



# Water and Climate Update

April 23, 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.

Snow .....	2	Other Climatic and Water Supply Indicators .....	13
Precipitation .....	4	Short- and Long-Range Outlooks.....	18
Temperature.....	8	More Information .....	20
Drought .....	10		

## 50<sup>th</sup> Anniversary of Earth Day



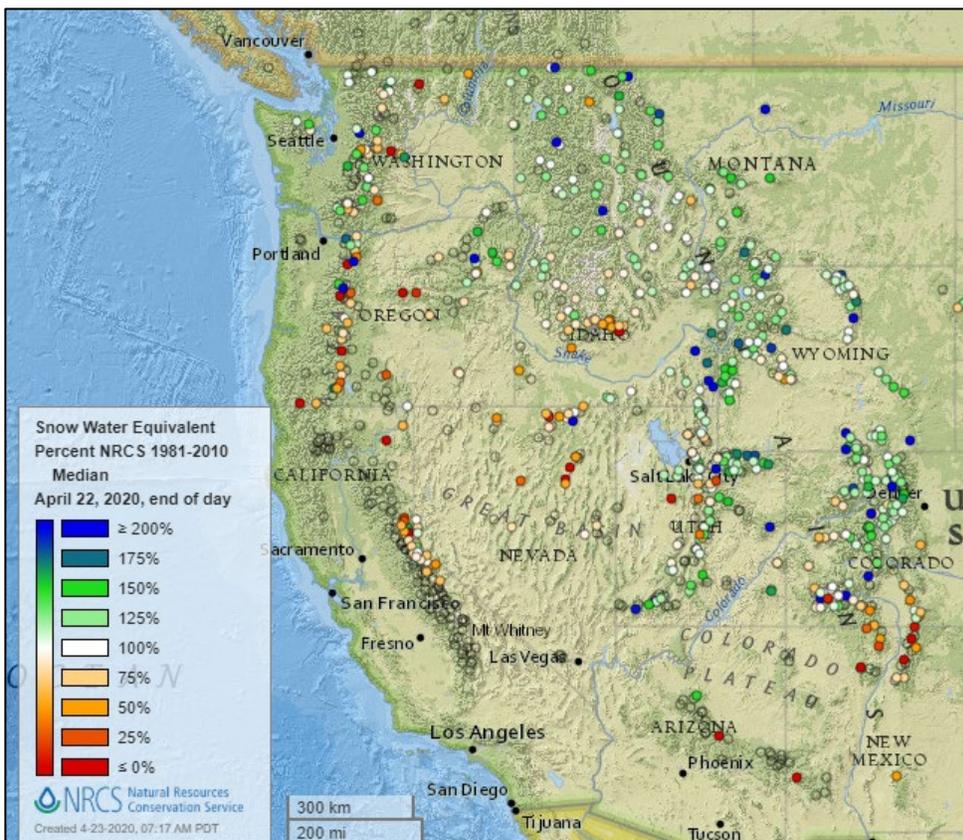
**The Blue Marble: The View from Apollo 17**  
Fifty years ago, on April 22, 1970, people around the world marked the first Earth Day.

Fifty years ago, the first Earth Day was celebrated around the world, and there was an awakening of the impact of human activities on the planet. Over that time, science and technology have helped to improve and monitor air, water, and soil health. This year, the global pandemic has people staying safe at home and we are witness to much clean air in cities around the world and wildlife roaming into vacant human space. Agriculture production continues throughout the pandemic, growing food and products and protecting land, air, water, and wildlife on nearly 40% of the land surface in the U.S. Happy 50<sup>th</sup> Earth Day!

**Related:**

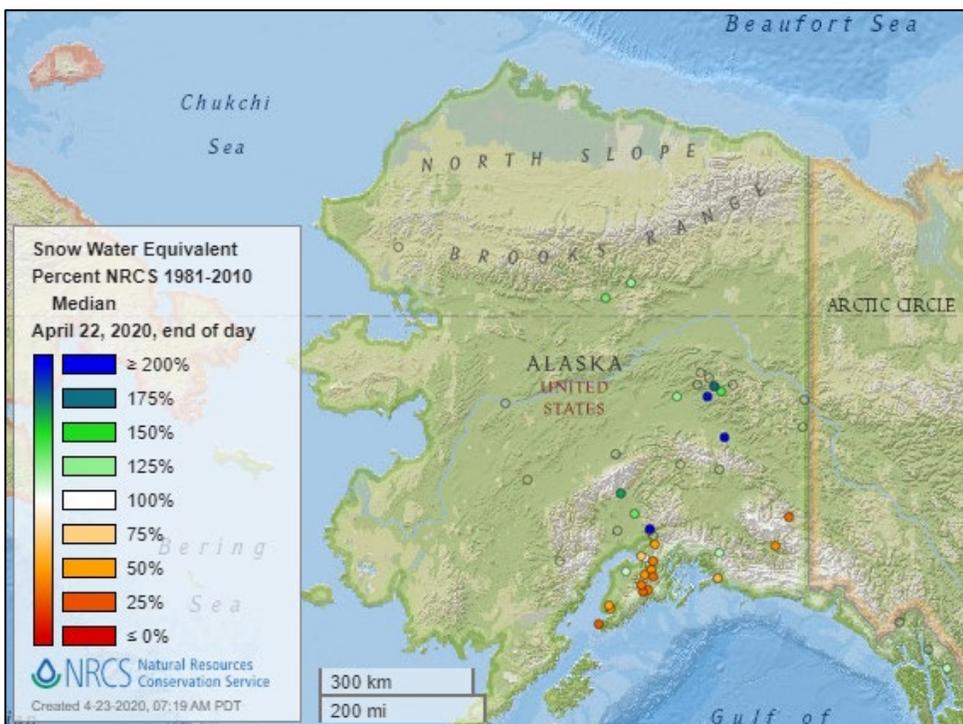
- [Every Day is Earth Day for Ag Producers](#) – U.S. Dept of Agriculture
- [Conservation Tools Help Producers Make Positive Impacts on Changing Climate](#) U.S. Department of Agriculture
- [On Earth Day 50, NASA Researchers Look To the Future](#) - NASA
- [On this Earth Day, let's think about agriculture](#) – High Country News
- [50 Years of Earth Day: What's Better Today, and What's Worse](#) – NY Times
- [9 Ways to Celebrate Earth Day Without Leaving Your House](#) – Newsweek
- [Helping Planet Earth every day](#) – University of Delaware
- [Save The World From Your Couch With These Global Earth Day Programs](#) – Forbes

# Snow



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

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

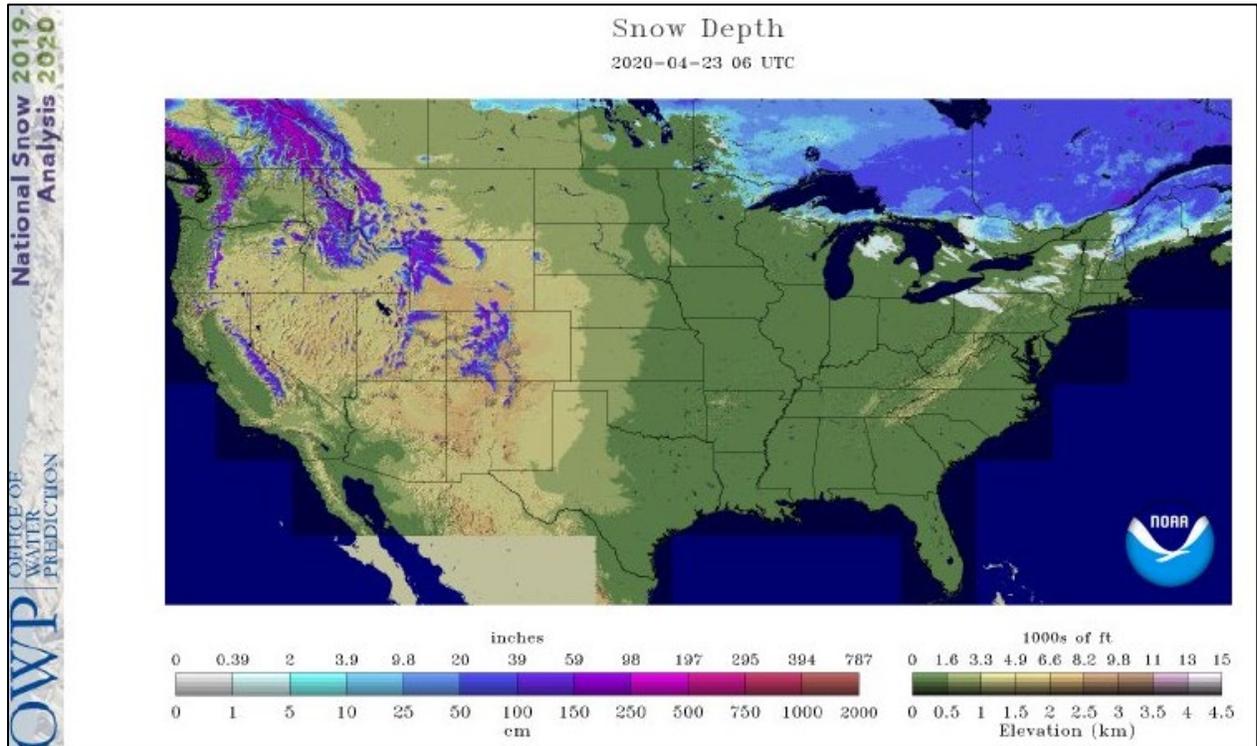


[Alaska snow water equivalent percent of median map](#)

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

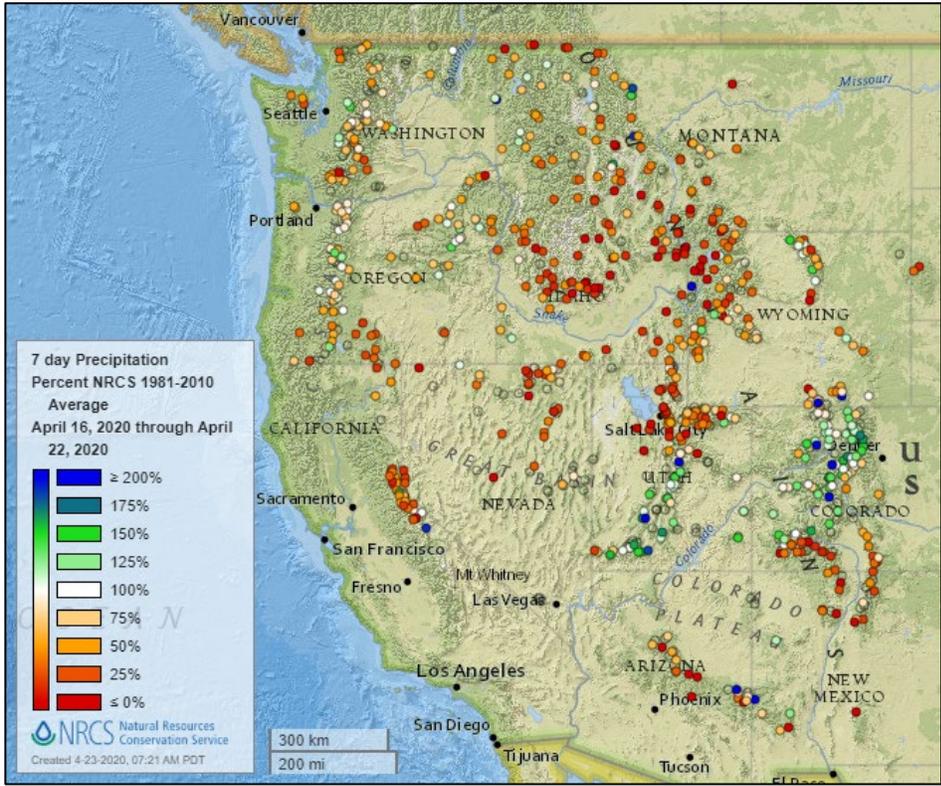
**Current Snow Depth, National Weather Service Snow Analysis**

Source: NOAA Office of Water Prediction



# Precipitation

## Last 7 Days, NRCS SNOTEL Network

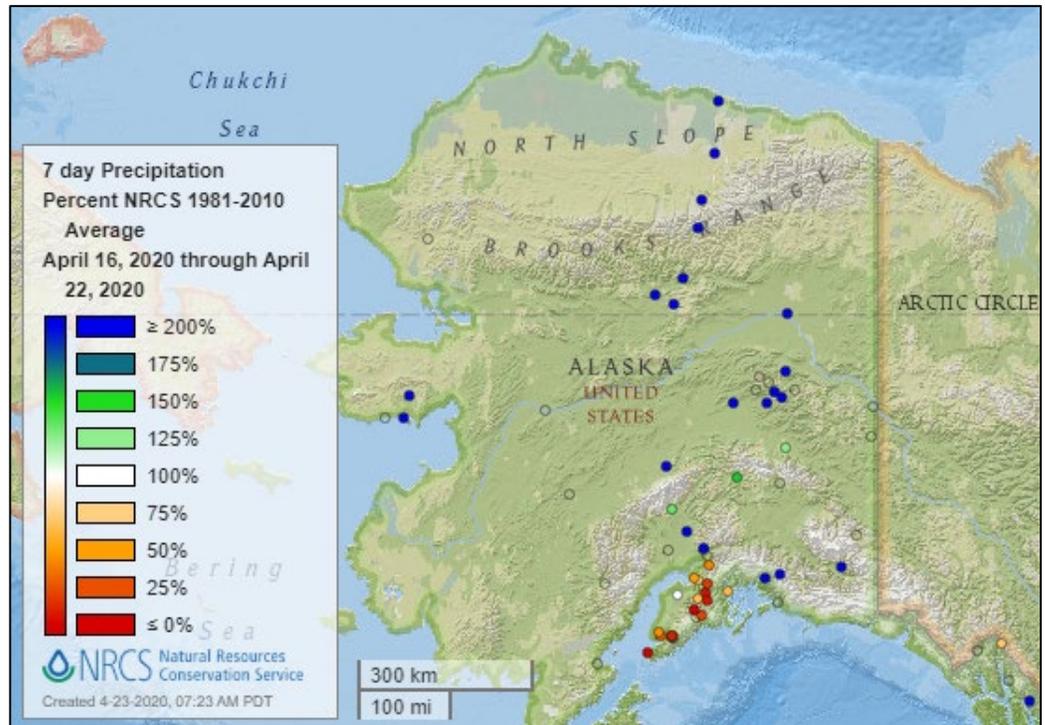


[7-day precipitation percent of average map](#)

**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](#)



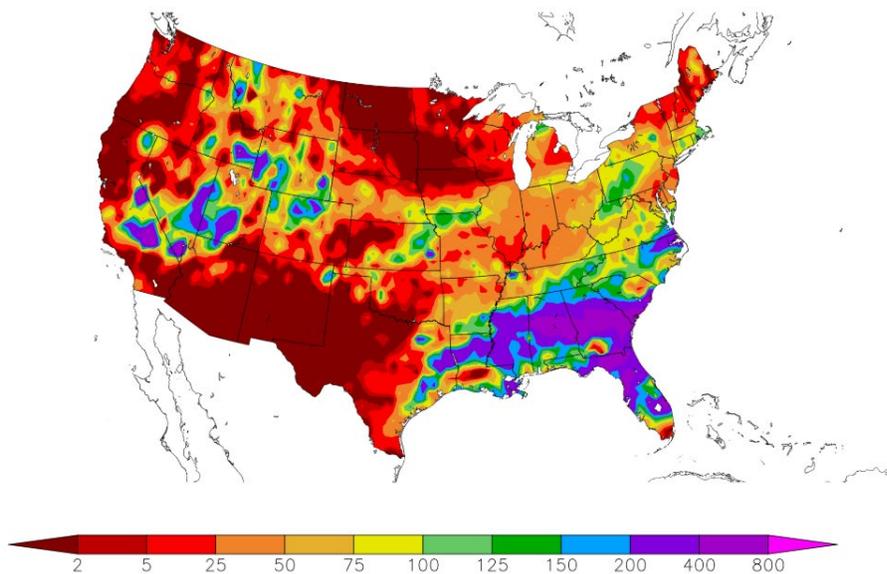
**Last 7 Days, National Weather Service (NWS) Networks**

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 (%)  
4/15/2020 – 4/21/2020



Generated 4/22/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

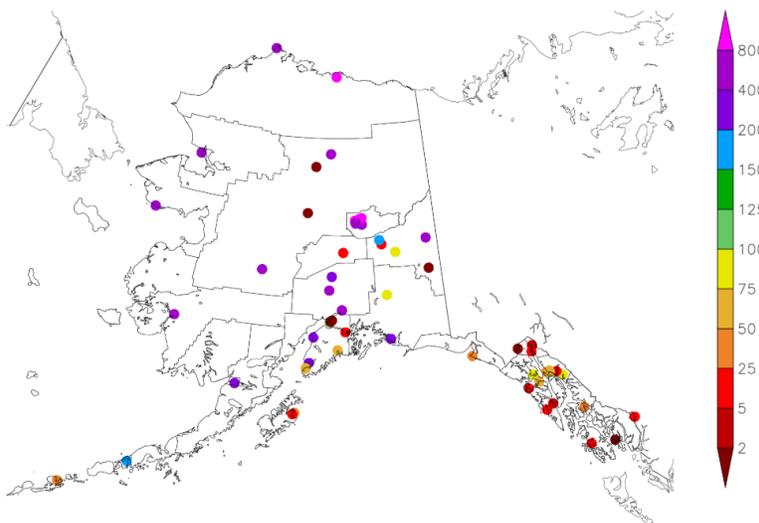
**Last 7 Days, National Weather Service (NWS) Networks**

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)  
4/15/2020 – 4/21/2020



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NOAA Regional Climate Centers

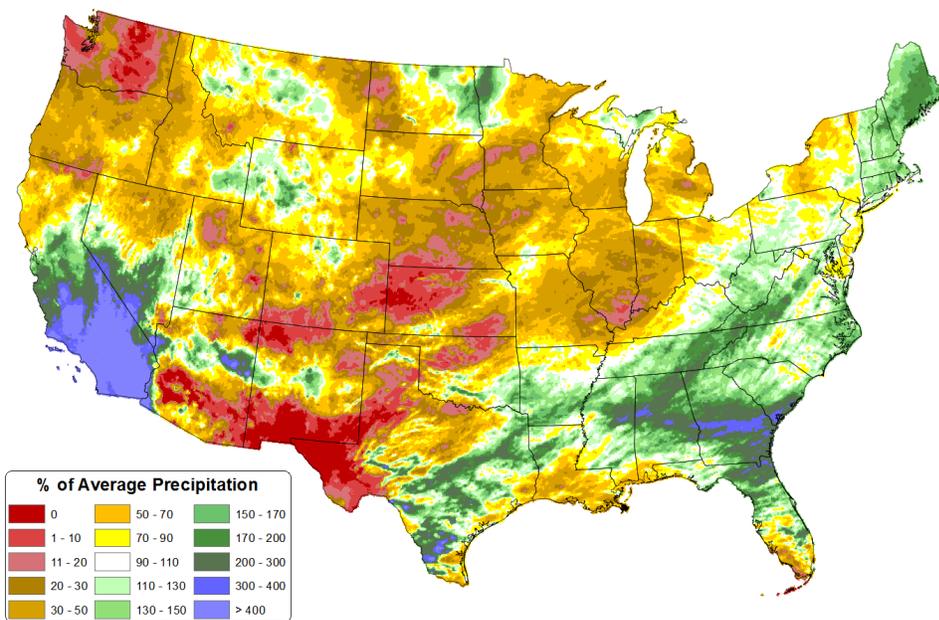
# Water and Climate Update

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

Source: PRISM

Total Precipitation Anomaly: 01 Apr 2020 - 22 Apr 2020  
Period ending 7 AM EST 22 Apr 2020  
Base period: 1981-2010  
(Map created 23 Apr 2020)

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



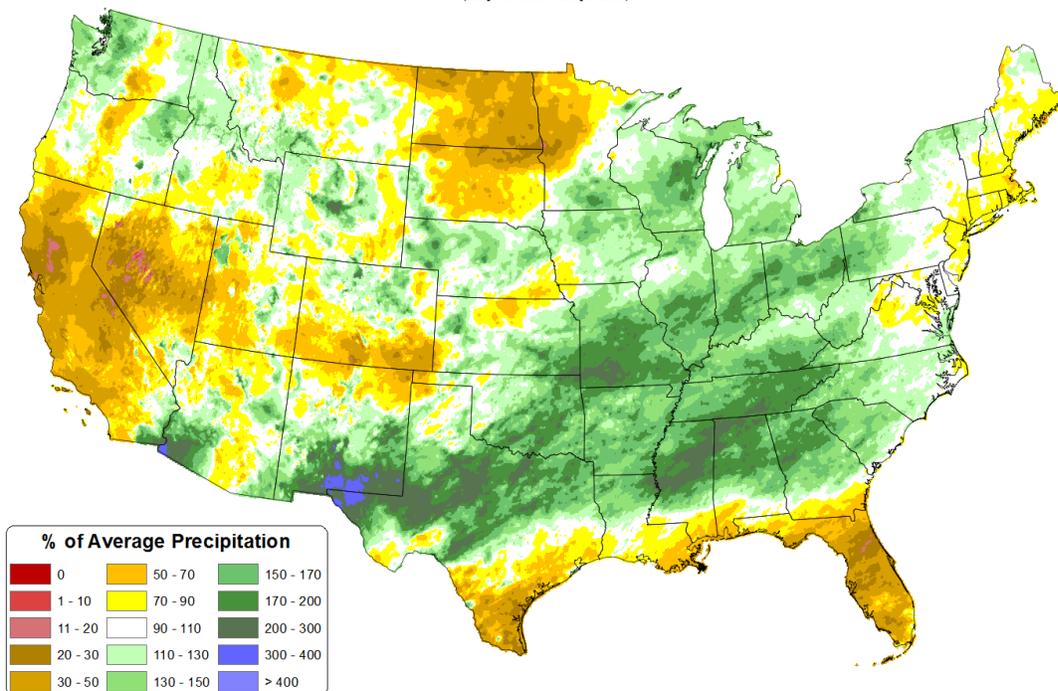
Copyright (c) 2020, PRISM Climate Group, Oregon State University

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

Source: PRISM

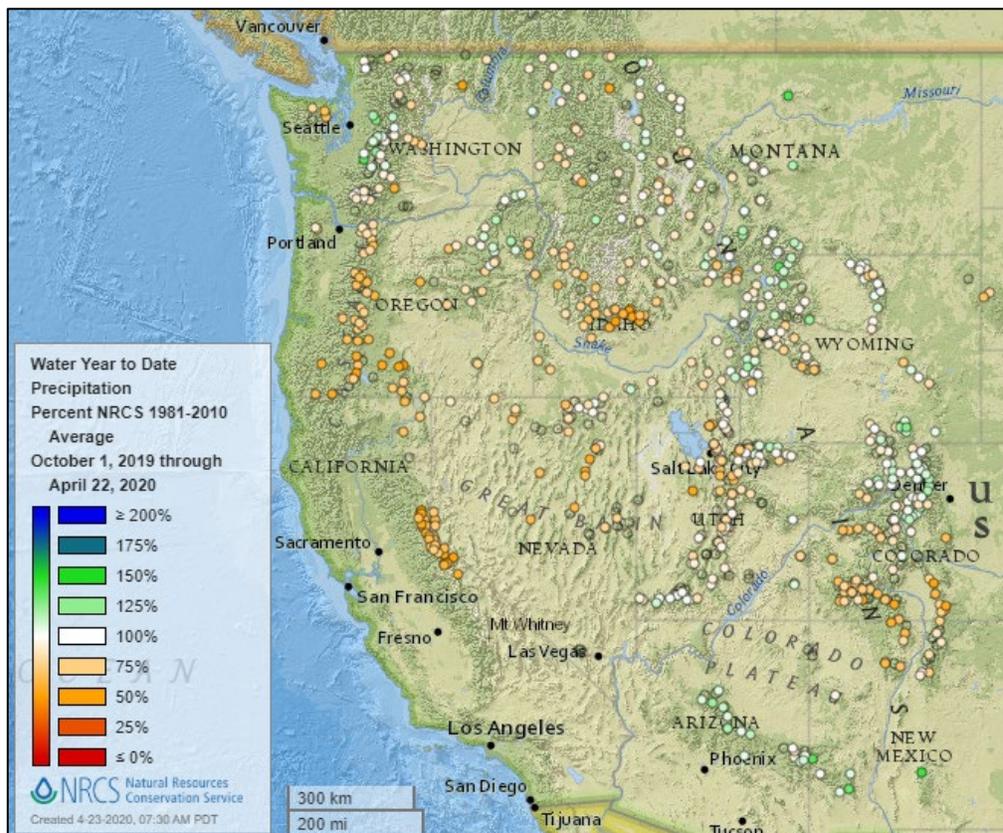
[January through March 2020 total precipitation percent of average map](#)

Total Precipitation Anomaly: Jan 2020 - Mar 2020  
Period ending 7 AM EST 31 Mar 2020  
Base period: 1981-2010  
(Map created 02 Apr 2020)



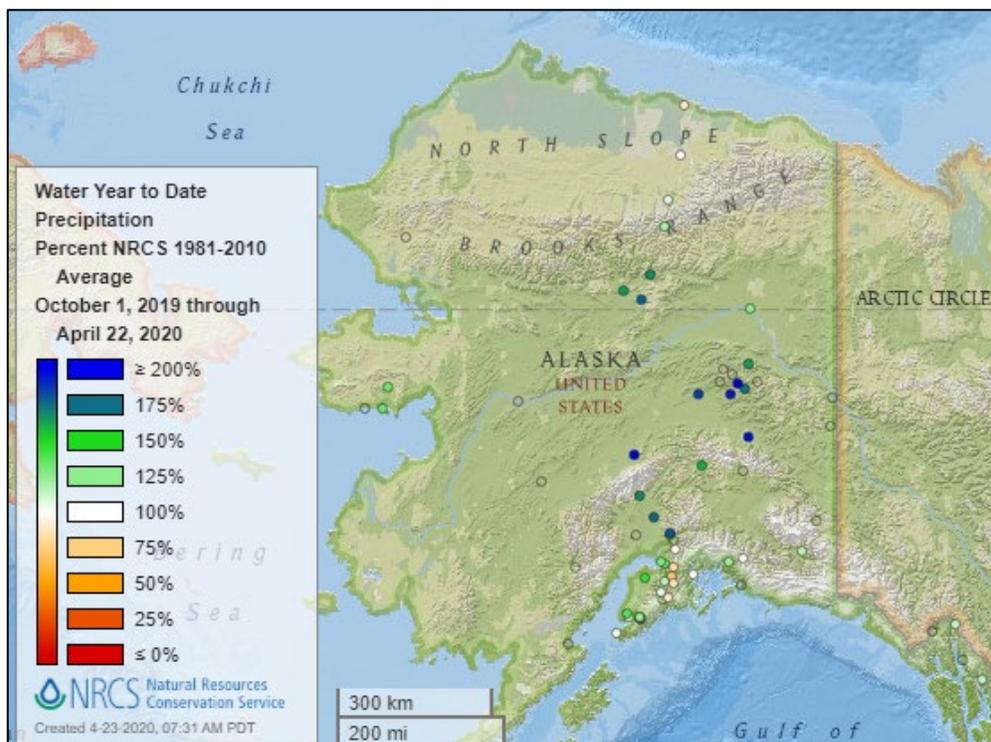
Copyright (c) 2020, PRISM Climate Group, Oregon State University

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

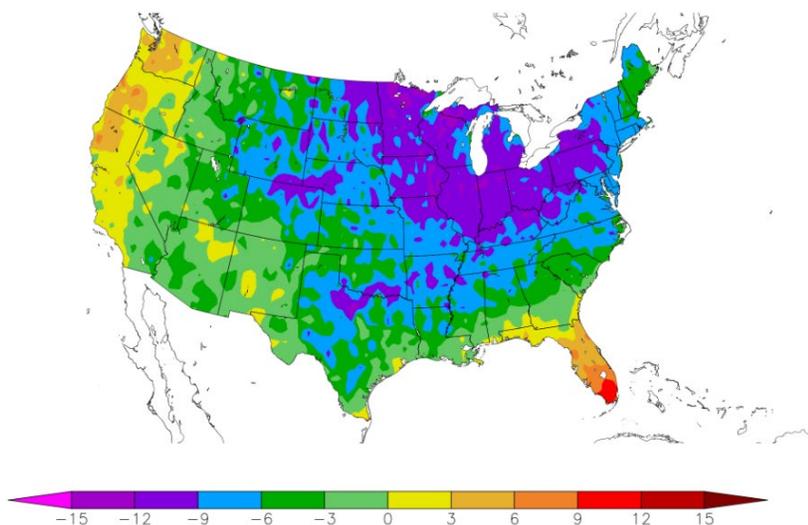
### Last 7 Days, National Weather Service (NWS) Networks

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)  
4/15/2020 – 4/21/2020



Generated 4/22/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

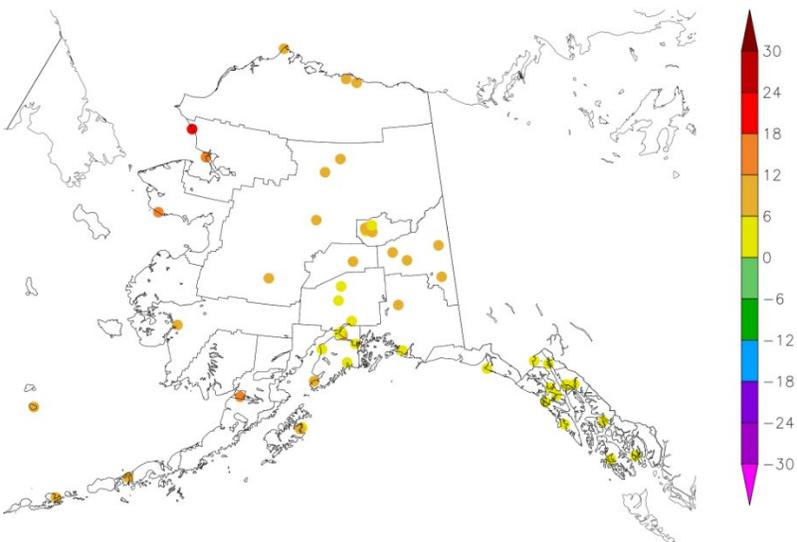
### Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)  
4/15/2020 – 4/21/2020



Generated 4/22/2020 at HPRCC using provisional data.

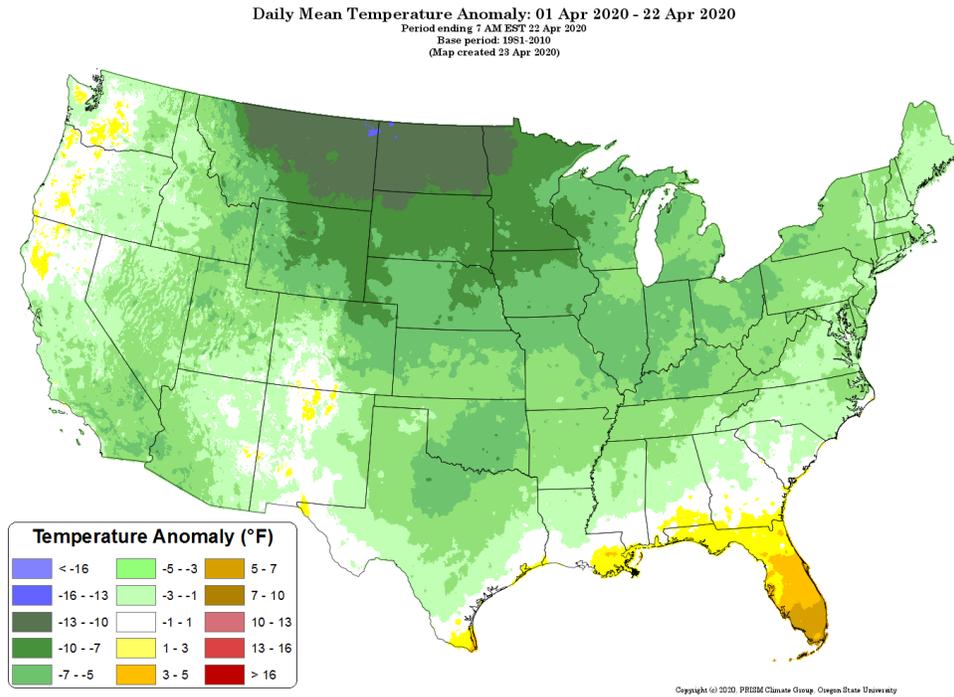
NOAA Regional Climate Centers

# Water and Climate Update

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

Source: PRISM

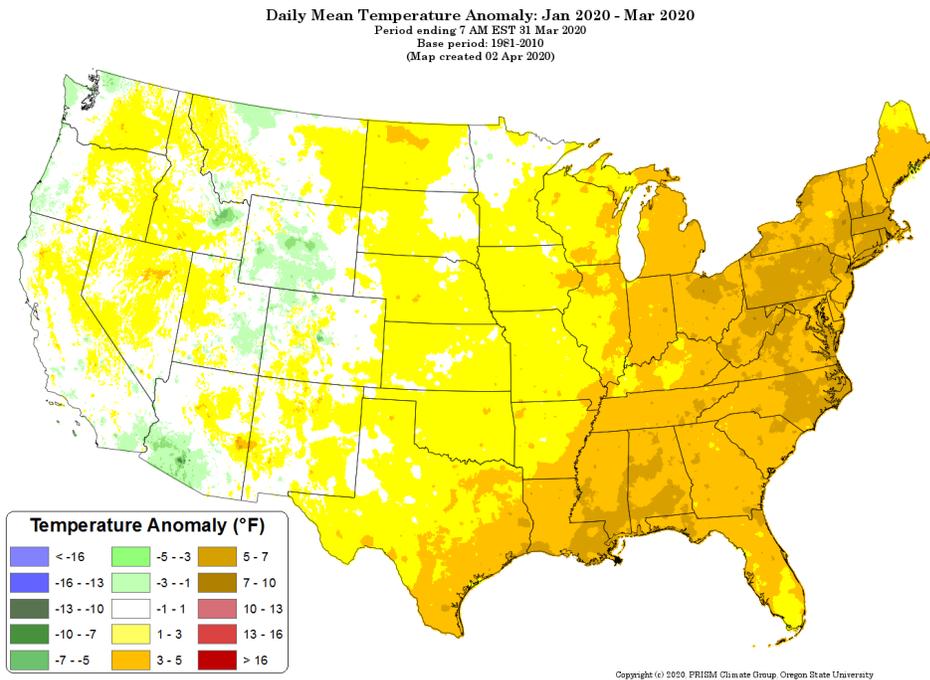
[Month-to-date national daily mean temperature anomaly map](#)



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

Source: PRISM

[January through March 2020 daily mean temperature anomaly map](#)



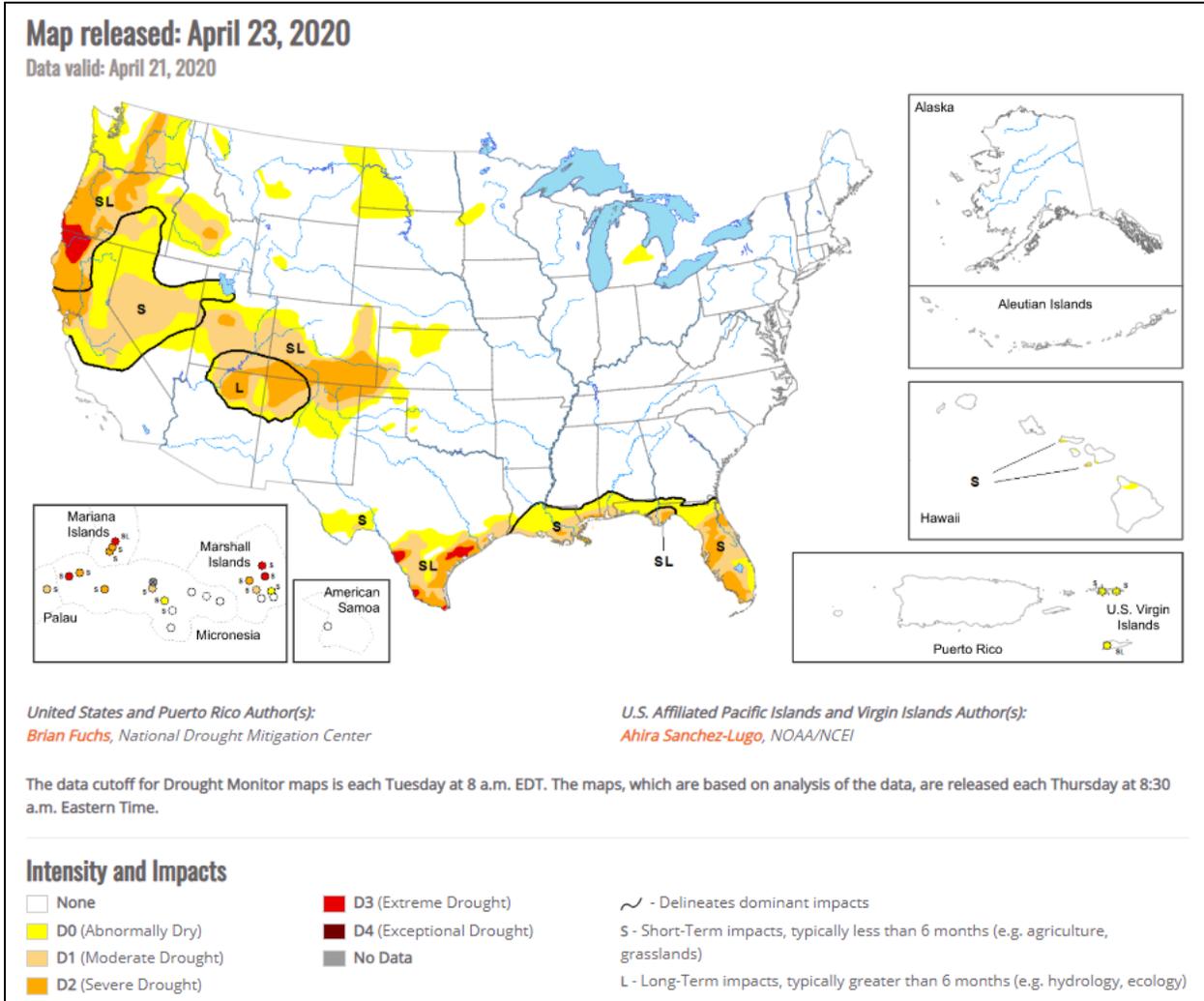
# Drought

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

Source: National Drought Mitigation Center

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

Source: NOAA



## Current [National Drought Summary](#), April 23, 2020

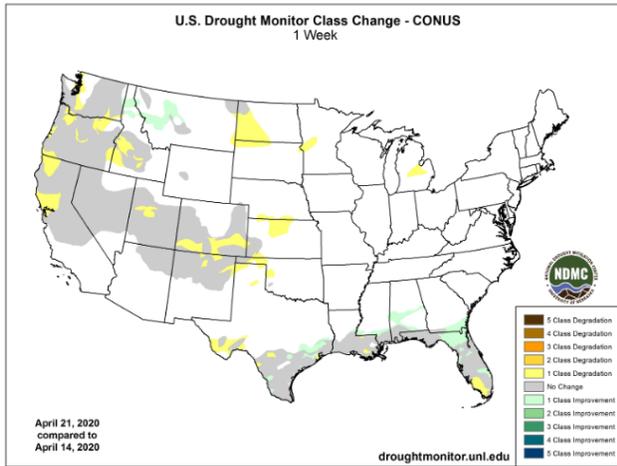
Source: National Drought Mitigation Center

“A very active precipitation pattern impacted areas of the South into the Southeast over the last week. As with the recent storm paths, the areas along the Gulf Coast were again in an unfavorable position in which some areas did see rains, but the dryness continued. A spring snow event tracked through the Plains and into the Midwest, bringing with it a mix of rain and snow. Temperatures were cooler than normal over almost the entire CONUS region with only the coastal regions of the West and Florida being above normal for temperatures. Departures were greatest over the Midwest, where temperatures were 12-15 degrees below normal.”

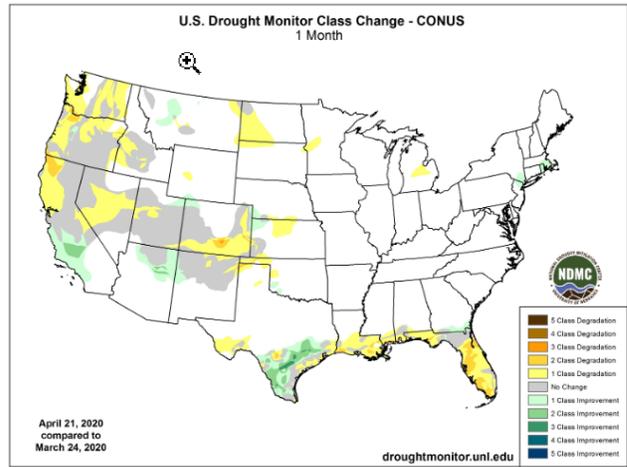
## Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

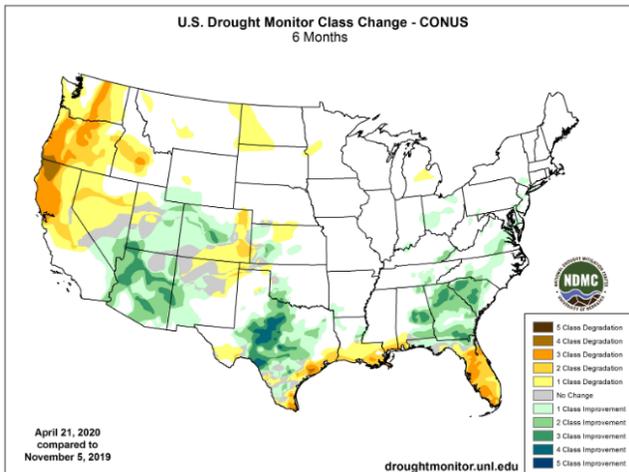
### 1 Week



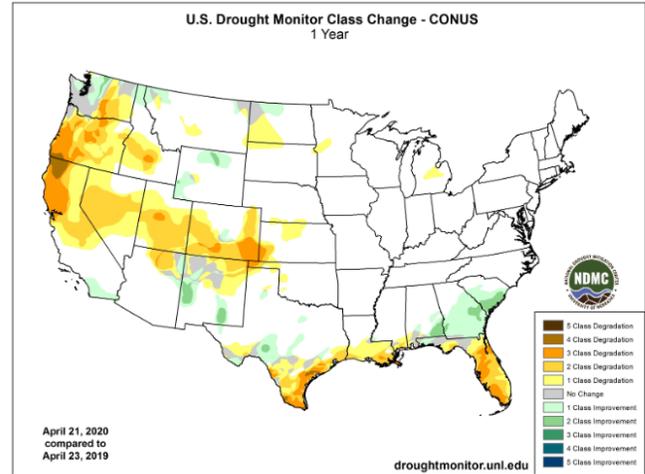
### 1 Month



### 6 Months



### 1 Year



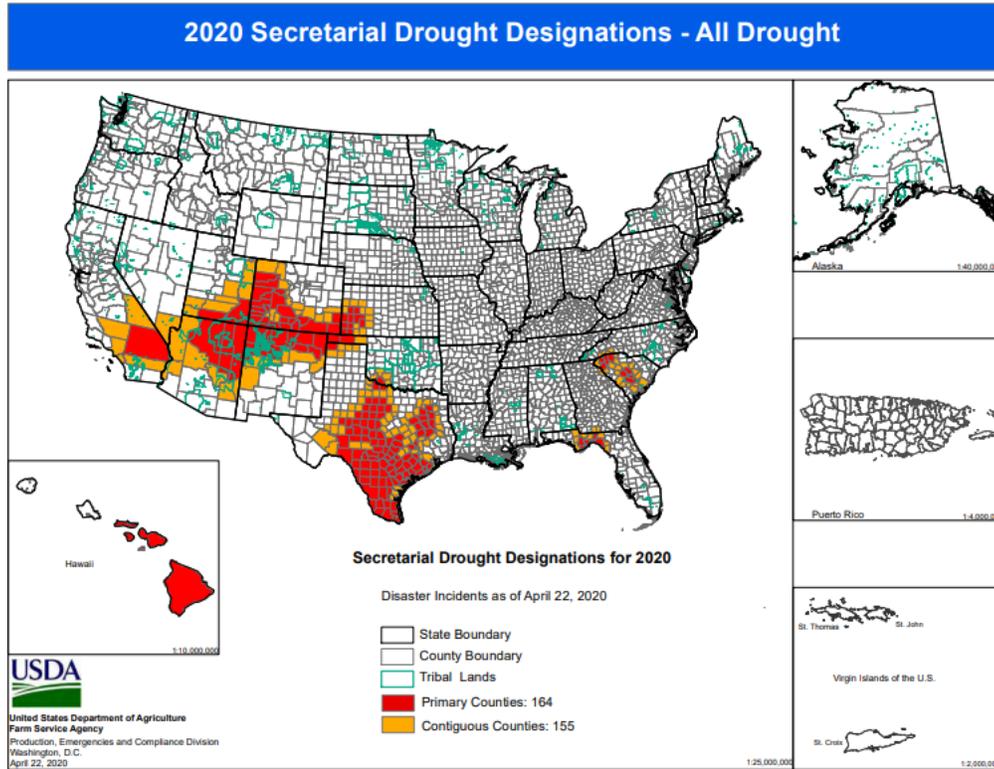
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

## 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**

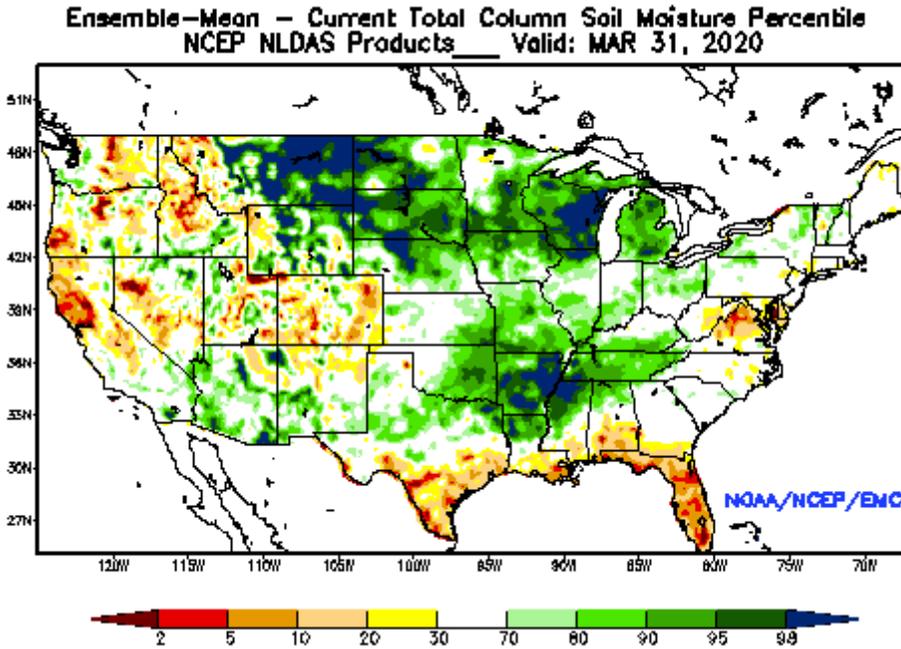
Source: USDA Farm Service Agency



## Other Climatic and Water Supply Indicators

### Soil Moisture

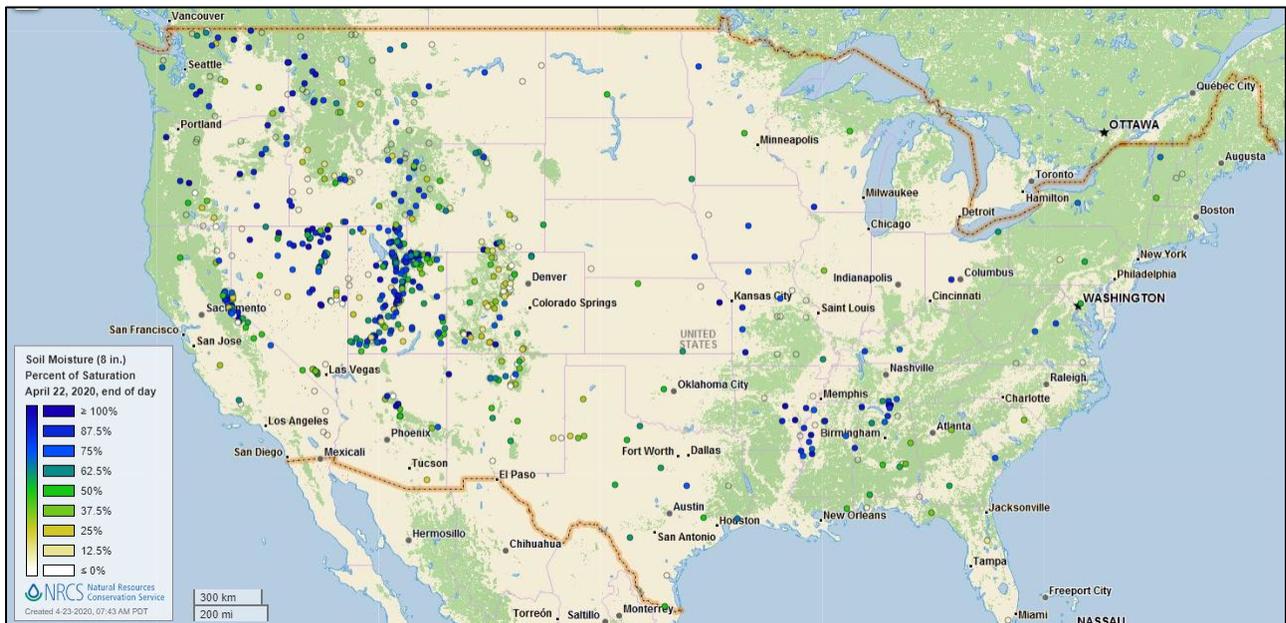
Source: NOAA National Centers for Environmental Prediction



[Modeled soil moisture percentiles](#) as of March 31, 2020

### Soil Moisture Percent of Saturation

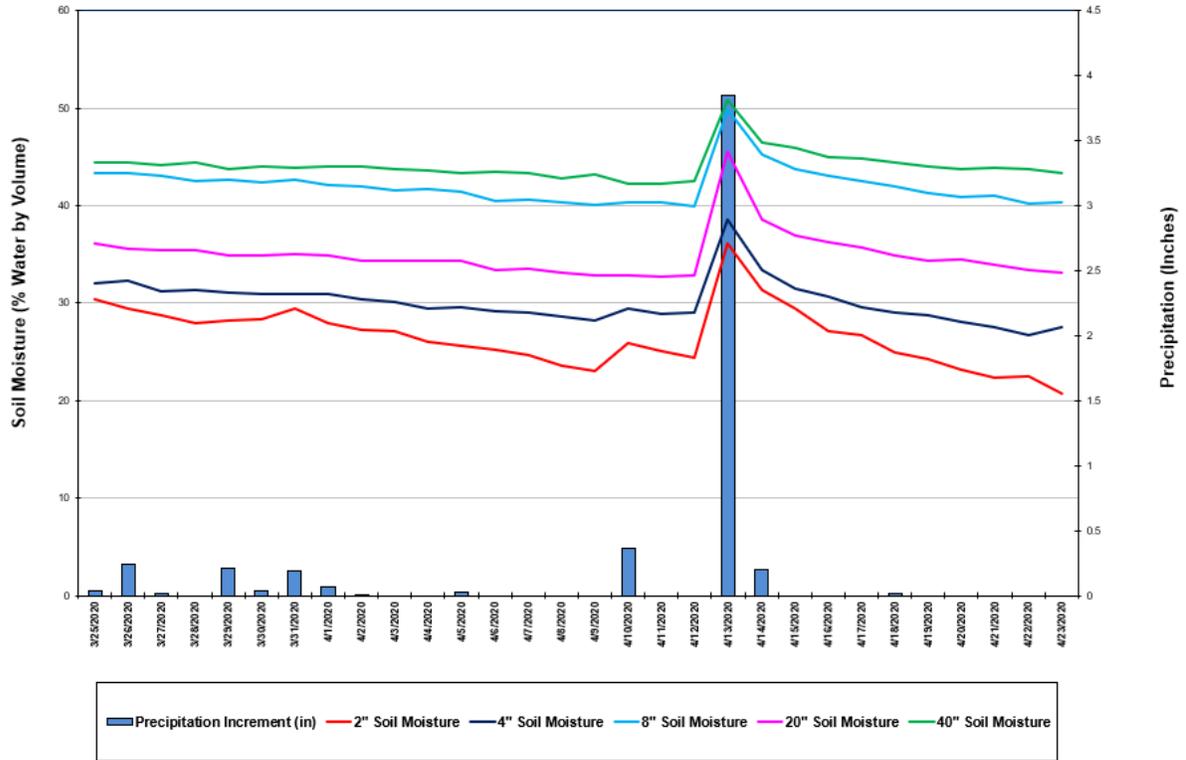
Source: NRCS SNOTEL and [Soil Climate Analysis Network](#) (SCAN)



### Soil Moisture Data

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

**Kukuihaele, Hawaii (SCAN site 2197)  
Daily Mean Soil Moisture vs. Daily Precipitation**



This chart shows the soil moisture and precipitation for the last 30 days at the [Kukuihaele](#) SCAN site in Hawaii. The event on April 13 resulted in 3.85 inches of precipitation and increased soil moisture at all sensor levels. Accumulated precipitation for the 30-day period totaled 5.28 inches.

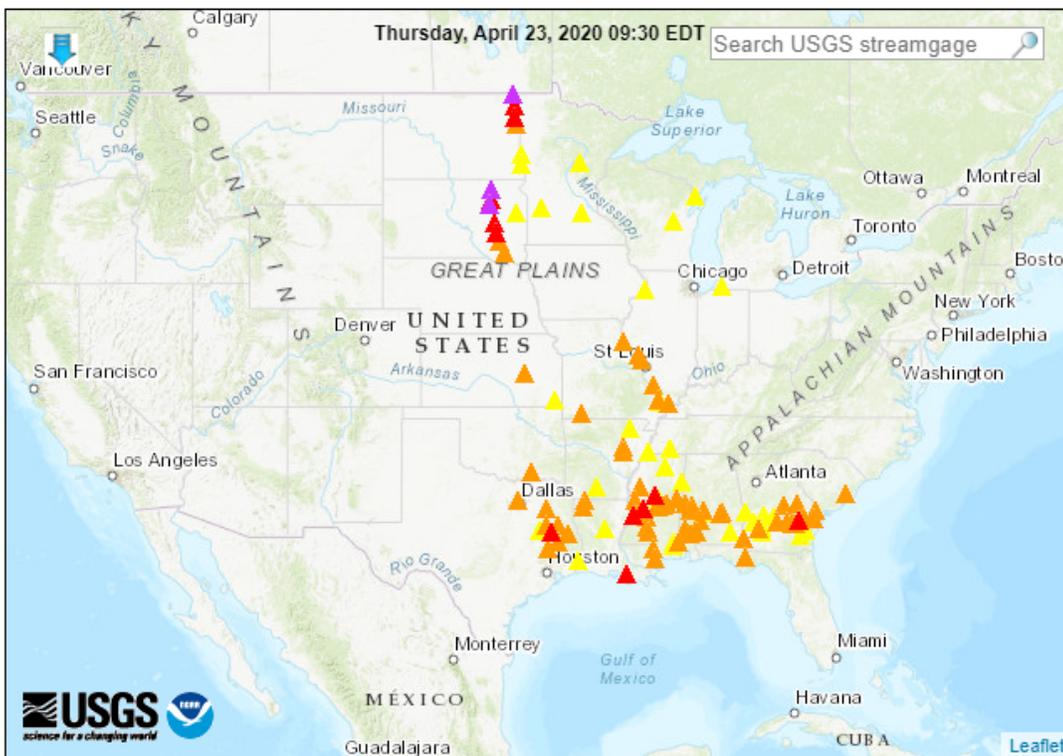
### Soil Moisture Data Portals

- [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

**Map of flood and high flow conditions**  
 (75 in floods [major: 3, moderate: 11, minor: 61], 34 in near-flood)



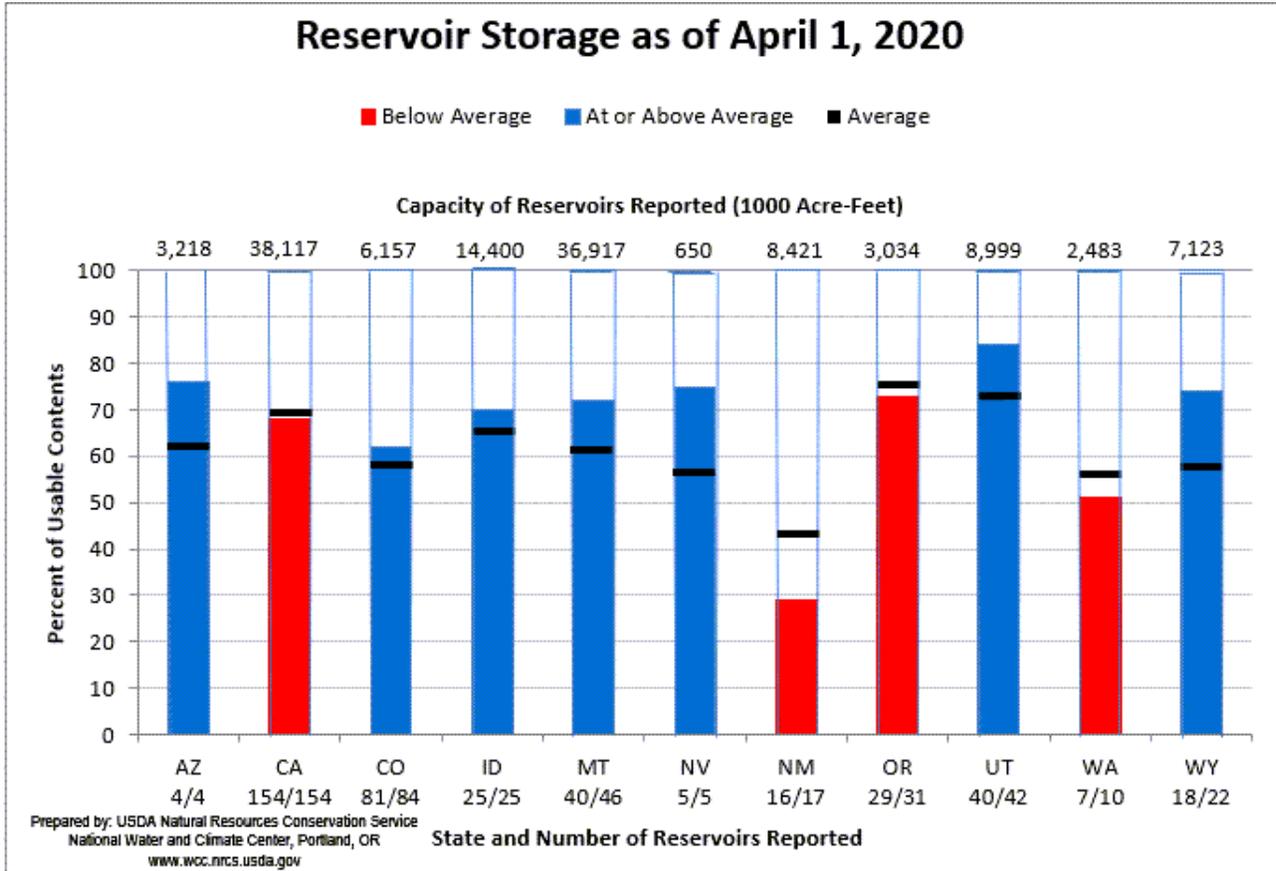
Explanation - Percentile classes						
<95	95-98	>= 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage
			▲ Streamgage with flood stage    ○ Streamgage without flood stage			

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

## Reservoir Storage

### Western States Reservoir Storage

Source: NRCS National Water and Climate Center



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

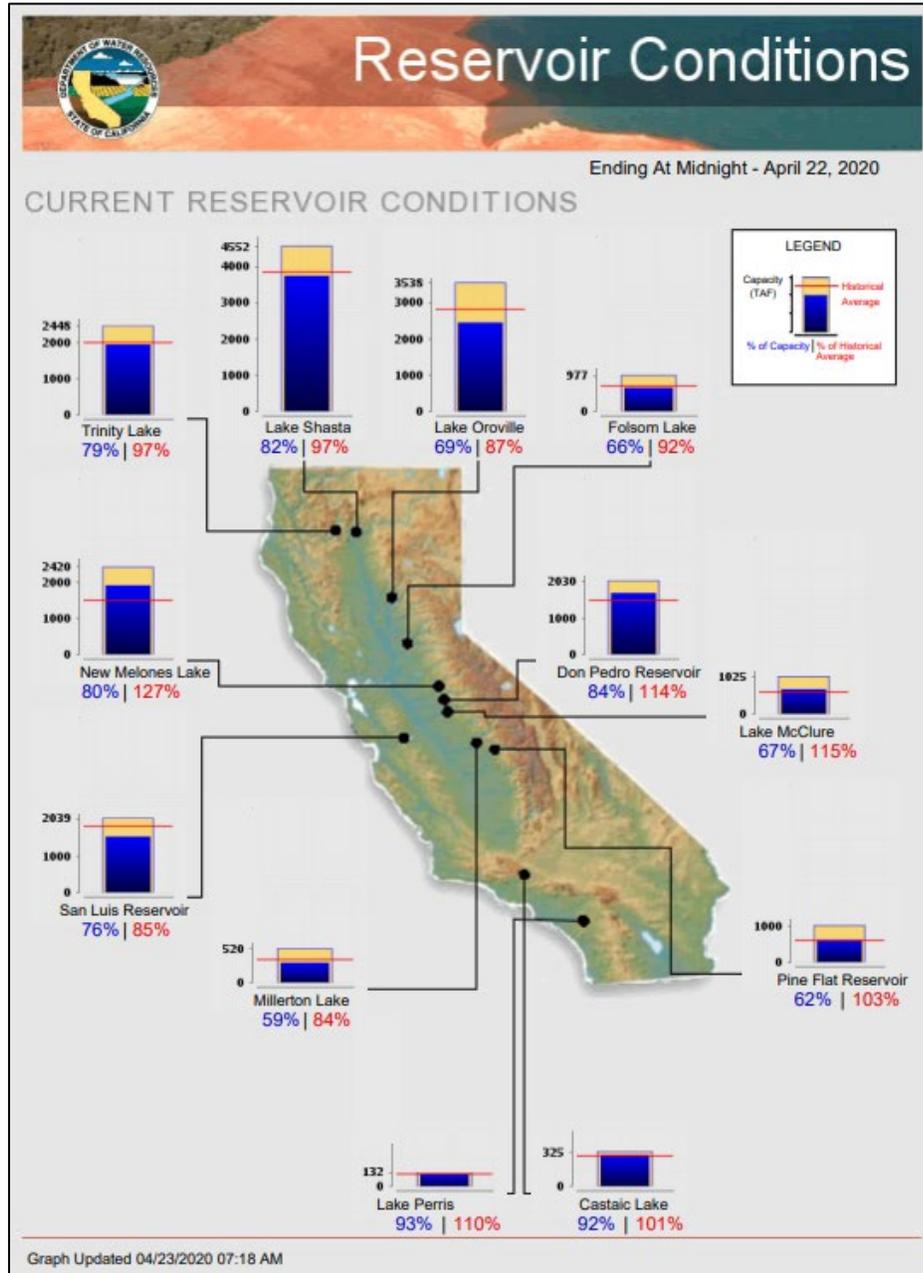
### Hydromet Teacup Reservoir Depictions

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](#)

## Short- and Long-Range Outlooks

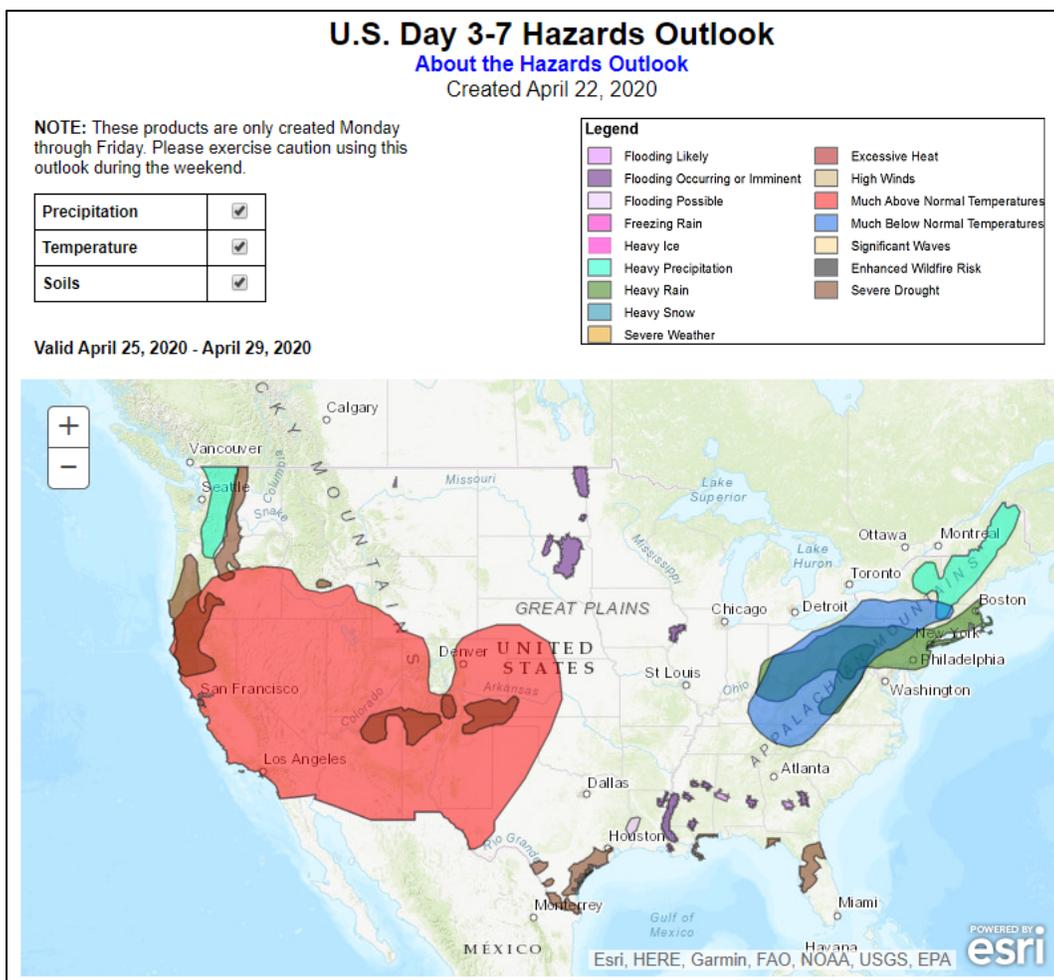
### Agricultural Weather Highlights

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

**National Outlook, Thursday, April 23, 2020:** “Two spring storms will traverse the country during the next few days. The first storm system, currently crossing the mid-South, will reach the mid-Atlantic Coast by late Friday. The second system, arriving today in the Northwest, will follow a similar path across the mid-South on Friday night and early Saturday before reaching the northern Atlantic Coast on Monday. Combined, the storms should produce at least 1 to 2 inches of rain from the southern and eastern Corn Belt into the mid-Atlantic States and southern New England. Meanwhile, heavy showers and locally severe thunderstorms will sweep across the Southeast for the remainder of today. In contrast, dry weather will prevail during the next 5 days from California to the southern Plains. Elsewhere, Western warmth will continue to build eastward, reaching the Plains early next week, while chilly conditions will linger in much of the eastern U.S. The NWS 6- to 10-day outlook for April 28 – May 2 calls for near- or below-normal temperatures in most areas from the Mississippi River eastward, while warmer-than-normal weather will prevail in southern Florida and from the Pacific Coast to the Plains. Meanwhile, near- or below-normal precipitation across most of the country should contrast with wetter-than-normal conditions from the Great Lakes region into the Northeast.”

### Weather Hazards Outlook: [April 25 – 29, 2020](#)

Source: NOAA Weather Prediction Center

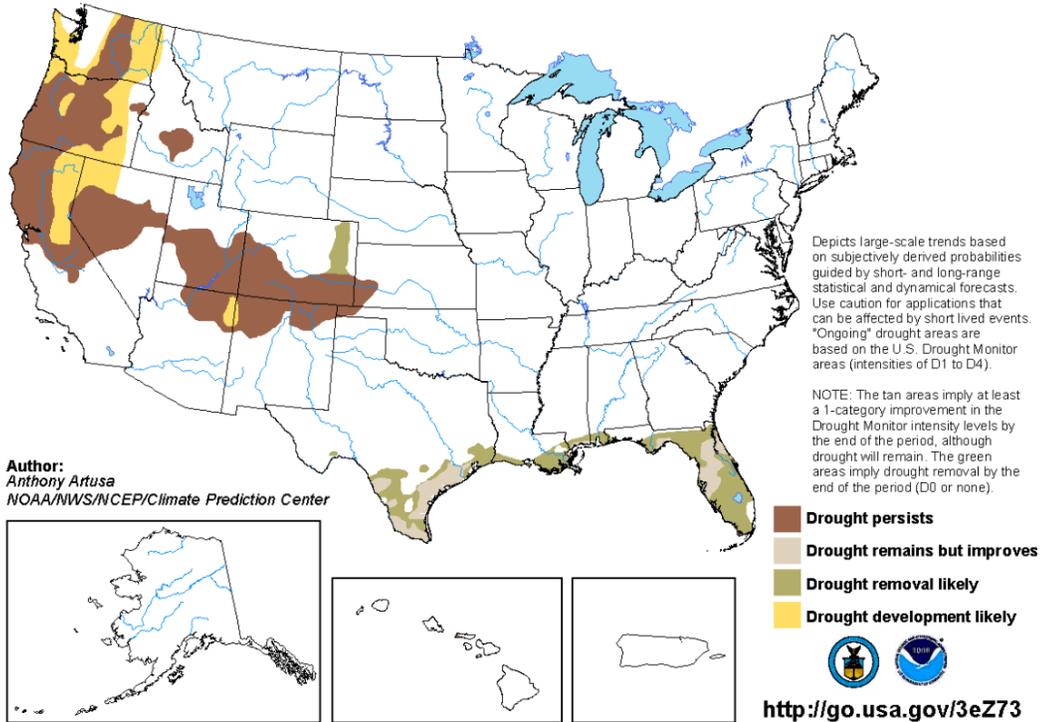


Seasonal Drought Outlook: [April 16 – July 31, 2020](#)

Source: National Weather Service

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

Valid for April 16 - July 31, 2020  
Released April 16

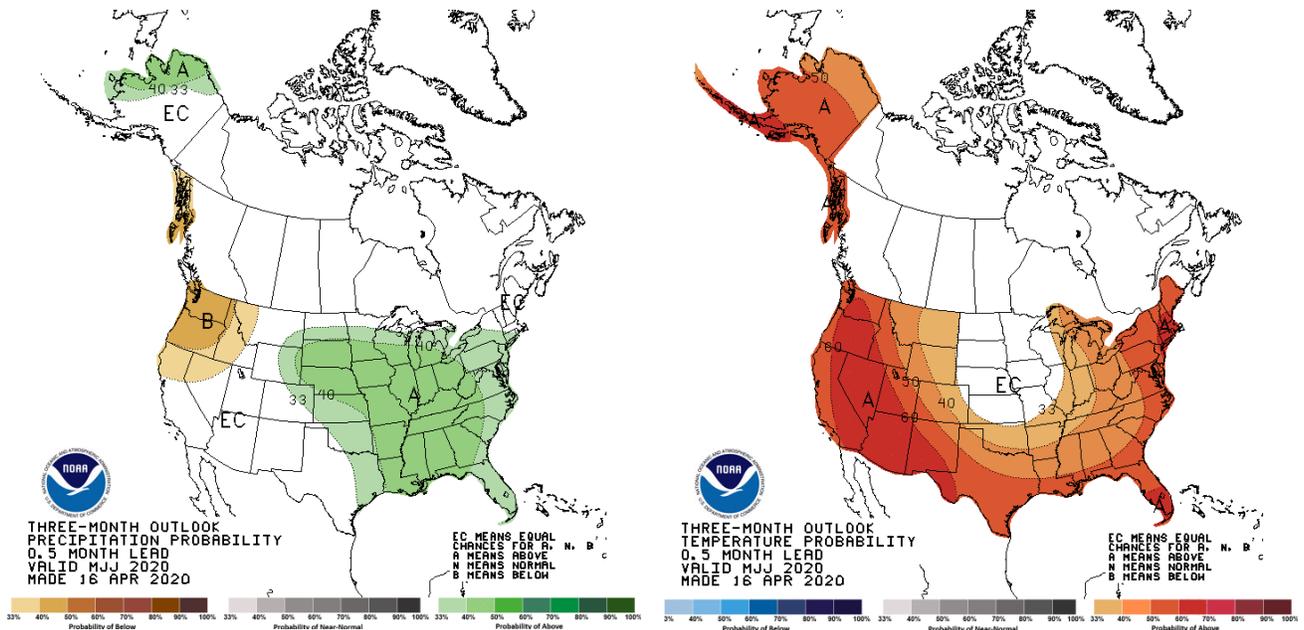


Climate Prediction Center 3-Month Outlook

Source: National Weather Service

[Precipitation](#)

[Temperature](#)



[May-June-July \(MJJ\) 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](#).