

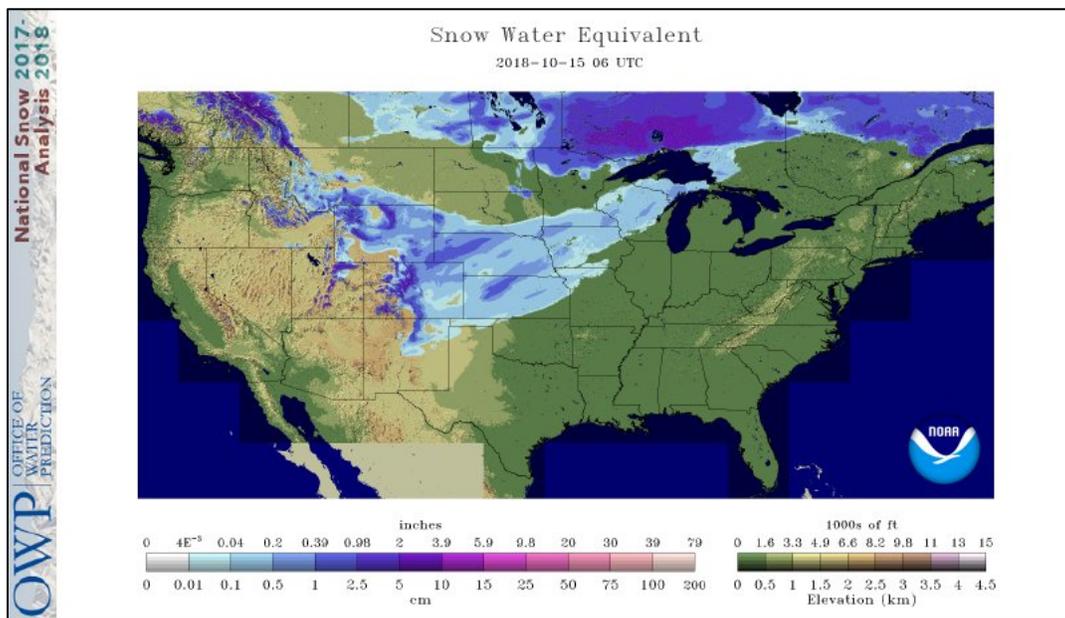
Water and Climate Update

October 18, 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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Precipitation	3	Short- and Long-Range Outlooks.....	17
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Early snow stalls crop harvest in the central Plains



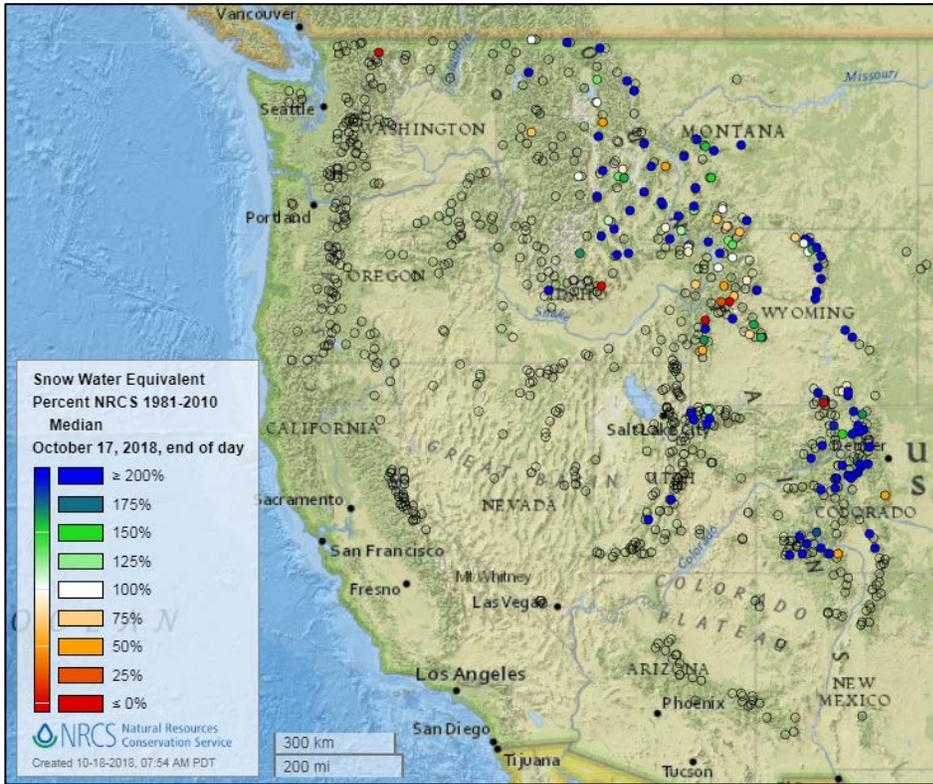
An early snowfall and cold temperatures have broken some records in the central Plains. Temperatures were 12 to 20 degrees colder than normal across the region. Due to snow and rain, many farmers in the area had little to no crop harvest this week during the normal peak of the season. The snow also caused over 50,000 power outages in Nebraska, and closed highways temporarily in Wyoming. Wichita and Kansas City, Kansas, saw their earliest measurable snowfall on record. The early, widespread snow in the Plains came and went quickly, whereas the mountain snow in Colorado, Wyoming, and Montana marks the start of the seasonal snow accumulation.

Related:

- [Record early season cold and snow have taken over the central United States](#) – Washington Post
- [After snow and rain, farmers finally getting chance to combine corn and beans](#) – Radio Iowa (IA)
- [Temperature records fell this week, along with record snow](#) – Omaha (NE)
- [Over 50,000 without power in eastern Nebraska after snow](#) – Omaha (NE)
- [Snow causes power outages throughout Lincoln after 3.5 inches falls in area](#) – Lincoln Journal Star (NE)
- [Rain and snow showers limit fieldwork, harvest \(Iowa\)](#) – High Plains Journal
- [Heavy snow blankets Colorado, Wyoming in early season storm](#) - AP
- [Snow temporarily forces some Wyoming highways to close](#) - AP
- [Harvest at a standstill, with virtually no progress this week in Nebraska](#) – ABC 8 Eyewitness News (NE)

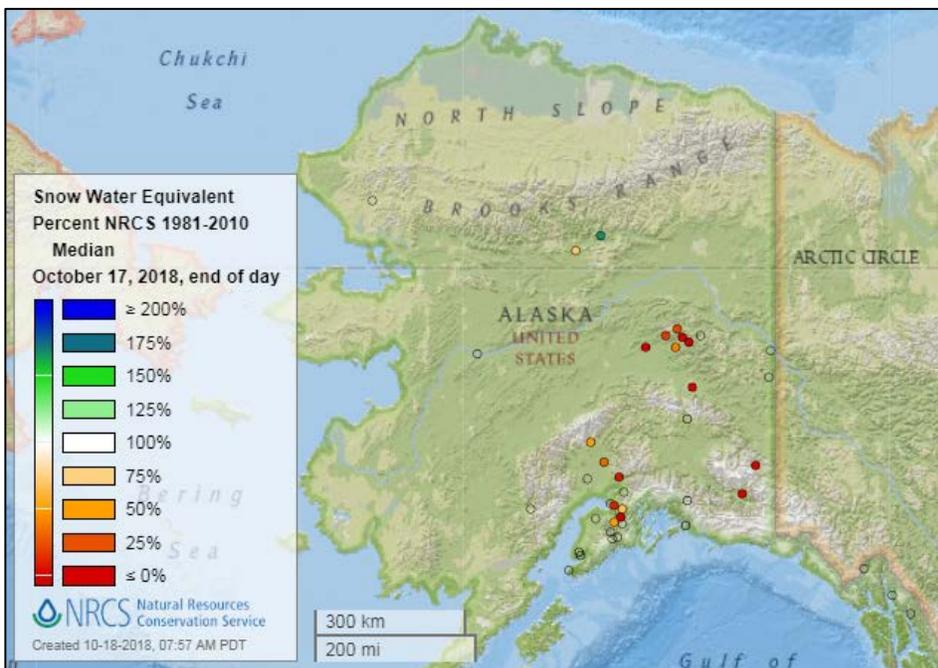
Snow

Current Snow Water Equivalent, NRCS SNOTEL Network



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

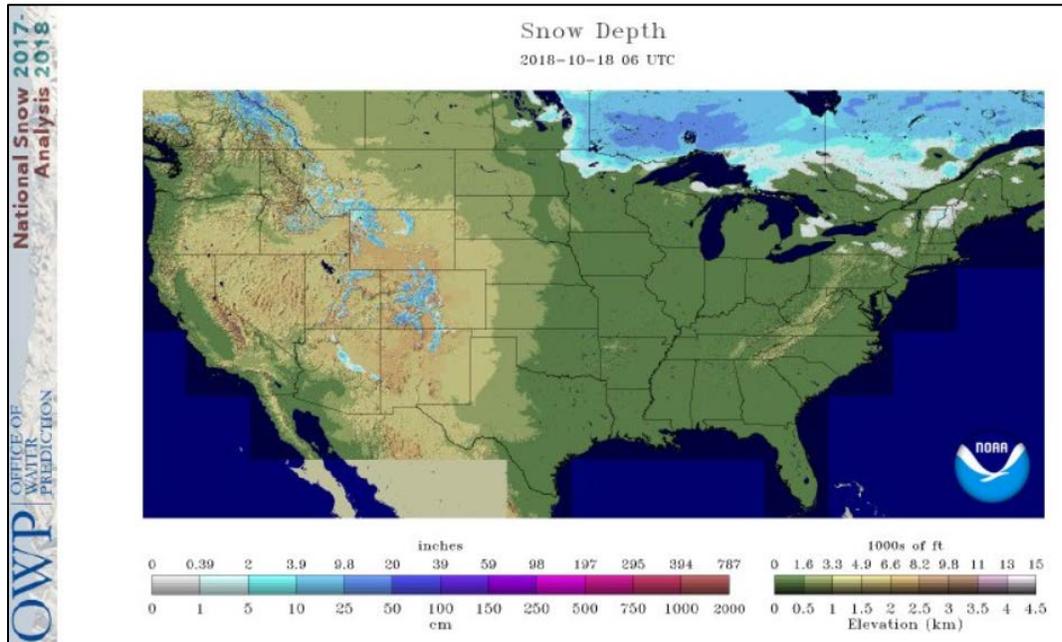
See also:
[Snow water equivalent values \(inches\) map](#)



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

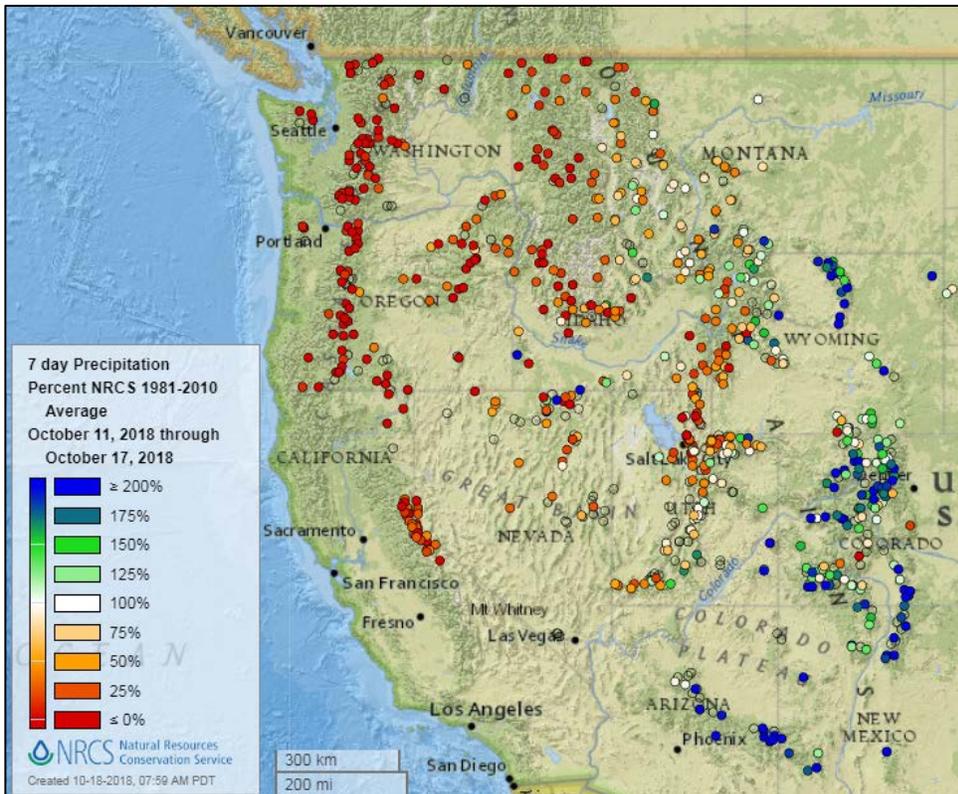
See also:
[Alaska snow water equivalent values \(inches\) map](#)

Current Snow Depth, National Weather Service Snow Analysis



Precipitation

Last 7 Days, NRCS SNOTEL Network



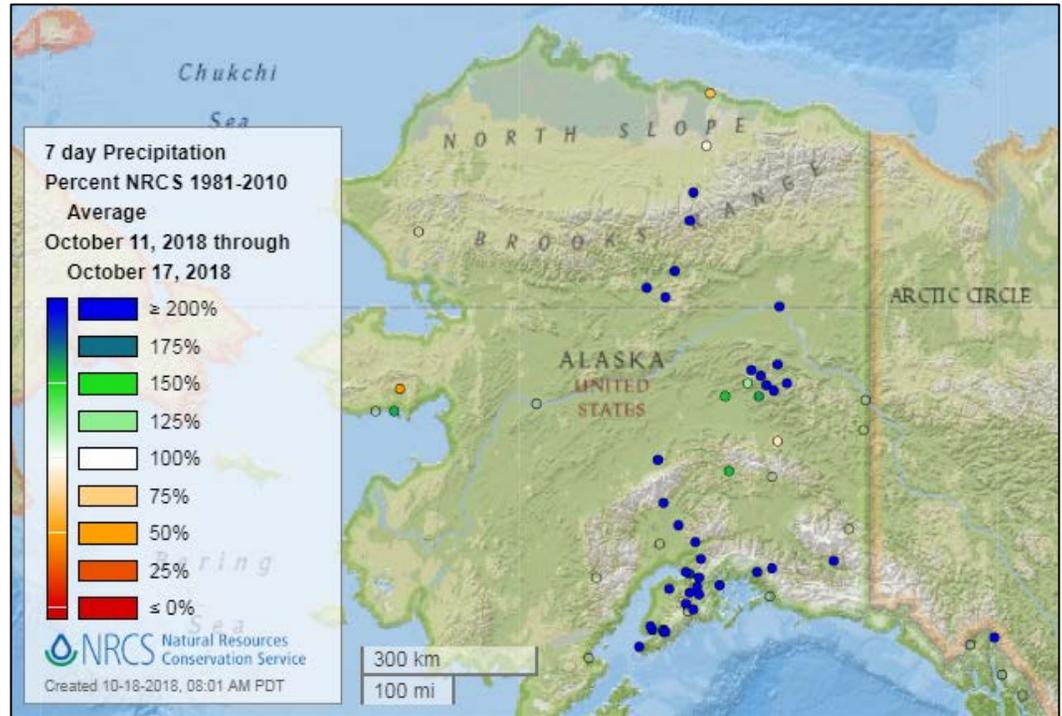
[7-day precipitation percent of average map](#)

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

Water and Climate Update

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

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



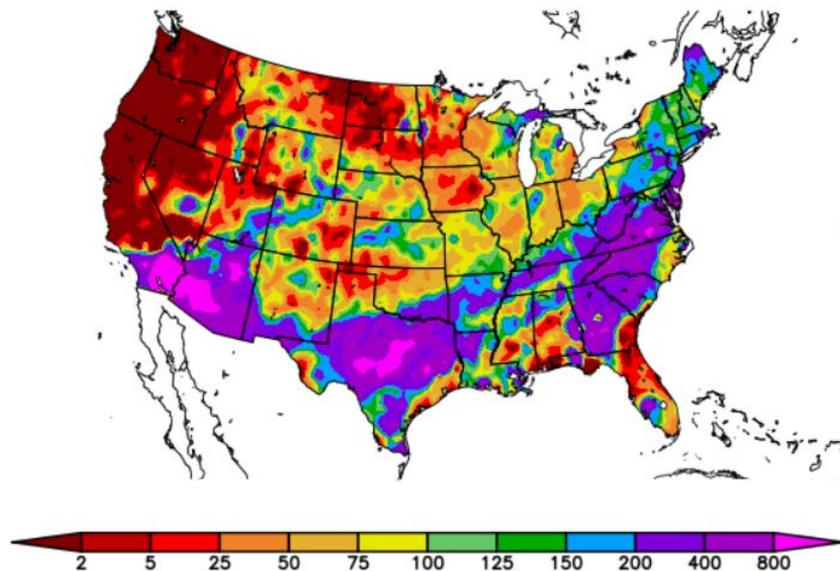
Last 7 Days, National Weather Service (NWS) Networks

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 (%) 10/11/2018 – 10/17/2018



Generated 10/18/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

Water and Climate Update

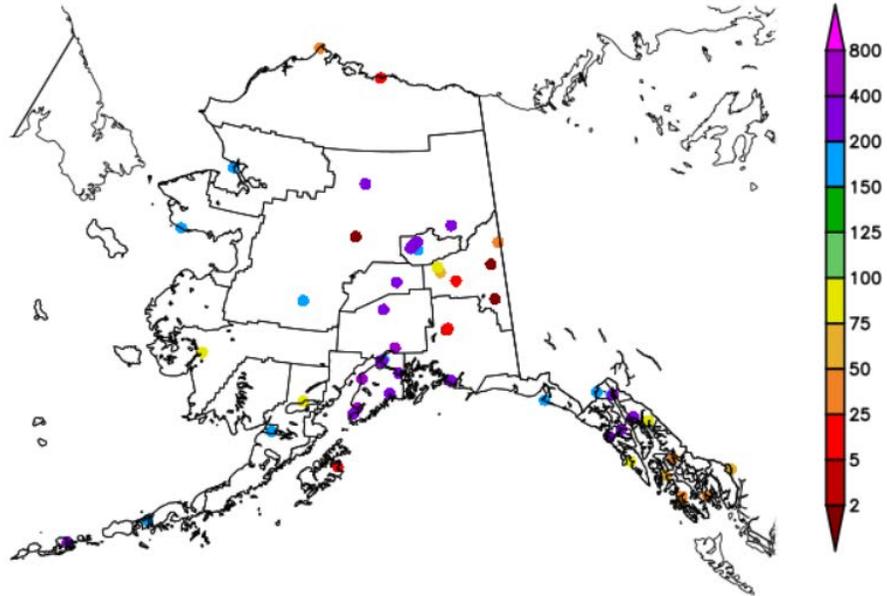
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%) 10/11/2018 – 10/17/2018



Generated 10/18/2018 at HPRCC using provisional data.

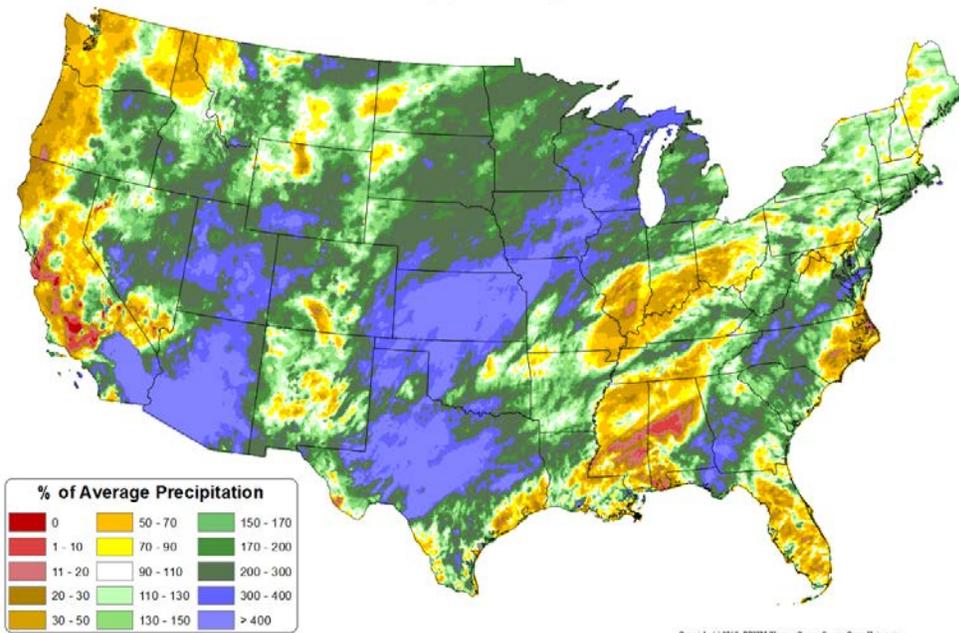
NOAA Regional Climate Centers

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

Source: PRISM

Total Precipitation Anomaly: 01 Oct 2018 - 17 Oct 2018
Period ending 7 AM EST 17 Oct 2018
Base period: 1981-2010
(Map created 18 Oct 2018)

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



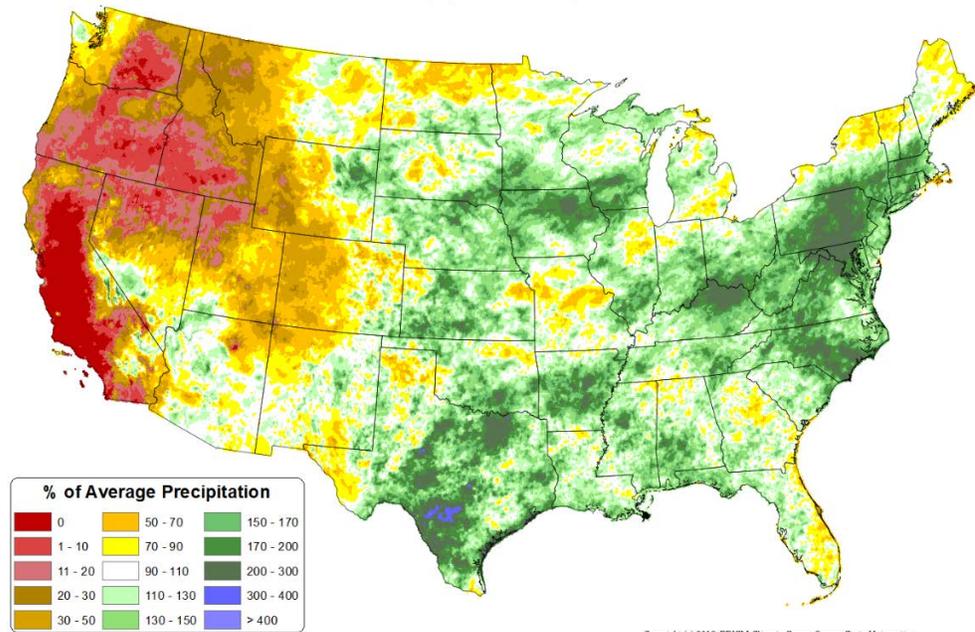
Water and Climate Update

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

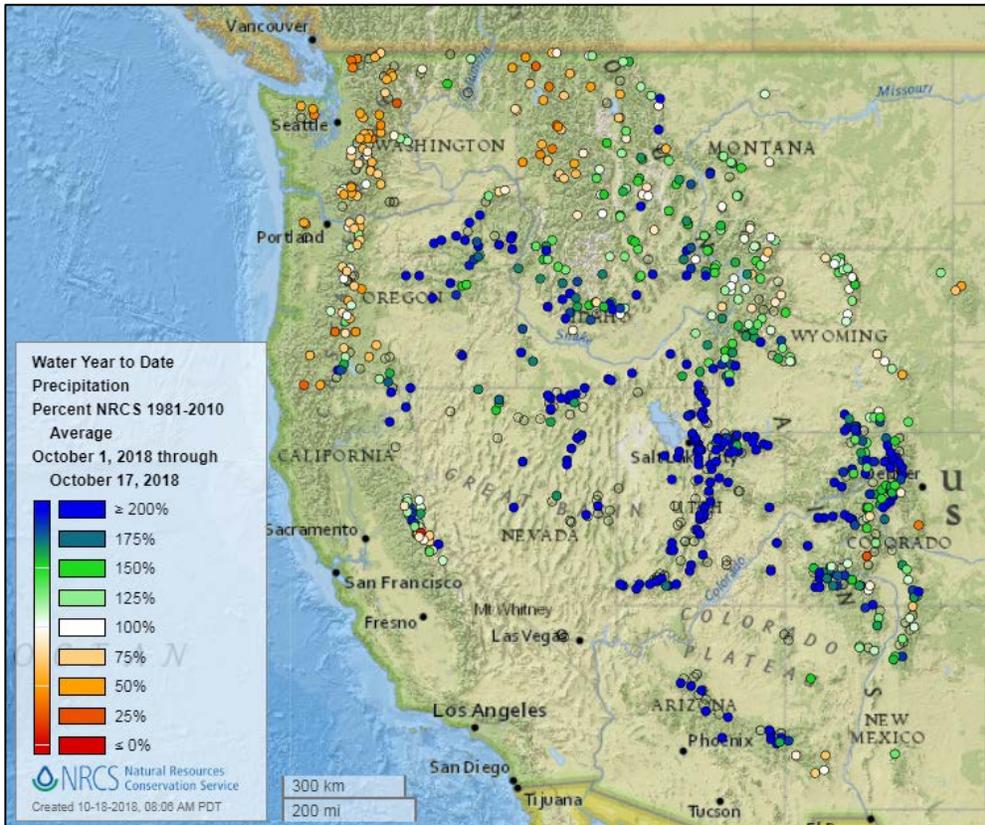
Source: PRISM

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

Total Precipitation Anomaly: Jul 2018 - Sep 2018
Period ending 7 AM EST 30 Sep 2018
Base period: 1981-2010
(Map created 02 Oct 2018)



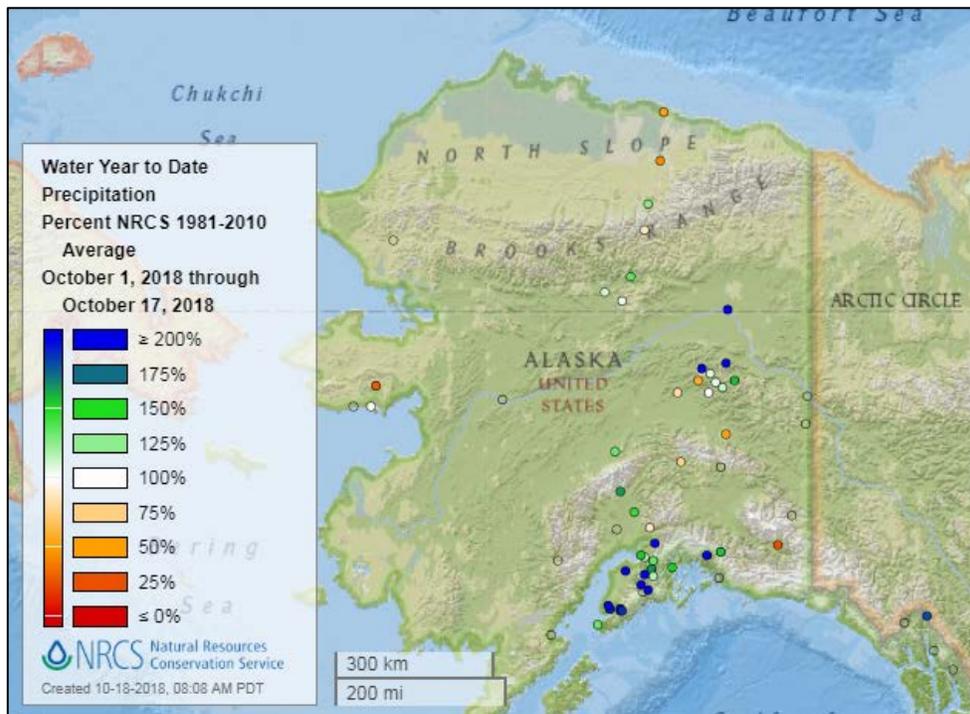
Water Year-to-Date, NRCS SNOTEL Network



Note:
October 1 is the start of the 2019 Water Year

[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

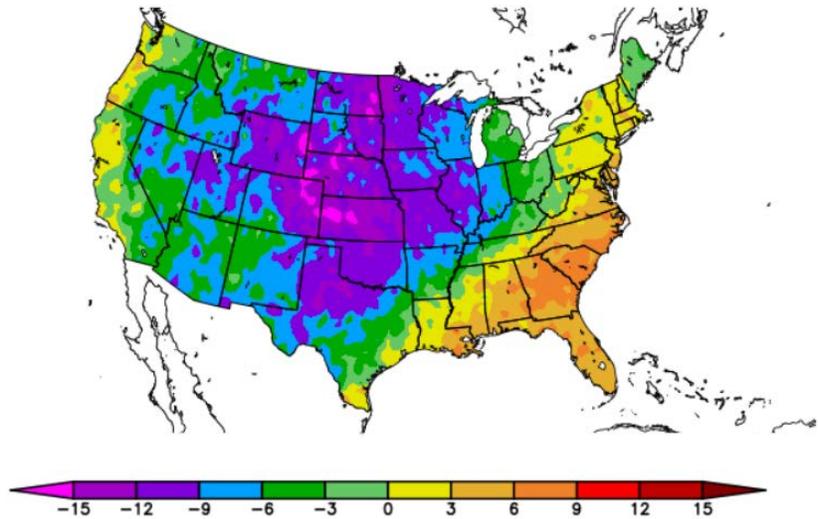
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day temperature anomaly map](#) for the continental U.S.

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

Departure from Normal Temperature (F)
10/11/2018 – 10/17/2018



Generated 10/18/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

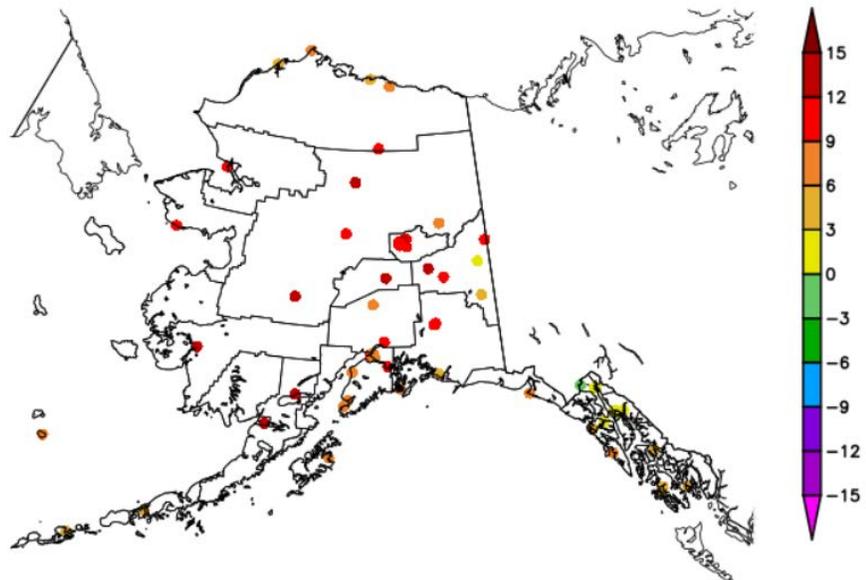
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
10/11/2018 – 10/17/2018



Generated 10/18/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

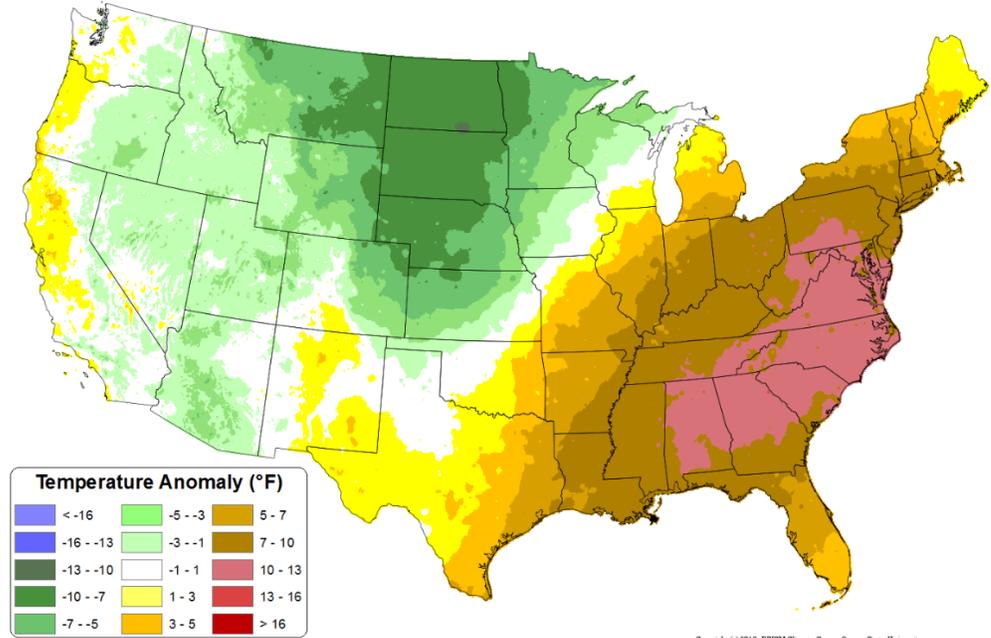
Water and Climate Update

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

Source: PRISM

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

Daily Mean Temperature Anomaly: 01 Oct 2018 - 17 Oct 2018
Period ending 7 AM EST 17 Oct 2018
Base period: 1981-2010
(Map created 18 Oct 2018)

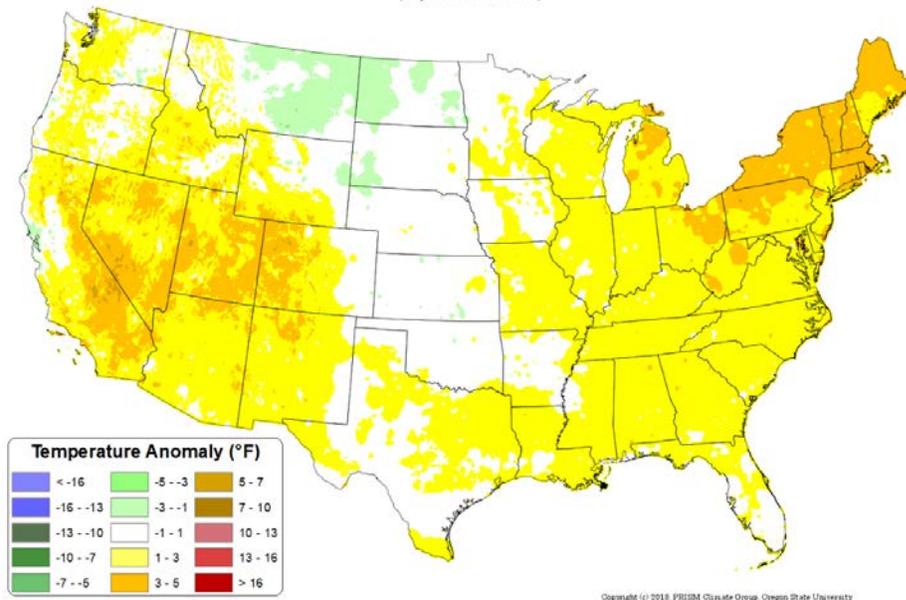


Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

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

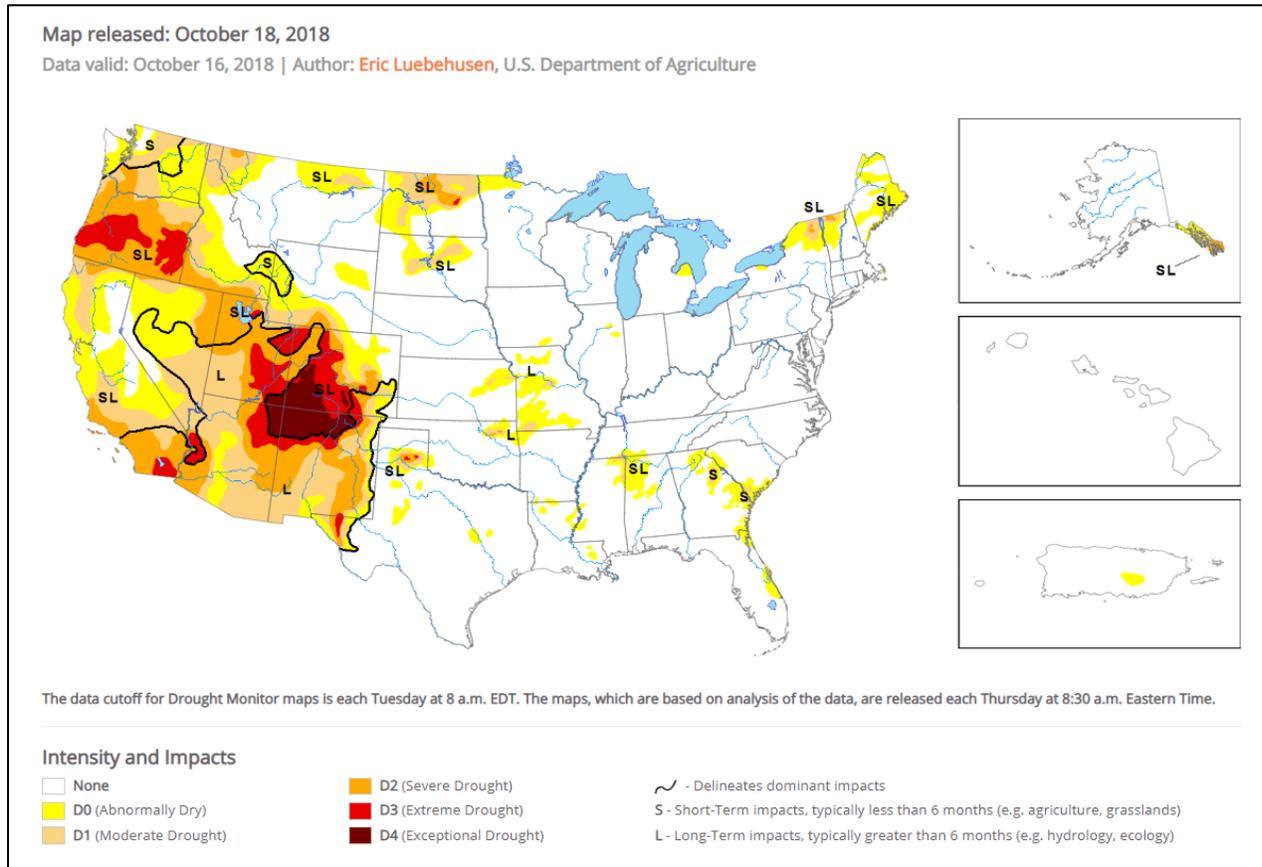
Daily Mean Temperature Anomaly: Jul 2018 - Sep 2018
Period ending 7 AM EST 30 Sep 2018
Base period: 1981-2010
(Map created 02 Oct 2018)



Drought

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

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

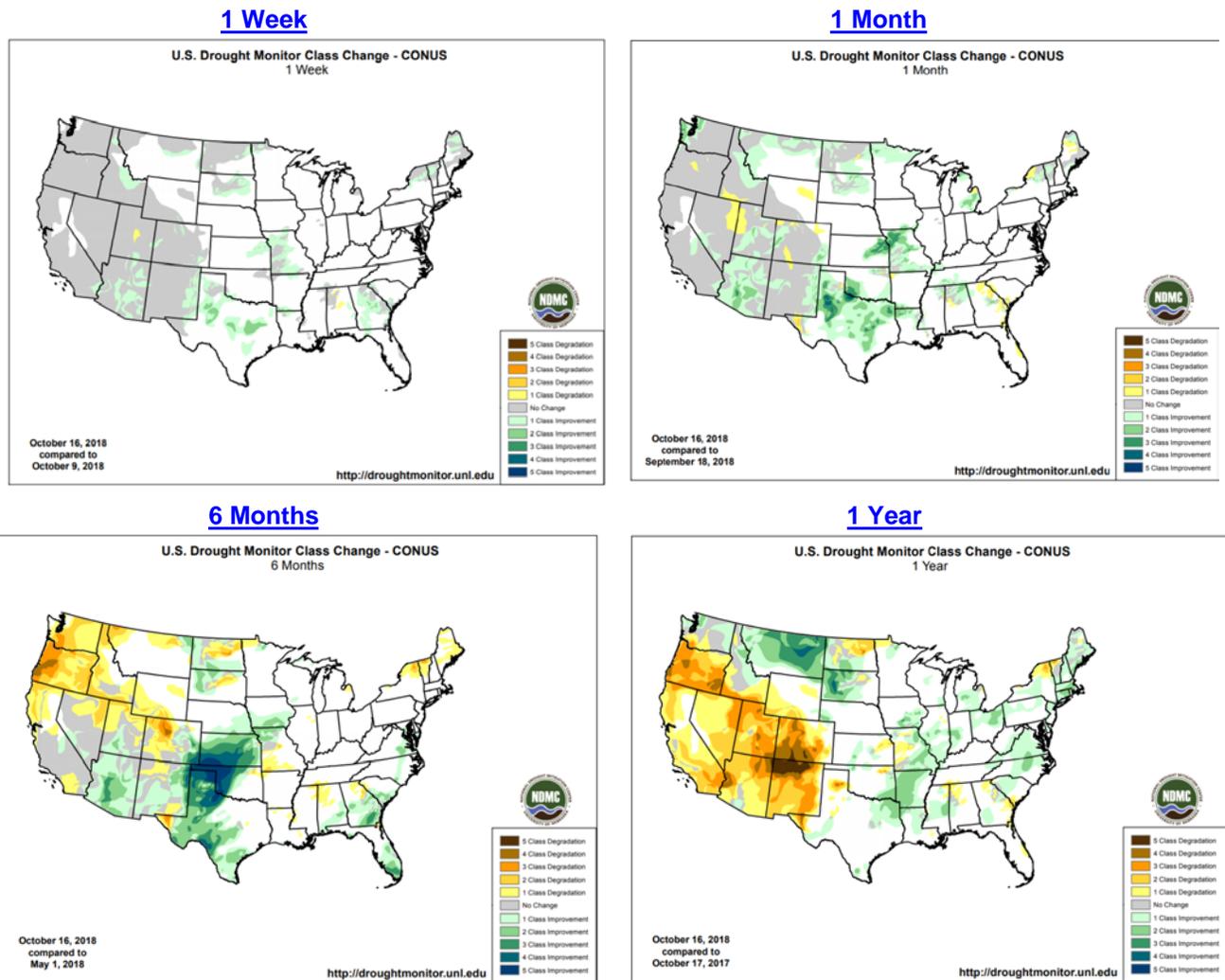


Current [National Drought Summary](#), October 18, 2018

Author: Eric Luebehusen, U.S. Department of Agriculture

“A wet weather pattern persisted across most of the nation, as the active Atlantic and Eastern North Pacific Hurricane Seasons continued. Hurricane Michael rapidly intensified just prior to slamming ashore in the Florida Panhandle, producing heavy rain across portions of the Southeast but causing fatalities as well as widespread, locally catastrophic damage to homes, businesses, infrastructure, and agriculture. Out west, moisture associated with Hurricane Sergio triggered additional moderate to heavy rain across the lower Four Corners Region. Abundant moisture associated in part with the remnants of Sergio also led to another round of heavy rain from Texas northeastward into the middle Mississippi Valley. Likewise, rain and snow afforded drought relief from the central and northern Rockies into the upper Midwest. The unsettled conditions continued across the southern U.S. after the period ended; any rain that fell after 12z Tuesday morning (8 am, EDT) will be incorporated into next week’s analysis.”

Changes in Drought Monitor Categories over Time

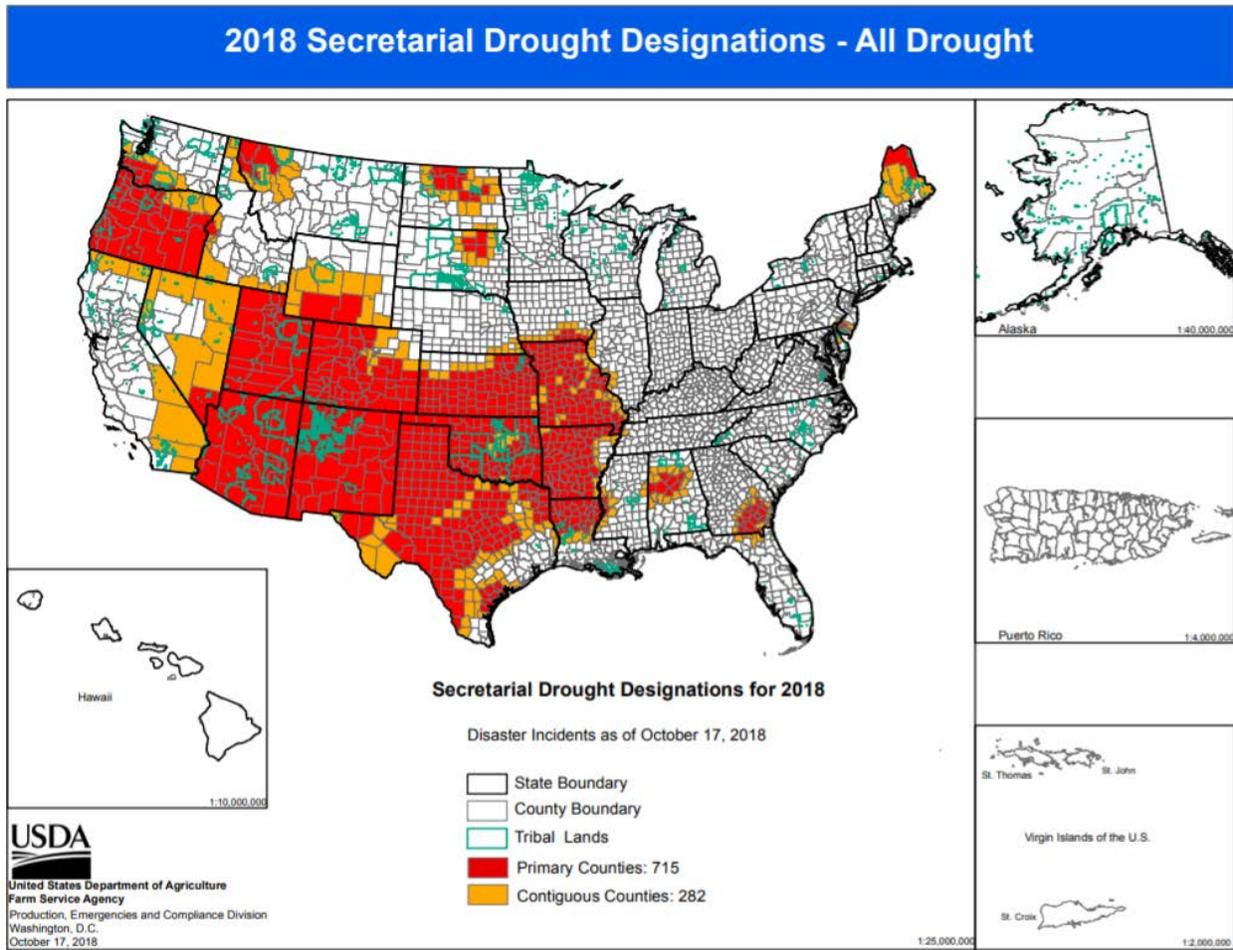


[Changes in drought conditions over the last 12 months](#)

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](#)

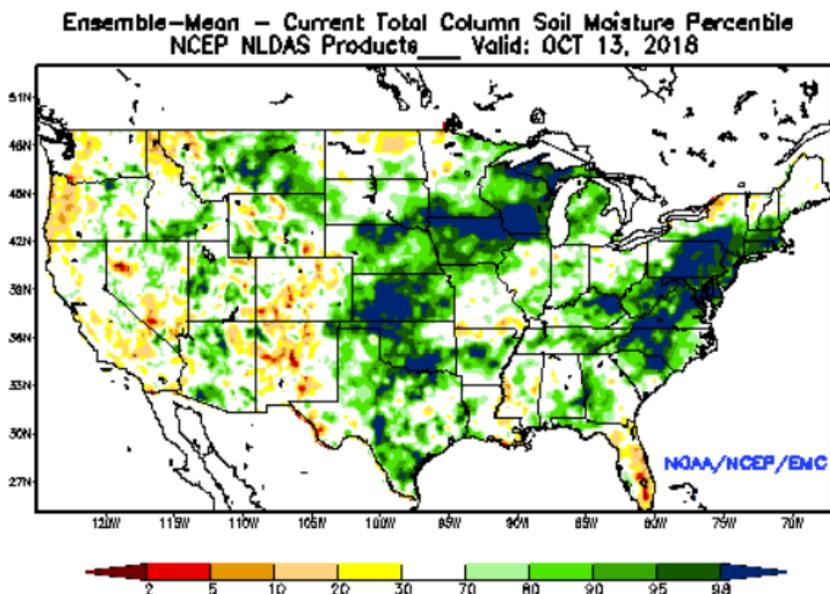
USDA 2018 Secretarial [Drought Designations](#)



Other Climatic and Water Supply Indicators

Soil Moisture

Source: NOAA National Centers for Environmental Prediction



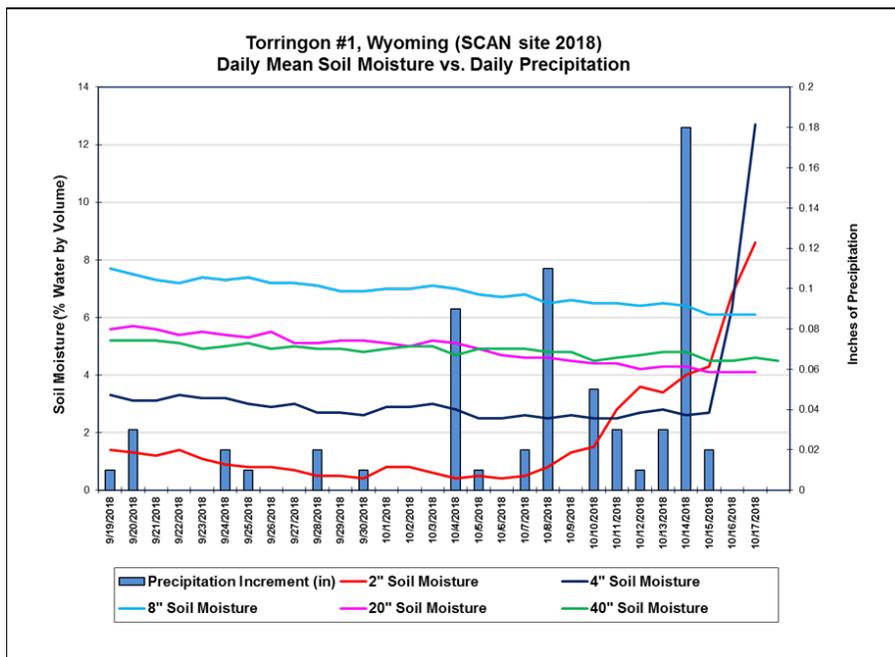
[Modeled soil moisture percentiles](#) as of October 13, 2018

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 \(SCAN\)](#)

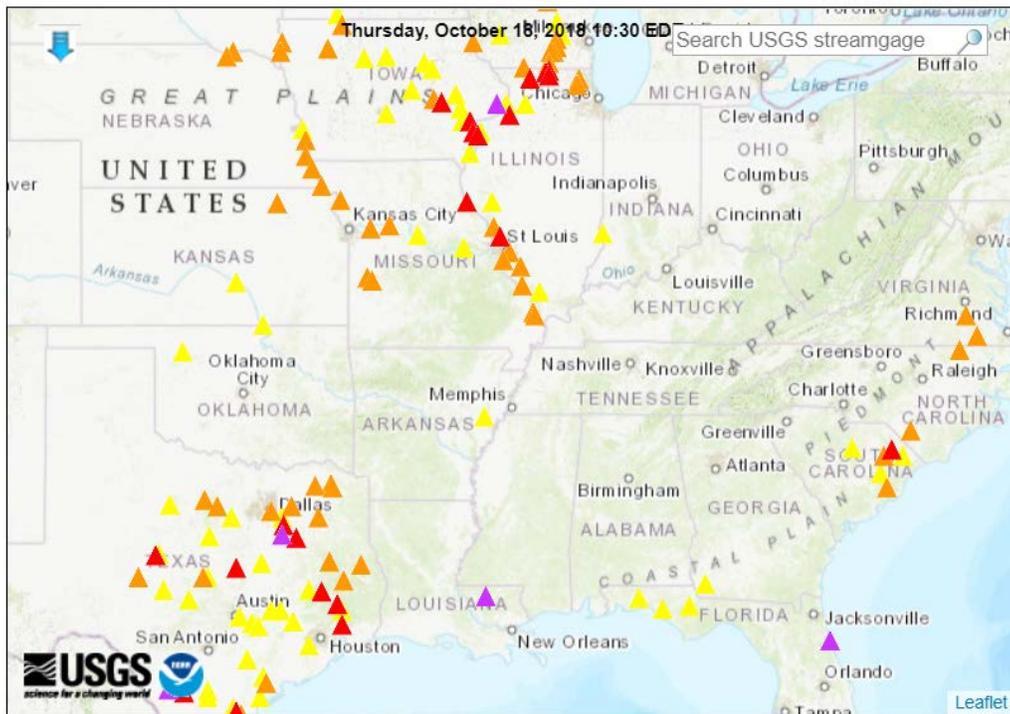


This chart shows precipitation and soil moisture during the last 30 days at the [Torrington #1 SCAN site](#) in Wyoming. This site received many small amounts of daily precipitation, including the largest increment of 0.18 inches on October 14 where the 2- and 4-inch sensors showed an increase in soil moisture levels.

Streamflow

Source: USGS

Map of flood and high flow conditions



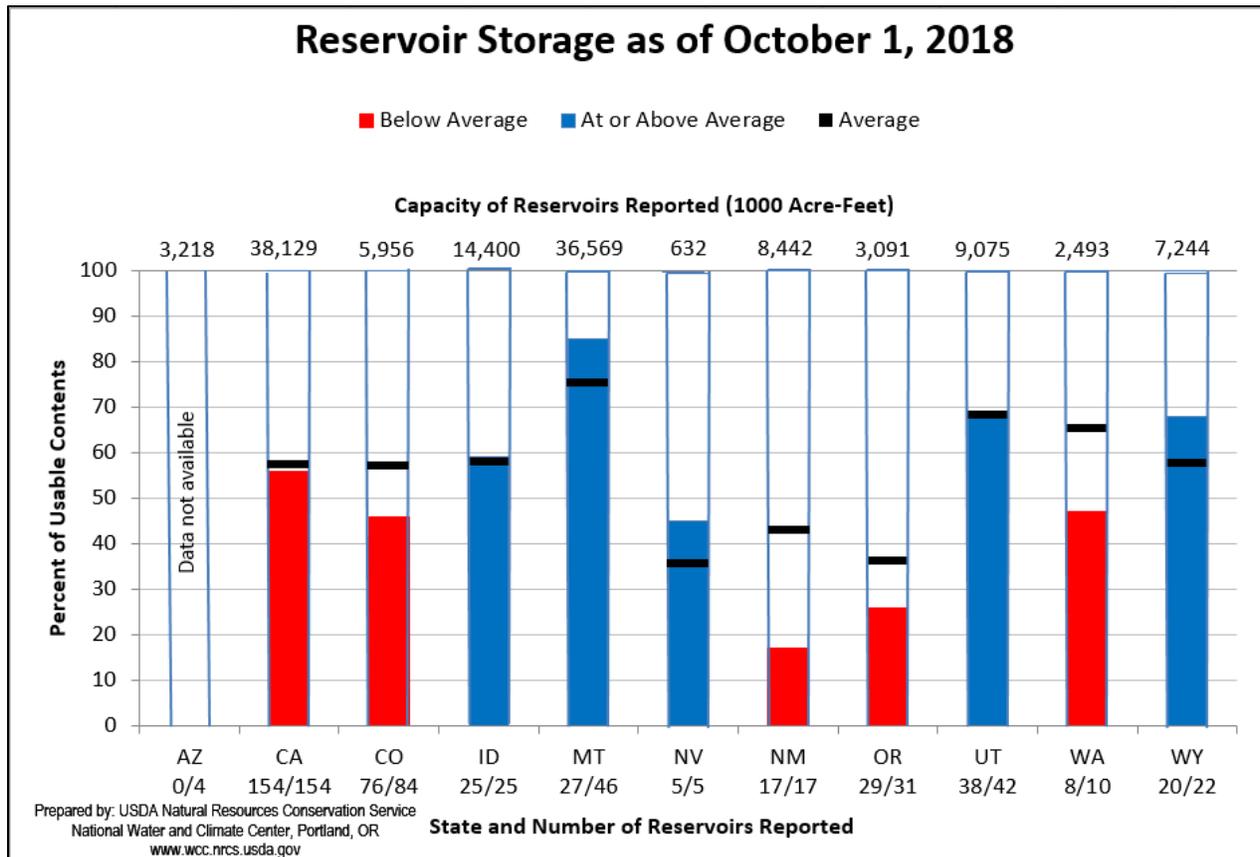
Explanation - Percentile classes						
<95	95-98	>= 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage
			△ Streamgage with flood stage	○ Streamgage without flood stage		

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

Reservoir Storage

Western States Reservoir Storage

Source: NRCS National Water and Climate Center



October 1, 2018 Reservoir Storage: [Chart](#) | [Dataset](#)

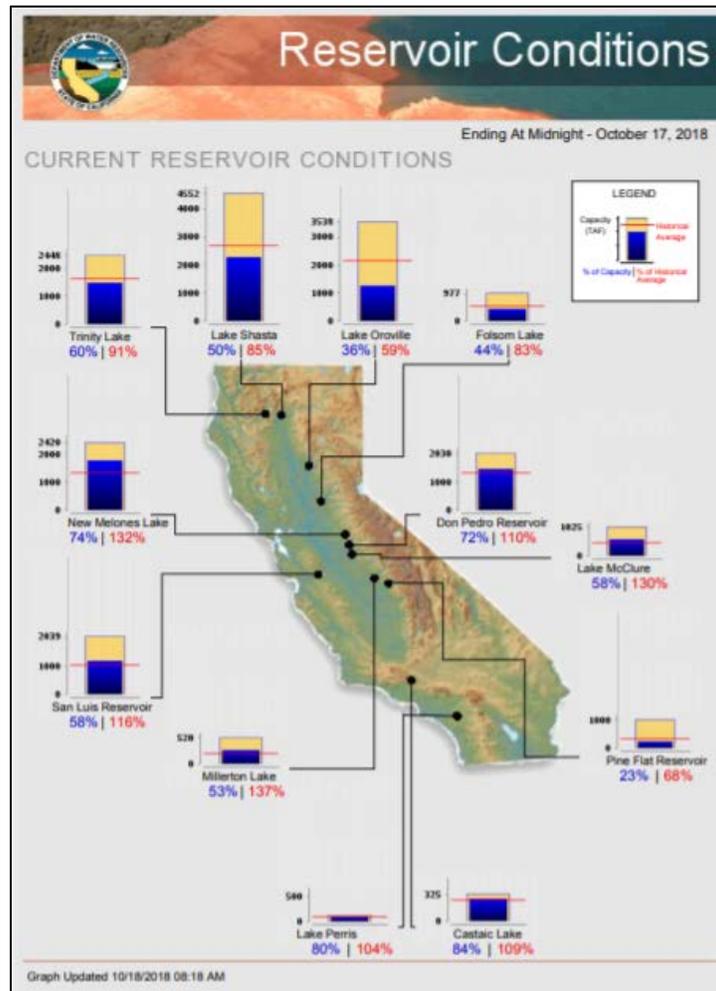
U.S. Bureau of Reclamation Hydromet Tea Cup Reservoir Depictions

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

Water and Climate Update

Current California Reservoir Conditions

Source: California Department of Water Resources



[Current California Reservoir Conditions](#)

Short- and Long-Range Outlooks

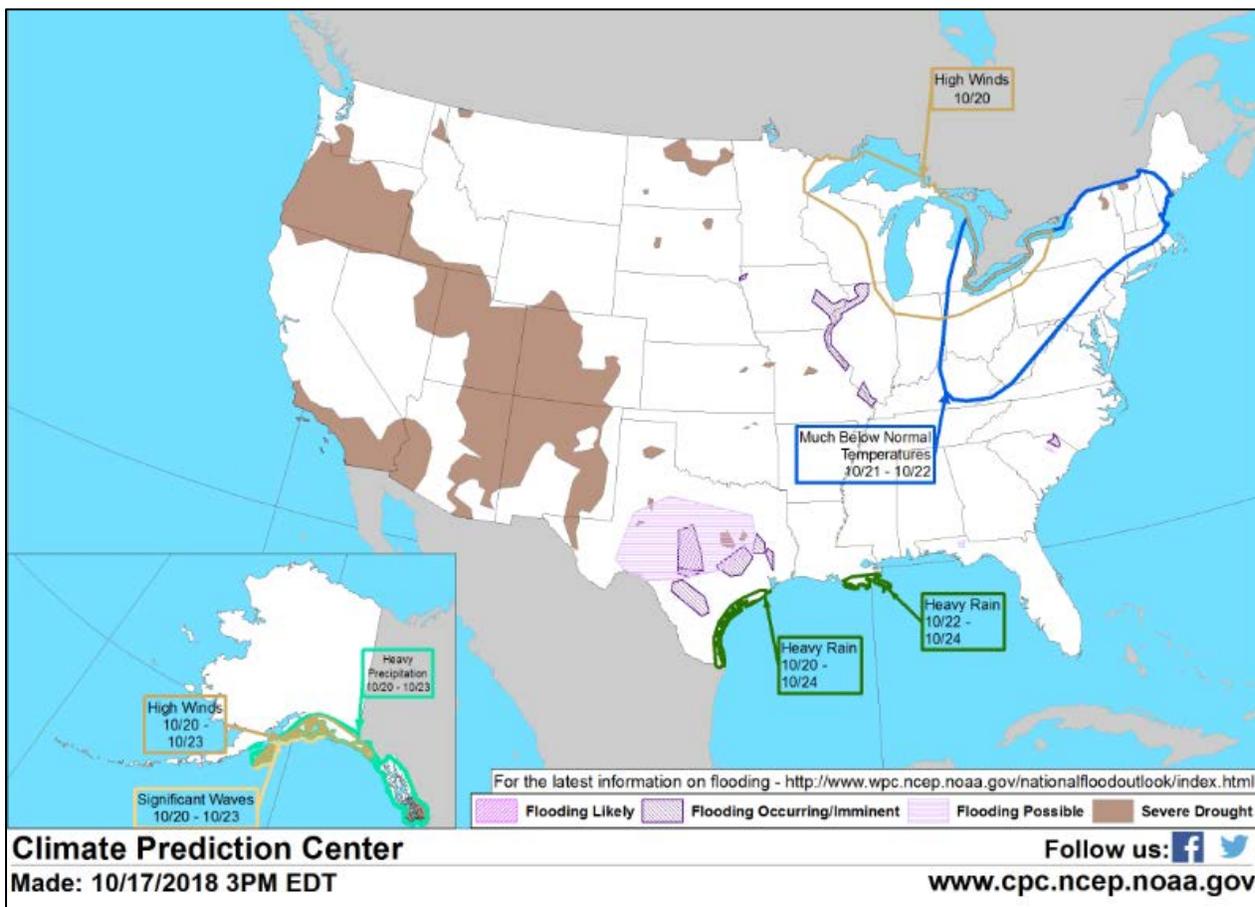
Agricultural Weather Highlights

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

[National Outlook, Thursday, October 18](#): "Late-season warmth will further expand across the West, except for lingering cool weather in the southern Rockies. Meanwhile, cool weather in the Midwest and Northeast will further intensify during the weekend. In Texas and portions of neighboring states, showery weather could lead to additional fieldwork delays and flooding. Five-day rainfall totals could reach 1 to 3 inches in the south-central U.S., with higher totals possible in southern Texas. Many other areas of the country will receive light showers, but no precipitation can be expected into early next week from the Pacific Coast States to the northwestern half of the Plains. The NWS 6- to 10-day outlook for October 23-27 calls for below-normal temperatures across much of the eastern half of the U.S., while warmer-than-normal weather will prevail in Florida, the northern Plains, and the West. Meanwhile, near- to above-normal precipitation across most of the country should contrast with drier-than-normal conditions from the Great Lakes region into the Northeast."

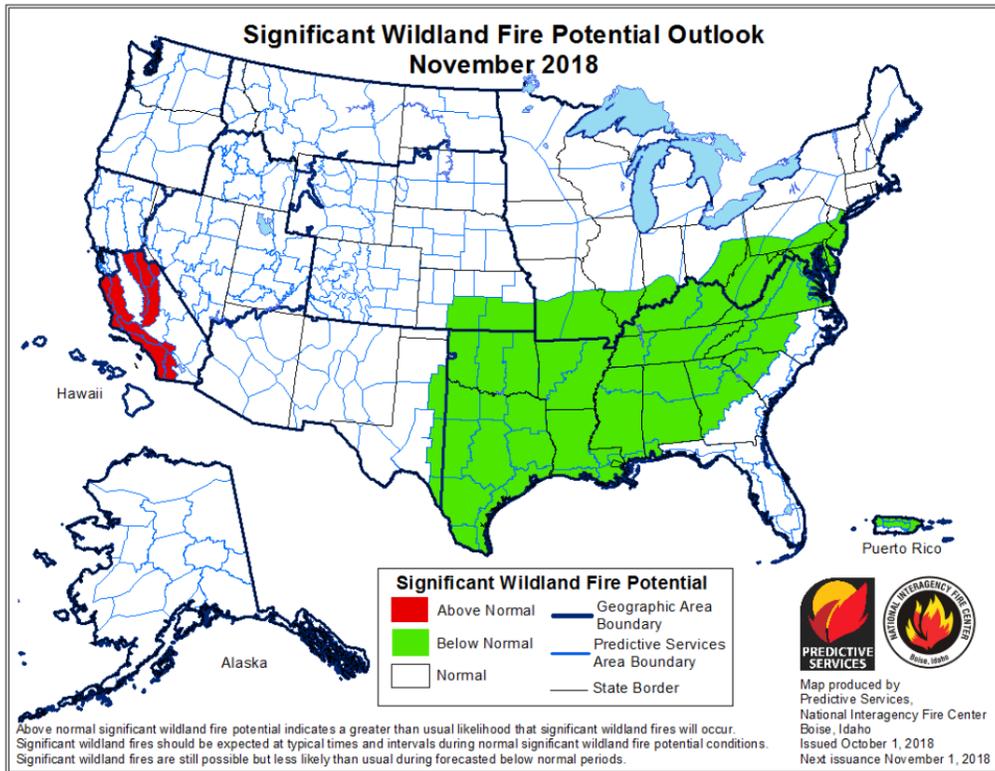
Weather Hazards Outlook [October 20 – 24, 2018](#)

Source: Climate Prediction Center



Significant Wildland [Fire Potential Outlook](#)

Source: National Interagency Fire Center

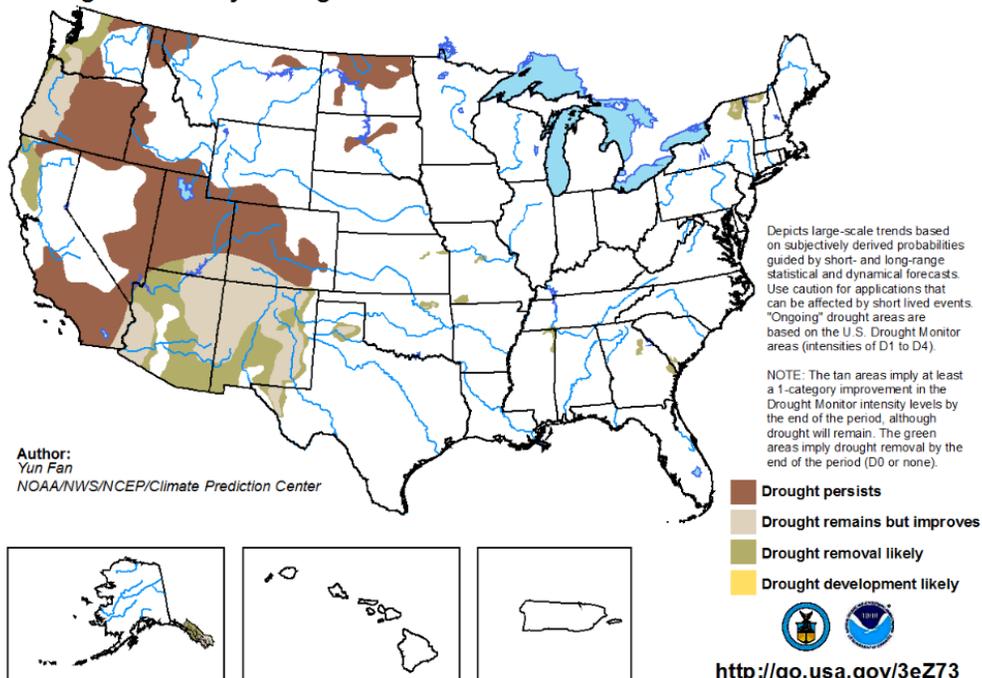


Seasonal Drought Outlook: [October 18, 2018 - January 31, 2019](#)

Source: National Weather Service

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

Valid for October 18 - January 31, 2019
Released October 18, 2018

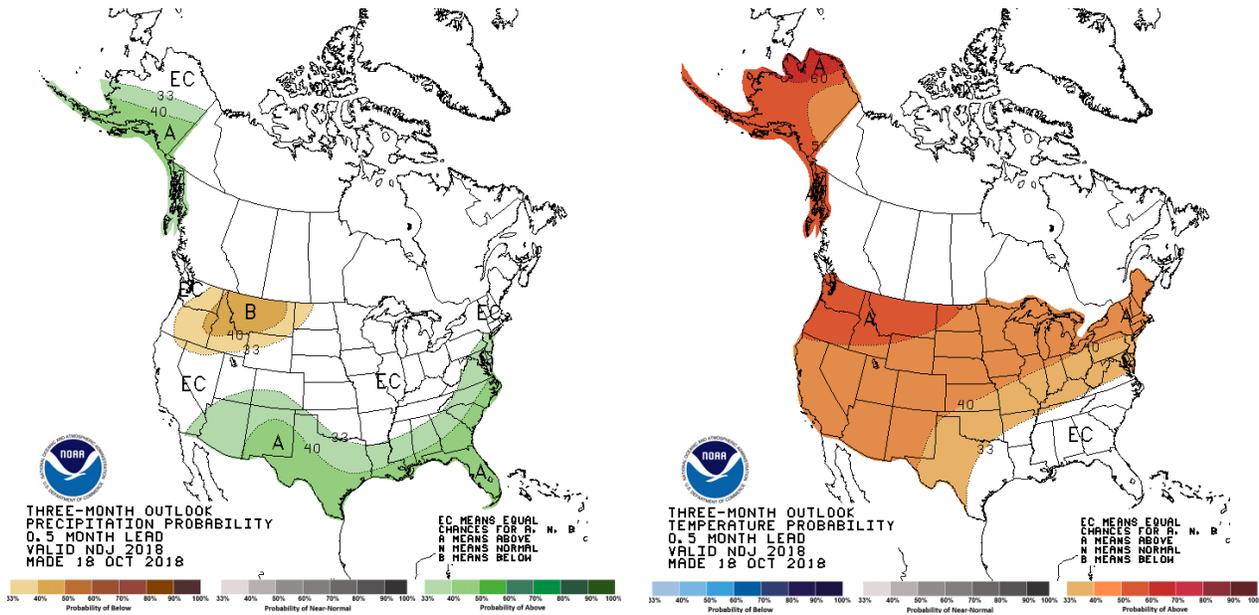


Climate Prediction Center 3-Month Outlook

Source: National Weather Service

Precipitation

Temperature



[November-December-January \(NDJ\) 2018 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](#).