

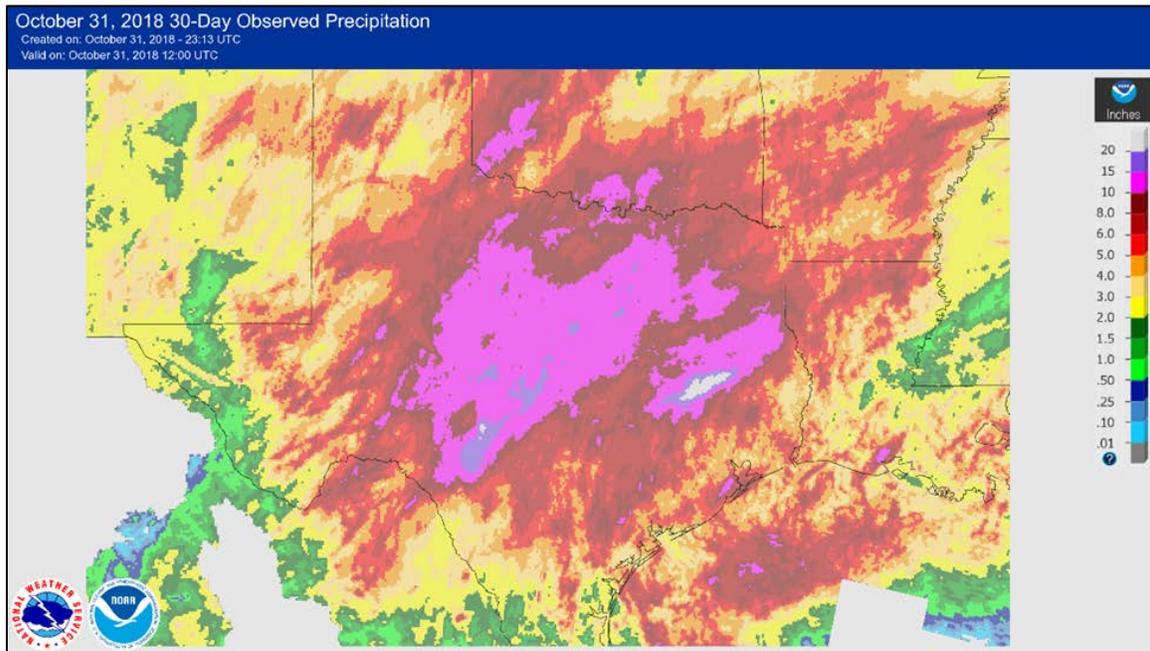
Water and Climate Update

November 1, 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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Tropical Storm Willa adds to historic Texas rainfall and flooding



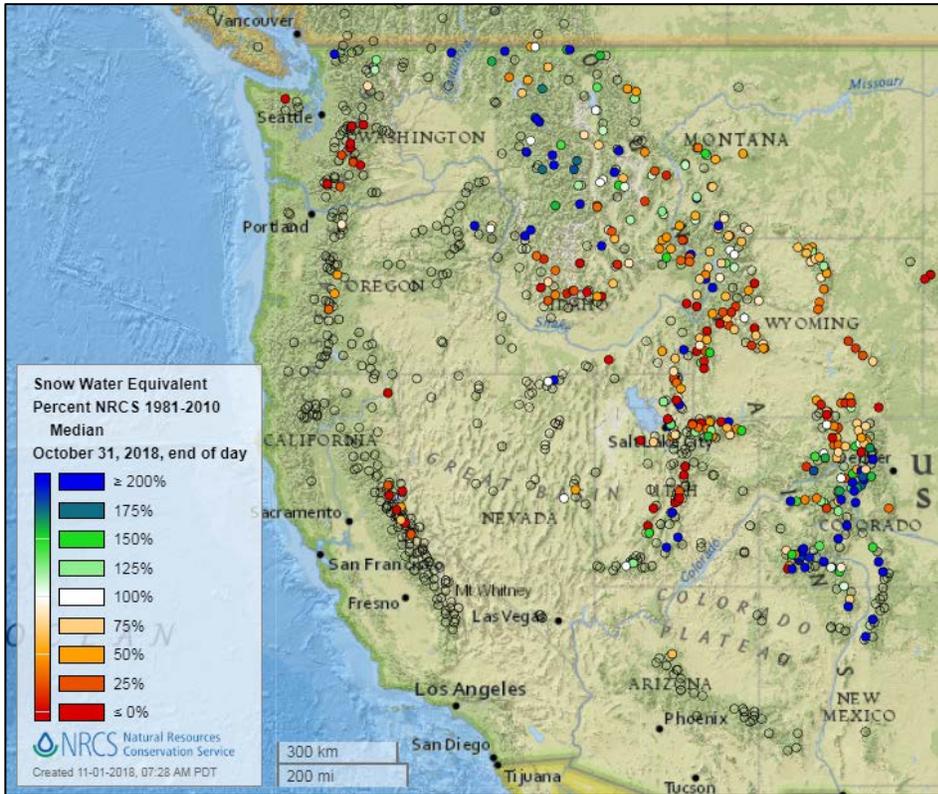
Hurricane Willa arrived in Texas as a tropical storm after most of the intensity of the storm dissipated over Mexico. The storm still had enough power to add significant rainfall and flood-related damage to the state. Governor Abbott requested a Presidential disaster declaration as the precipitation from Willa added to an historic rainfall total for October. Drinking water quality was seriously affected as citizens of Austin, a city of 1,000,000, were asked to boil their drinking water. Over 10 inches of rain has fallen over a large portion of central Texas in the past 30 days, with the Dallas/Fort Worth Airport recording their wettest October on record.

Related:

- [Willa's Last Gasp Causes Flooding In Texas Gulf Coast Communities](#) – USA Patch
- [Texas Governor Abbott requests Presidential Disaster Declaration after flooding events](#) – KVUE (TX)
- [Coryell County still assessing storm, flood damage](#) – KWTX (TX)
- [Floods are ravaging Central Texas and tainting its water](#) – Laredo Morning Times (TX)
- [Coastal counties flooded after heavy rains from Hurricane Willa remnants](#) – Click2Houston (TX)
- [NASA's IMERG reveals Hurricane Willa's rainfall](#) – Phys.org

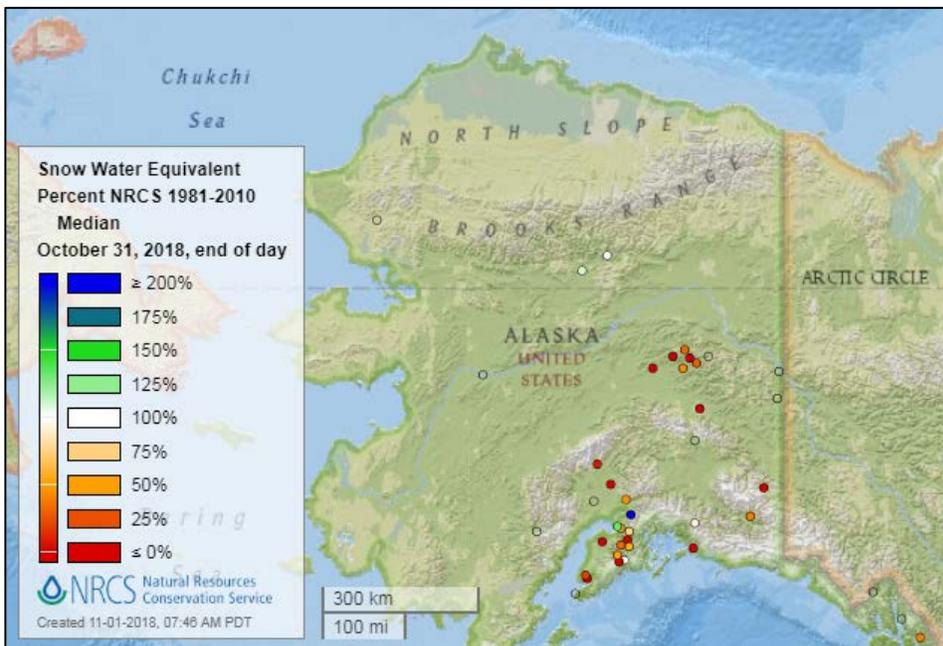
Snow

Current Snow Water Equivalent, NRCS SNOTEL Network



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

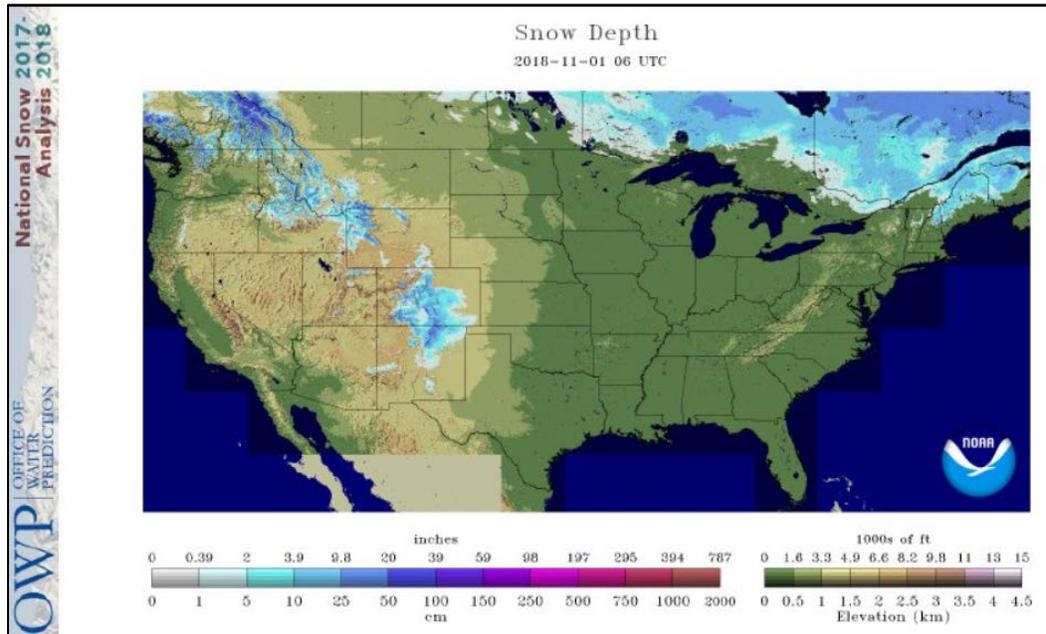
See also:
[Snow water equivalent values \(inches\) map](#)



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

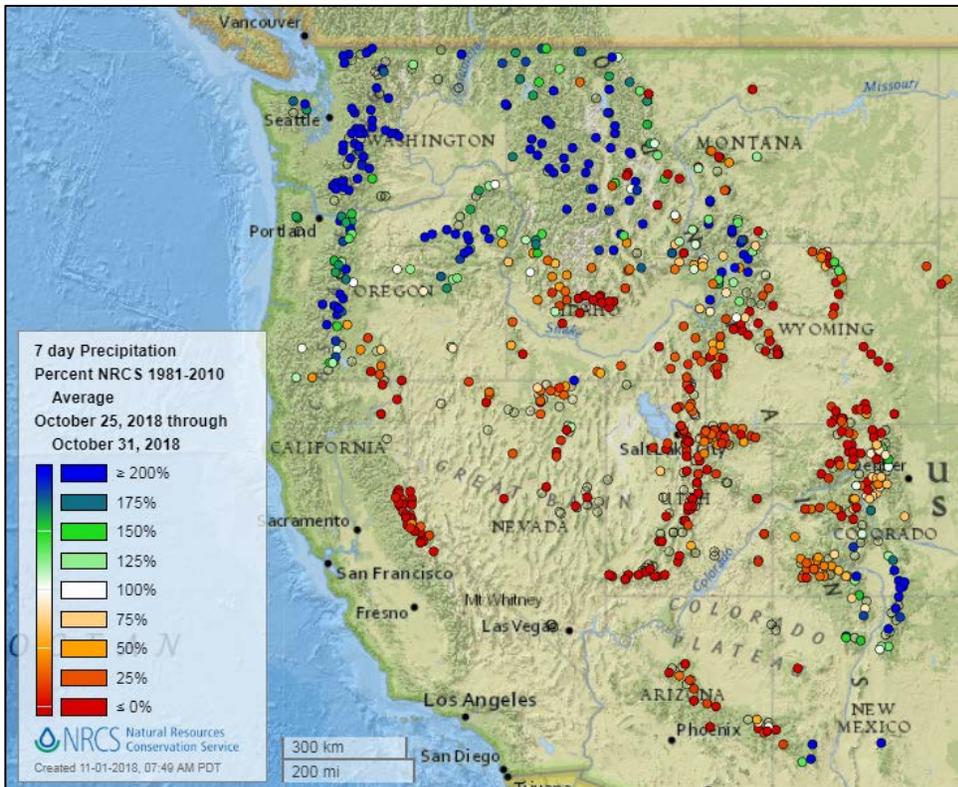
See also:
[Alaska snow water equivalent values \(inches\) map](#)

Current Snow Depth, National Weather Service Snow Analysis



Precipitation

Last 7 Days, NRCS SNOTEL Network



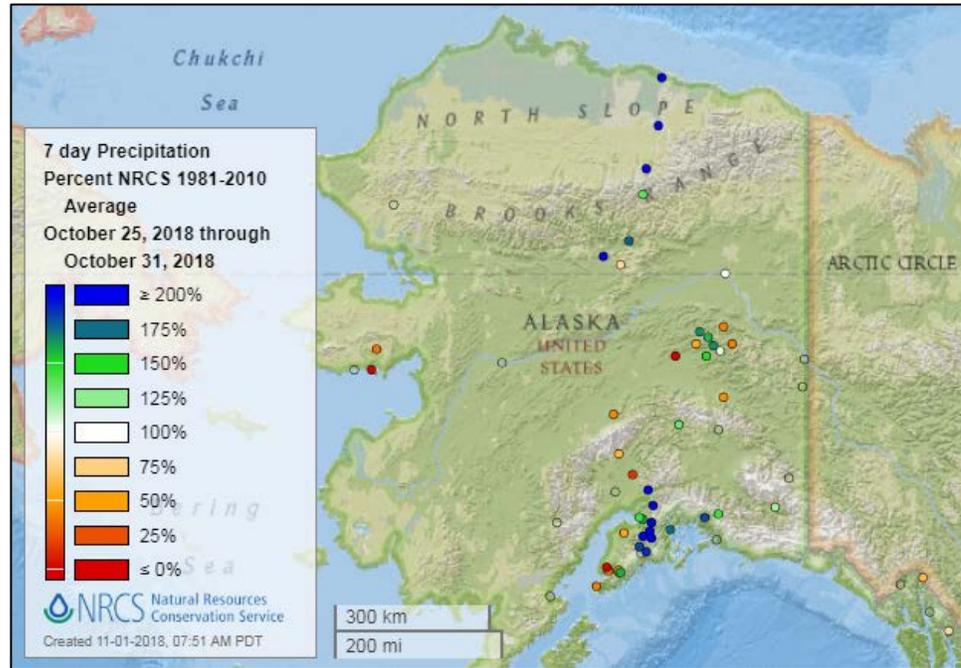
[7-day precipitation percent of average map](#)

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](#)



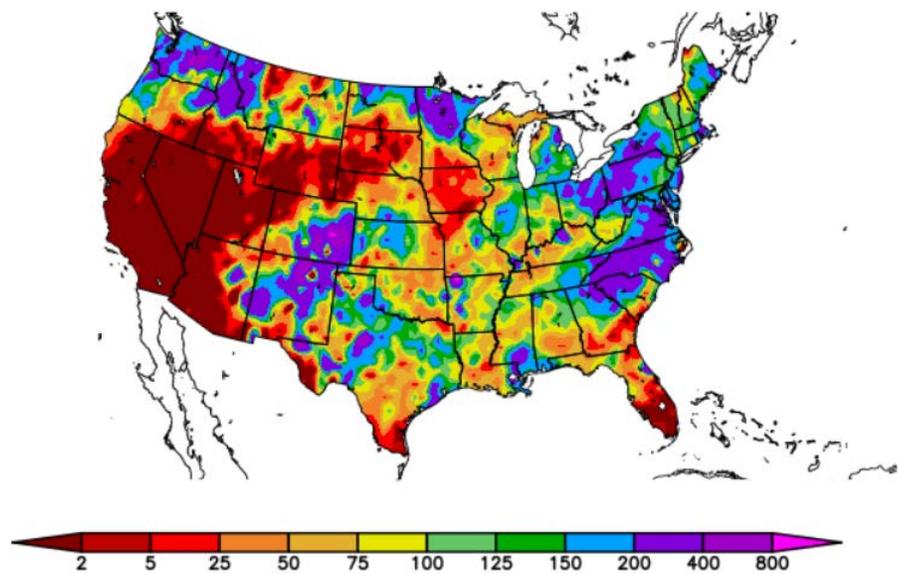
Last 7 Days, National Weather Service (NWS) Networks

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 (%) 10/25/2018 – 10/31/2018



Generated 11/1/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

Water and Climate Update

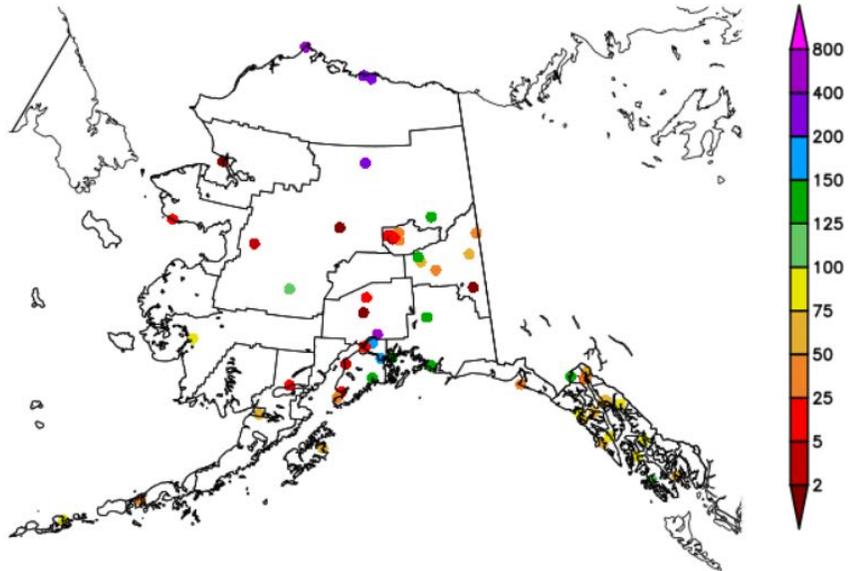
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%) 10/25/2018 – 10/31/2018



Generated 11/1/2018 at HPRCC using provisional data.

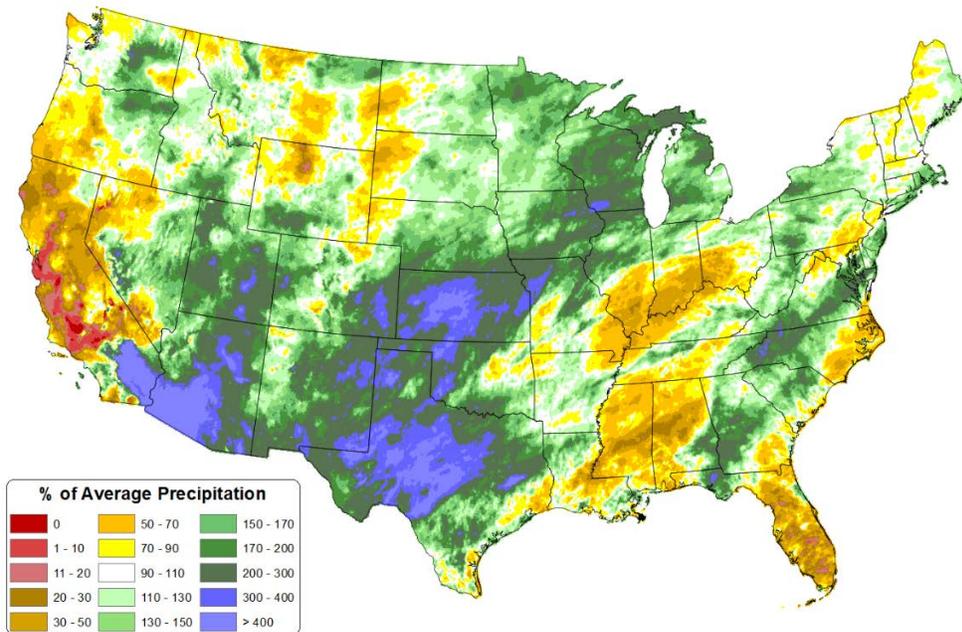
NOAA Regional Climate Centers

Previous Month, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

Total Precipitation Anomaly: 01 Oct 2018 - 31 Oct 2018
Period ending 7 AM EST 31 Oct 2018
Base period: 1981-2010
(Map created 01 Nov 2018)

[Previous month national total precipitation percent of average map](#)

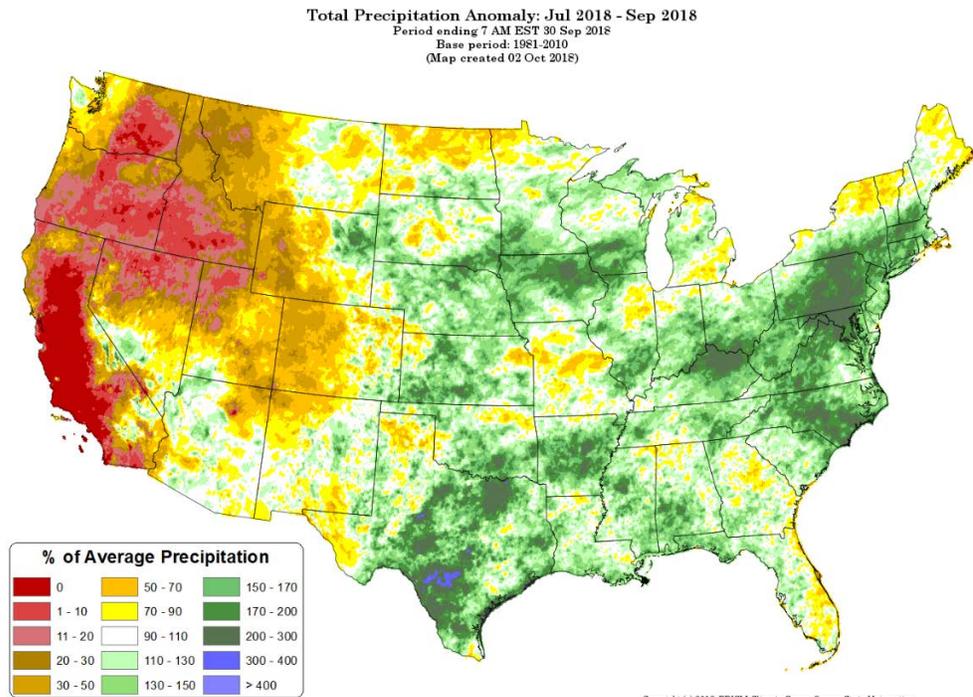


Copyright © 2018, PRISM Climate Group, Oregon State University

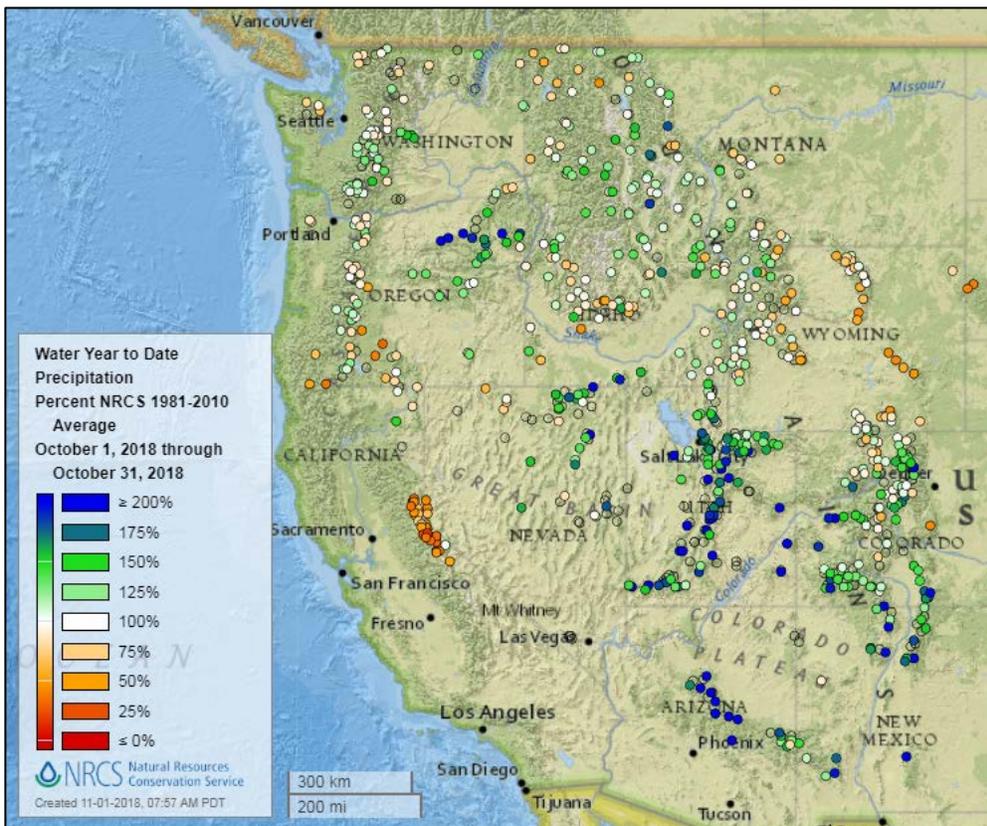
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

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



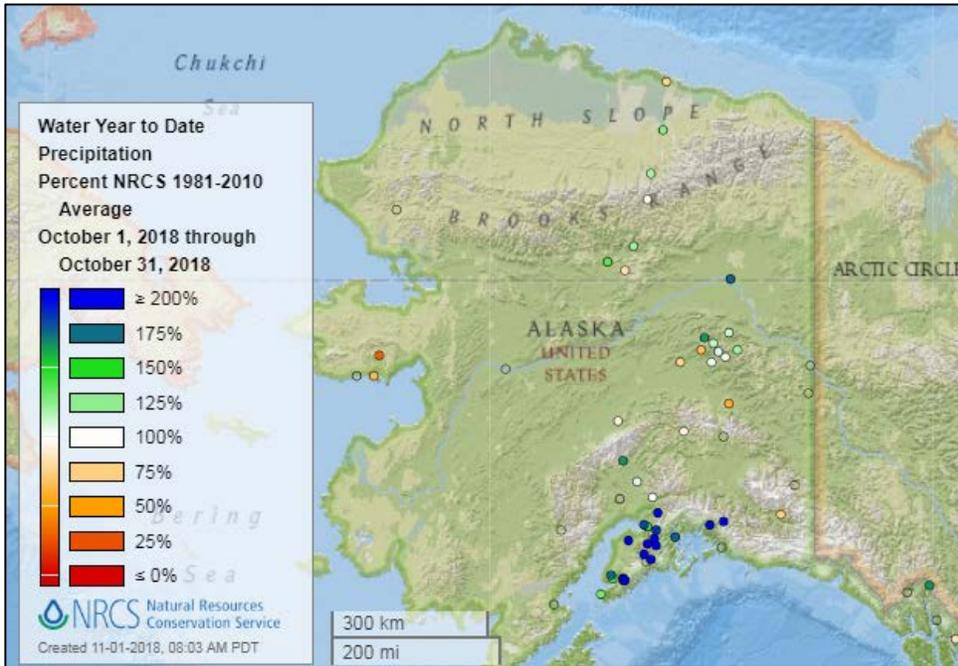
Water Year to Date, NRCS SNOTEL Network



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

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

Water and Climate Update



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

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

Temperature

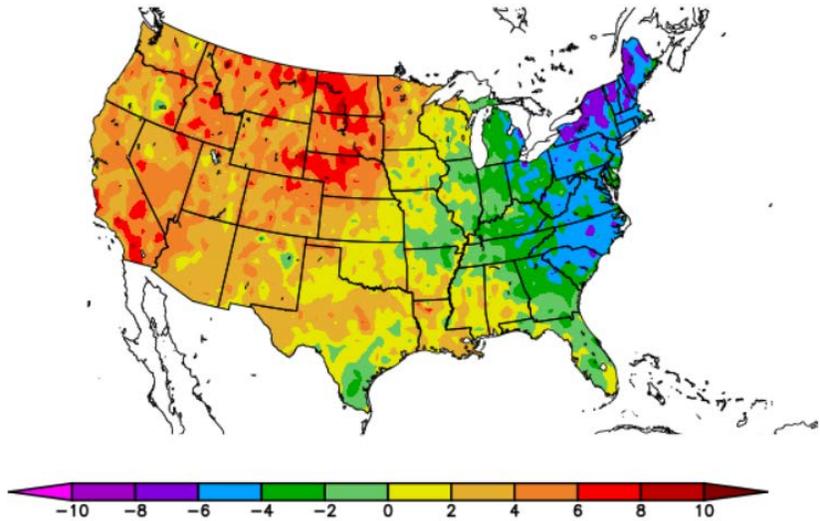
Last 7 Days, National Weather Service (NWS) Networks

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)
10/25/2018 – 10/31/2018



Generated 11/1/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

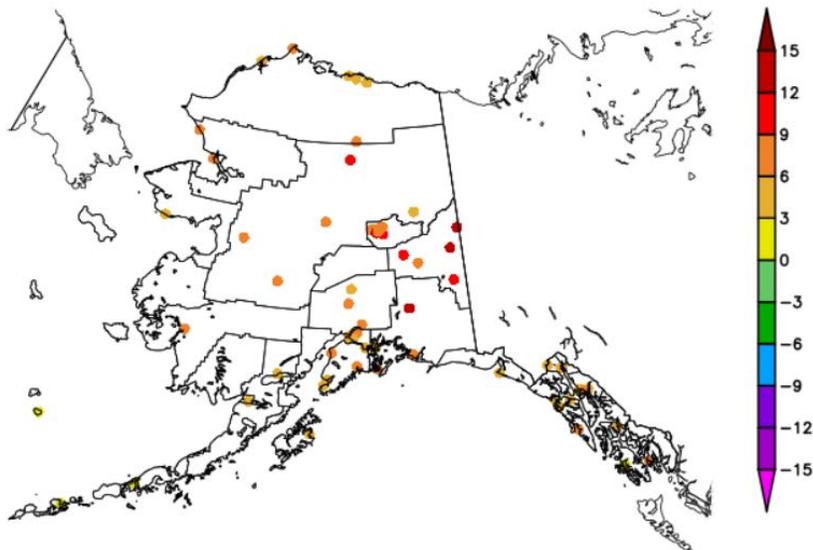
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
10/25/2018 – 10/31/2018



Generated 11/1/2018 at HPRCC using provisional data.

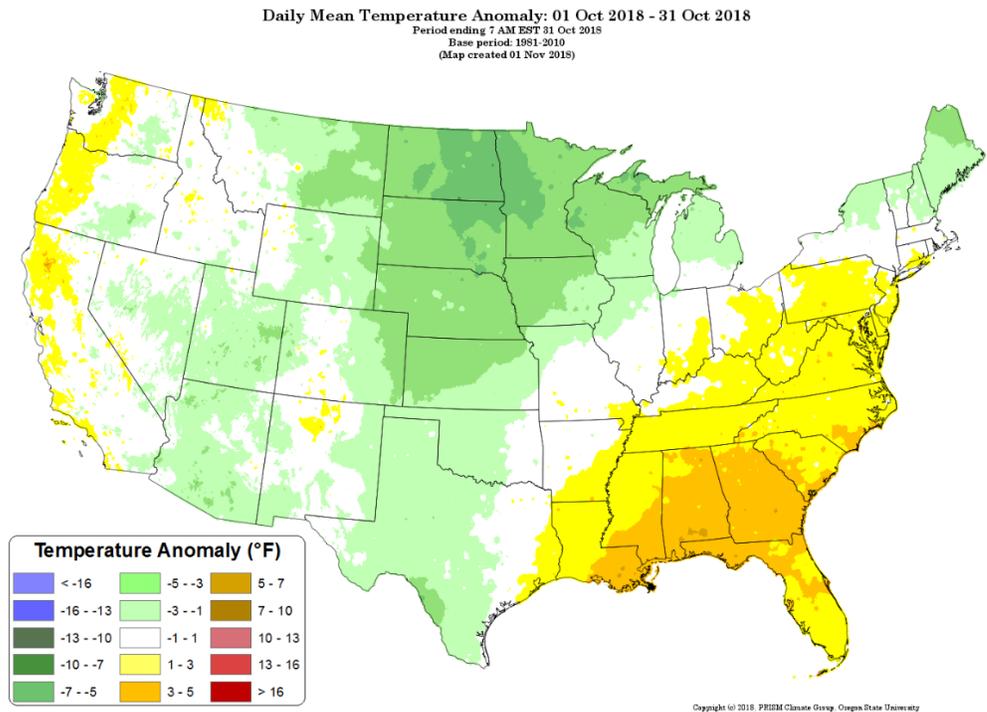
NOAA Regional Climate Centers

Water and Climate Update

Previous Month, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

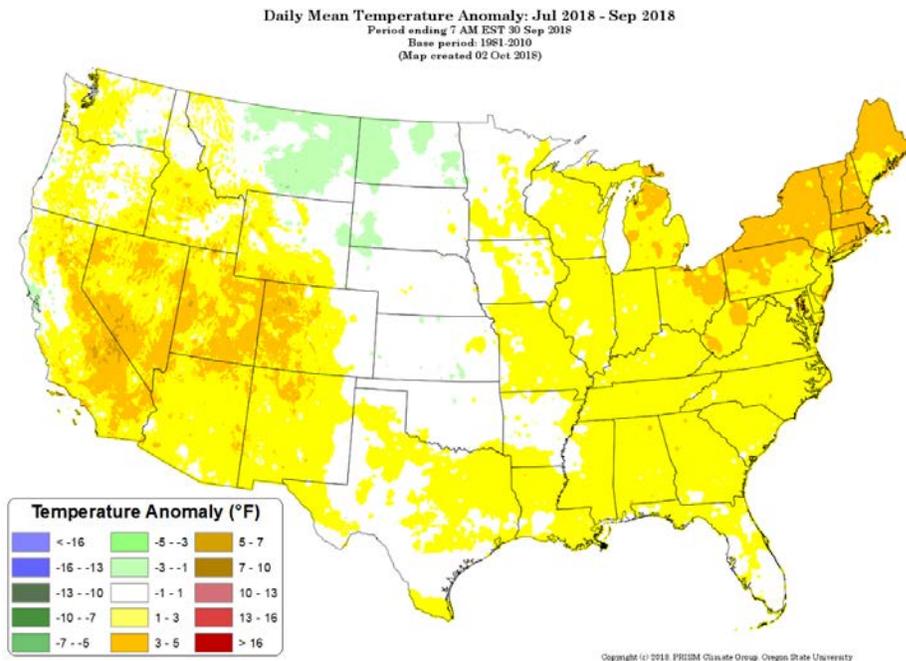
[Previous month national daily mean temperature anomaly map](#)



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

Source: PRISM

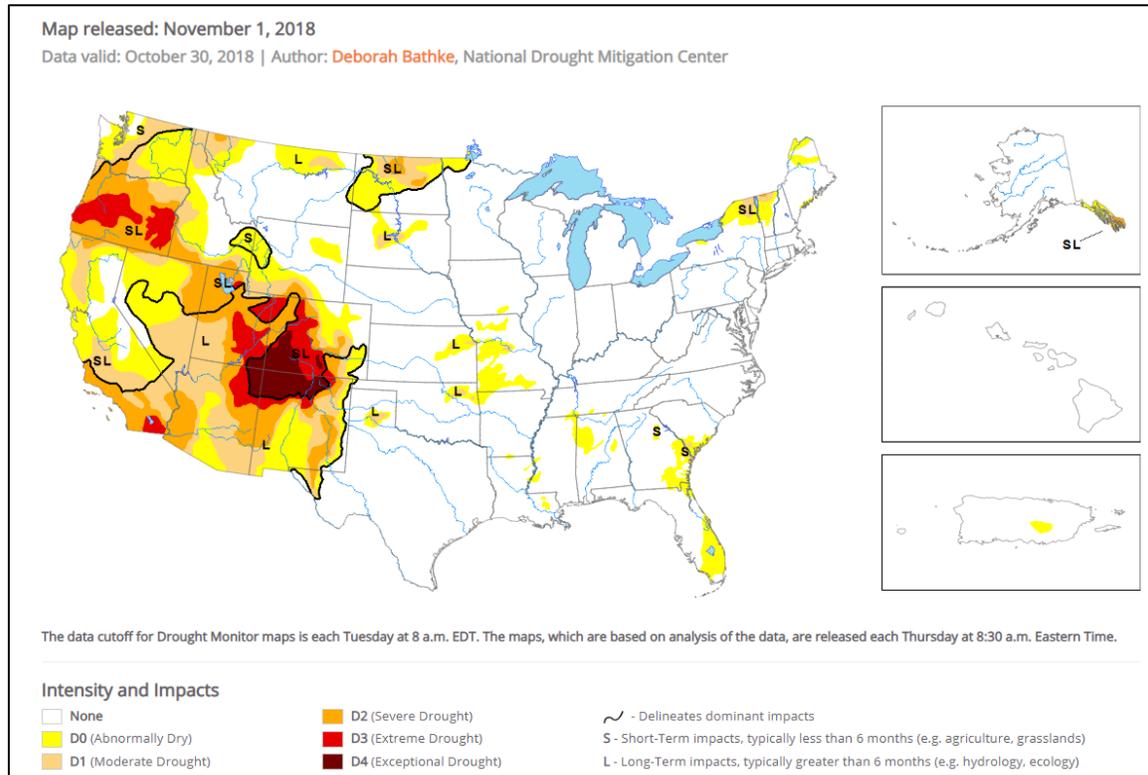
[July through September 2018 daily mean temperature anomaly map](#)



Drought

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

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



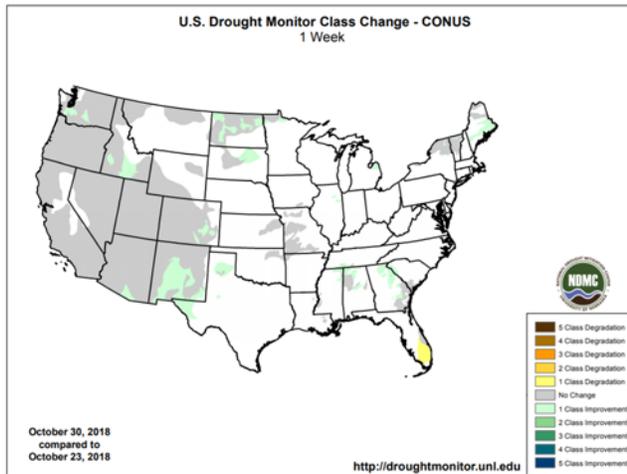
Current [National Drought Summary](#), November 1, 2018

Author: Deborah Bathke, National Drought Mitigation Center

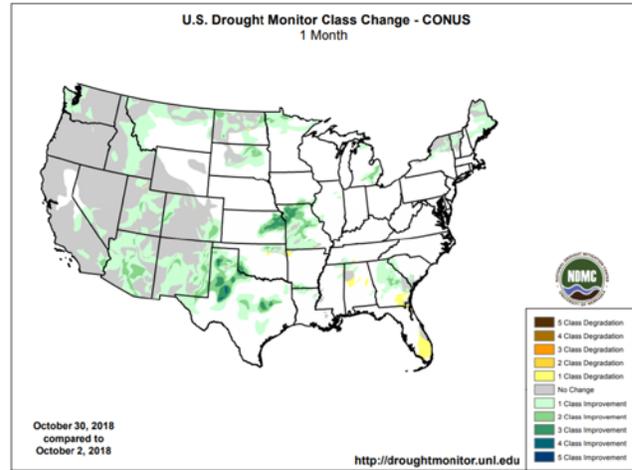
“The U.S. Drought Monitor week ending on October 30, 2018 was marked by several weather events. The first, Hurricane Willa, made landfall as a category 3 storm on Mexico’s Pacific Coast just after the cutoff for last week’s map (8:00 AM ET, Tuesday). The remnants of this storm brought heavy rain and thunderstorms to Texas, which had already been saturated with excess rain over the last several weeks, and to other states in the southern tier of the country. These rains brought improvements to areas impacted by drought, including the long-term drought areas of Arizona and New Mexico. Moisture from Willa helped fuel the season’s first nor’easter, which soaked the Northeast and brought snow to the higher elevations of New England over the weekend, helping to ameliorate drought and abnormal dryness across the regions. Storms also brought precipitation to the Pacific Northwest, the upper Midwest, and the Ohio Valley, bringing drought relief to these areas. Virtually no degradations occurred this week, except for an expansion of abnormal dryness across the Florida Panhandle.”

Changes in Drought Monitor Categories over Time

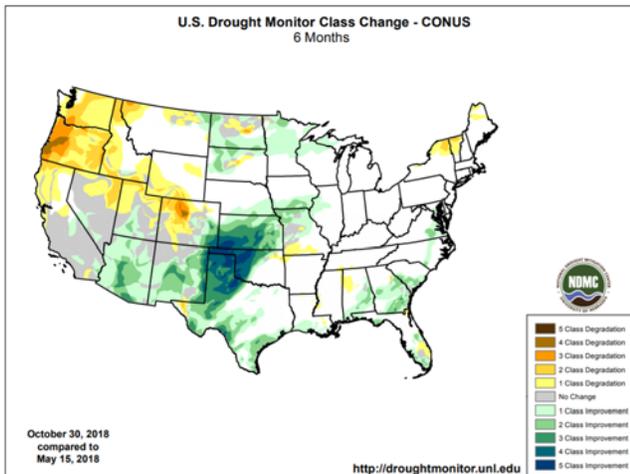
1 Week



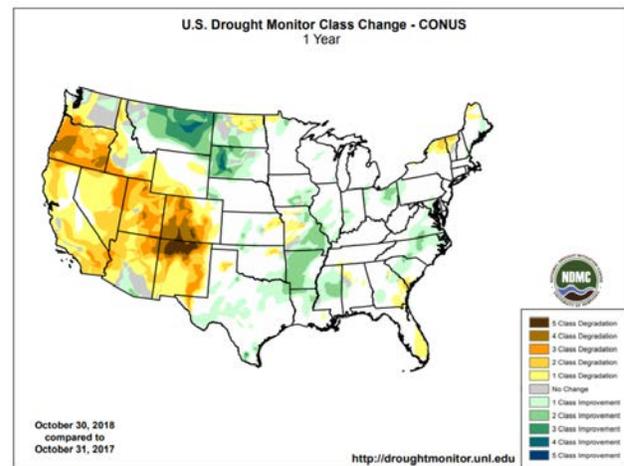
1 Month



6 Months



1 Year

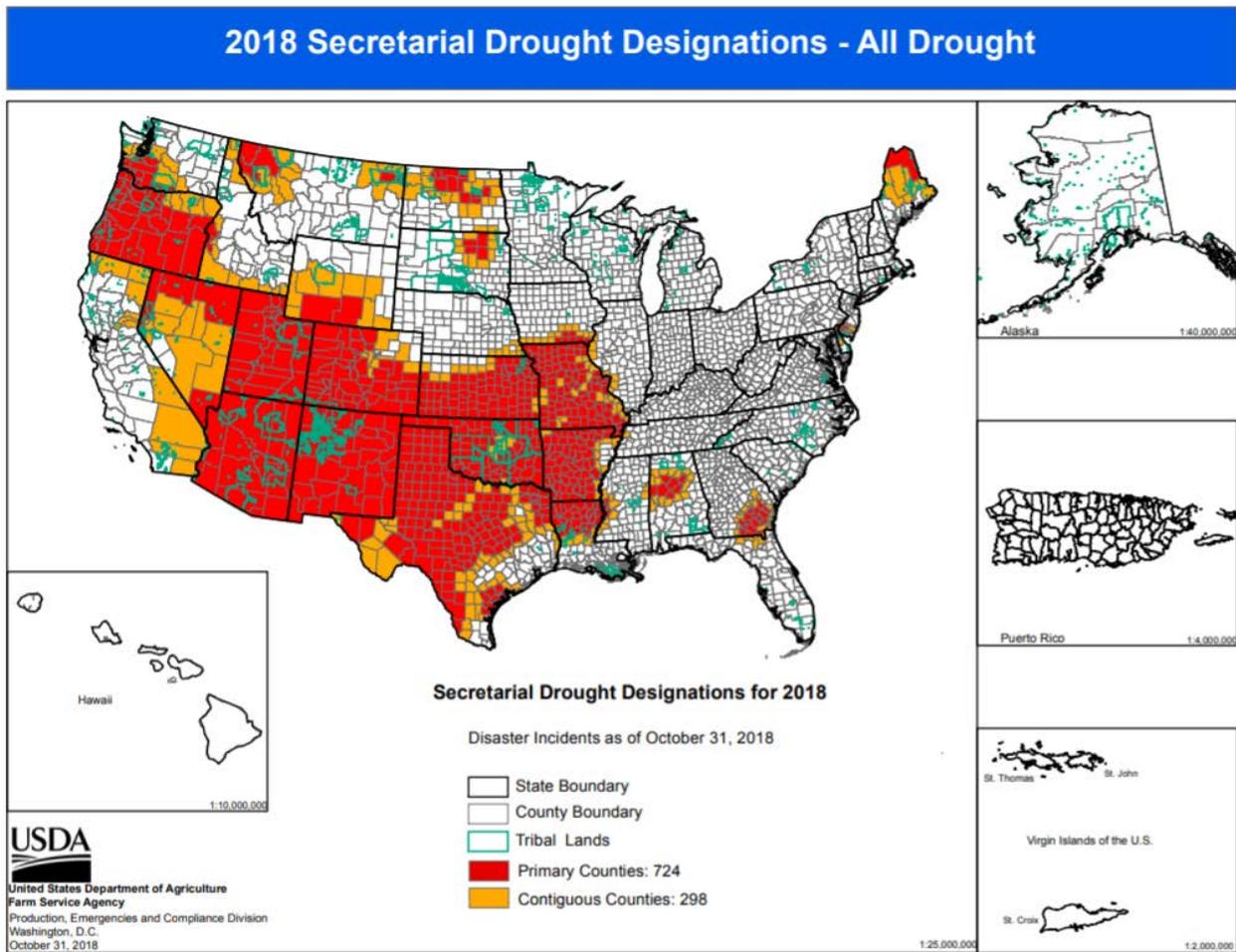


Changes in drought conditions over the last 12 months

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](#)

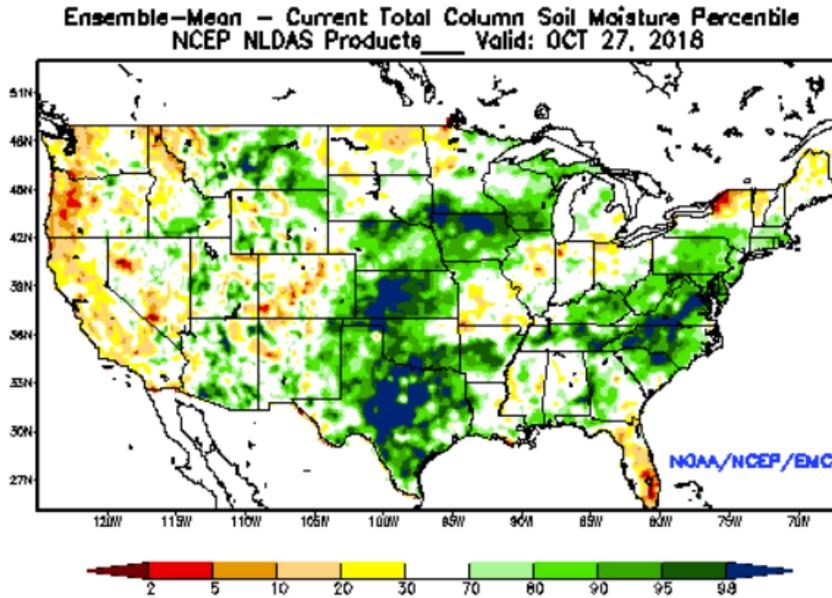
USDA 2018 Secretarial [Drought Designations](#)



Other Climatic and Water Supply Indicators

Soil Moisture

Source: NOAA National Centers for Environmental Prediction



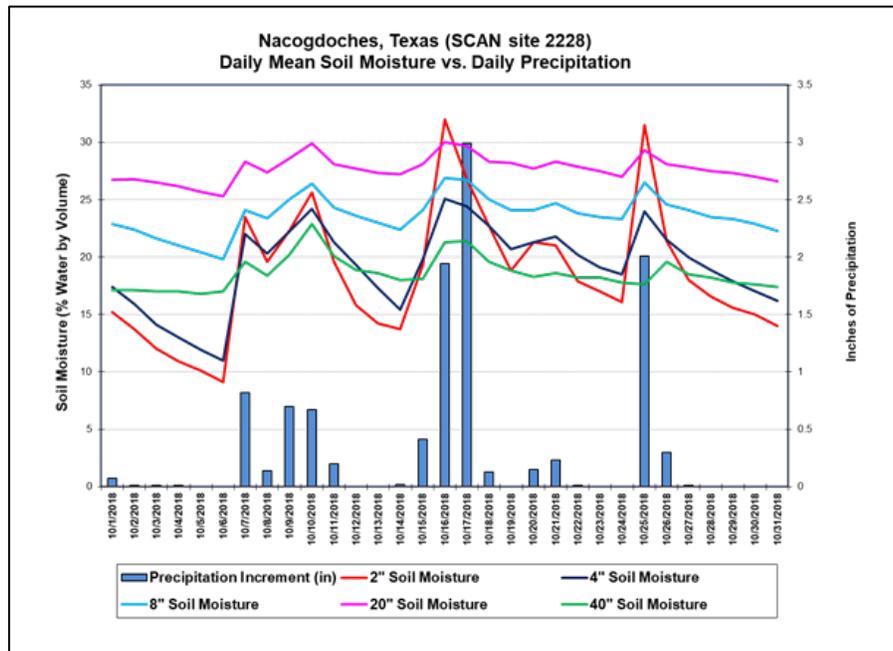
Soil Moisture Data Portals

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

[Modeled soil moisture percentiles](#) as of October 27, 2018

Soil Moisture Data

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

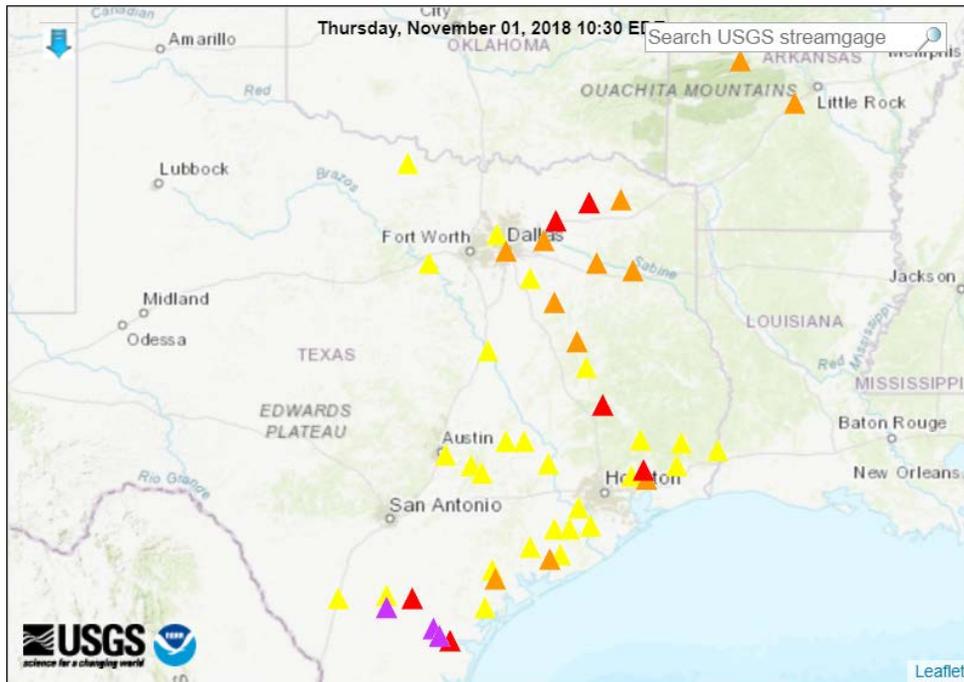


This chart shows the precipitation events during the last 30 days at the [Nacogdoches SCAN site](#) in Texas. This site is located in an area that has been impacted by the recent events of Tropical Storm Willa.

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](#)

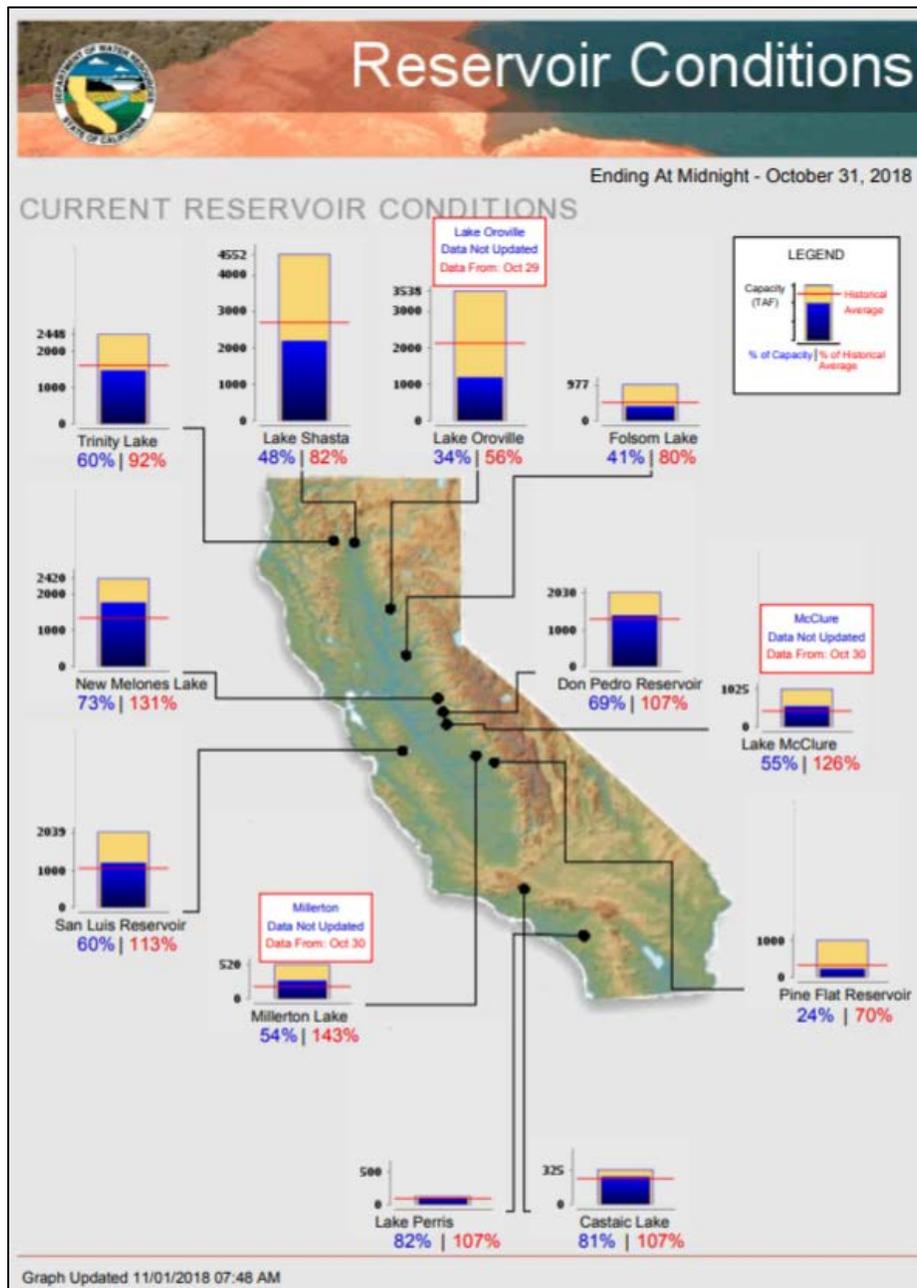
Reservoir Storage

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](#)

Current California Reservoir Conditions

Source: California Department of Water Resources



[Current California Reservoir Conditions](#)

Short- and Long-Range Outlooks

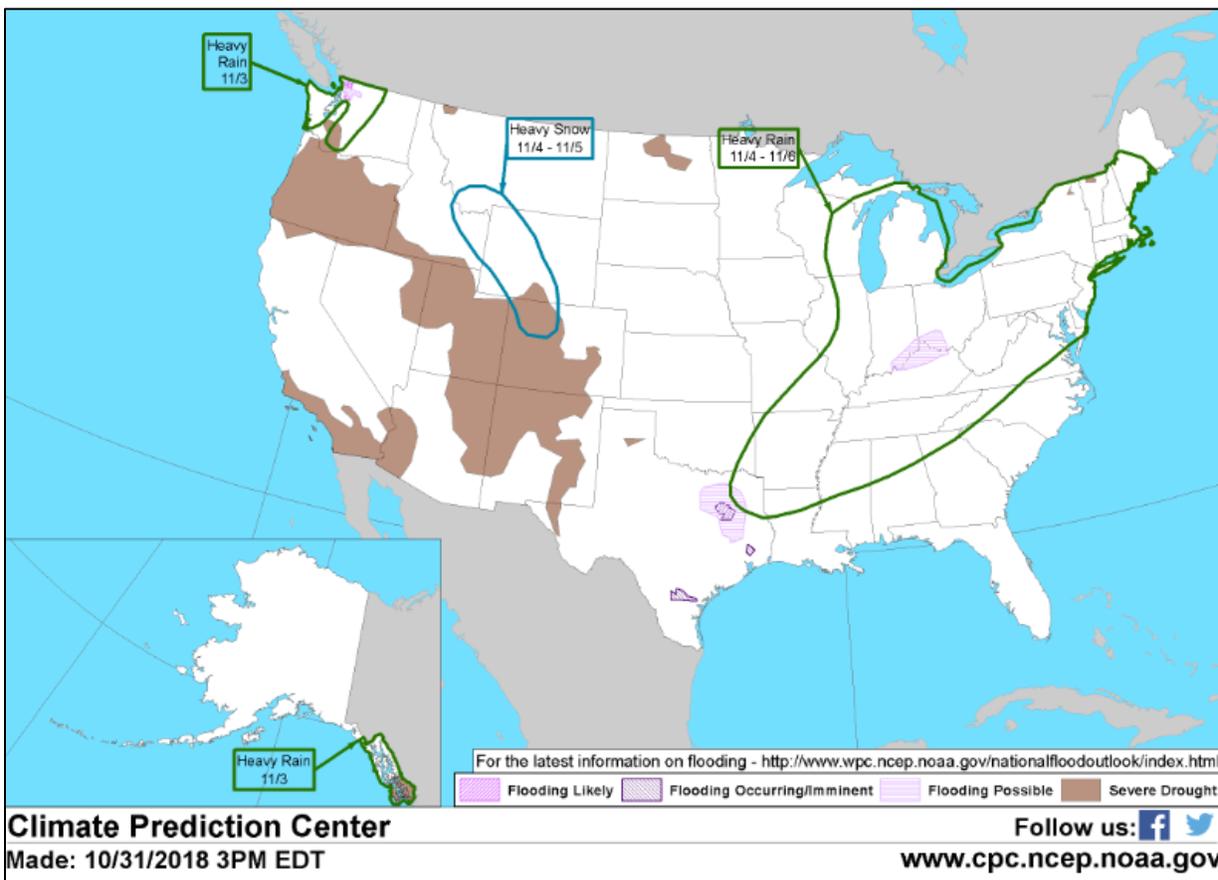
Agricultural Weather Highlights

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

[National Outlook, Thursday, November 1](#): “A slow-moving cold front will drift eastward, sparking heavy, late-week rain across a broad area. Storm-total rainfall could reach 1 to 3 inches or more throughout the eastern U.S. In contrast, dry weather will prevail during the next 5 days from California to the southern High Plains. Farther north, however, periods of rain and snow will affect the Pacific Northwest and the northern and central Rockies. Late in the weekend and early next week, a new storm system should begin to take shape across the nation’s mid-section and produce additional precipitation across the eastern half of the U.S. The NWS 6- to 10-day outlook for November 6 – 10 calls for near- to below-normal temperatures and near- to above-normal precipitation across most of the country. Warmer-than-normal weather will be limited to California, the East, and the Desert Southwest, while drier-than-normal conditions should be confined to northern California and the Pacific Northwest.”

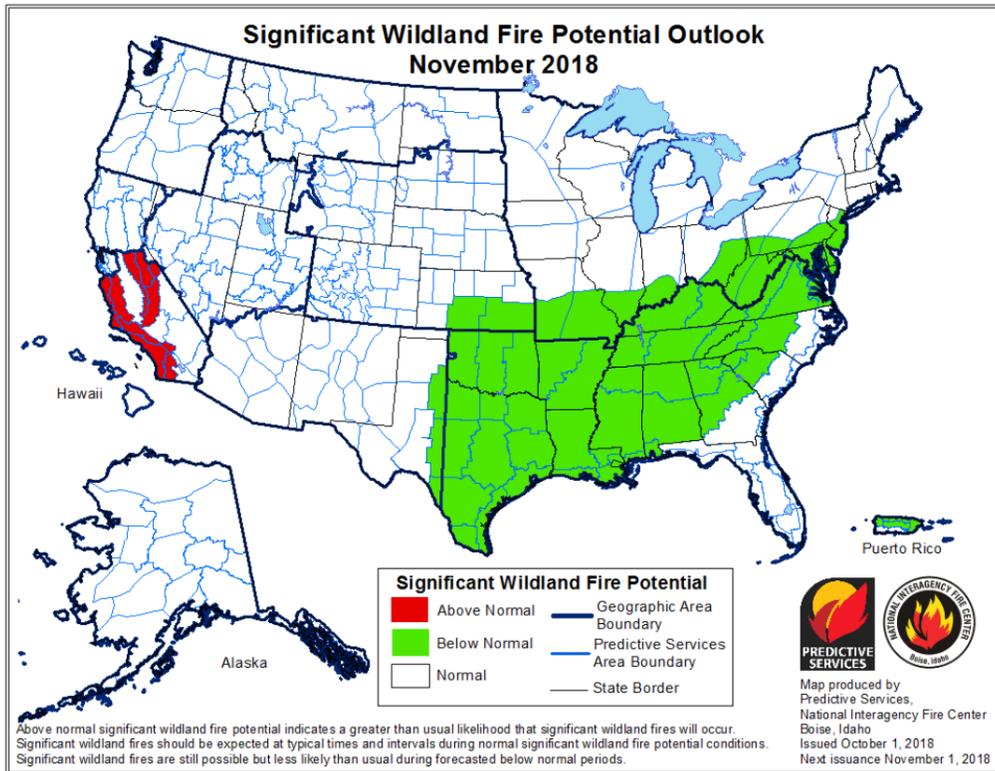
Weather Hazards Outlook [November 3 – 7, 2018](#)

Source: Climate Prediction Center



Significant Wildland [Fire Potential Outlook](#)

Source: National Interagency Fire Center

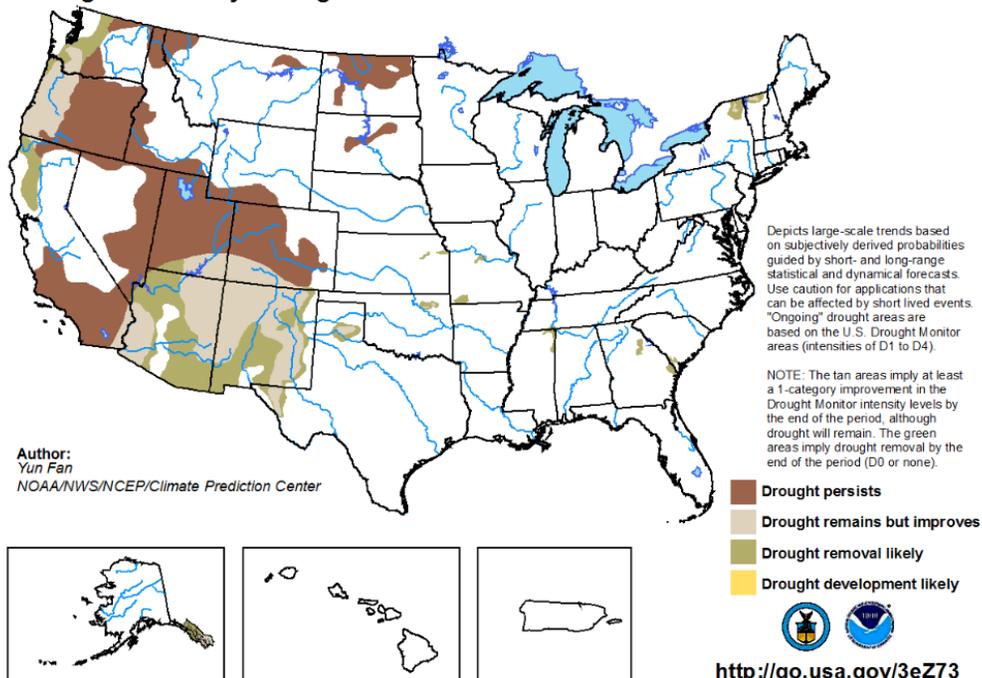


Seasonal Drought Outlook: [October 18, 2018 - January 31, 2019](#)

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

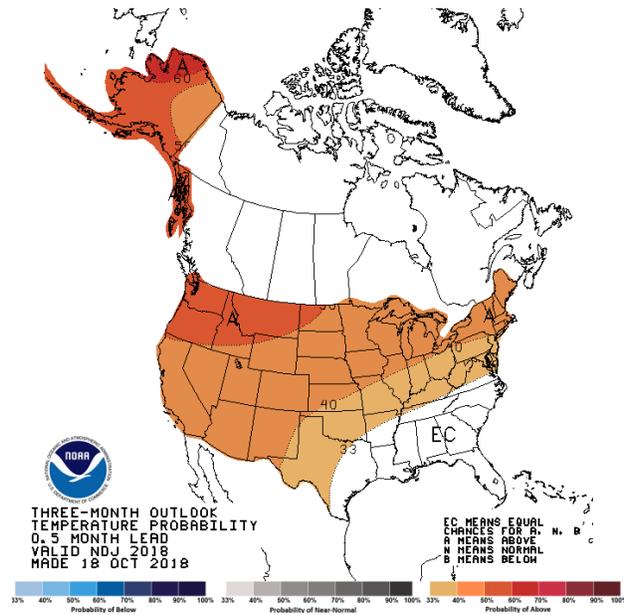
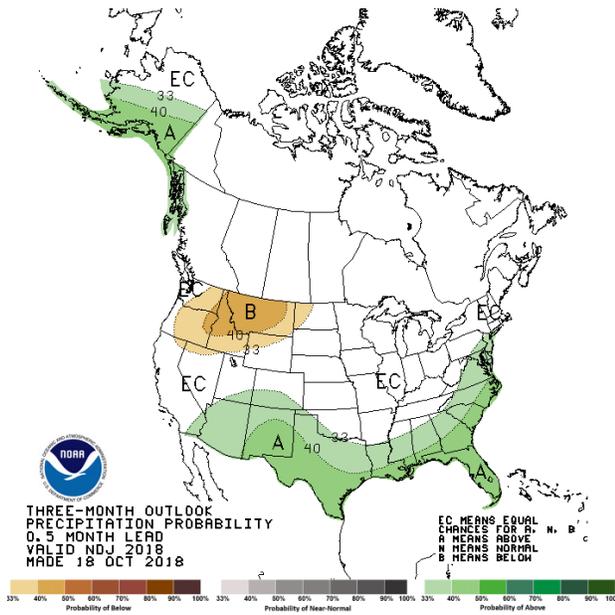


Climate Prediction Center 3-Month Outlook

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](#).