

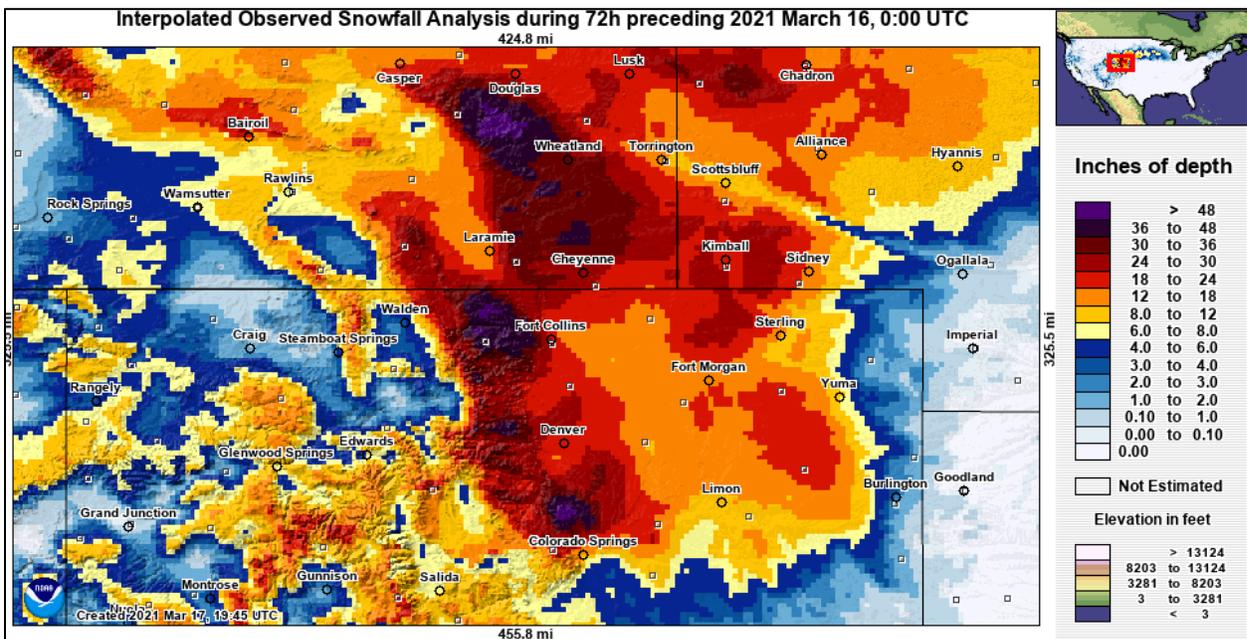
# Water and Climate Update

## March 18, 2021

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.

Snow .....	2	Drought .....	10
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### Blizzard buries parts of Colorado and Wyoming

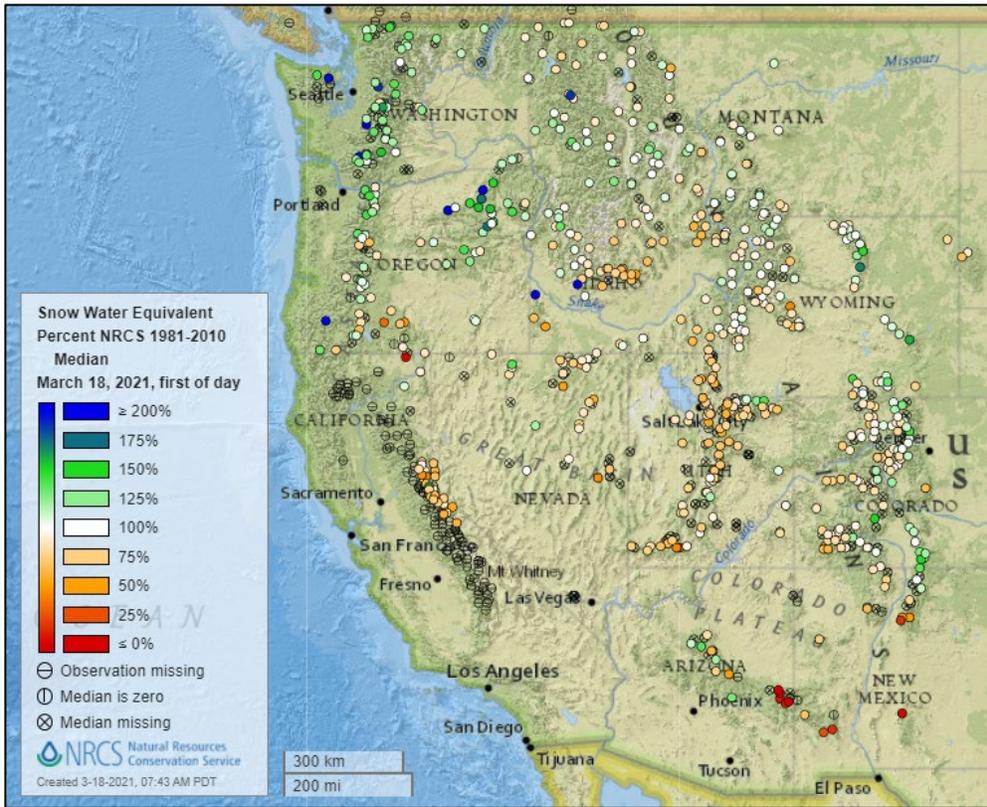


A low-pressure system delivered several feet of heavy, wet snow to Colorado and Wyoming this week. More than 27 inches were reported at the Denver International Airport, making it the fourth deepest snowfall since records began in 1881. Cheyenne, Wyoming topped its previous single-storm snowfall records with 36 inches of snow reported during the two-day storm. Officials warned residents against travel, as the strong winds and heavy snowfall created blizzard conditions across the Colorado Front Range and into Wyoming. The heavy snow also brought down trees and branches, causing thousands of power outages. The deep snow drifts stranded motorists and closed major highways in the area.

**Related:**

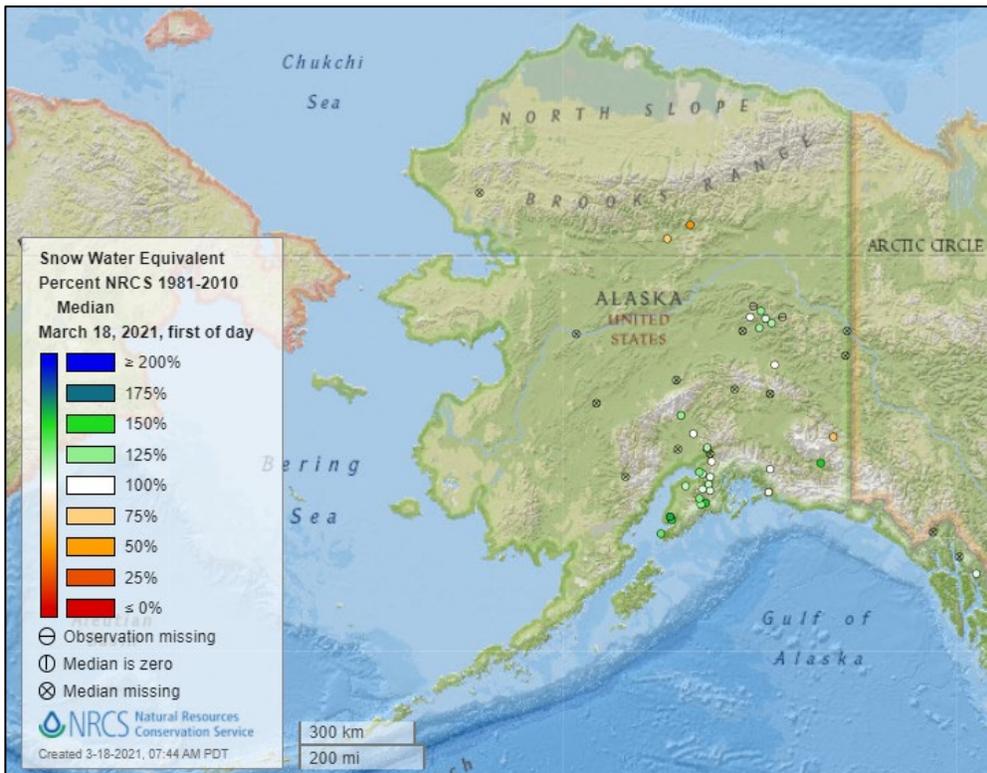
- [Denver snowstorm becomes 4th largest on record](#) – 9News (CO)
- [Power outages, impassable roads, extra crews work to restore power in northern Colorado after winter storm pummels state](#) – 9News (CO)
- [Stranded drivers rescued as abandoned vehicles litter streets and highways amid Colorado snowstorm](#) – The Denver Post (CO)
- [Colorado snow updates for March 14: Latest totals show 17" of snow in Fort Collins](#) – USA Today
- [Colorado and Wyoming see record blizzard, historic snowfall in Denver and Cheyenne](#) - MSN
- [Colorado snow totals for March 16, 2021](#) – The Denver Post (CO)

# Snow



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

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

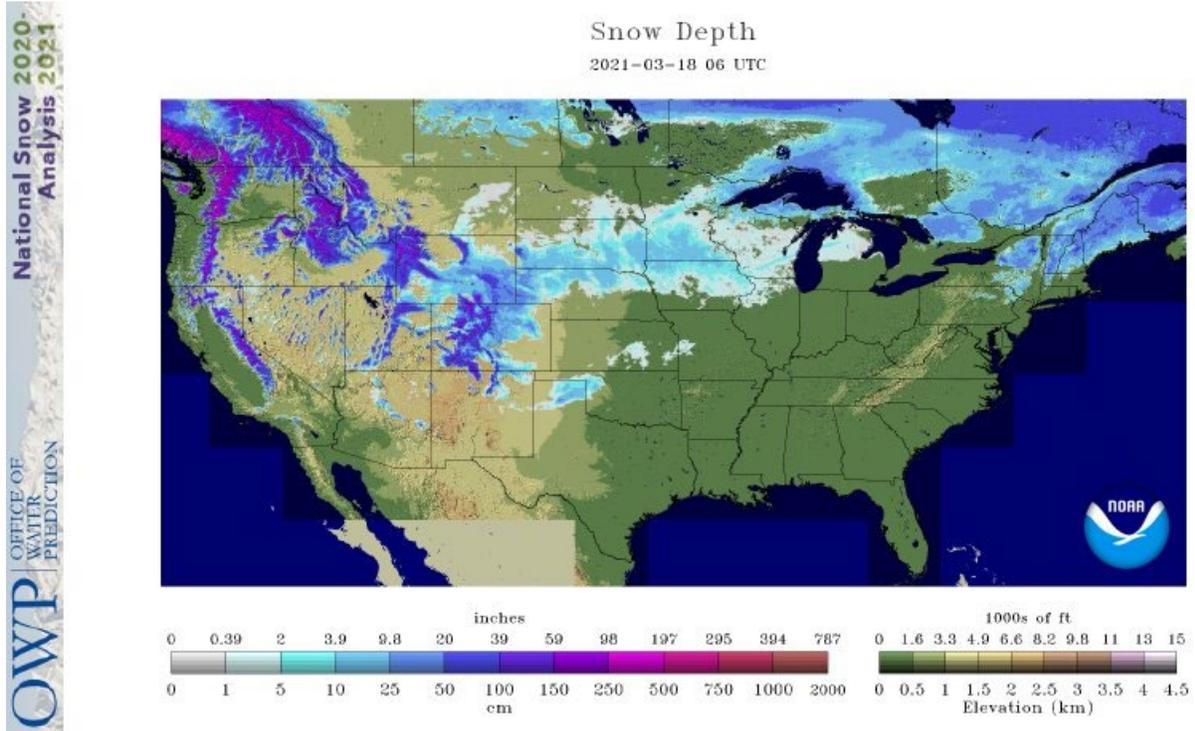


[Alaska snow water equivalent percent of median map](#)

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

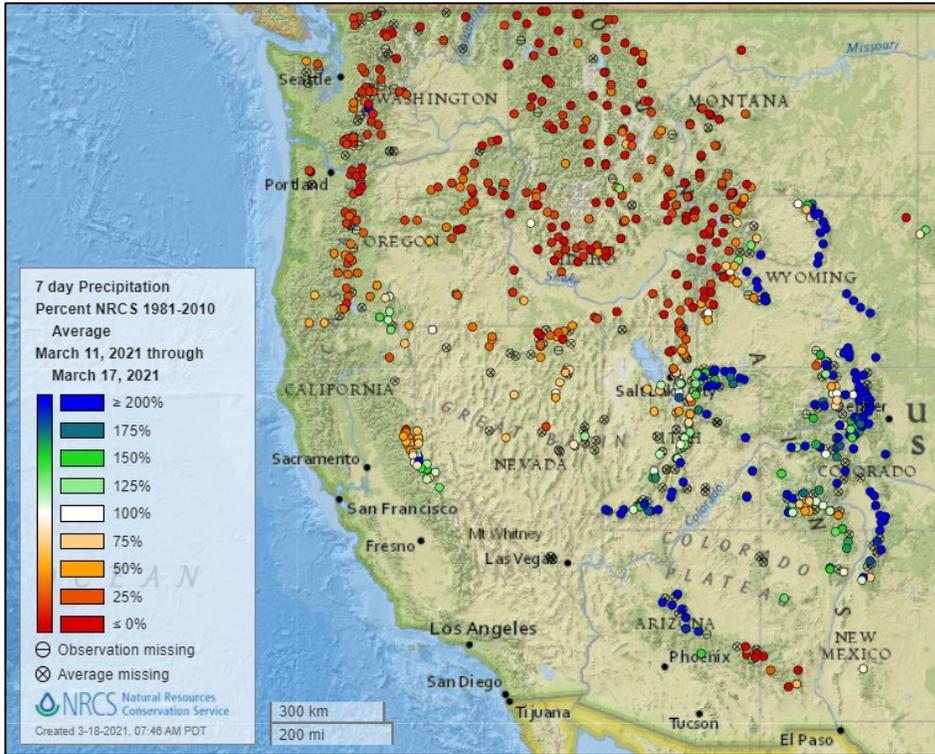
**Current Snow Depth, National Weather Service Snow Analysis**

Source: NOAA Office of Water Prediction



# Precipitation

## Last 7 Days, NRCS SNOTEL Network

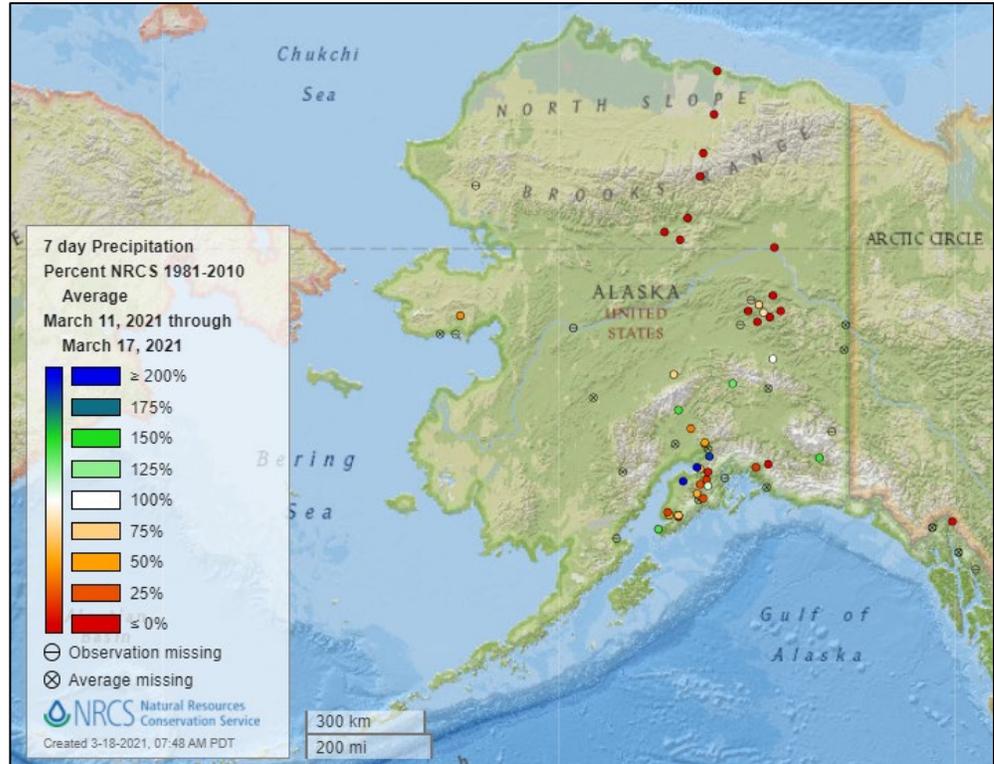


[7-day precipitation percent of average map](#)

**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](#)



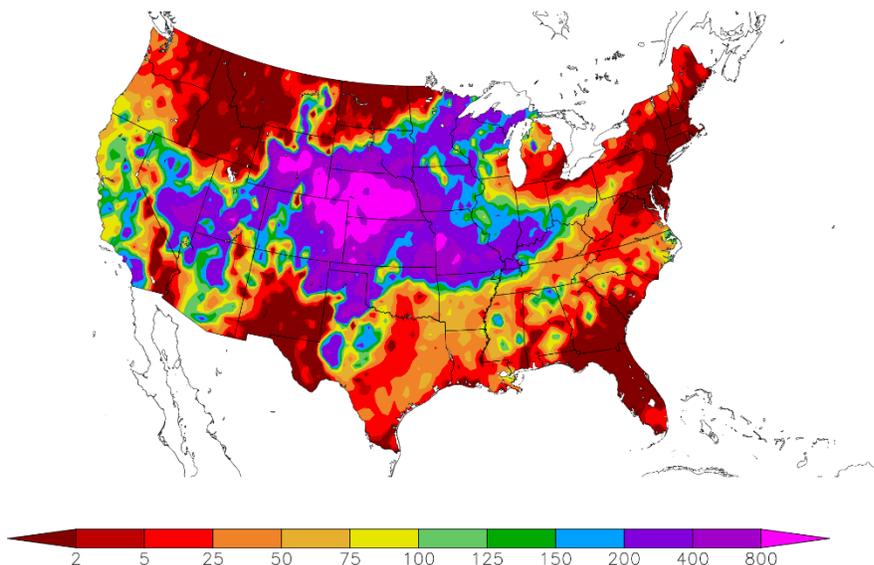
### Last 7 Days, National Weather Service (NWS) Networks

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 (%)  
3/10/2021 – 3/16/2021



Generated 3/17/2021 at HPRCC using provisional data.

NOAA Regional Climate Centers

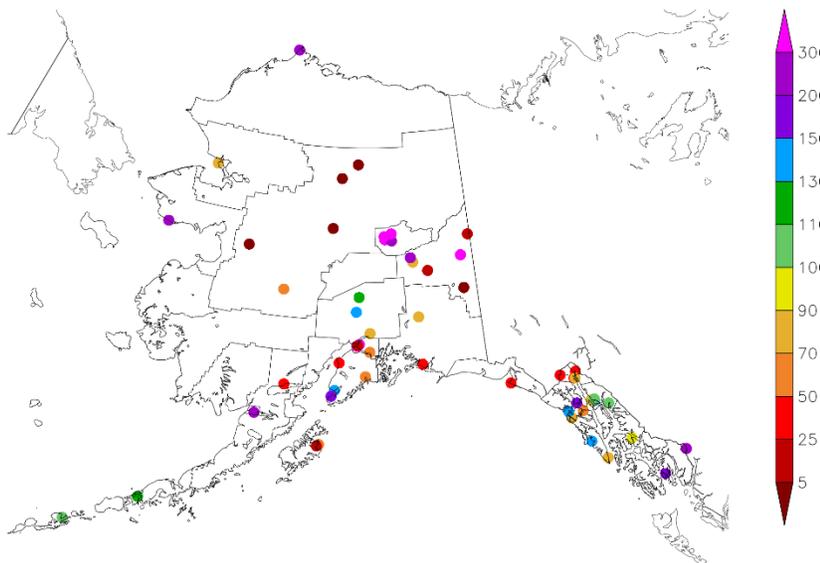
### Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)  
3/10/2021 – 3/16/2021



Generated 3/17/2021 at HPRCC using provisional data.

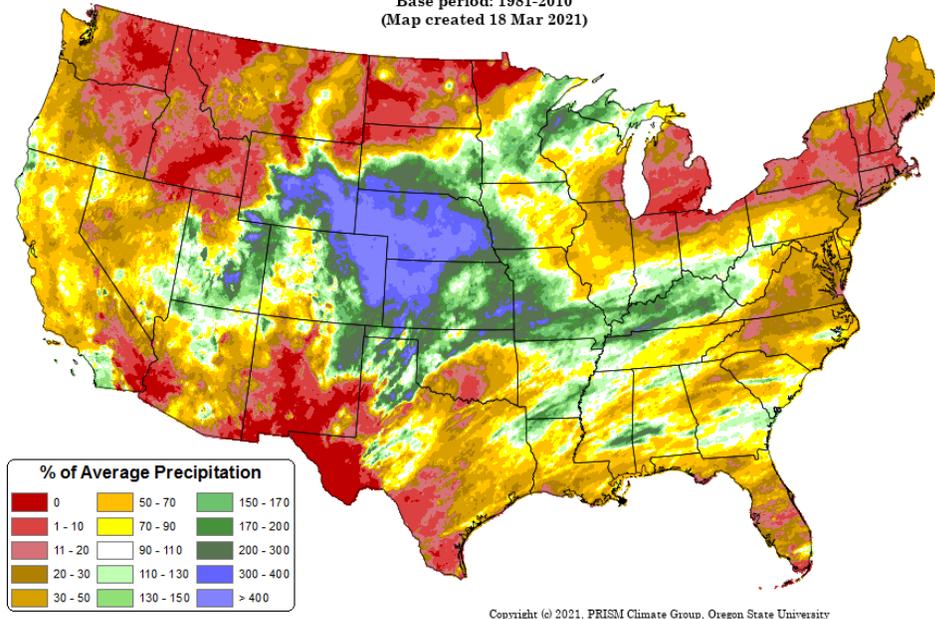
NOAA Regional Climate Centers

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

Source: PRISM

**Total Precipitation Anomaly: 01 Mar 2021 - 17 Mar 2021**  
Period ending 7 AM EST 17 Mar 2021  
Base period: 1981-2010  
(Map created 18 Mar 2021)

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



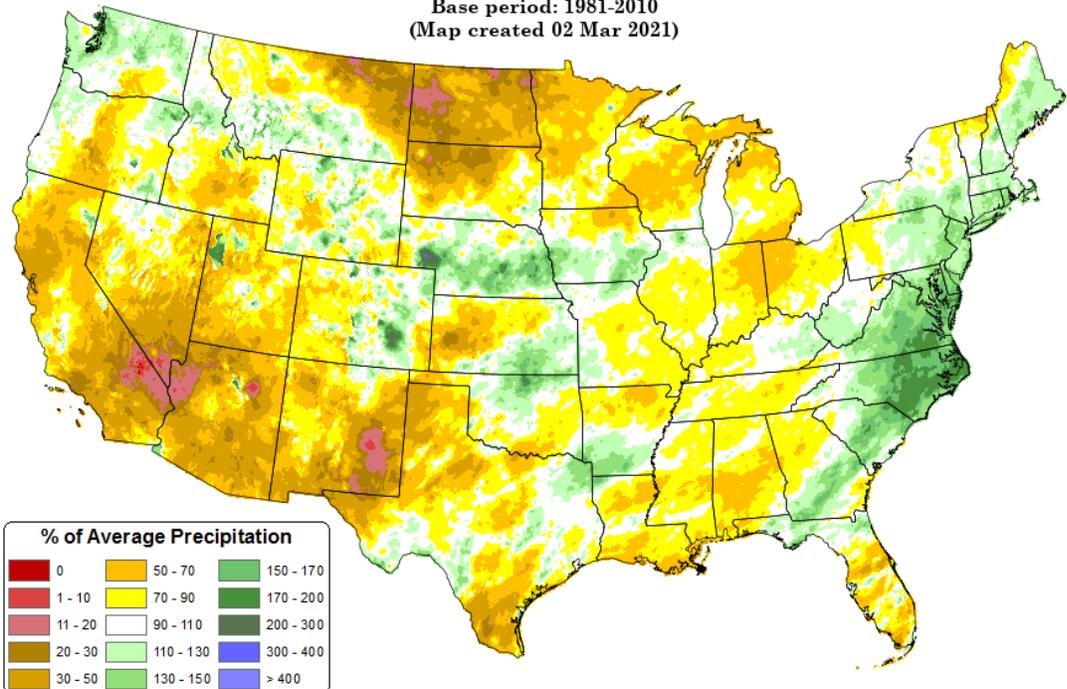
Copyright (c) 2021, PRISM Climate Group, Oregon State University

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

Source: PRISM

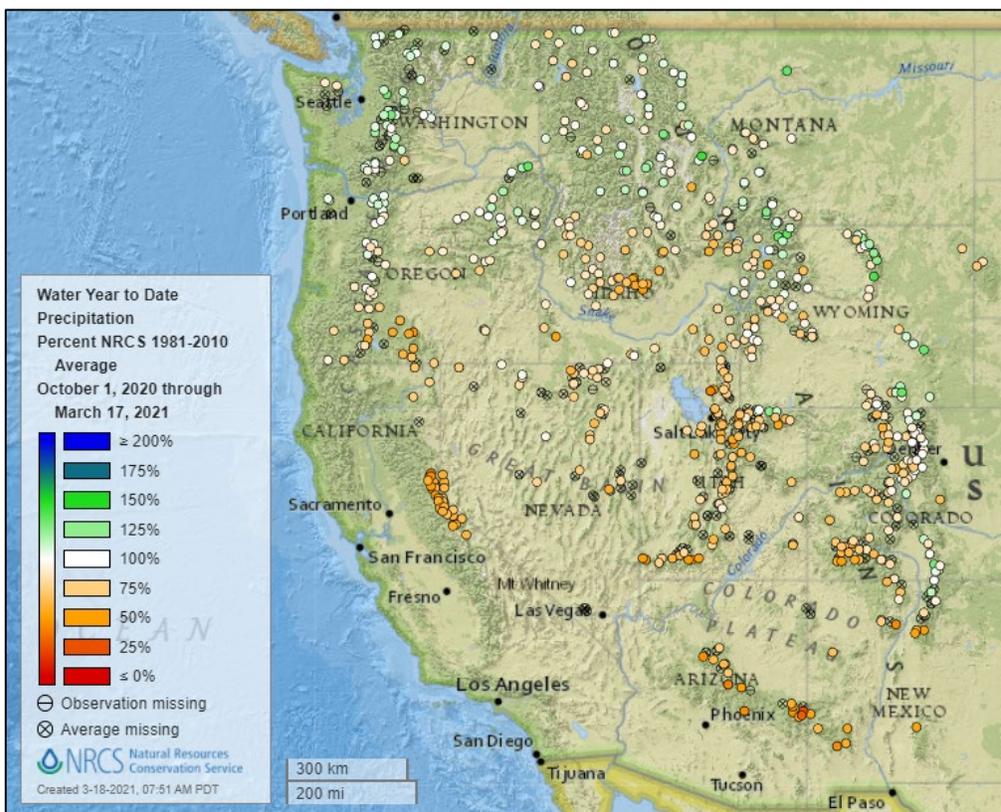
[December through February precipitation percent of average map](#)

**Total Precipitation Anomaly: Dec 2020 - Feb 2021**  
Period ending 7 AM EST 28 Feb 2021  
Base period: 1981-2010  
(Map created 02 Mar 2021)



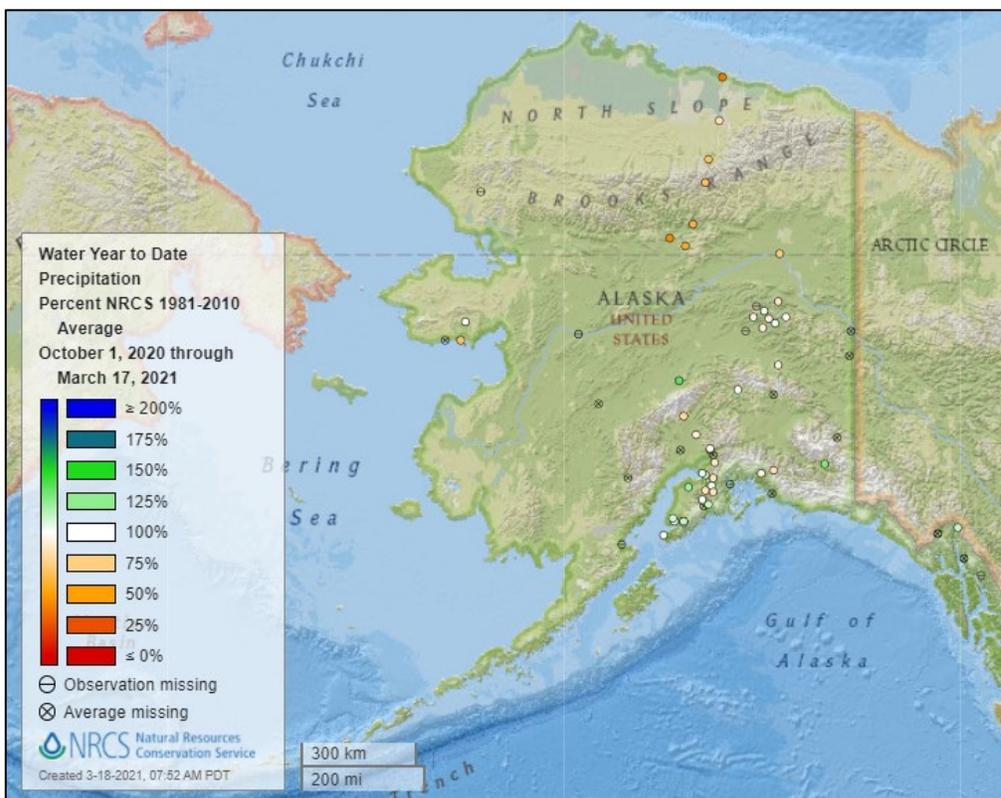
Copyright (c) 2021, PRISM Climate Group, Oregon State University

### 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

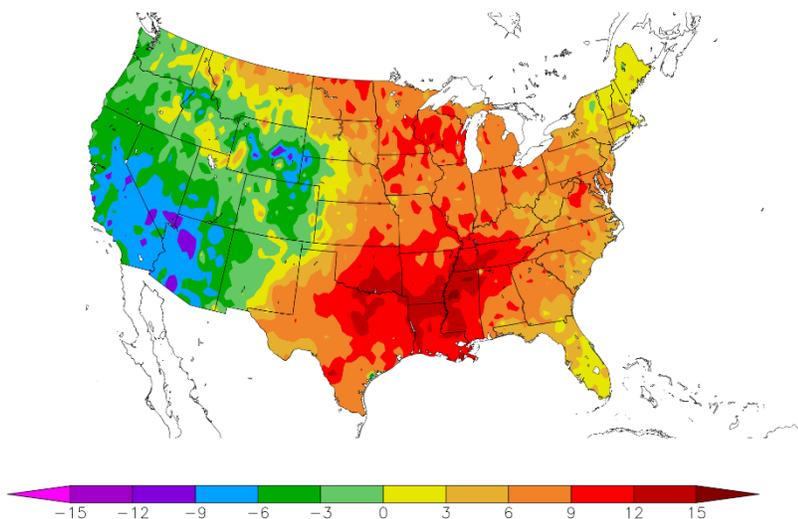
### Last 7 Days, National Weather Service (NWS) Networks

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)  
3/10/2021 – 3/16/2021



Generated 3/17/2021 at HPRCC using provisional data.

NOAA Regional Climate Centers

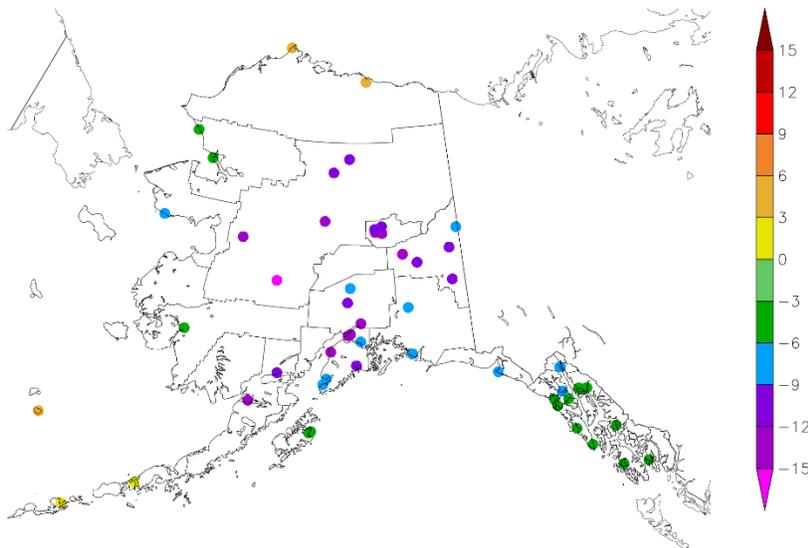
### Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)  
3/10/2021 – 3/16/2021



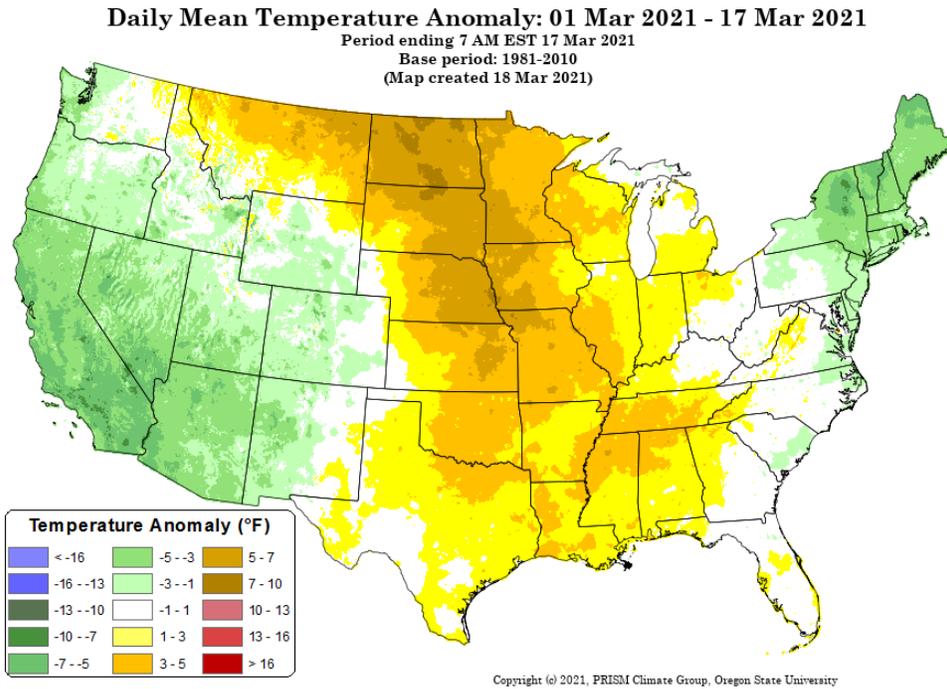
Generated 3/17/2021 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

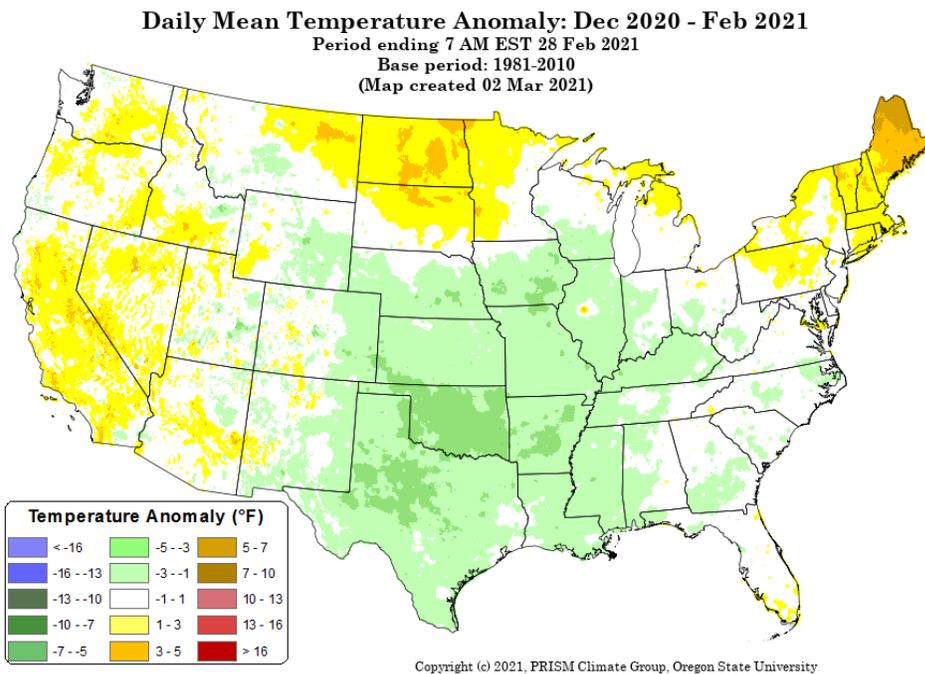
[Month-to-date national daily mean temperature anomaly map](#)



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

Source: PRISM

[December 2020 through February 2021 daily mean temperature anomaly map](#)



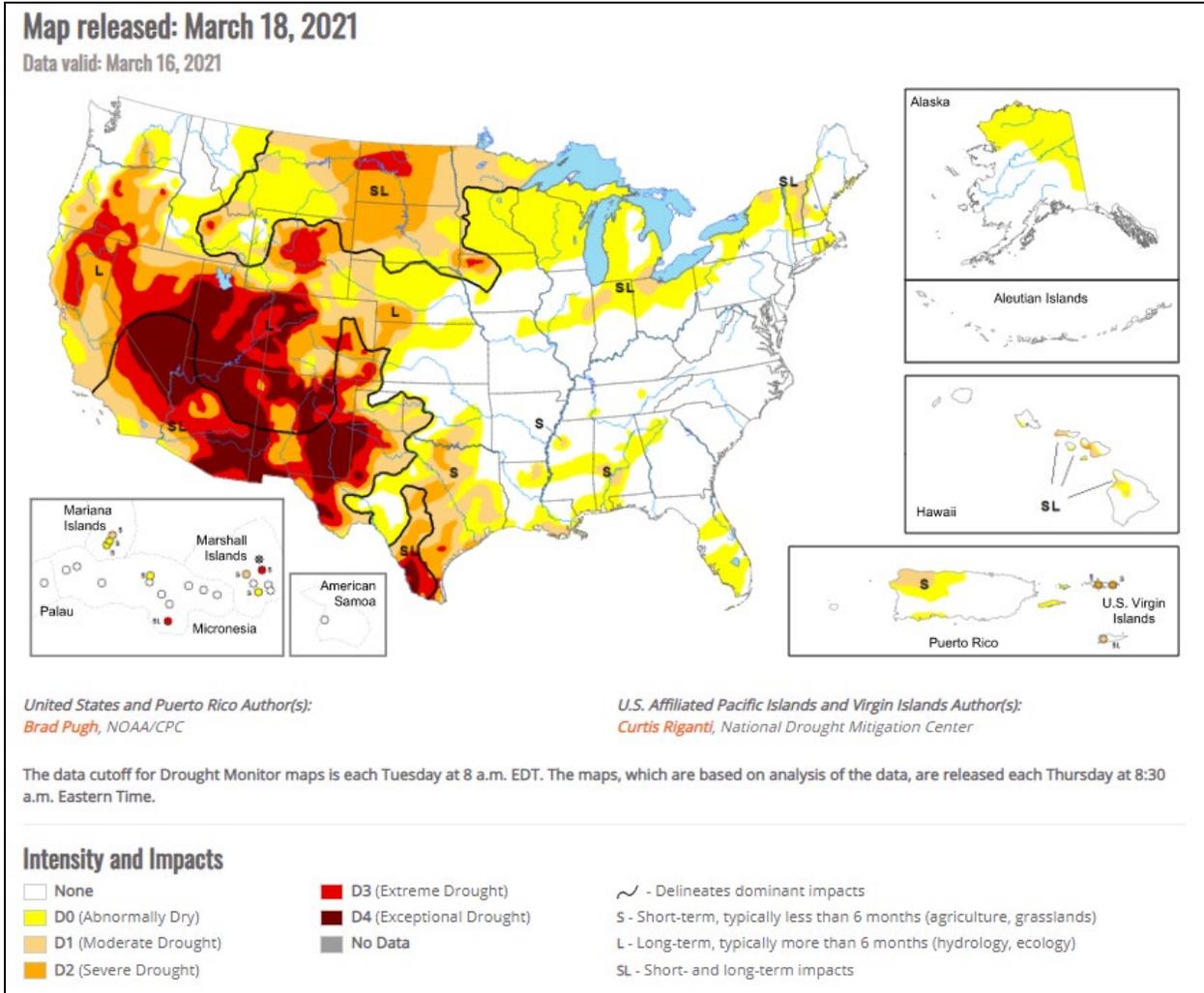
# Drought

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

Source: National Drought Mitigation Center

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

Source: NOAA



## Current [National Drought Summary](#), March 18, 2021

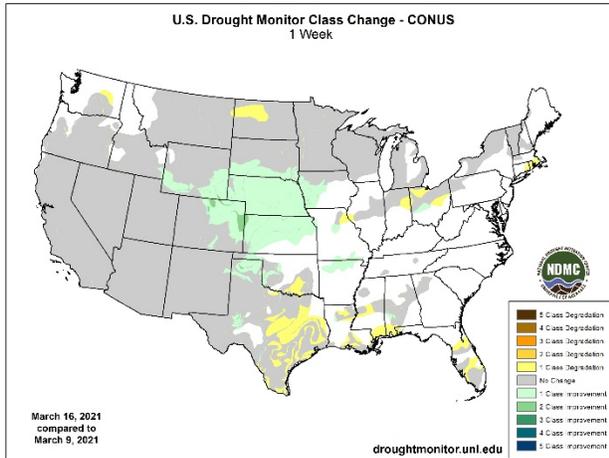
Source: National Drought Mitigation Center

“A vigorous and slow-moving area of mid-level low pressure tracked from the Four Corners region to the Central Great Plains from March 13 to 15. Widespread precipitation (rain and snow totaling 2 to 6 inches, liquid equivalent) fell across the Central Rockies, Central Great Plains, and Lower Missouri River Basin. Snowfall amounts ranged from 2 to 4 feet from Colorado north to Wyoming. However, across North Dakota, dry weather continued. As a low-pressure system tracked eastward, rainfall (locally more than 2 inches) overspread the Ohio and Tennessee Valleys along with parts of the Southeast on March 14 and 15. Mostly dry weather prevailed along the East Coast from March 9 to 15. During this 7-day period, below normal precipitation was observed throughout much of the Pacific Northwest while precipitation amounts exceeded 2 inches (liquid equivalent) for the Sierra Nevada Mountains and coastal ranges of California. A low-pressure system and trailing front resulted in heavy rainfall and flooding across parts of the Hawaiian Islands during early March.”

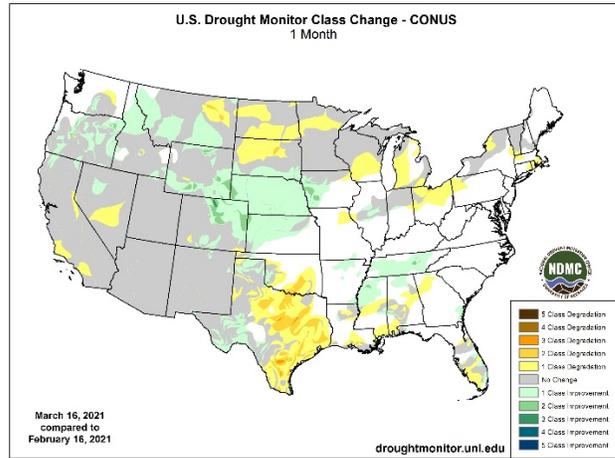
## Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

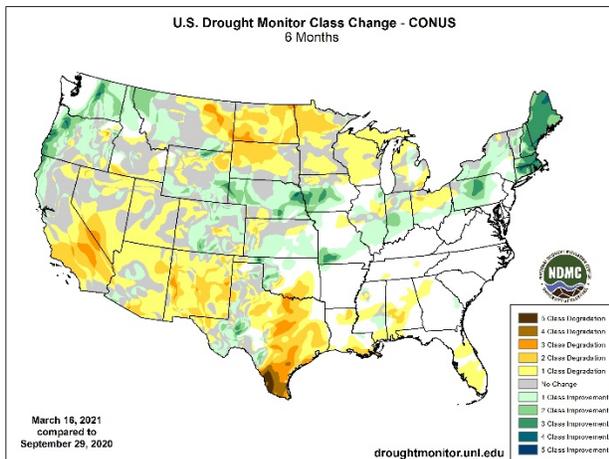
### 1 Week



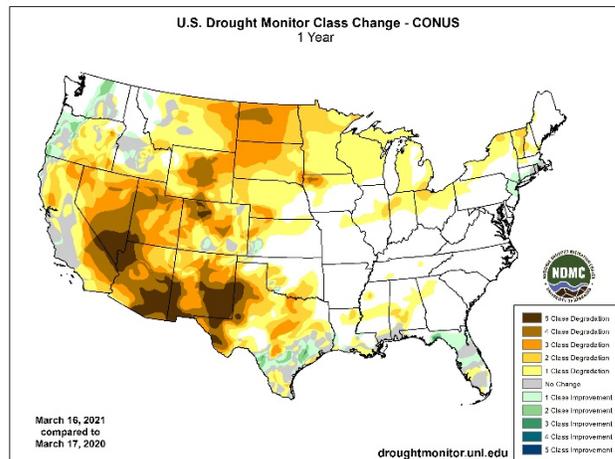
### 1 Month



### 6 Months



### 1 Year



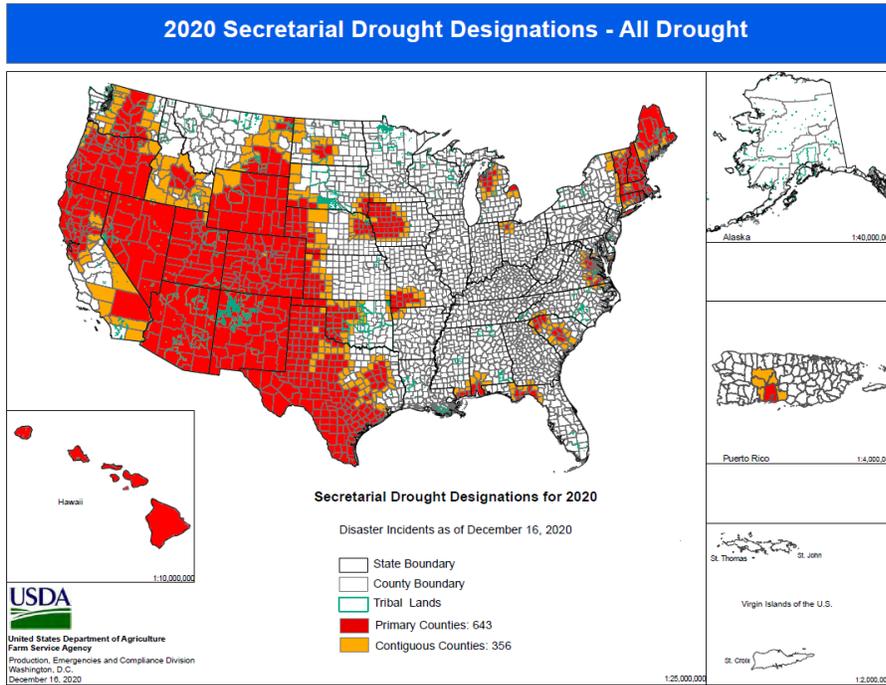
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

## 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**



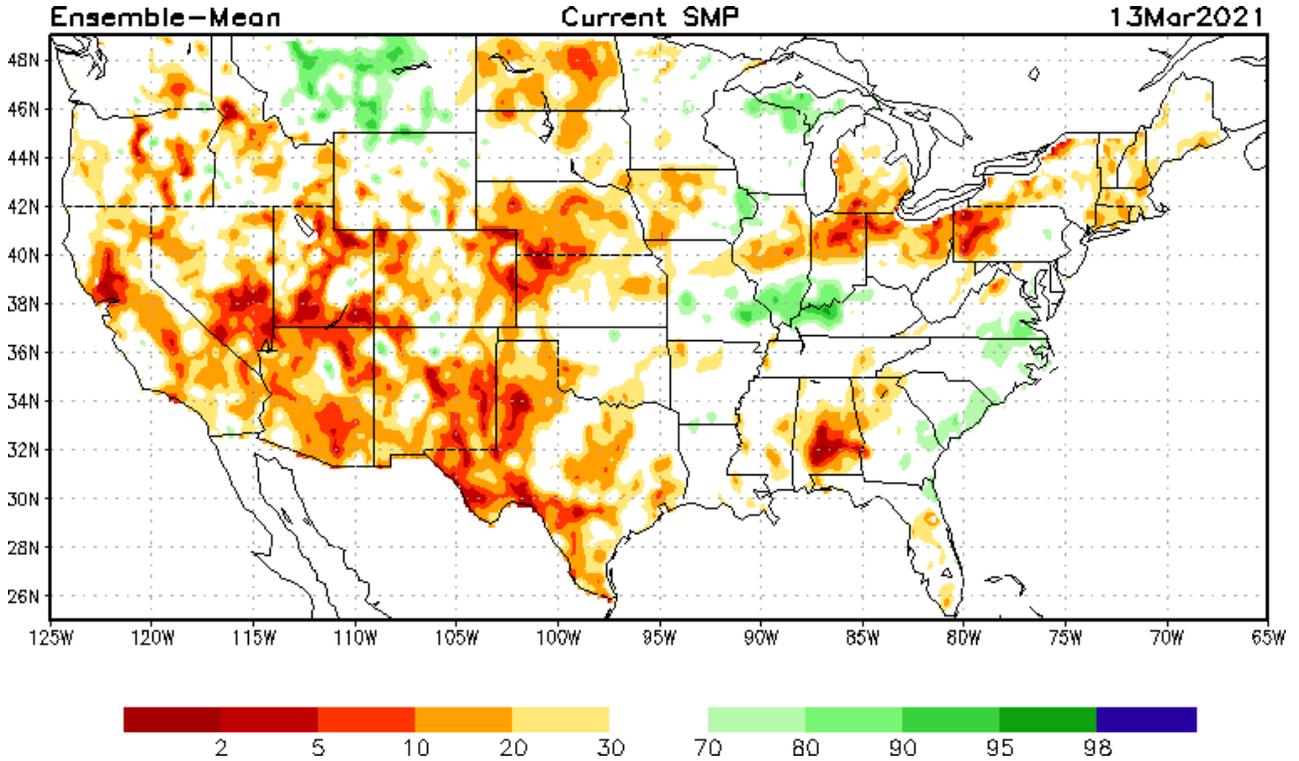
**Highlighted Wildfire Resources**

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

## Other Climatic and Water Supply Indicators

### Soil Moisture

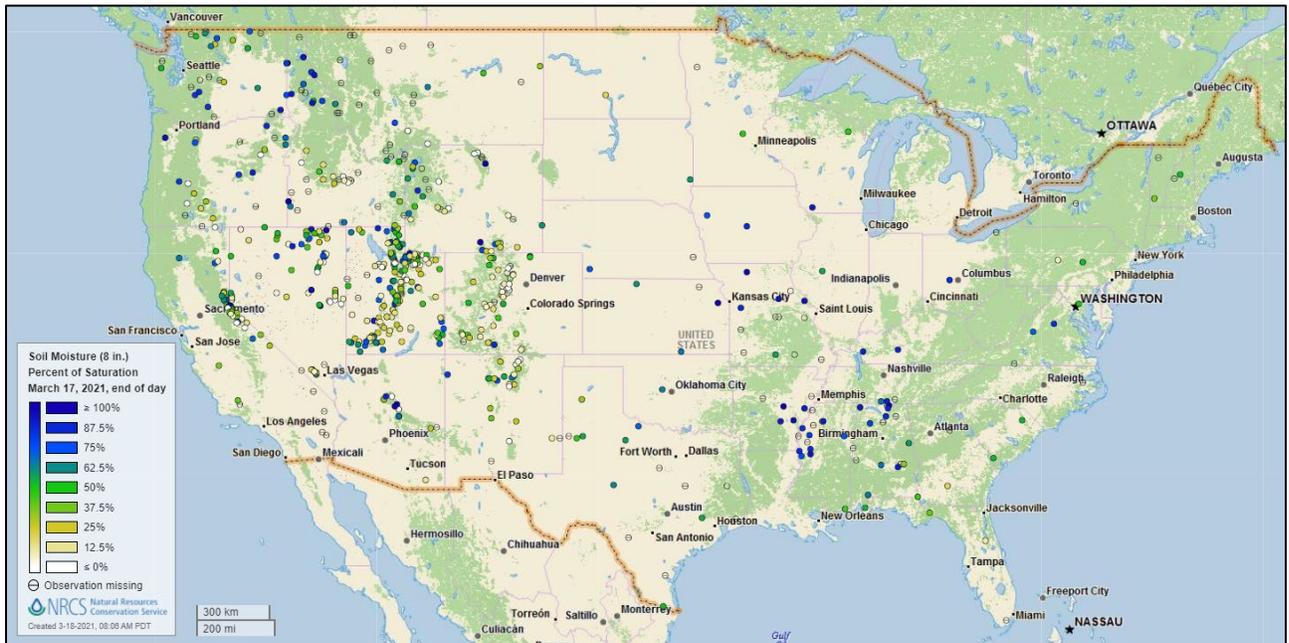
Source: NOAA National Centers for Environmental Prediction



[Modeled soil moisture percentiles](#) as of March 13, 2021

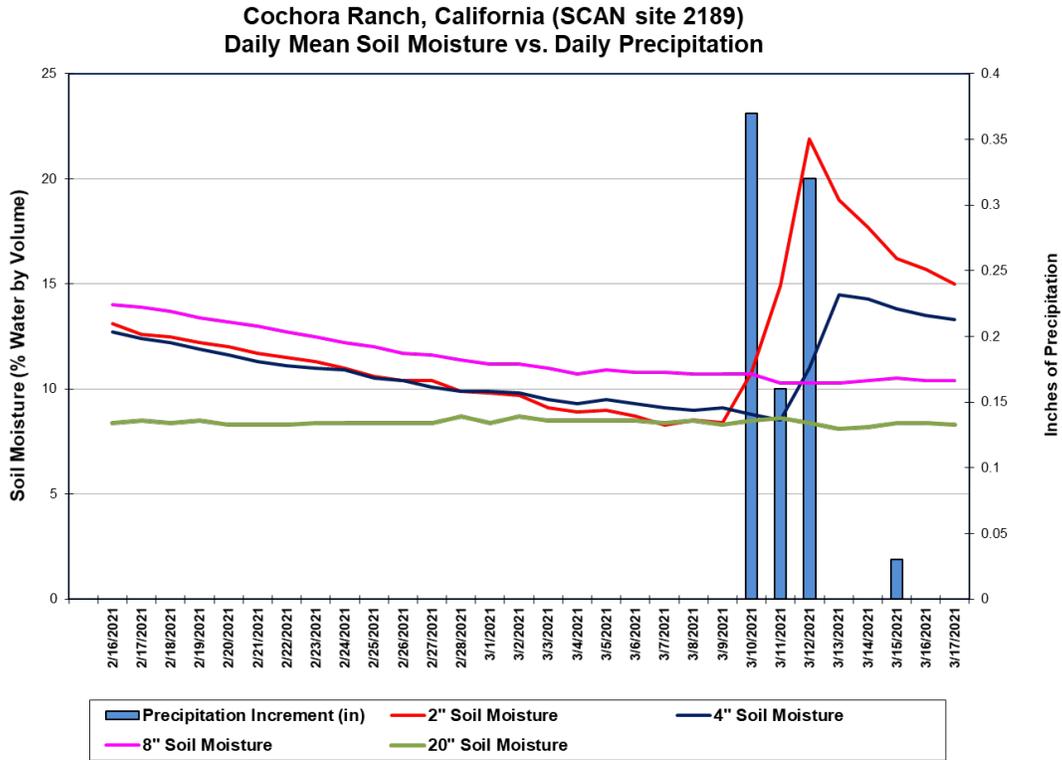
### Soil Moisture Percent of Saturation

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



### Soil Moisture

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



This chart shows the precipitation and soil moisture for the last 30 days at the [Cochora Ranch](#) SCAN site in California. Precipitation totaling 0.85 inches fell from March 10 through March 12 and increased the soil moisture at the -2" and -4" sensor depths. Accumulated precipitation for the 30-day period was 0.88 inches.

### Soil Moisture Data Portals

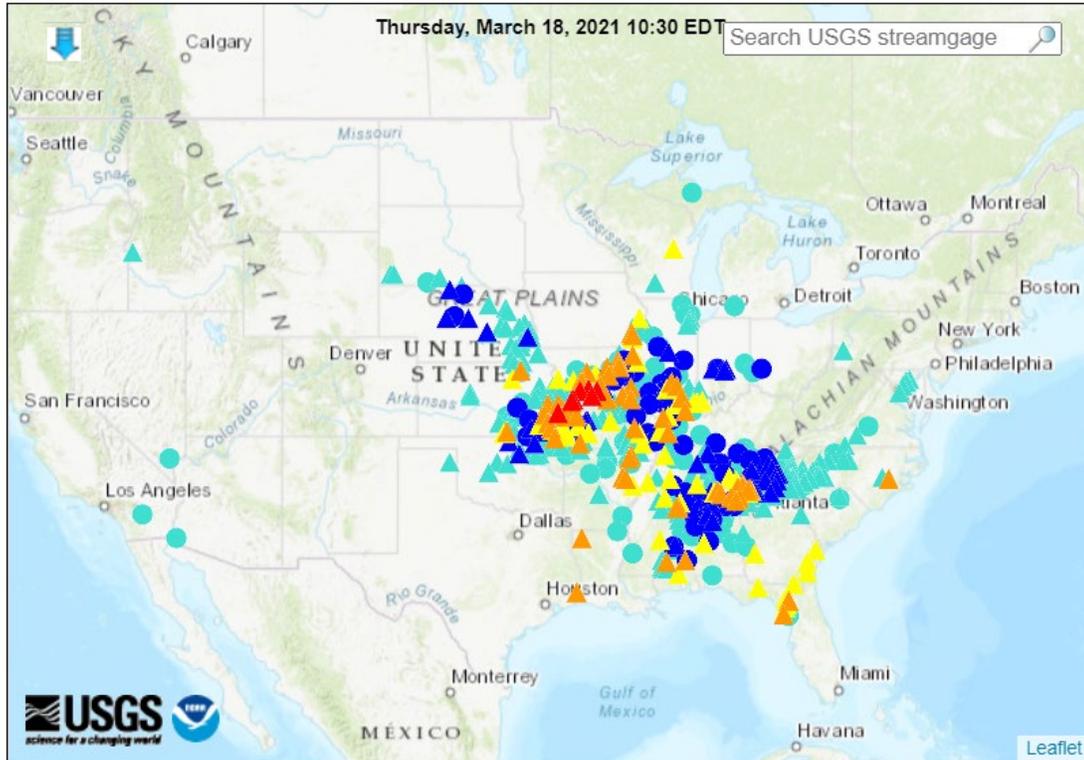
- [USCRN Soil Moisture](#)
- [National Soil Moisture Network](#)
- [NOAA Climate Prediction Center Soil Moisture](#)
- [NASA Grace](#)

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

Source: U.S. Geological Survey

**Map of flood and high flow conditions**

(73 in floods [moderate: 7, minor: 66], 51 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**

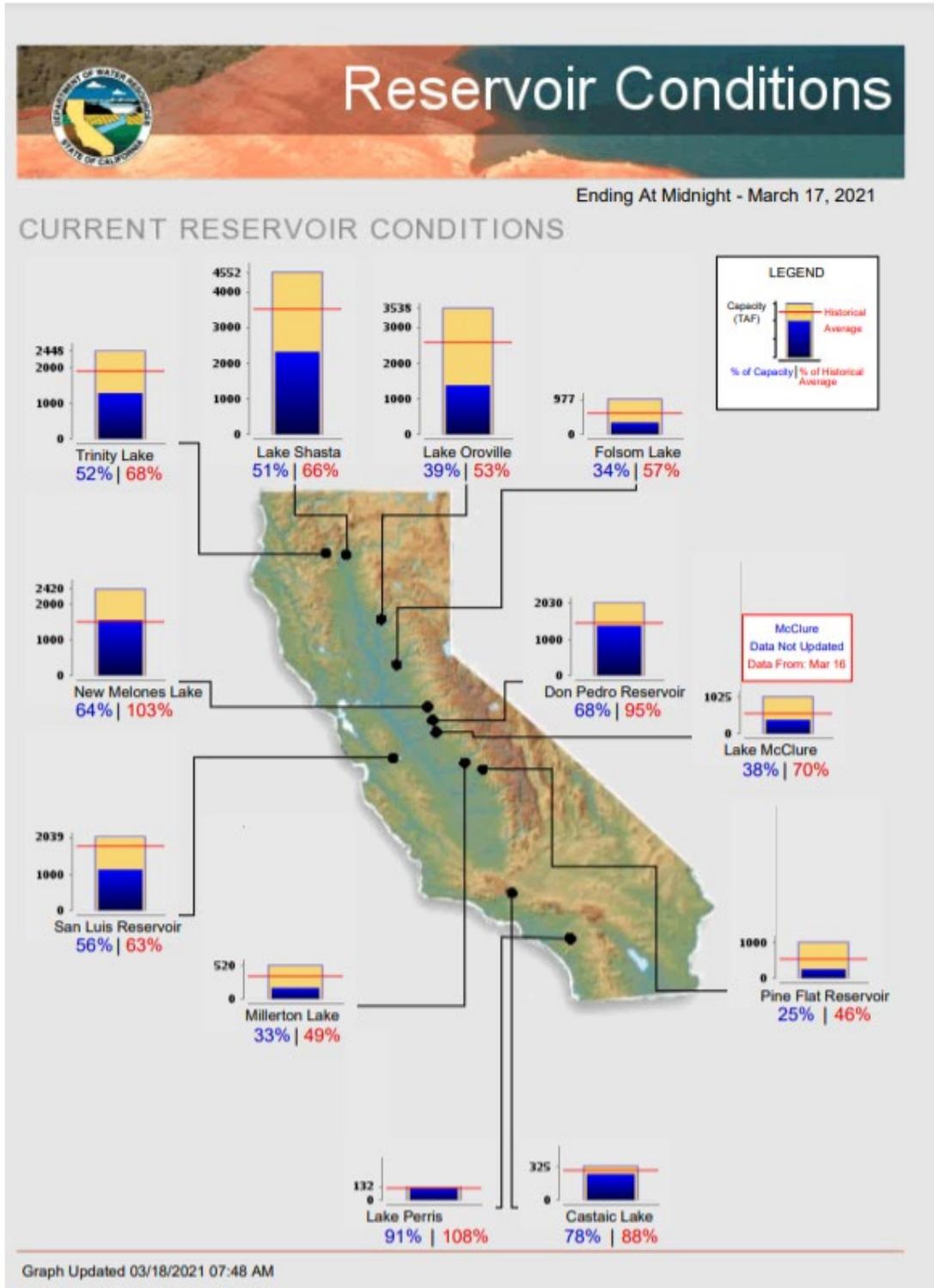
**Hydromet Teacup Reservoir Depictions**

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, March 18, 2021:** “The storm system currently crossing the Ohio Valley will reach the mid-Atlantic Coast on Friday. Additional rainfall along and near the path of the low-pressure system could reach 1 to 2 inches. As the storm departs, some areas—mainly in the Northeast—may experience a period of accumulating snow. Farther west, a pair of Pacific storms will move inland across the Northwest during the next several days, with precipitation falling as far south as central California and the Intermountain West. Early next week, the second of the two Pacific storms will begin to intensify across the nation’s mid-section, where widespread precipitation (rain and snow) should develop. Notably, central portions of the Rockies and High Plains may receive another round of snow. The NWS 6- to 10-day outlook for March 23 – 27 calls for the likelihood of near- or- below-normal temperatures from the Pacific Coast to the Plains, while warmer-than-normal weather will prevail from the Mississippi Valley eastward. Meanwhile, below-normal precipitation across Florida’s peninsula and the Far West should contrast with wetter-than-normal weather across the remainder of the country, including central and southern sections of the Rockies and Plains and much of the eastern half of the U.S.”

### Weather Hazards Outlook: [March 20 – 24, 2021](#)

Source: NOAA Weather Prediction Center

## U.S. Day 3-7 Hazards Outlook

[About the Hazards Outlook](#)

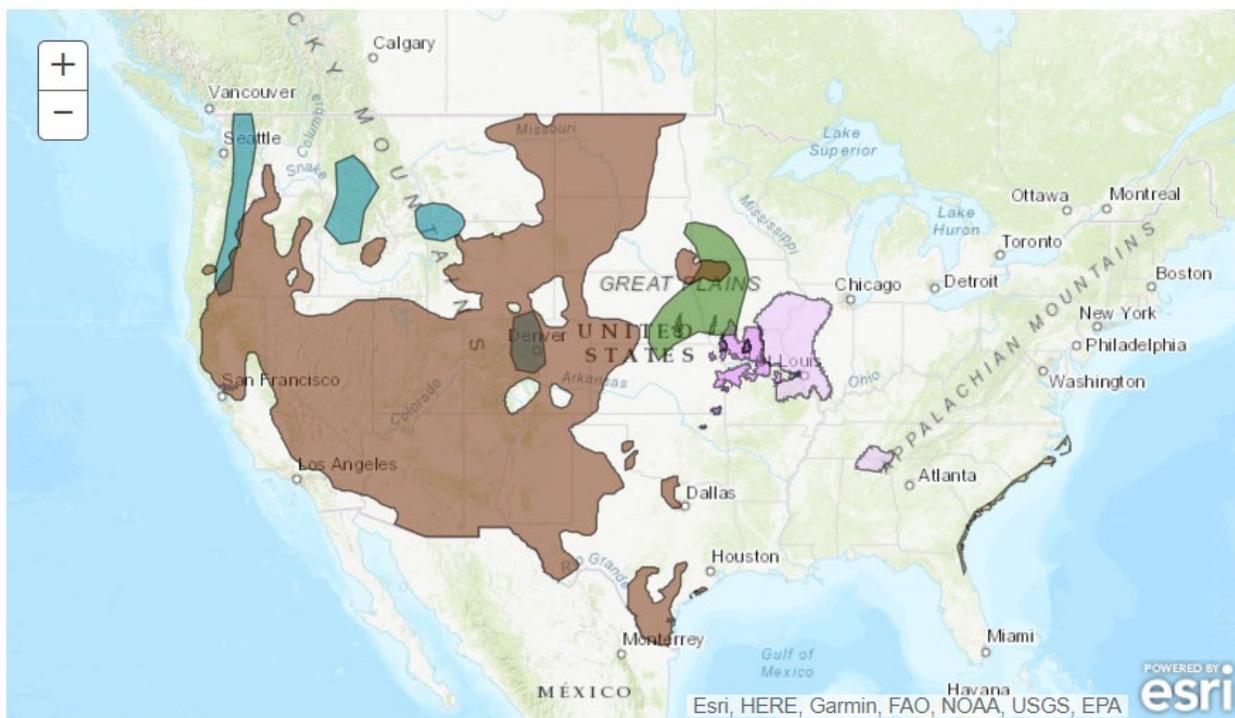
Created March 17, 2021

**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 March 20, 2021 - March 24, 2021

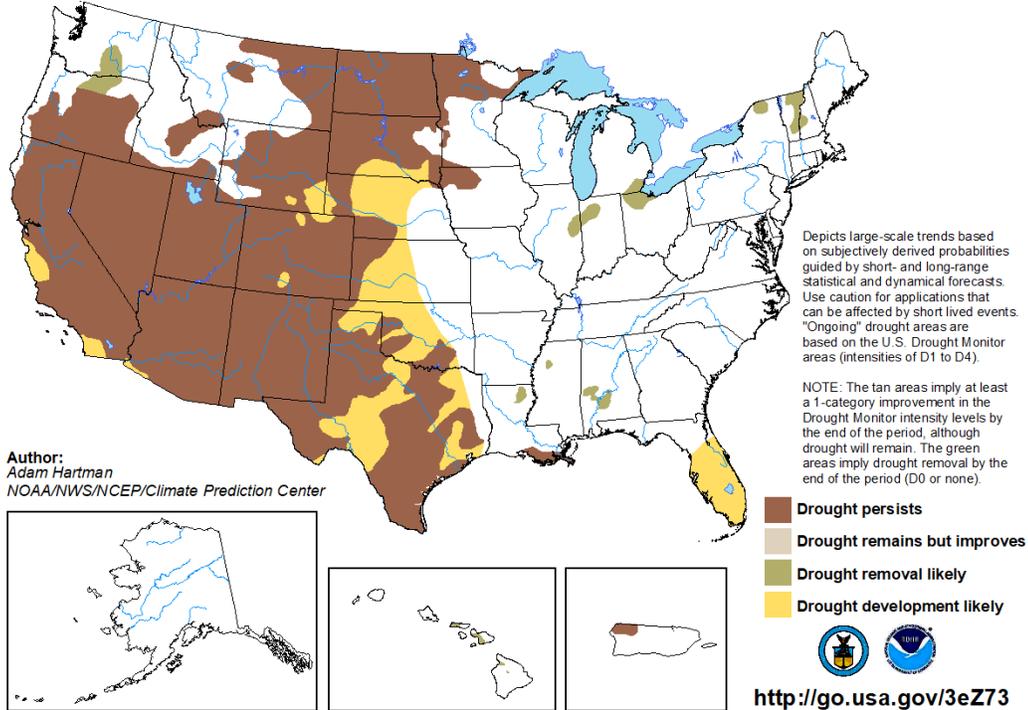


**Seasonal Drought Outlook: [March 18 – June 30, 2021](#)**

Source: National Weather Service

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

Valid for March 18 - June 30, 2021  
Released March 18

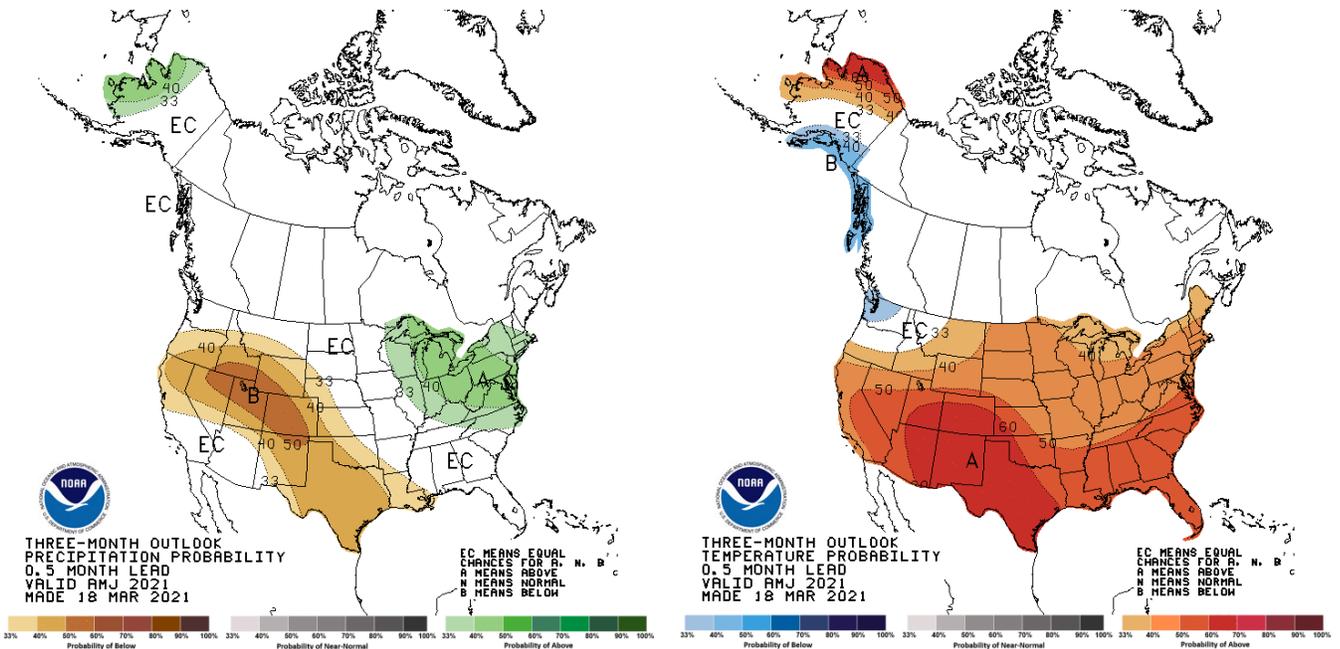


**Climate Prediction Center 3-Month Outlook**

Source: National Weather Service

Precipitation

Temperature



[April-May-June \(AMJ\) 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](#).