

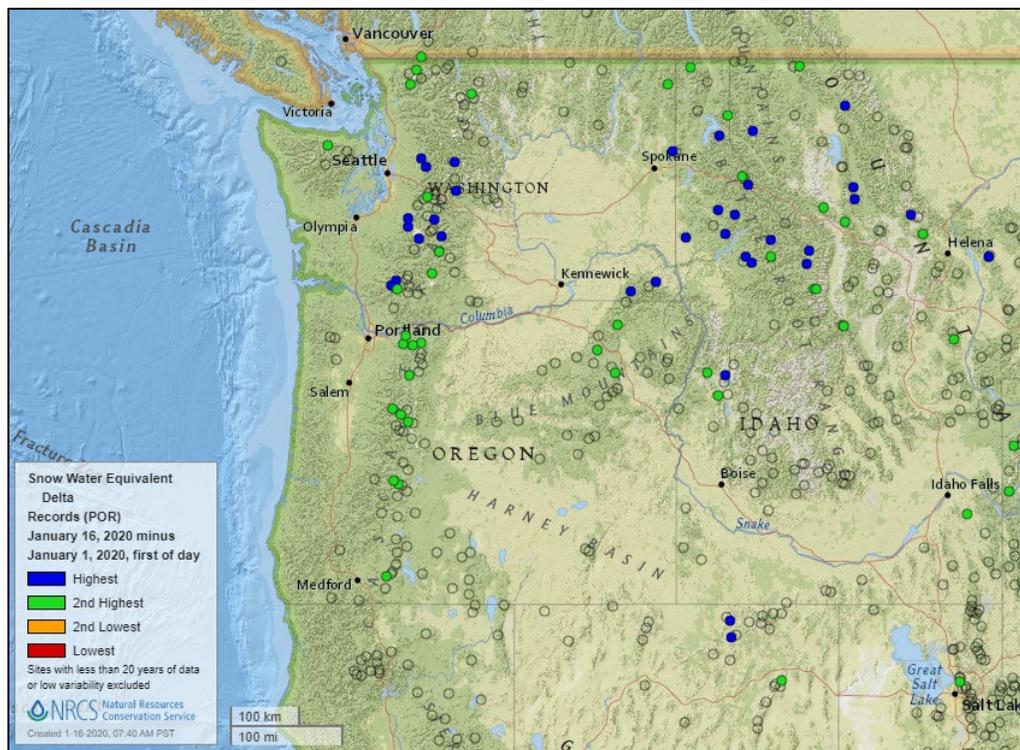
Water and Climate Update

January 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.

Snow	2	Other Climatic and Water Supply Indicators	13
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Northwest sees large increases in snow this month

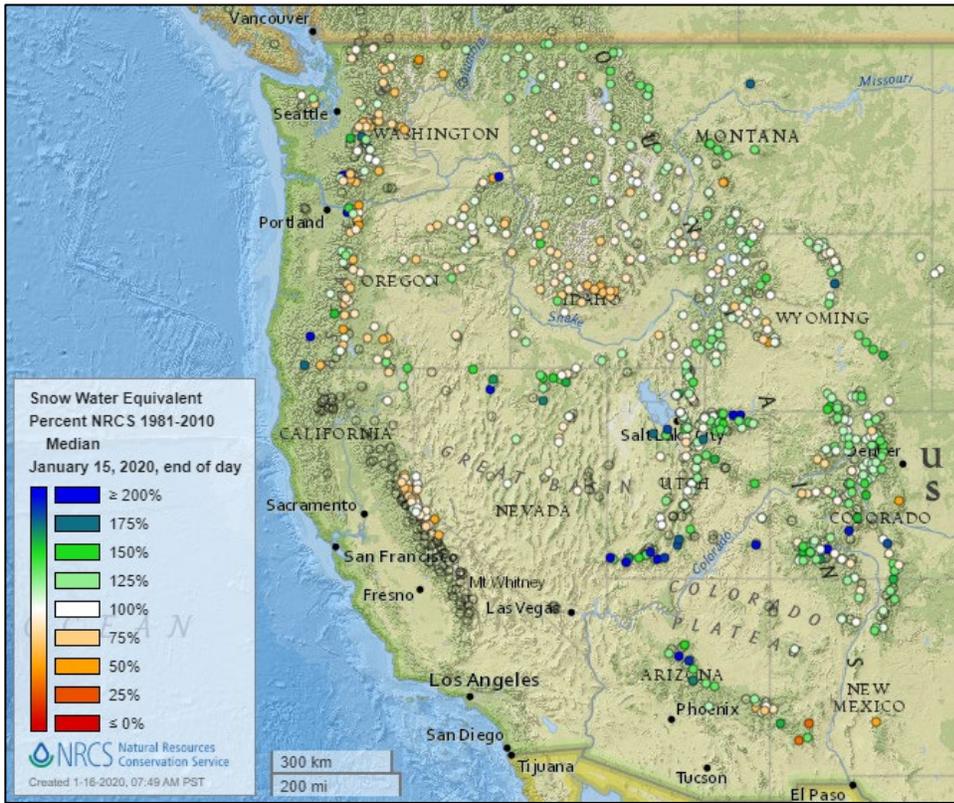


Snow fell from the mountain peaks to the valley floors in the Pacific Northwest this week. Change in SNOTEL snowpack from January 1 to today set records in the Cascades of Washington, northern Blue Mountains, and northern Rockies in Idaho and Montana. The snowpack at Mt. Rainier National Park tripled since the start of the month. Although the snow season is just beginning, this large increase in snowpack will help offset earlier water deficits in the region.

Related:

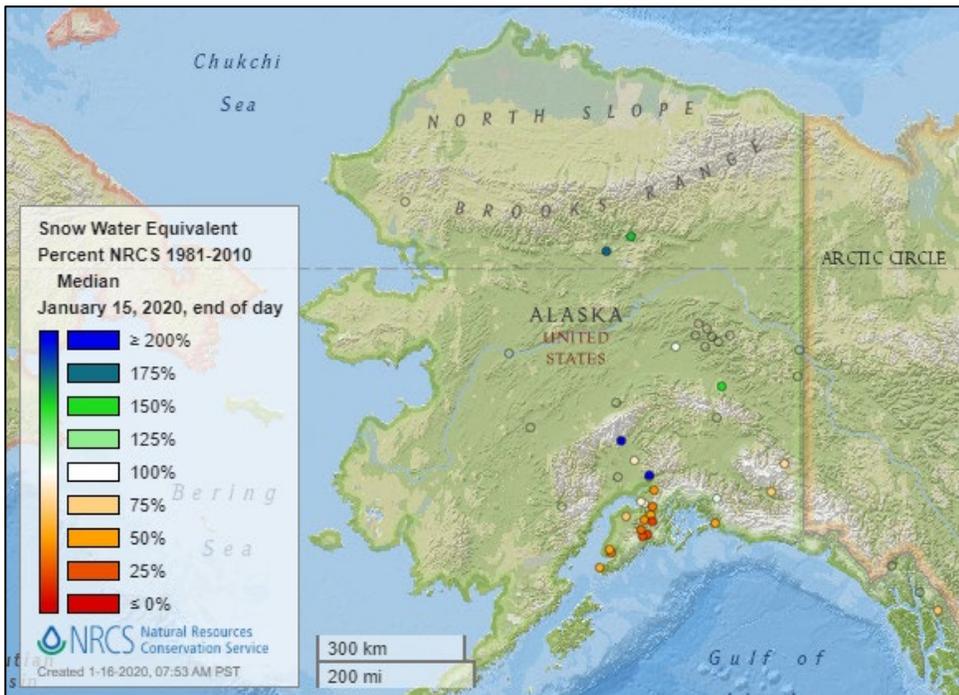
- [Idaho snowpack could go either way, experts say](#) – Post Register (ID)
- [Snow packs a punch north of Seattle, and some schools are closed — here’s what’s next for the region](#) – Seattle Times
- [New major storm to cross country and bring heavy snow, ice, flooding](#) - ABC
- [Messy winter storm to zip from the West to the East Coast through the weekend](#) – Washington Post
- [Before and After Images Show How Snow Depth Increased Nearly 100 Inches in 12 Days at Mount Rainier National Park](#) – The Weather Channel

Snow



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

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

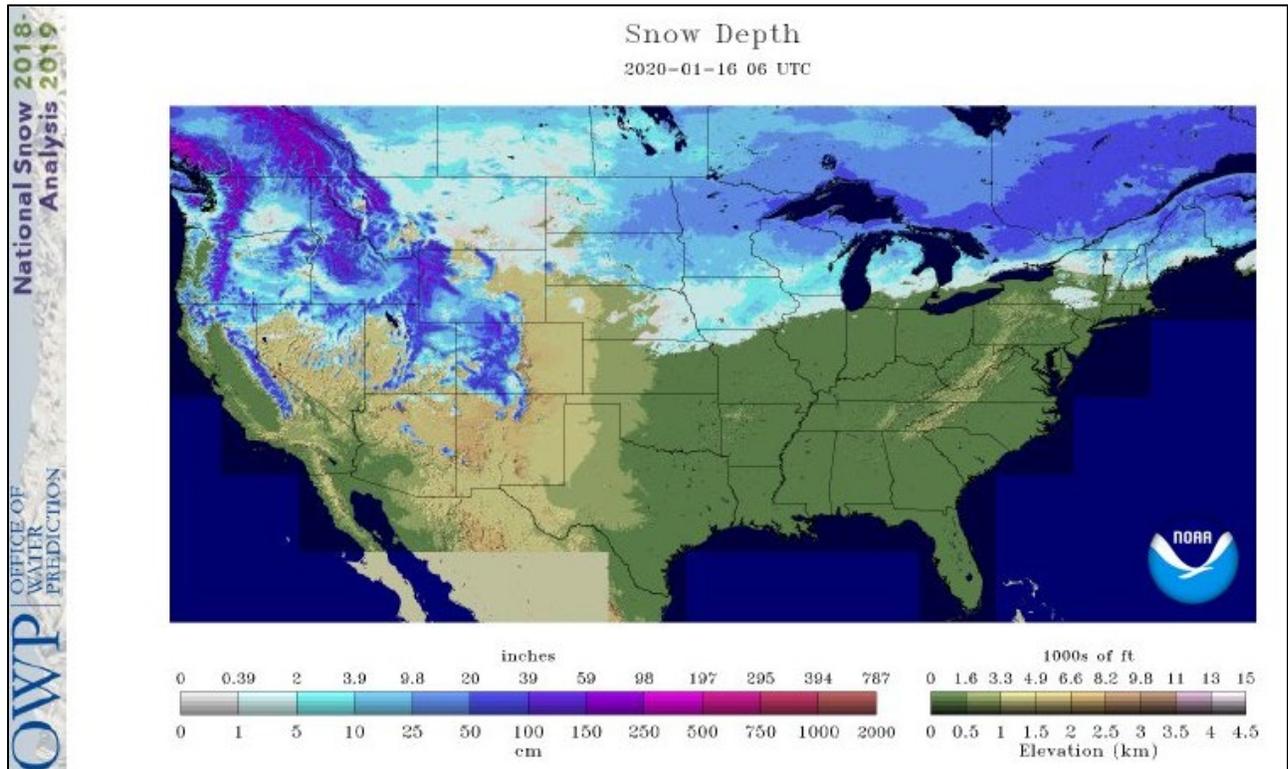


[Alaska snow water equivalent percent of median map](#)

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

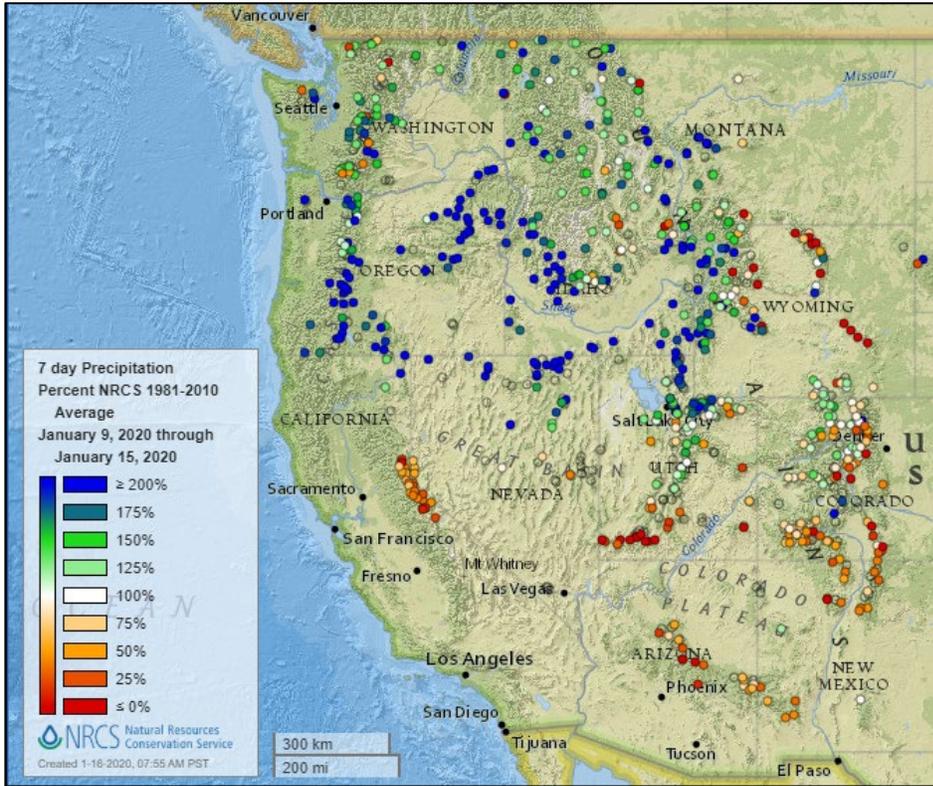
Current Snow Depth, National Weather Service Snow Analysis

Source: NOAA Office of Water Prediction



Precipitation

Last 7 Days, NRCS SNOTEL Network

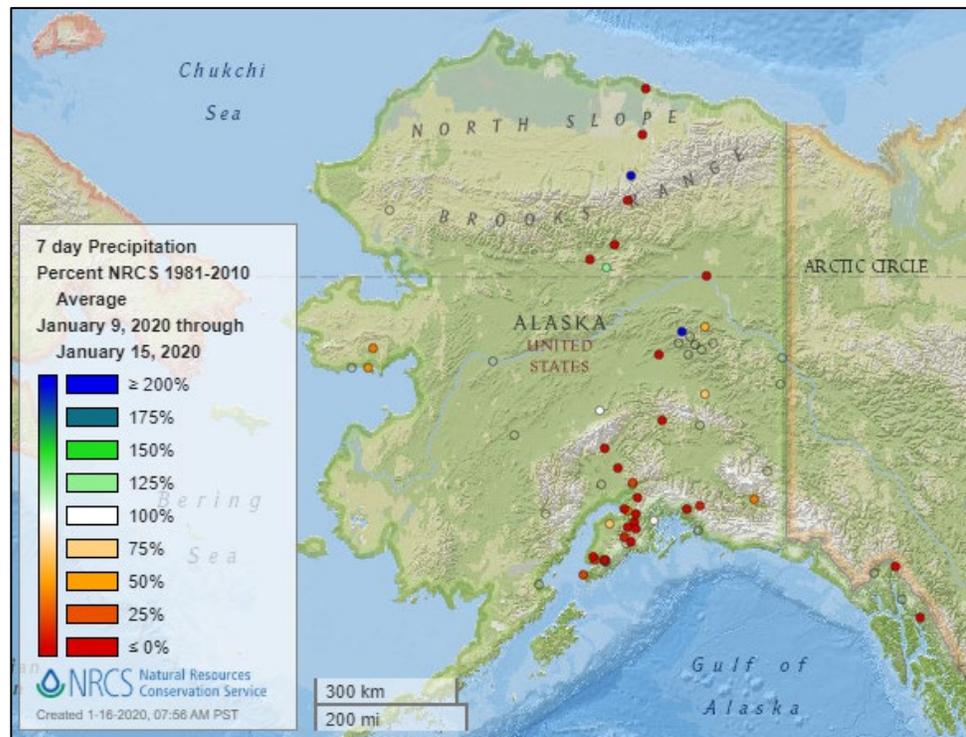


[7-day precipitation percent of average map](#)

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](#)



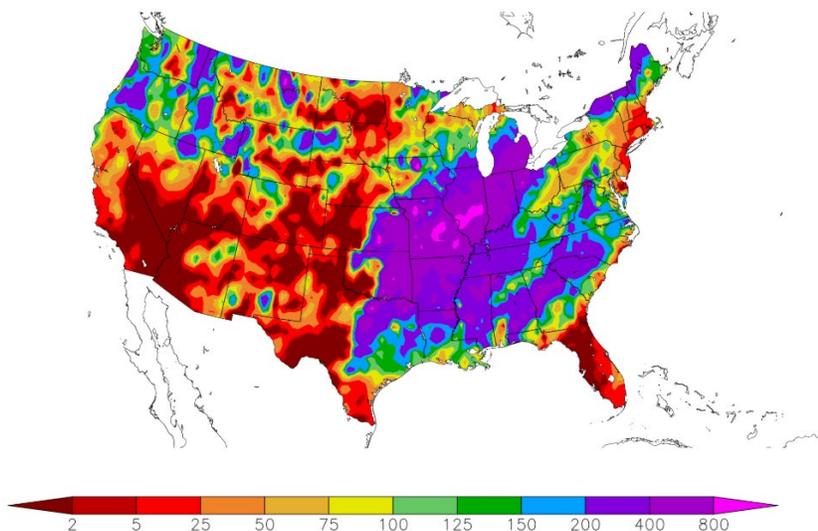
Last 7 Days, National Weather Service (NWS) Networks

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 (%)
1/8/2020 – 1/14/2020



Generated 1/15/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

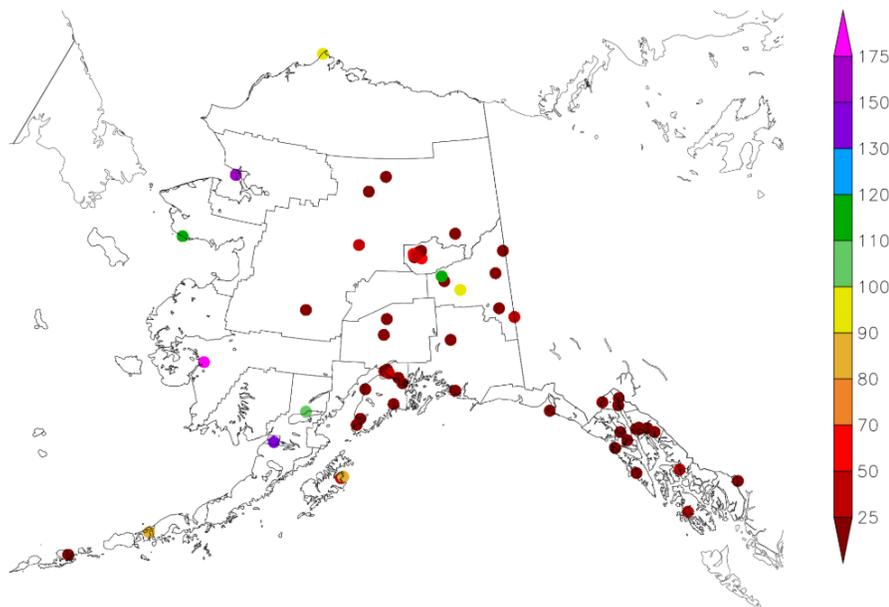
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)
1/8/2020 – 1/14/2020



Generated 1/15/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

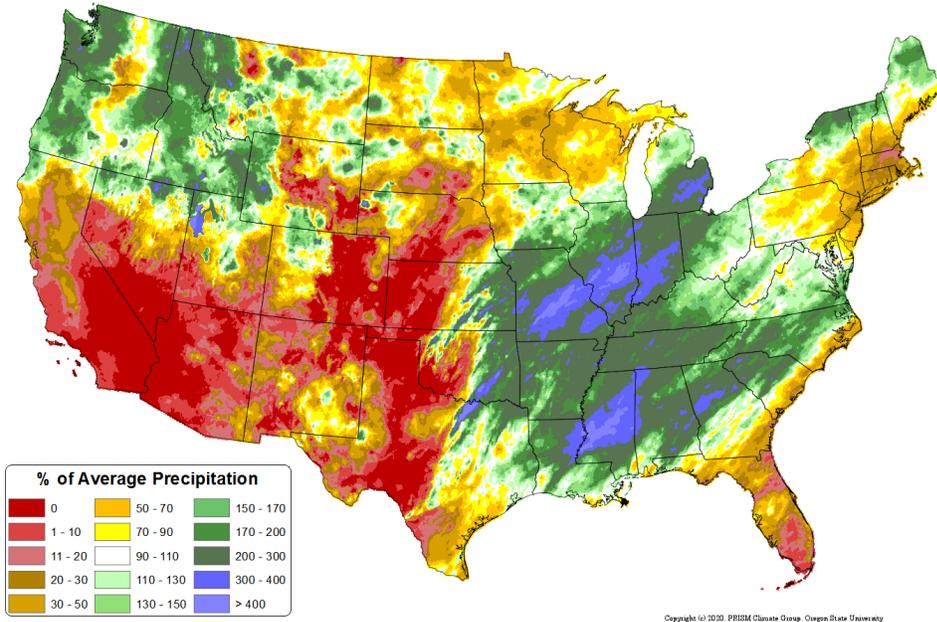
Water and Climate Update

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

Source: PRISM

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

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

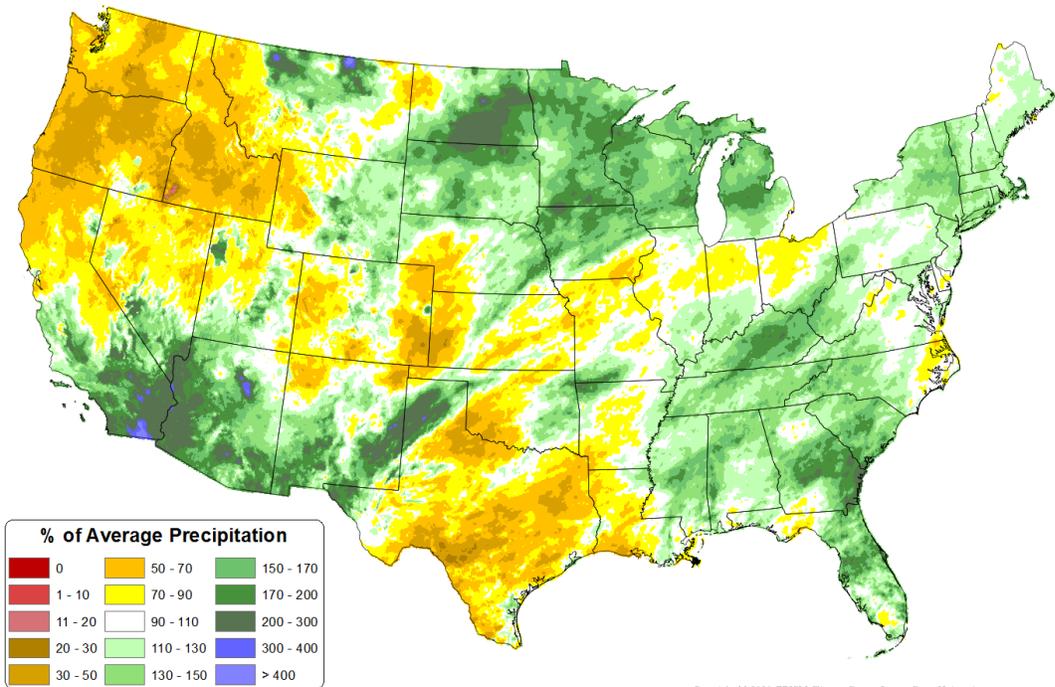


Last 3 Months, All Available Data Including SNOTEL and NWS Networks

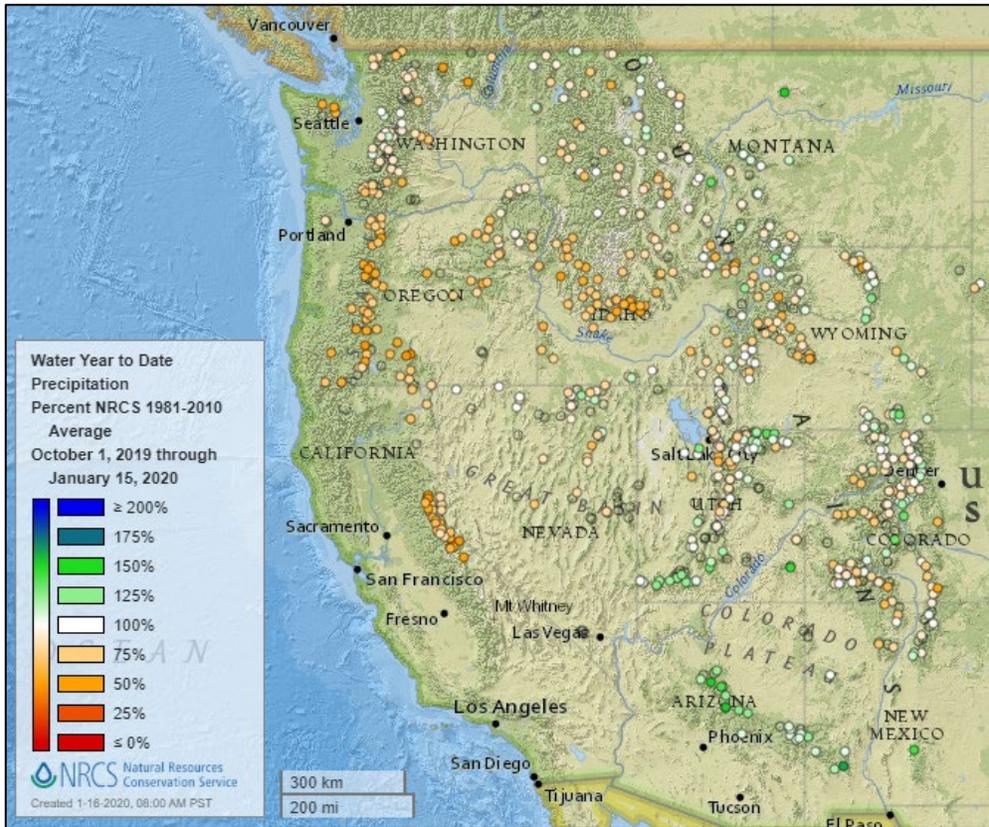
Source: PRISM

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

Total Precipitation Anomaly: Oct 2019 - Dec 2019
Period ending 7 AM EST 31 Dec 2019
Base period: 1981-2010
(Map created 06 Jan 2020)

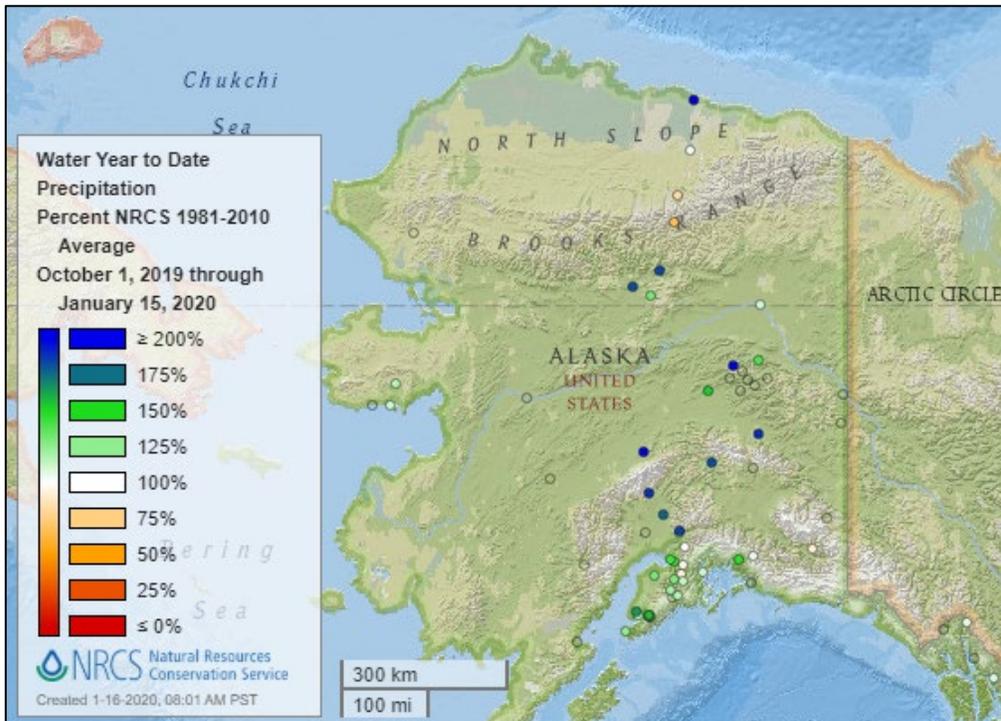


Water Year-to-Date, NRCS SNOTEL Network



[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

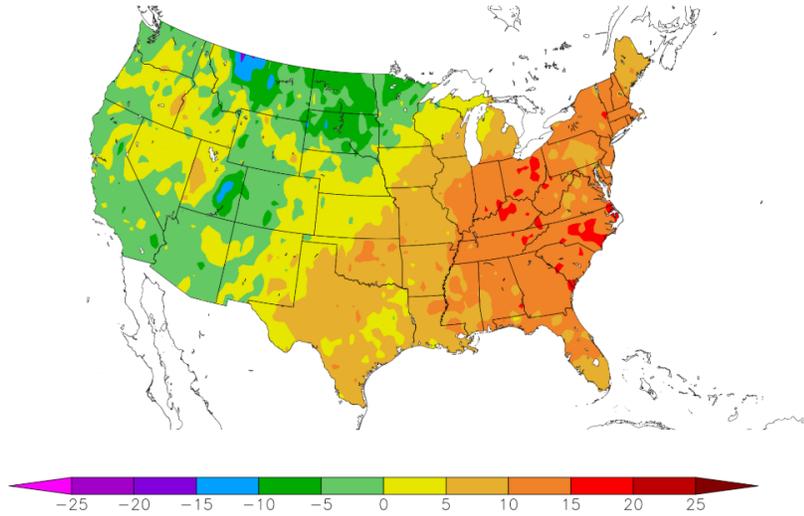
Last 7 Days, National Weather Service (NWS) Networks

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)
1/8/2020 – 1/14/2020



Generated 1/15/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

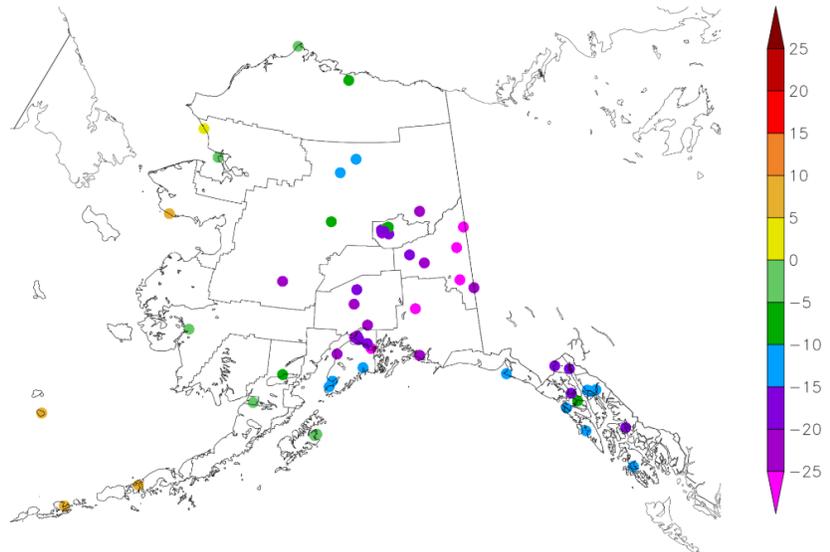
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
1/8/2020 – 1/14/2020



Generated 1/15/2020 at HPRCC using provisional data.

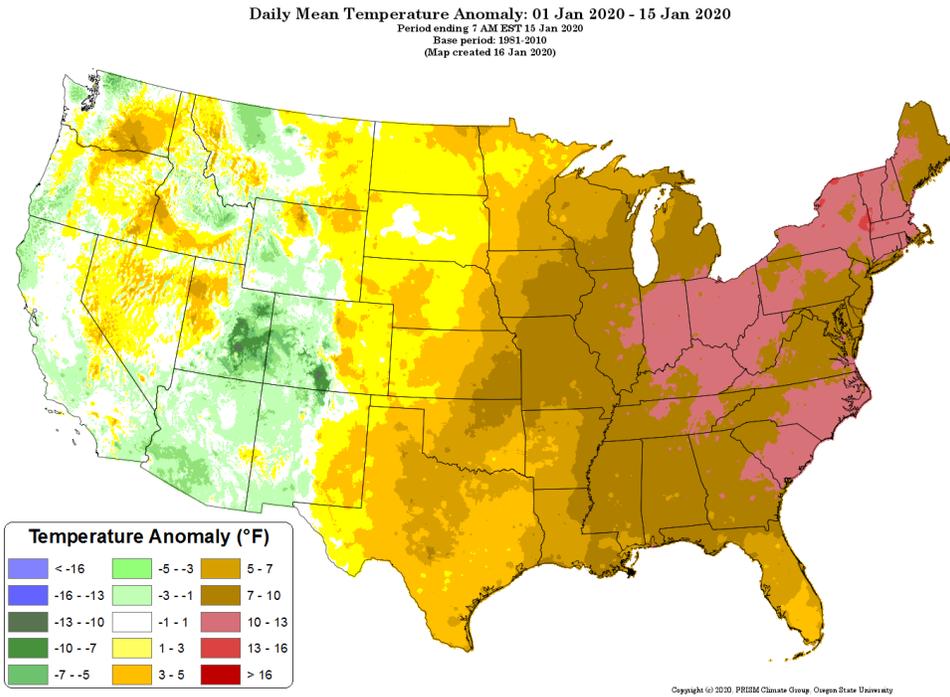
NOAA Regional Climate Centers

Water and Climate Update

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

Source: PRISM

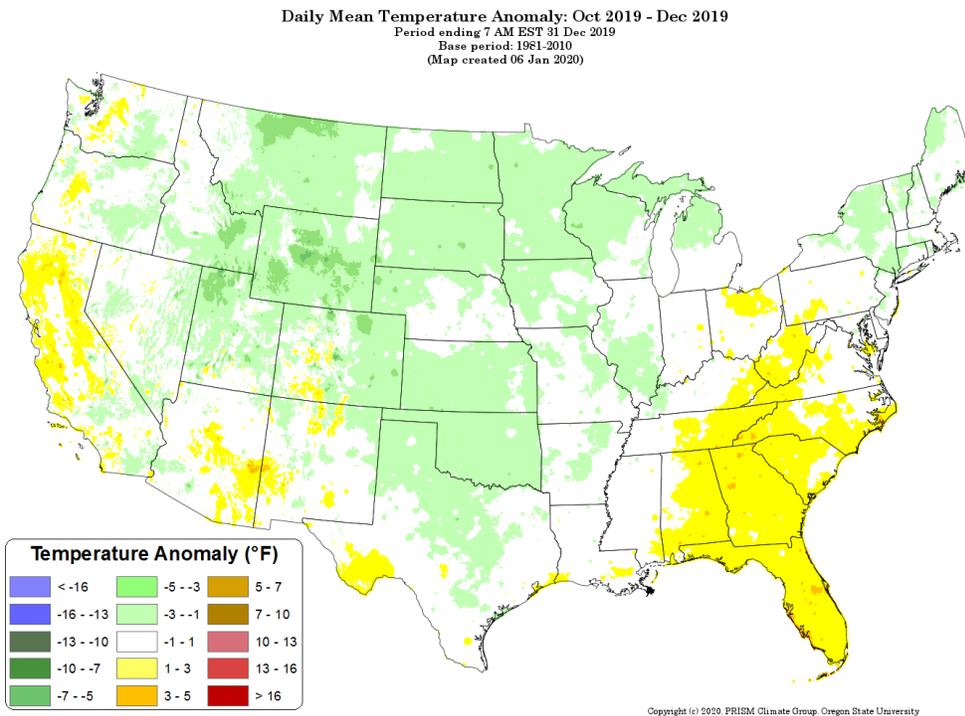
[Month-to-date national daily mean temperature anomaly map](#)



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

Source: PRISM

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



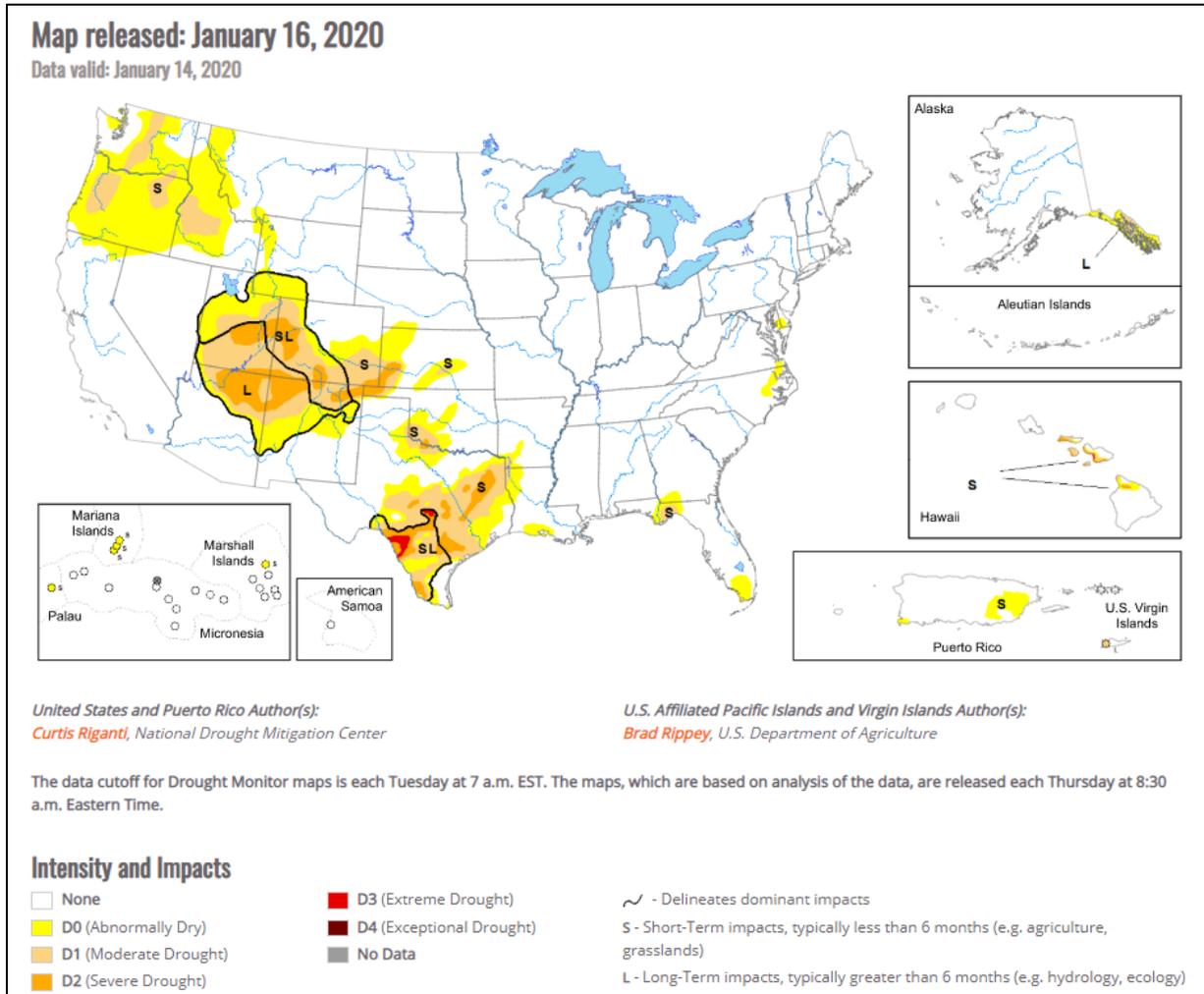
Drought

[U.S. Drought Monitor](#)

Source: National Drought Mitigation Center

[U.S. Drought Portal](#)

Source: NOAA



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

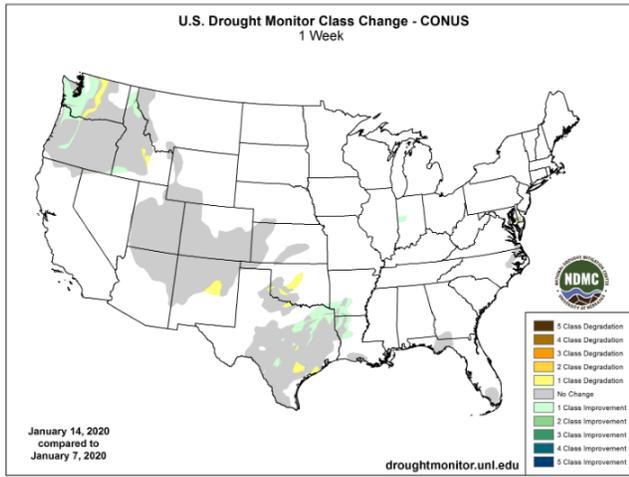
Source: National Drought Mitigation Center

“Warmer than normal temperatures were common this week over the eastern half of the continental U.S., while temperatures were primarily near normal over the western half, with a few exceptions. Moderate to heavy precipitation was common this week along and east of the Interstate 35 corridor, excepting parts of the Northeast and the Florida Peninsula. In the West, moderate to heavy precipitation also fell in some of the higher elevation areas. For more details on the geographic distribution of precipitation and temperature anomalies, please see the regional paragraphs below. The only exceptional drought occurring in the United States, on Maui, was removed this week after a major precipitation event in Hawaii, where other improvements were also made. Heavy rainfall in northern and eastern Puerto Rico also ended the moderate drought there. In the central and eastern continental U.S., drought conditions generally improved in areas that received heavier precipitation, while some degradation occurred in locations in Texas and Oklahoma that remained drier. The depiction of moderate drought and abnormal dryness also changed in Idaho, Washington, and Oregon, where recent precipitation (or lack thereof) affected mountain snowpack and short-term precipitation deficits.”

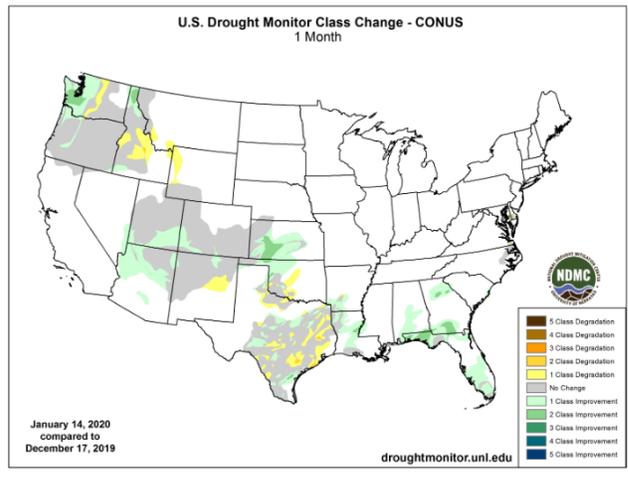
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

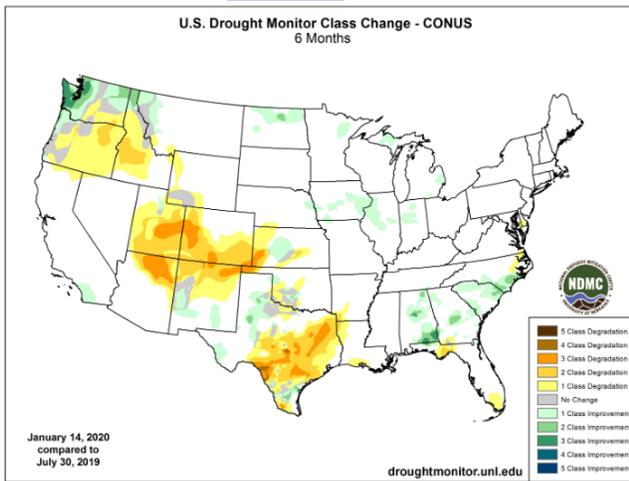
1 Week



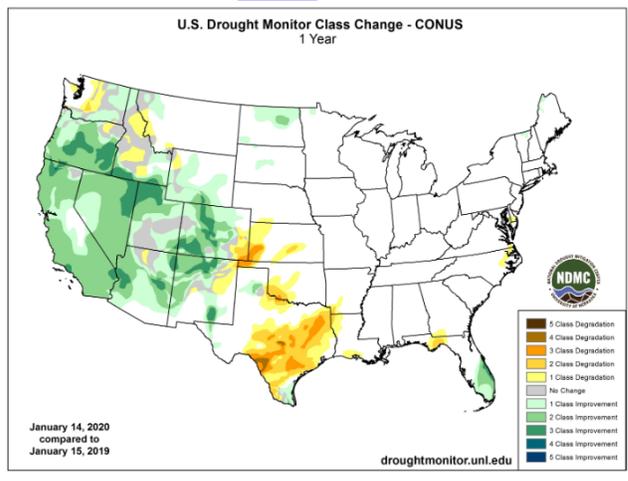
1 Month



6 Months



1 Year



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

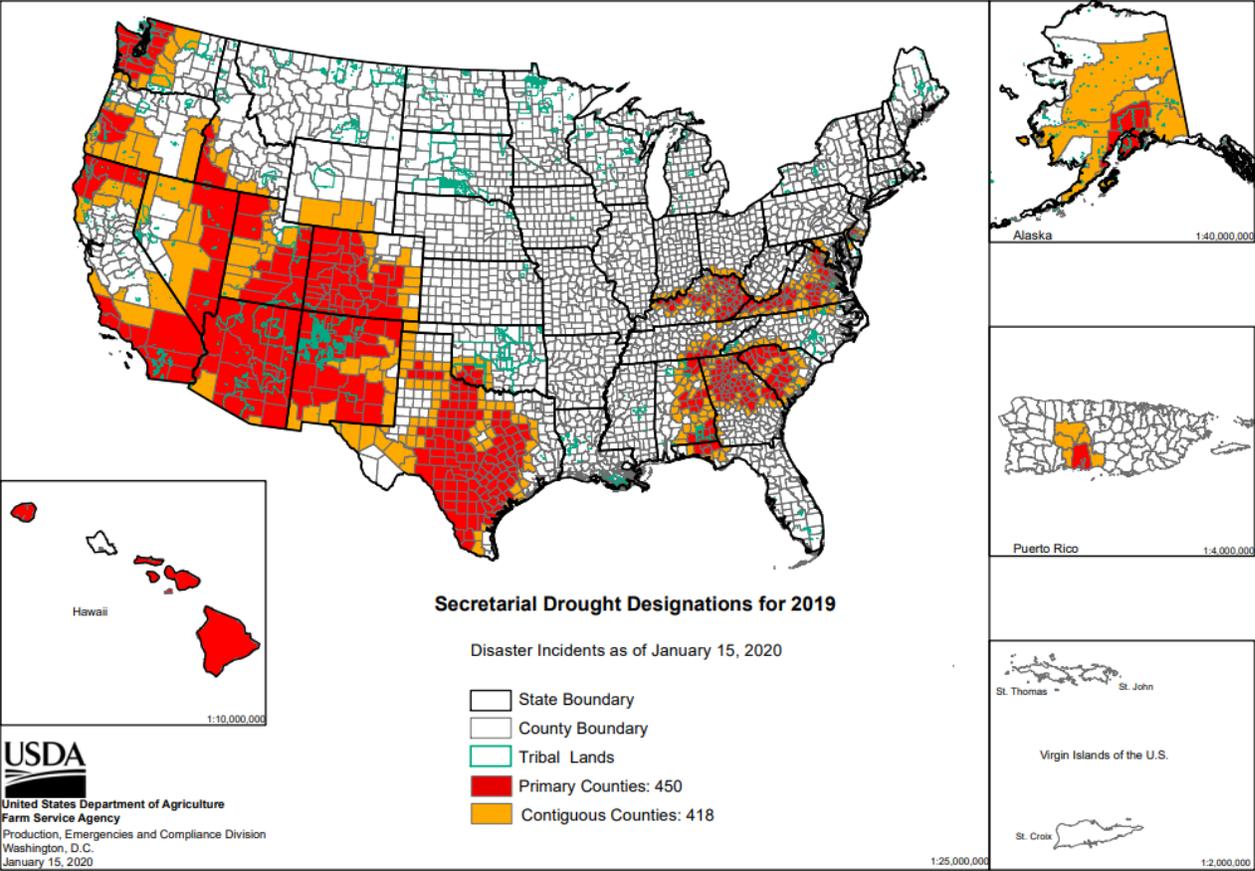
Highlighted Drought Resources

- [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

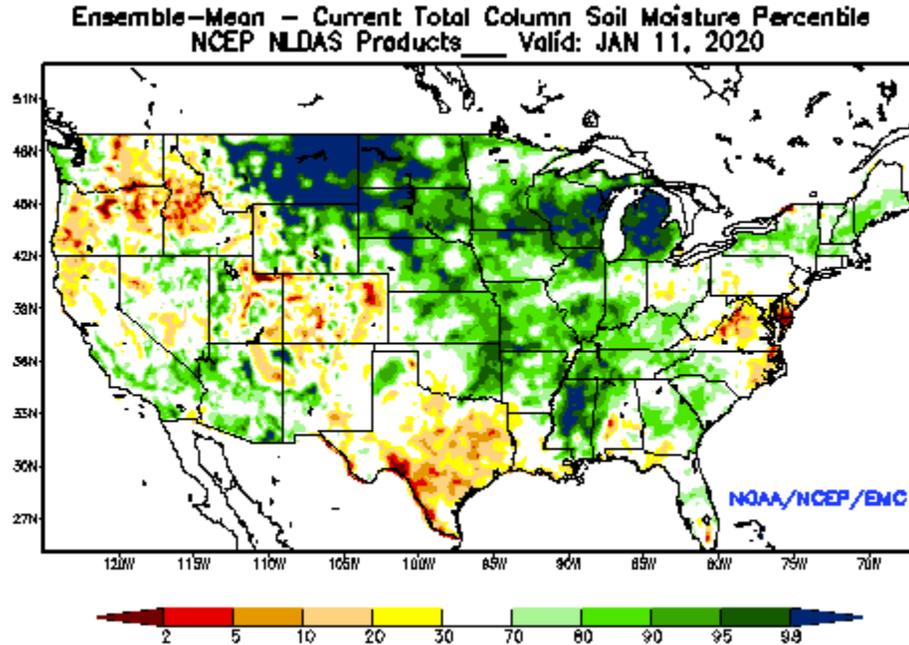
2019 Secretarial Drought Designations - All Drought



Other Climatic and Water Supply Indicators

Soil Moisture

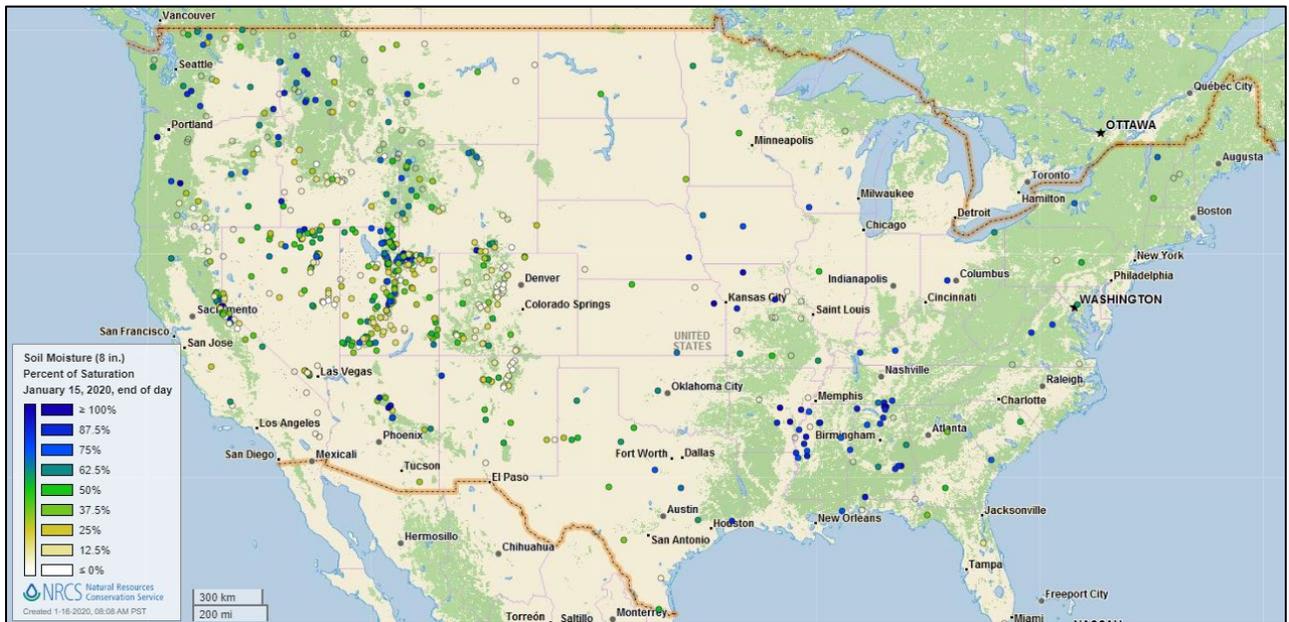
Source: NOAA National Centers for Environmental Prediction



[Modeled soil moisture percentiles](#) as of January 11, 2020

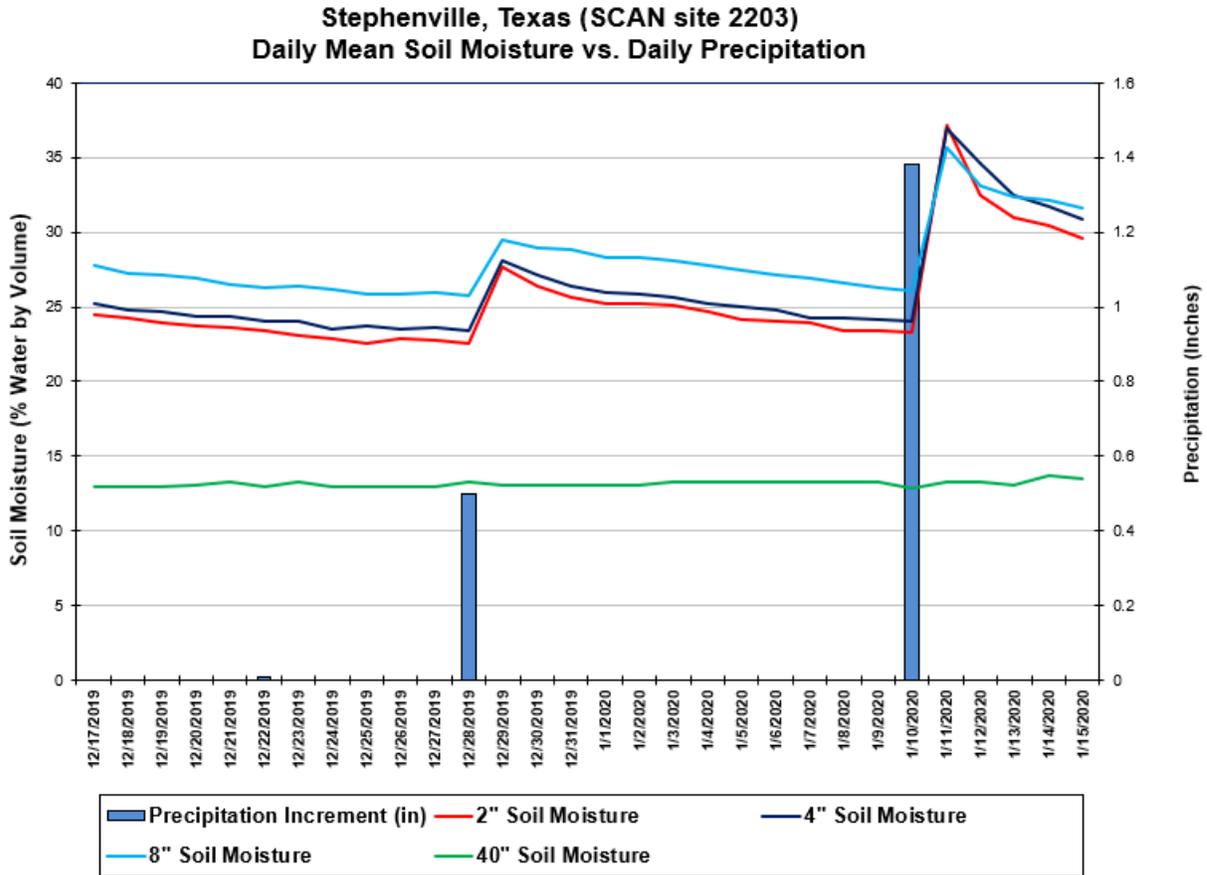
Soil Moisture Percent of Saturation

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 for the last 30 days at the [Stephenville](#) SCAN site in central Texas. The precipitation events on December 28 and January 10 increased soil moisture at the -2", -4", and -8" sensor depths.

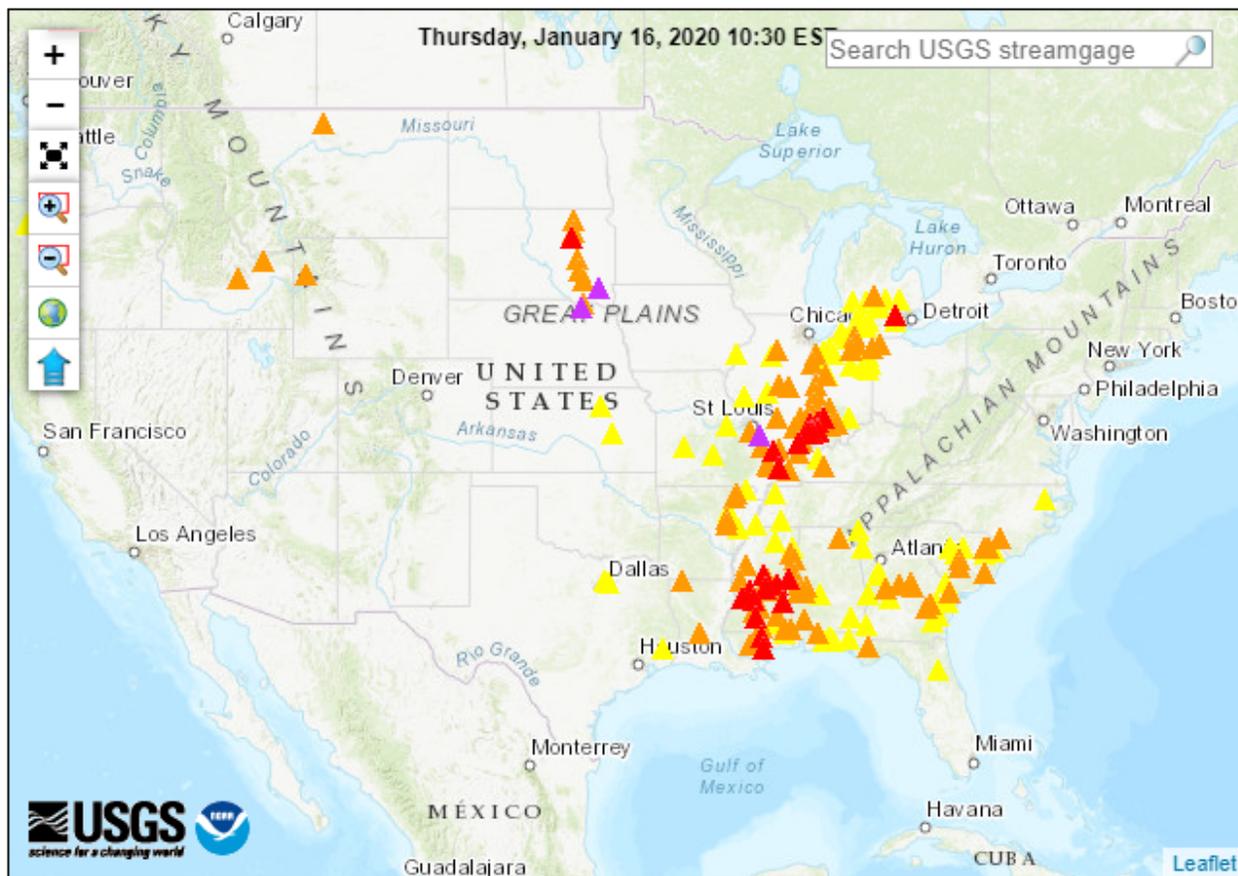
Soil Moisture Data Portals

- [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
 (115 in floods [major: 3, moderate: 24, minor: 88], 79 in near-flood)



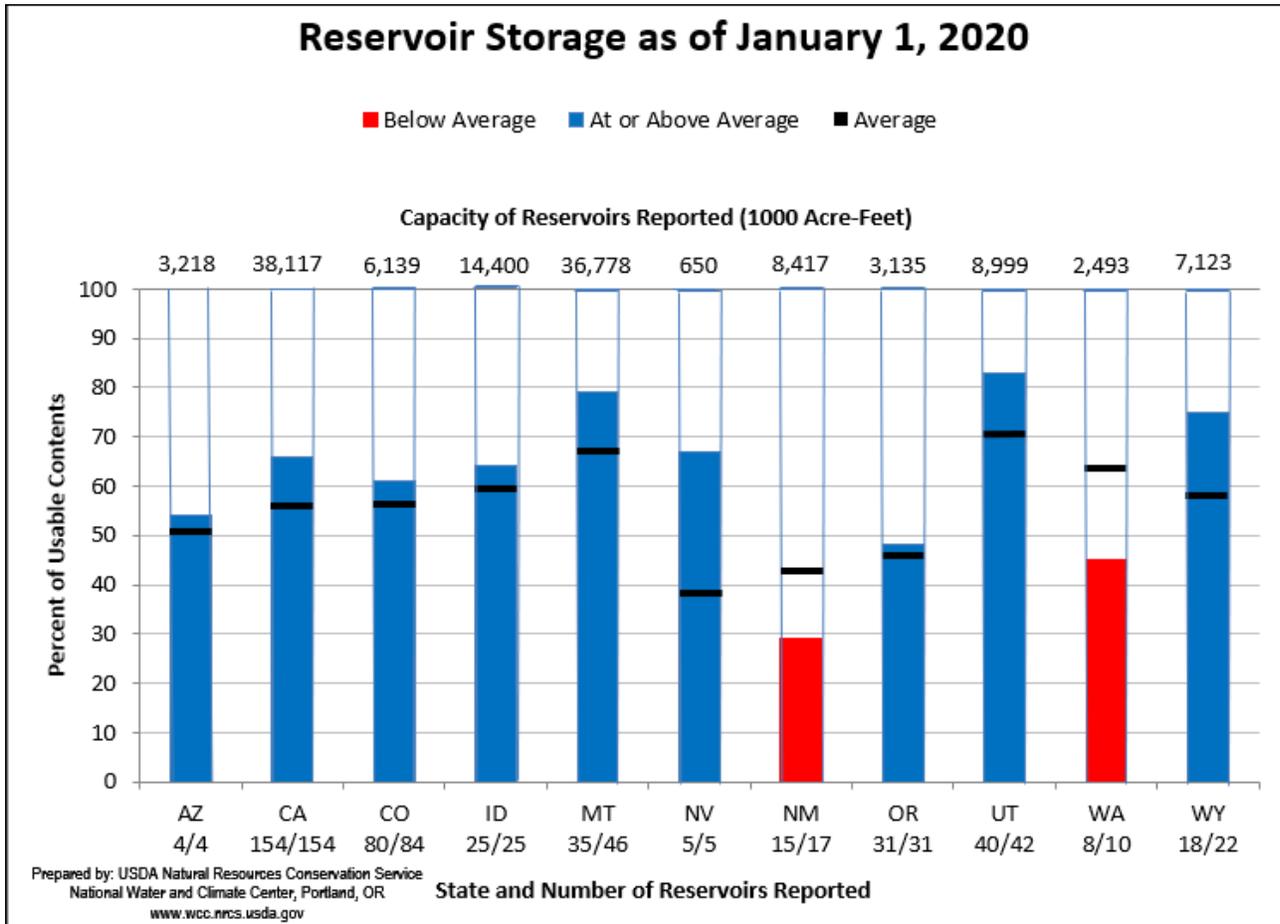
Explanation - Percentile classes						
<95	95-98	>= 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage
			△ Streamgage with flood stage	○ Streamgage without flood stage		

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

Reservoir Storage

Western States Reservoir Storage

Source: NRCS National Water and Climate Center



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

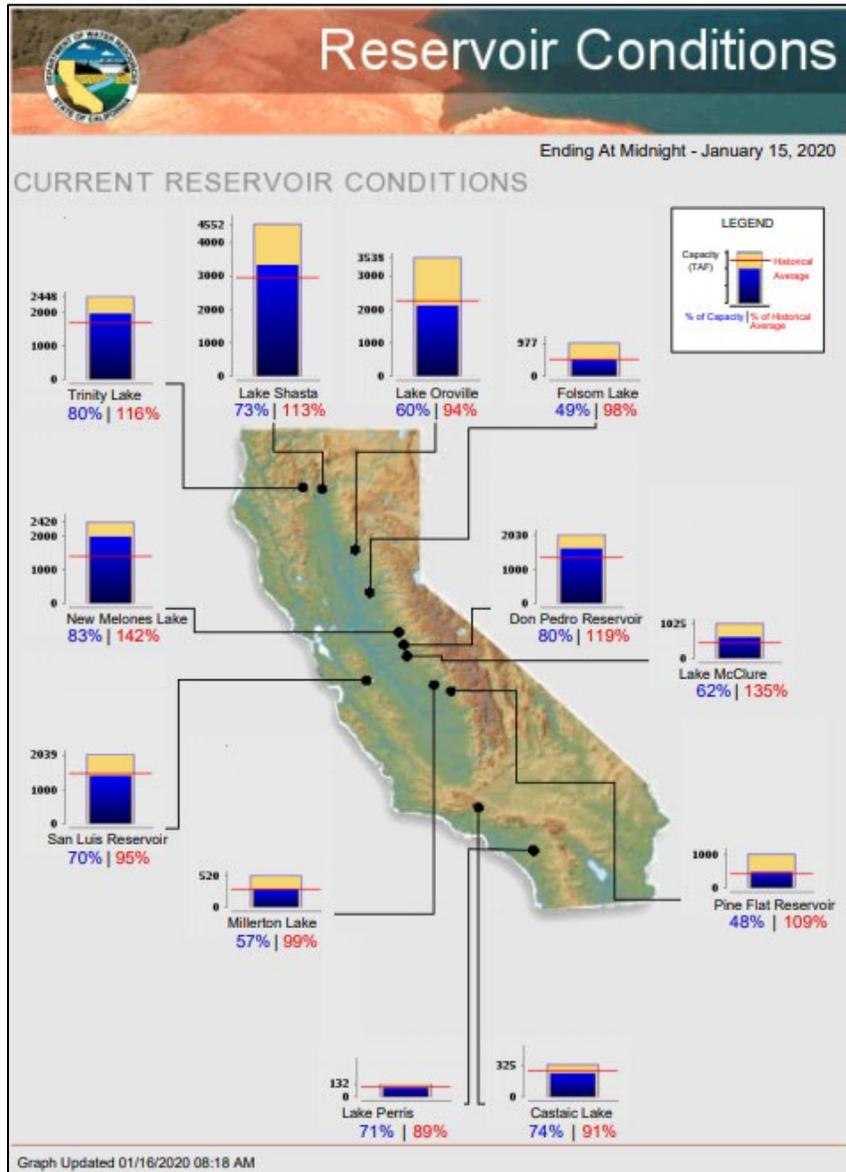
Hydromet Tea Cup Reservoir Depictions

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

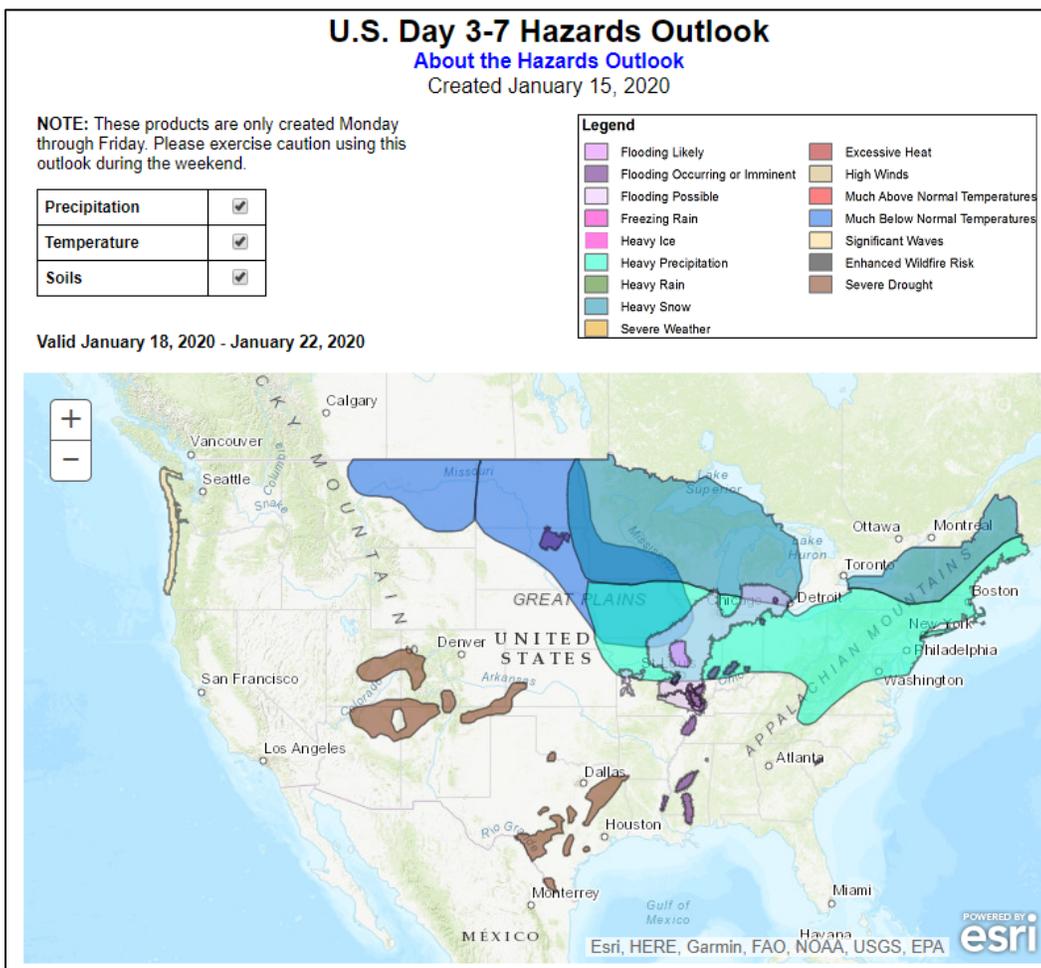
Agricultural Weather Highlights

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

National Outlook, Thursday, January 16, 2020: “For today, a disturbance exiting the Northeast will produce rain and snow, followed by windy, colder weather. Meanwhile, cold air in place across portions of the southern and eastern Plains and the Midwest will set the stage for a winter storm. Wintry precipitation, which is already developing across the southern Plains, will quickly spread northeastward into the western Corn Belt on Friday and across the Great Lakes and Northeastern States on Saturday. In the lower Midwest, as much as 1 to 2 inches of precipitation could aggravate the flood situation. Farther west, today’s precipitation will be heaviest across northern and central California, followed by the return of mostly dry Western weather by late Friday. During the weekend, however, showery weather will overspread the Pacific Northwest. Elsewhere, a weekend blast of cold air will engulf most areas east of the Rockies. By early next week, sub-zero temperatures should be expected as far south as northern Missouri and central Illinois. The NWS 6- to 10-day outlook for January 21 – 25 calls for below-normal temperatures across the South and East, while warmer-than-normal weather will cover the upper Great Lakes region and areas from the Pacific Coast to the High Plains. Meanwhile, below-normal precipitation in southern California, as well as the Appalachians, eastern Corn Belt, and Northeast, should contrast with wetter-than-normal weather in the southern Atlantic region and the western and central U.S.”

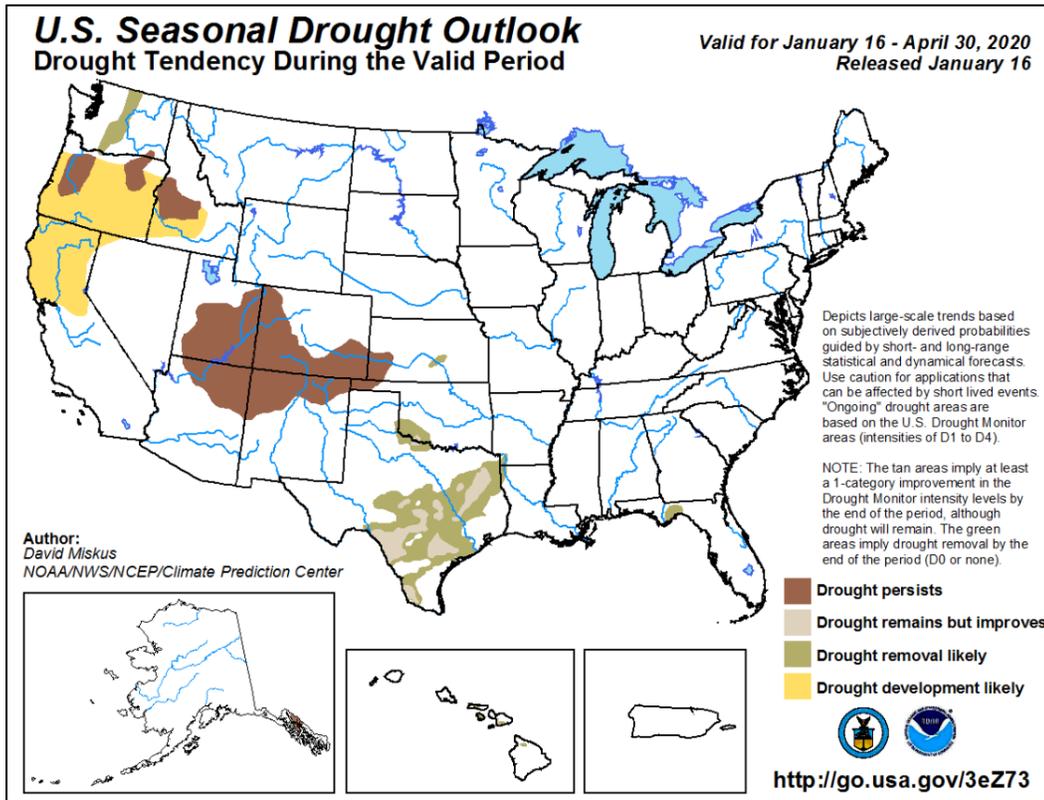
Weather Hazards Outlook: [January 18 - 22, 2020](#)

Source: NOAA Climate Prediction Center



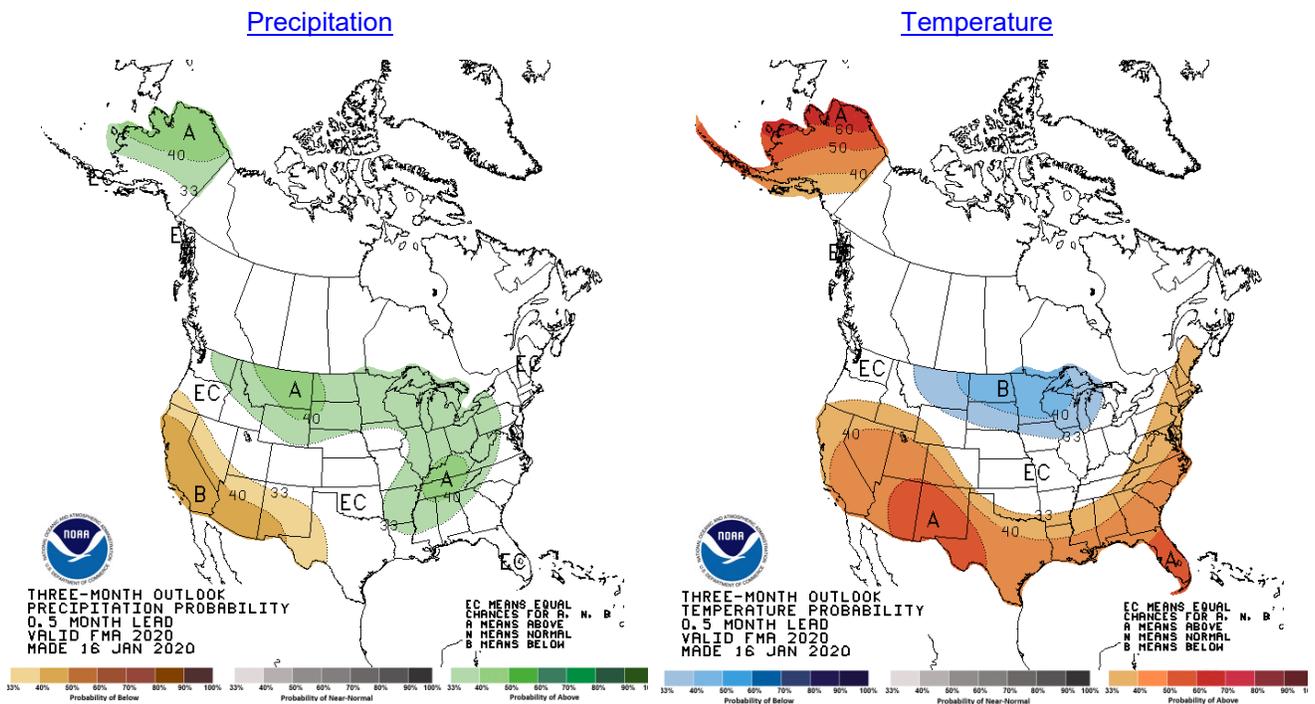
Seasonal Drought Outlook: [January 16 – April 30, 2020](#)

Source: National Weather Service



Climate Prediction Center 3-Month Outlook

Source: National Weather Service



[February-March-April \(FMA\) 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](#).