

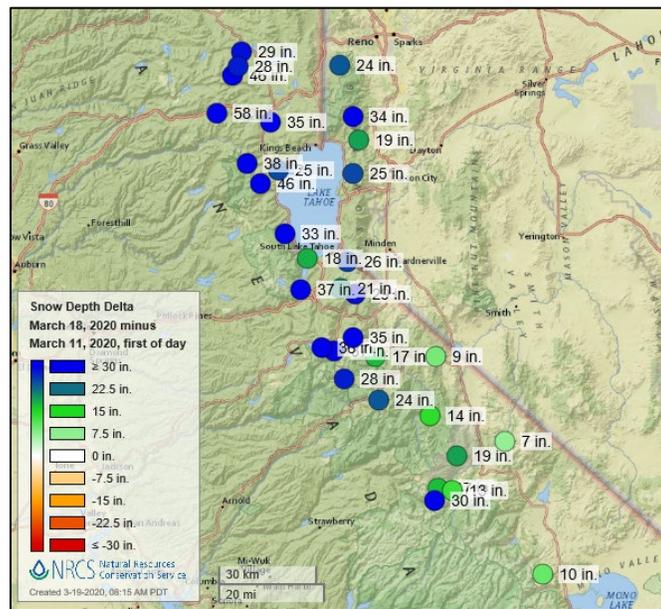
Water and Climate Update

March 19, 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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Precipitation	4	Short- and Long-Range Outlooks.....	18
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Accumulation of snow in the Sierra Nevada increases low snowpack

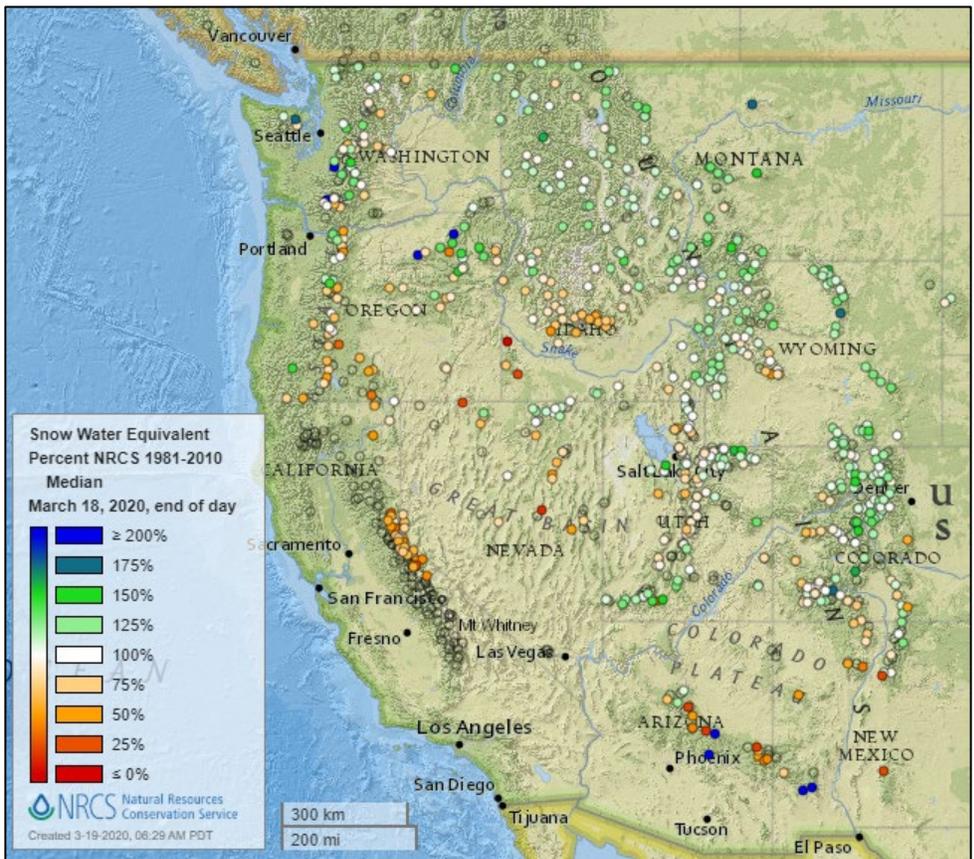


A late winter storm in the Sierra Nevada left up to many feet of snow across the mountain range. Just a week ago most of the snowpack in the area was at less than 60 percent of normal, with the lower elevation SNOTEL sites having a snowpack in the 30 percent range. Snowpack increases at SNOTEL sites in the area showed a 7-day increase ranging from 7 inches at Lobdell Lake to 46 inches at Ward Creek and Independence Lake. There were highway closures and chain restrictions across the mountains and power outages in the California foothills.

Related:

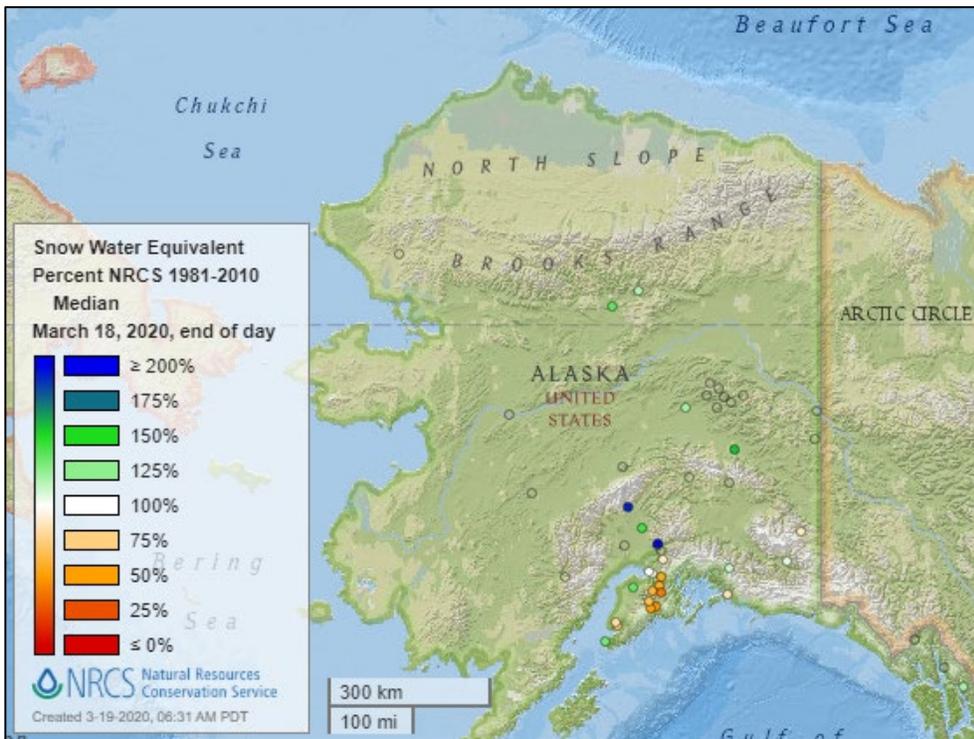
- [California mountains blanketed in snow after March storms – SF gate \(CA\)](#)
- [Thousands in Sierra foothills going days without power as snow pounds Northern California – Sacramento Bee \(CA\)](#)
- [Late-Winter Storm Brings Rain, Mountain Snow – NBC Bay Area\(CA\)](#)
- [Winter storm a massive boost for Sierra snowpack – Tahoe Daily Tribune.com \(CA\)](#)
- [California storm dumps up to 70 inches of snow, making small dent in massive snowpack deficit – Washington Post](#)
- [Snow Snarls Reno Traffic, Sierra Chain Controls on I-80 – US NEWS and World Report](#)

Snow



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

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

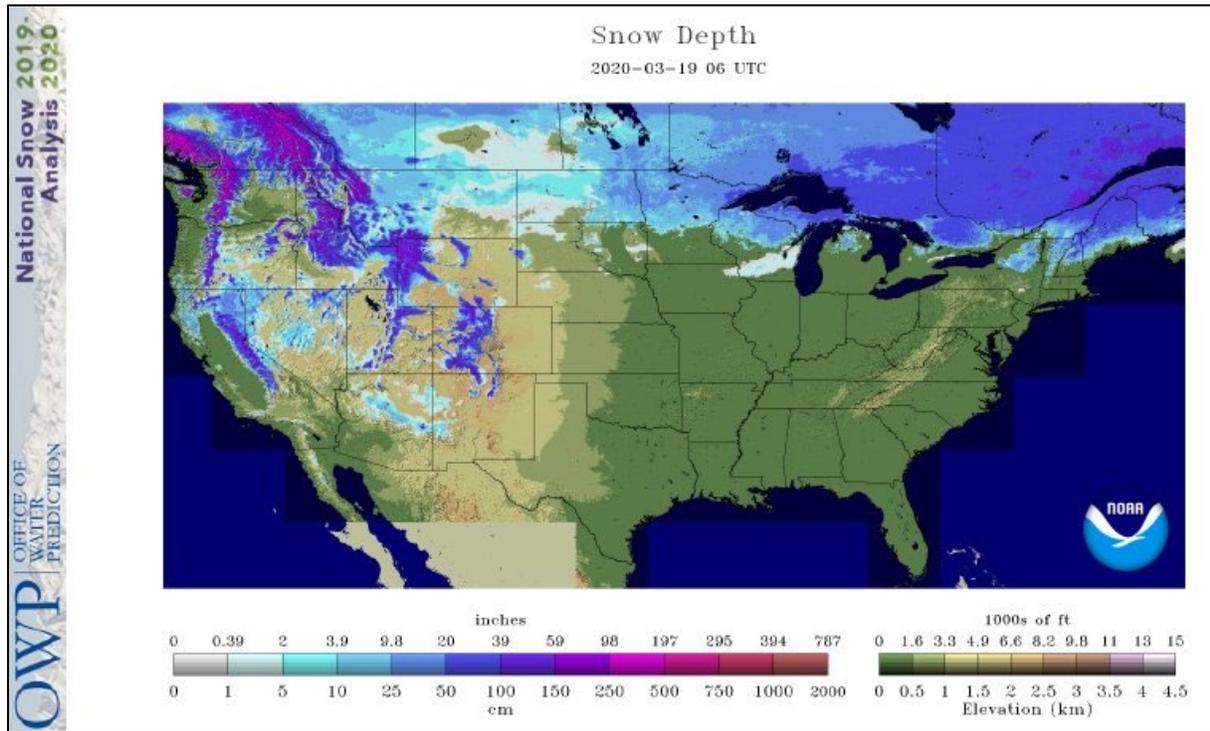


[Alaska snow water equivalent percent of median map](#)

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

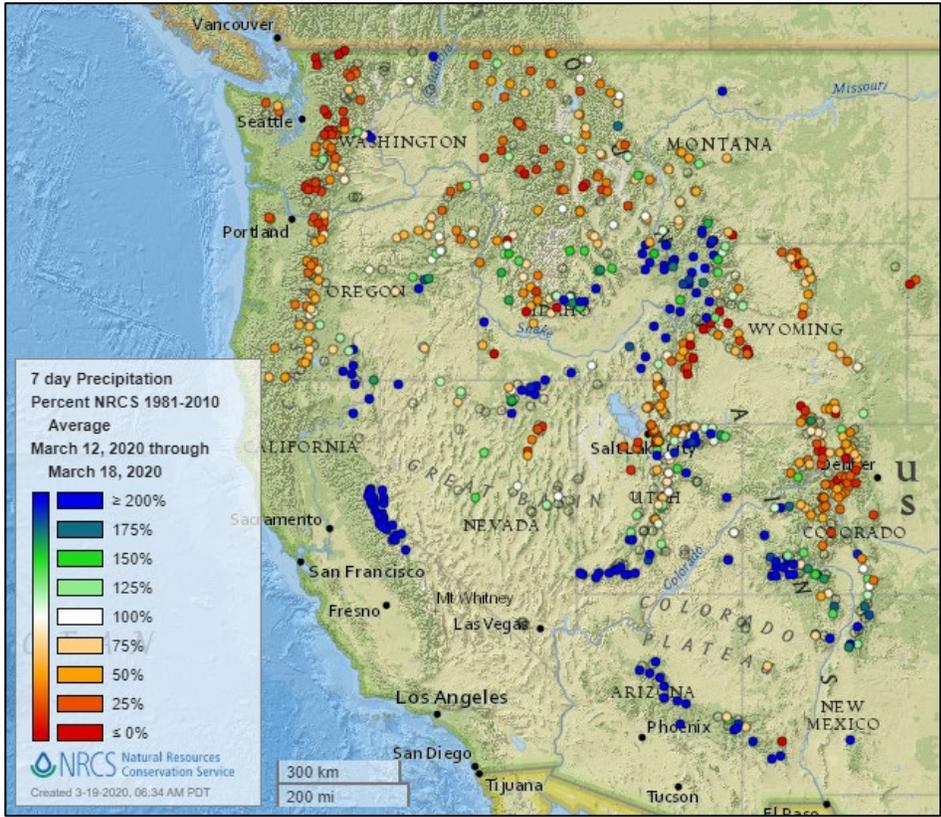
Current Snow Depth, National Weather Service Snow Analysis

Source: NOAA Office of Water Prediction



Precipitation

Last 7 Days, NRCS SNOTEL Network

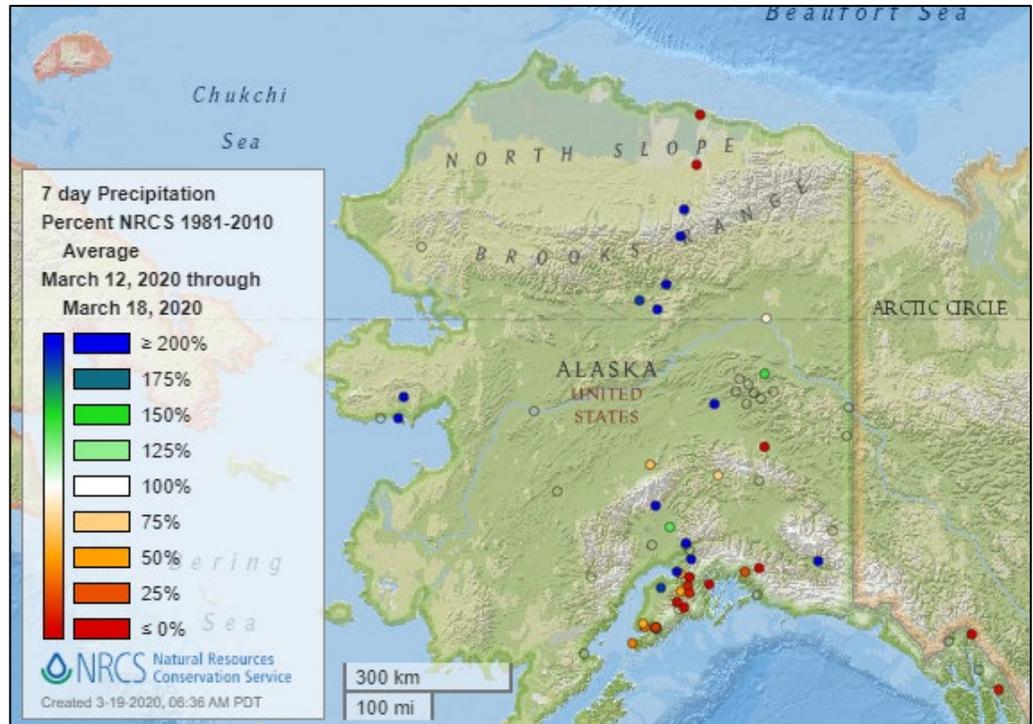


[7-day precipitation percent of average map](#)

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

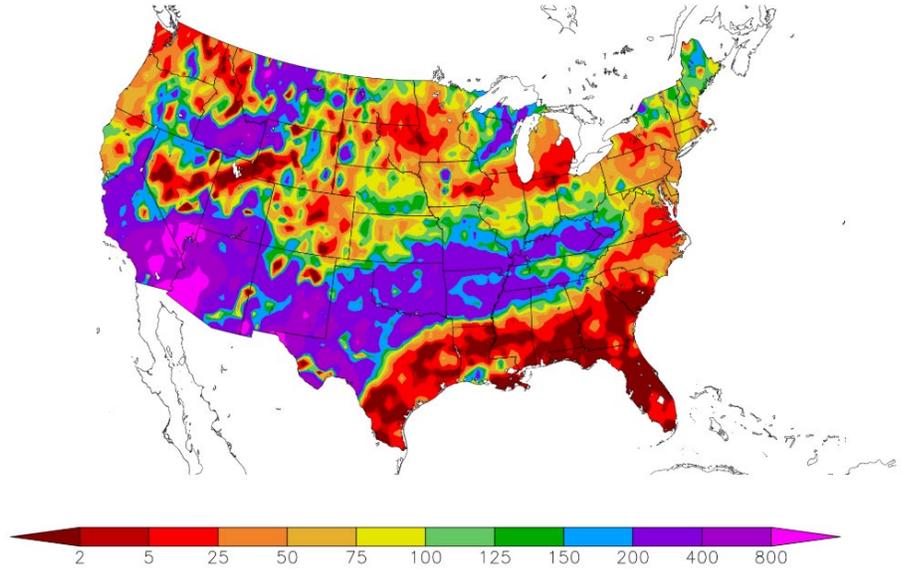
Last 7 Days, National Weather Service (NWS) Networks

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 (%)
3/11/2020 – 3/17/2020



Generated 3/18/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

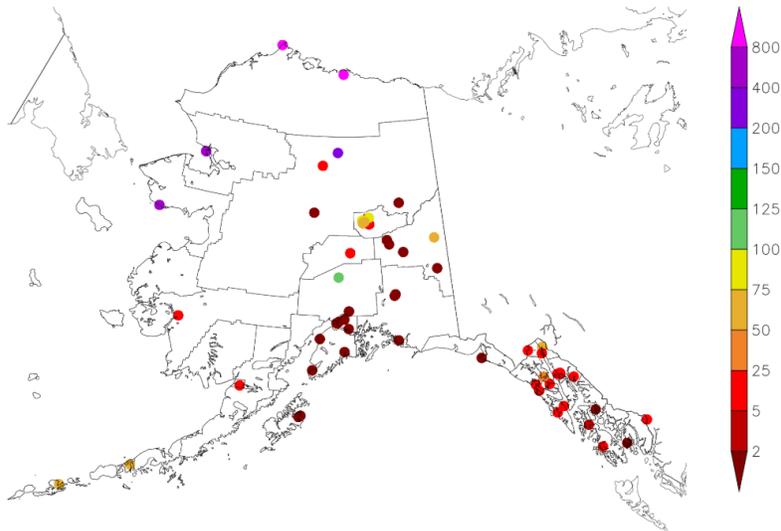
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)
3/11/2020 – 3/17/2020



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NOAA Regional Climate Centers

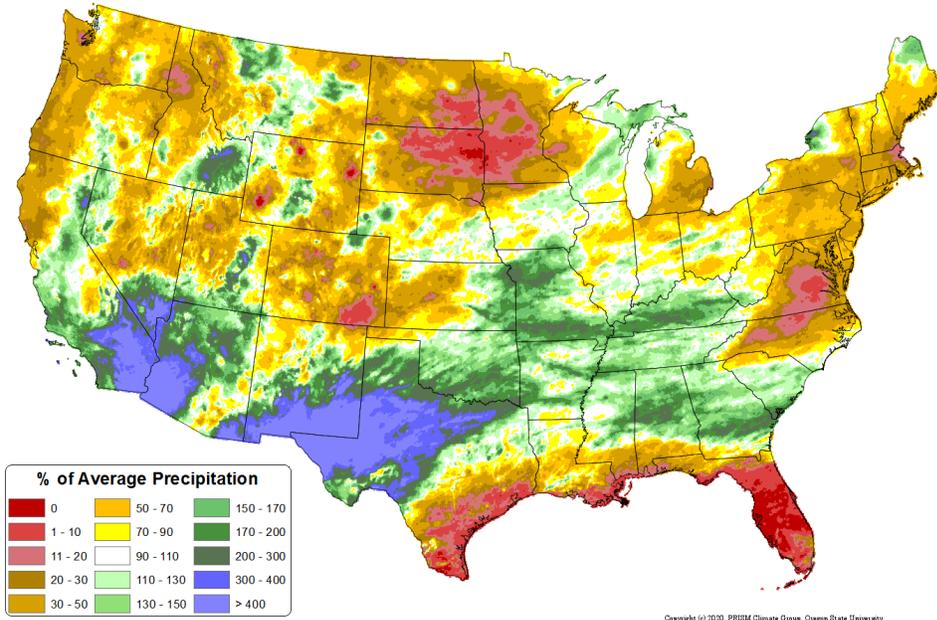
Water and Climate Update

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

Source: PRISM

Total Precipitation Anomaly: 01 Mar 2020 - 18 Mar 2020
Period ending 7 AM EST 18 Mar 2020
Base period: 1981-2010
(Map created 19 Mar 2020)

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

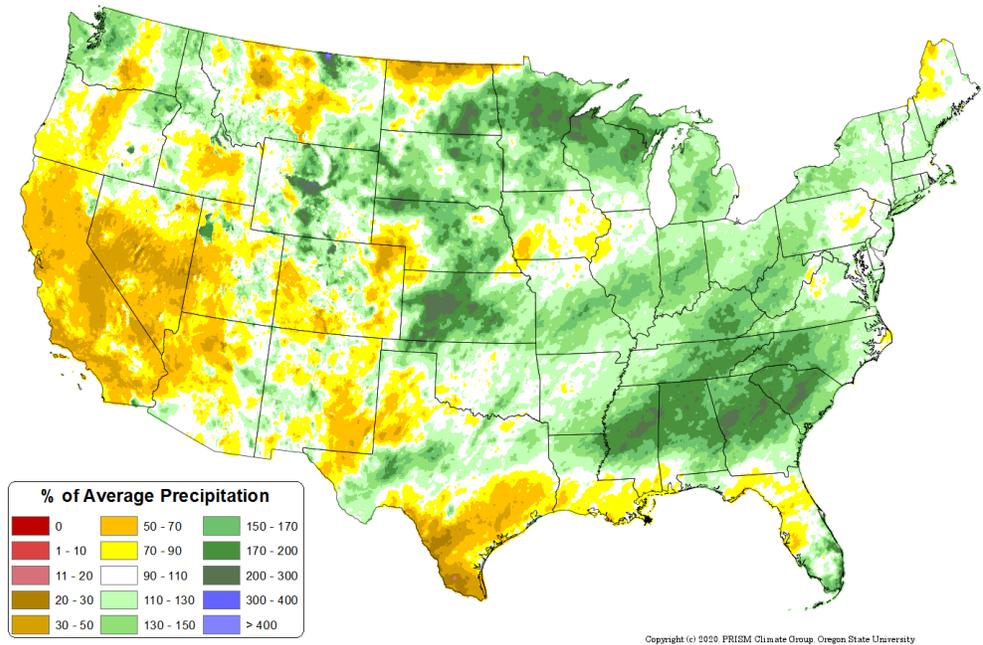


Last 3 Months, All Available Data Including SNOTEL and NWS Networks

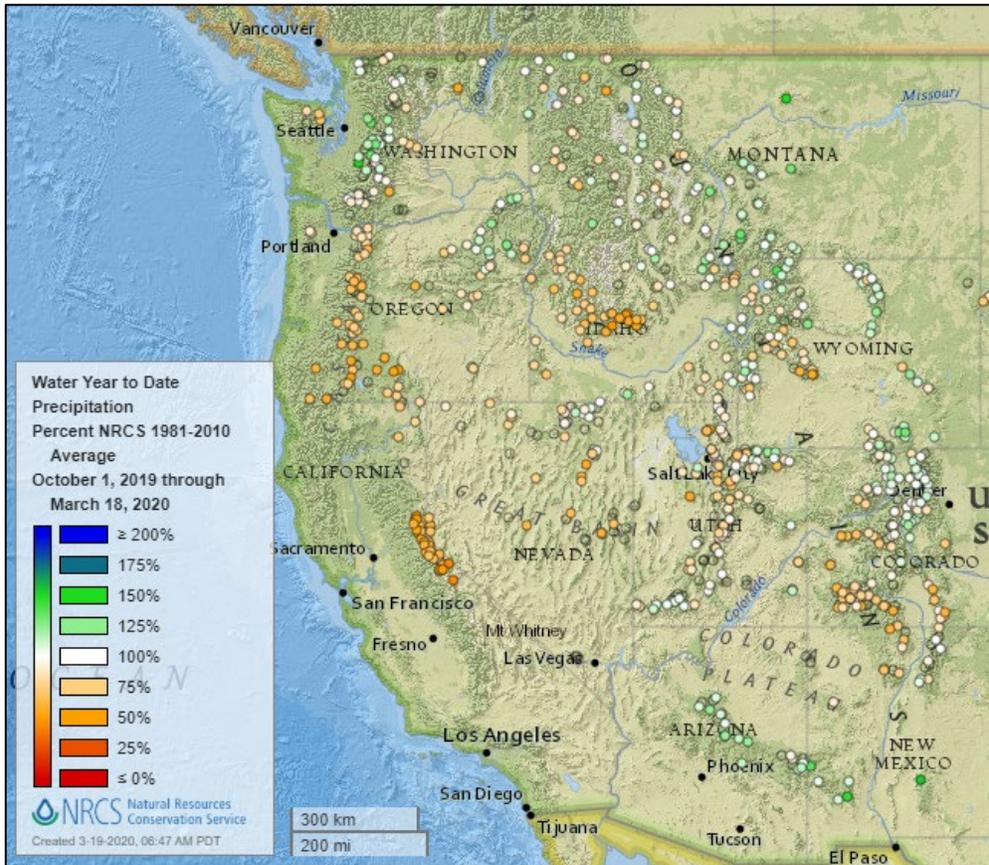
Source: PRISM

[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)

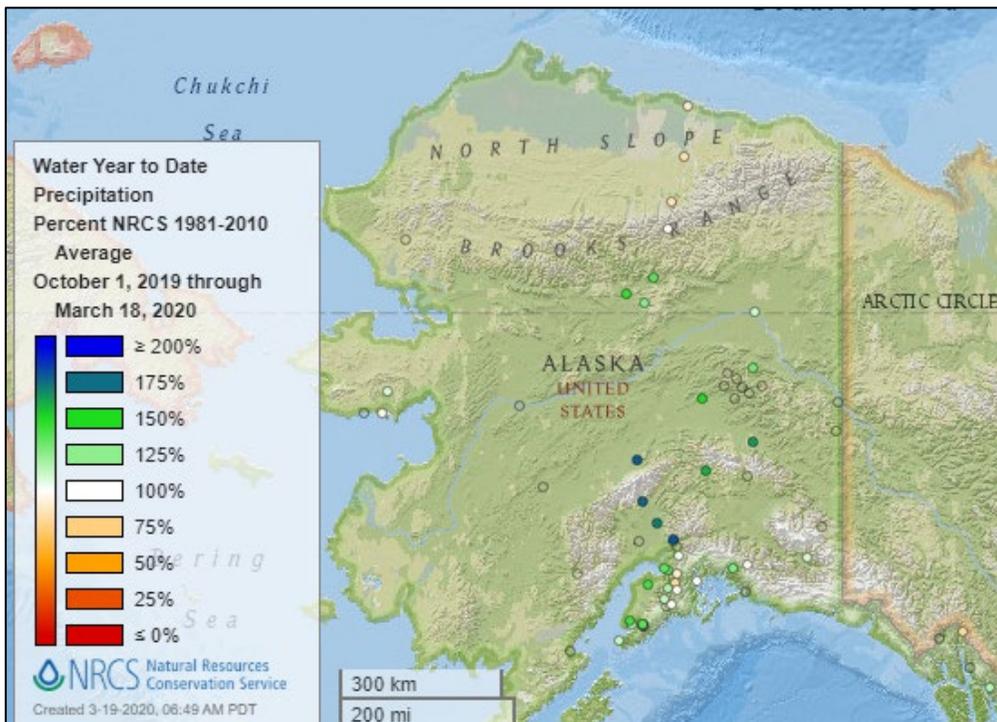


Water Year-to-Date, NRCS SNOTEL Network



[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

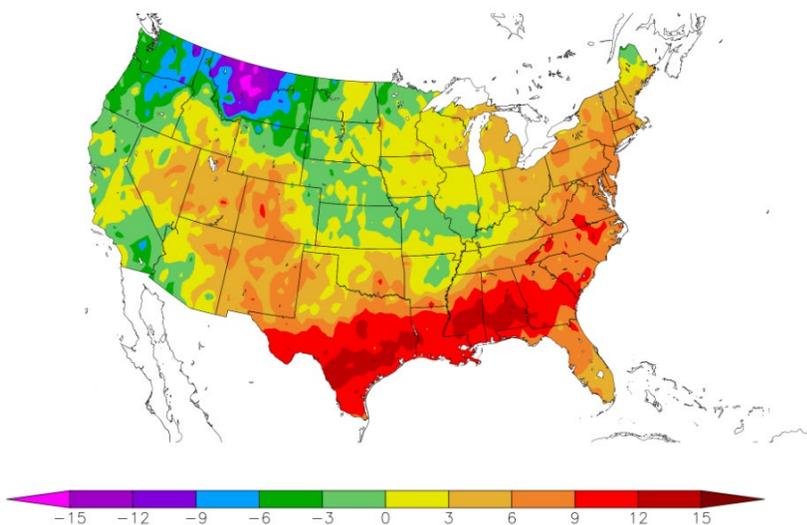
Last 7 Days, National Weather Service (NWS) Networks

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)
3/11/2020 – 3/17/2020



Generated 3/18/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

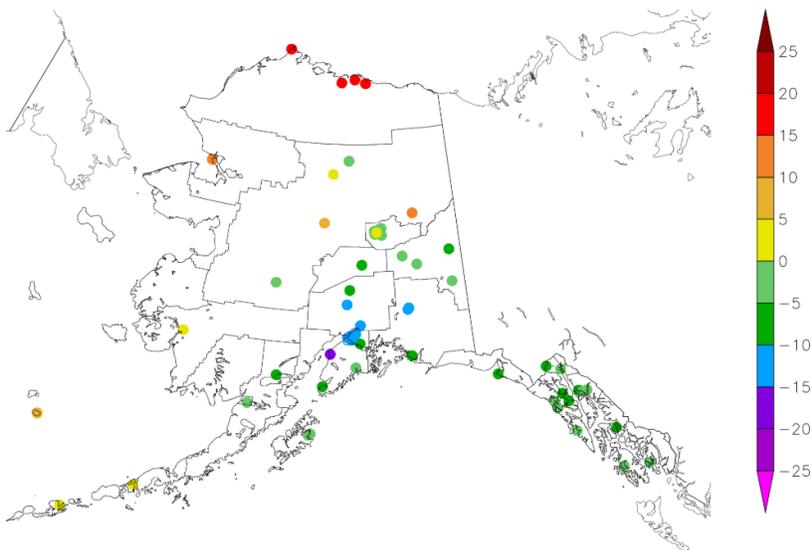
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
3/11/2020 – 3/17/2020



Generated 3/18/2020 at HPRCC using provisional data.

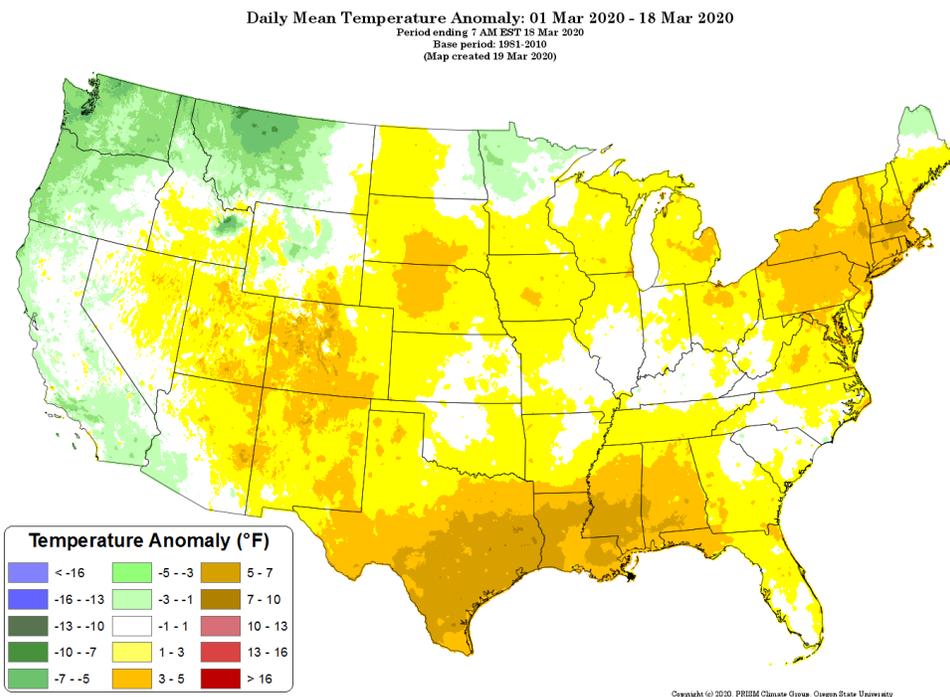
NOAA Regional Climate Centers

Water and Climate Update

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

Source: PRISM

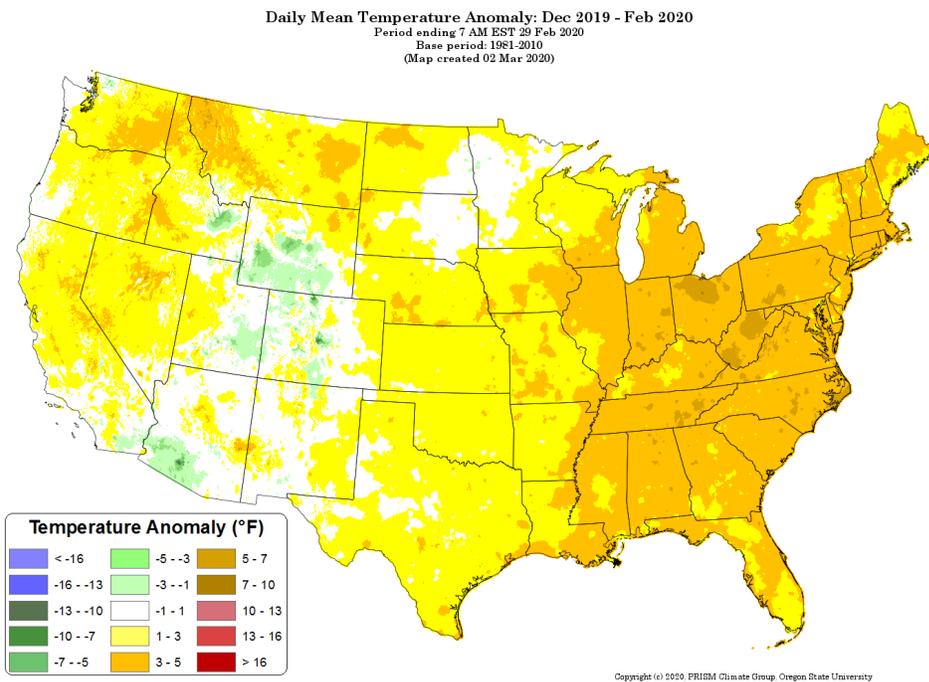
[Month-to-date national daily mean temperature anomaly map](#)



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

Source: PRISM

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



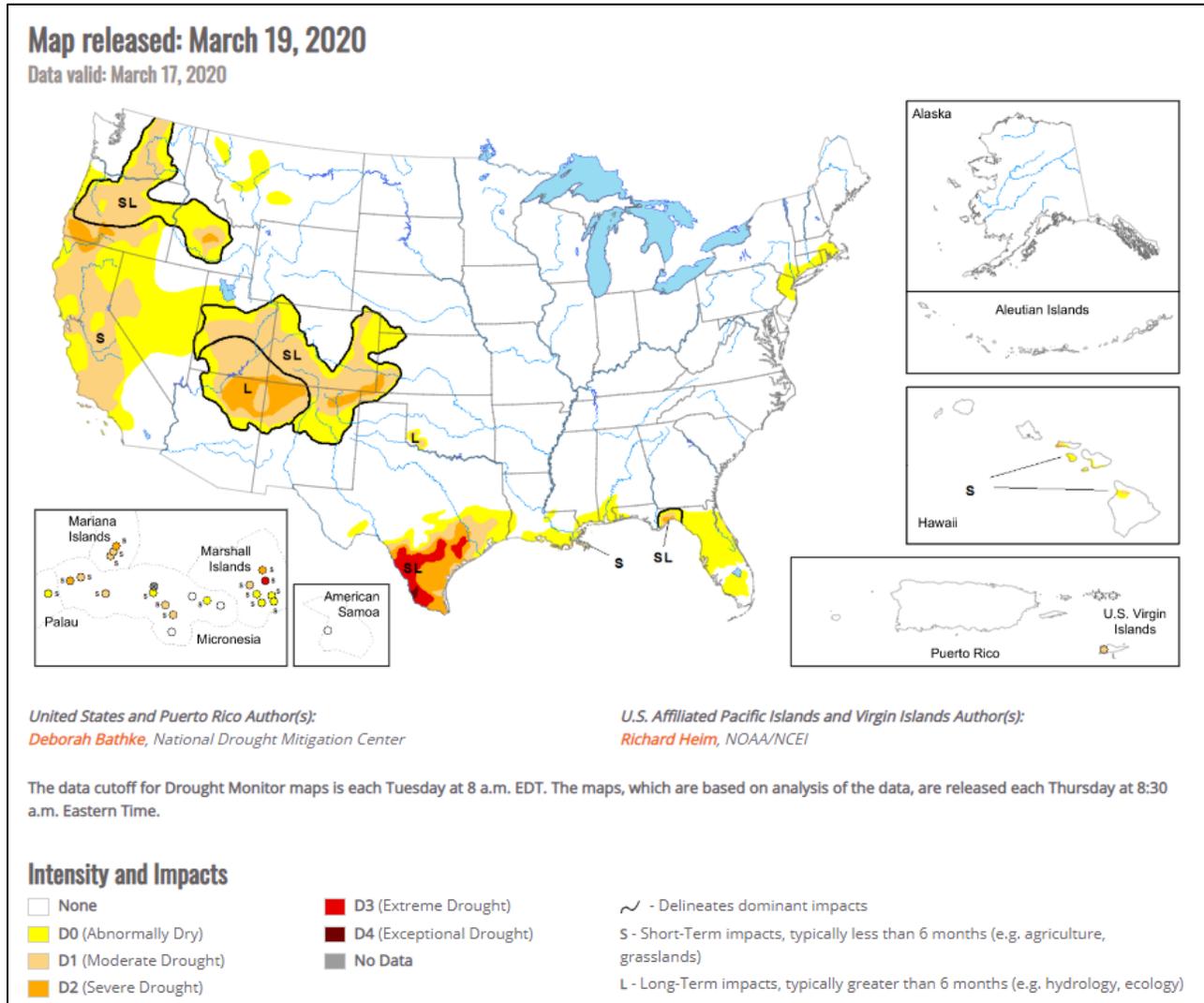
Drought

[U.S. Drought Monitor](#)

Source: National Drought Mitigation Center

[U.S. Drought Portal](#)

Source: NOAA



Current [National Drought Summary](#), March 19, 2020

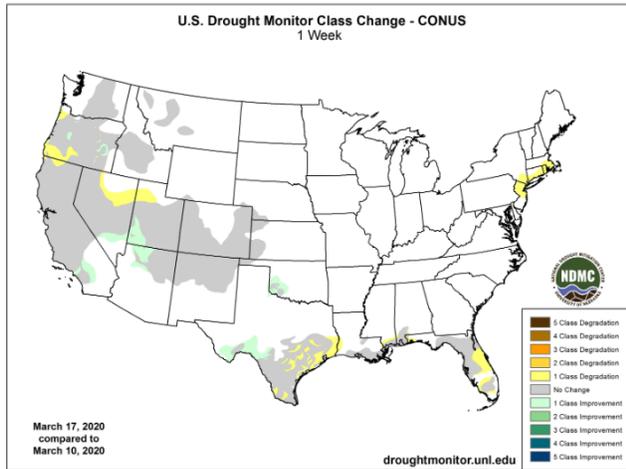
Source: National Drought Mitigation Center

“The U.S. Drought Monitor week ending March 17 saw another round of winter storms, bringing above normal precipitation to parts of the northern High Plains, Southwest, southern plains, and Tennessee Valley. Many areas recorded totals that exceeded 200% of normal over the seven-day period, leading to improvements to areas of abnormal dryness and drought in areas where the excess moisture erased deficits and improved soil moisture and streamflow. Once again, precipitation over the Northwest and Gulf Coast states was below normal with most areas having received less than 50% of their normal amount over the last 30 days. The lack of precipitation, combined with warmer than normal temperatures, led to expansions in pockets of abnormal dryness and drought.”

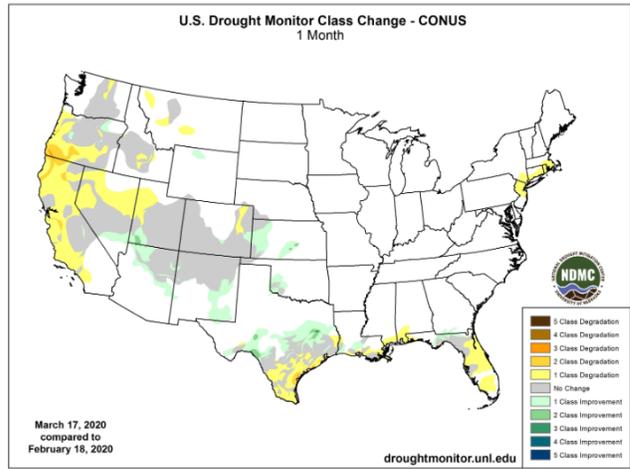
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

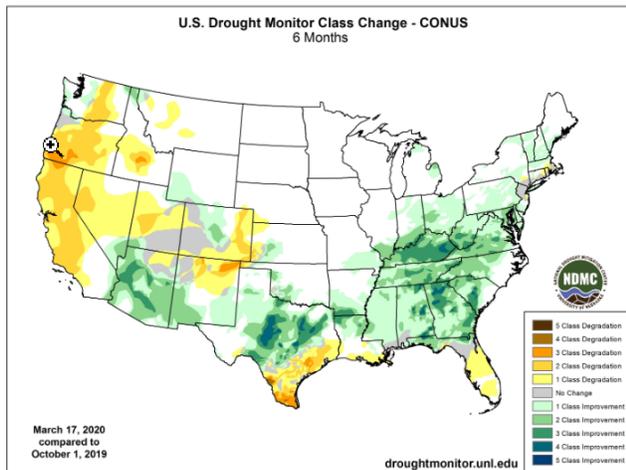
1 Week



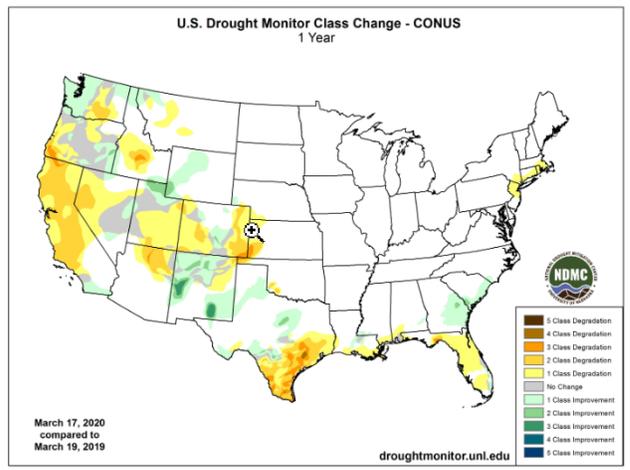
1 Month



6 Months



1 Year



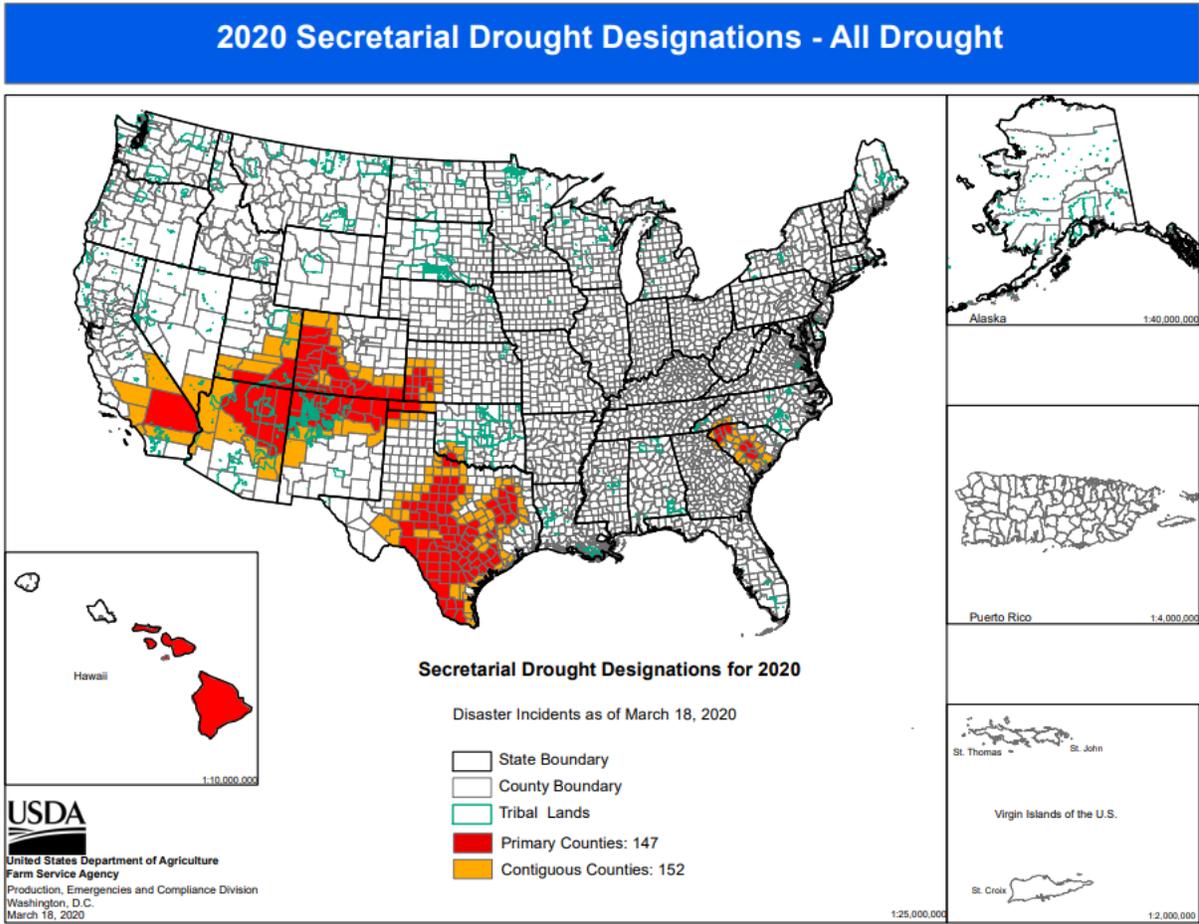
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

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

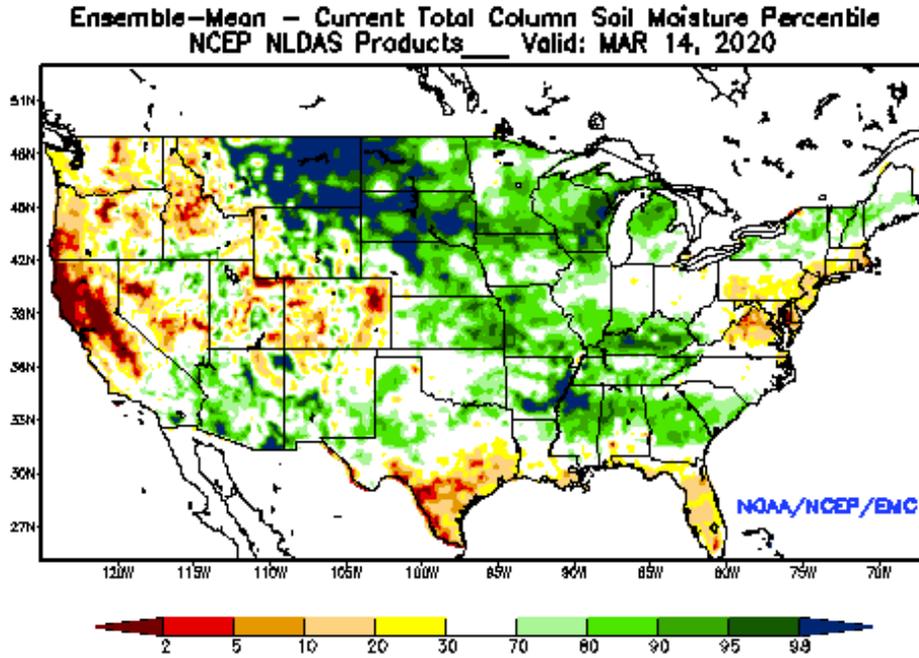
Source: USDA Farm Service Agency



Other Climatic and Water Supply Indicators

Soil Moisture

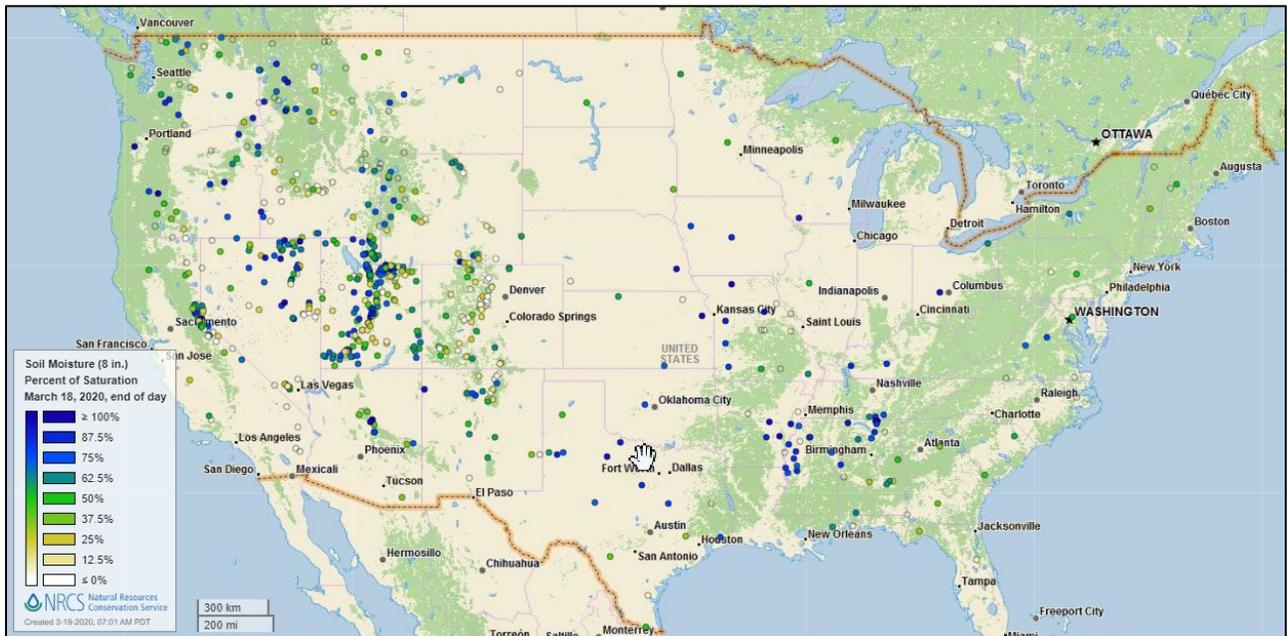
Source: NOAA National Centers for Environmental Prediction



[Modeled soil moisture percentiles](#) as of March 14, 2020

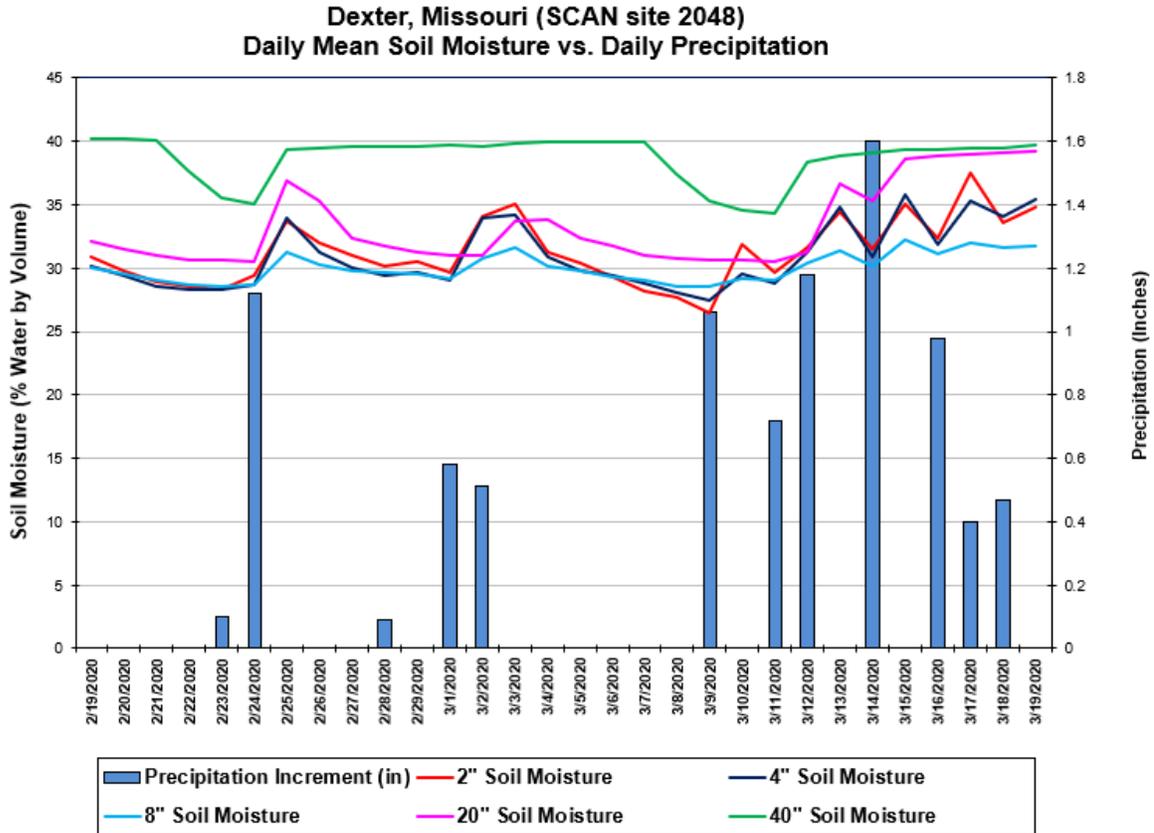
Soil Moisture Percent of Saturation

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



Soil Moisture Data

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



This chart shows the soil moisture and precipitation at the [Dexter](#) SCAN site in Missouri. This site has experienced several precipitation events in the last 30 days, resulting in increased soil moisture at the -2", -4", -8", and -20" sensor depths. Accumulated precipitation for the period totaled 8.81 inches.

Soil Moisture Data Portals

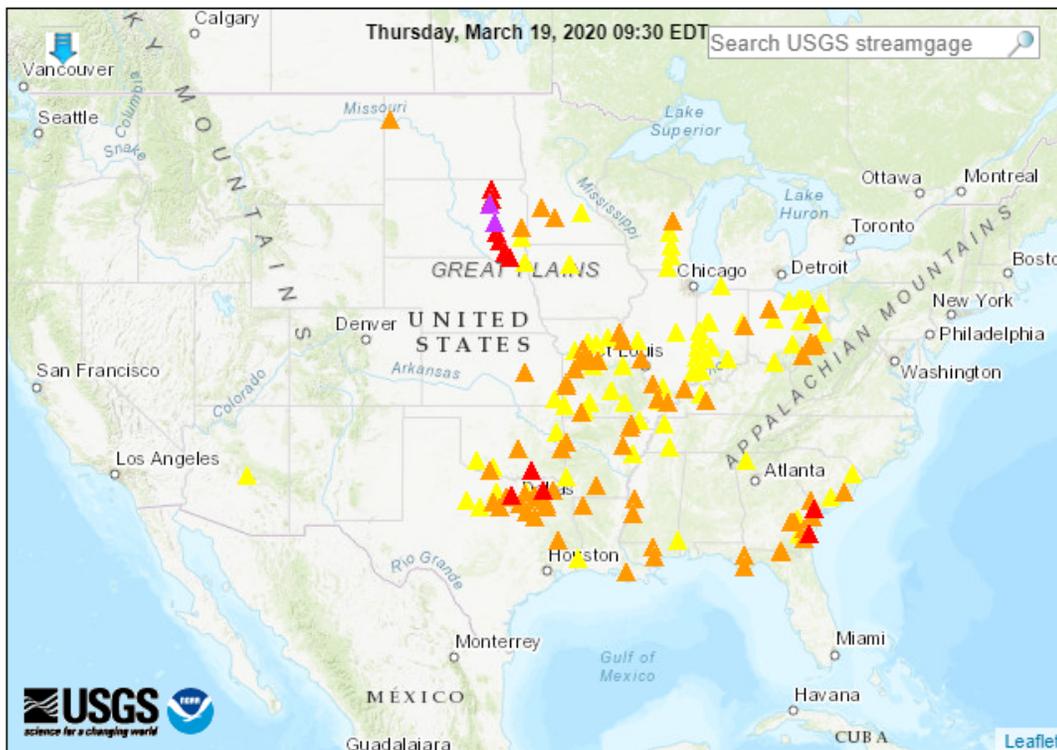
- [CRN Soil Moisture](#)
- [Texas A&M University North American Soil Moisture Database](#)
- [University of Washington Experimental Modeled Soil Moisture](#)

Streamflow, Drought, Flood, and Runoff

Source: U.S. Geological Survey

Map of flood and high flow conditions

(82 in floods [major: 2, moderate: 11, minor: 69], 70 in near-flood)



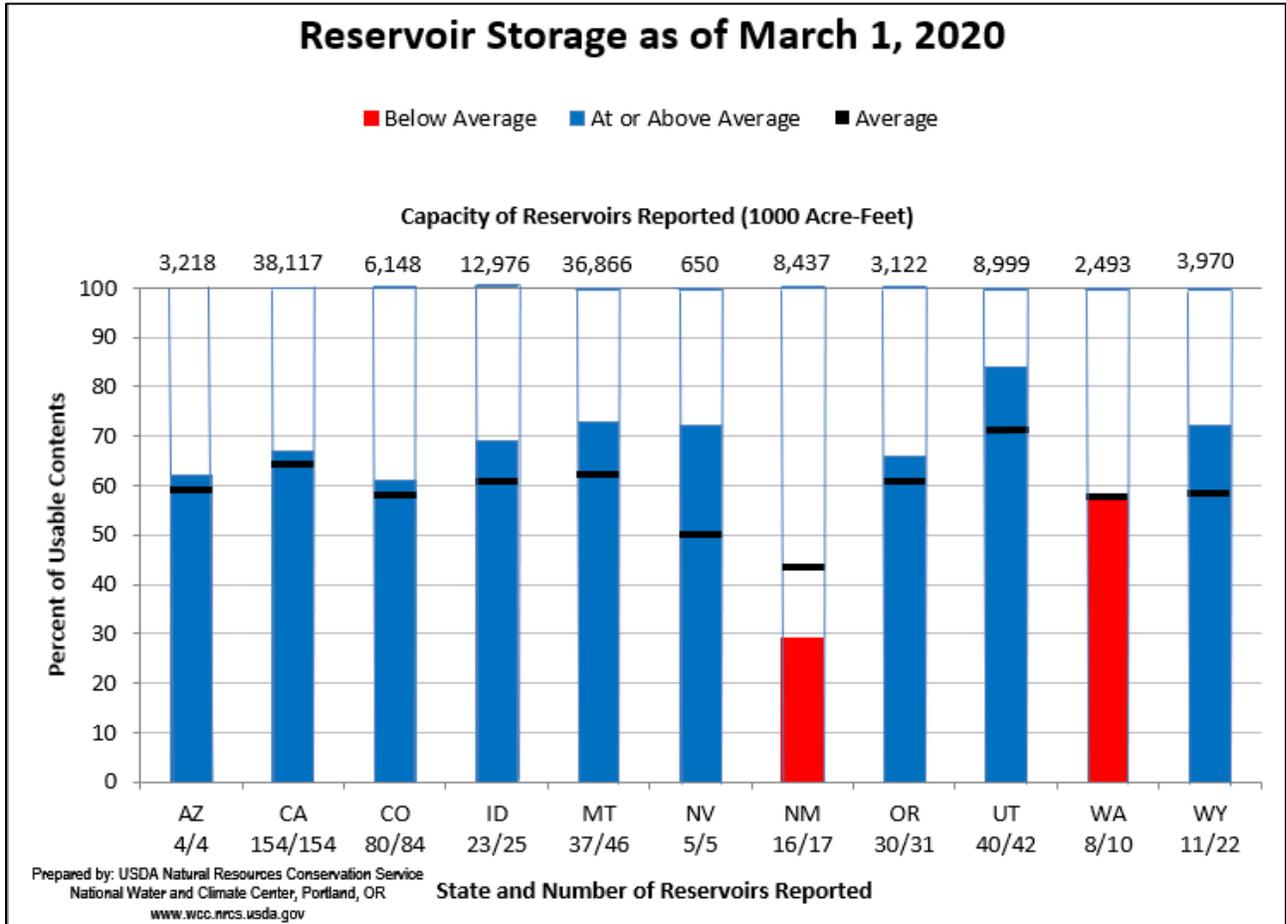
Explanation - Percentile classes						
<95	95-98	>= 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage
Streamgage with flood stage			Streamgage without flood stage			

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

Reservoir Storage

Western States Reservoir Storage

Source: NRCS National Water and Climate Center



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

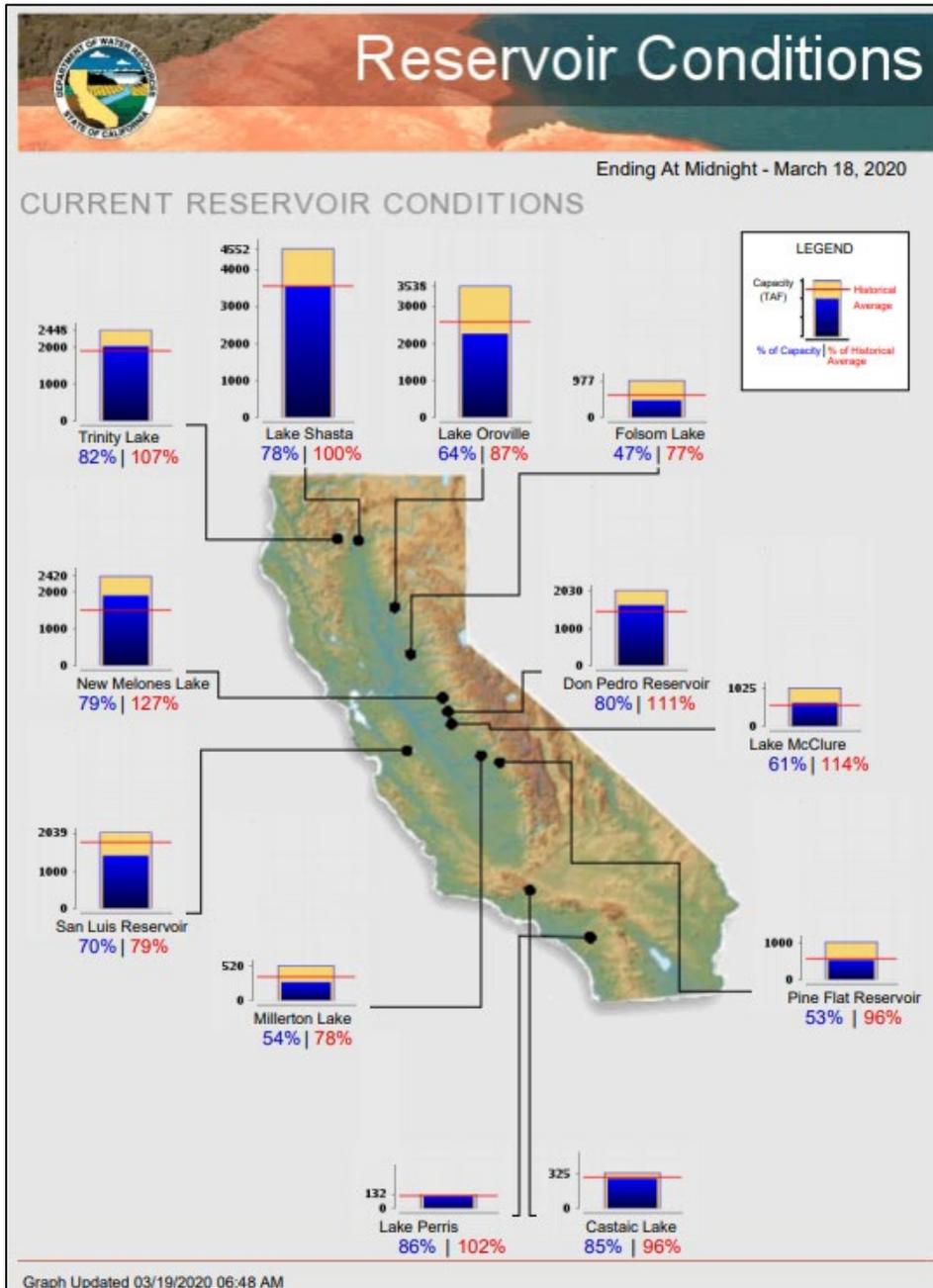
Hydromet Teacup Reservoir Depictions

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

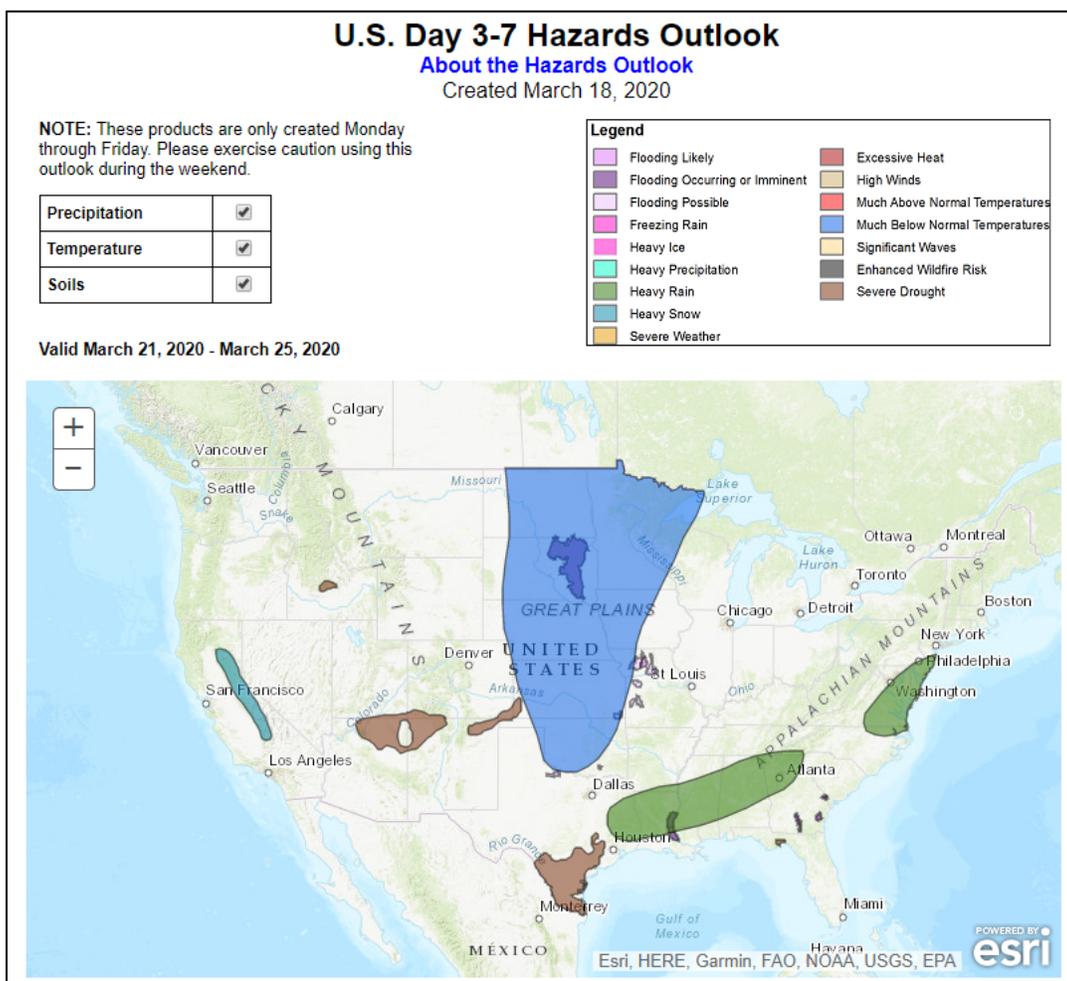
Agricultural Weather Highlights

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

National Outlook, Thursday, March 19, 2020: “A storm system currently crossing the central Rockies will accelerate northeastward, reaching the Great Lakes region early Friday. For the remainder of today, the threat of severe thunderstorms—containing high winds, large hail, and isolated tornadoes—will shift from the southern Plains into the Midwest. Heavy rain will accompany the thunderstorms, with totals of 1 to 2 inches or more possible across a broad area covering much of the South and Midwest. Meanwhile, wind-driven snow could result in substantial livestock stress in western Nebraska and portions of neighboring states. By late Thursday, snow will briefly spread across parts of the upper Midwest and the upper Great Lakes region. In the storm’s wake, cold air will engulf the Plains, Midwest, and Northeast. Late-week minimum temperatures could range from 15 to 25°F as far south as the southern High Plains. Elsewhere, mostly dry weather will prevail during the next 5 days across Florida’s peninsula, while unsettled, showery weather will return early next week across much of the western U.S. The NWS 6- to 10-day outlook for March 24 – 28 calls for the likelihood of below-normal temperatures across the West and northern High Plains, while warmer-than-normal weather will prevail along and east of a line from eastern New Mexico to Lake Superior. Meanwhile, below normal precipitation from the southern Plains to Florida and southern Georgia should contrast with wetter-than-normal weather across the remainder of the country.”

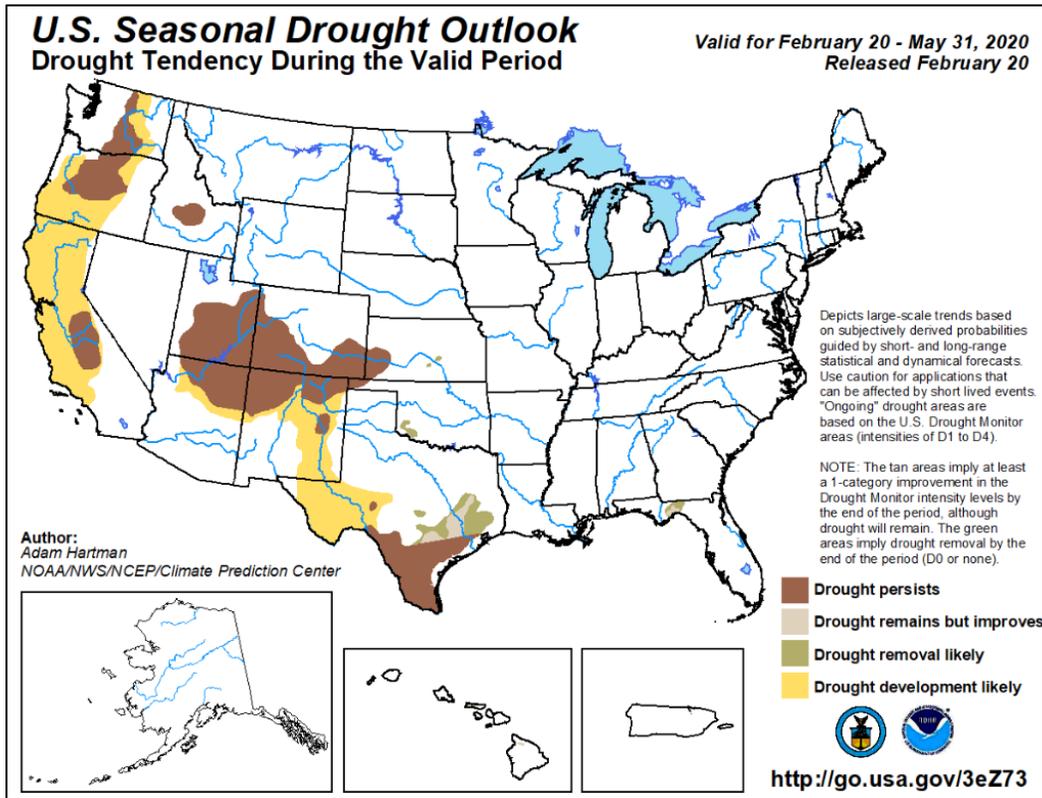
Weather Hazards Outlook: March 21 – 25, 2020

Source: NOAA Weather Prediction Center



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

Source: National Weather Service

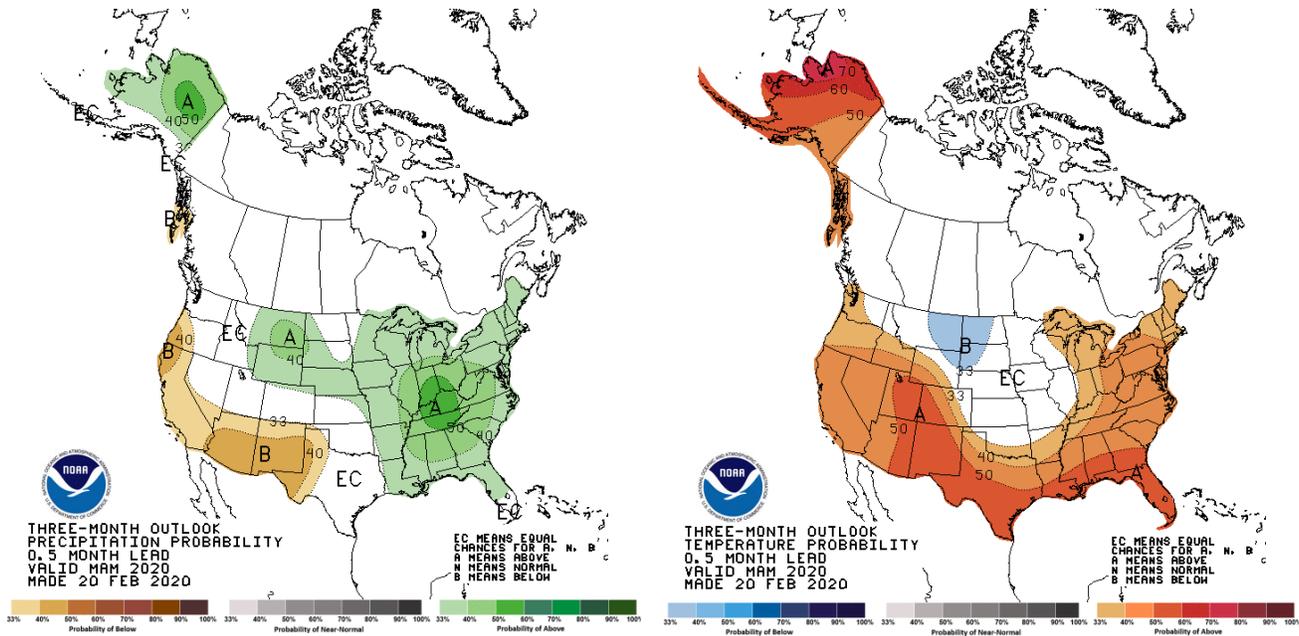


Climate Prediction Center 3-Month Outlook

Source: National Weather Service

Precipitation

Temperature



[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](#).