

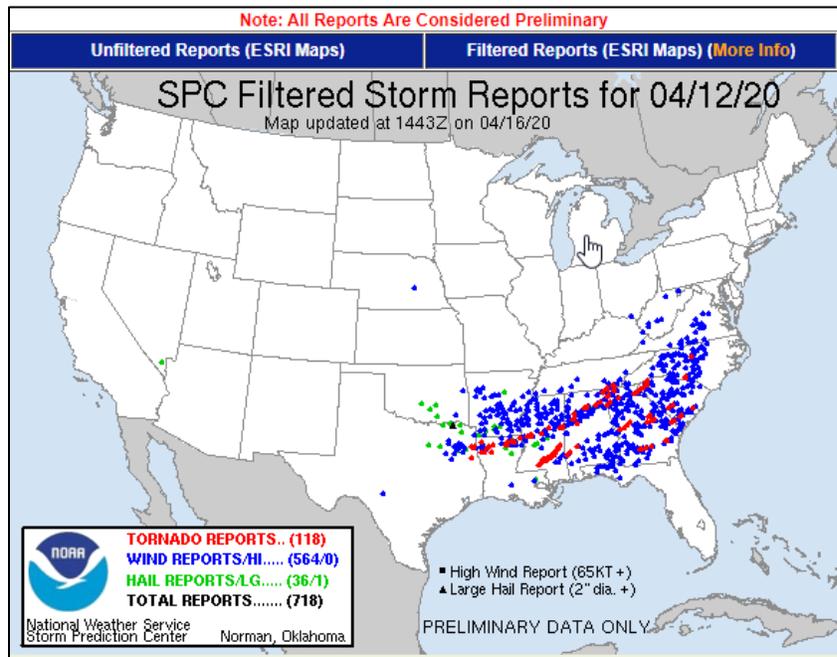
Water and Climate Update

April 16, 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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Drought	10		

Severe weather and numerous tornado outbreaks in the South

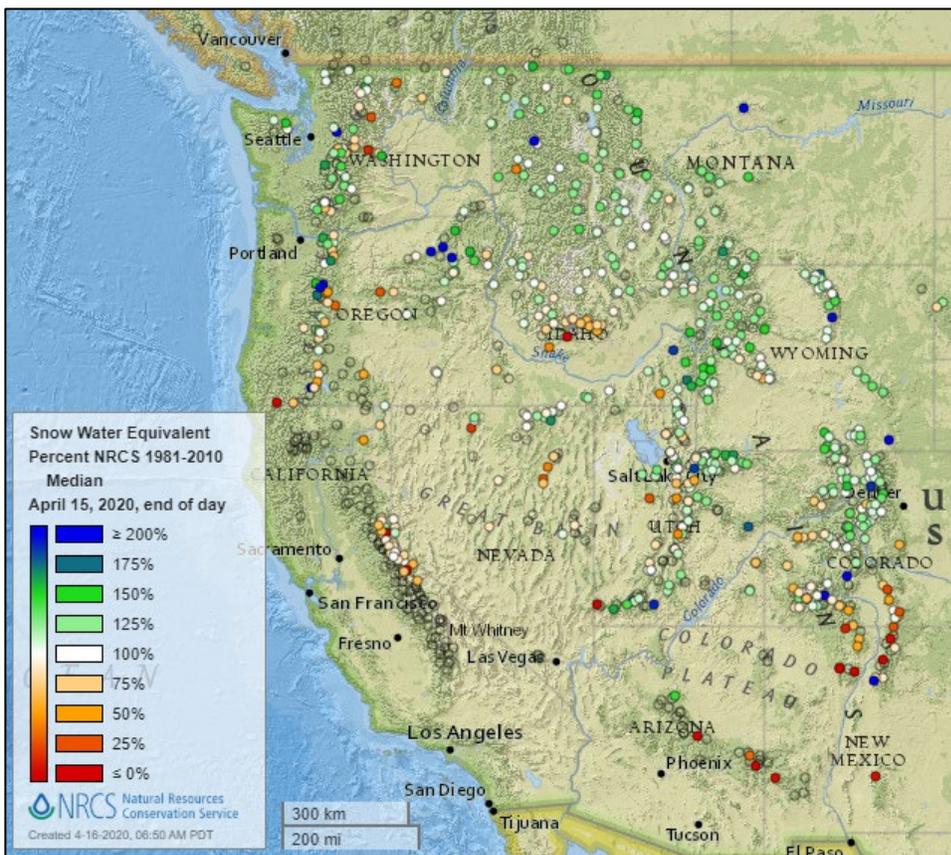


Severe storms over the weekend left much destruction in their wake. Numerous tornadoes and strong winds were reported. The National Weather Service confirmed tornadoes had a combined path of over 700 miles of damage. Severe damage across many states left homes and businesses damaged or destroyed, millions without power, many injuries, and 34 deaths. A two-mile-wide tornado in Mississippi was the state's largest on record. South Carolina reported the strongest tornadoes since 1984.

Related:

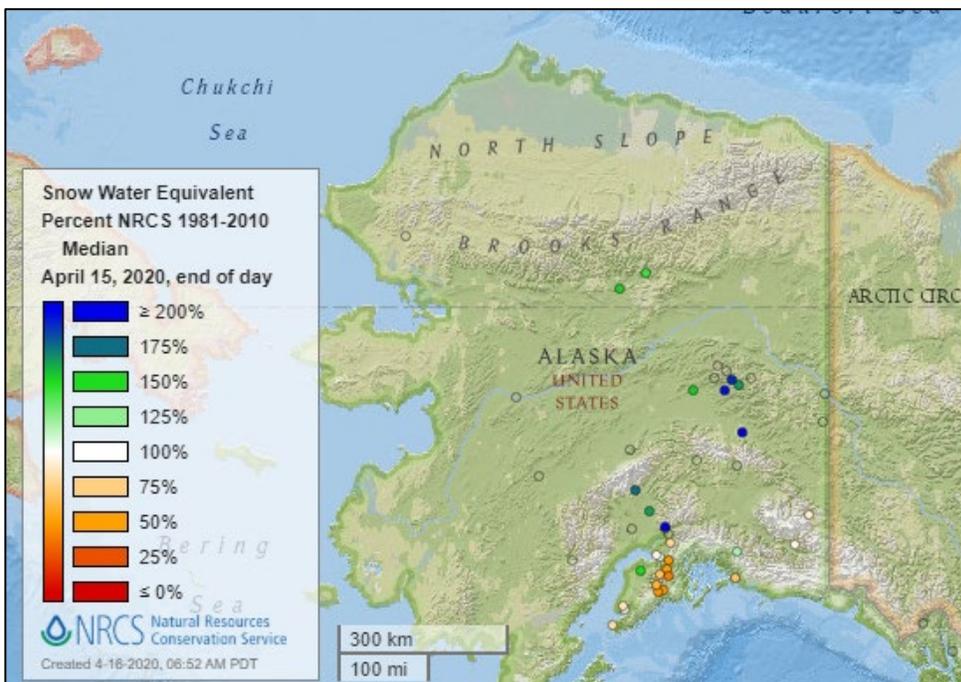
- [At Least 34 People Have Died After a Tornado Outbreak Ravaged the South](#) - Time
- [Tornado damage in Louisiana where hundreds of homes were impacted revealed in drone video](#) – Fox News
- [SC Cleans up From Its Deadliest Tornado Outbreak Since 1984](#) – US News & World Report
- [Before and after images from space show tornado damage](#) – CNN
- [NWS: More than 100 tornadoes hit from Texas to Maryland](#) – AP
- [Two-mile-wide Mississippi tornado Sunday was state's largest on record](#) – Washington Post
- [Violent storms, tornadoes shift to East Coast after leaving at least 30 dead, 1.3 million without power](#) – Washington Post
- [NASA Observes Rainfall from Tornado-spawning Storms in the Southern U.S.](#) - NASA

Snow



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

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

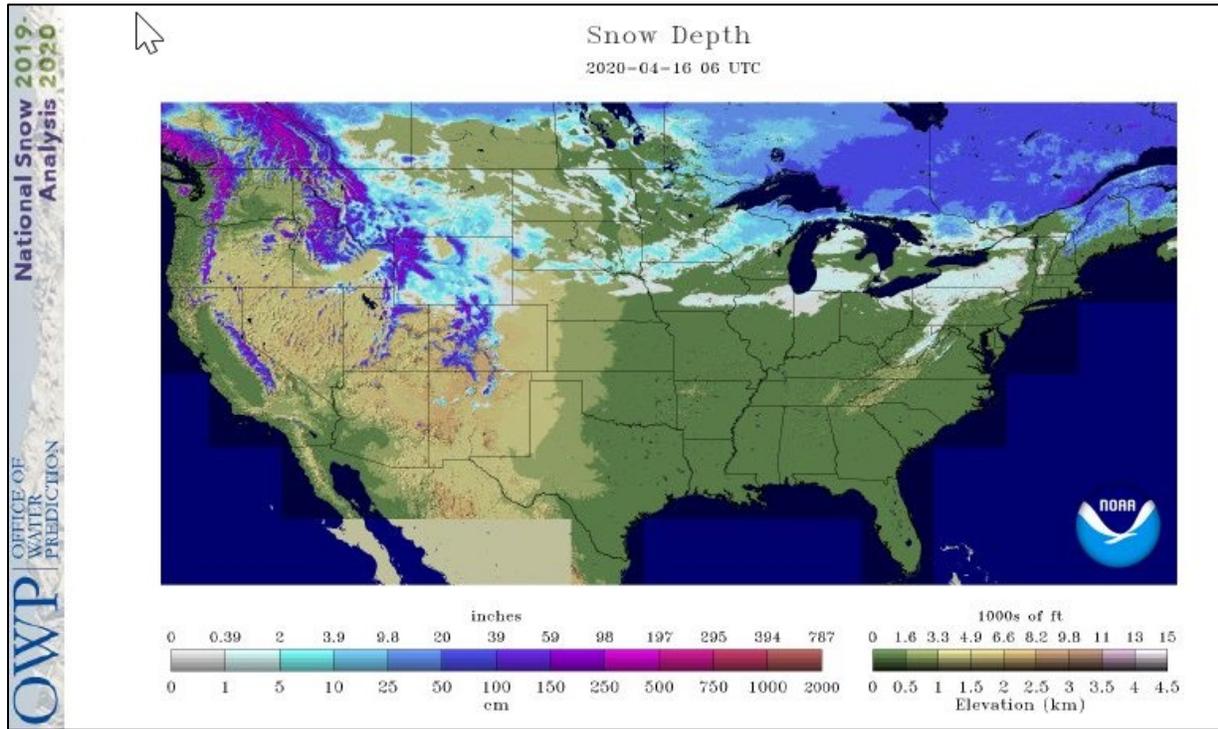


[Alaska snow water equivalent percent of median map](#)

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

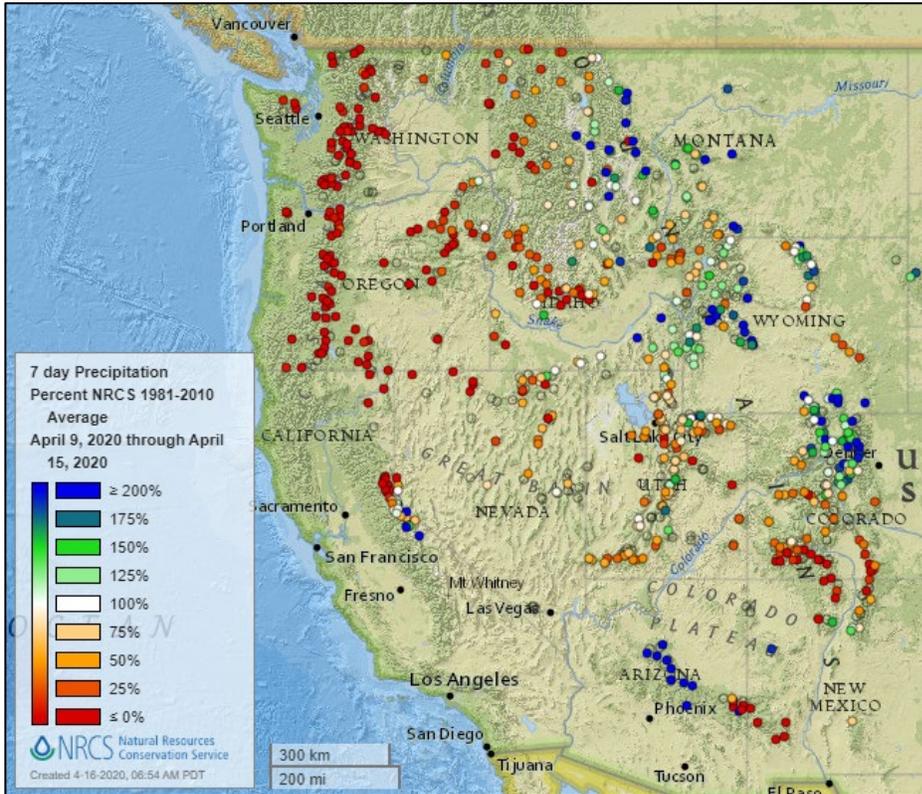
Current Snow Depth, National Weather Service Snow Analysis

Source: NOAA Office of Water Prediction



Precipitation

Last 7 Days, NRCS SNOTEL Network

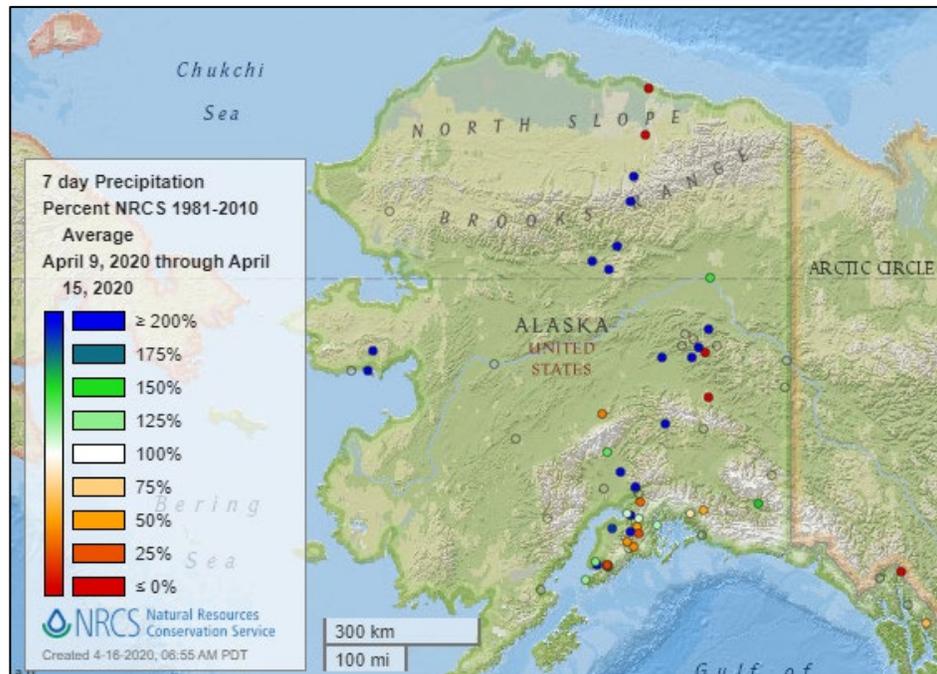


[7-day precipitation percent of average map](#)

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](#)



Water and Climate Update

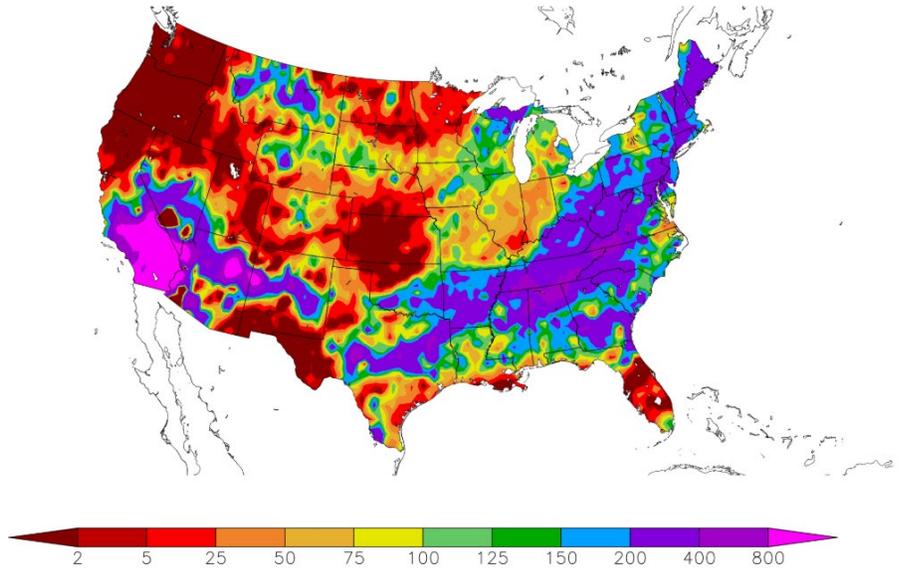
Last 7 Days, National Weather Service (NWS) Networks

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 (%)
4/8/2020 – 4/14/2020



Generated 4/15/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

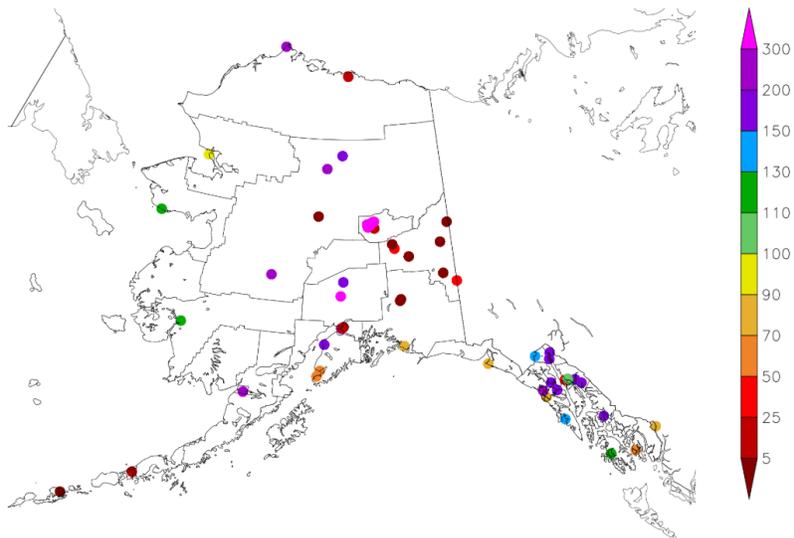
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)
4/8/2020 – 4/14/2020



Generated 4/15/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

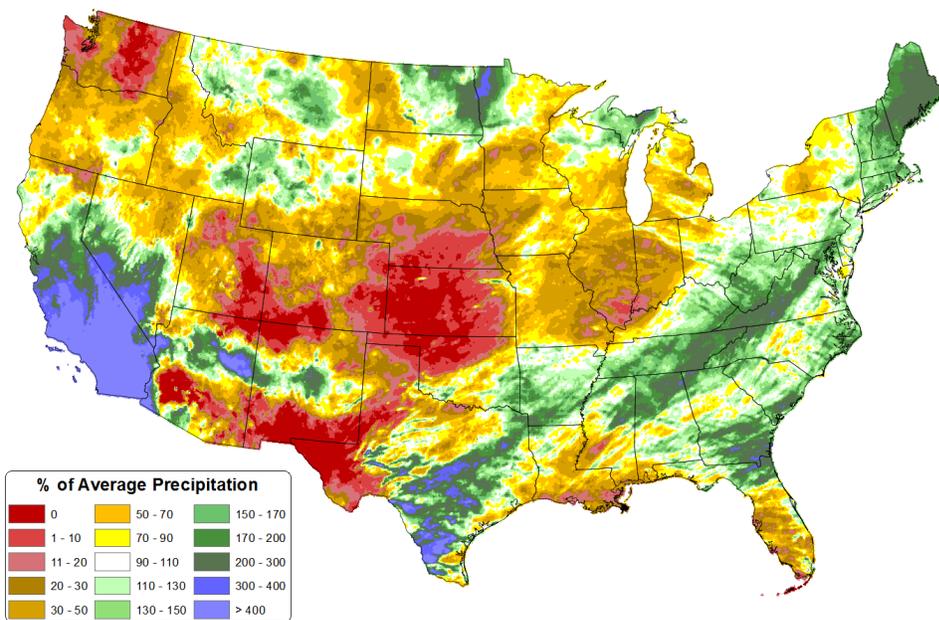
Water and Climate Update

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

Source: PRISM

Total Precipitation Anomaly: 01 Apr 2020 - 15 Apr 2020
Period ending 7 AM EST 15 Apr 2020
Base period: 1981-2010
(Map created 16 Apr 2020)

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

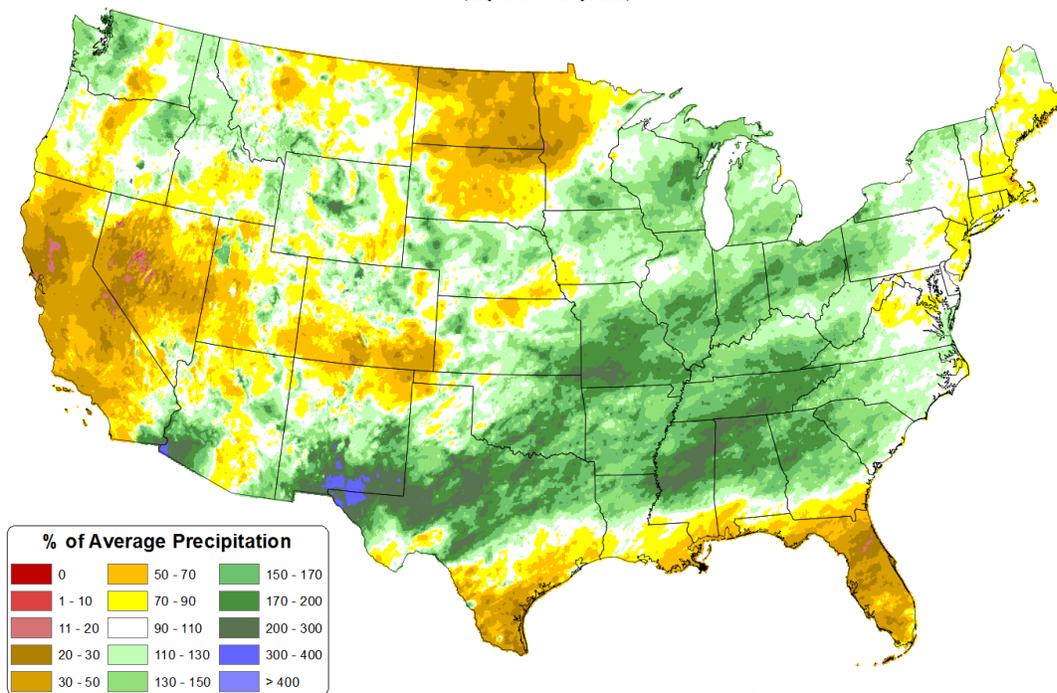


Last 3 Months, All Available Data Including SNOTEL and NWS Networks

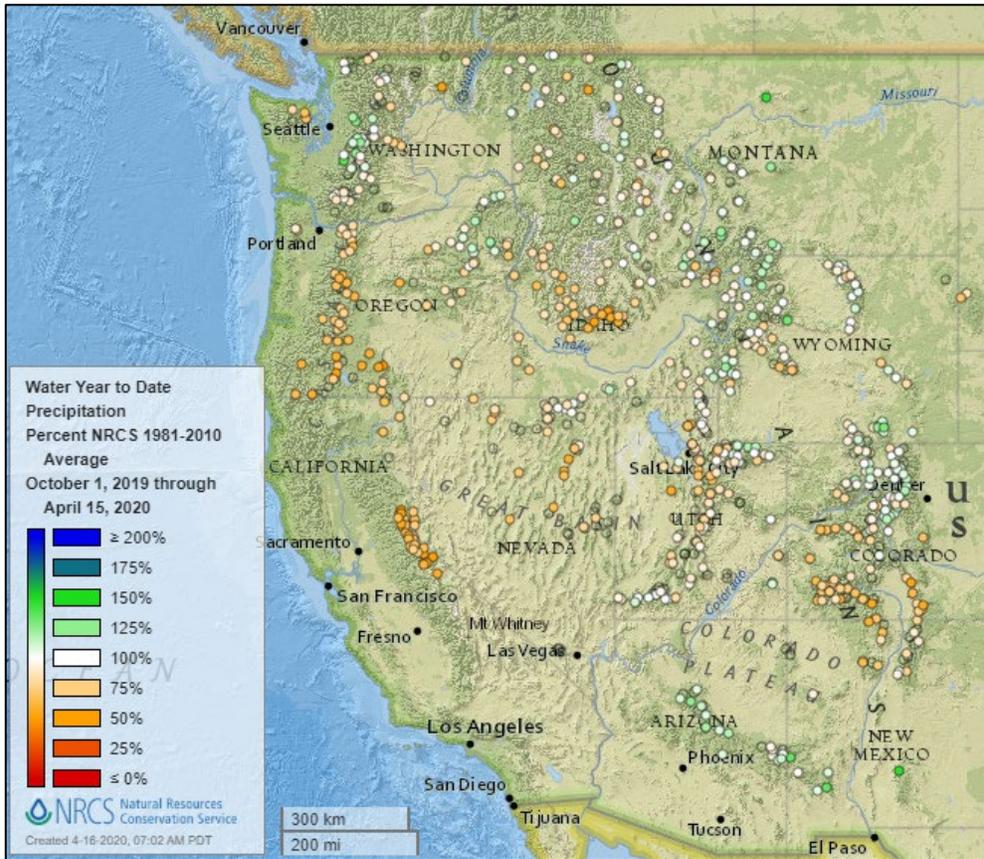
Source: PRISM

[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)

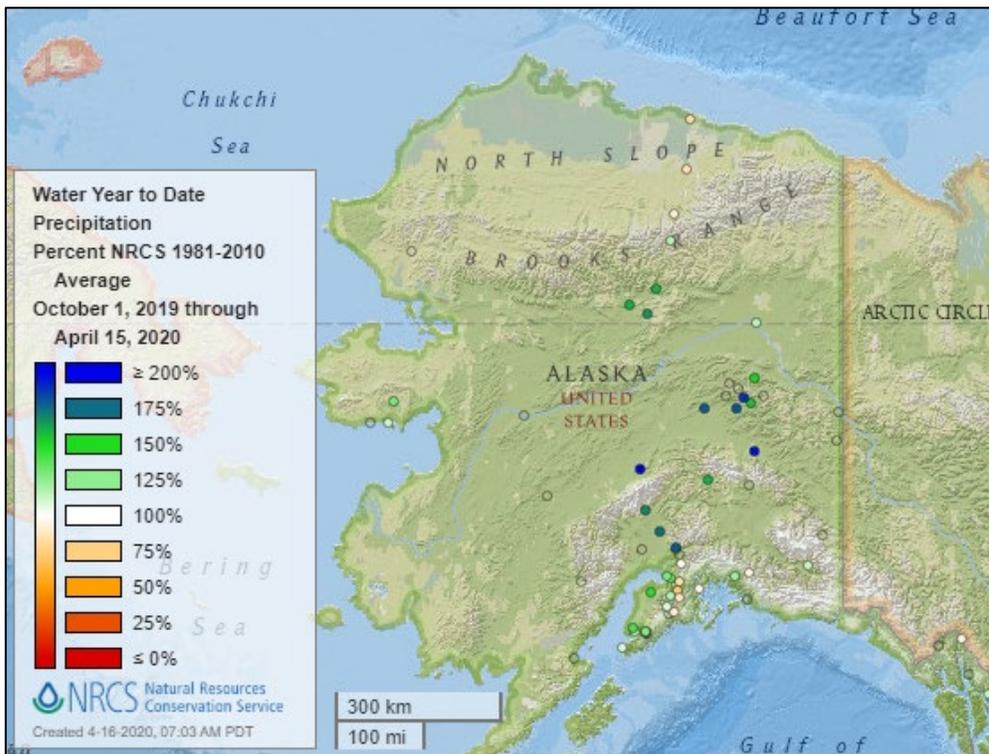


Water Year-to-Date, NRCS SNOTEL Network



[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

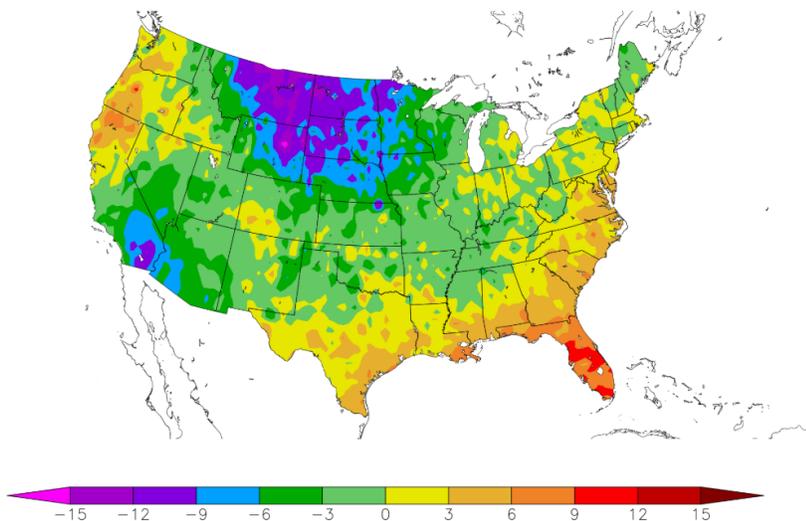
Last 7 Days, National Weather Service (NWS) Networks

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)
4/8/2020 – 4/14/2020



Generated 4/15/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

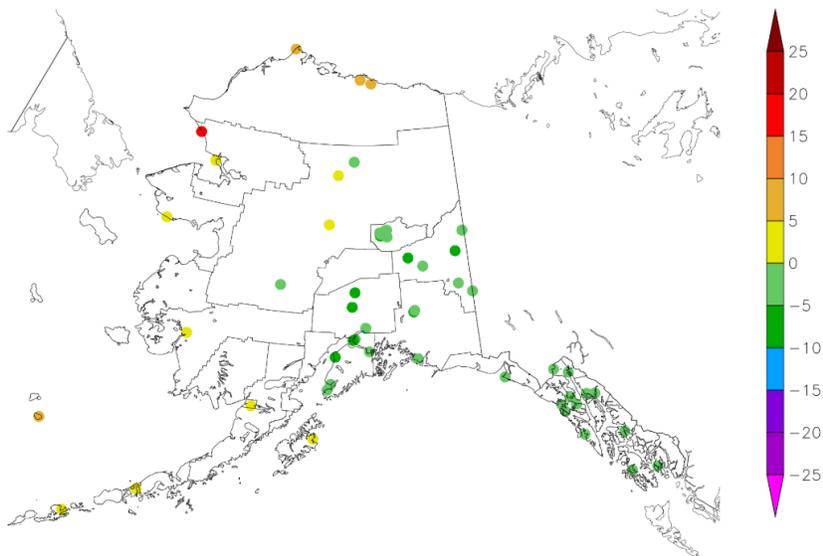
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
4/8/2020 – 4/14/2020



Generated 4/15/2020 at HPRCC using provisional data.

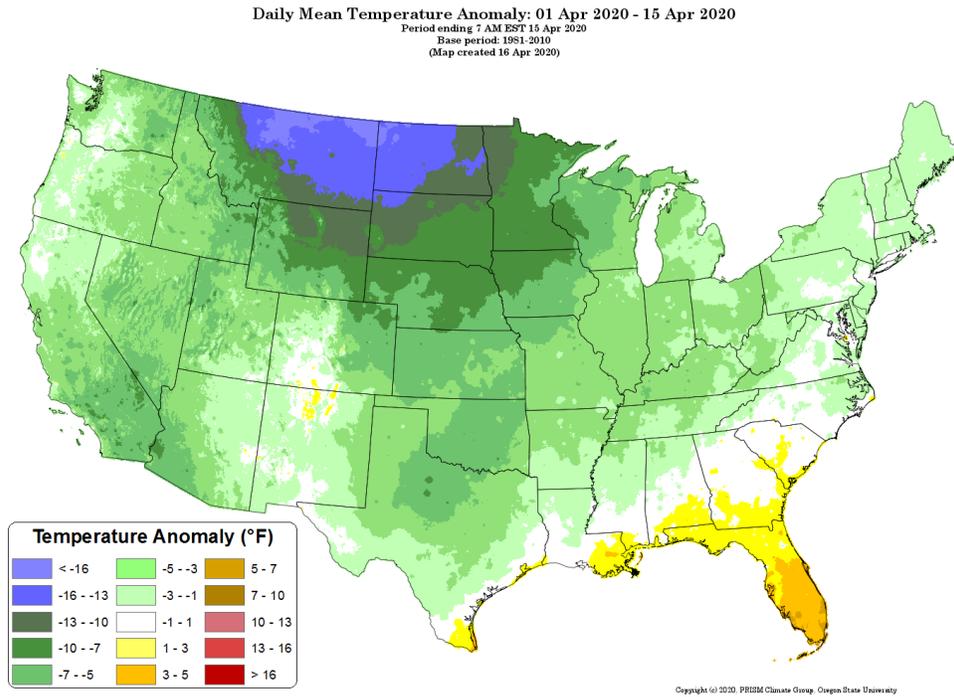
NOAA Regional Climate Centers

Water and Climate Update

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

Source: PRISM

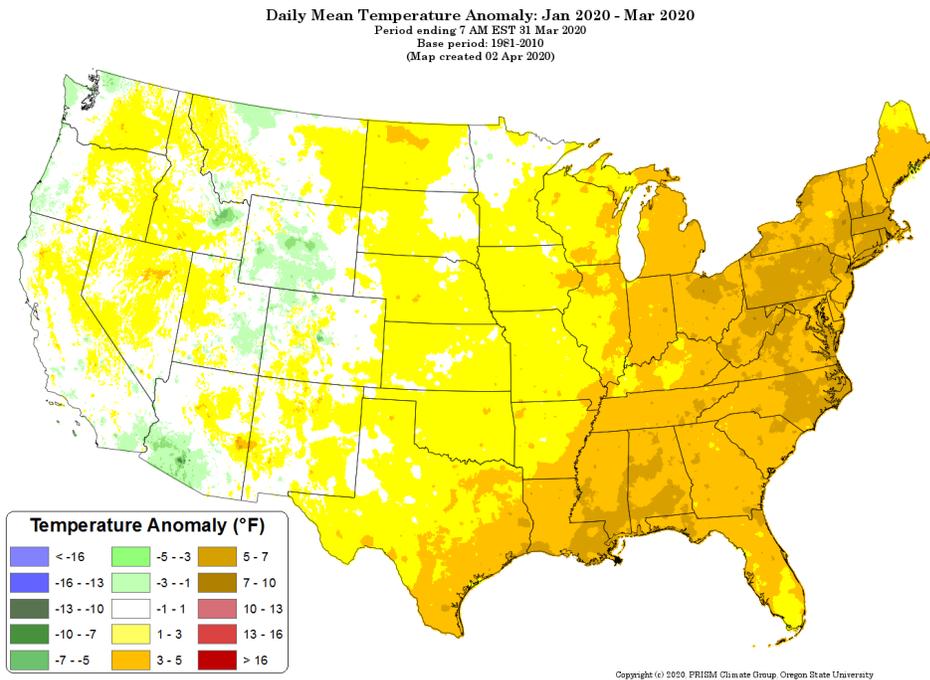
[Month-to-date national daily mean temperature anomaly map](#)



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

Source: PRISM

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



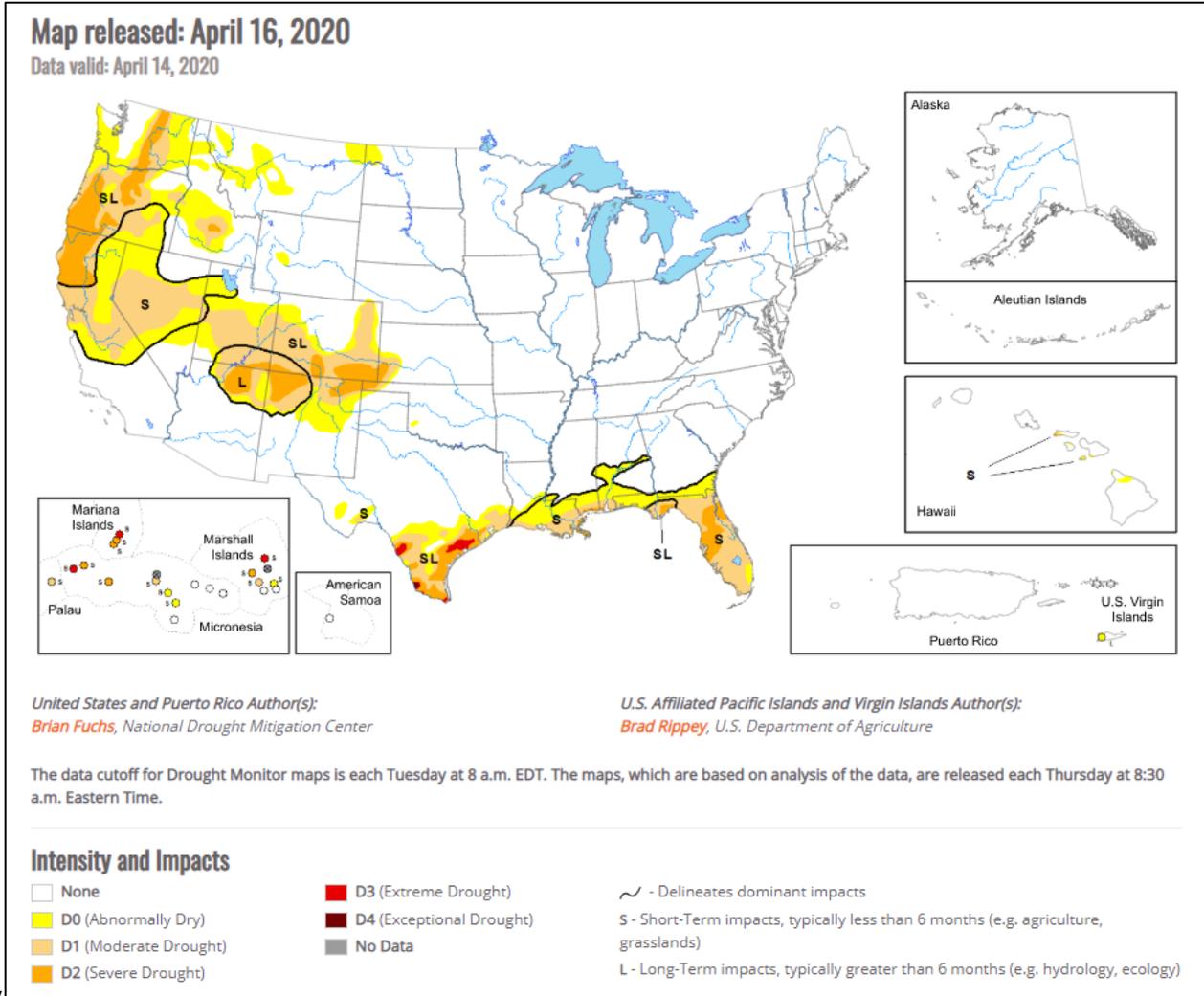
Drought

[U.S. Drought Monitor](#)

Source: National Drought Mitigation Center

[U.S. Drought Portal](#)

Source: NOAA



Current [National Drought Summary](#), April 16, 2020

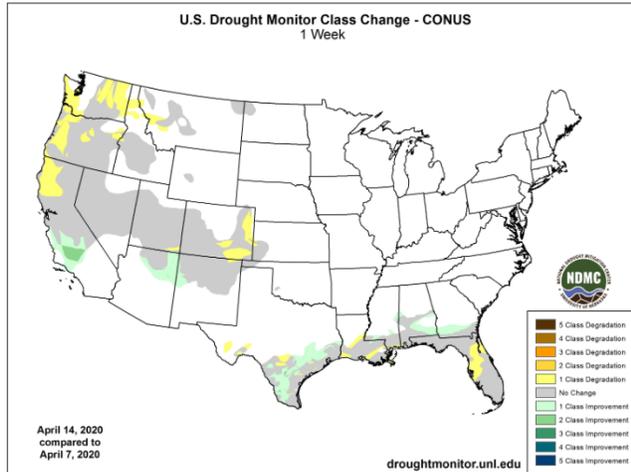
Source: National Drought Mitigation Center

“An active pattern brought snow, rain, thunderstorms and severe weather over much of the United States. Most of the precipitation was east of the Missouri River valley and the greatest amounts were centered over Tennessee, Arkansas, Kentucky, western Virginia and the northern portions of Mississippi, Alabama, and Georgia, where more than 3 inches of rain was widespread. Southern California also had record-breaking rains continue, while snow was recorded in portions of the northern Plains and Midwest. Temperatures were generally warmer than normal over the country with just the Southwest and northern Plains being below normal. The greatest departures were in Florida where temperatures were 6-8 degrees above normal for the week and in Montana and southern California where temperatures were more than 10 degrees below normal.”

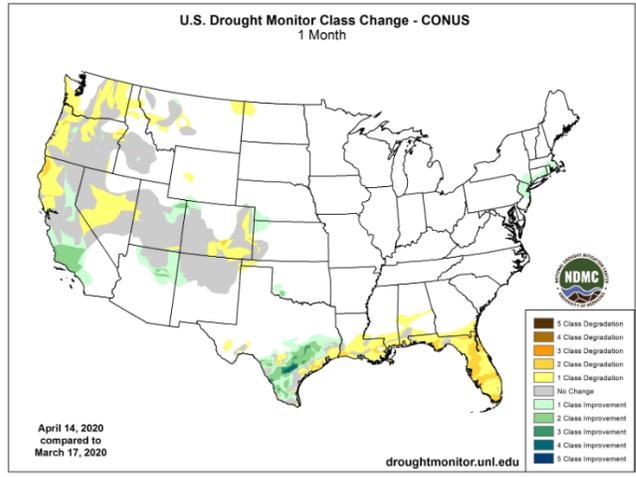
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

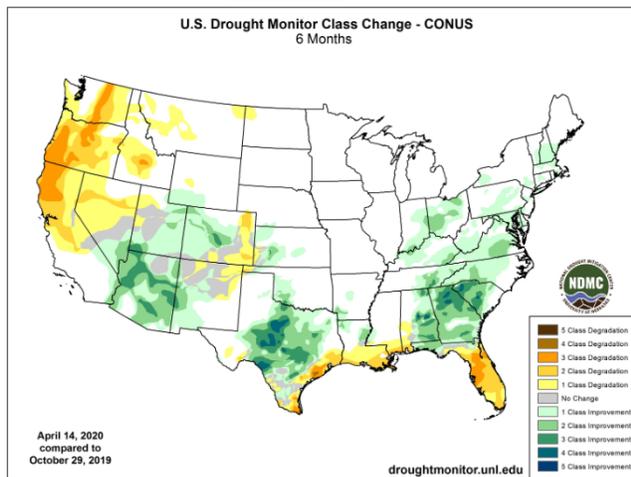
1 Week



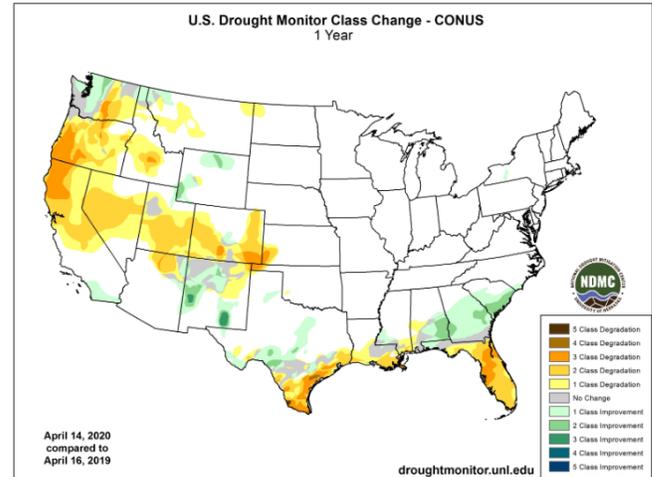
1 Month



6 Months



1 Year



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

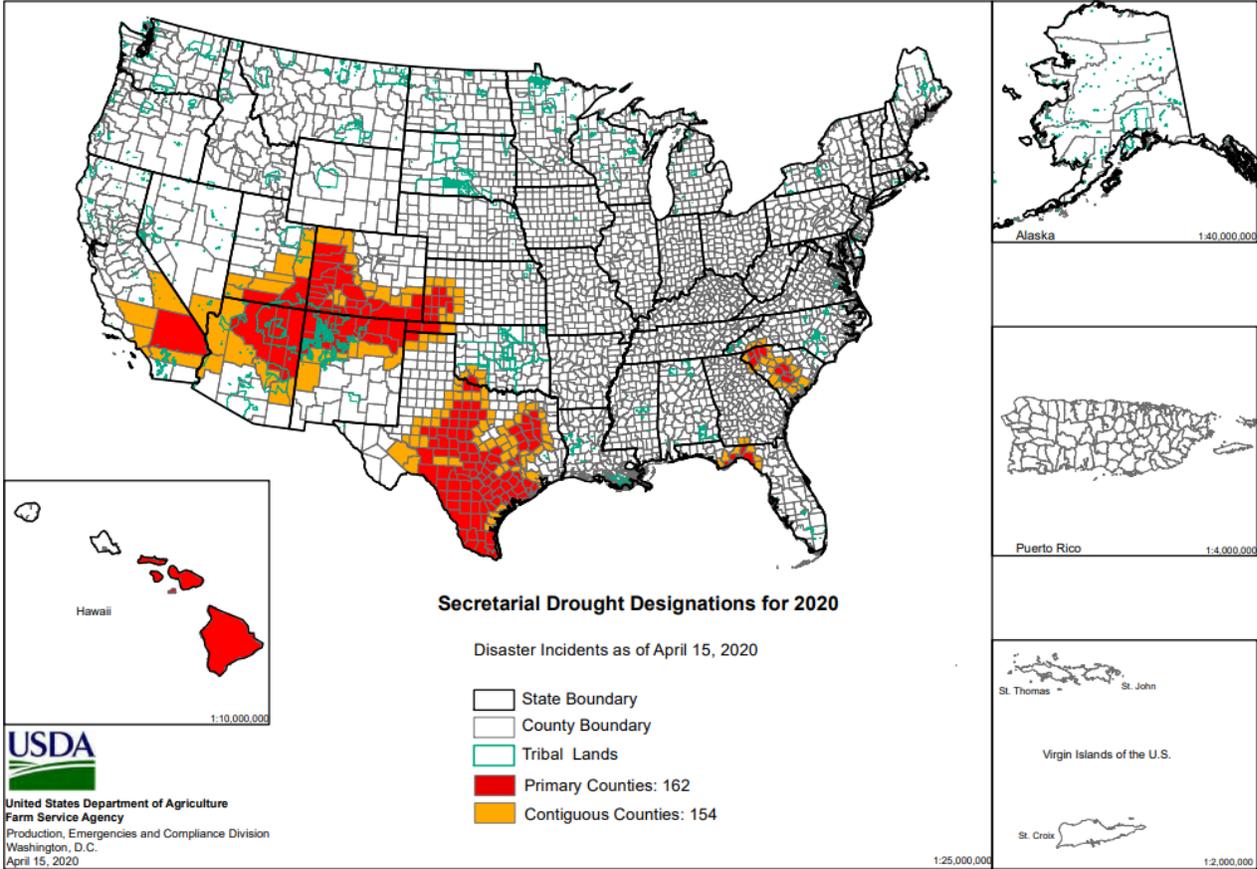
Highlighted Drought Resources

- [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

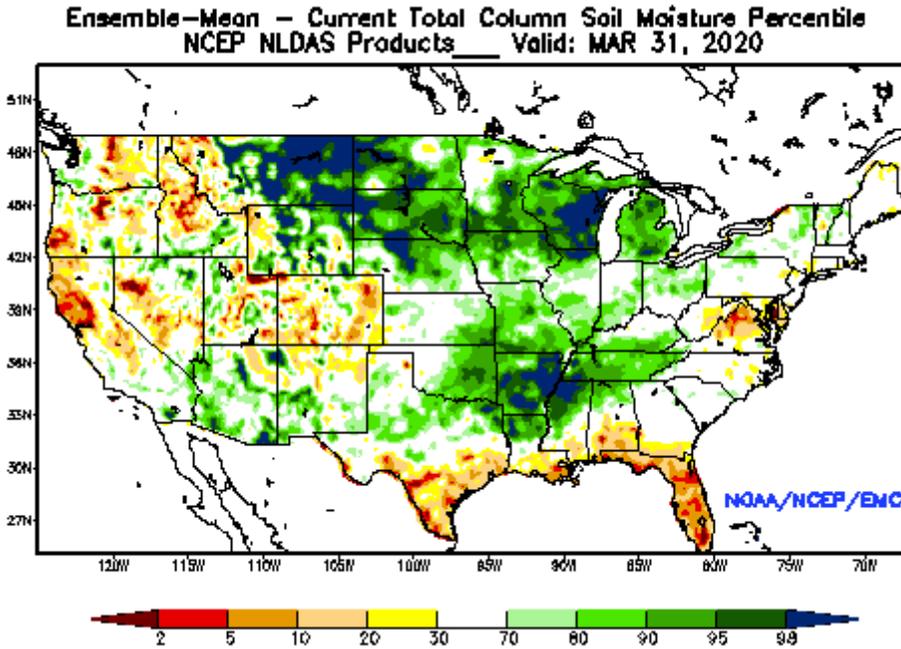
2020 Secretarial Drought Designations - All Drought



Other Climatic and Water Supply Indicators

Soil Moisture

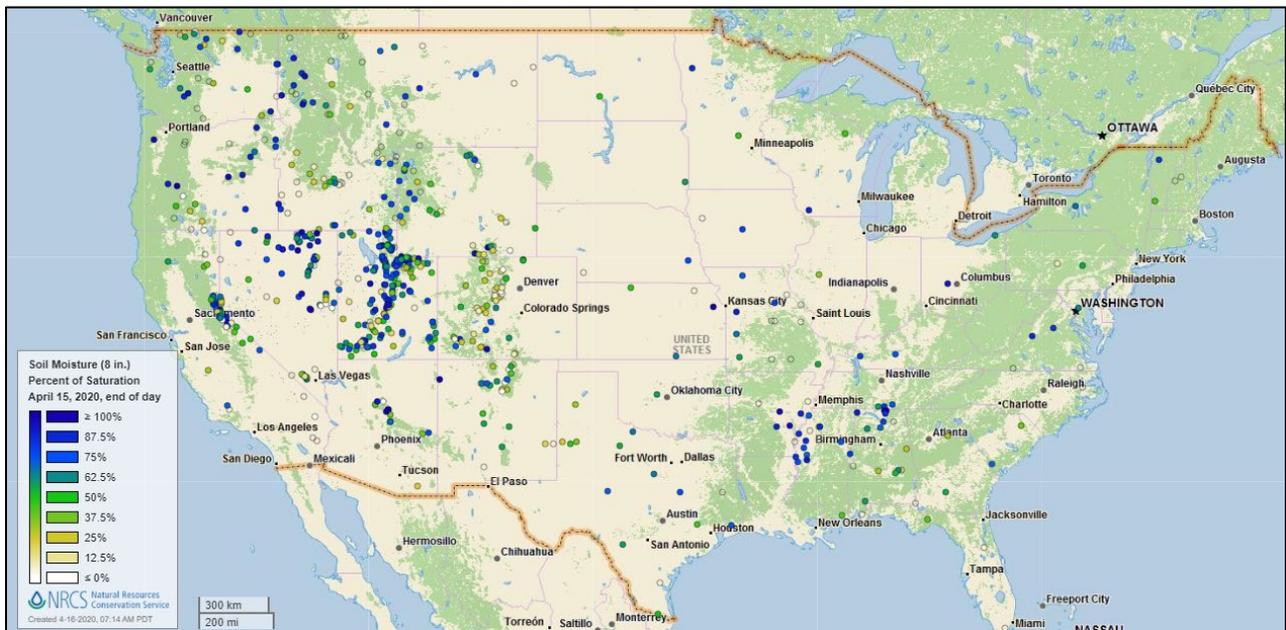
Source: NOAA National Centers for Environmental Prediction



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

Soil Moisture Percent of Saturation

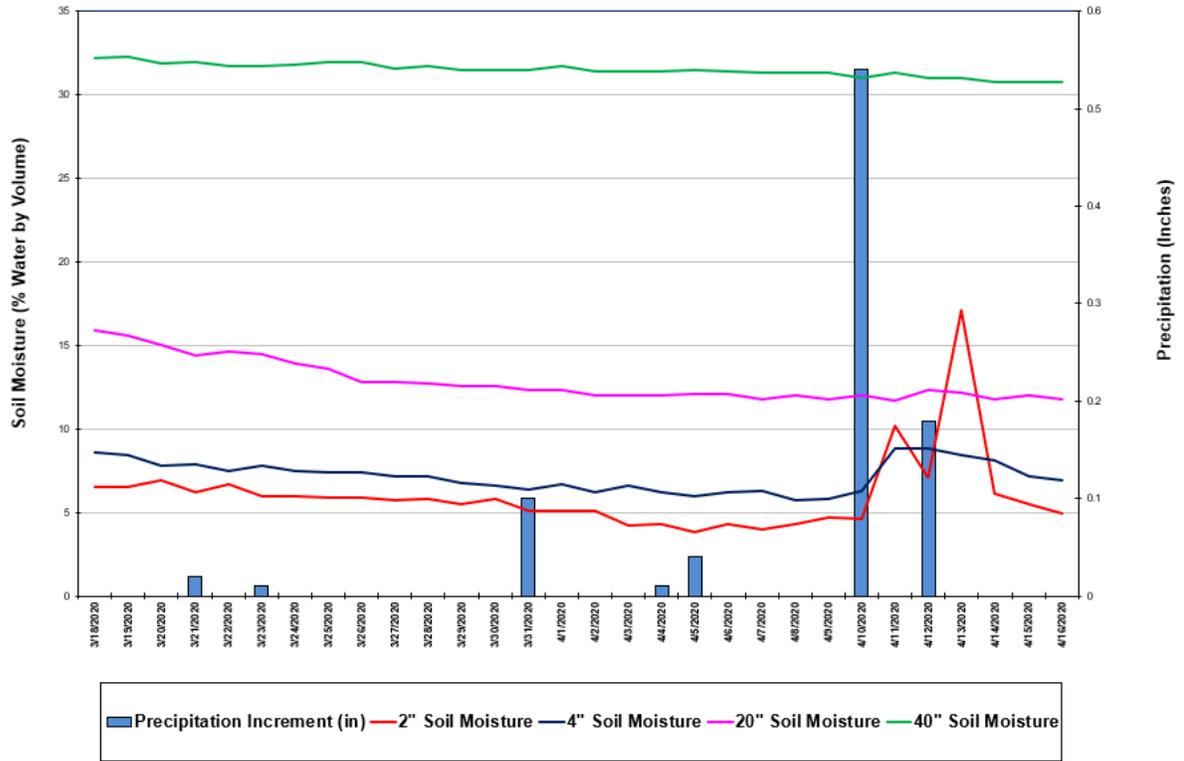
Source: NRCS SNOTEL and [Soil Climate Analysis Network](#) (SCAN)



Soil Moisture Data

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

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



This chart shows the soil moisture and precipitation for the last 30 days at the [Koptis Farms](#) SCAN site in Alabama. The recent precipitation event resulted in increased soil moisture at the -2” and -4” levels, whereas the -20” and -40” depths showed little change. Accumulated precipitation for the 30-day period totaled 0.9 inches.

Soil Moisture Data Portals

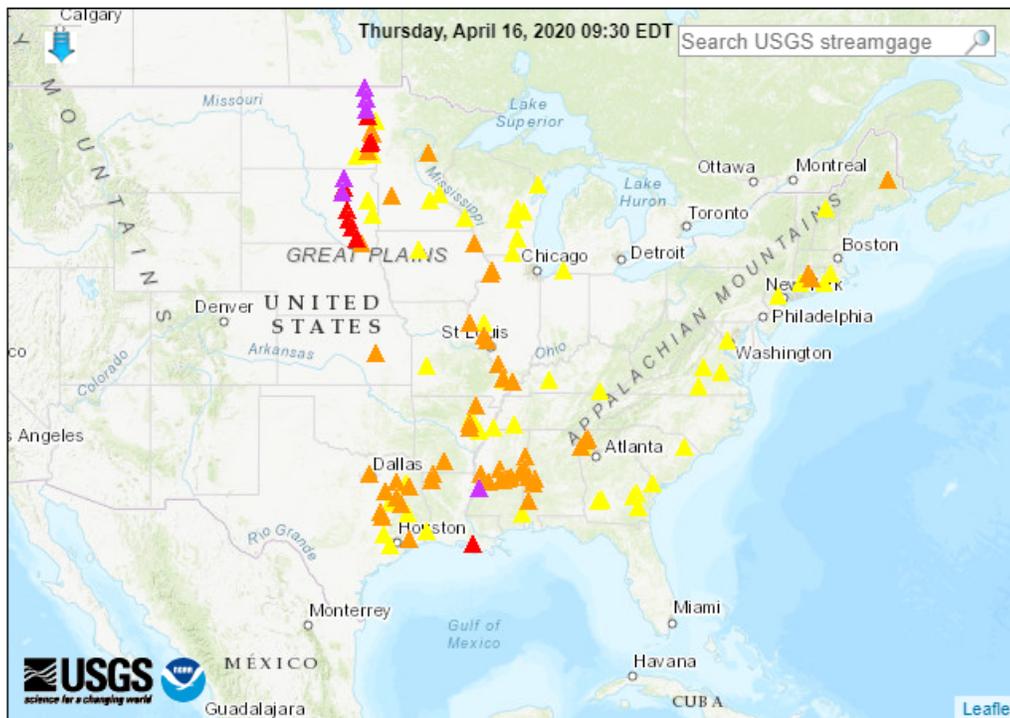
- [CRN Soil Moisture](#)
- [Texas A&M University North American Soil Moisture Database](#)
- [University of Washington Experimental Modeled Soil Moisture](#)

Streamflow, Drought, Flood, and Runoff

Source: U.S. Geological Survey

Map of flood and high flow conditions

(68 in floods [major: 6, moderate: 9, minor: 53], 50 in near-flood)



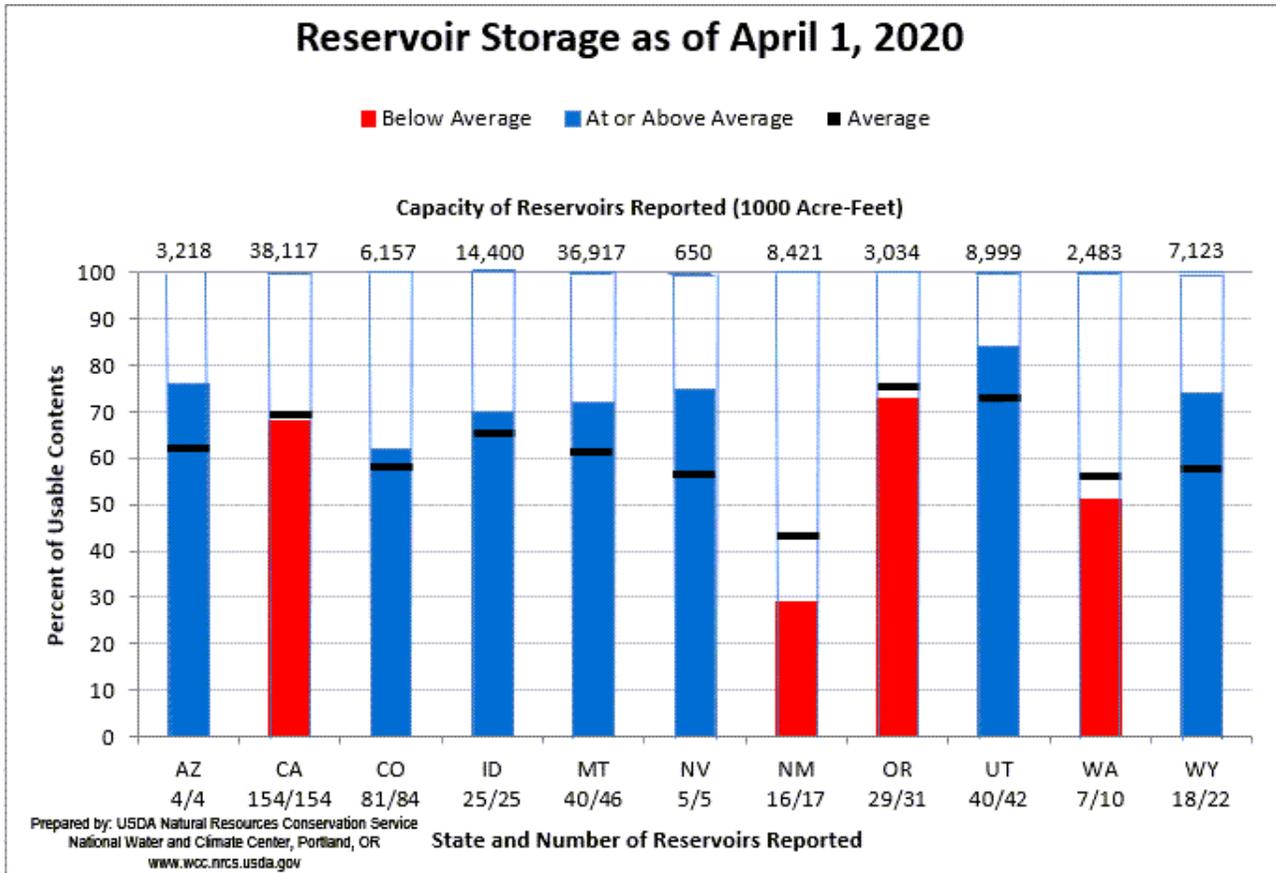
Explanation - Percentile classes						
<95	95-98	>= 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage
			▲ Streamgage with flood stage	○ Streamgage without flood stage		

[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](#)

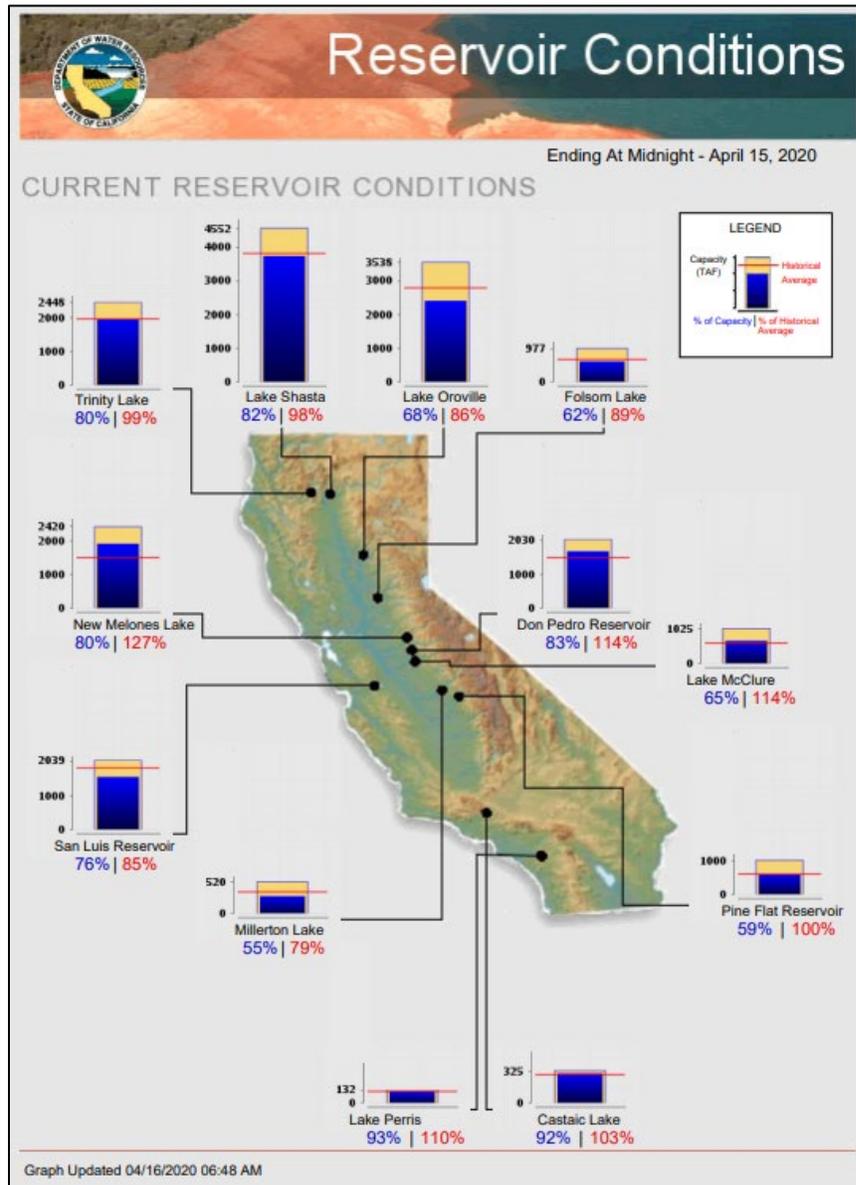
Hydromet Teacup Reservoir Depictions

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

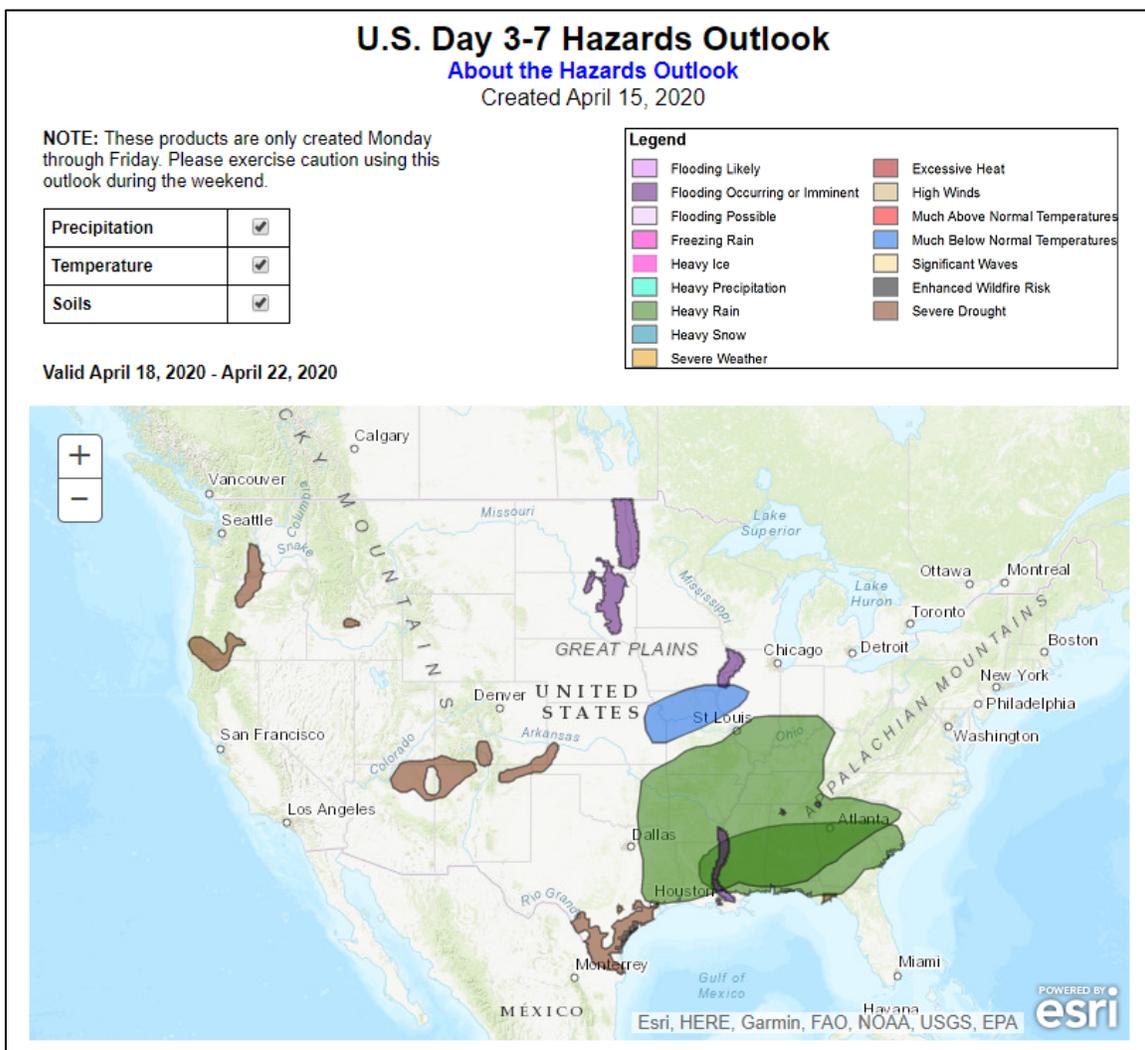
Agricultural Weather Highlights

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

National Outlook, Thursday, April 16, 2020: “For the remainder of today, a late-season snowstorm will continue to unfold across the nation’s mid-section, with accumulations expected across the central Rockies and from Nebraska into southern Iowa and northern Missouri. By Friday, wintry precipitation will gradually end across the Midwest, while snow should spread into parts of New York and Pennsylvania. Meanwhile, rain will return during the weekend across the South, where 1 to 3 inches may occur from the Mississippi Delta into Georgia and the Carolinas. In contrast, little or no precipitation will fall during the next 5 days in the Pacific Northwest, the Southwest, and the north-central U.S. Elsewhere, cold conditions will gradually ease in many areas, with above-normal temperatures arriving by early next week throughout the Northwest and across the northern half of the Plains. The NWS 6- to 10-day outlook for April 21 – 25 calls for below-normal temperatures from the Great Lakes region into the Northeast, while warmer-than-normal weather will cover the Deep South and areas from the Pacific Coast to the Plains. Meanwhile, near- or above-normal precipitation will prevail nationwide, with the greatest likelihood of wet conditions in the Southeast.”

Weather Hazards Outlook: [April 18 – 22, 2020](#)

Source: NOAA Weather Prediction Center

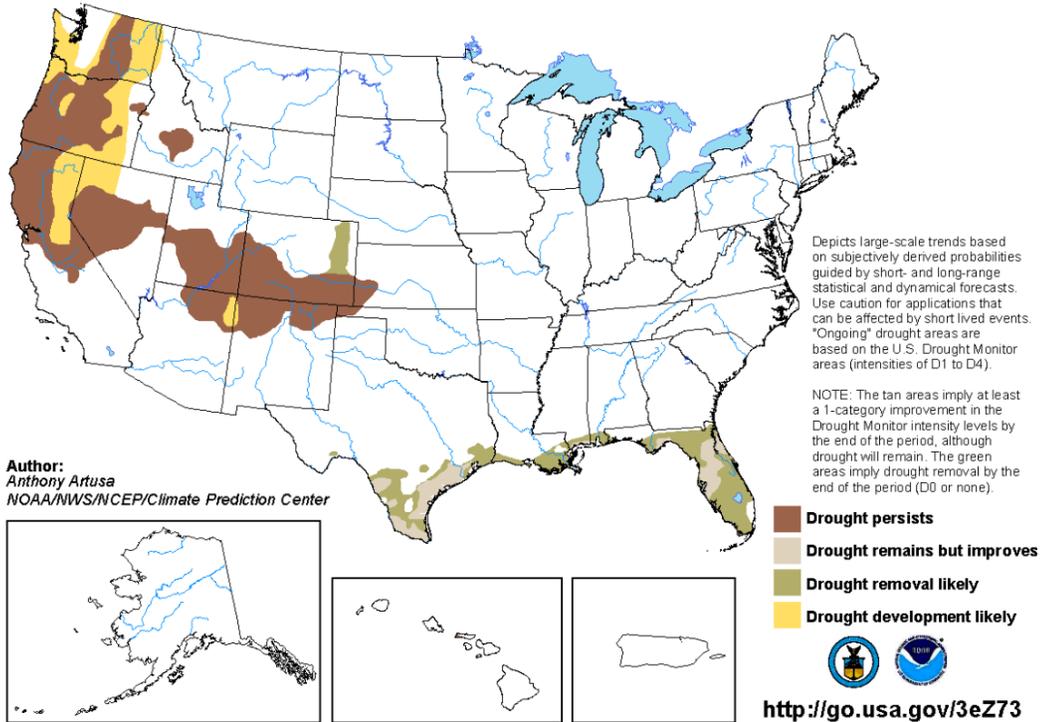


Seasonal Drought Outlook: [April 16 – July 31, 2020](#)

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

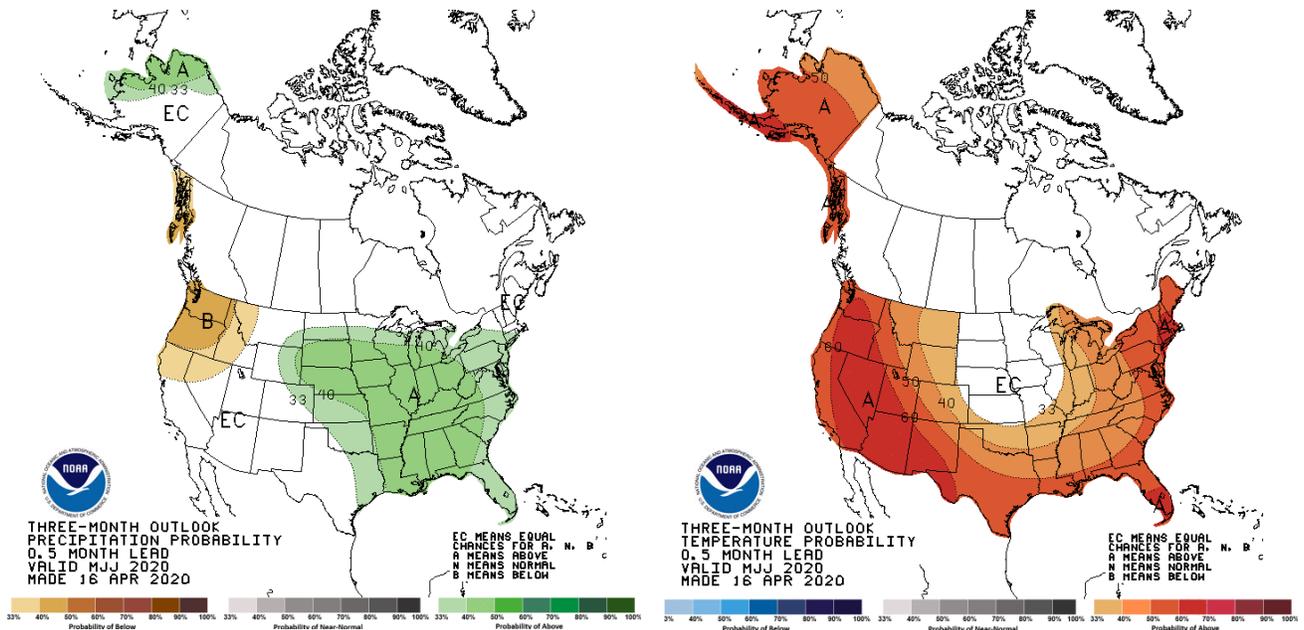


Climate Prediction Center 3-Month Outlook

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](#).