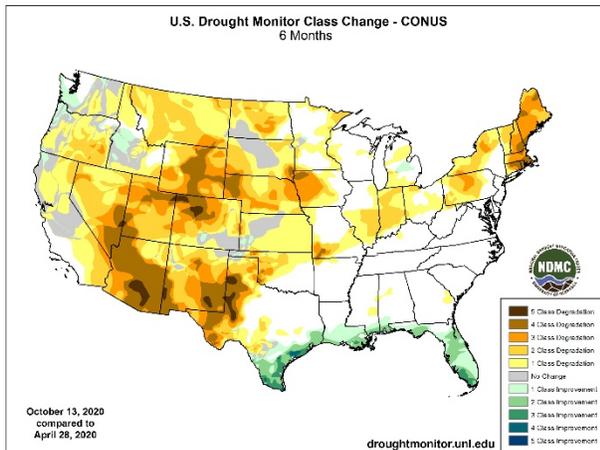
### 1 Week



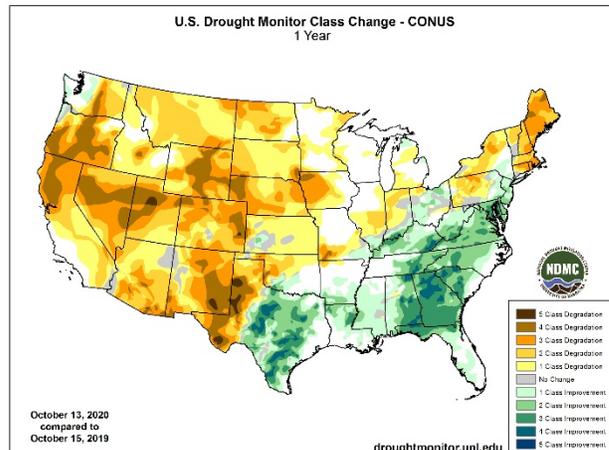
### 1 Month



### 6 Months



### 1 Year



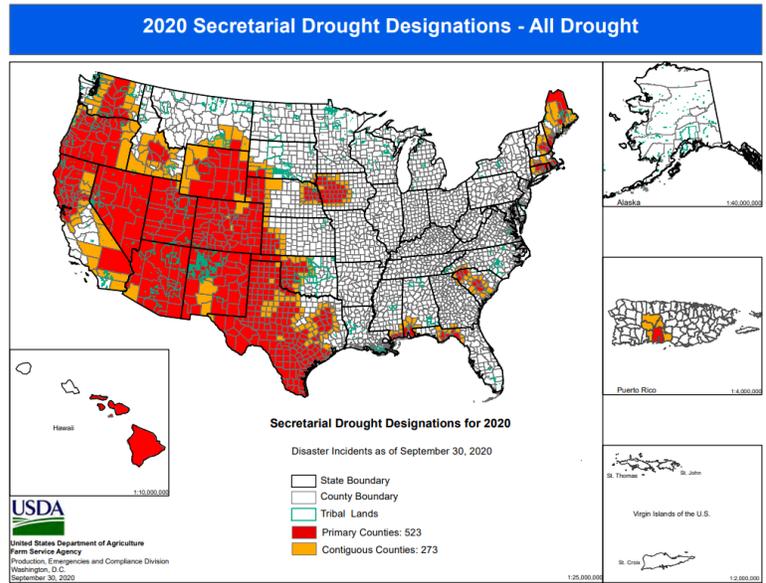
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

## 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](#)

**Secretarial Drought Designations**

Source: USDA Farm Service Agency



**Wildfires: USDA Forest Service Active Fire Mapping**



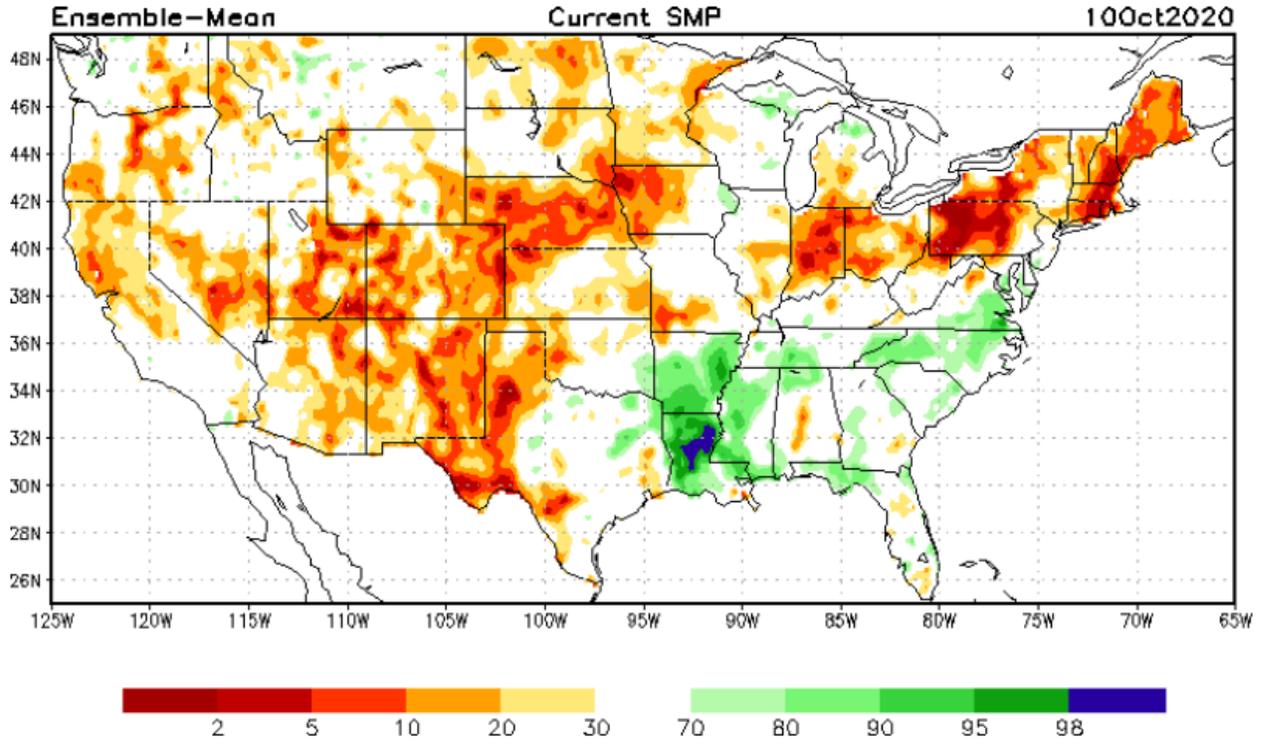
**Highlighted Wildfire Resources**

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

## Other Climatic and Water Supply Indicators

### Soil Moisture

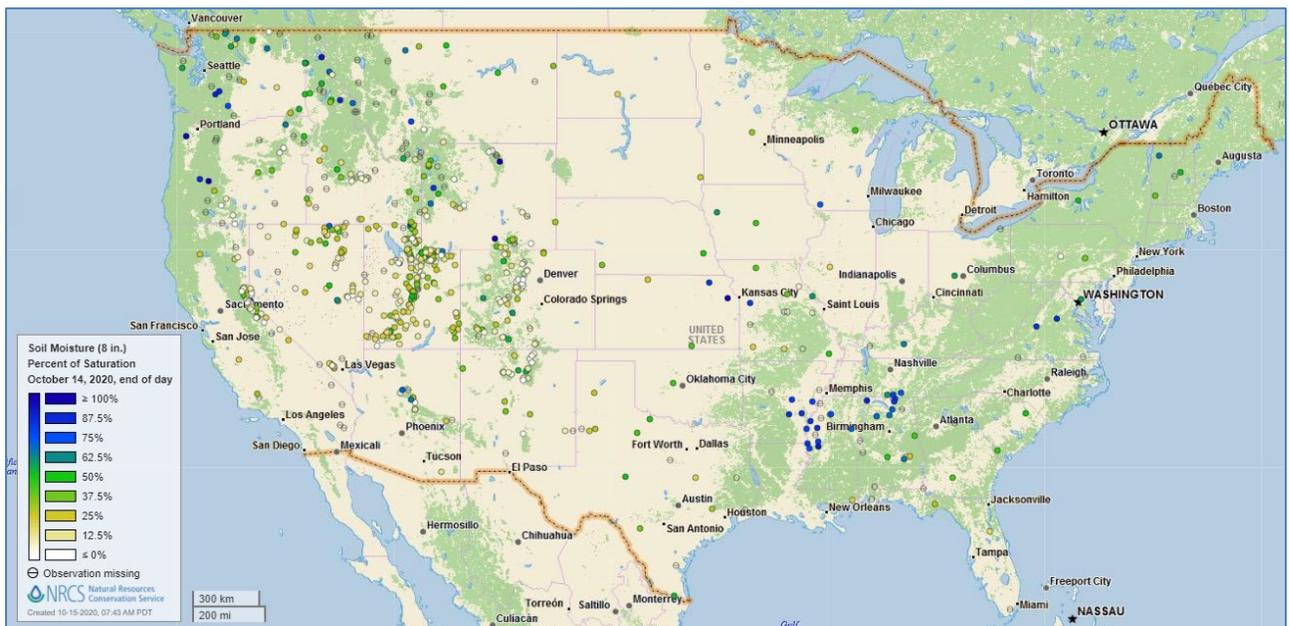
Source: NOAA National Centers for Environmental Prediction



[Modeled soil moisture percentiles](#) as of October 10, 2020

### Soil Moisture Percent of Saturation

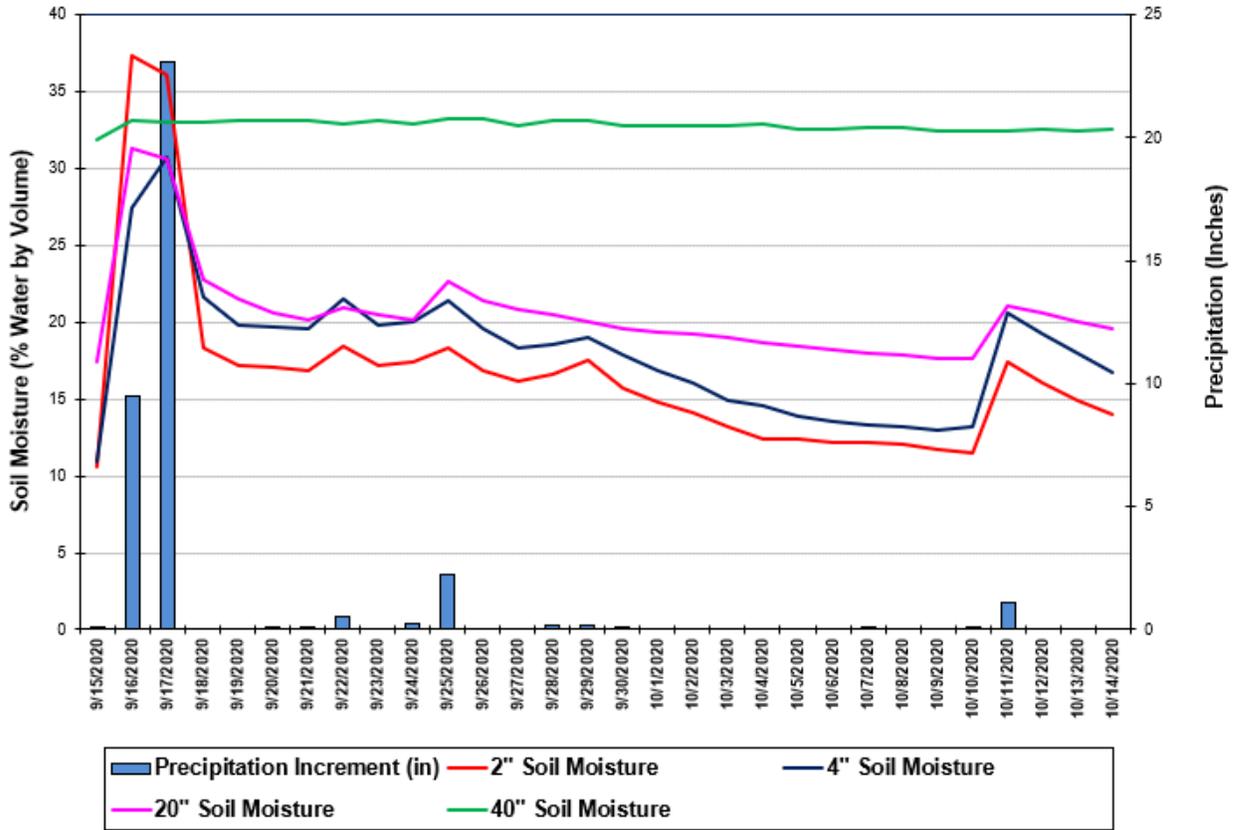
Source: NRCS SNOTEL and [Soil Climate Analysis Network](#) (SCAN)



**Soil Moisture**

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

**Koptis Farms, AL (SCAN site 2180)**  
**Daily Mean Soil Moisture vs. Daily Precipitation**



This chart shows the precipitation and soil moisture for the last 30 days at the [Koptis Farms](#) SCAN site in Alabama. Two very large precipitation events associated with hurricane activity on September 16 and 17 increased soil moisture significantly at the -2", -4", and -20" sensors.

**Soil Moisture Data Portals**

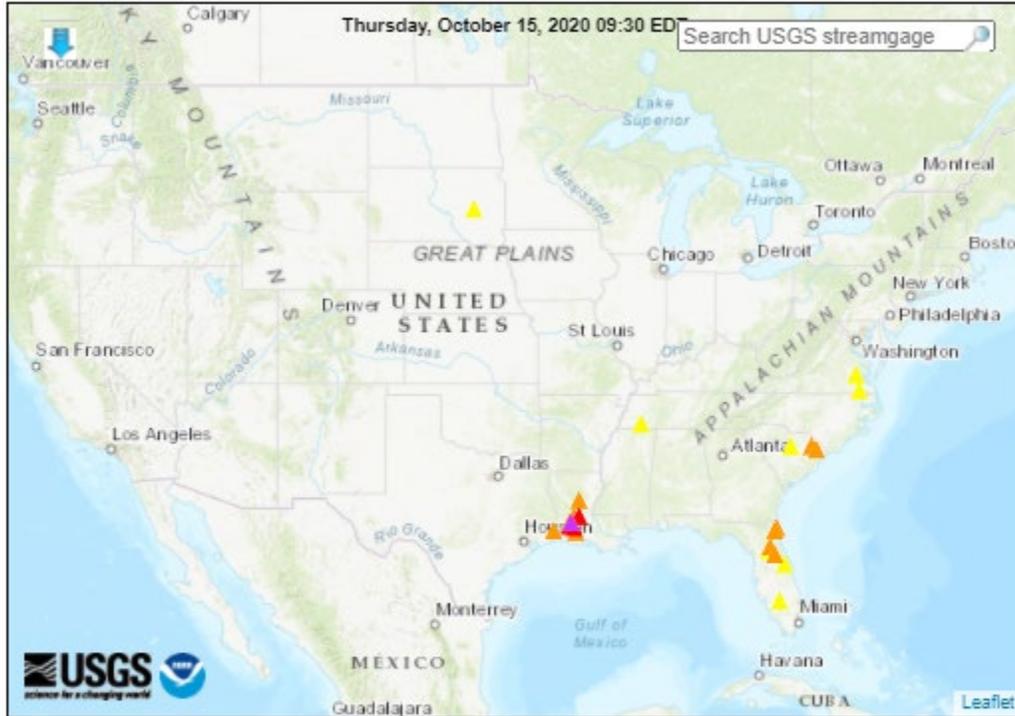
- [CRN Soil Moisture](#)
- [Texas A&M University North American Soil Moisture Database](#)
- [University of Washington Experimental Modeled Soil Moisture](#)

**Streamflow, Drought, Flood, and Runoff**

Source: U.S. Geological Survey

**Map of flood and high flow conditions**

(15 in floods [major: 1, moderate: 3, minor: 11], 8 in near-flood)



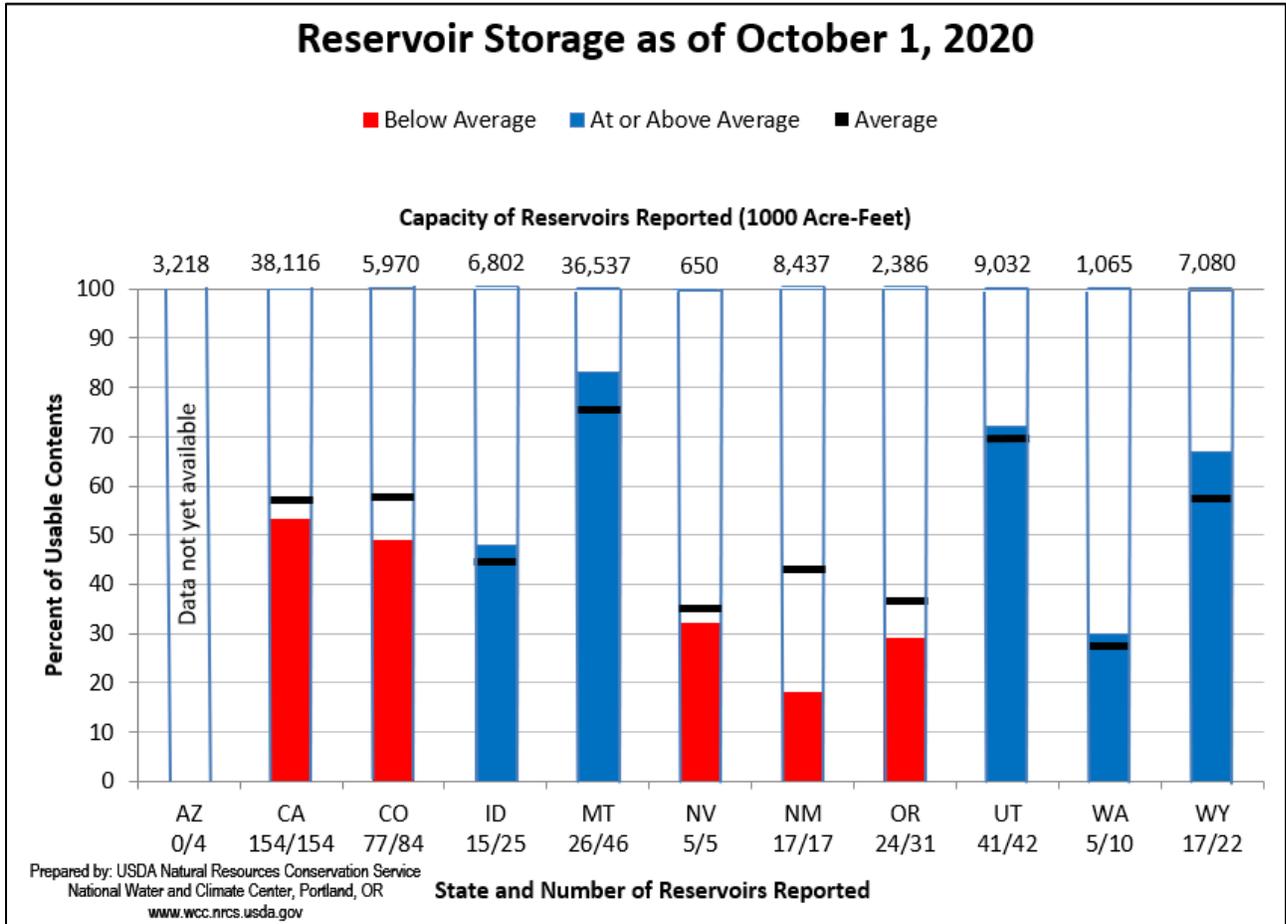
Explanation - Percentile classes						
<95	95-98	≥ 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage
			▲ Streamgage with flood stage    ○ Streamgage without flood stage			

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

## Reservoir Storage

### Western States Reservoir Storage

Source: NRCS National Water and Climate Center



October 1, 2020 Reservoir Storage: [Chart](#) | [Dataset](#)

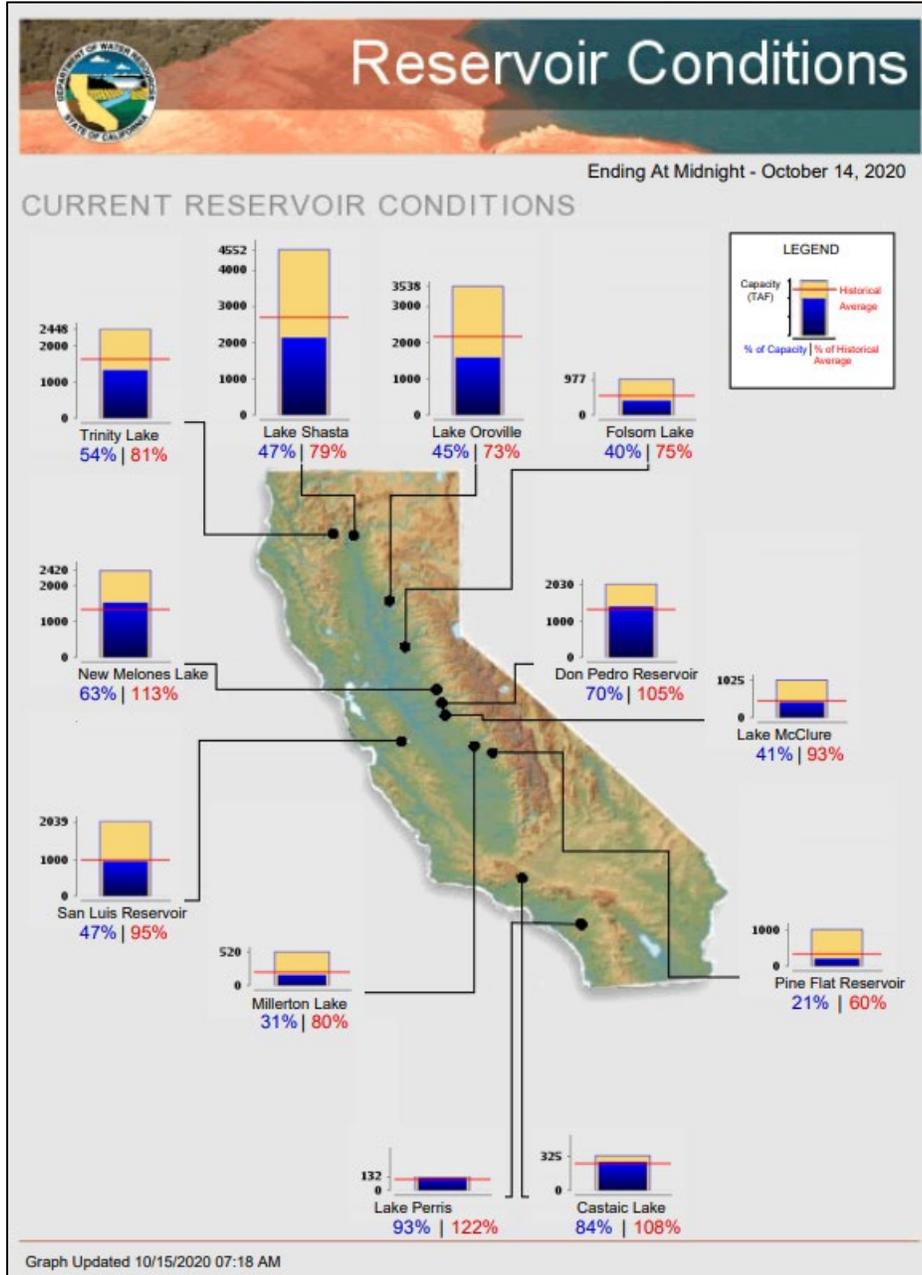
### Hydromet Teacup Reservoir Depictions

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](#)

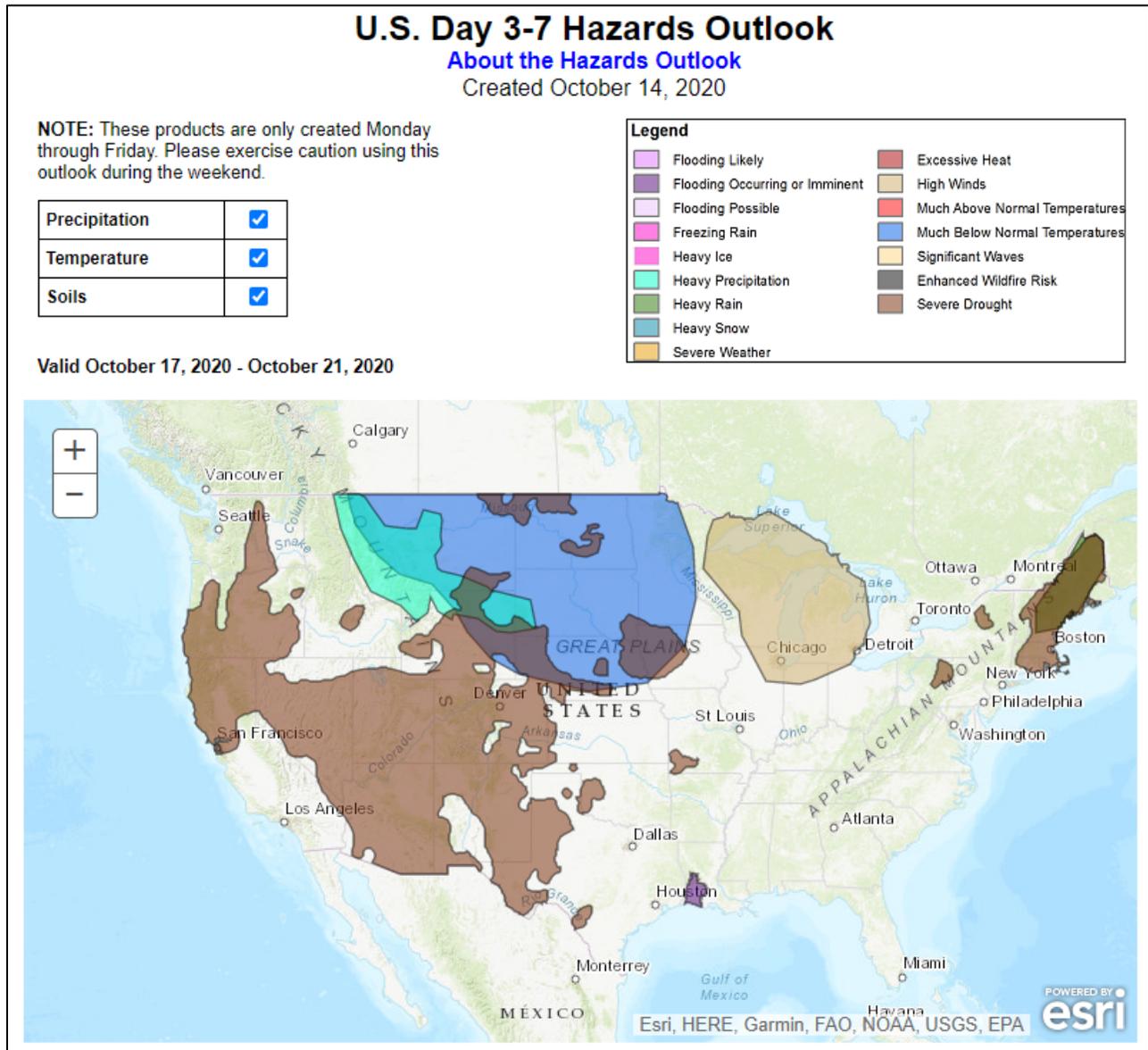
### Agricultural Weather Highlights

Author: Brad Rippey, Agricultural Meteorologist, USDA/OCE/WAOB

**National Outlook, Thursday, October 15, 2020:** “During the next 5 days, cold weather will dominate areas from the interior Northwest into the upper Midwest. During the weekend and early next week, widespread temperatures below 20°F will cover northern sections of the Rockies and Plains. Warmth will continue, however, in much of the Southwest, leading to potential wildfire concerns—especially in southern California. Meanwhile, dry weather will continue into next week from California to the southern High Plains. Much of the Southeast will also experience dry weather. In contrast, occasional rain and snow showers will cross the northern U.S. Some of the heaviest precipitation (locally 1 to 3 inches or more) will occur in New England, the Pacific Northwest, and the northern Rockies. The NWS 6- to 10-day outlook for October 20 – 24 calls for the likelihood of below-normal temperatures from the Pacific Northwest to the northern and central Plains and upper Midwest, while warmer-than-normal weather will prevail across the southern and eastern U.S. Meanwhile, near- or above-normal precipitation across most of the country should contrast with drier-than-normal conditions from the Pacific Coast into the Southwest.”

### Weather Hazards Outlook: [October 17 - 21, 2020](#)

Source: NOAA Weather Prediction Center

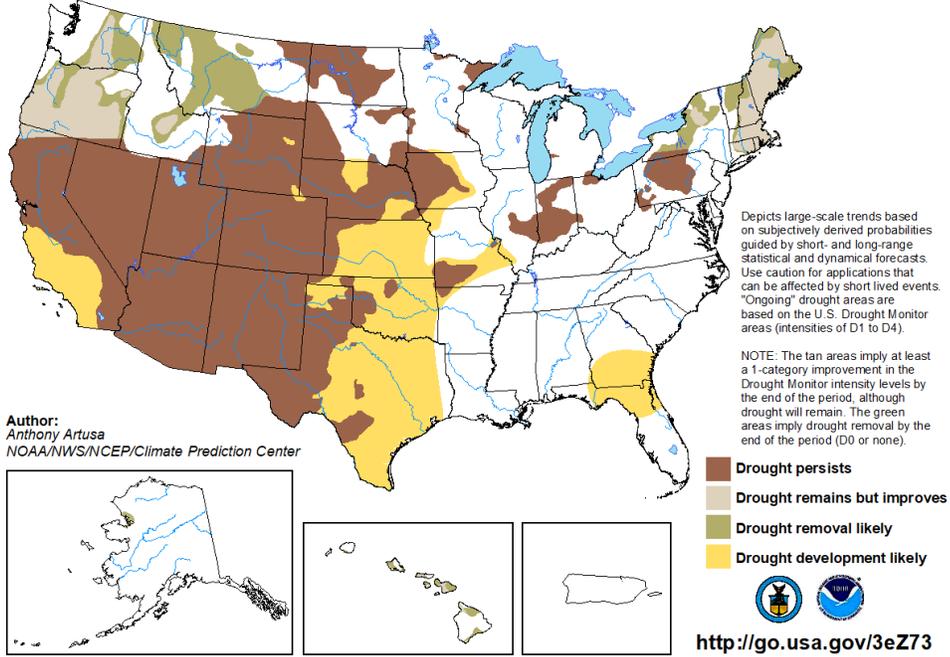


**Seasonal Drought Outlook: [October 15, 2020 – January 31, 2021](#)**

Source: National Weather Service

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

Valid for October 15, 2020 - January 31, 2021  
Released October 15, 2020

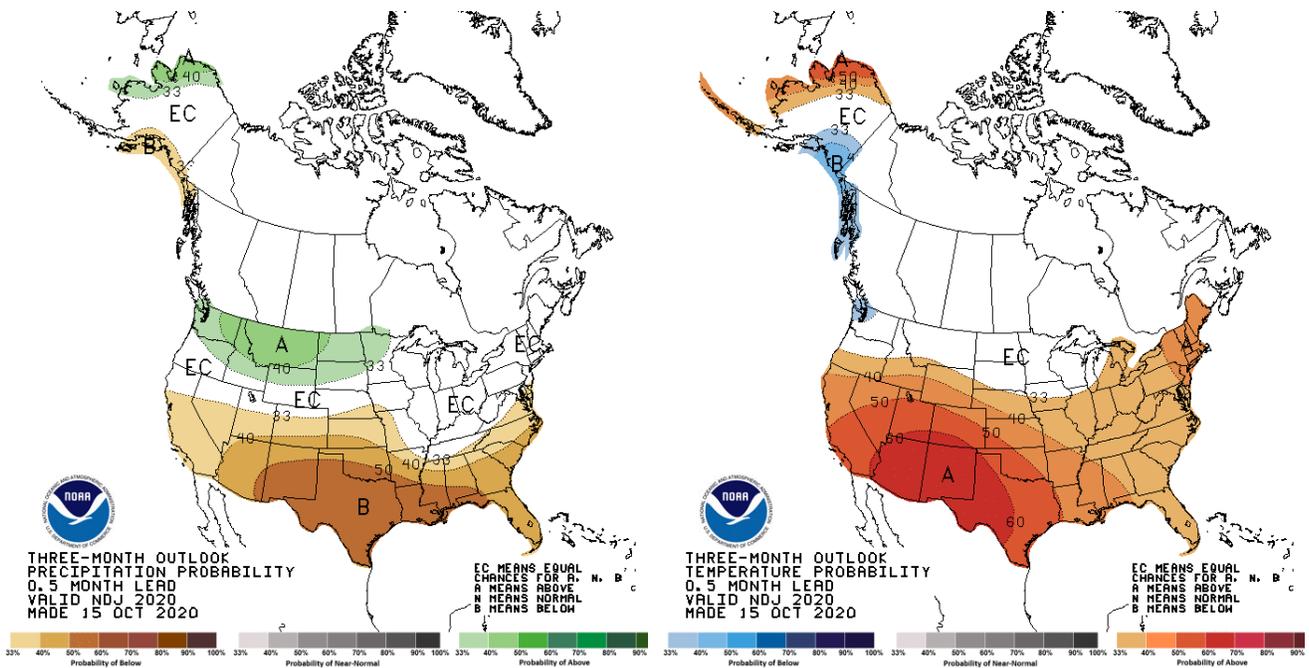


**Climate Prediction Center 3-Month Outlook**

Source: National Weather Service

Precipitation

Temperature



[November-December-January \(NDJ\) 2020=2021 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](#).