

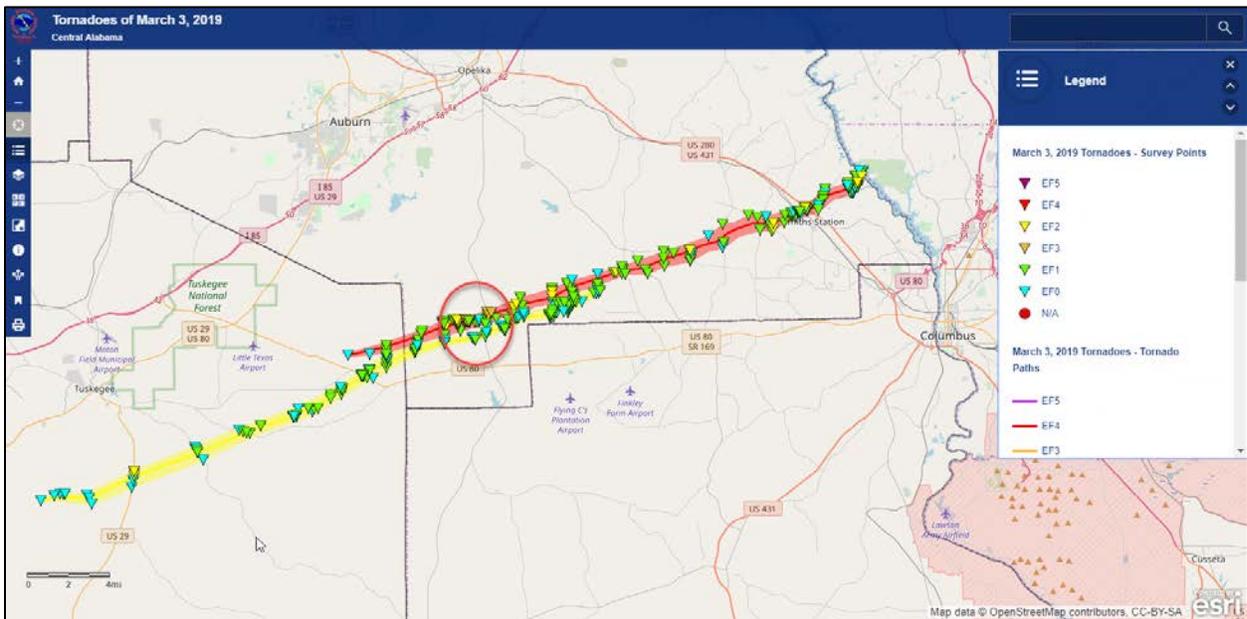
# Water and Climate Update

March 7, 2019

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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## Severe storms spawn deadly EF-4 tornado in Alabama



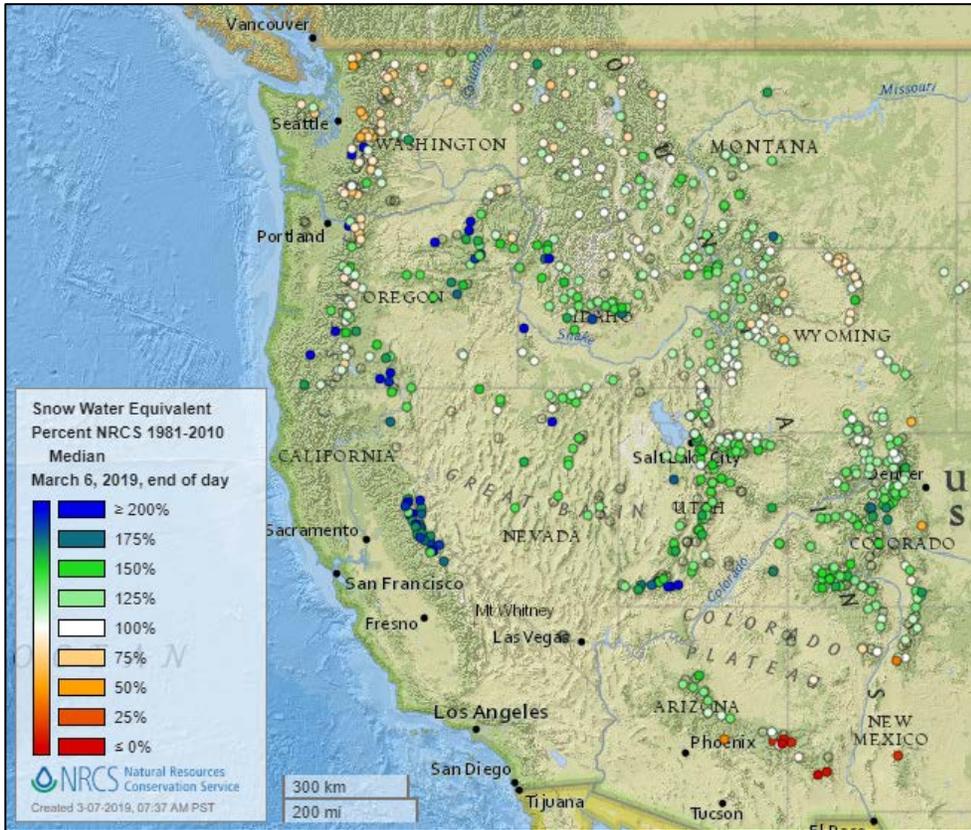
A series of deadly tornadoes struck rural eastern Alabama on March 3<sup>rd</sup>. A cold front coming from the west pulled in a warm front from the south causing a very unstable atmosphere, high winds, and severe thunderstorms. Six tornadoes were confirmed, but the most devastating tornado was an EF-4 with winds of 170 mph. Reported as the deadliest tornado in the U.S. in six years, the tornado devastated homes in Lee County where 23 people lost their lives and additional people were hospitalized. More information is available at this National Weather Service link: [https://www.weather.gov/bmx/event\\_03032019](https://www.weather.gov/bmx/event_03032019)

**Related:**

- [Alabama's Tornado Death Toll Of 23 Is Final, Lee County Sheriff Says](#) – NPR
- [Alabama Tornado Among the Region's Worst in 30 Years](#) – NY Times
- [Alabama family loses 10 people in Lee County tornadoes](#) – AL.com
- [Preliminary Reports Show EF-4 Tornado Damage In Lee County](#) – WHNT-19News
- [Tornadoes of March 3, 2019](#) – National Weather Service – Birmingham AL

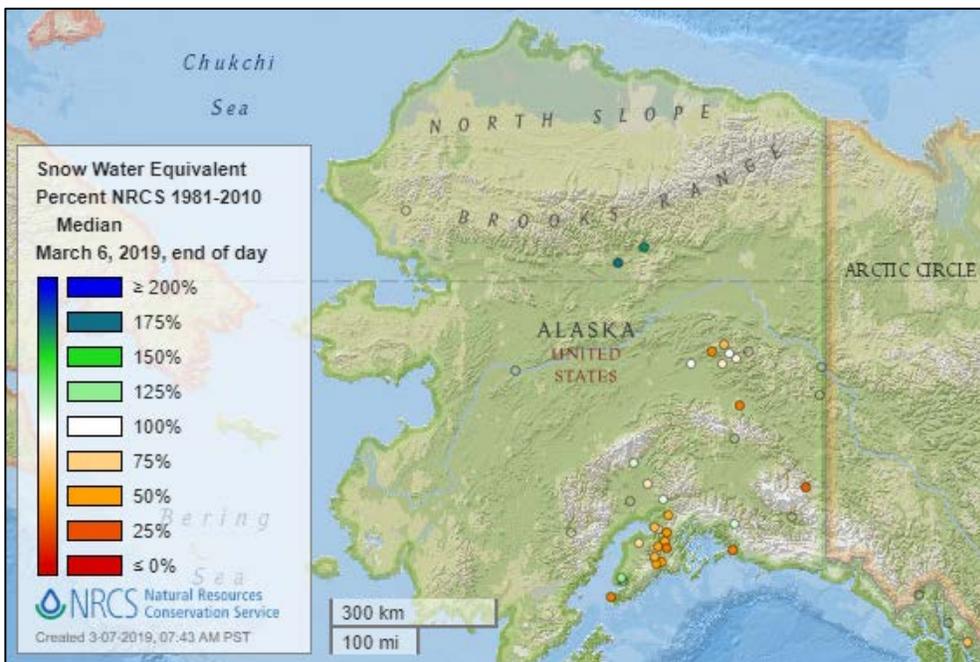
## Snow

### Current Snow Water Equivalent, NRCS SNOTEL Network



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

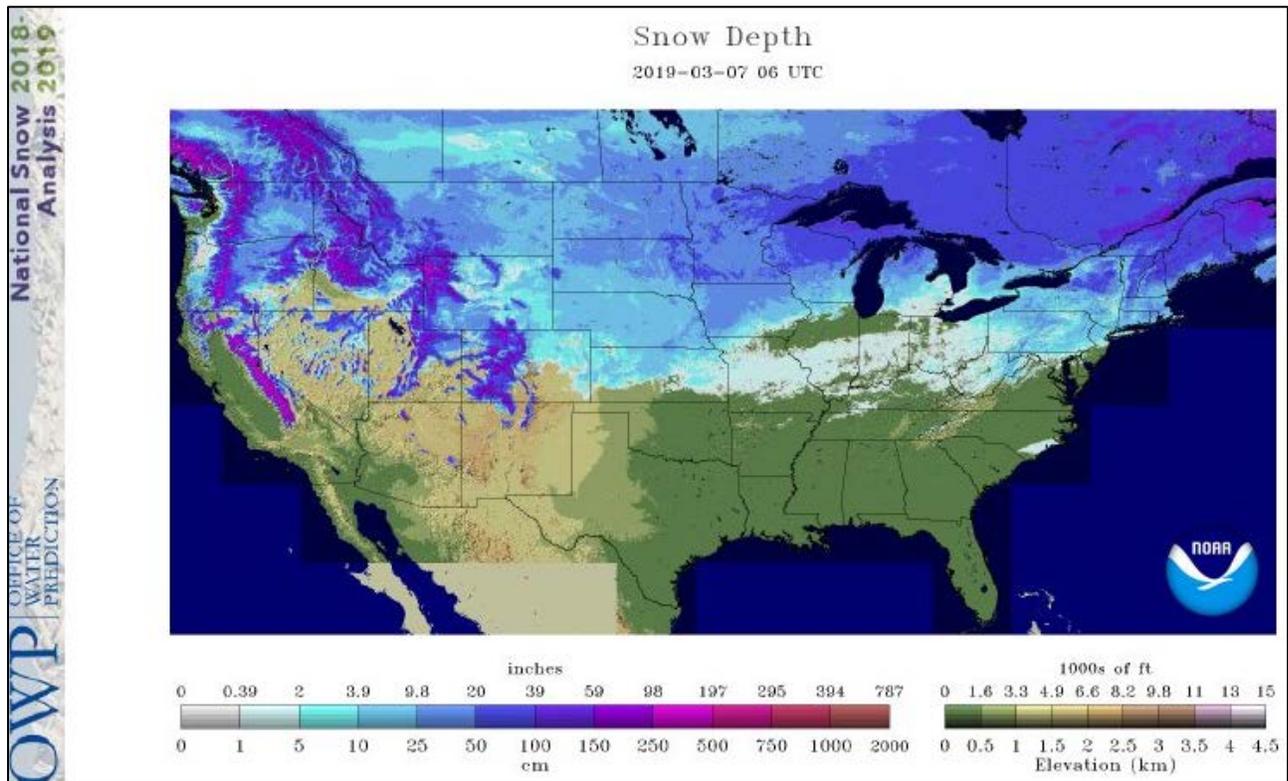
**See also:**  
[Snow water equivalent values \(inches\) map](#)



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

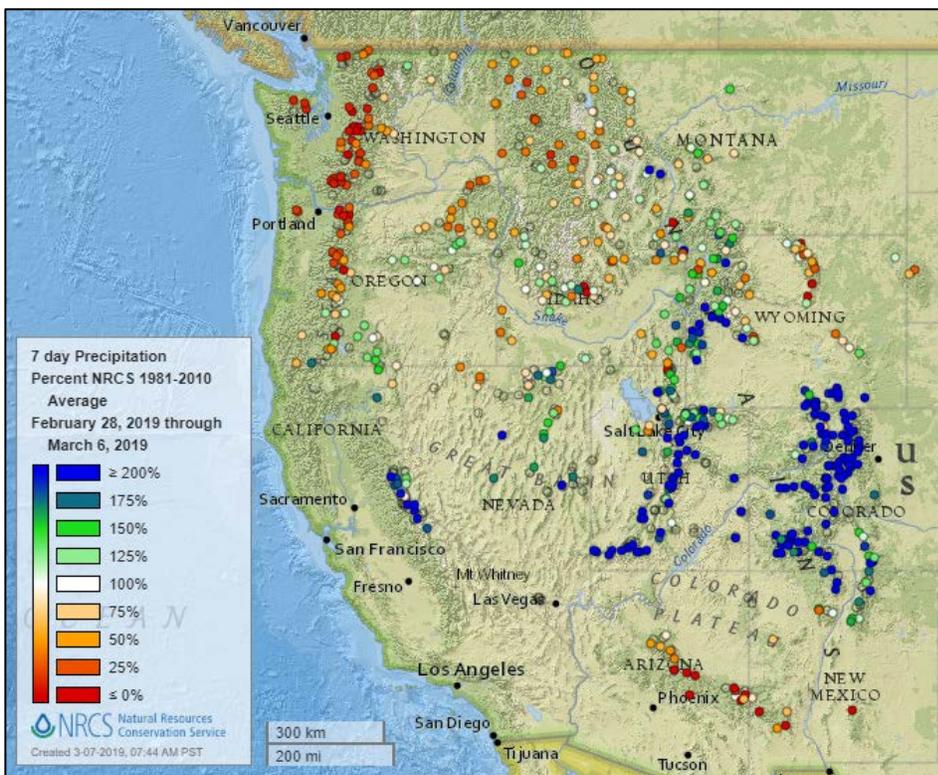
**See also:**  
[Alaska snow water equivalent values \(inches\) map](#)

[Current Snow Depth](#), National Weather Service Snow Analysis



## Precipitation

### Last 7 Days, NRCS SNOTEL Network

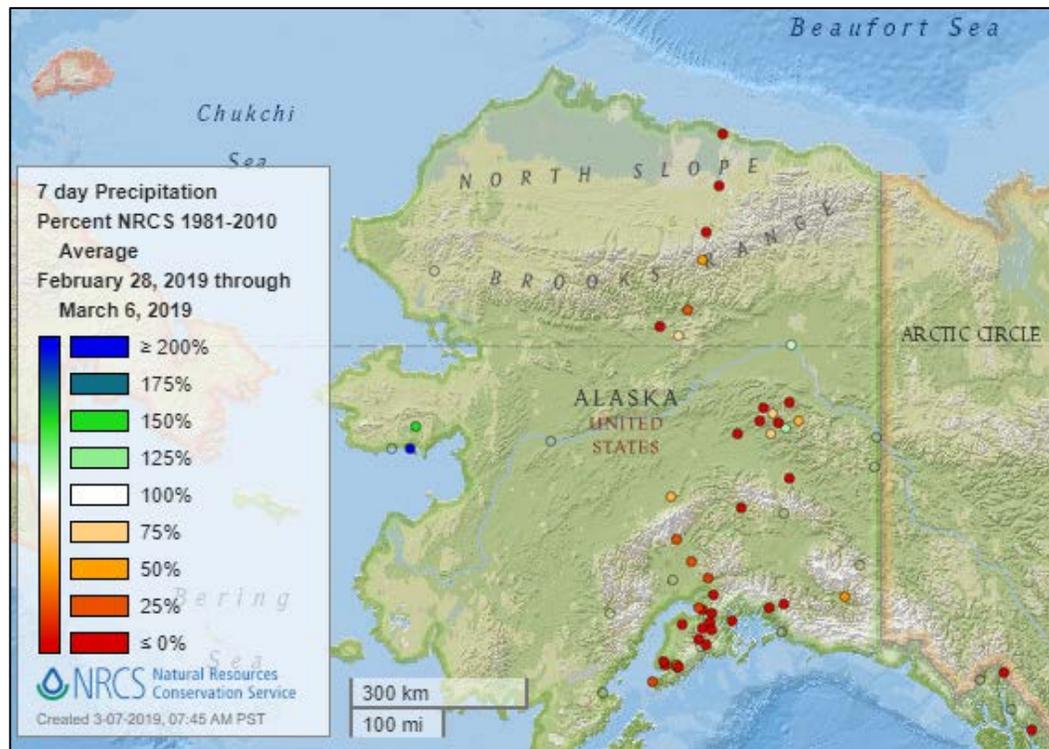


[7-day precipitation percent of average map](#)

**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](#)



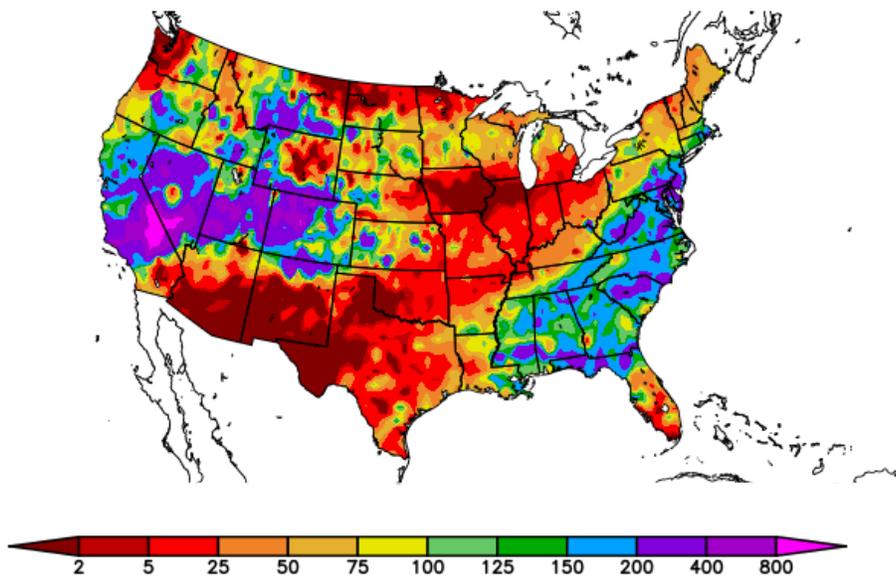
**Last 7 Days, National Weather Service (NWS) Networks**

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 (%)  
2/28/2019 – 3/6/2019



Generated 3/7/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

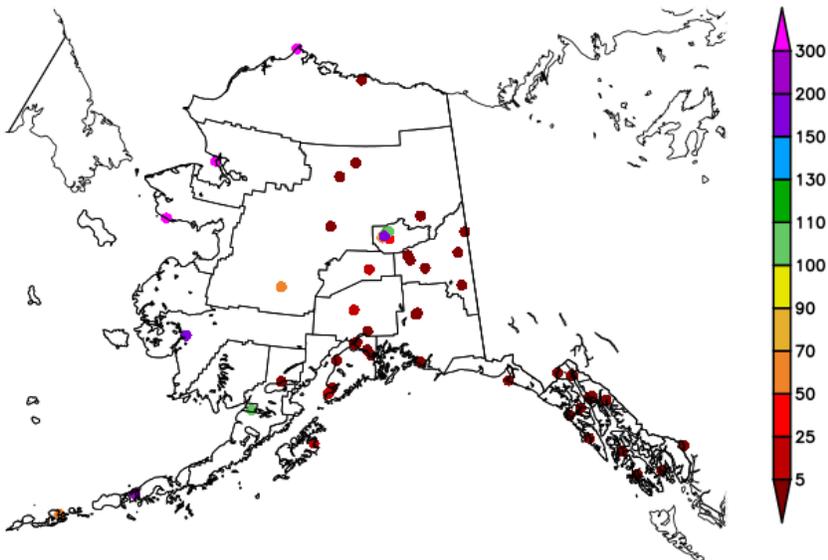
**Last 7 Days, National Weather Service (NWS) Networks**

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)  
2/28/2019 – 3/6/2019

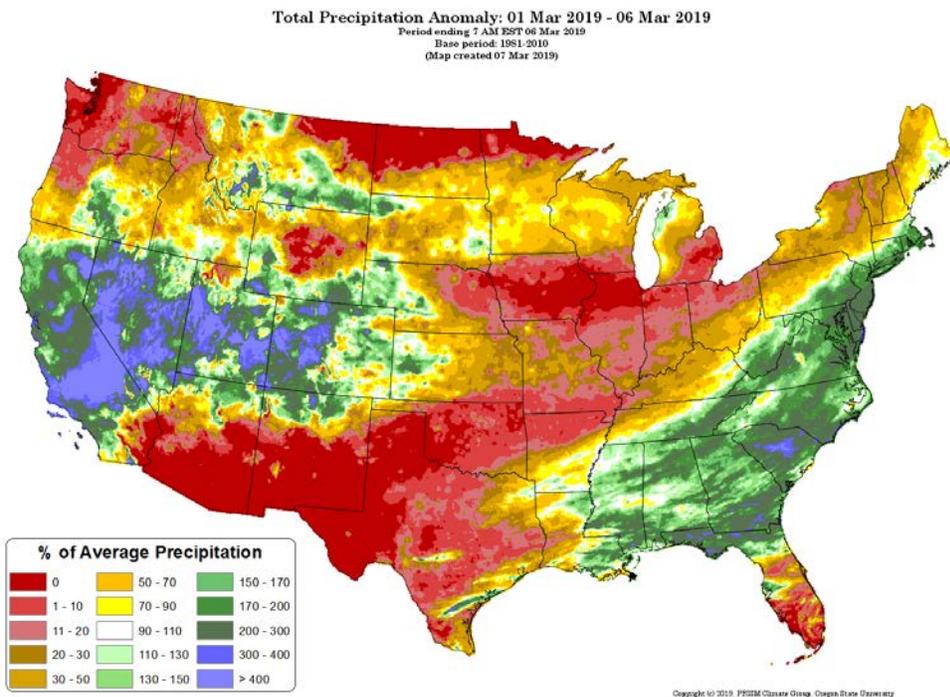


Generated 3/7/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

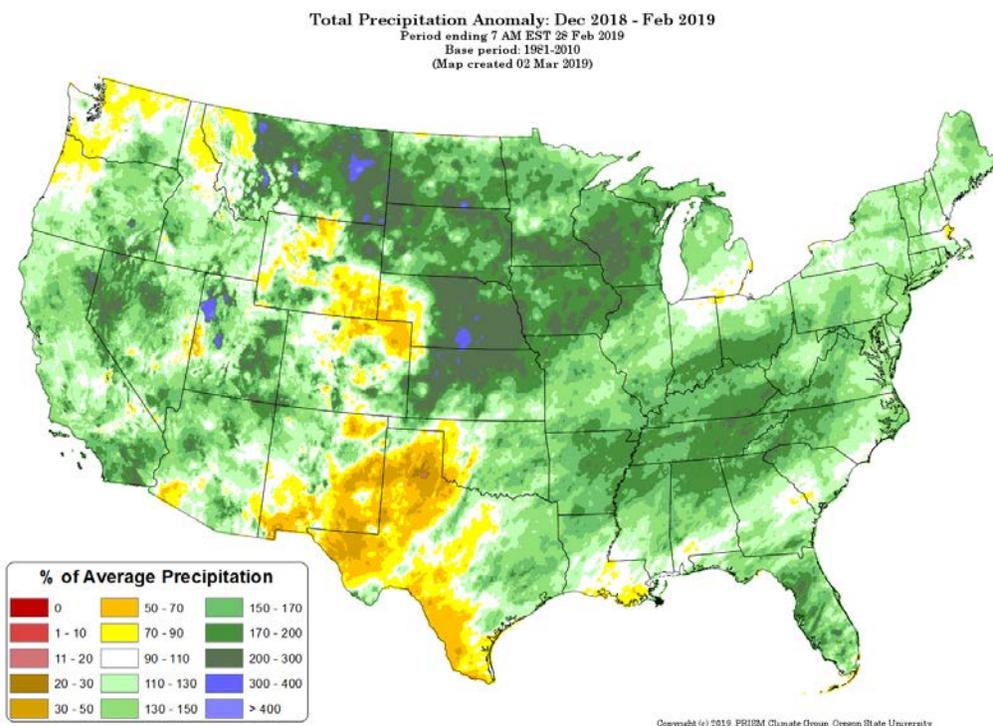


[Month-to-date national total precipitation percent of average map](#)

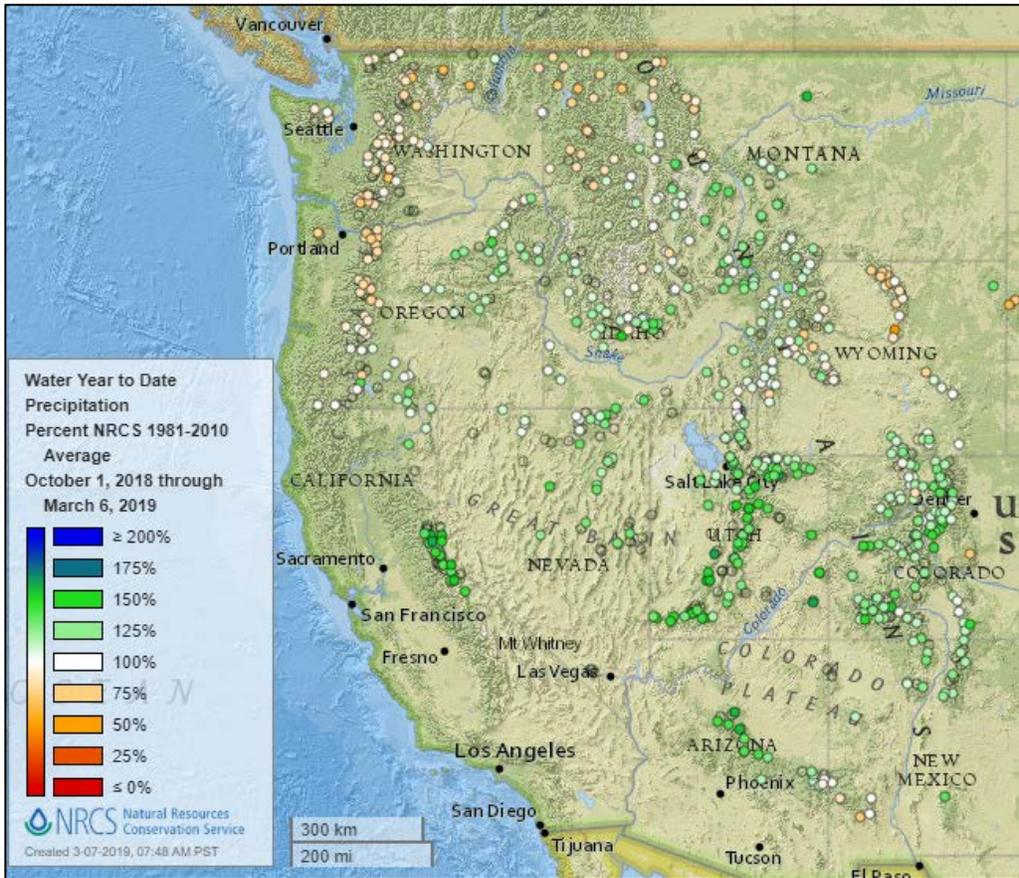
### Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

[December 2018 through February 2019 total precipitation percent of average map](#)



Water Year-to-Date, NRCS SNOTEL Network



[2019 water year-to-date precipitation percent of average map](#)

**See also:**  
[2019 water year-to-date precipitation values \(inches\) map](#)



[Alaska 2019 water year-to-date precipitation percent of average map](#)

**See also:**  
[Alaska 2019 water year-to-date precipitation values \(inches\) map](#)

## Temperature

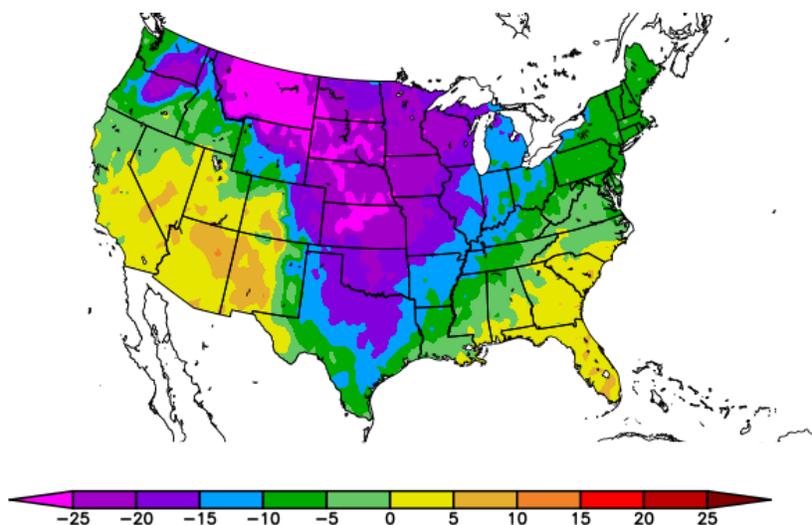
### Last 7 Days, National Weather Service (NWS) Networks

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)  
2/28/2019 – 3/6/2019



Generated 3/7/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

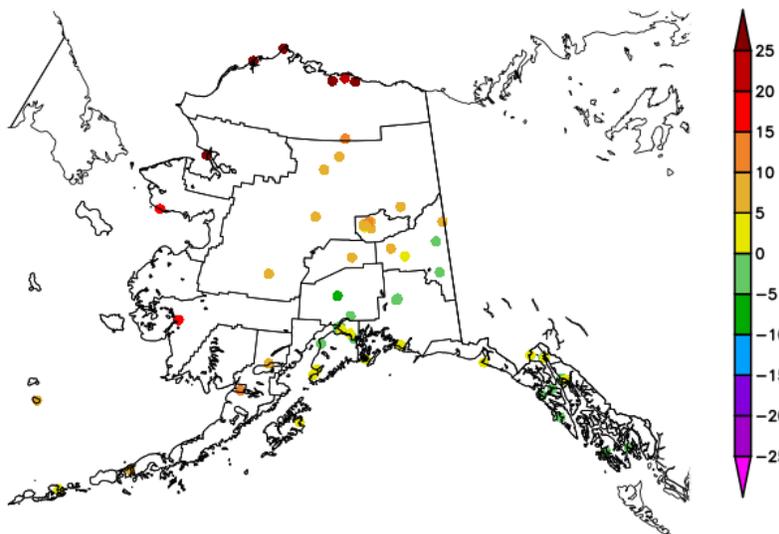
### Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)  
2/28/2019 – 3/6/2019



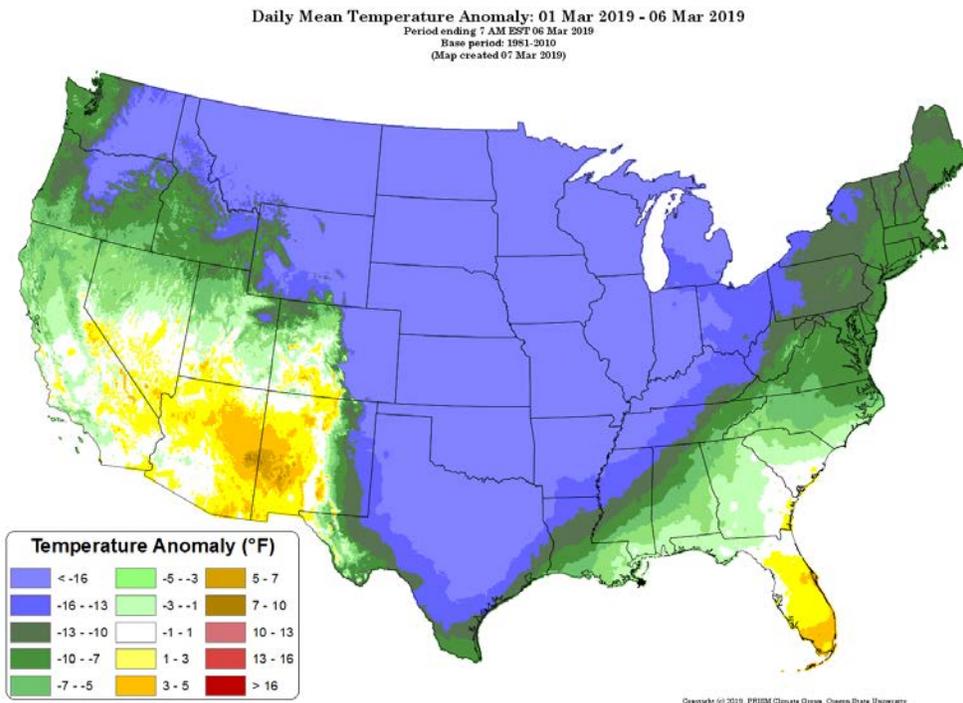
Generated 3/7/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

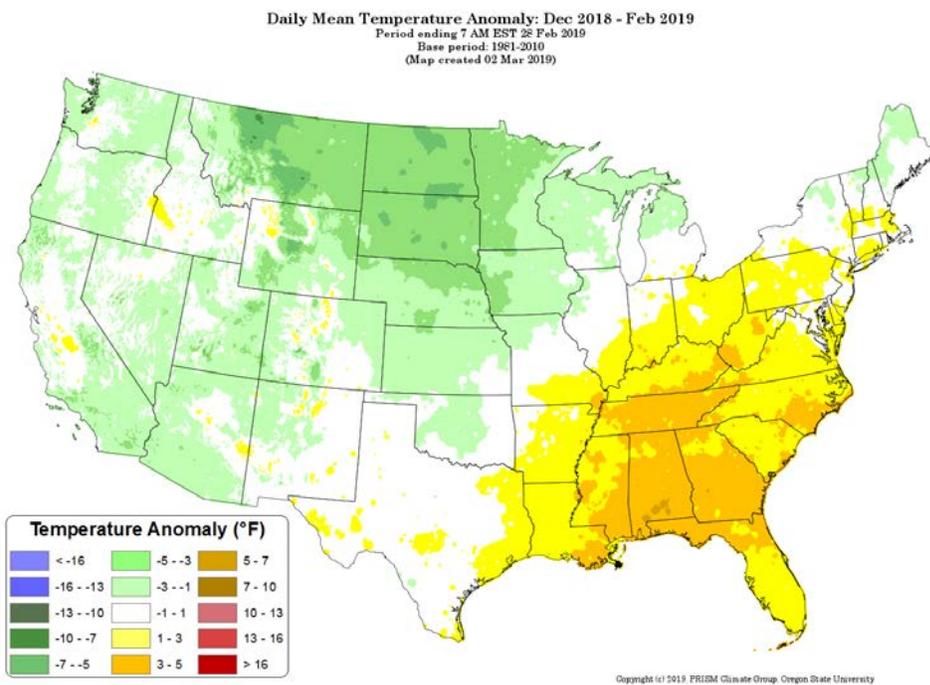
[Month-to-date national daily mean temperature anomaly map](#)



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

Source: PRISM

[December 2018 through February 2019 daily mean temperature anomaly map](#)



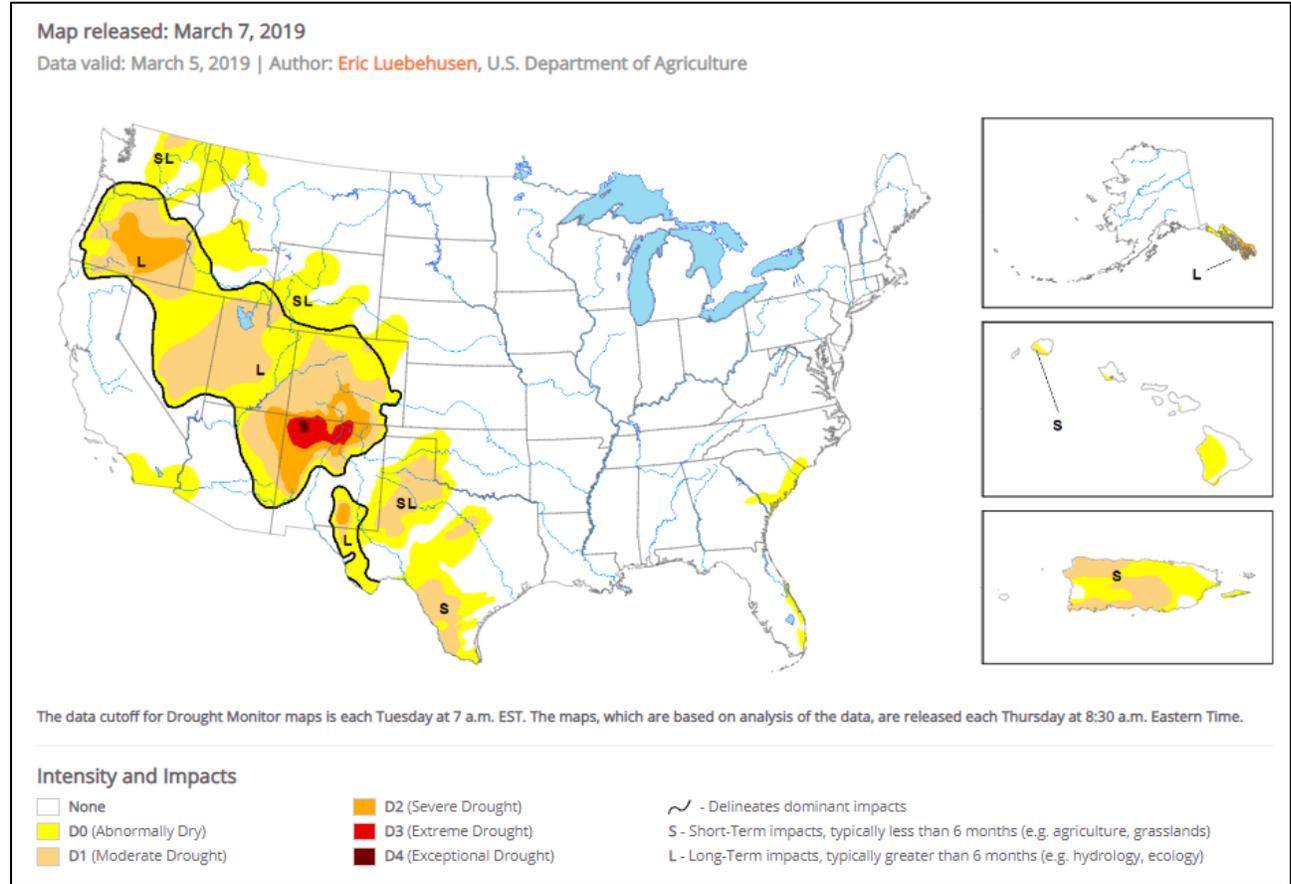
# Drought

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

Source: National Drought Mitigation Center

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

Source: NOAA



## Current [National Drought Summary](#), March 7, 2019

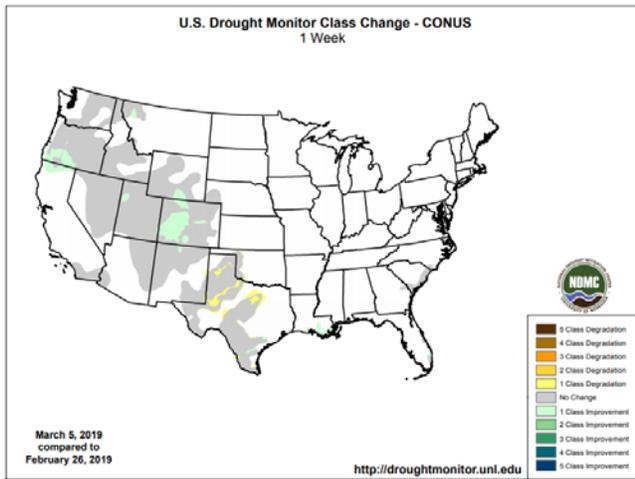
Author: Eric Luebehusen, U.S. Department of Agriculture

“Bitterly cold conditions settled over central portions of the nation, while stormy weather prevailed over parts of the eastern and western U.S. The Southeastern rain afforded localized relief from dryness, while a continuation of the west’s stormy weather pattern brought more drought relief to locales from the Pacific Coast into the Rockies. In contrast, short-term dryness intensified across the southcentral U.S., in particular central Texas.”

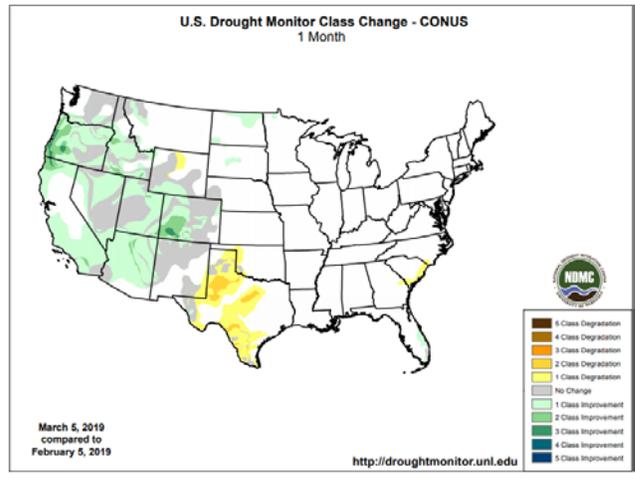
## Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

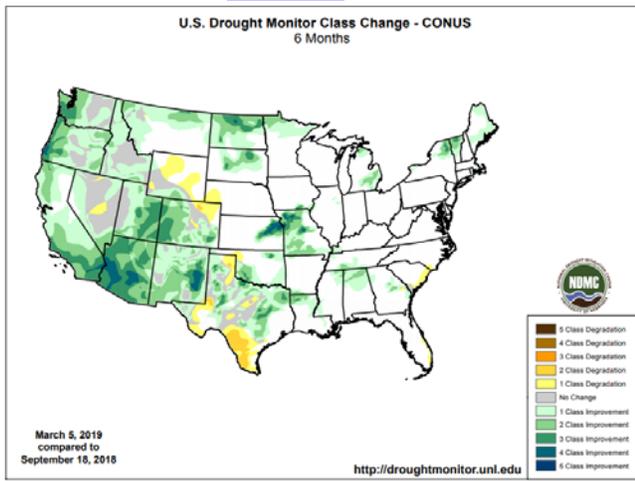
### 1 Week



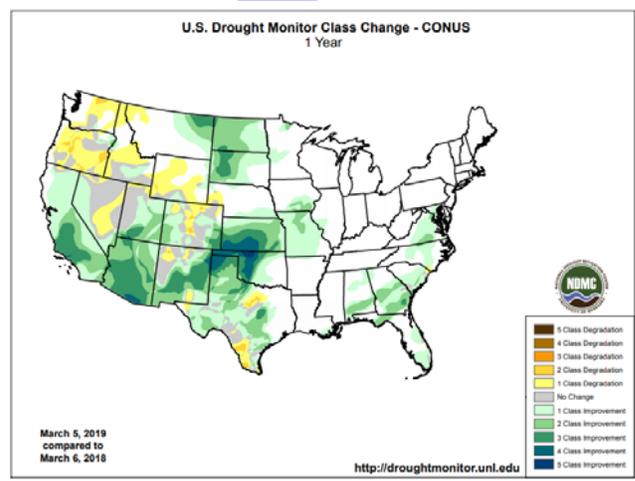
### 1 Month



### 6 Months



### 1 Year



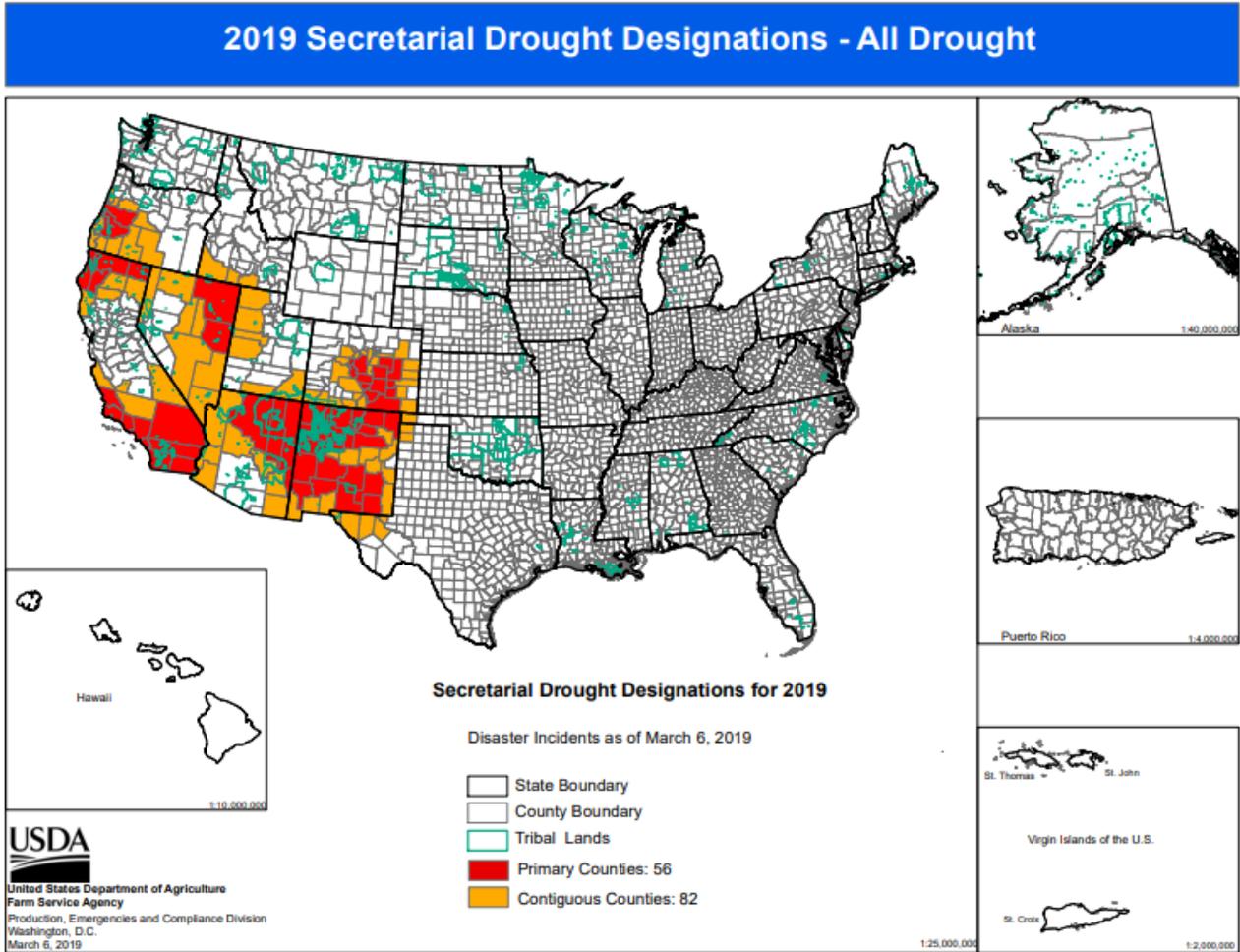
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

## 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](#)

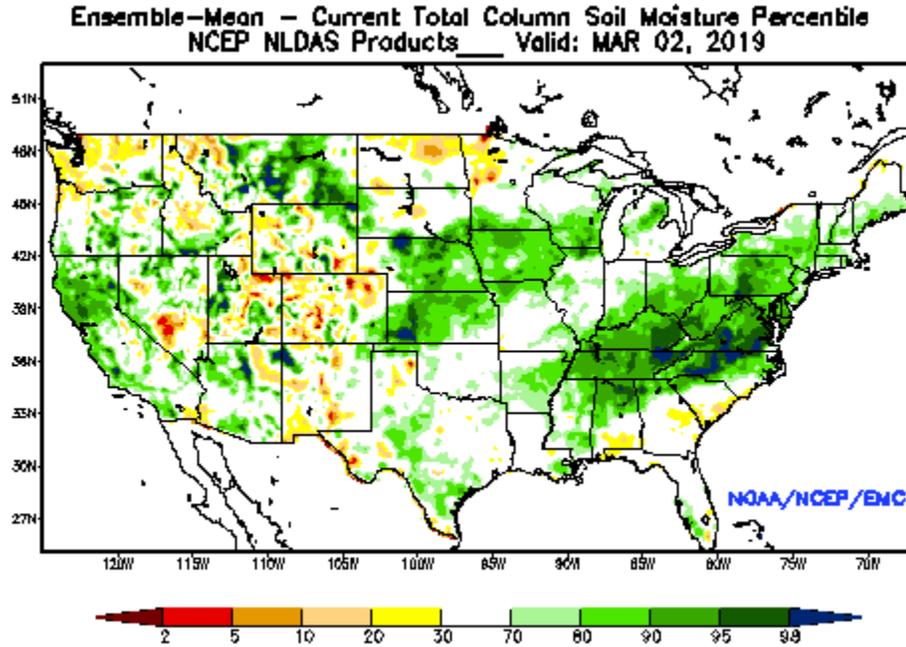
Source: USDA Farm Service Agency



## Other Climatic and Water Supply Indicators

### Soil Moisture

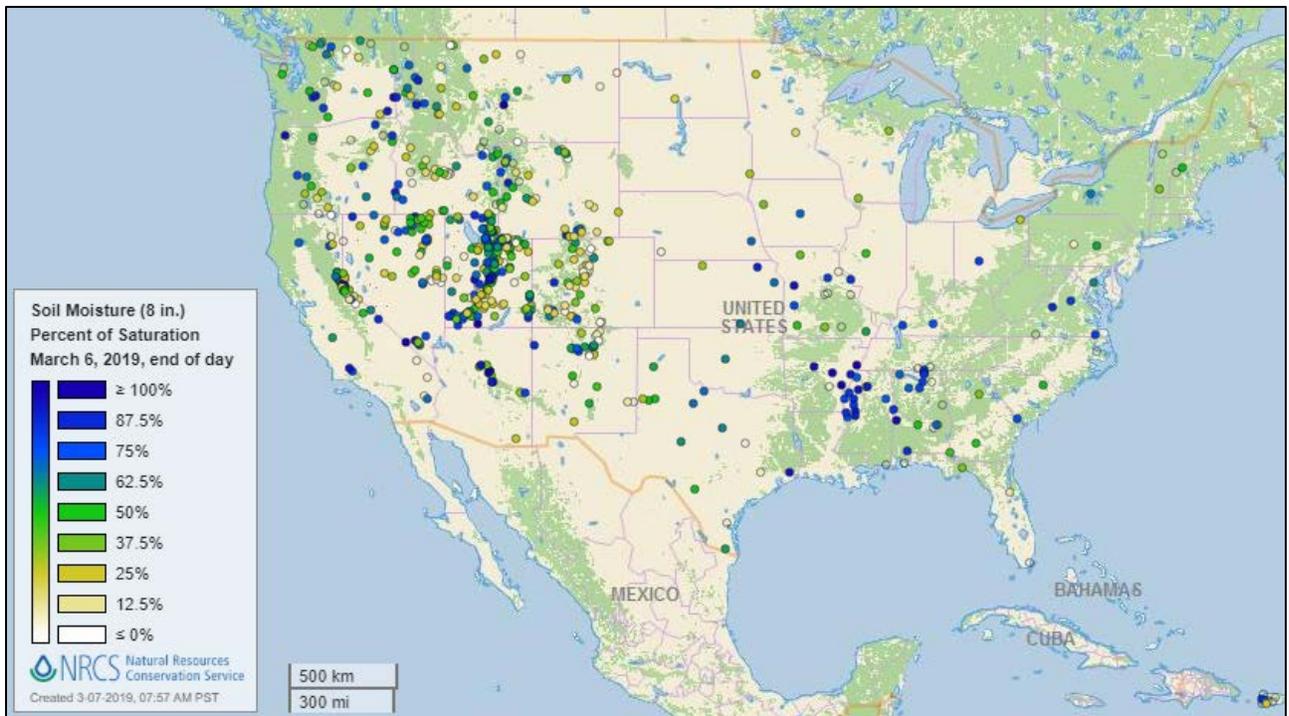
Source: NOAA National Centers for Environmental Prediction



[Modeled soil moisture percentiles](#) as of March 2, 2019

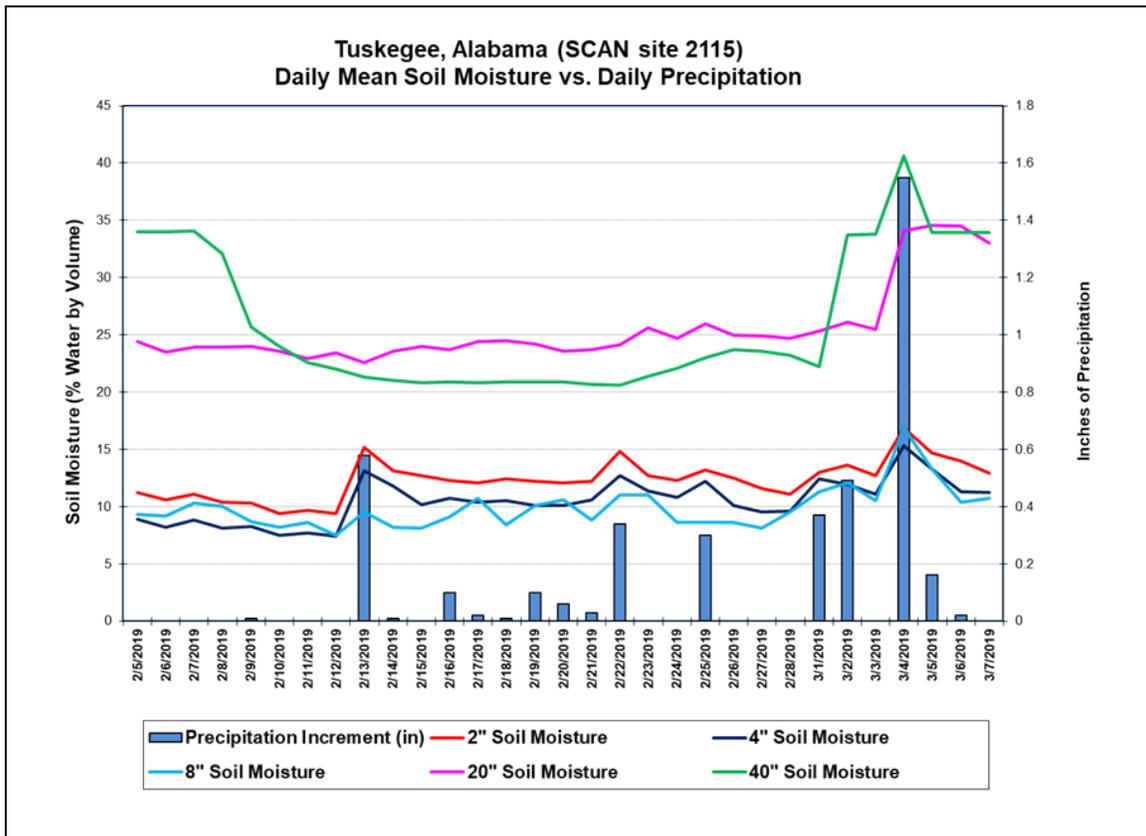
### Soil Moisture Percent of Saturation

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



### Soil Moisture Data

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



This graph shows the precipitation and soil moisture for the last 30 days at the [Tuskegee SCAN site 2115](#) in Alabama. Between March 1 – 6, the accumulated precipitation totaled 2.59 inches followed by an increase in soil moisture at all sensor levels.

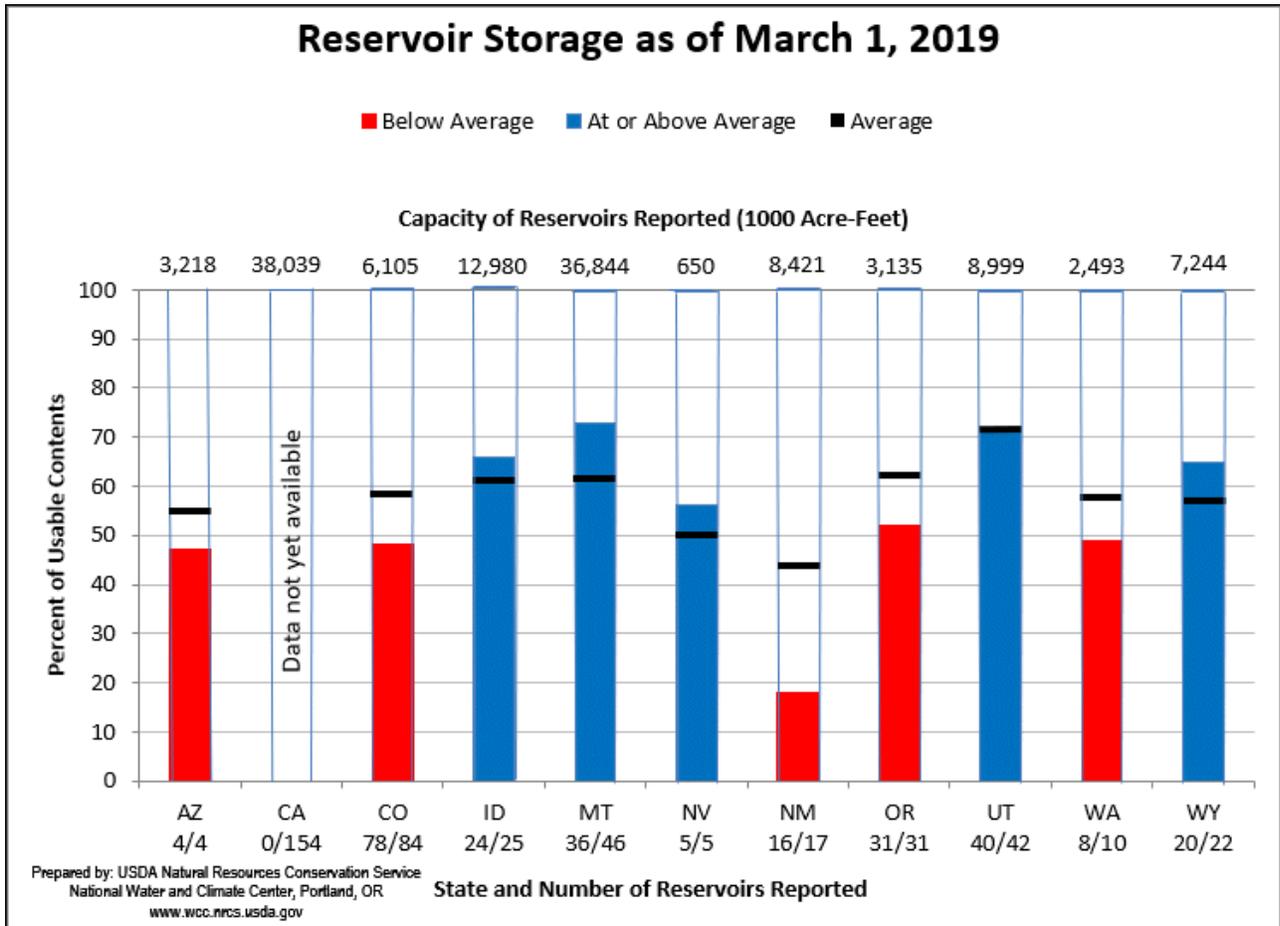
### Soil Moisture Data Portals

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

## Reservoir Storage

### Western States Reservoir Storage

Source: NRCS National Water and Climate Center



March 1, 2019 Reservoir Storage: [Chart](#) | [Dataset](#)

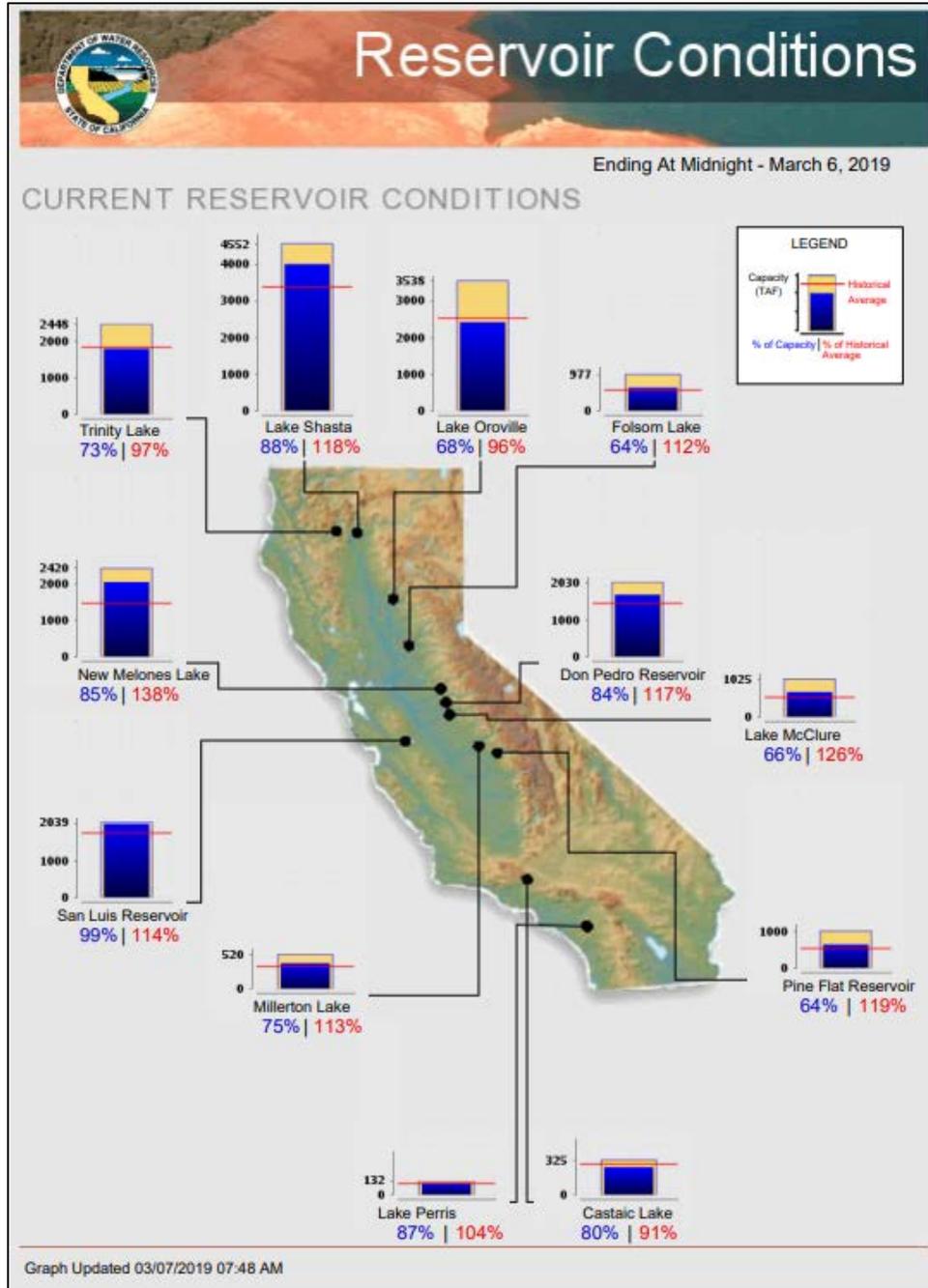
### Hydromet Tea Cup Reservoir Depictions

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](#)

## Short- and Long-Range Outlooks

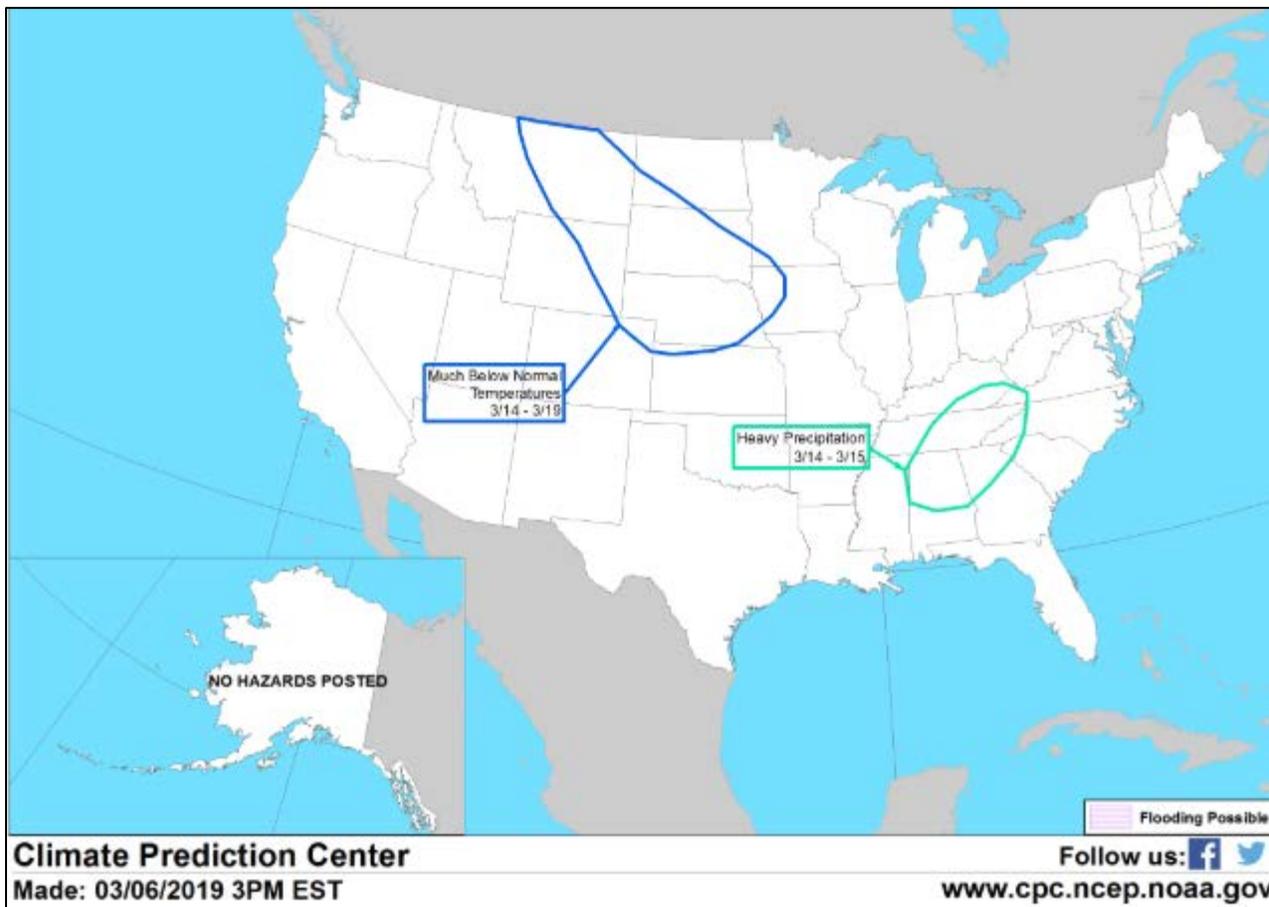
### Agricultural Weather Highlights

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

**National Outlook, Thursday, March 7, 2019:** "Warmth will spread eastward across the South, reaching the middle and southern Atlantic States during the weekend. Meanwhile, below-normal temperatures will continue to dominate the northern and western U.S. Following the wettest U.S. winter (December-February period) on record, an active weather pattern will persist. During the next 5 days, most areas from the eastern Plains to the Appalachians will receive precipitation totaling 1 to 2 inches. Significant precipitation will also fall in the West. Only Florida and portions of the northern High Plains will remain mostly dry. Weekend weather highlights could include heavy snow in the upper Midwest and possible severe thunderstorms across the South. Early next week, the drought-affected southern High Plains may receive significant precipitation. The NWS 6- to 10-day outlook for March 11 – 15 calls for the likelihood of below normal temperatures from the Pacific Coast to the Plains, while warmer-than-normal weather will prevail across the eastern one-third of the U.S. Meanwhile, below-normal precipitation in much of northern and central California and the Northwest should contrast with wetter-than-normal conditions across the remainder of the country."

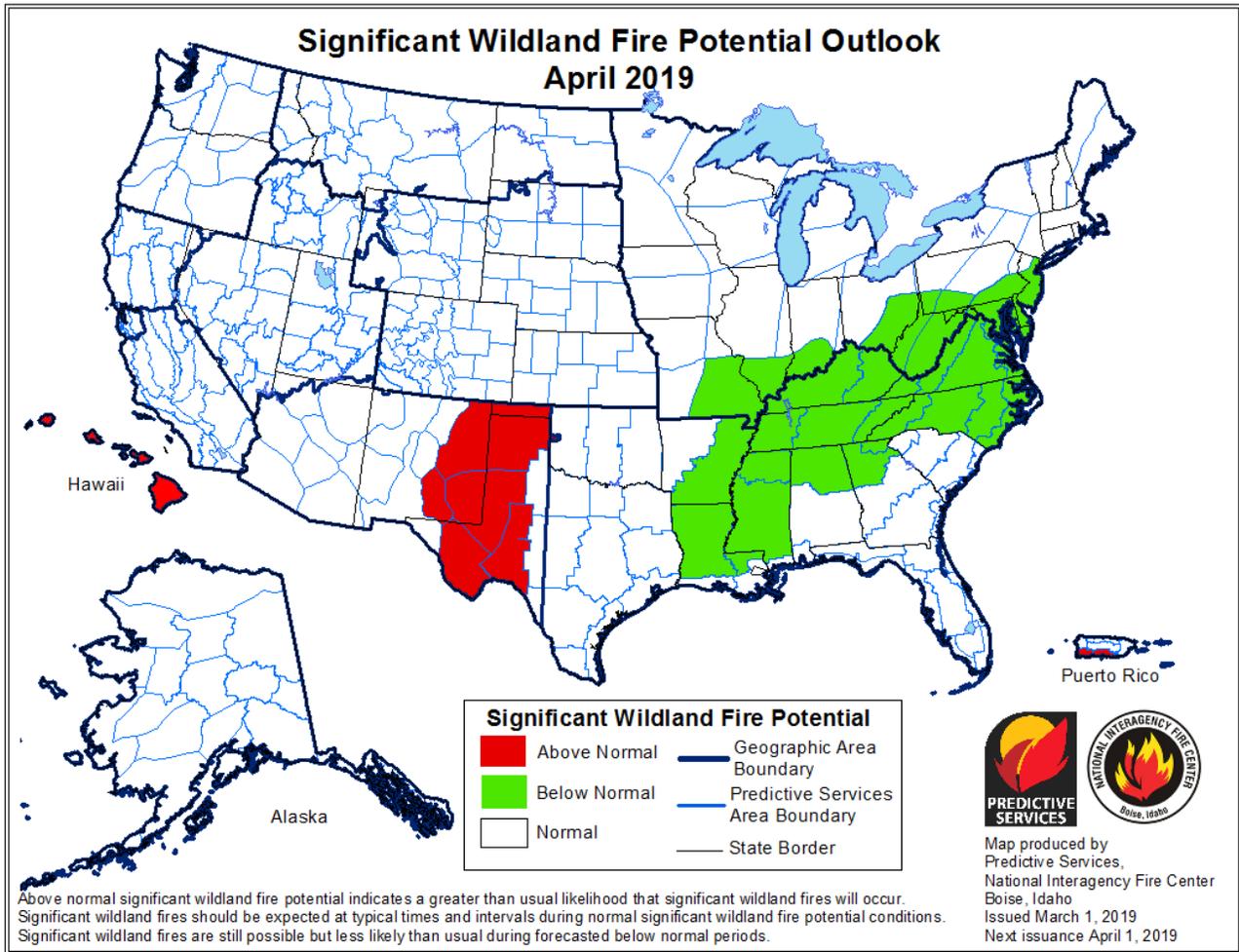
### Weather Hazards Outlook: March 14 – 20, 2019

Source: NOAA Climate Prediction Center



### Significant Wildland Fire Potential Outlook

Source: National Interagency Fire Center

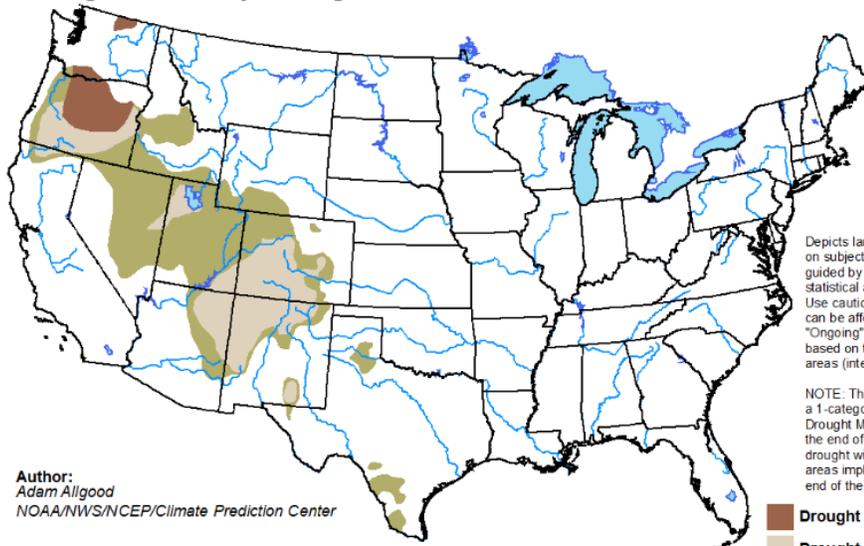


Seasonal Drought Outlook: [February 21 – May 31, 2019](#)

Source: National Weather Service

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

Valid for February 21 - May 31, 2019  
Released February 21



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 Allgood  
NOAA/NWS/NCEP/Climate Prediction Center

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



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

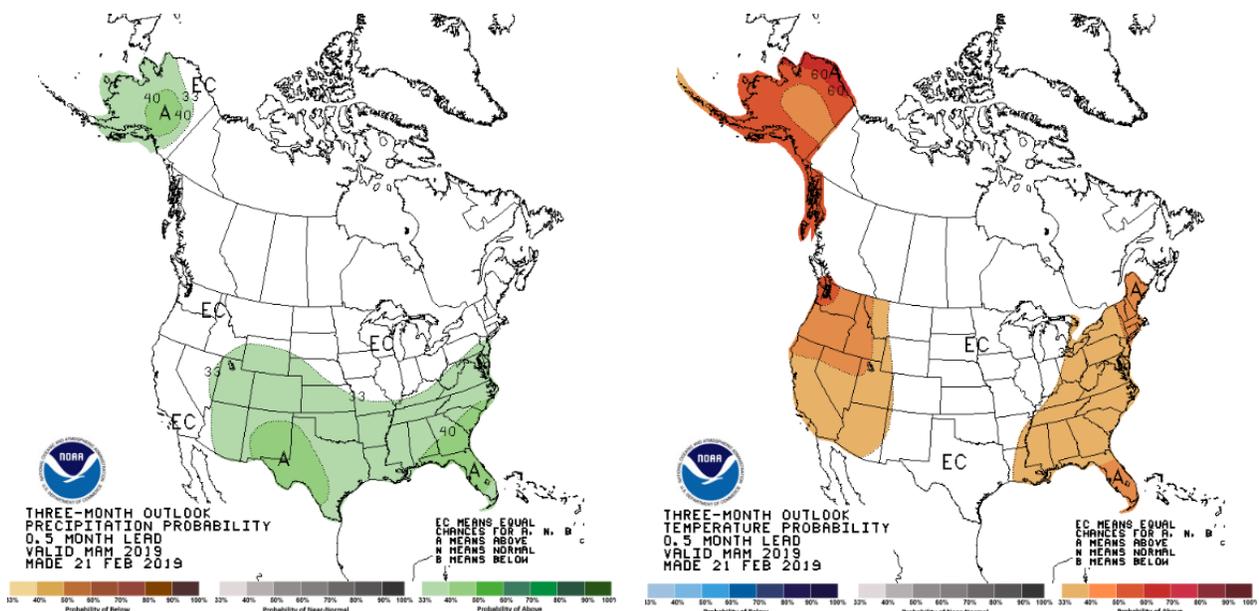


Climate Prediction Center 3-Month Outlook

Source: National Weather Service

[Precipitation](#)

[Temperature](#)



[March-April-May \(MAM\) 2019 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](#).