

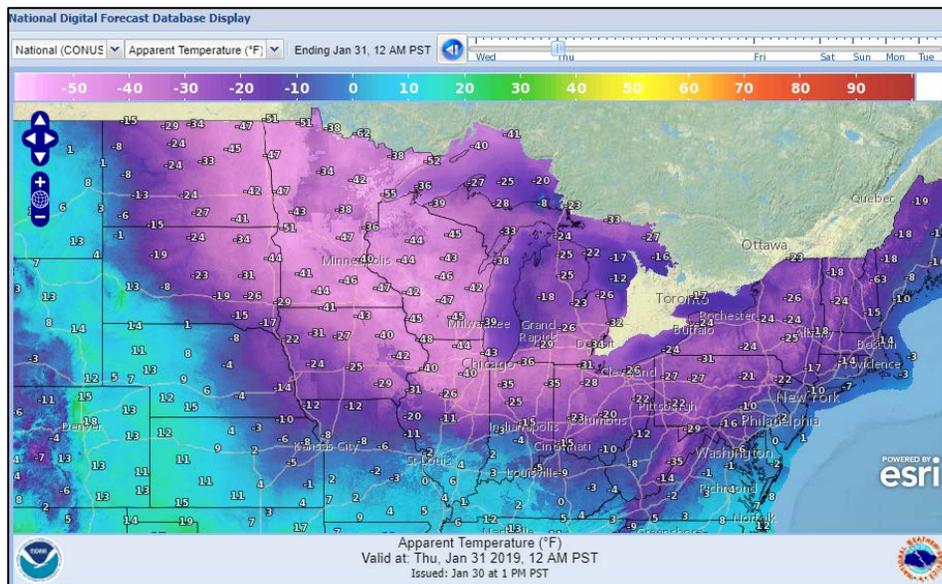
Water and Climate Update

January 31, 2019

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	3	Short- and Long-Range Outlooks.....	18
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Record cold and extreme wind chill affect the Midwest and Great Lakes



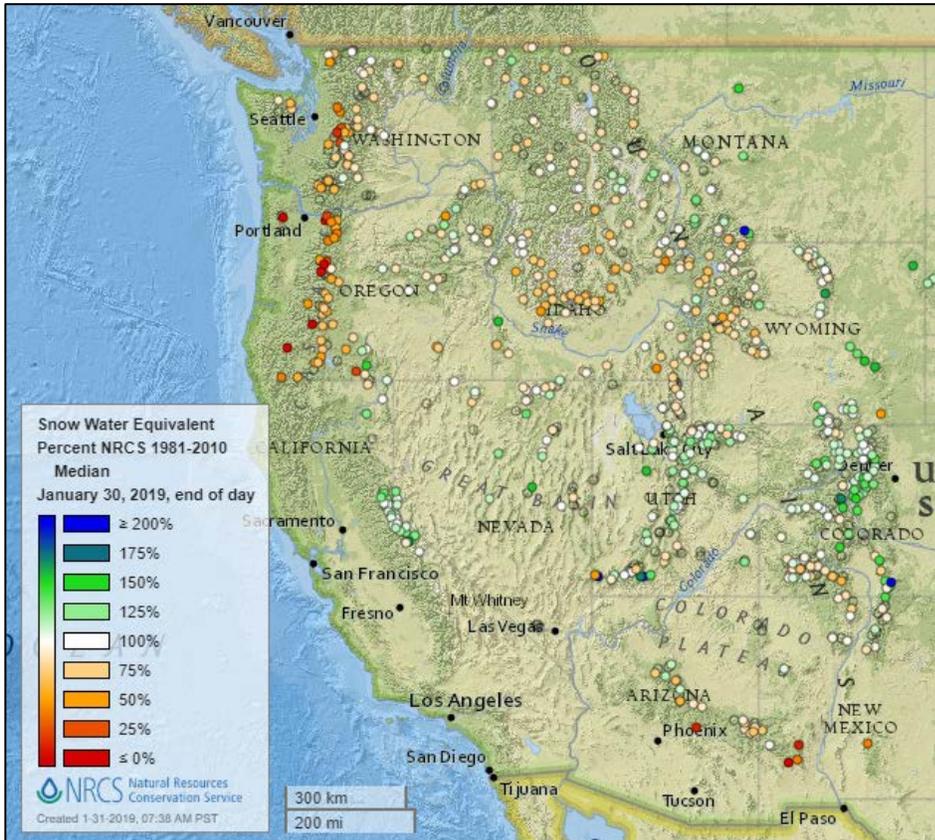
Extreme cold from the polar vortex has affected millions in the Midwest and Great Lakes with cold temperatures that haven't been experienced in decades in many places. The life-threatening temperatures have prompted several governors to declare emergencies. Transportation, businesses, schools, mail delivery, power, gas, and water lines have been impacted. Officials have warned people in the region to severely limit their exposure to the sub-zero cold. The National Weather Service (NWS) released regional wind chill advisories, forecasting wind chills as low as -65 to -70 degrees F. Chicago recorded its second lowest temperature in the 148-year period of record. Lake Michigan was covered with "sea smoke" as the extreme cold temperatures interacted with the lake water. In the NWS map above the "[apparent temperature](#)" is derived from the air temperature, humidity, and wind chill.

Related:

- [Brutal cold-air outbreak is smashing records in the Midwest](#) – The Washington Post
- [Iowa weather: Overnight cold broke multiple decades-old records.](#) – Des Moines Register (IA)
- [It's officially the second coldest day in Chicago weather history](#) – WGN-TV (IL)
- ['Off the chart': Deep freeze grips Minnesota](#) – MPR News (MN)
- [Gov. Evers declares state of emergency for Wisconsin due to cold, snow](#) – WISN 12 News (WI)
- [The Latest: Illinois governor declares emergency amid cold](#) – The Lufkin Daily News (IL)
- [Gov. Whitmer declares state of emergency in response to extreme cold temperatures](#) – Detroit Metro Times (MI)
- [Cold paralyzes Midwest, frigid temperatures soon heading east](#) – ABC News

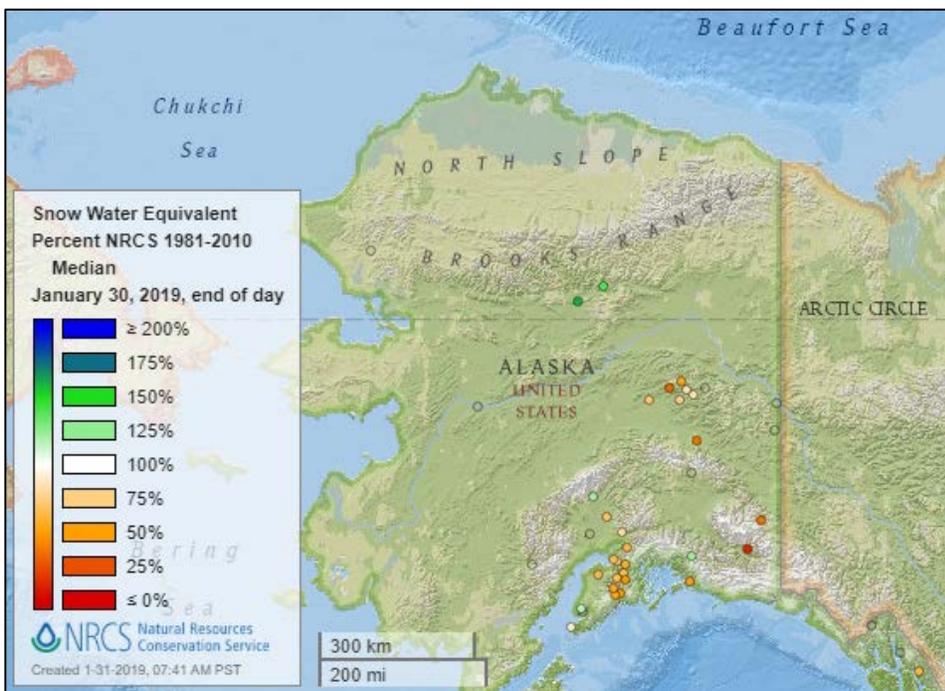
Snow

Current Snow Water Equivalent, NRCS SNOTEL Network



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

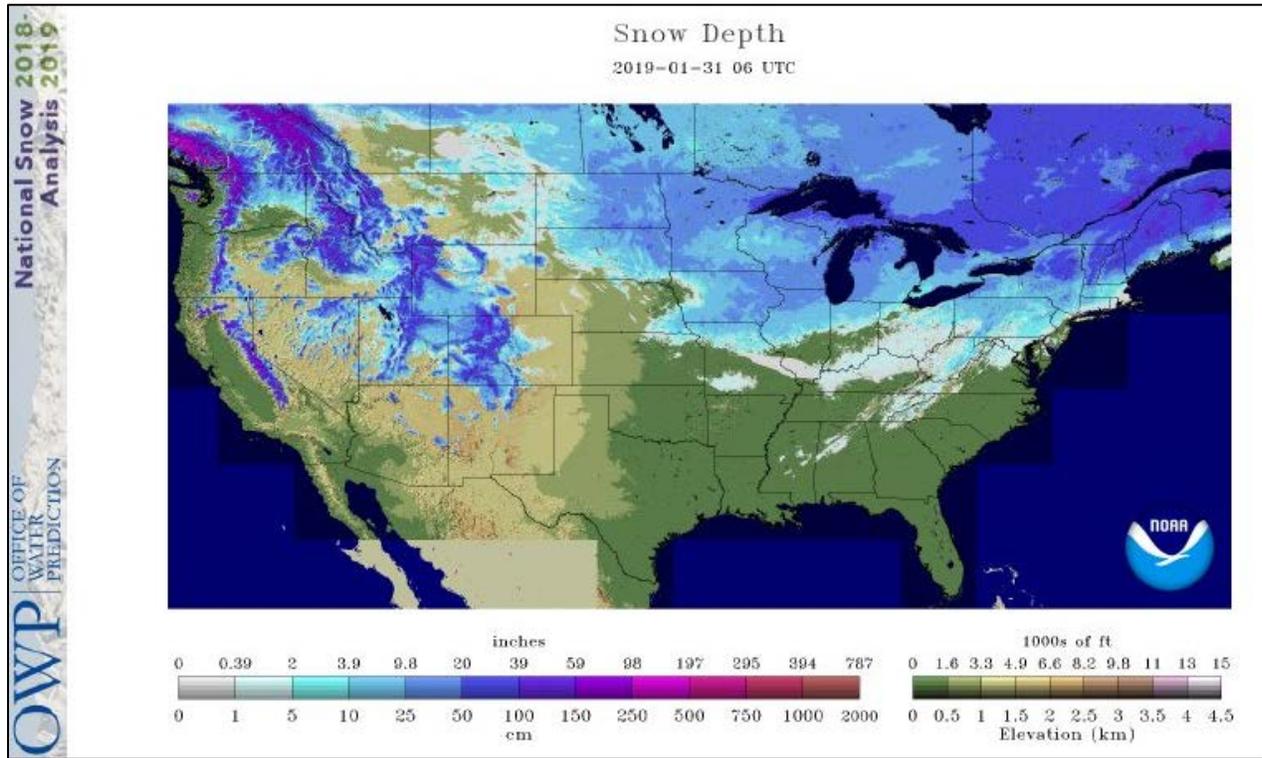
See also:
[Snow water equivalent values \(inches\) map](#)



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

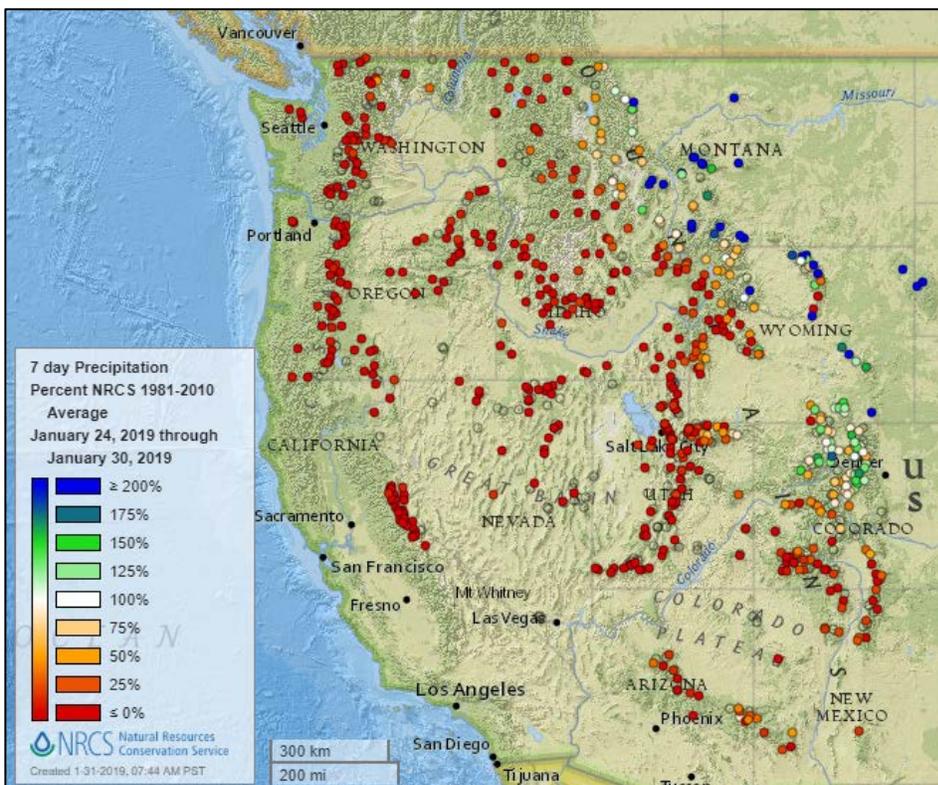
See also:
[Alaska snow water equivalent values \(inches\) map](#)

[Current Snow Depth](#), National Weather Service Snow Analysis



Precipitation

Last 7 Days, NRCS SNOTEL Network

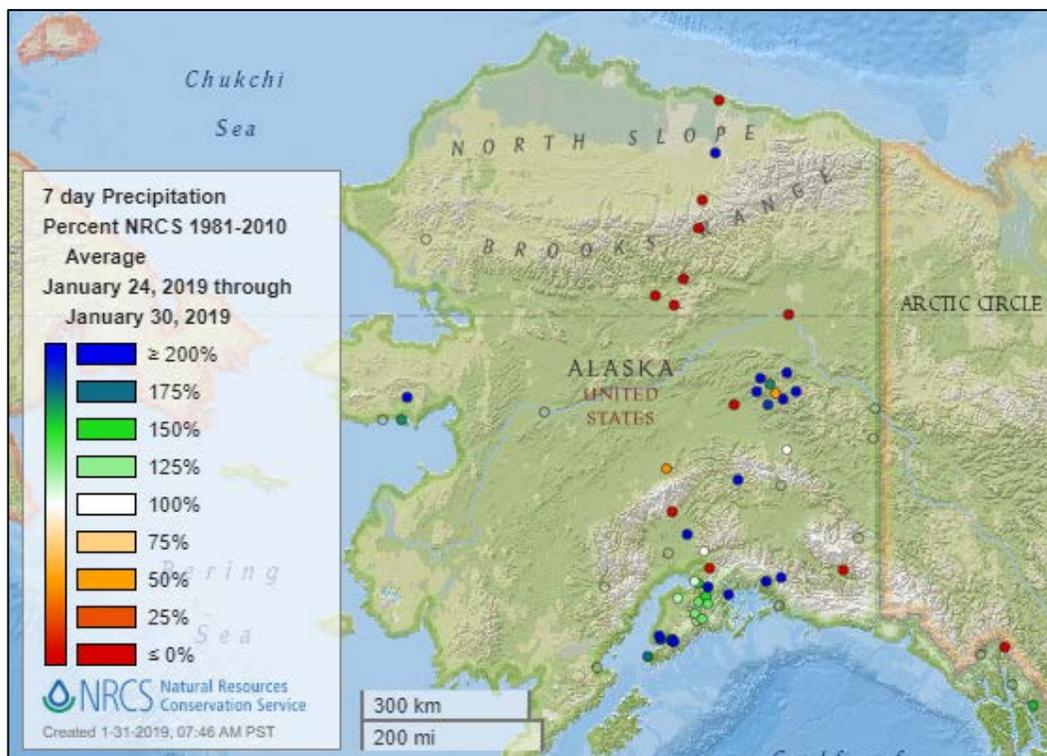


[7-day precipitation percent of average map](#)

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](#)



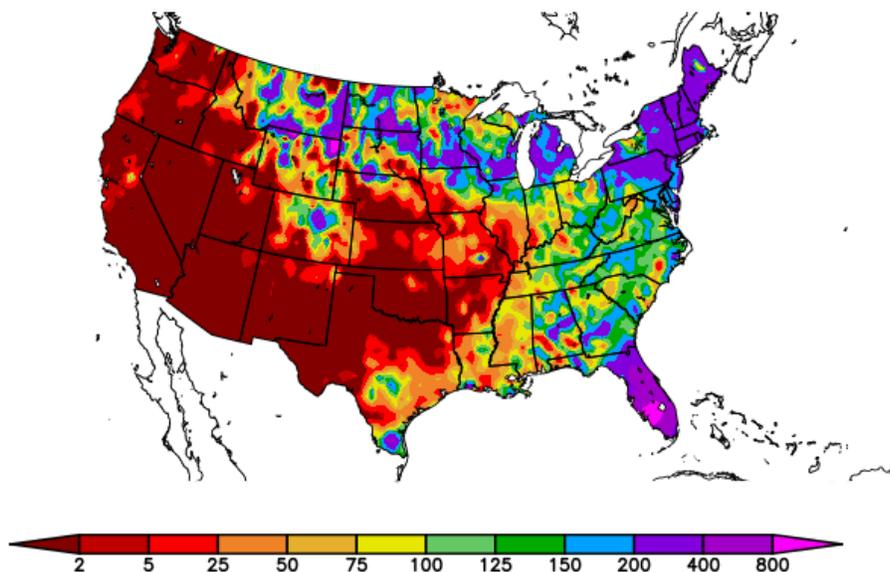
Last 7 Days, National Weather Service (NWS) Networks

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 (%)
1/24/2019 – 1/30/2019



Generated 1/31/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

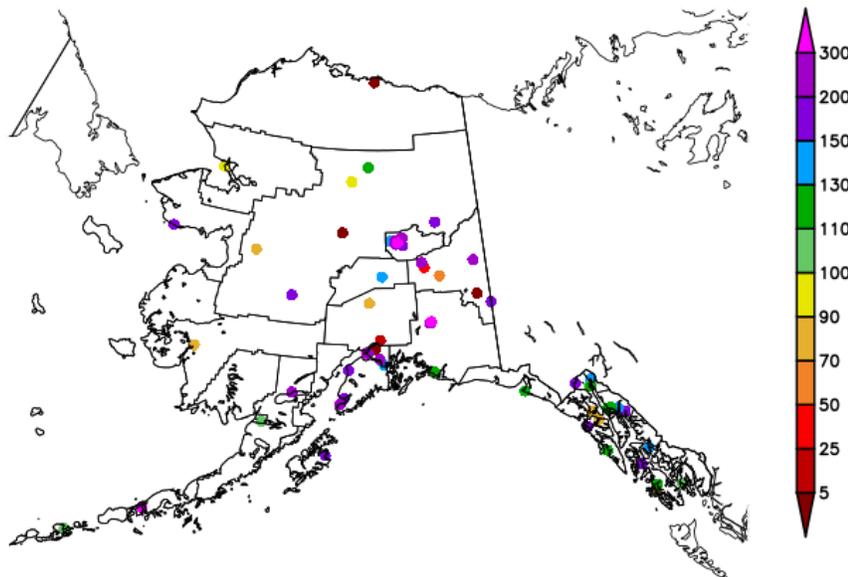
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)
1/24/2019 – 1/30/2019



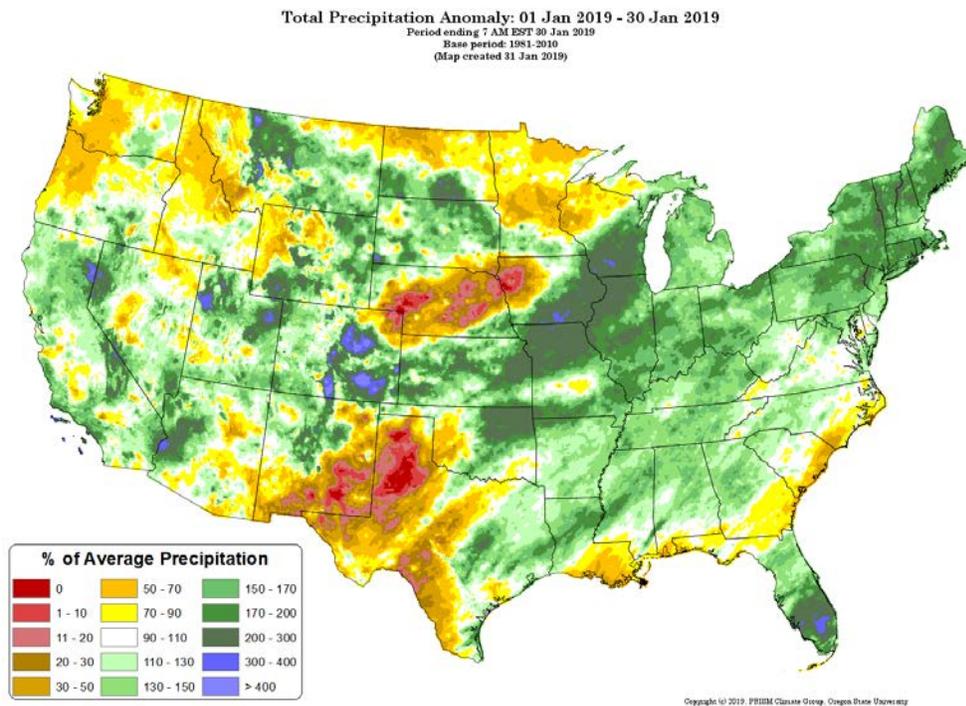
Generated 1/31/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

Water and Climate Update

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

Source: PRISM

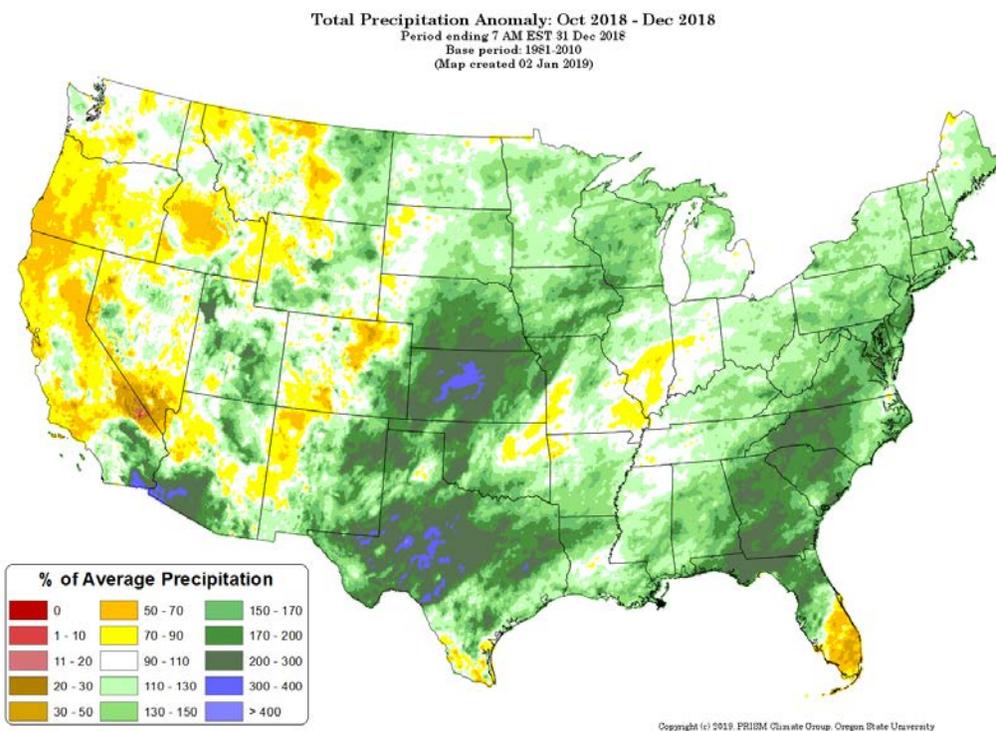


[Month-to-date national total precipitation percent of average map](#)

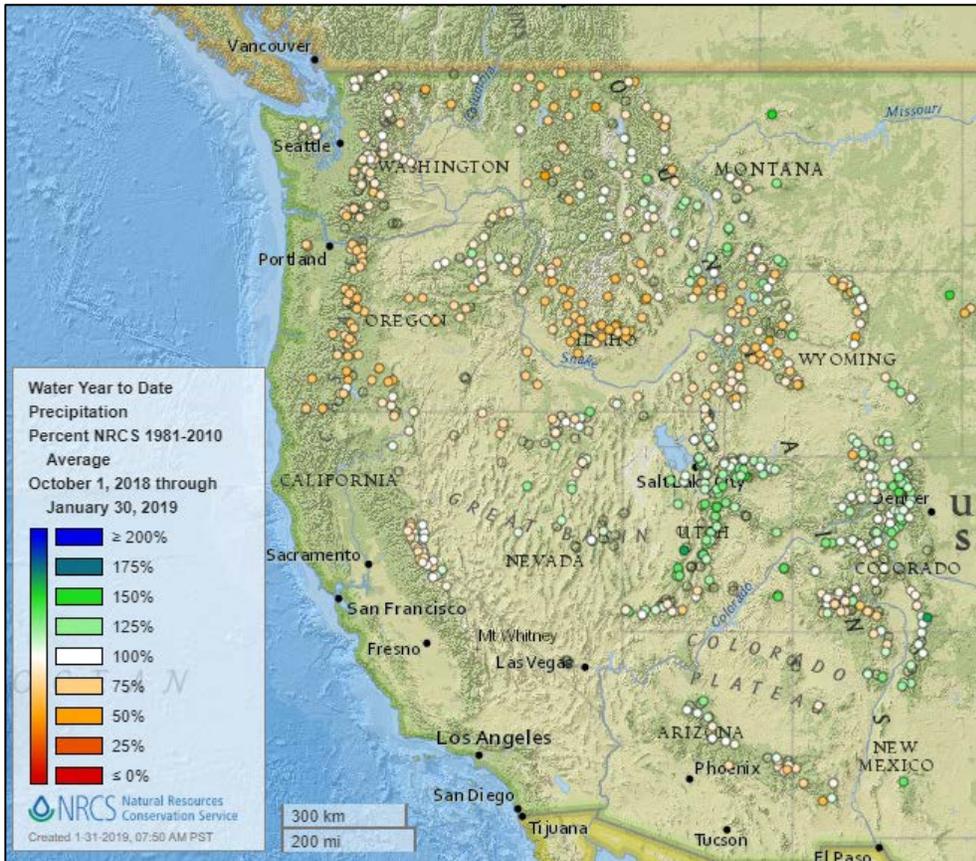
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

[October through December 2018 total precipitation percent of average map](#)

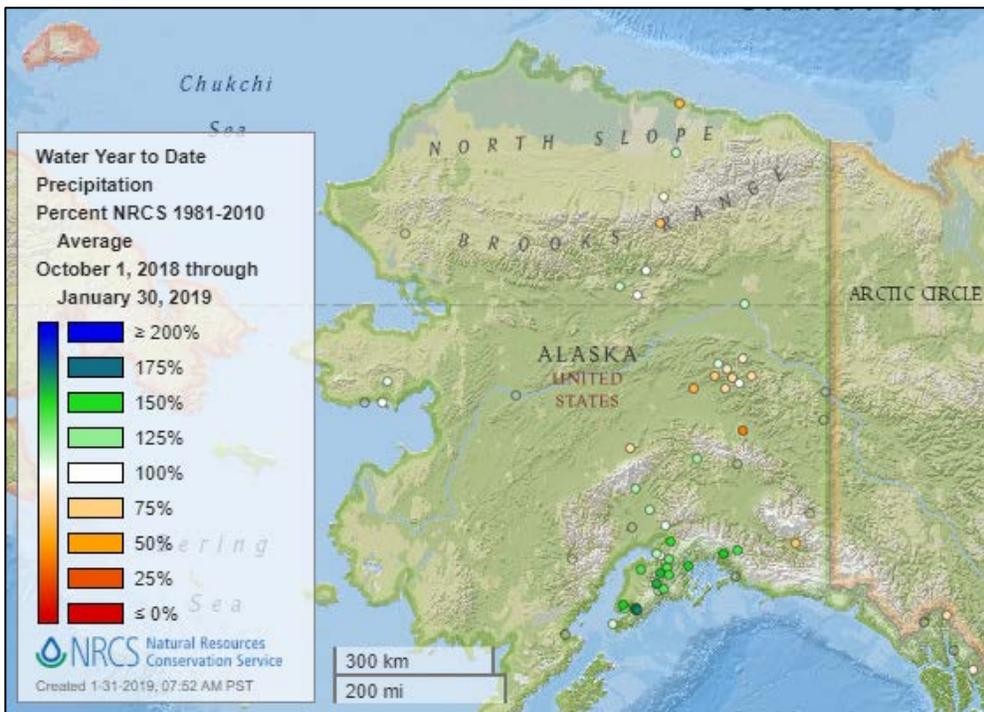


Water Year-to-Date, NRCS SNOTEL Network



[2019 water year-to-date precipitation percent of average map](#)

See also:
[2019 water year-to-date precipitation values \(inches\) map](#)



[Alaska 2019 water year-to-date precipitation percent of average map](#)

See also: [Alaska 2019 water year-to-date precipitation values \(inches\) map](#)

Temperature

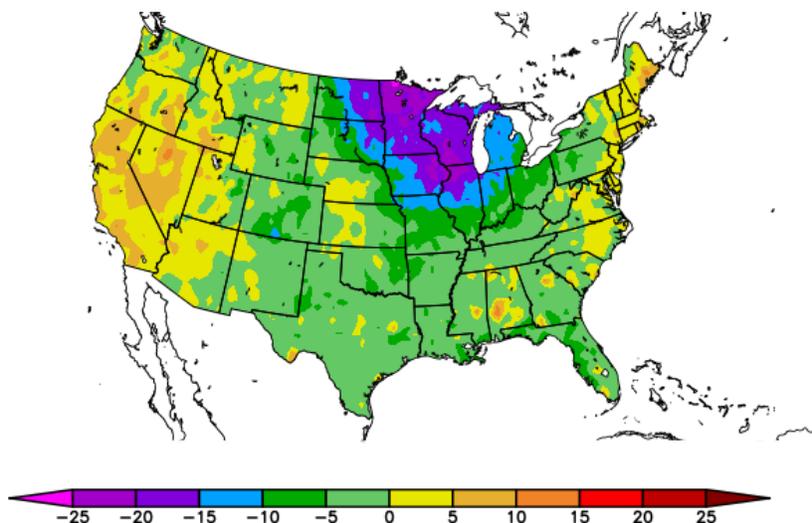
Last 7 Days, National Weather Service (NWS) Networks

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)
1/24/2019 – 1/30/2019



Generated 1/31/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

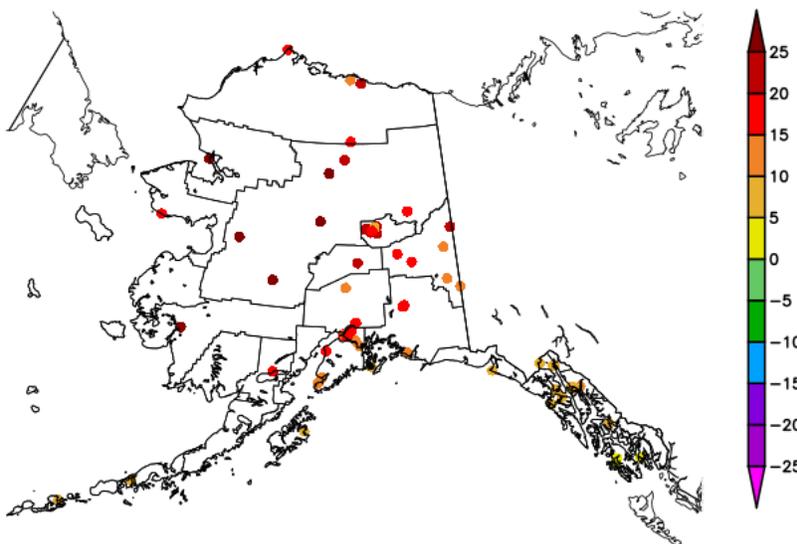
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
1/24/2019 – 1/30/2019



Generated 1/31/2019 at HPRCC using provisional data.

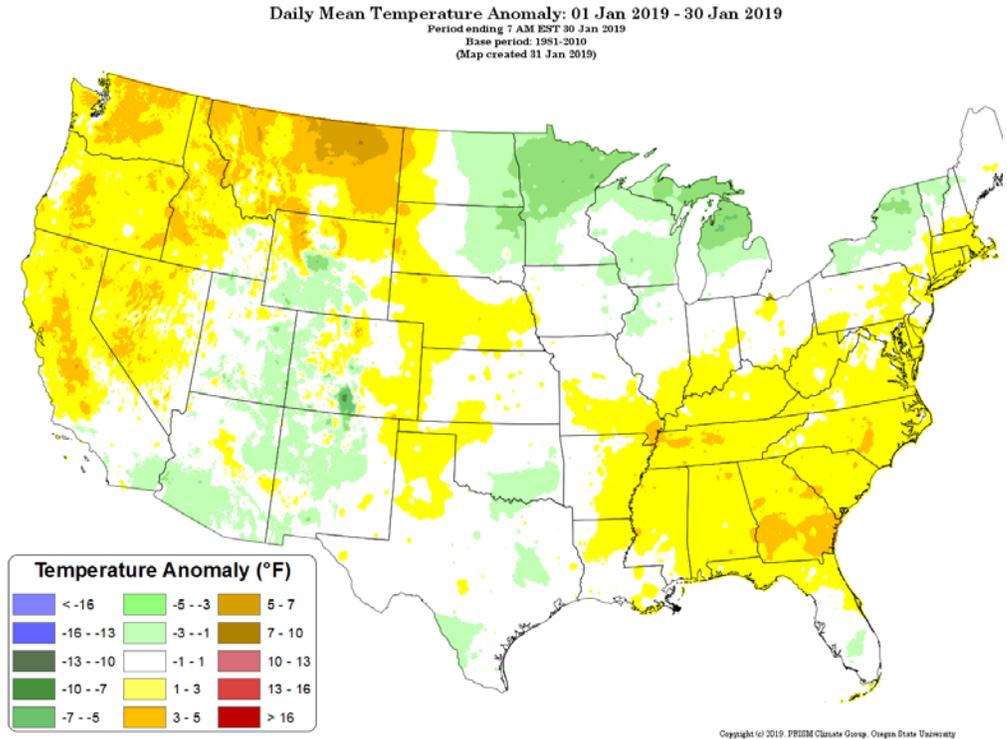
NOAA Regional Climate Centers

Water and Climate Update

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

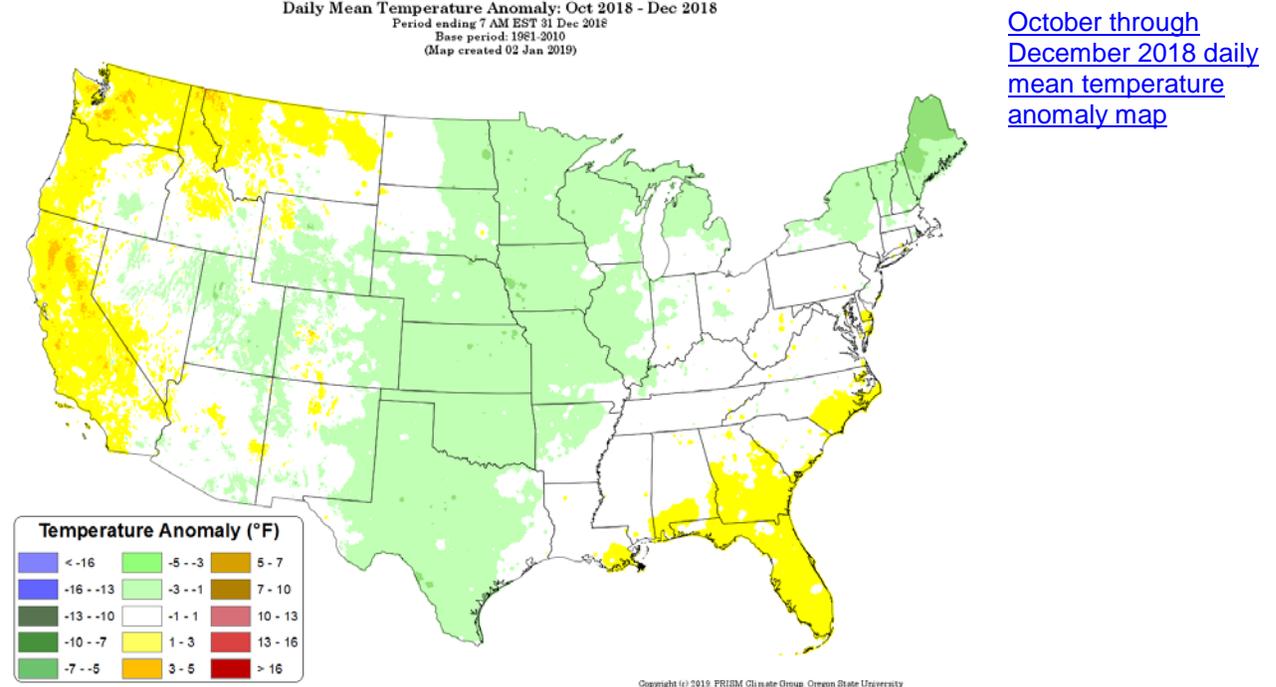
Source: PRISM

[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 2018 daily mean temperature anomaly map](#)

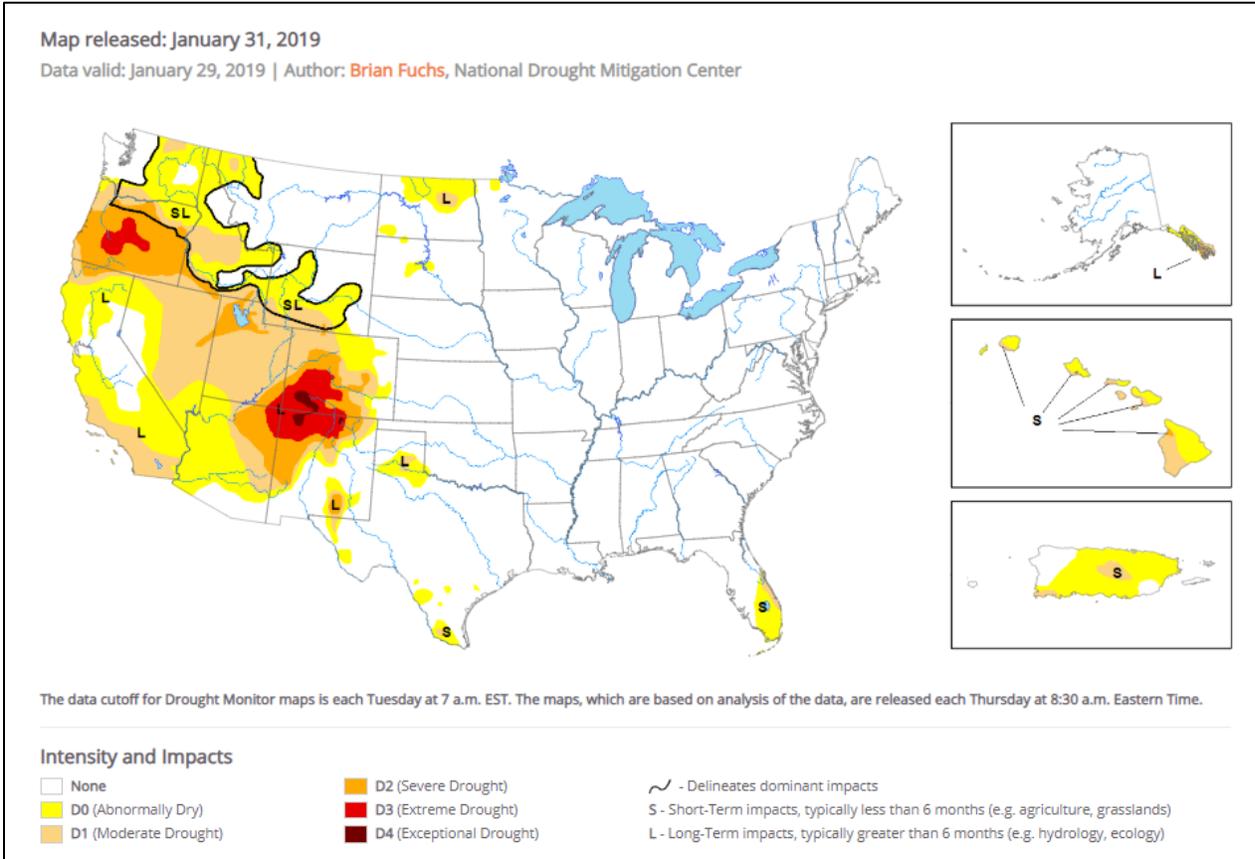
Drought

[U.S. Drought Monitor](#)

Source: National Drought Mitigation Center

[U.S. Drought Portal](#)

Source: NOAA



Current [National Drought Summary](#), January 31, 2019

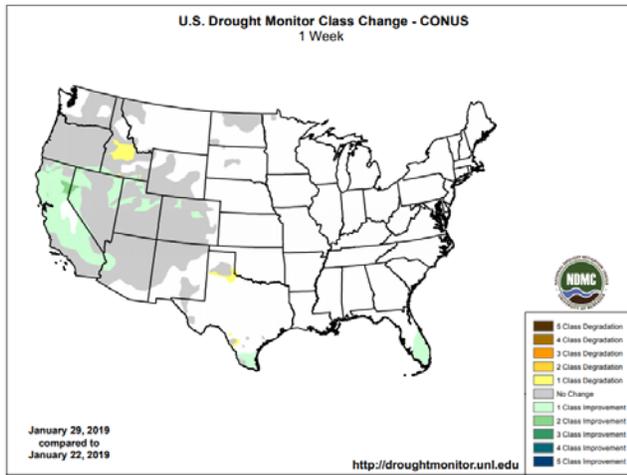
Author: Brian Fuchs, National Drought Mitigation Center

“Colder than normal temperatures dominated most of the United States for the week, especially areas east of the continental divide. The eastern half of the country remained quite wet, with most areas east of the Missouri River recording above-normal precipitation for the week. The cold settled in as a polar vortex descended south and arctic air blasted the Midwest, Great Lakes and portions of the Plains at the end of the current period.”

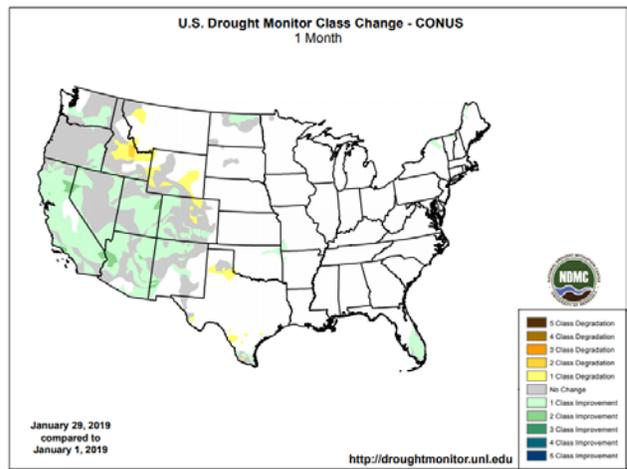
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

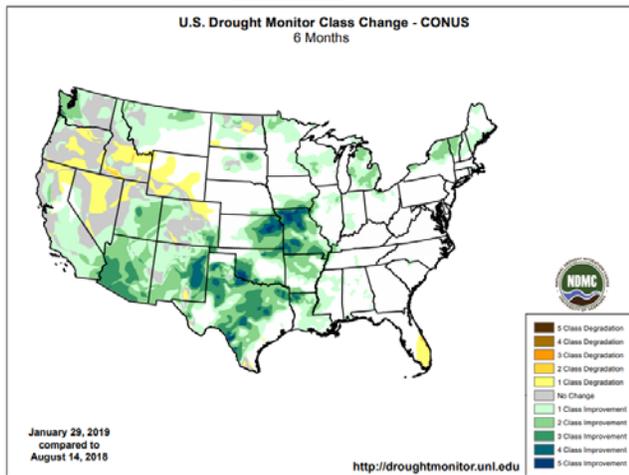
1 Week



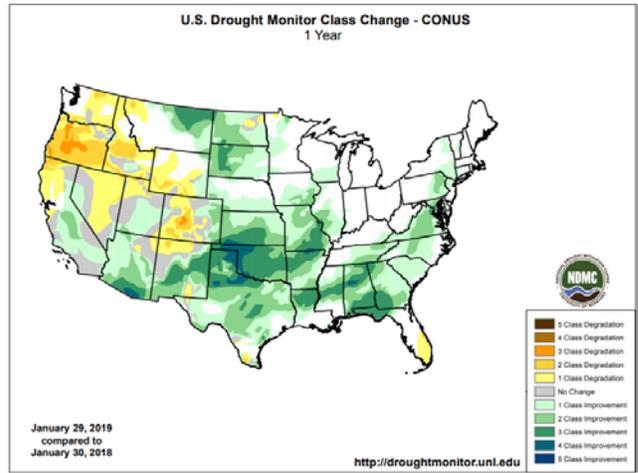
1 Month



6 Months



1 Year



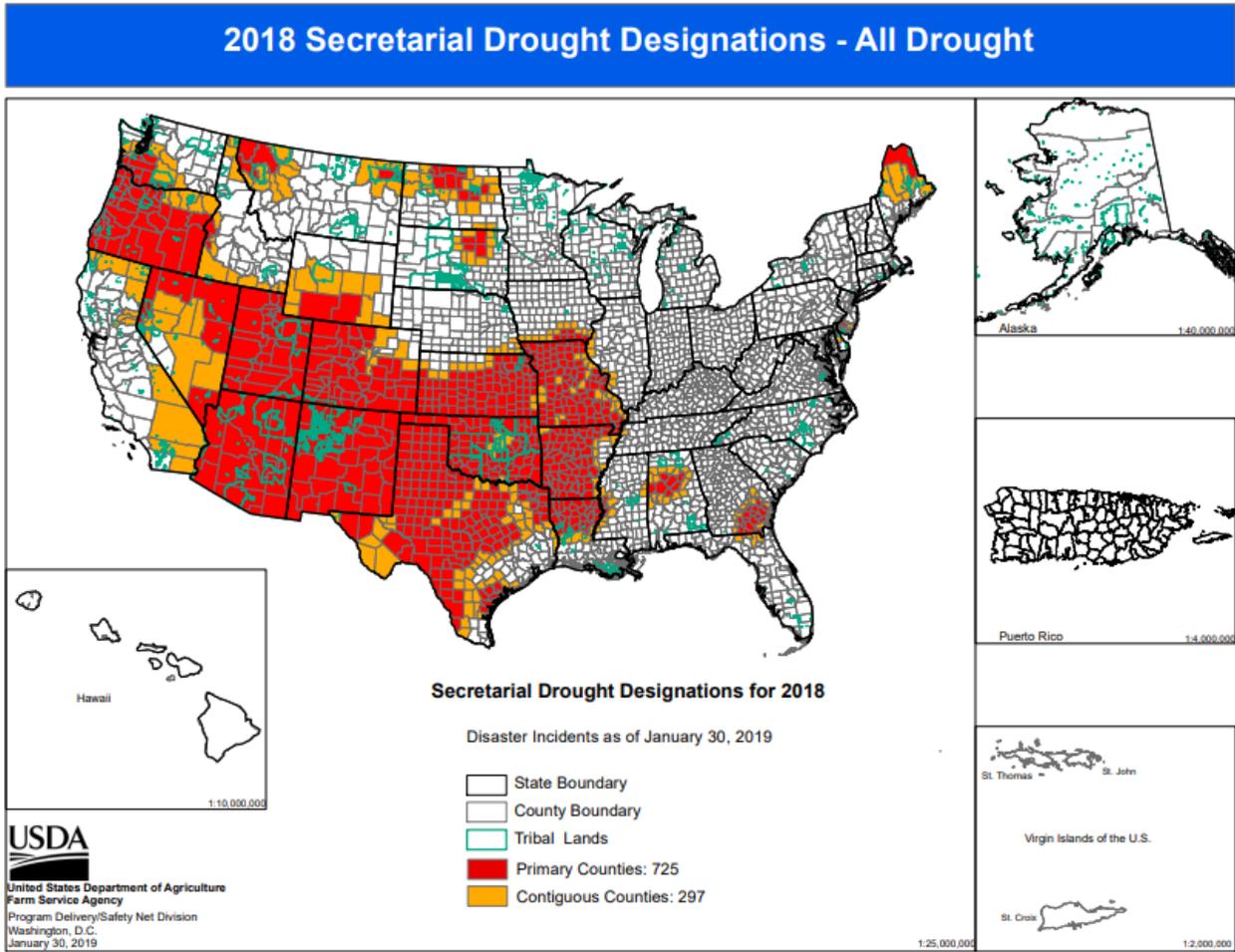
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

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](#)

2018 Secretarial Drought Designations

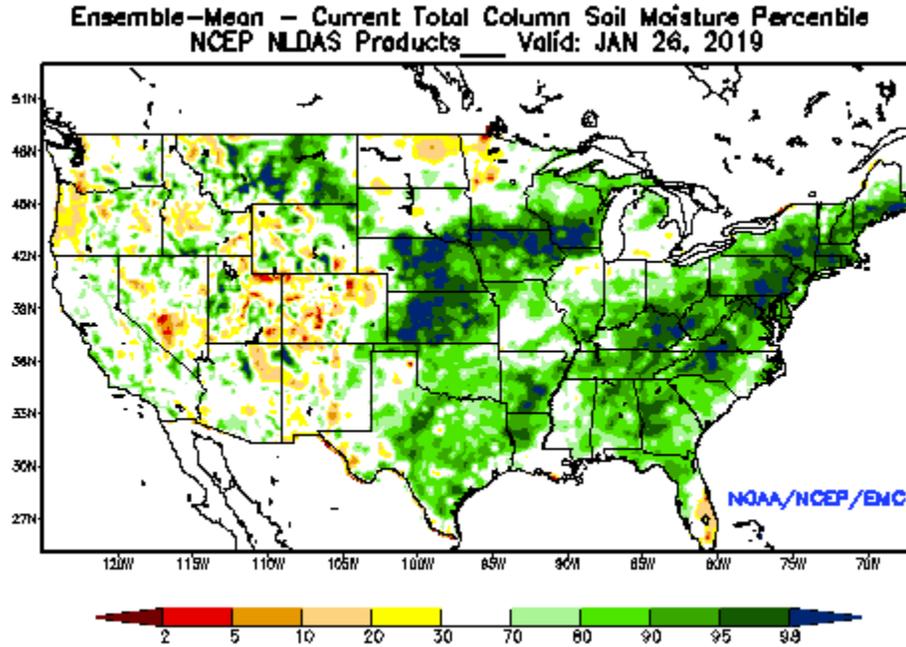
Source: USDA Farm Service Agency



Other Climatic and Water Supply Indicators

Soil Moisture

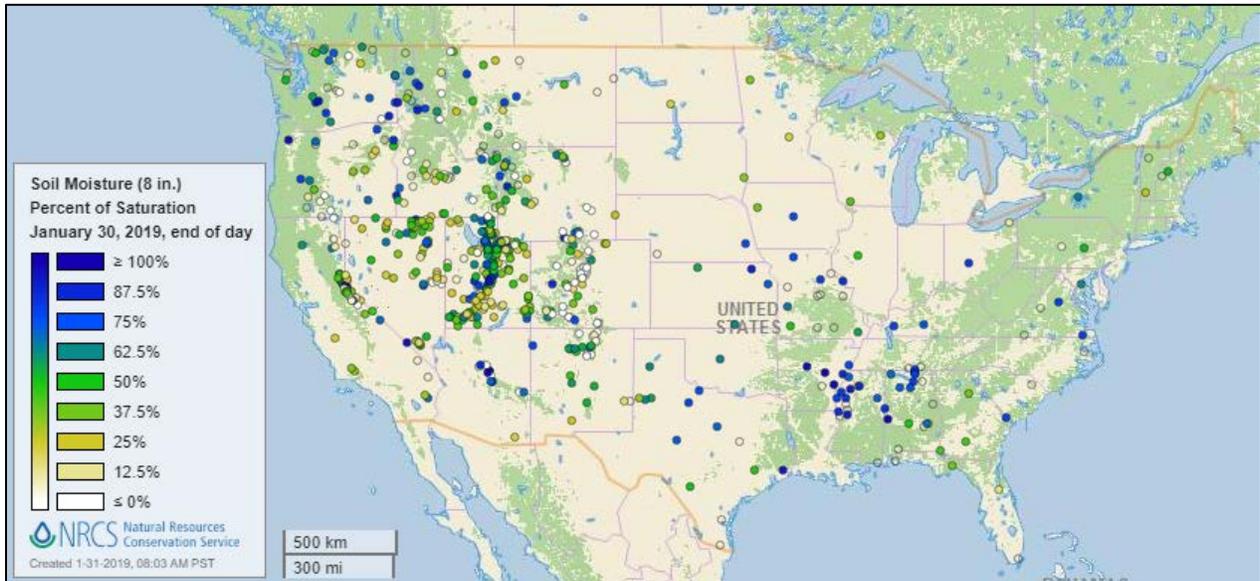
Source: NOAA National Centers for Environmental Prediction



[Modeled soil moisture percentiles](#) as of January 26, 2019

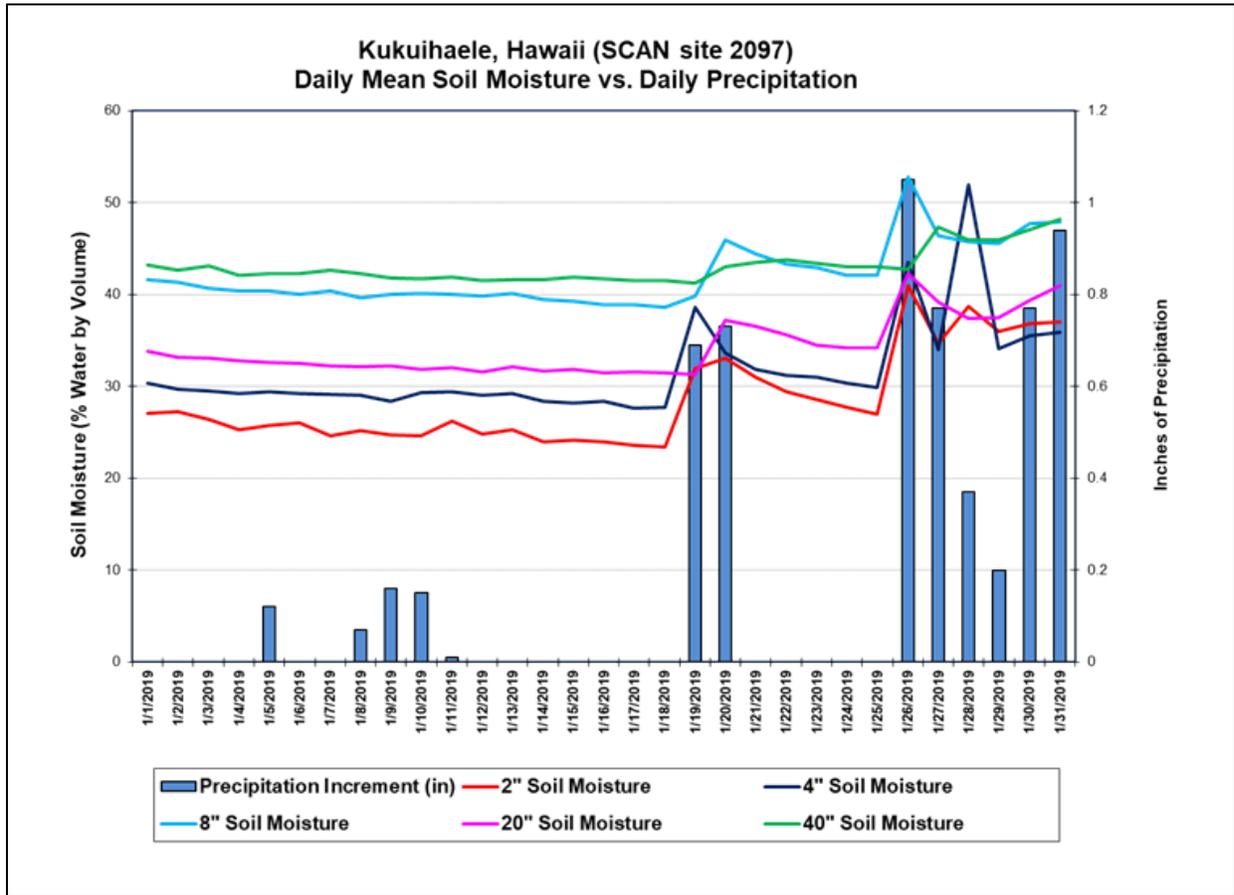
NEW! Soil Moisture Percent of Saturation

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



Soil Moisture Data

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



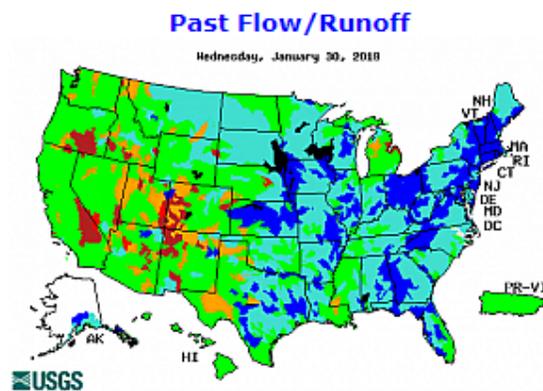
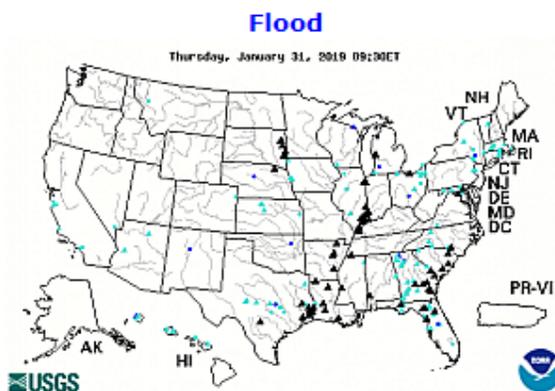
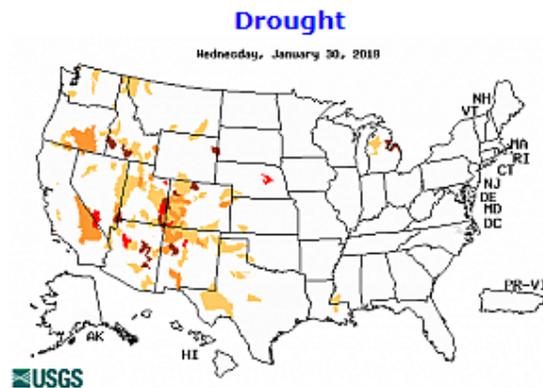
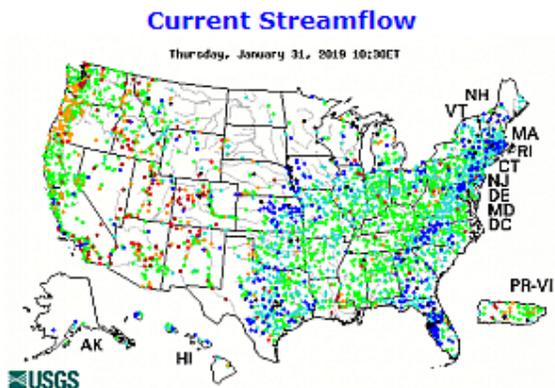
This chart shows the soil moisture and precipitation for the last 30 days at the [Kukuihaele SCAN site](#) in Hawaii. From January 26 to 31, the accumulated precipitation totaled 4.1 inches and overall soil moisture increased at all sensor levels.

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

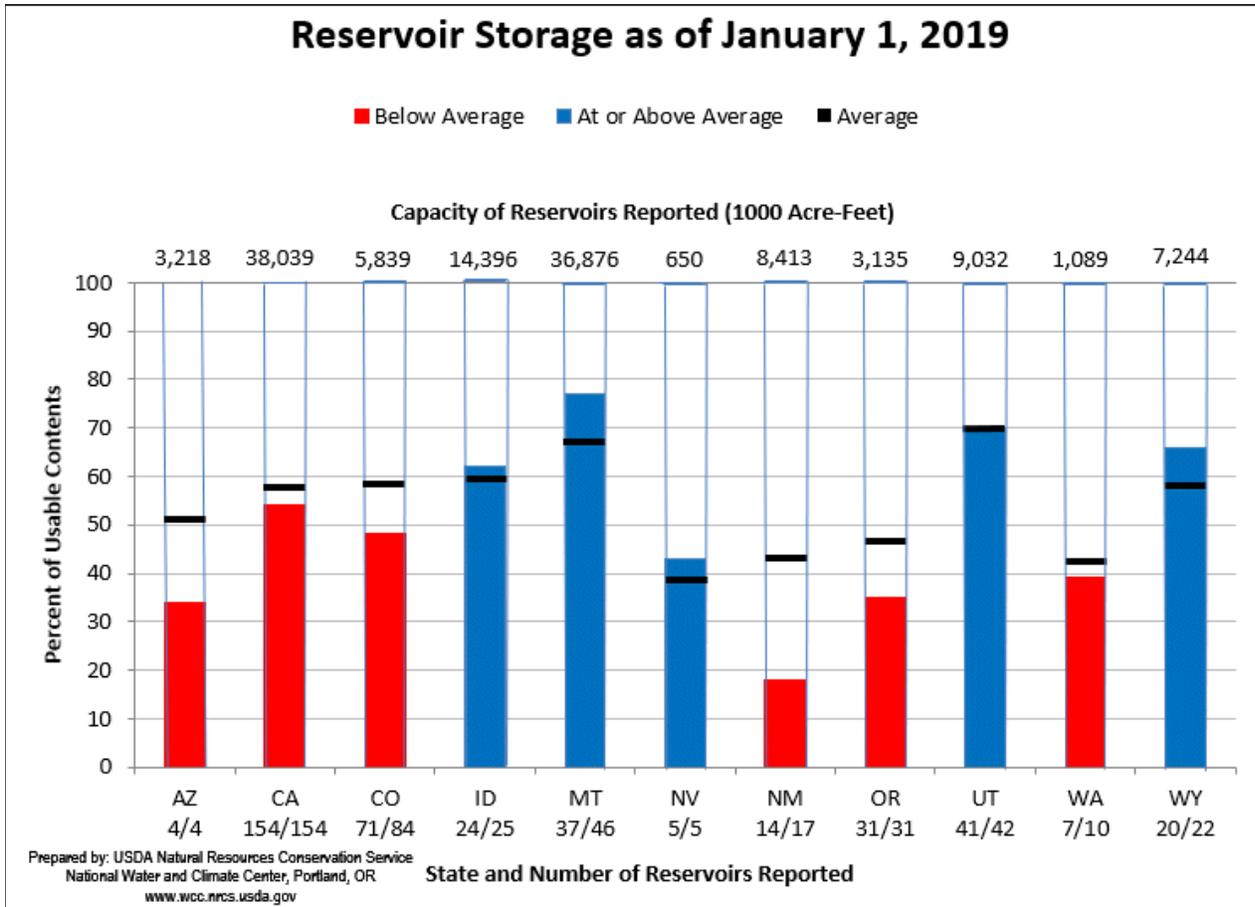


[WaterWatch: Streamflow, drought, flood, and runoff conditions](#)

Reservoir Storage

Western States Reservoir Storage

Source: NRCS National Water and Climate Center



January 1, 2019 Reservoir Storage: [Chart](#) | [Dataset](#)

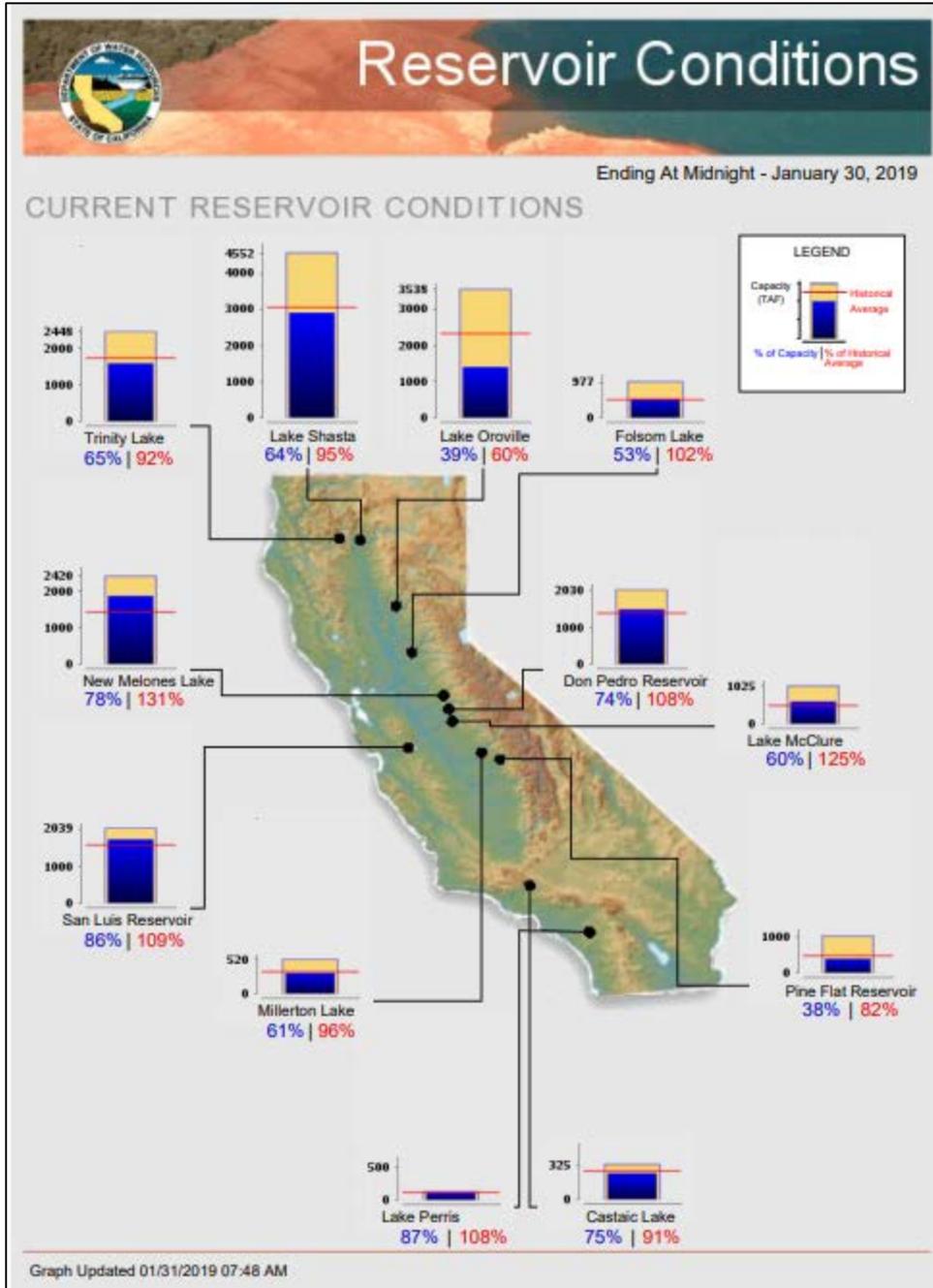
Hydromet Tea Cup Reservoir Depictions

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

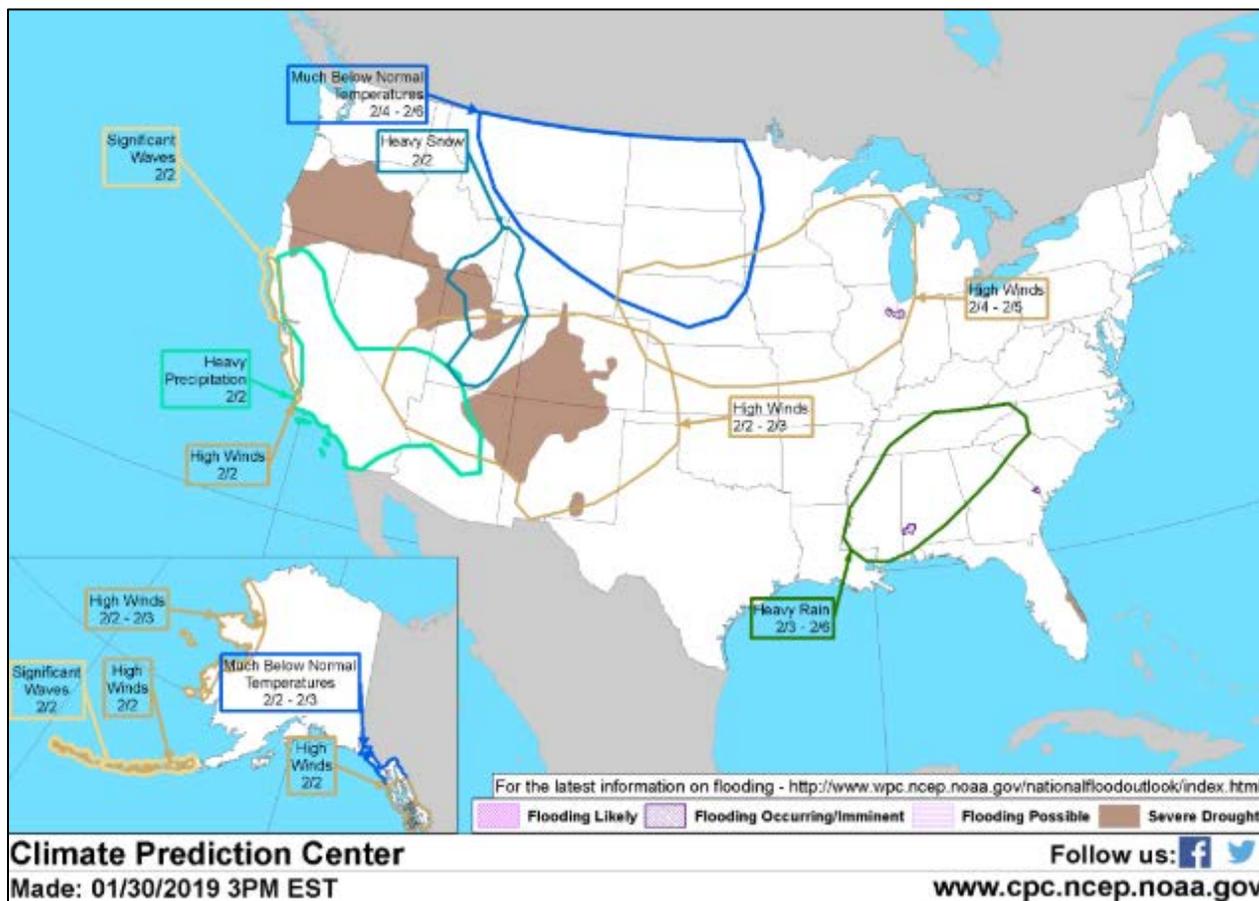
Agricultural Weather Highlights

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

National Outlook, Thursday, January 31, 2019: “A rapid warming trend will soon commence, with above-normal temperatures arriving across the Midwest by Saturday. Weekend temperatures should top 70°F as far north as Kansas and southwestern Missouri. Frigid conditions will linger through the weekend, however, in New England. By early next week, a new surge of Arctic air will engulf northern sections of the Rockies and Plains, with a broader area of the West experiencing a flip from above- to below-normal temperatures. Significant precipitation will accompany the Western temperature drop, with flooding possible in coastal and southern California. Meanwhile, periods of generally light precipitation will fall across the northern Plains and from the Mississippi Valley eastward. However, disruptive snowfall may occur late in the weekend and early next week from the northern Plains into the upper Midwest. The NWS 6- to 10-day outlook for February 5 – 9 calls for below-normal temperatures along and northwest of a line from New Mexico to Michigan, while warmer-than-normal weather will prevail from the Gulf Coast into the Northeast. Meanwhile, wetter-than-normal conditions will dominate the country, with below-normal precipitation limited to southern Florida and portions of the Pacific Coast States.”

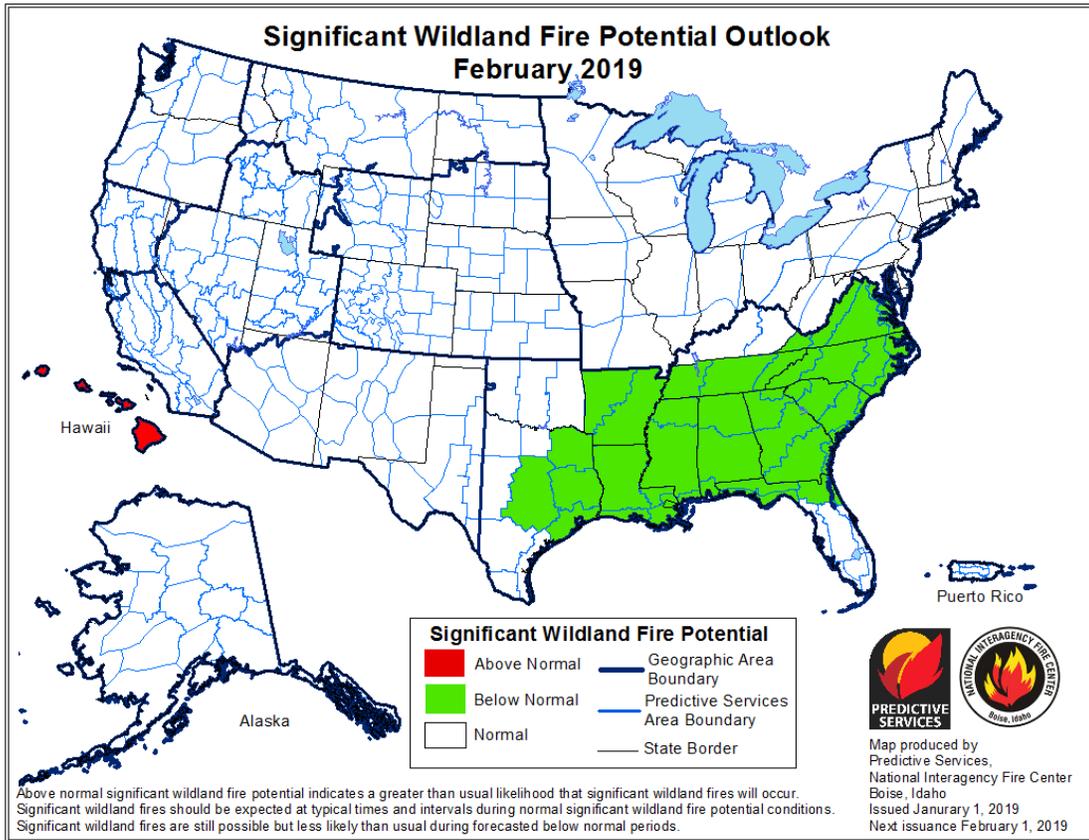
Weather Hazards Outlook: February 2 – 6, 2019

Source: Climate Prediction Center



Significant Wildland Fire Potential Outlook

Source: National Interagency Fire Center

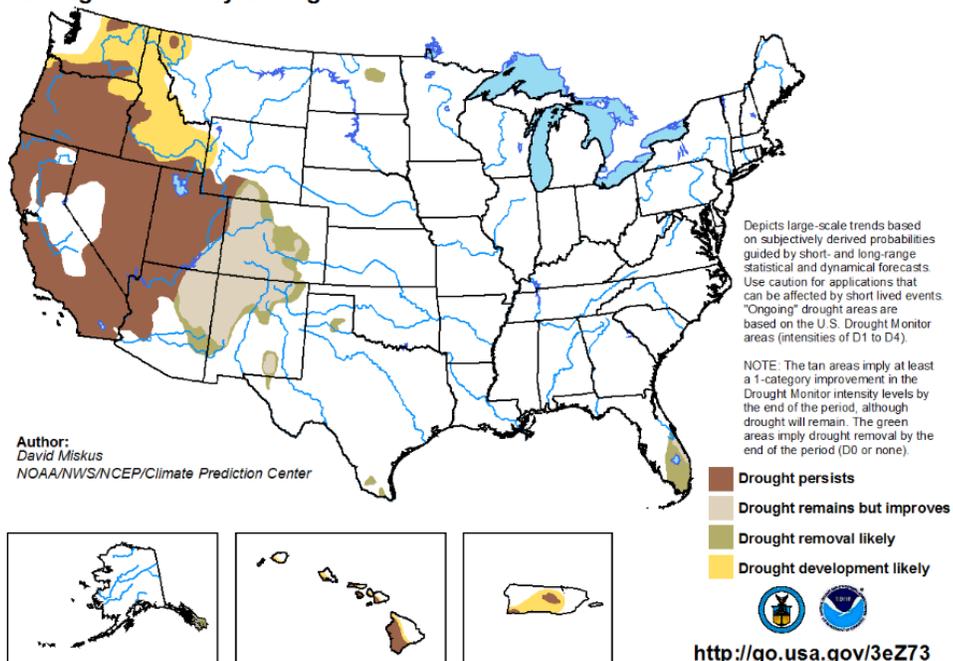


Seasonal Drought Outlook: January 17 – April 30, 2019

Source: National Weather Service

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

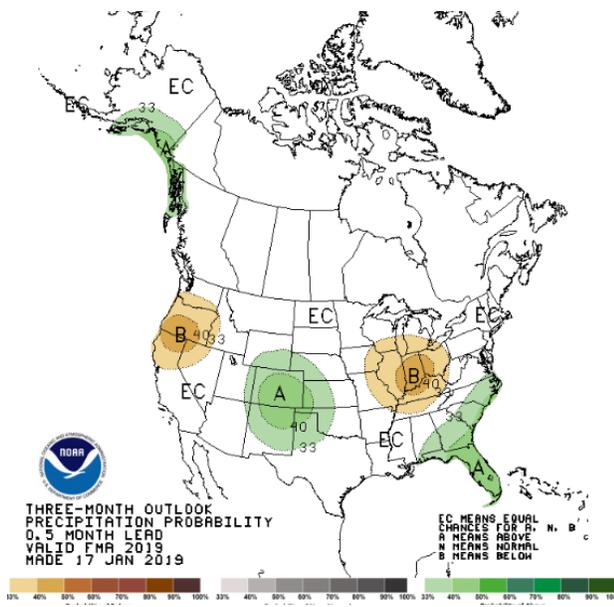
Valid for January 17 - April 30, 2019
Released January 17



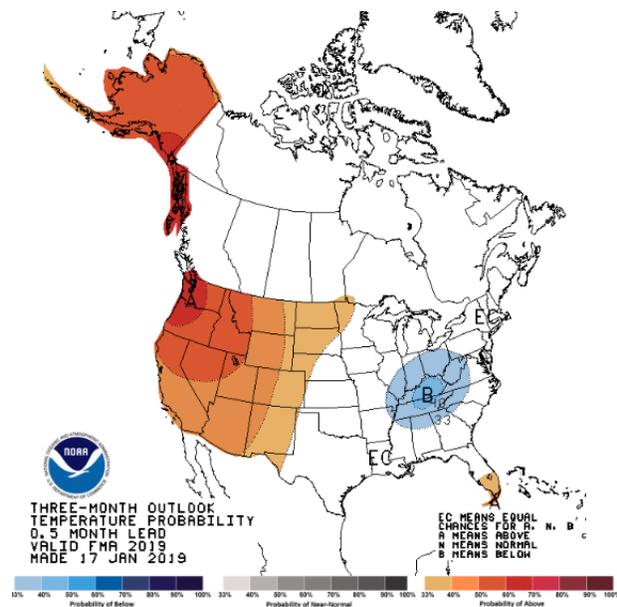
Climate Prediction Center 3-Month Outlook

Source: National Weather Service

[Precipitation](#)



[Temperature](#)



[February-March-April \(FMA\) 2019 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](#).