

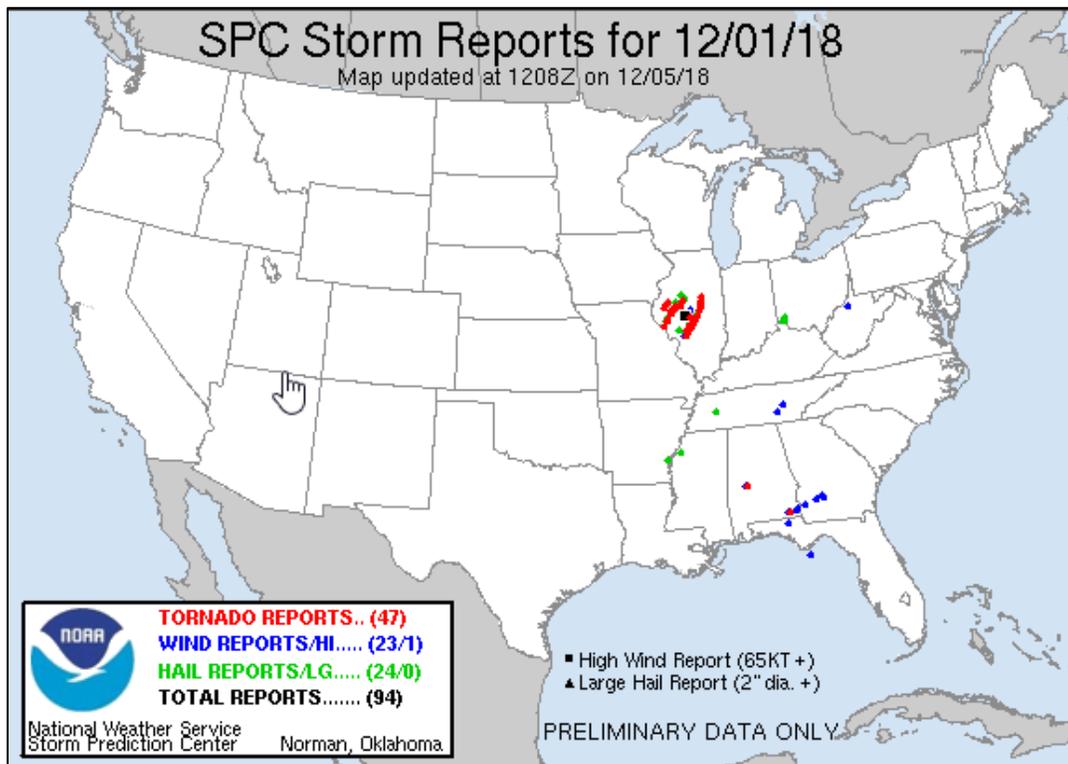
Water and Climate Update

December 6, 2018

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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Record December tornadoes impact Illinois



Severe storms caused damage across central Illinois on December 1. The 18 tornadoes reported surpassed the previous December record set in 1957. It is also the third largest outbreak for any month. Destruction included damage to hundreds of homes and widespread power outages. Another set of severe storms impacted the southeast U.S. the same day with damaging winds, local flooding, and isolated tornadoes.

Related:

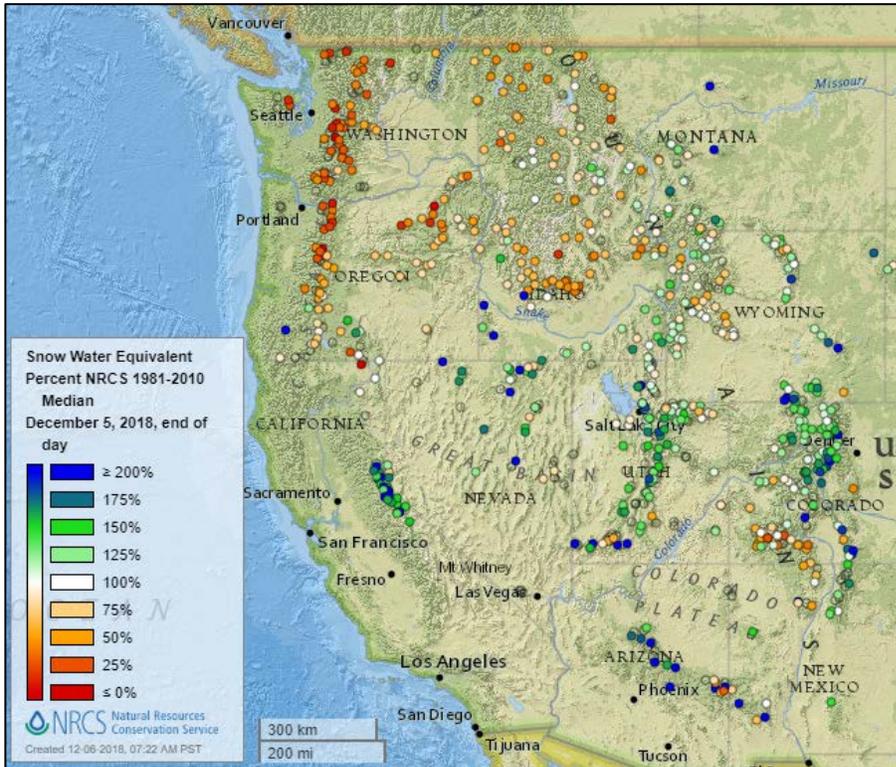
- [Illinois tornado outbreak sets record as biggest in December in state history, NWS says](#) – ABC7 (Ill)
- [Tornadoes rip off roofs in Midwest, flip Coast Guard ship in Georgia](#) - CBS News
- [Residents continue assessing rare December tornado damage](#) – ABC News
- [Saturday's swarm of tornadoes sets record in Illinois](#) – KSDK (MO)
- [Rare December Tornadoes Touch Down in Midwest, Knocking Out Power and Killing 1](#) – U.S. News &

World Report

- [6 tornadoes now confirmed in the Ozarks](#) – KY3 (MO)

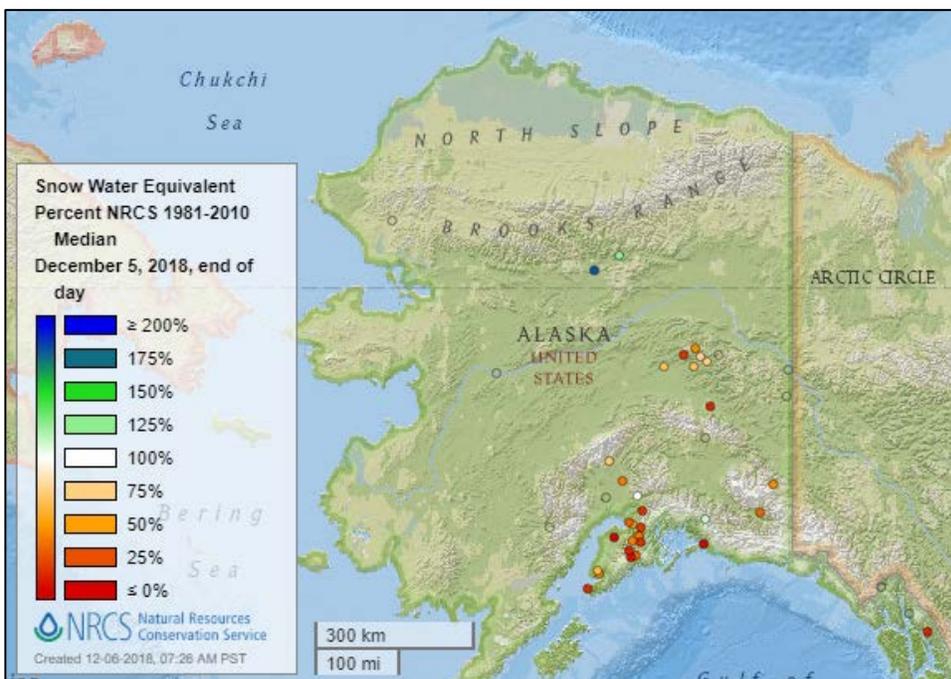
Snow

Current Snow Water Equivalent, NRCS SNOTEL Network



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

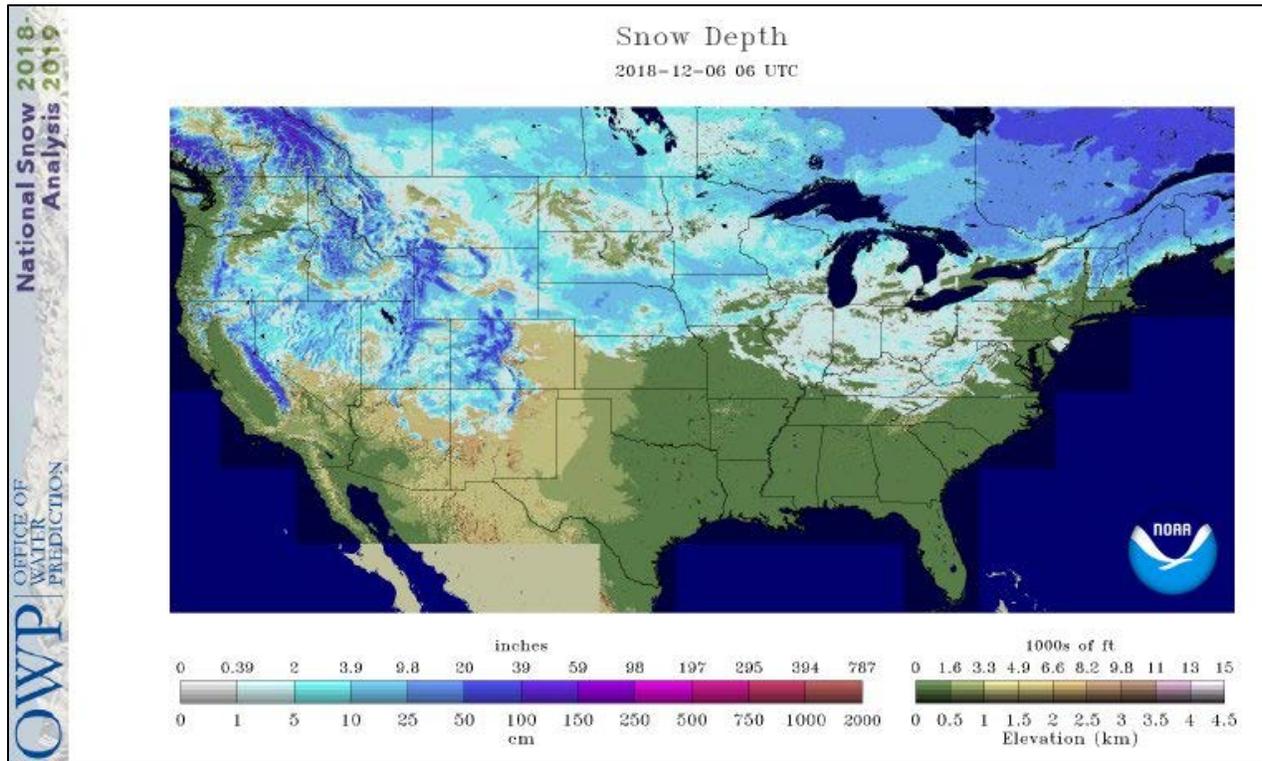
See also:
[Snow water equivalent values \(inches\) map](#)



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

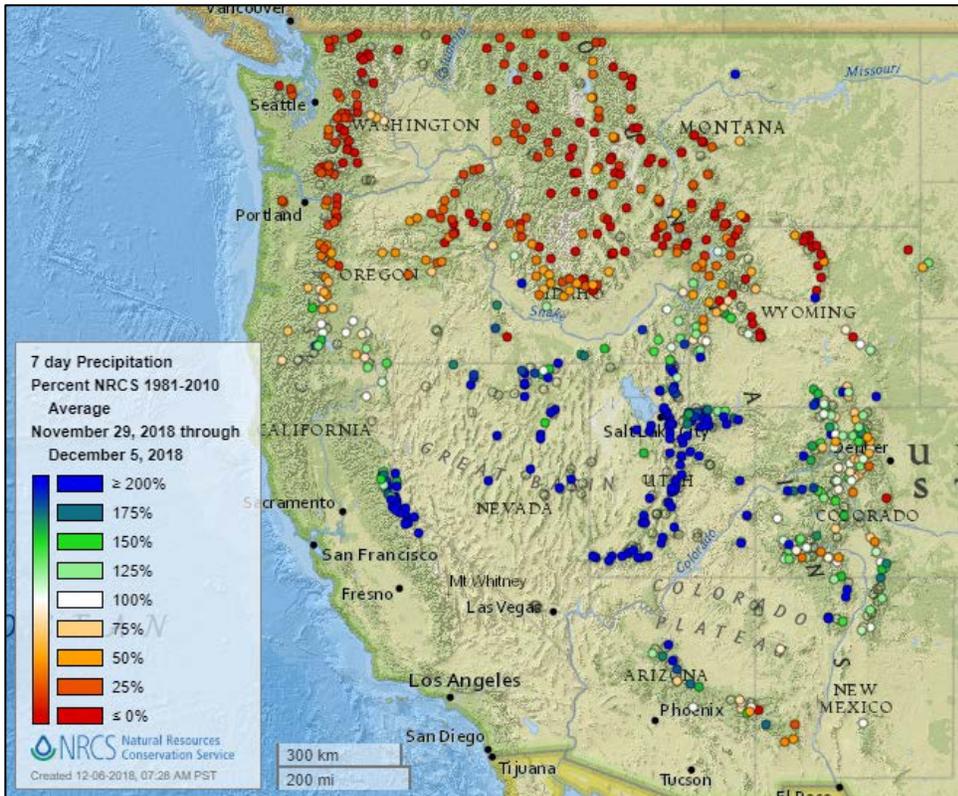
See also:
[Alaska snow water equivalent values \(inches\) map](#)

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



Precipitation

Last 7 Days, NRCS SNOTEL Network

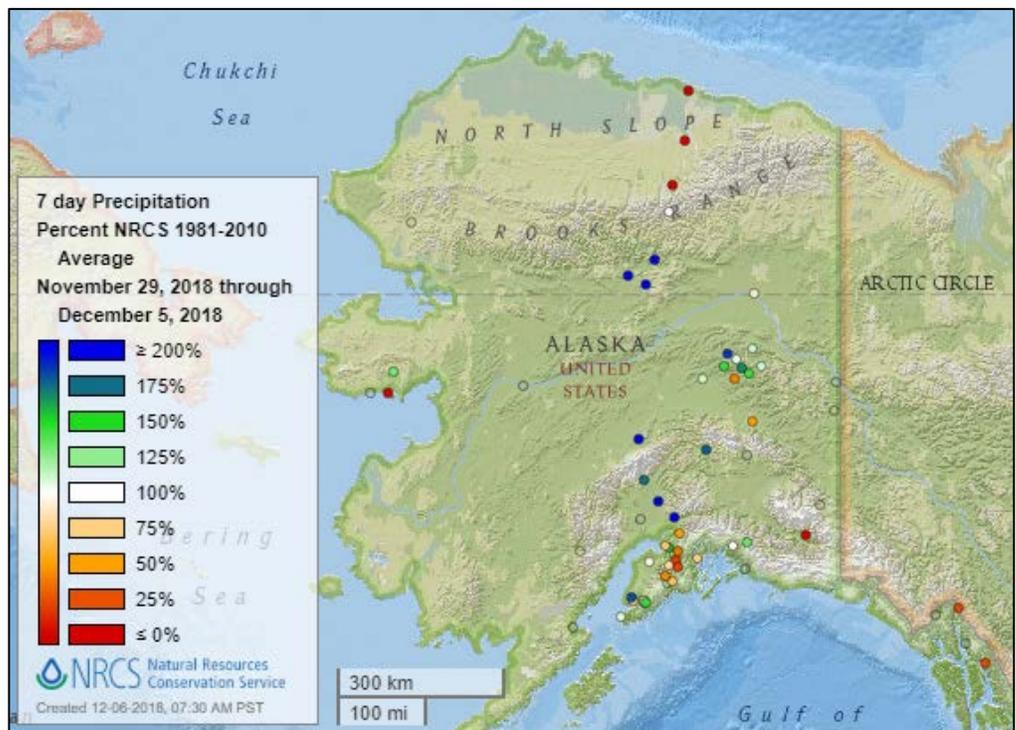


[7-day precipitation percent of average map](#)

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](#)



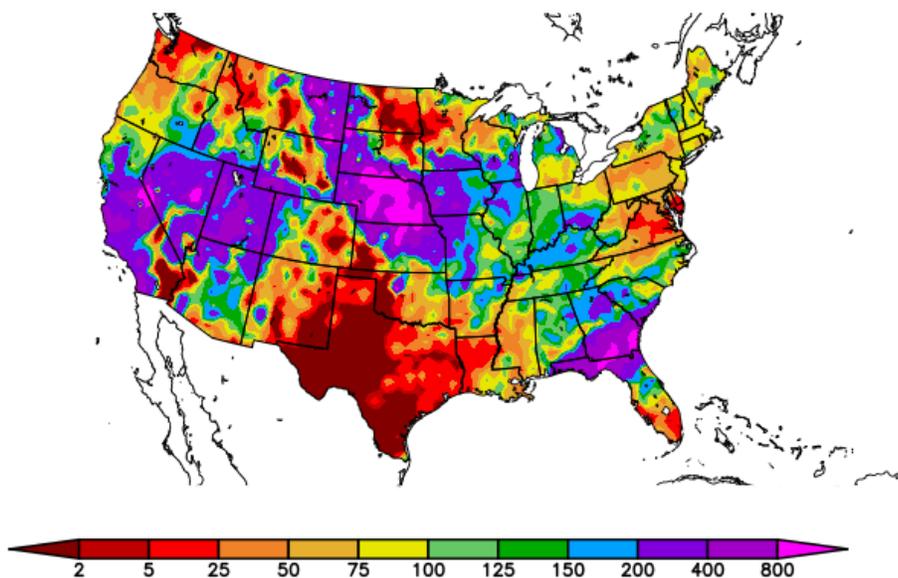
Last 7 Days, National Weather Service (NWS) Networks

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 (%)
11/29/2018 – 12/5/2018



Generated 12/6/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

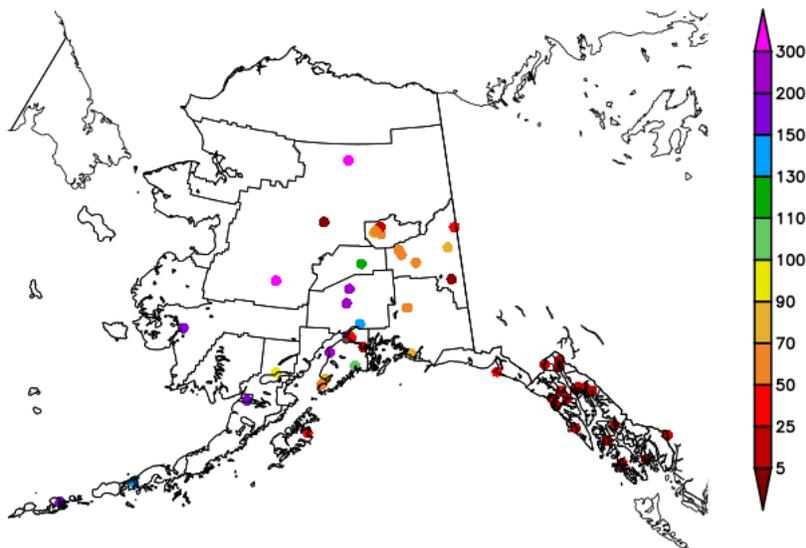
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)
11/29/2018 – 12/5/2018

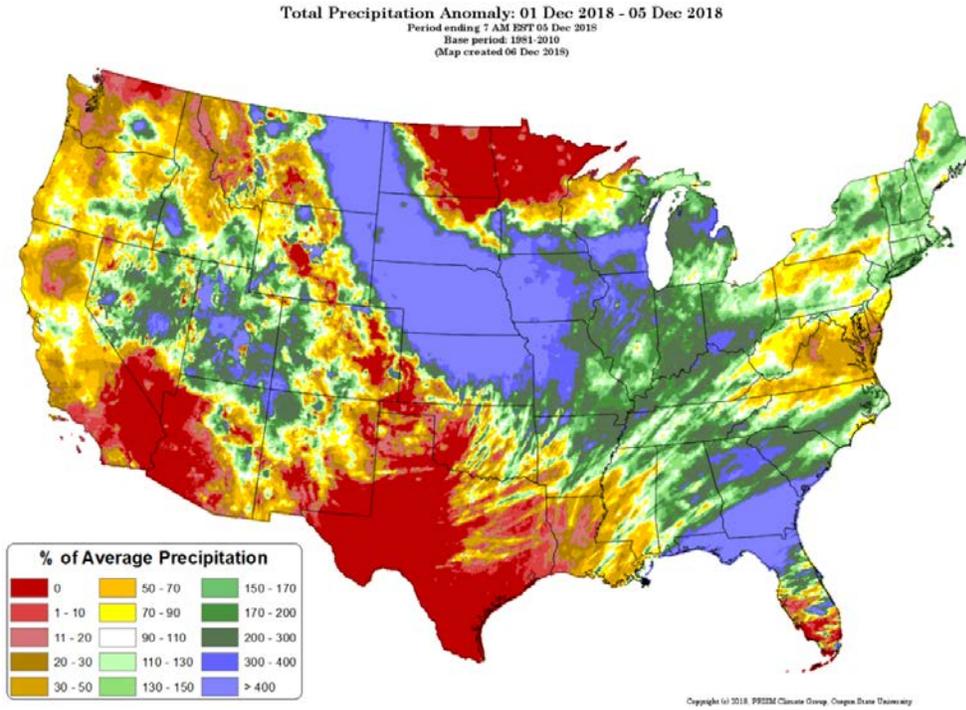


Generated 12/6/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

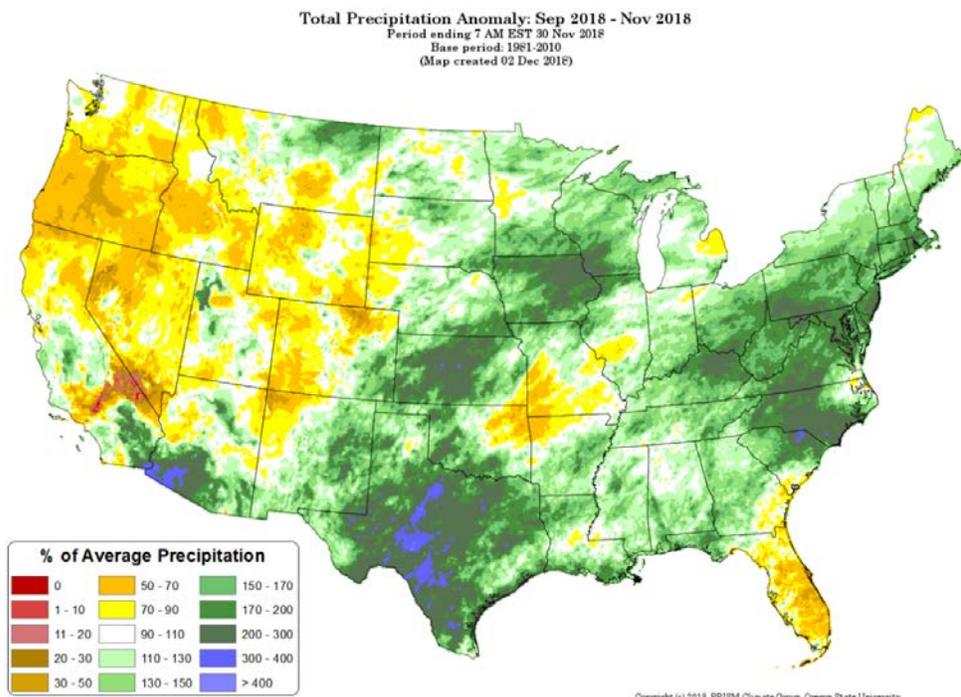


[Month-to-date national total precipitation percent of average map](#)

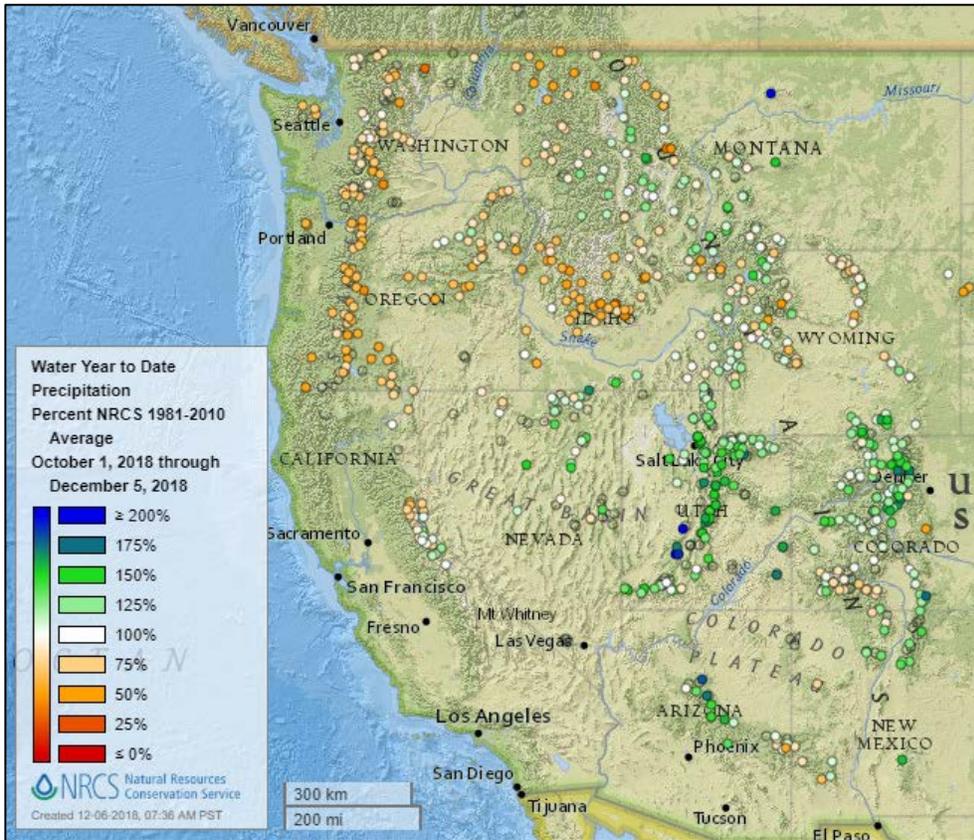
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

[September through November 2018 total precipitation percent of average map](#)

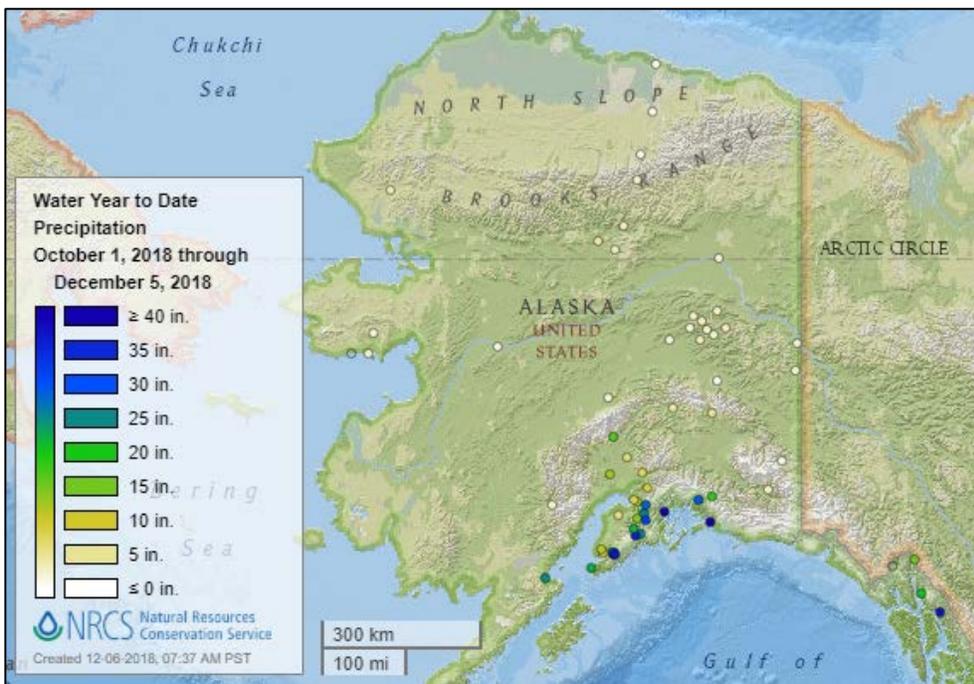


Water Year-to-Date, NRCS SNOTEL Network



[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

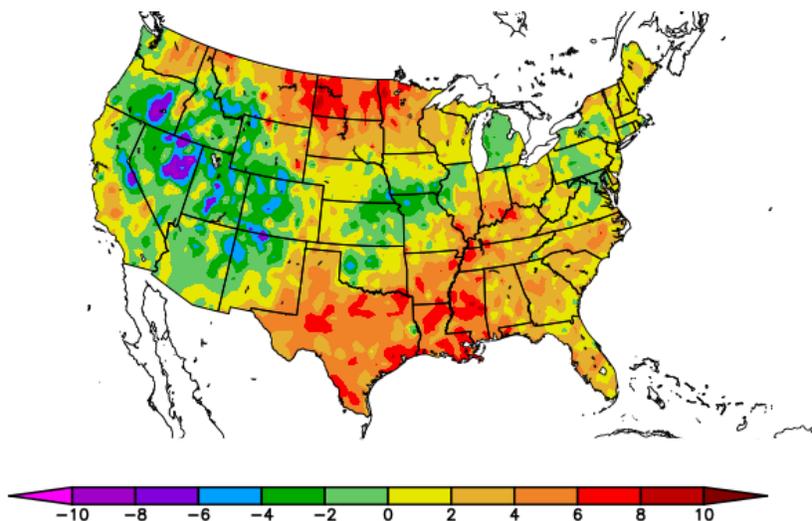
Last 7 Days, National Weather Service (NWS) Networks

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)
11/29/2018 – 12/5/2018



Generated 12/6/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

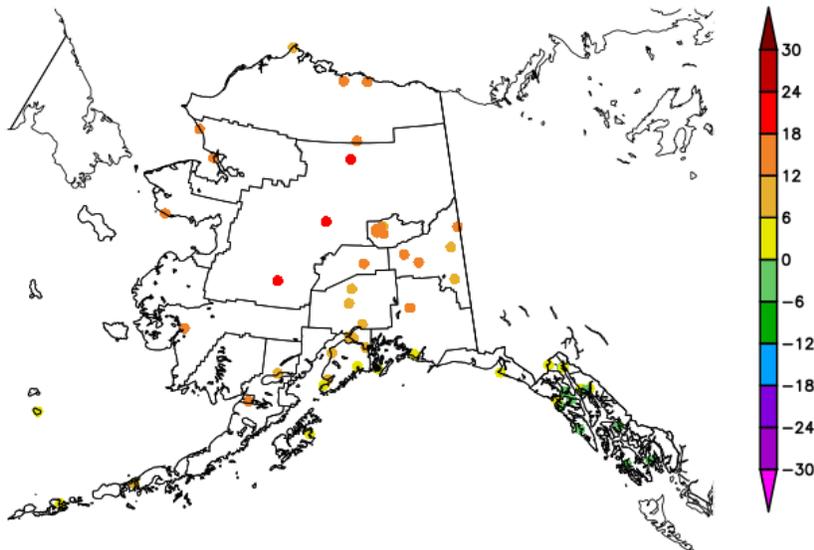
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
11/29/2018 – 12/5/2018

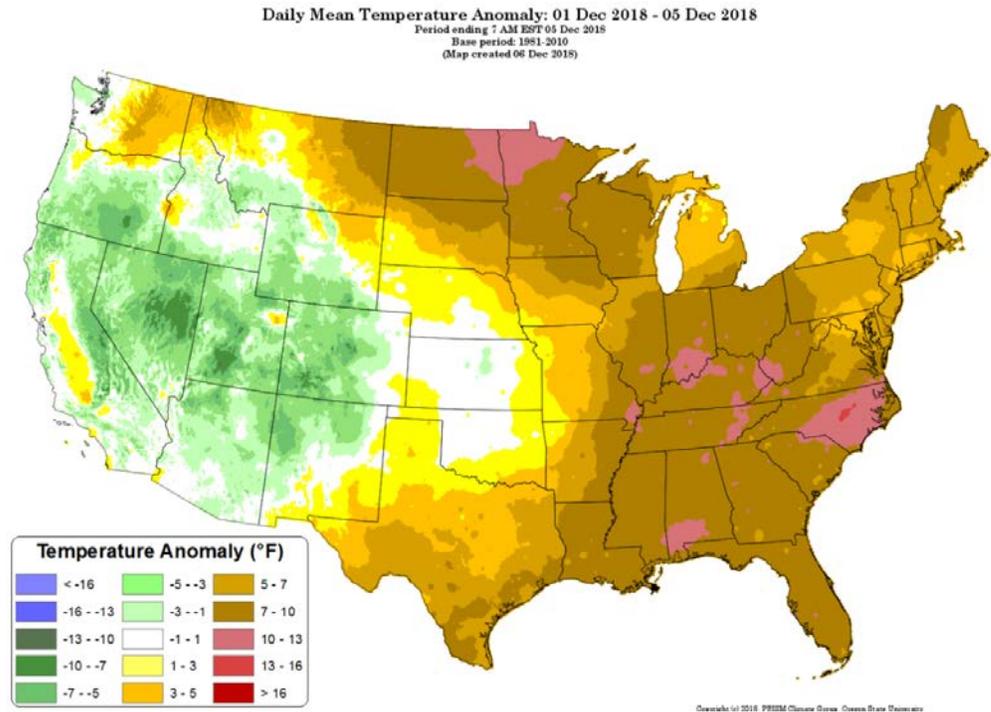


Water and Climate Update

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

Source: PRISM

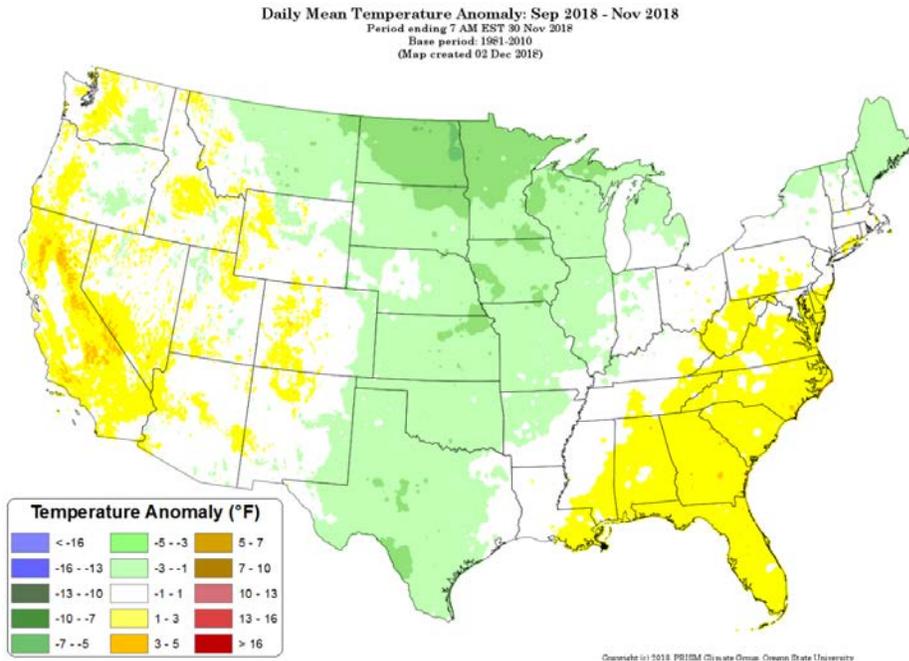
[Month-to-date national daily mean temperature anomaly map](#)



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

Source: PRISM

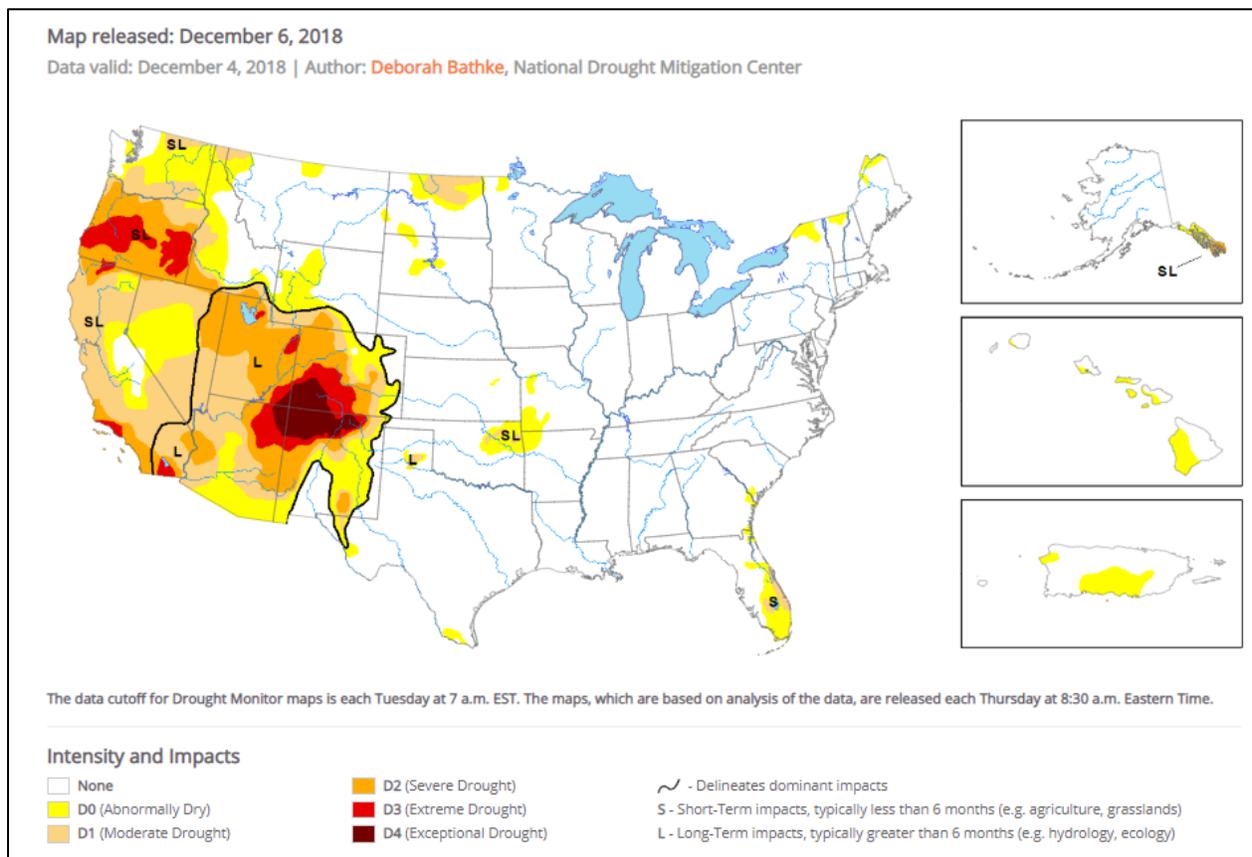
[September through November 2018 daily mean temperature anomaly map](#)



Drought

[U.S. Drought Monitor](#) Select map below.

[U.S. Drought Portal](#) Comprehensive drought resource.



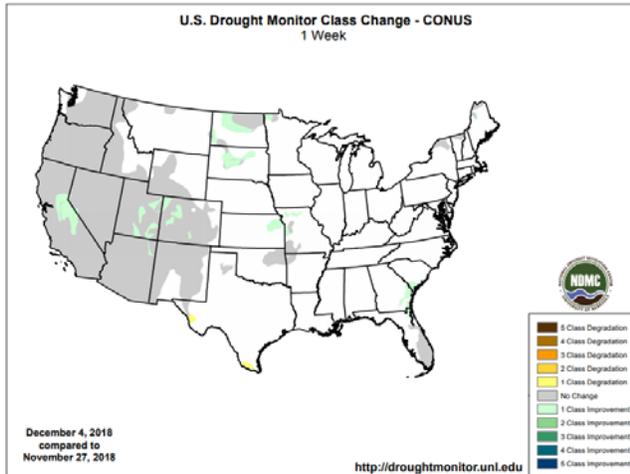
Current [National Drought Summary](#), December 6, 2018

Author: Deborah Bathke, National Drought Mitigation Center

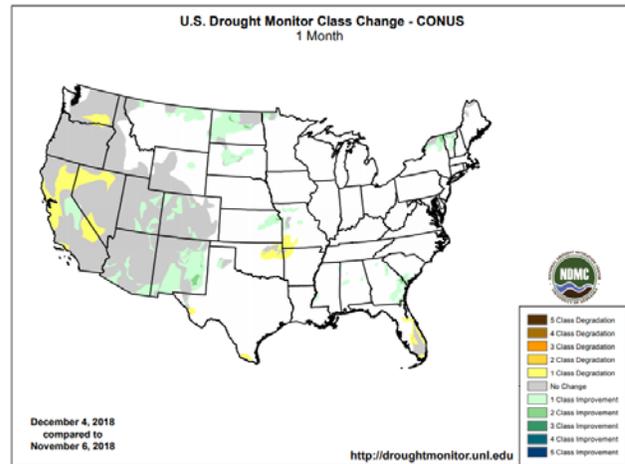
“During the U.S. Drought Monitor week ending on December 4, 2018, a powerful storm system impacted much of the continental United States. The storm delivered heavy rain and mountain snow to the West, snow and wind to parts of the Plains and upper Midwest, and severe weather and tornadoes to the mid-Mississippi valley and Southeast coast. The precipitation with this storm brought improvements to drought areas in parts of the Sierra Nevada and Central Valley and helped to relieve long-term deficits in parts of the Intermountain West and Plains. With the exception of the Florida Peninsula, all remaining drought areas east of the Mississippi River have been eliminated. Degradations this week were limited to an expansion of abnormally dry conditions in Texas.”

Changes in Drought Monitor Categories over Time

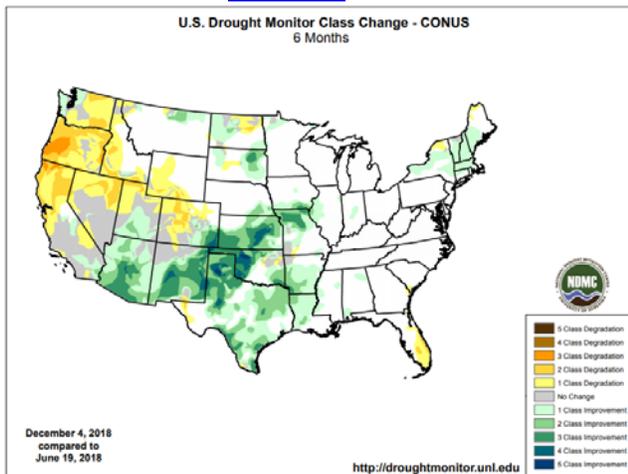
1 Week



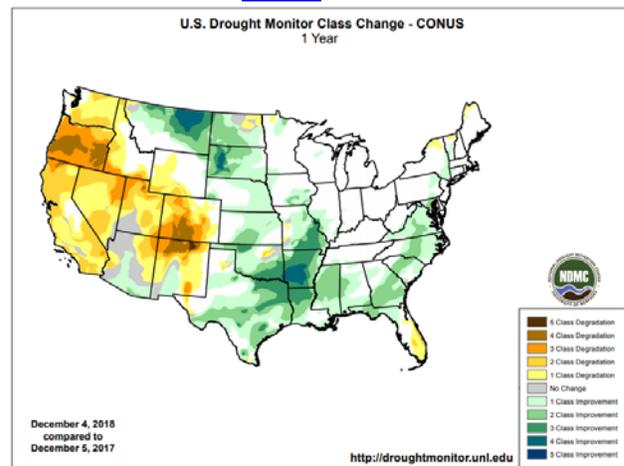
1 Month



6 Months



1 Year

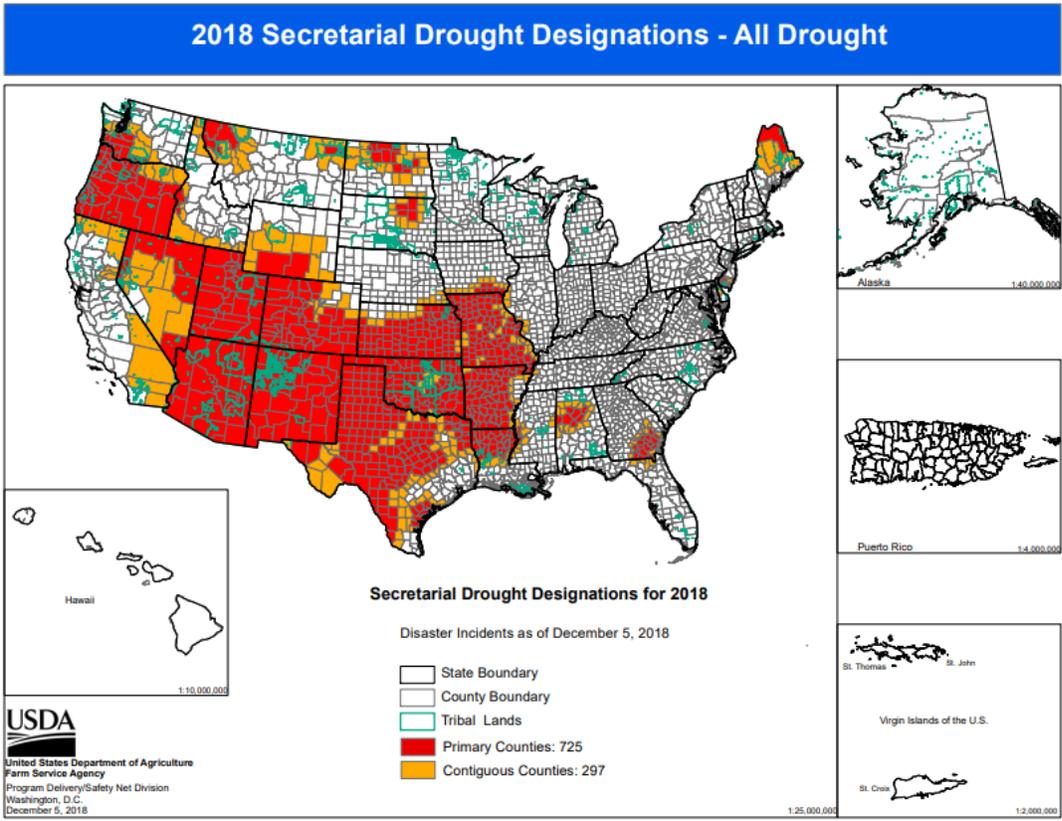


[Changes in drought conditions over the last 12 months](#)

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](#)

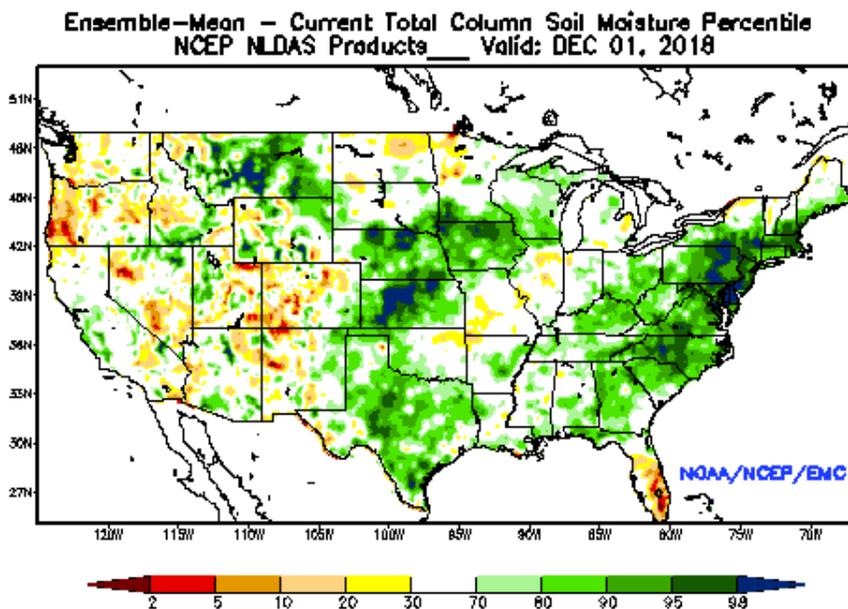
USDA 2018 Secretarial Drought Designations



Other Climatic and Water Supply Indicators

Soil Moisture

Source: NOAA National Centers for Environmental Prediction



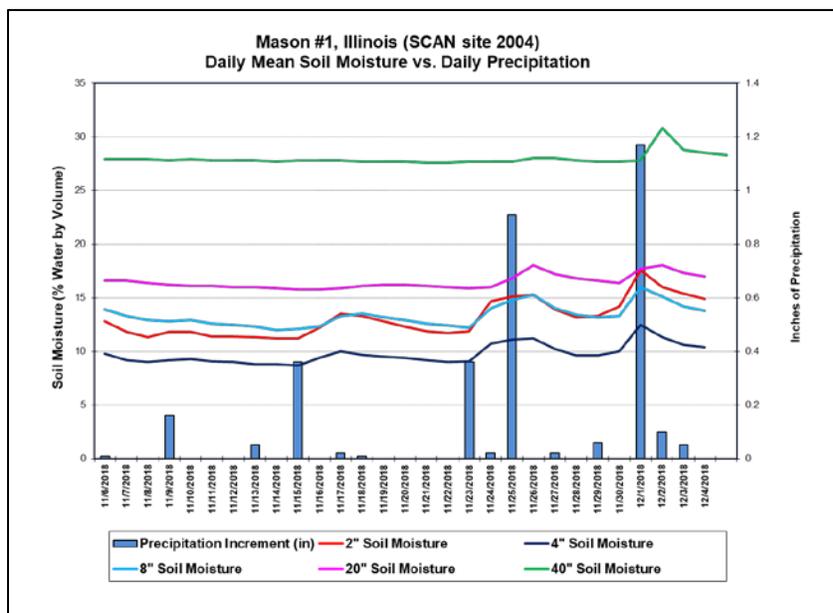
[Modeled soil moisture percentiles](#) as of December 1, 2018

Soil Moisture Data Portals

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

Soil Moisture Data

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

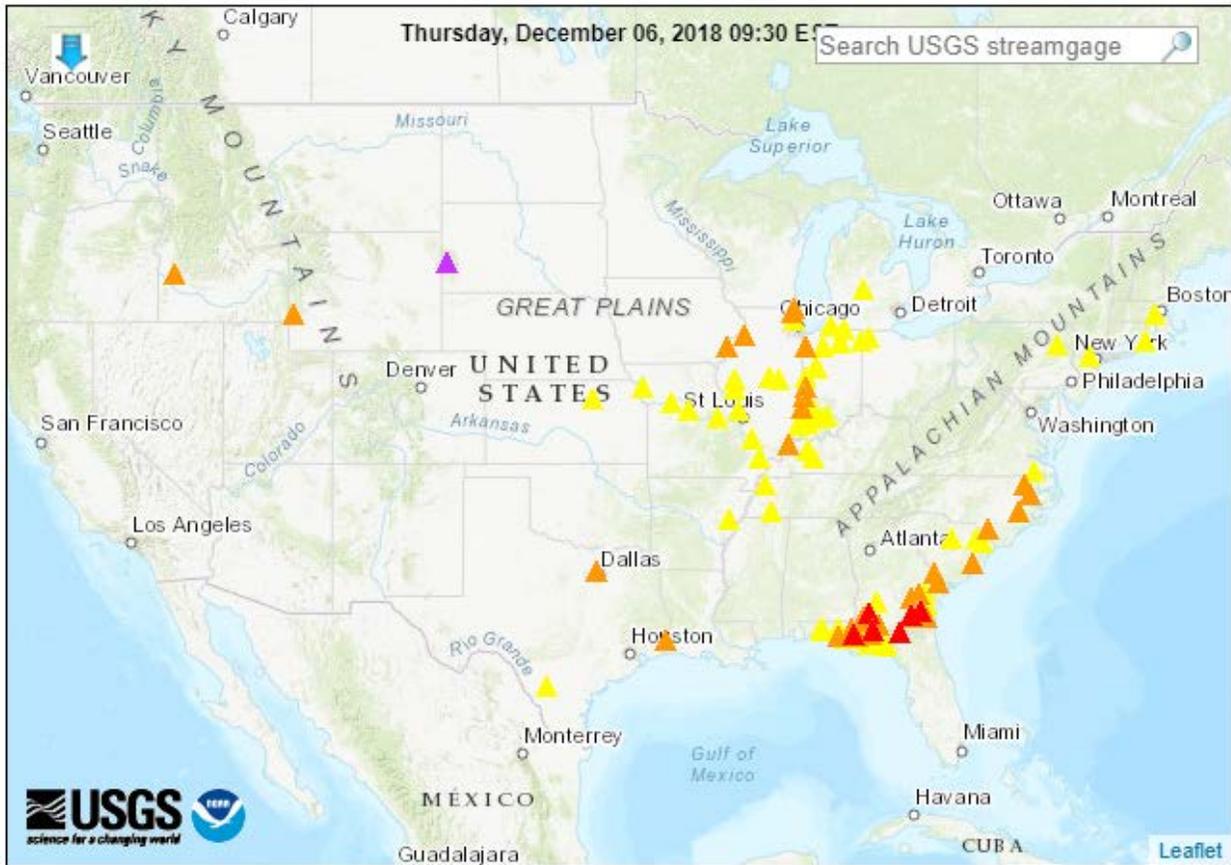


This graph shows the precipitation and soil moisture during the last 30 days at the [Mason #1](#) SCAN site in Illinois. This site experienced precipitation from severe storms on December 1. The soil moisture levels increased at all sensor depths from this storm, with the 40-inch sensor depth recording a soil moisture increase the following day.

Streamflow

Source: USGS

Map of flood and high flow conditions



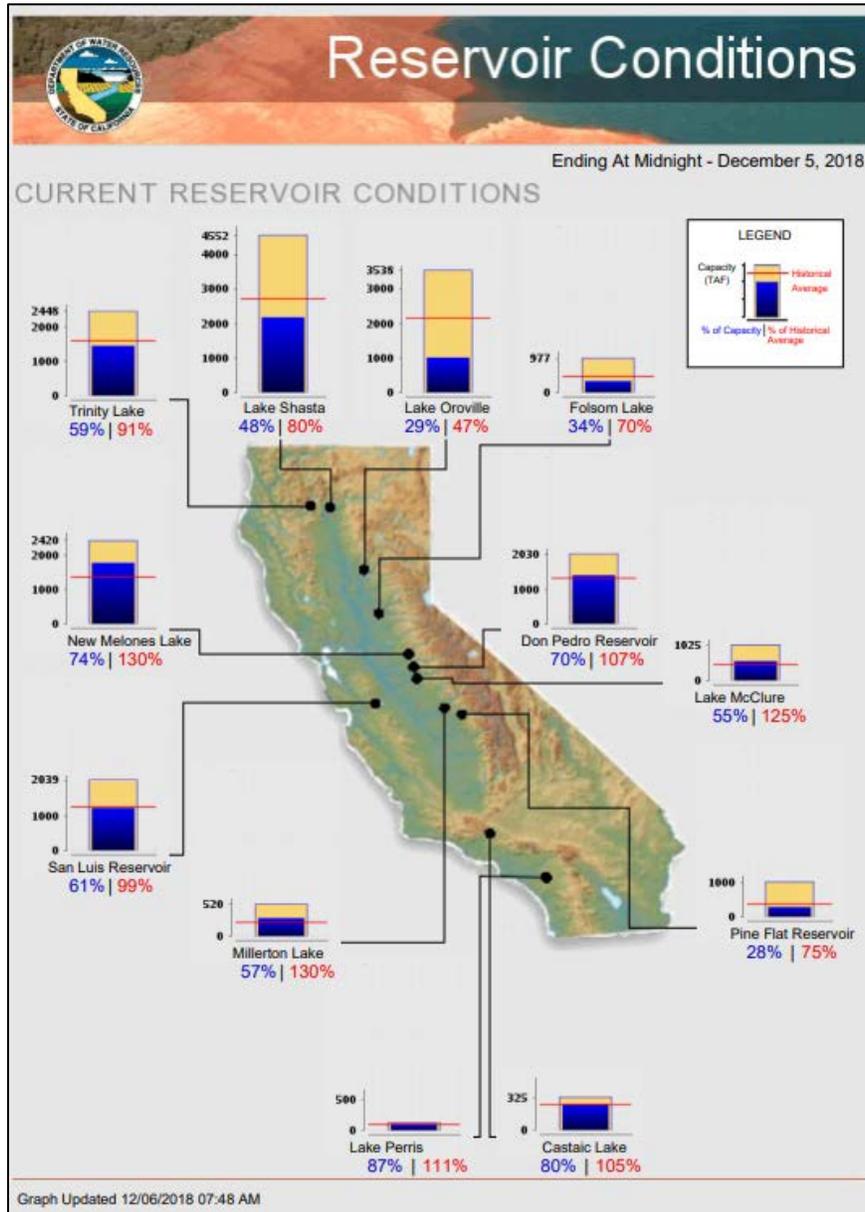
Explanation - Percentile classes						
<95	95-98	>= 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage
▲ Streamgage with flood stage ○ Streamgage without flood stage						

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

Reservoir Storage

Current California Reservoir Conditions

Source: California Department of Water Resources



[Current California Reservoir Conditions](#)

U.S. Bureau of Reclamation Hydromet Tea Cup Reservoir Depictions

- [Upper Colorado](#)
- [Pacific Northwest/Snake/Columbia](#)
- [Sevier River Water, Utah](#)
- [Upper Missouri, Kansas, Oklahoma, Texas](#)

Short- and Long-Range Outlooks

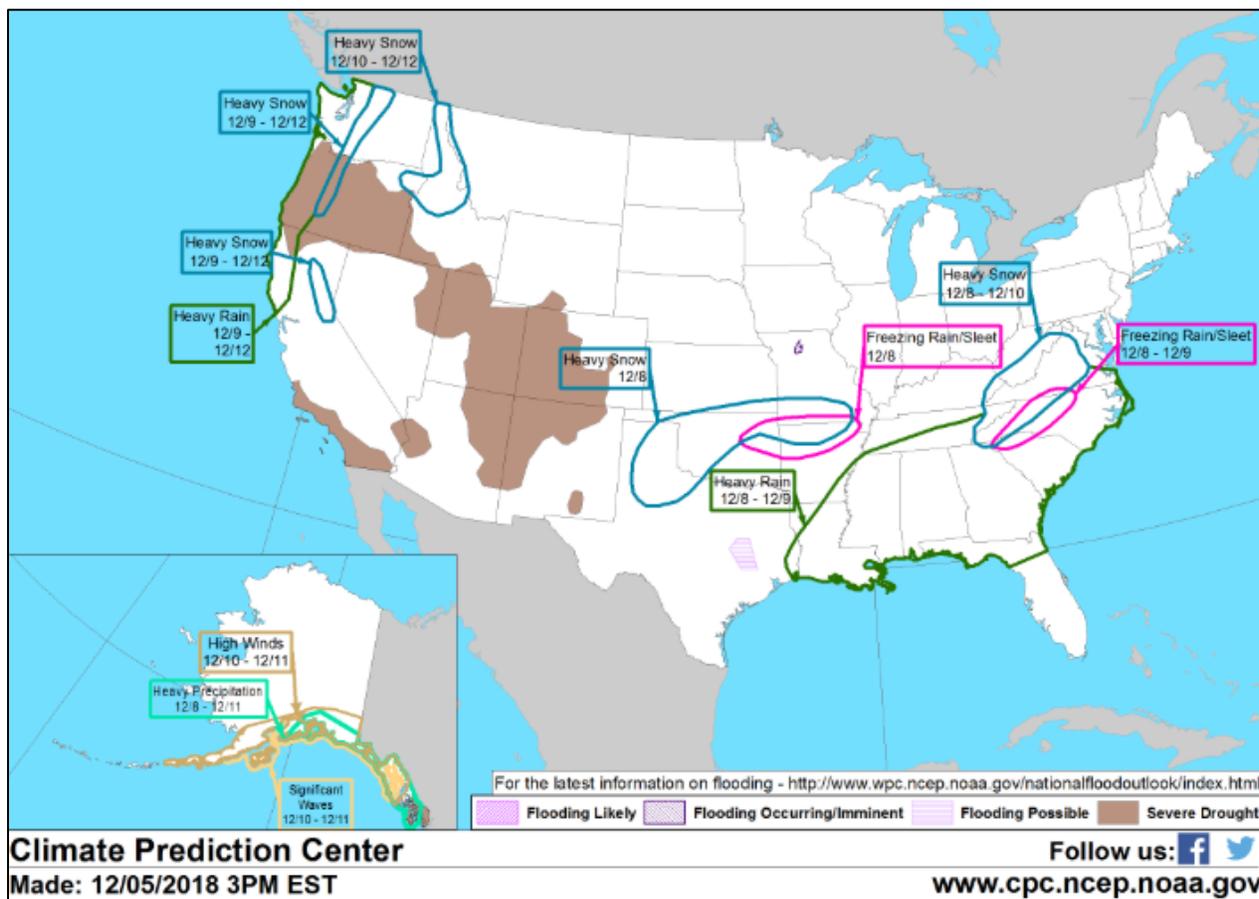
Agricultural Weather Highlights

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

[National Outlook, Thursday, December 6:](#) “During the next several days, a slow-moving storm system traversing the nation’s southern tier will produce a large area of precipitation in the form of rain, freezing rain, sleet, and snow. The NWS has issued winter storm watches for December 7-8 across portions of the southern Plains and mid-South, where wintry precipitation could cause travel and electrical disruptions. Meanwhile, heavy rain will erupt across the western Gulf Coast region, where 4- to 6-inch totals could cause significant flooding. Later in the weekend, 2- to 4-inch rainfall totals may occur in the Southeast, while snow, sleet, and freezing rain will affect the Tennessee Valley and the southern Appalachians. By early next week, mild weather will return across the northern and western U.S. The NWS 6- to 10-day outlook for December 11 – 15 calls for the likelihood of near- or above-normal temperatures nationwide, except for colder-than-normal conditions in the Great Basin and the southern Mid-Atlantic region. Meanwhile, below-normal precipitation in the Dakotas and the upper Great Lakes region will contrast with wetter-than-normal weather across the remainder of the country—particularly across the mid-South and Pacific Northwest.”

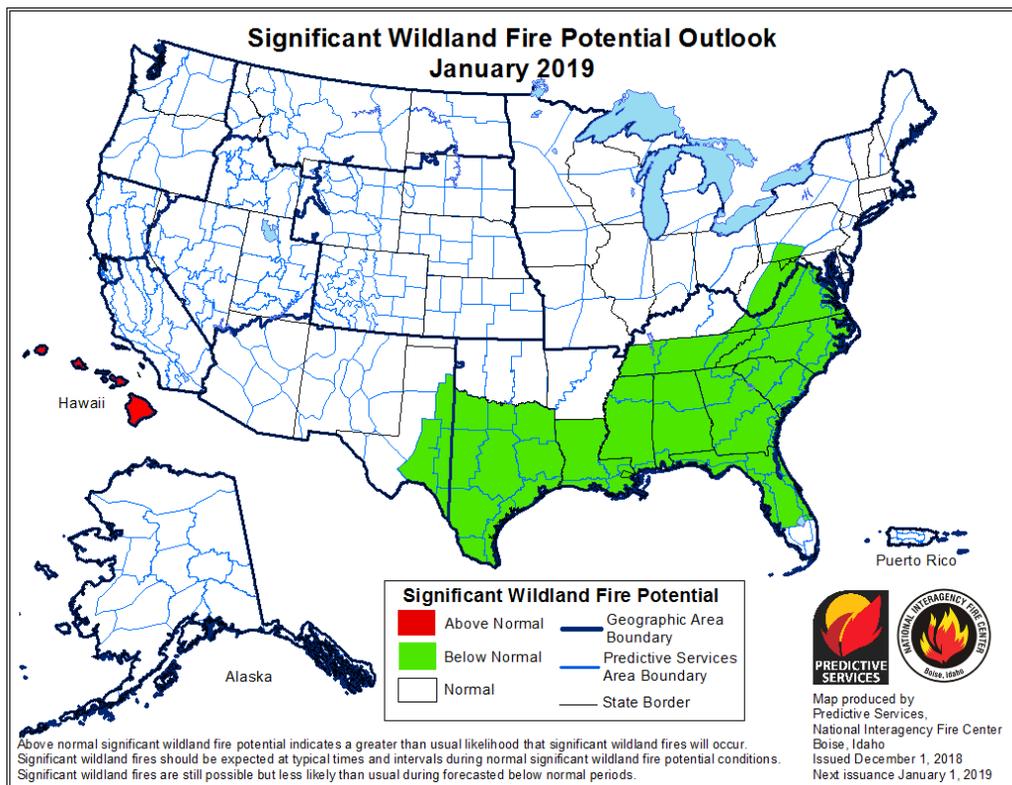
Weather Hazards Outlook [December 8 – 12, 2018](#)

Source: Climate Prediction Center



Significant Wildland Fire Potential Outlook

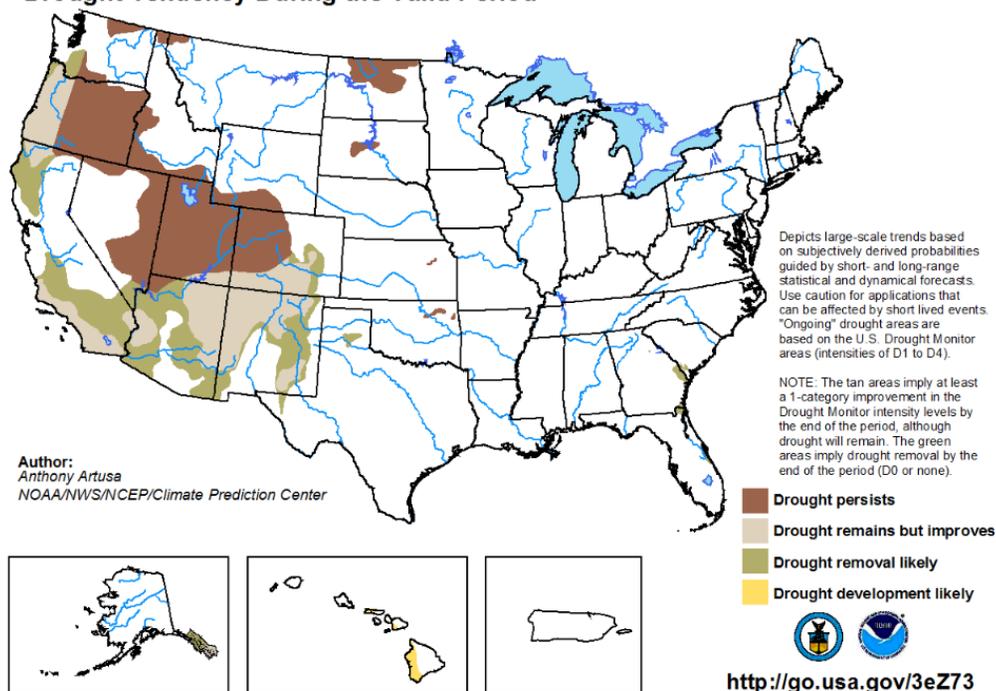
Source: National Interagency Fire Center



Seasonal Drought Outlook: November 15, 2018 – February 28, 2019

Source: National Weather Service

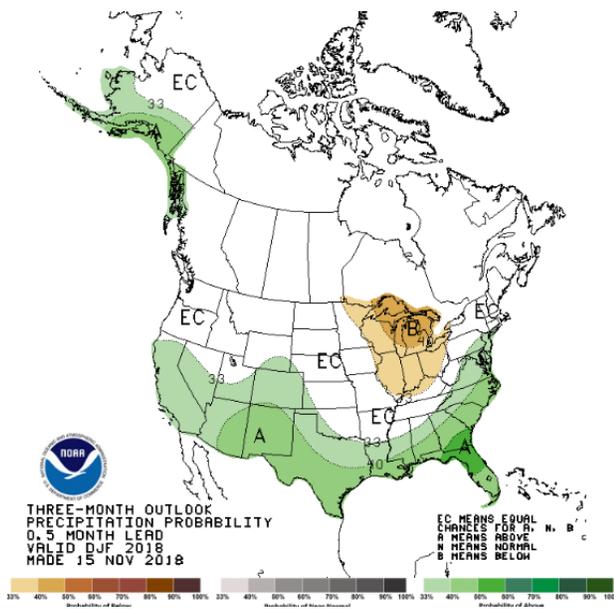
U.S. Seasonal Drought Outlook Valid for November 15, 2018 - February 28, 2019
Drought Tendency During the Valid Period Released November 15, 2018



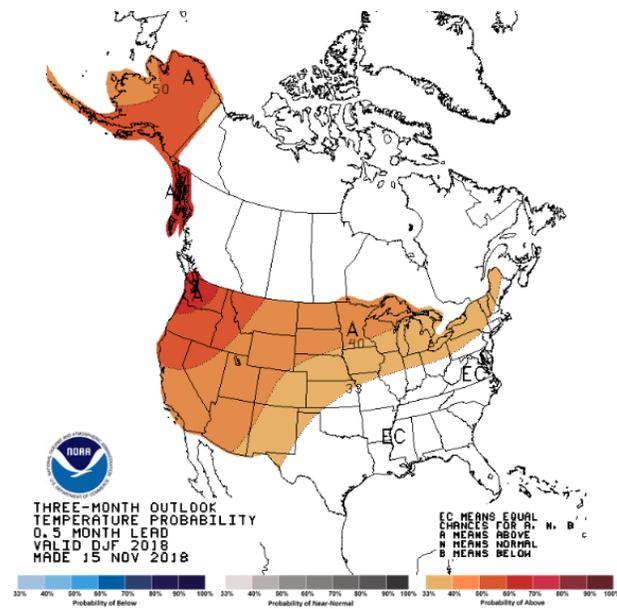
Climate Prediction Center 3-Month Outlook

Source: National Weather Service

Precipitation



Temperature



[December-January-February \(DJF\) 2018-2019 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](#).