

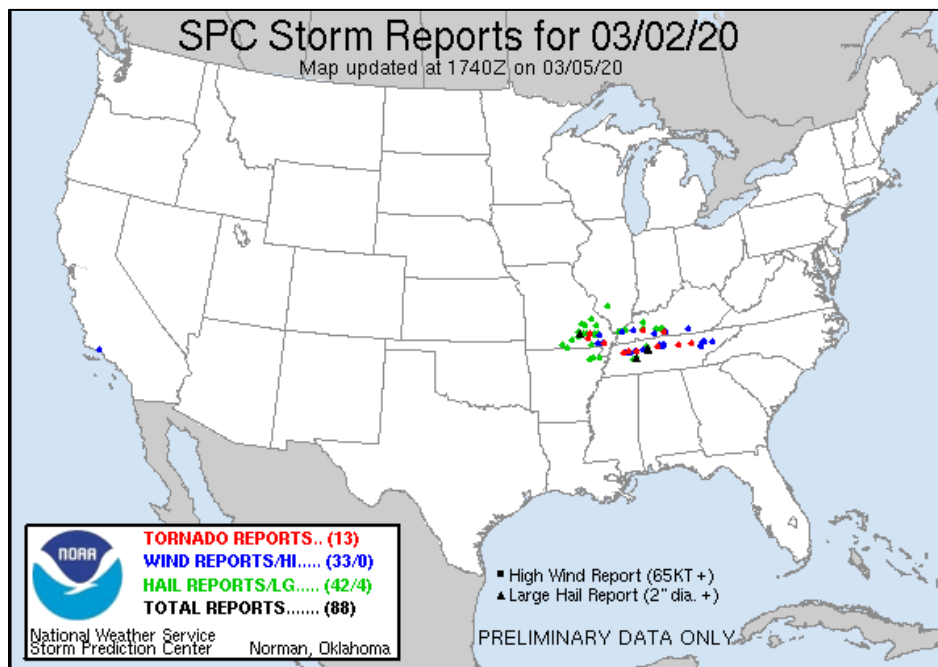
# Water and Climate Update

March 5, 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.

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## Powerful tornadoes result in widespread destruction in Tennessee



Severe EF-3 and EF-4 tornadoes have swept across Tennessee, with major destruction to Nashville in the early morning of March 3. The National Weather Service in Nashville is continuing their efforts to analyze the strength of the tornadoes. Preliminary indications are that the path of the strong EF-3 tornado had winds of 165 mph and a damage path of 53.4 miles, one of the longest on-the-ground tornadoes in the state's history. The EF-4 tornado touched down in Cookeville, with winds of up to 180 mph. Several other smaller tornadoes were also spawned from this supercell thunderstorm. There has been extensive damage to businesses, homes, and infrastructure, with reports of 24 deaths and many injuries across the region.

### Related:

[Grief, grit and hope emerge in Nashville and Middle Tennessee in wake of deadly tornado](#) – USA Today

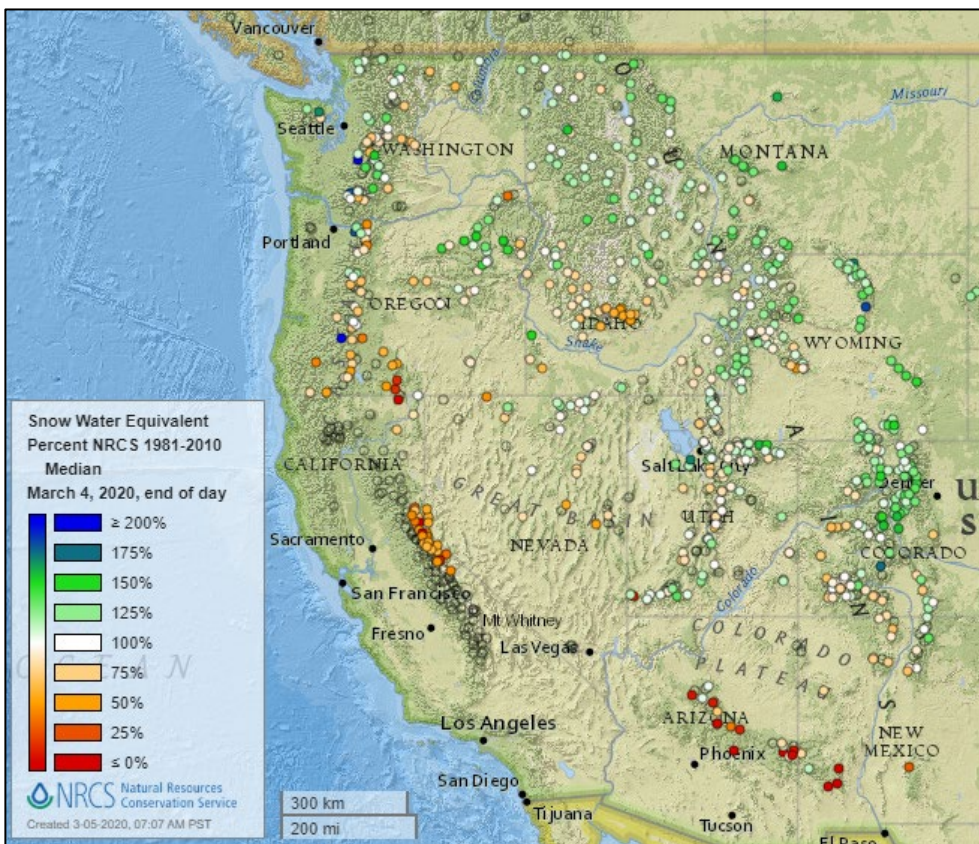
[Minute by minute: How a deadly tornado cut a devastating path across Tennessee](#) – USA Today

[NWS: Tornado that hit Nashville and Mt. Juliet was on the ground for 50 miles](#) – WMC Action News 5 Memphis (TN) on MSN.com

[NWS: EF-4 tornado hit Putnam County](#) – Knoxville WVLT-TV on MSN.com

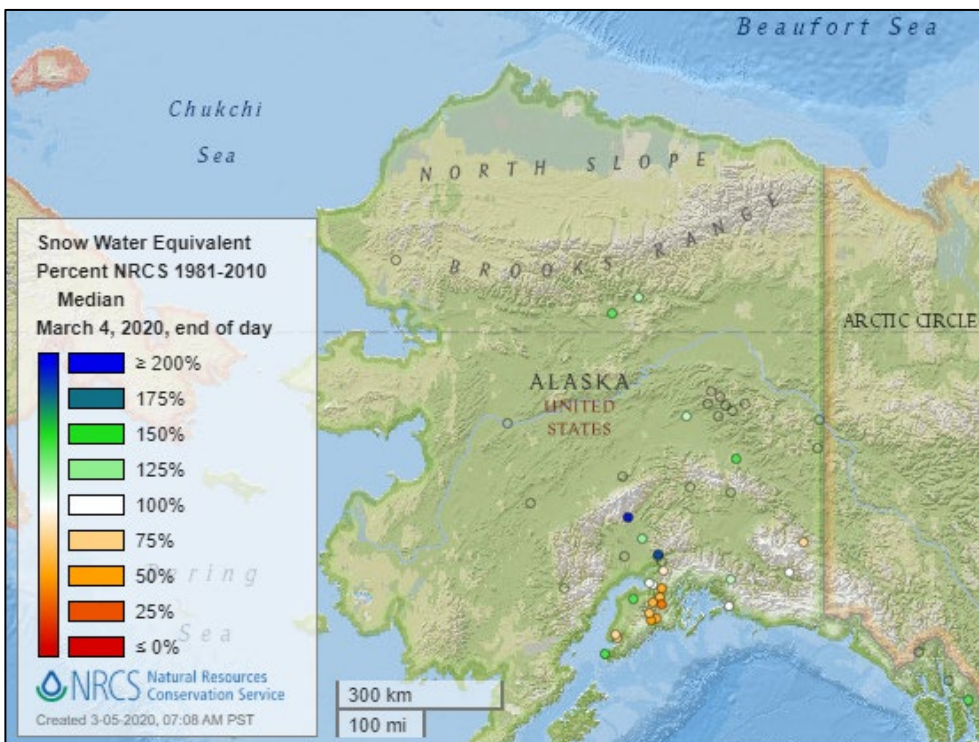
[Tornado east of Nashville on Tuesday was nation's most intense in nearly three years](#) – Washington Post

# Snow



[Snow water equivalent percent of median map](#)

**See also:**  
[Snow water equivalent values \(inches\) map](#)

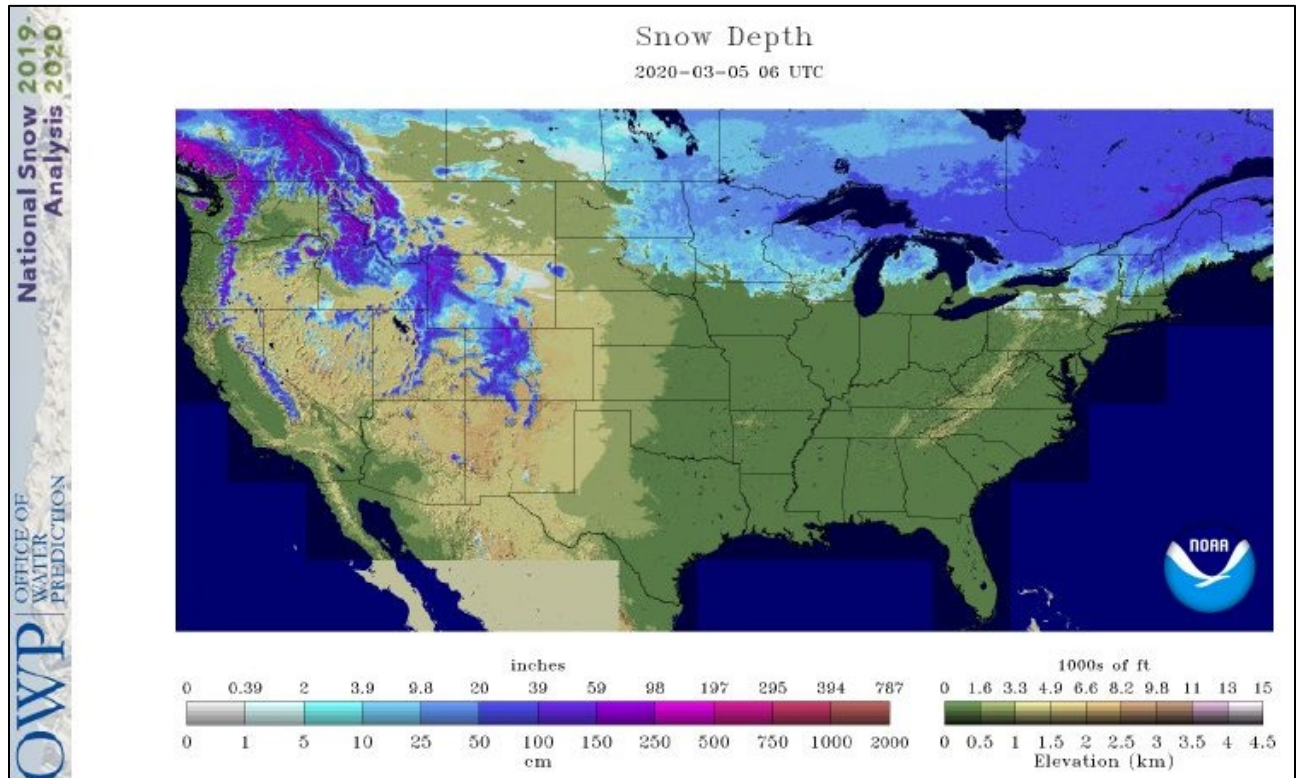


[Alaska snow water equivalent percent of median map](#)

**See also:**  
[Alaska snow water equivalent values \(inches\) map](#)

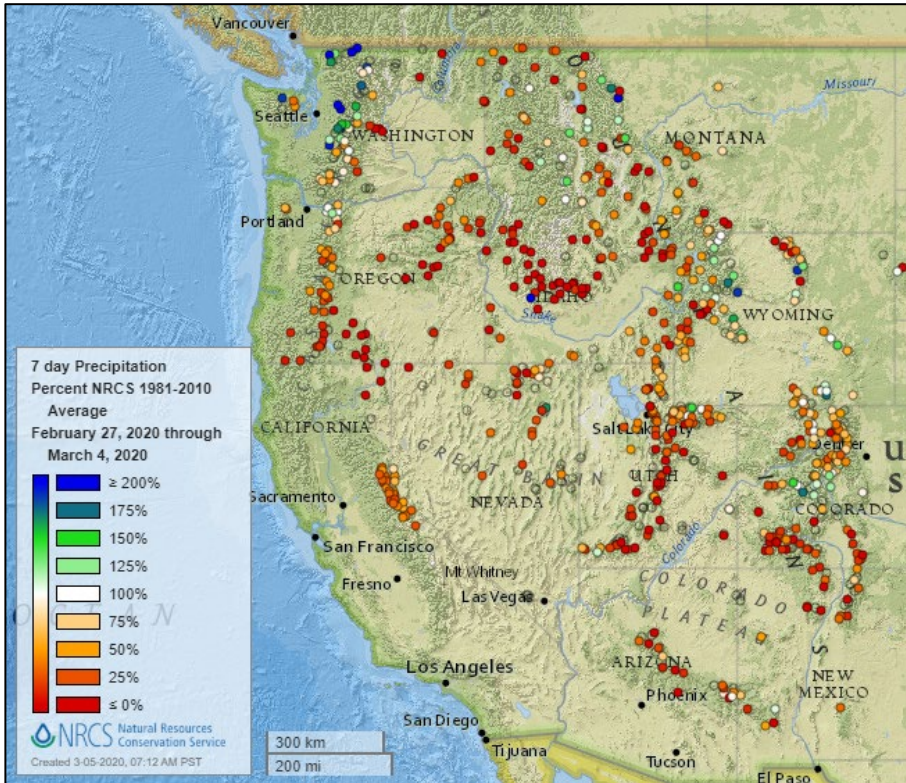
Current Snow Depth, National Weather Service Snow Analysis

Source: NOAA Office of Water Prediction



# Precipitation

## Last 7 Days, NRCS SNOTEL Network

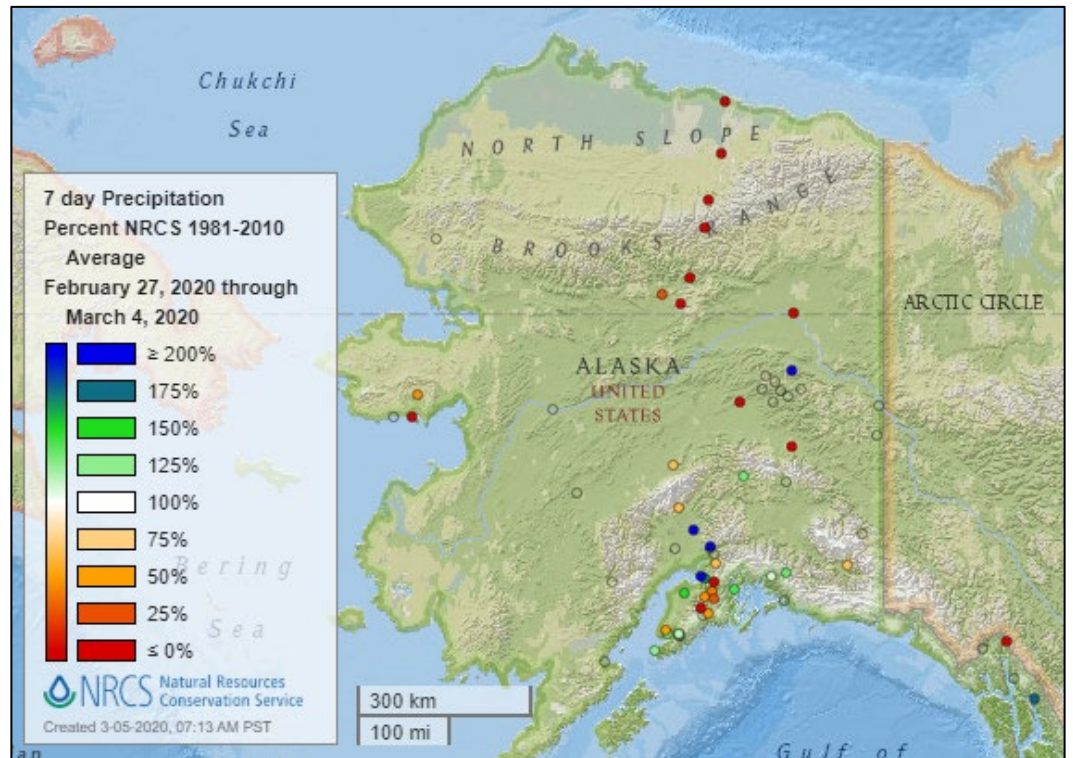


[7-day precipitation percent of average map](#)

**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](#)



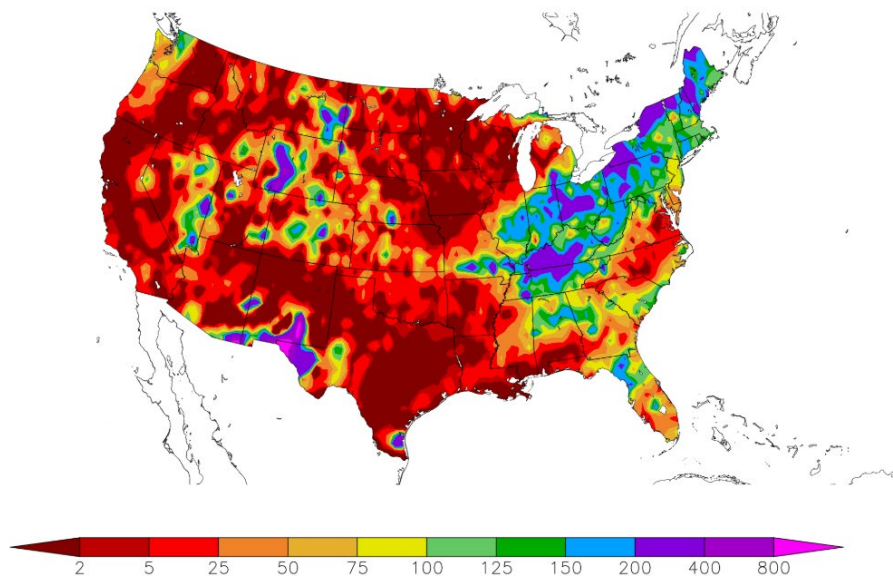
**Last 7 Days, National Weather Service (NWS) Networks**

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 (%)  
2/26/2020 – 3/3/2020



Generated 3/4/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

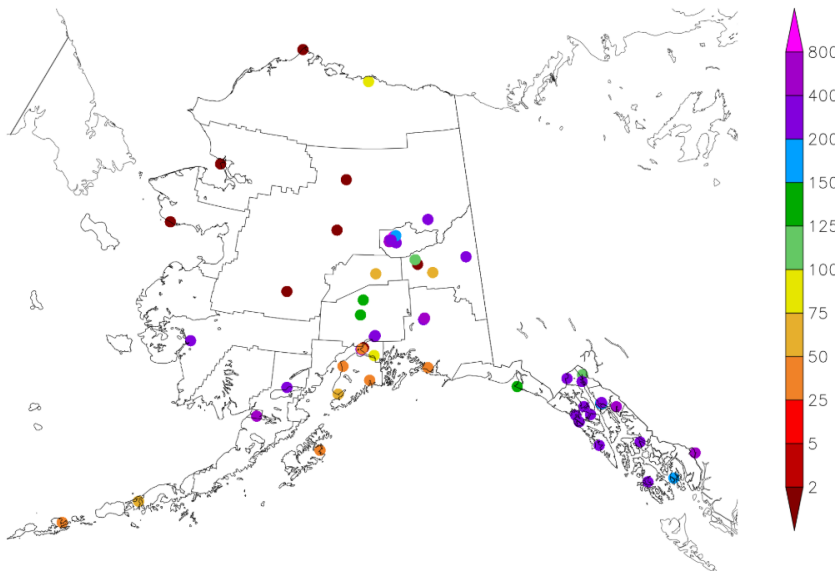
**Last 7 Days, National Weather Service (NWS) Networks**

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)  
2/26/2020 – 3/3/2020



Generated 3/4/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

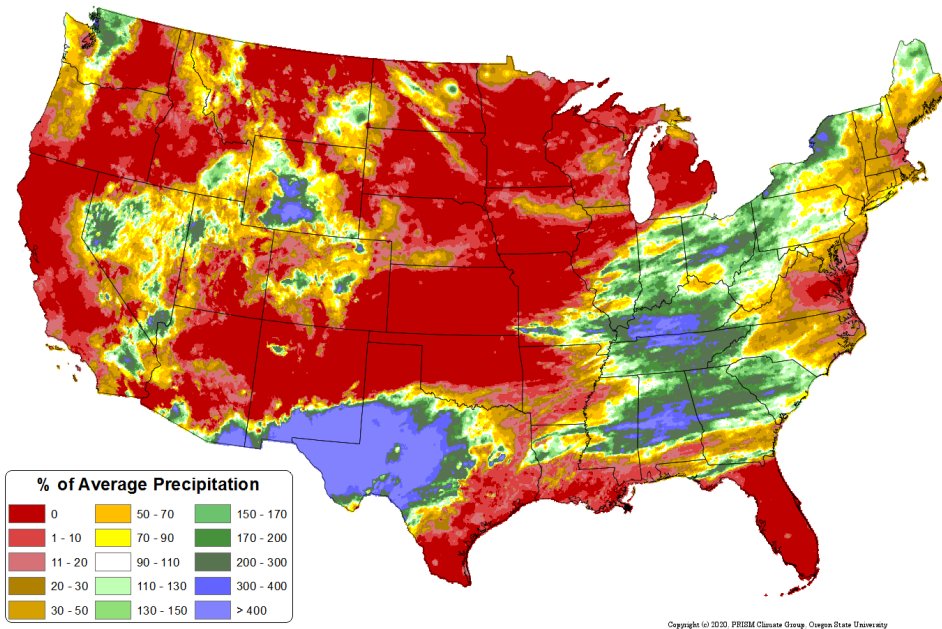
# Water and Climate Update

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

Source: PRISM

Total Precipitation Anomaly: 01 Mar 2020 - 04 Mar 2020  
Period ending 7 AM EST 04 Mar 2020  
Base period: 1981-2010  
(Map created 05 Mar 2020)

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

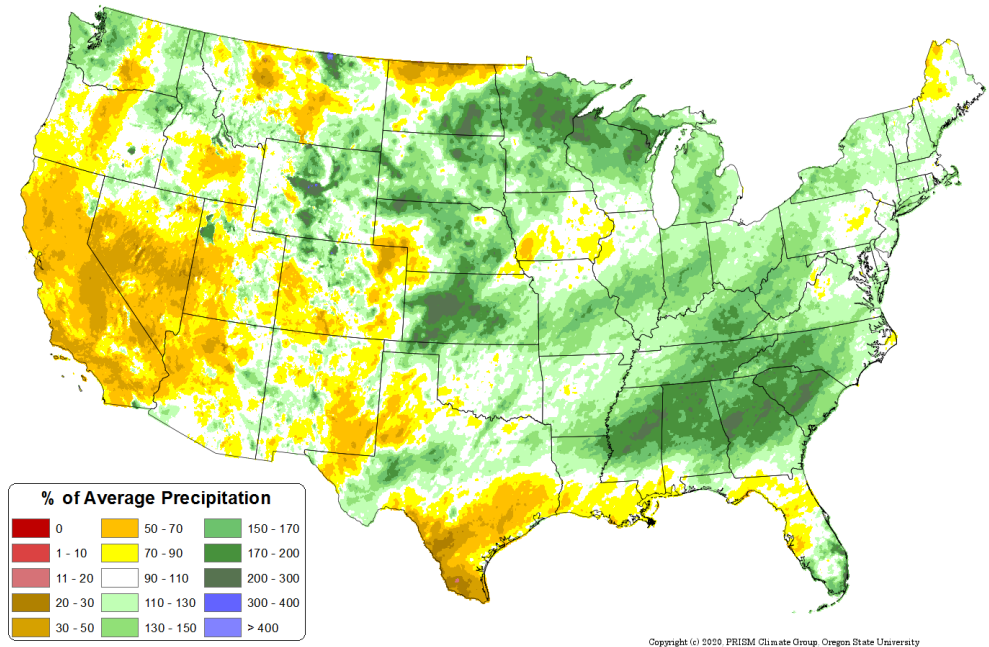


## Last 3 Months, All Available Data Including SNOTEL and NWS Networks

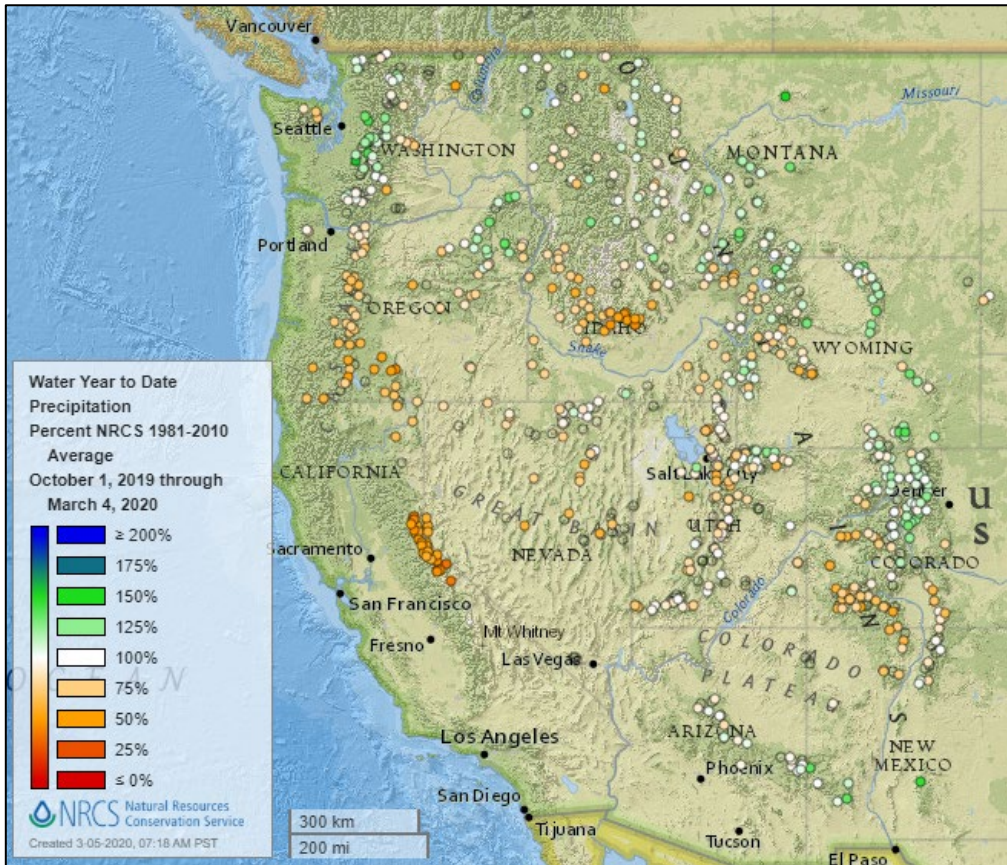
Source: PRISM

[December 2019 through February 2020 total precipitation percent of average map](#)

Total Precipitation Anomaly: Dec 2019 - Feb 2020  
Period ending 7 AM EST 29 Feb 2020  
Base period: 1981-2010  
(Map created 02 Mar 2020)

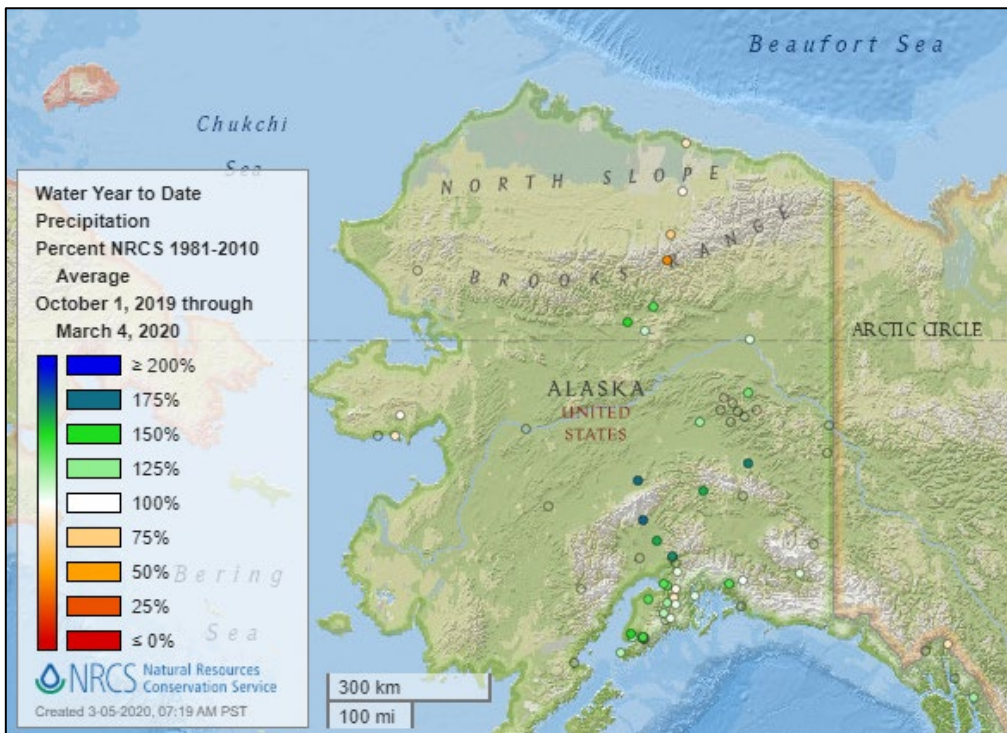


Water Year-to-Date, NRCS SNOTEL Network



[2020 water year-to-date precipitation percent of average map](#)

**See also:**  
[2020 water year-to-date precipitation values \(inches\) map](#)



[Alaska 2020 water year-to-date precipitation percent of average map](#)

**See also:** [Alaska 2020 water year-to-date precipitation values \(inches\) map](#)

## Temperature

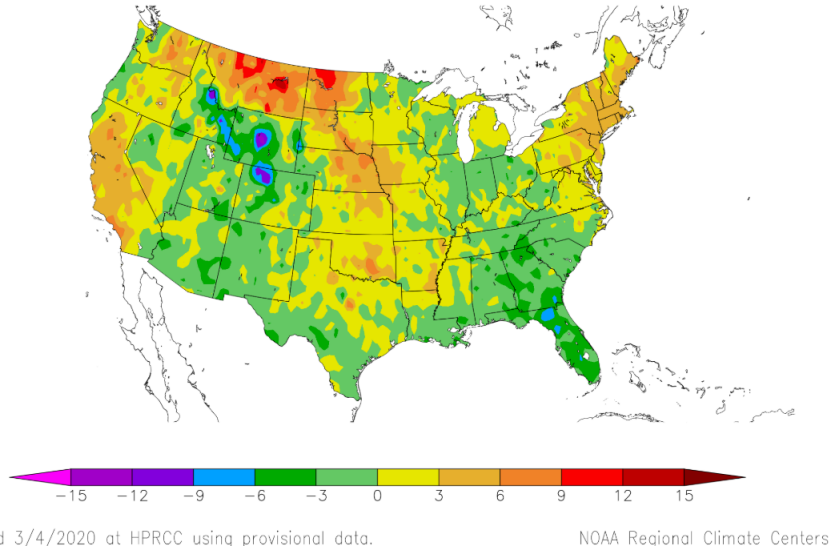
### Last 7 Days, National Weather Service (NWS) Networks

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)  
2/26/2020 – 3/3/2020



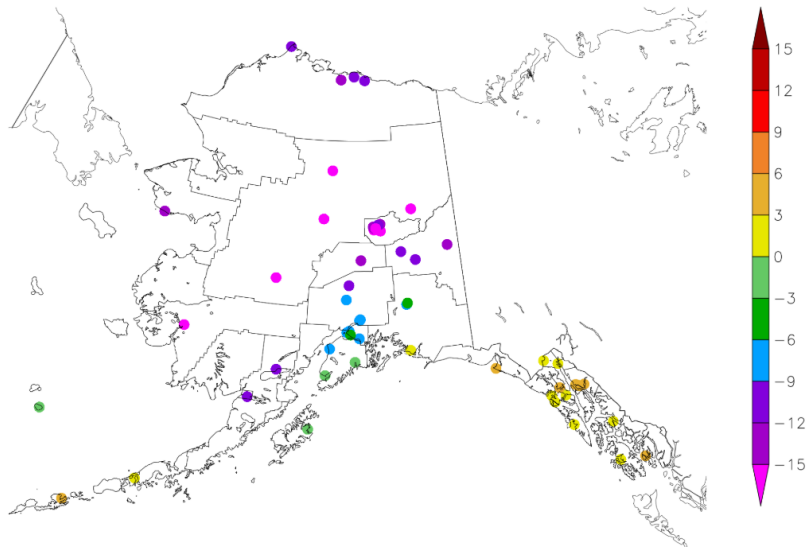
### Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)  
2/26/2020 – 3/3/2020



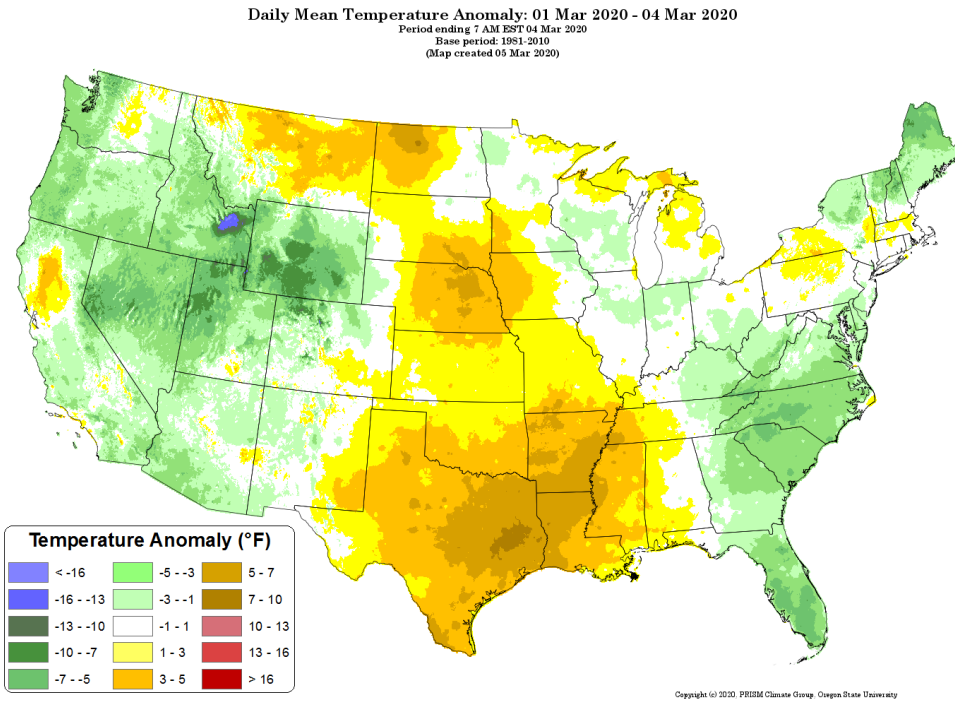


# Water and Climate Update

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

Source: PRISM

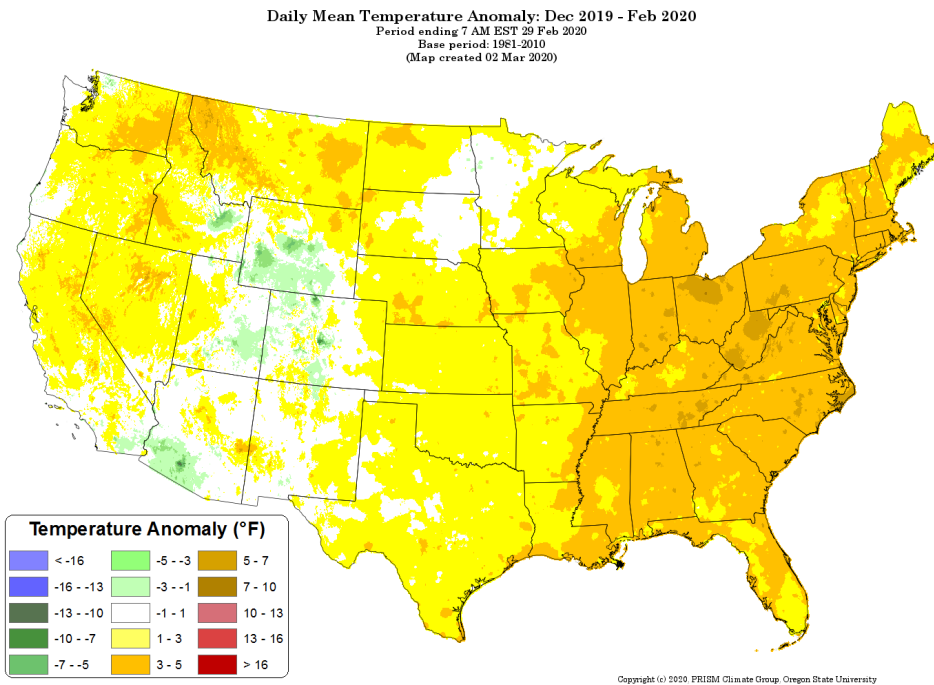
[Month-to-date national daily mean temperature anomaly map](#)



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

Source: PRISM

[December 2019 through February 2020 daily mean temperature anomaly map](#)



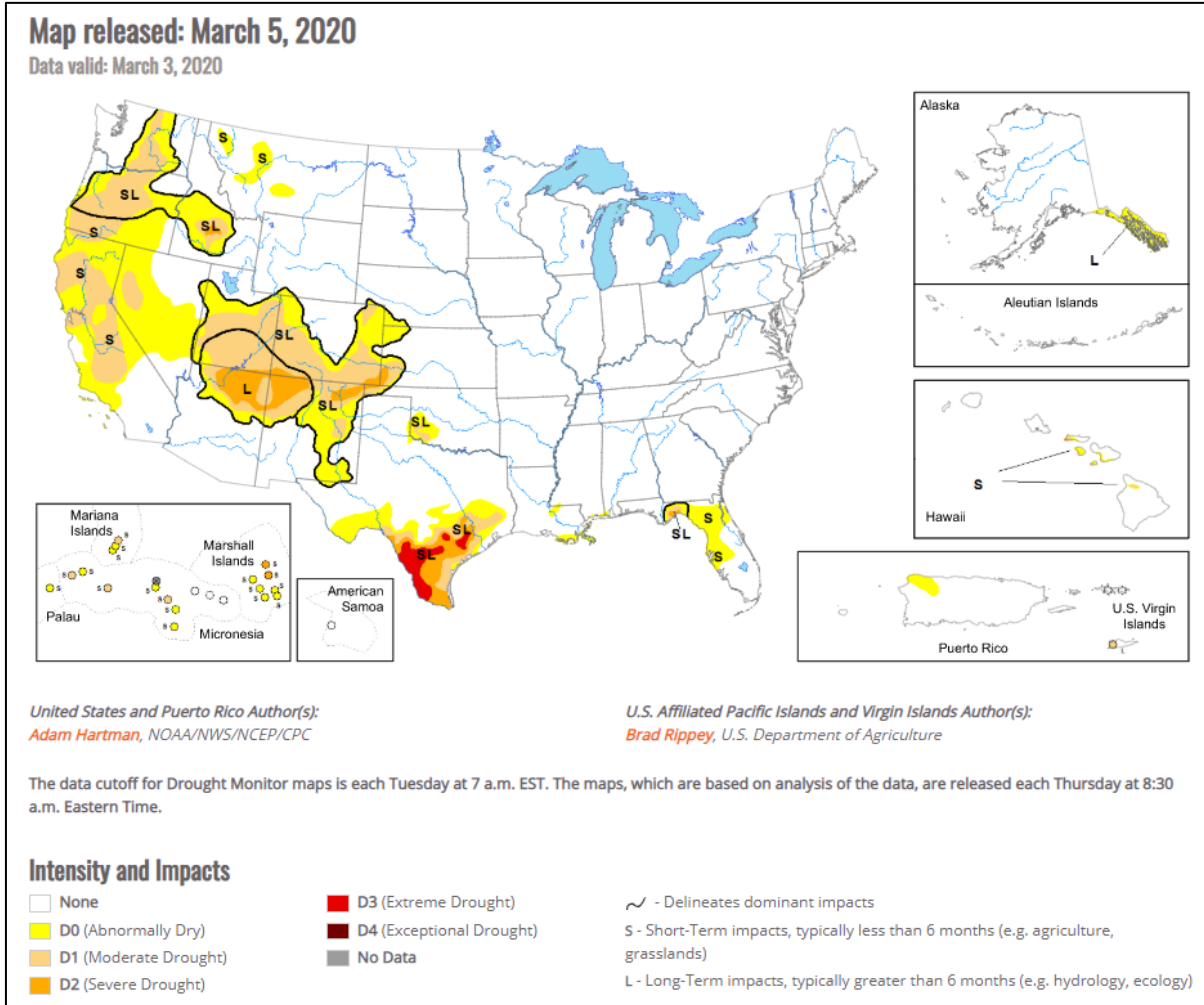
# Drought

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

Source: National Drought Mitigation Center

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

Source: NOAA



## Current [National Drought Summary](#), March 5, 2020

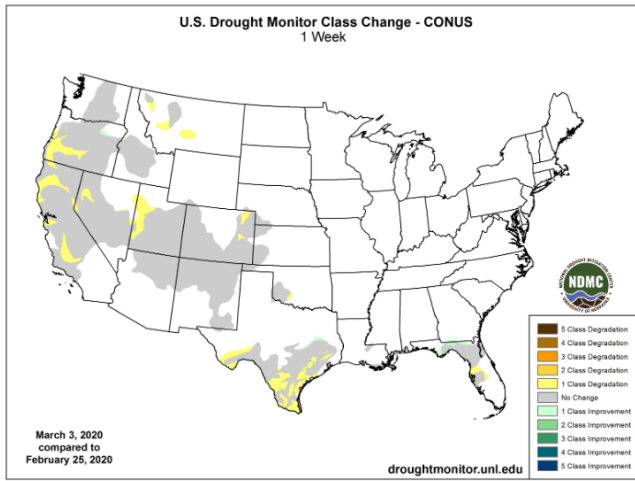
Source: National Drought Mitigation Center

“The pattern has been less active over the CONUS over the past 7 days, with high pressure dominating over much of the western CONUS. Storm systems riding up and over the Pacific ridge resulted in some precipitation in the Pacific Northwest, but not enough to alleviate the dryness there, particularly for Oregon. Meanwhile a low-pressure system propagated northeastward along the East Coast and out of the domain early in the period, adding to surpluses in the Tennessee and Ohio Valleys. Drought continued to expand in the West, as dry conditions persisted over much of the region. Parts of Oregon and California saw increases in D0 and D1 coverage, while areas of D0 were expanded slightly in Montana. There was some D1 added to northeastern areas of Colorado (High Plains Region), as the past 60 days have seen drier than normal conditions. Drought intensification and expansion also continues in southern Texas (Southern Region), in association with continued dryness, low humidity, and high winds over the past week. The Midwest and Northeast continue to remain as is for now, as 90-day precipitation surpluses are widespread across many of these areas, with other areas near normal. Some D0 reduction in southern Georgia (Southeast Region) was made due to recent heavy rainfall. However, the Florida Peninsula saw some D0 expansion north and east of Tampa, with year-to-date (YTD) precipitation estimates between 25 and 50 percent of normal.”

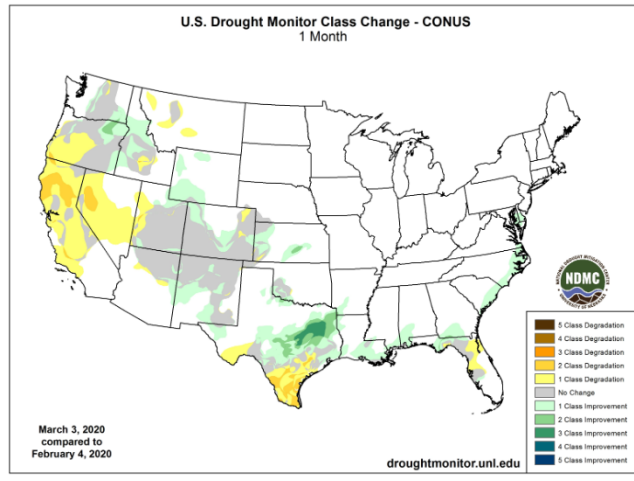
## Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

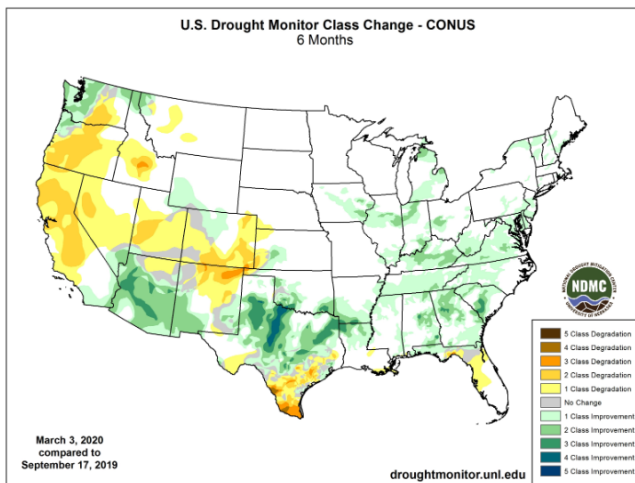
### 1 Week



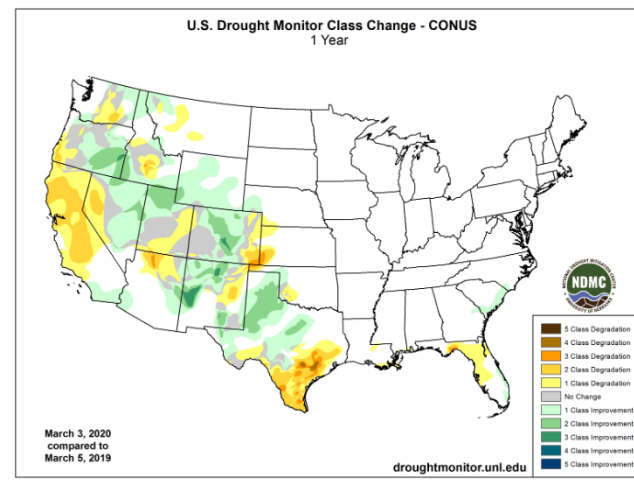
### 1 Month



### 6 Months



### 1 Year



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

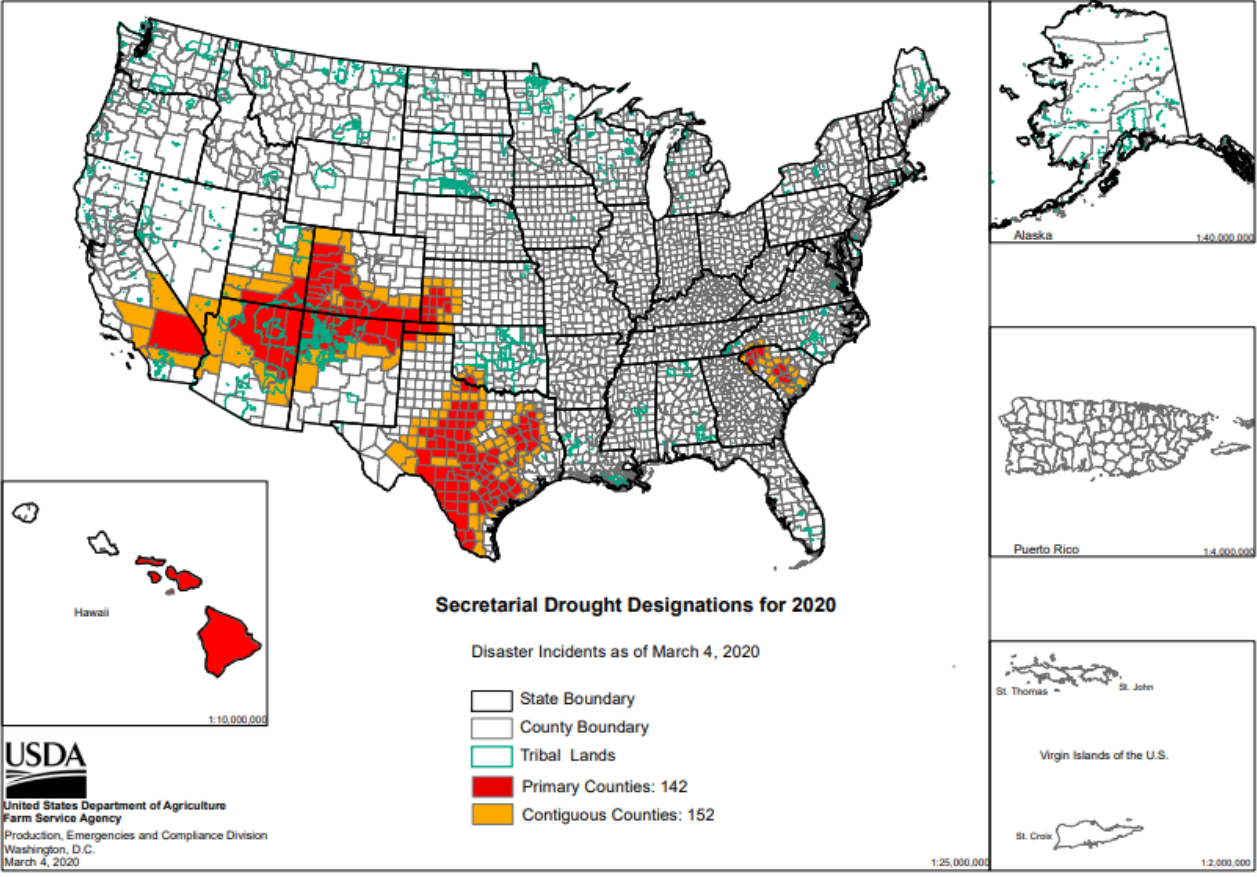
## Highlighted Drought Resources

- [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](#)

Secretarial Drought Designations

Source: USDA Farm Service Agency

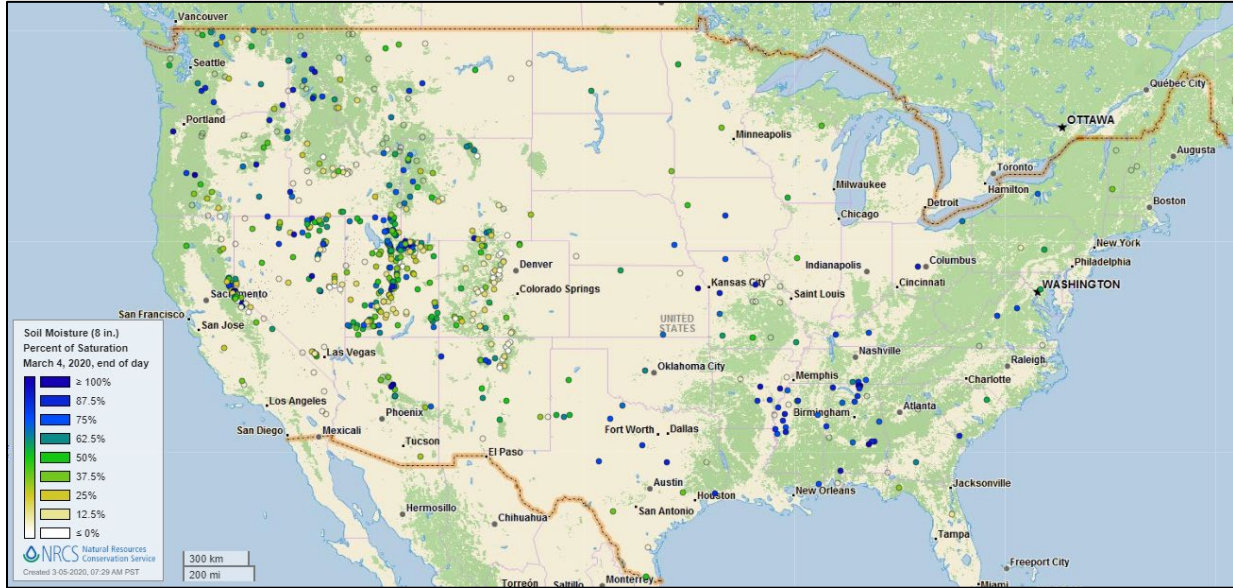
2020 Secretarial Drought Designations - All Drought



## Other Climatic and Water Supply Indicators

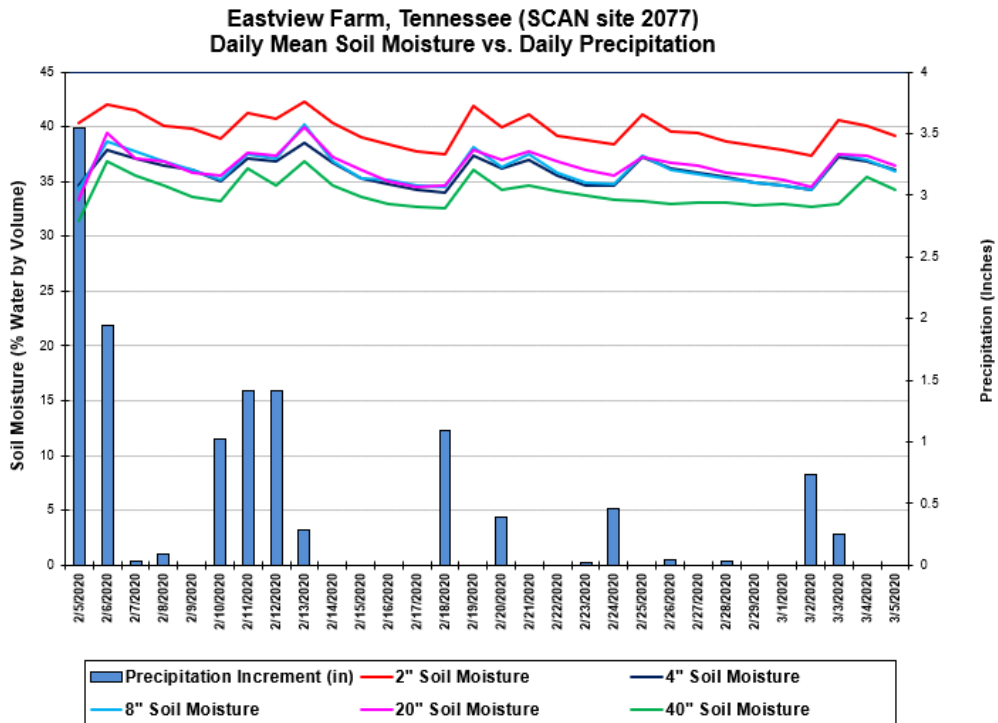
### Soil Moisture Percent of Saturation

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



### Soil Moisture Data

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



This chart shows the soil moisture and precipitation at the [Eastview Farm](#) SCAN site in Tennessee. This site has experienced several precipitation events in the last 30 days, resulting in increased soil moisture at all sensor depths. Accumulated precipitation for the period totaled 12.8 inches

**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

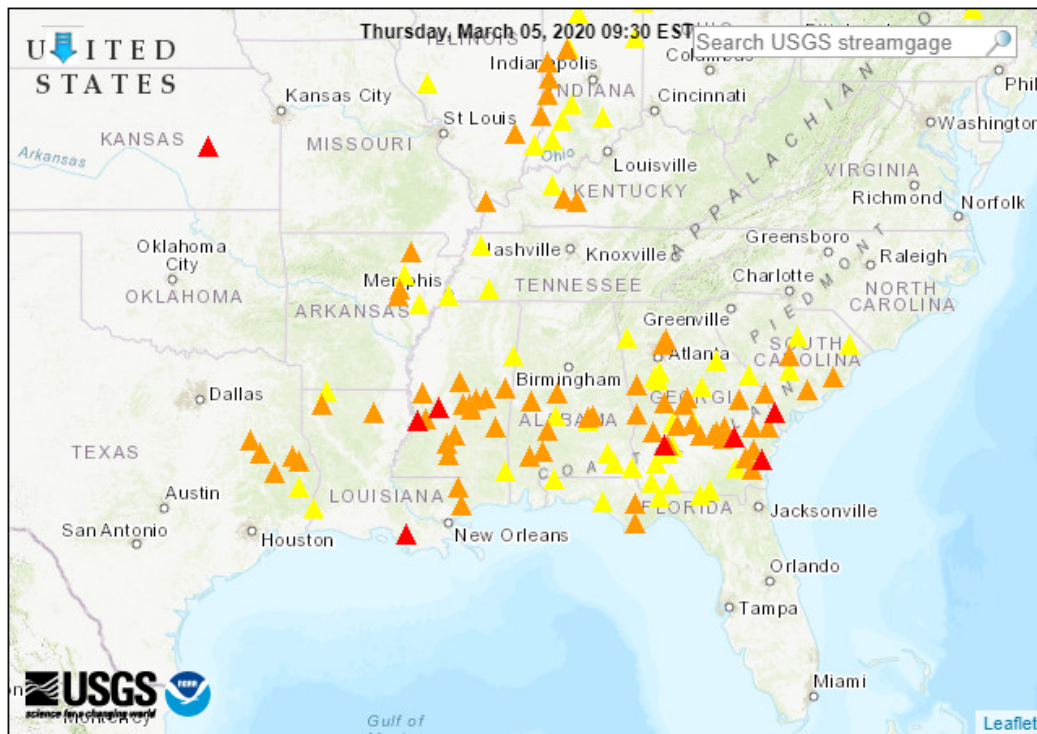
**WaterWatch Streamflow Map**

Choose a region and then click "GO" to view a regional map  
 (Warning: It may take several minutes to process)

<b>Map type</b>	Site info: xus	Clear	<input type="checkbox"/> Multiple regions	GO
Flood and High Flow	Geographic Area	Water Res. Region	<input type="checkbox"/> Regional map	

**Map of flood and high flow conditions**

(89 in floods [major: 1, moderate: 8, minor: 80], 55 in near-flood)



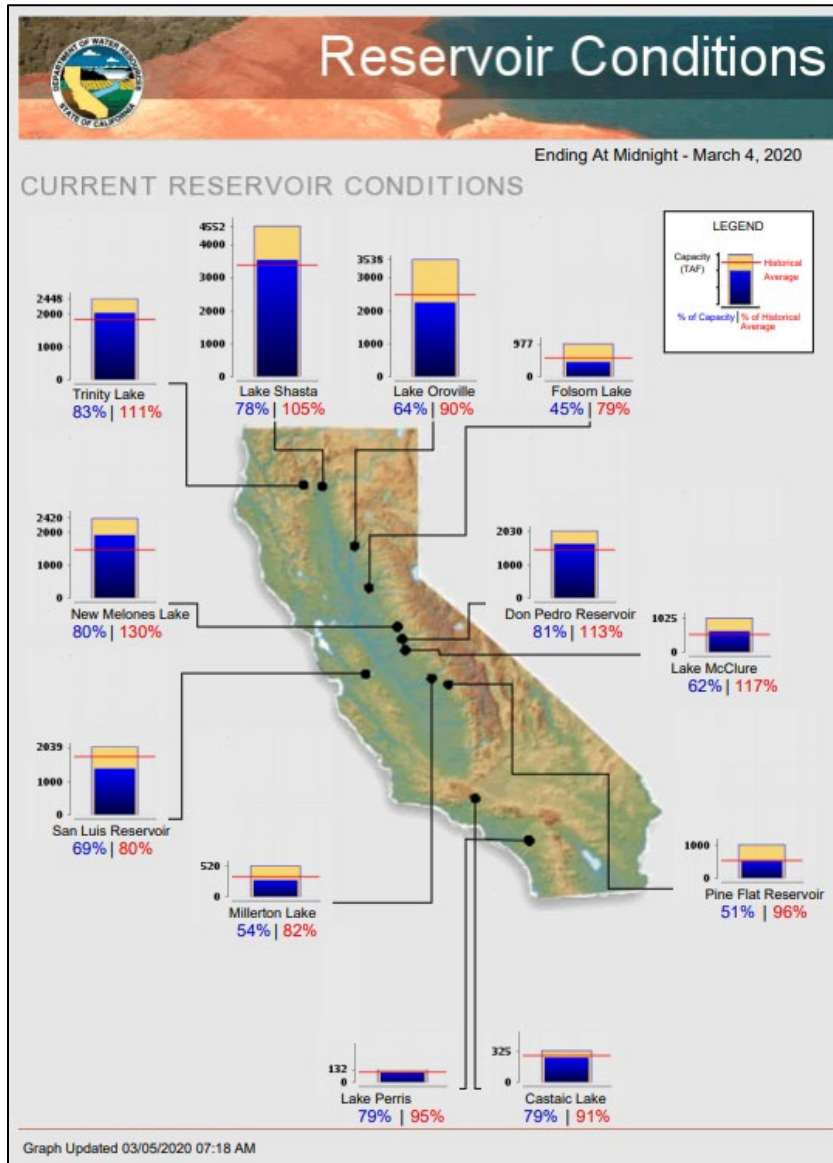
Explanation - Percentile classes						
<95	95-98	>= 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage
▲ Streamgage with flood stage    ○ Streamgage without flood stage						

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

## Reservoir Storage

### Current California Reservoir Conditions

Source: California Department of Water Resources



[Current California Reservoir Conditions](#)

### 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](#)

## Short- and Long-Range Outlooks

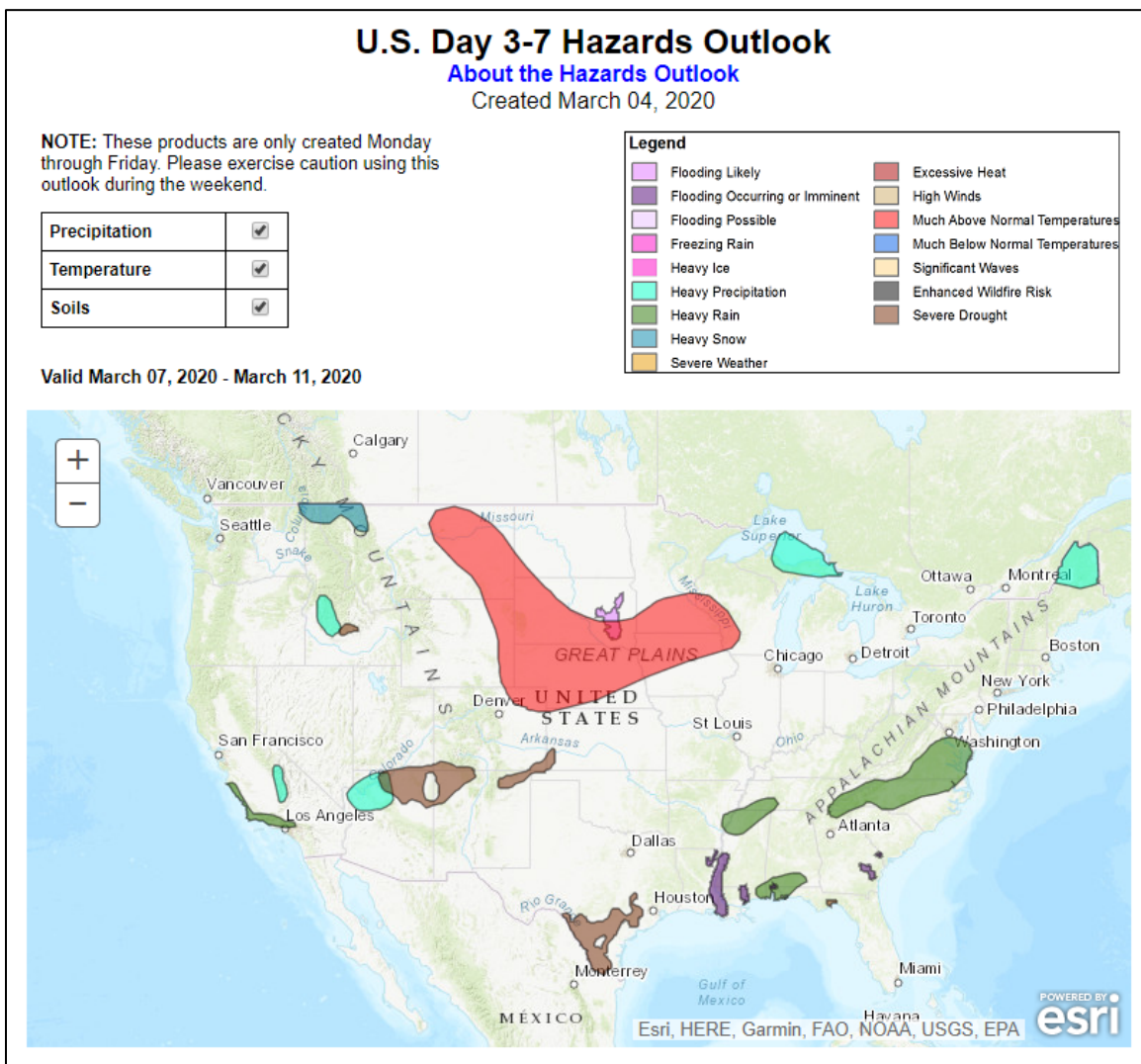
### Agricultural Weather Highlights

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

**National Outlook, Thursday, March 5, 2020:** “A storm system currently centered near the Gulf Coast will drift northeastward and will be centered well east of the Mid-Atlantic coast by Friday. Heavy rain and severe thunderstorms will remain a threat for the remainder of the day in parts of the Southeast. Subsequently, the storm system will merge with a disturbance currently crossing the Great Lakes region. The combined storm will generate windy weather and snow showers across the Northeast on Friday. Cold air will briefly trail the storm into the South and East, but temperatures will rebound to above-normal levels by early next week. In contrast, markedly cooler air will accompany scattered showers in the West. However, bitterly cold conditions will be confined to areas along the Canadian border from the northern Plains into the upper Great Lakes region. The NWS 6- to 10-day outlook for March 10 – 14 calls for the likelihood of near- or above-normal temperatures and precipitation across most of the country. In fact, cooler and drier-than-normal conditions should be limited to the Pacific Northwest.

### Weather Hazards Outlook: [March 7 – 11, 2020](#)

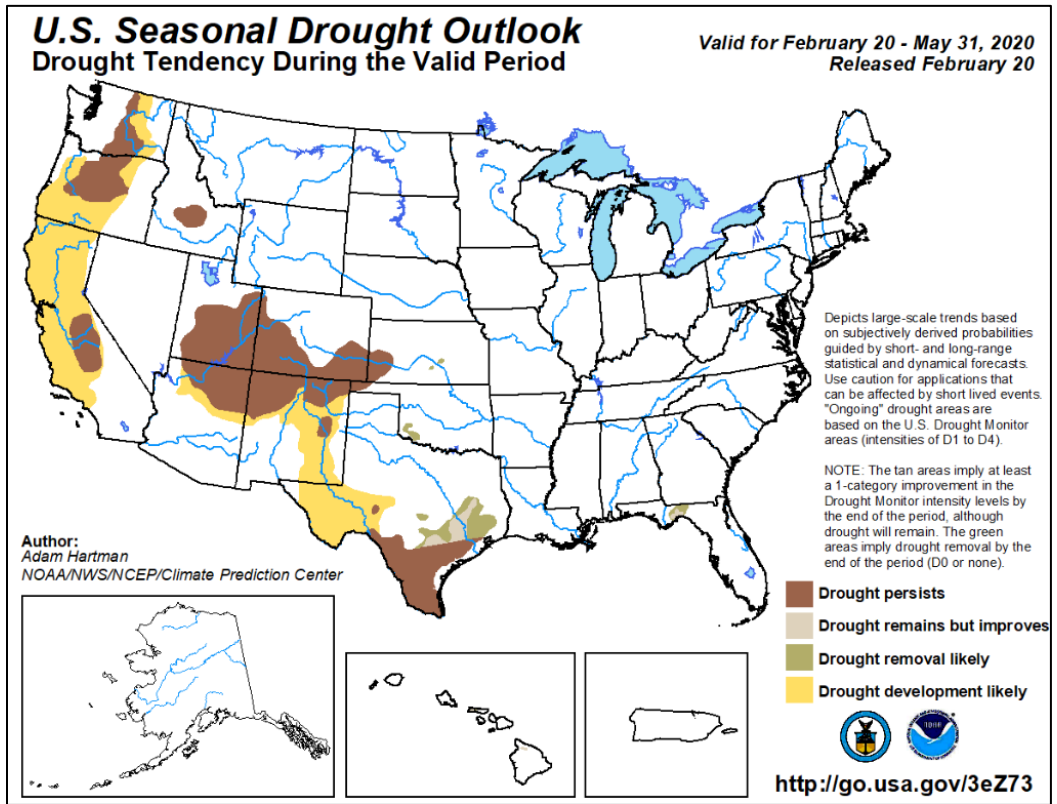
Source: NOAA Weather Prediction Center





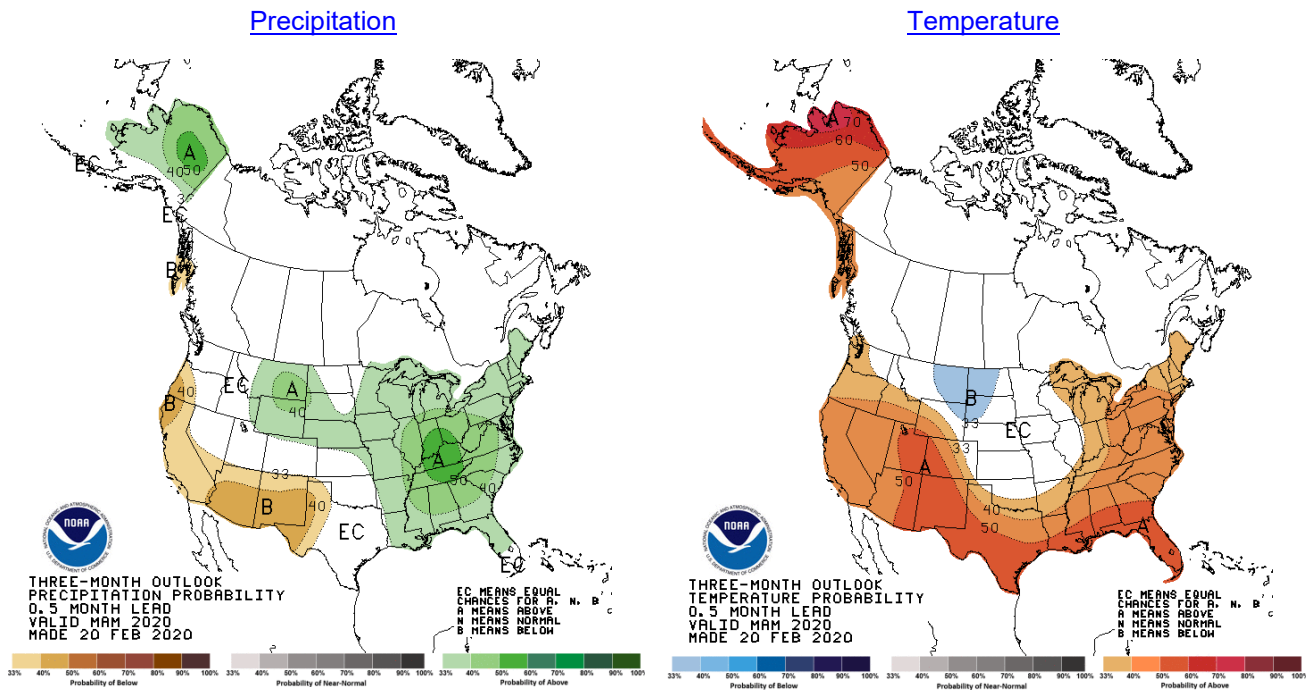
Seasonal Drought Outlook: [February 20 – May 31, 2020](#)

Source: National Weather Service



Climate Prediction Center 3-Month Outlook

Source: National Weather Service



[March-April-May \(MAM\) 2020 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](#).