

United States Department of Agriculture

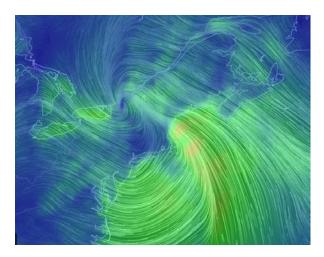
Water and Climate Update

November 2, 2017

The Natural Resources Conservation Service produces this weekly report using data and products from the <u>National Water and Climate Center</u> and other agencies. The report focuses on seasonal snowpack, precipitation, temperature, and drought conditions in the U.S.

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Severe storm blasts the Northeast





Graphic courtesy: earth.nullschool.net

Photo courtesy: Liz Smith

Early this week, the remnants of Hurricane Philippe caused severe damage throughout the Northeast. The windfield graphic on the left shows the storm center over upstate New York creating strong winds with 75+ mph gusts, heavy rain, and flooding in many Northeast communities. At its peak, power outages in New England reached nearly 1.5 million households. The severe wind caused widespread damages, such as those experienced at the Smith Great Bay Dairy Farm in Greenland, New Hampshire.

Related:

Nearly 1.5 million across New England were without power following storm

Northeast Storm Undergoes Bombogenesis, Bringing 70+ MPH Gusts, Almost 350 Reports of Wind Damage, Flooding

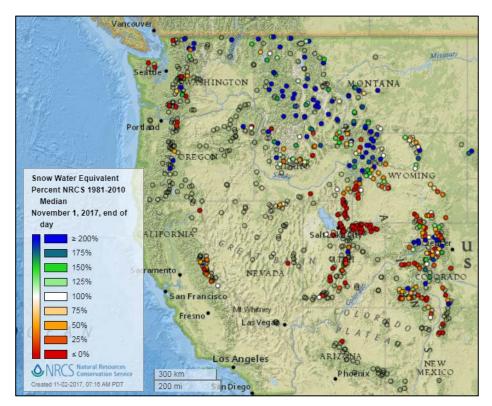
Maine gov issues state of emergency amid storm, outages

Winds near 80 mph, power outages across state

Storm Update: At its Height, More than 450k Lost Power in 4th Largest Power Outage in NH History 1.1 million still without power in Northeast after Philippe

Snow

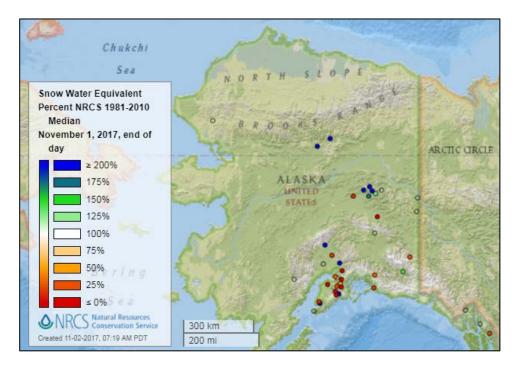
Current Snow Water Equivalent, NRCS SNOTEL Network



Snow water equivalent percent of median map

See also:

Snow water equivalent values (inches) map



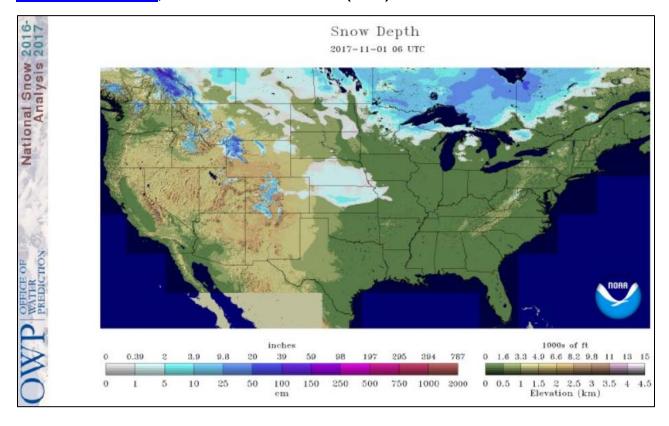
Alaska snow water equivalent percent of median map

See also:

Alaska snow water equivalent values (inches) map

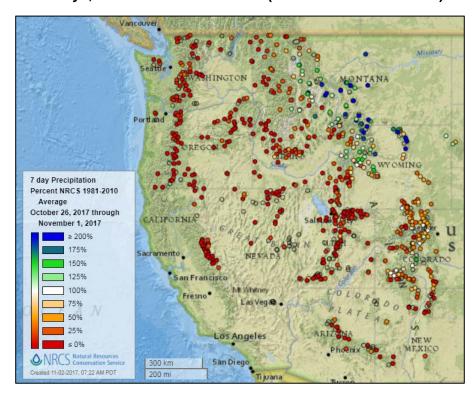
Water and Climate Update

Current Snow Depth, National Weather Service (NWS) Networks



Precipitation

Last 7 Days, Western Mountain Sites (NRCS SNOTEL Network)



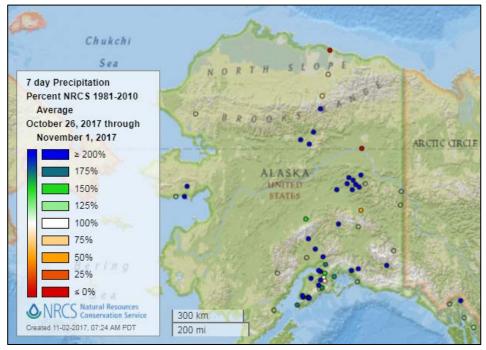
7-day precipitation percent of average map

See also:

7-day total precipitation values (inches) map

Alaska 7-day precipitation percent of average map

See also: Alaska 7day total precipitation values (inches) map

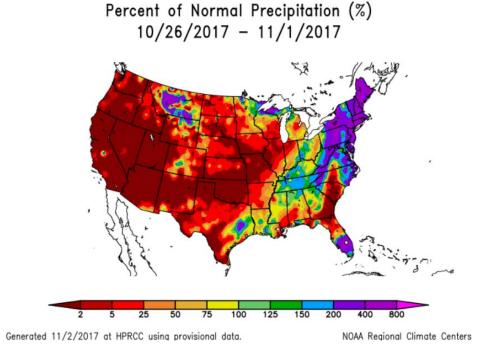


Last 7 Days, National Weather Service (NWS) Networks

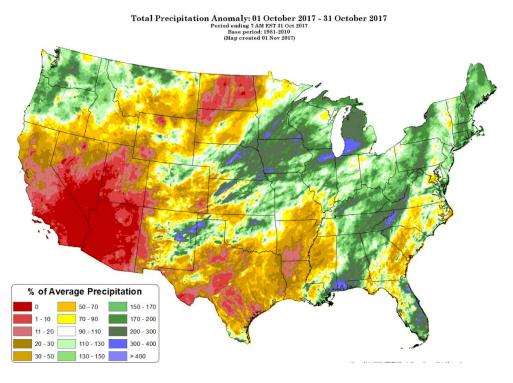
Source: Regional Climate Centers

7-day precipitation percent of normal map for the continental U.S.

See also: 7-day total precipitation values (inches) map



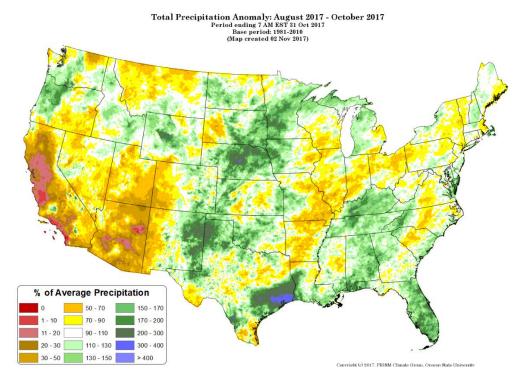
Previous Month, All Available Data Including SNOTEL and NWS Networks Source: PRISM



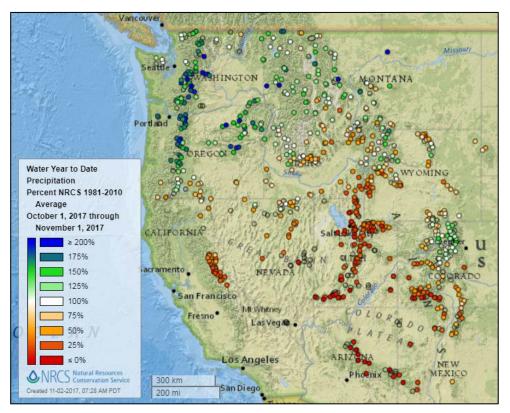
Previous month national precipitation percent of average map

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

August through
October 2017 total
precipitation
anomaly map



Water Year-to-Date, Western Mountain Sites (NRCS SNOTEL Network)

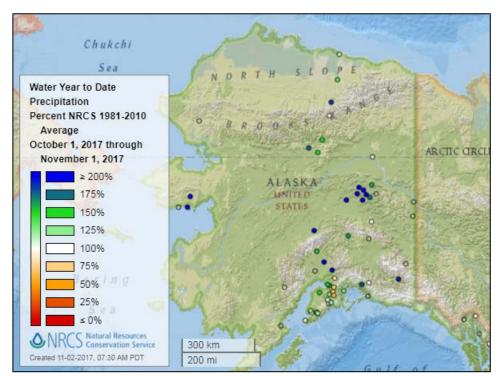


2018 water year-todate precipitation percent of average map

Source: PRISM

See also: 2018 water year-to-date precipitation values (inches)

Water and Climate Update



Alaska 2018 water year-to-date precipitation percent of average map

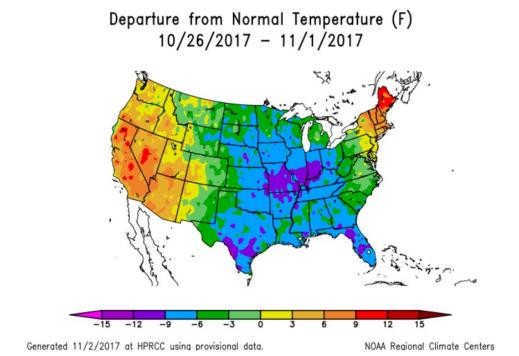
See also: Alaska 2018 water year-todate precipitation values (inches) map

Temperature

Last 7 Days, National Weather Service (NWS) Networks

7-day temperature anomaly map for the continental U.S.

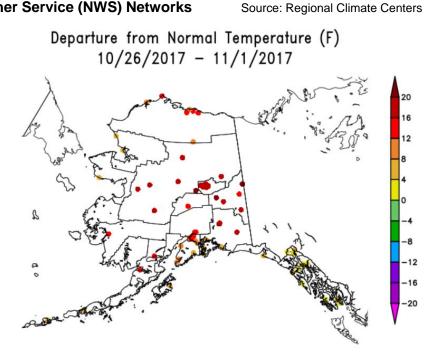
See also: 7-day temperature (° F) map



Last 7 Days, National Weather Service (NWS) Networks

7-day temperature anomaly map for Alaska.

See also: 7-day temperature (° F) map



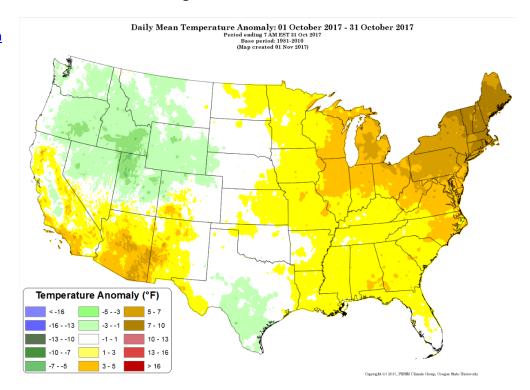
Generated 11/2/2017 at HPRCC using provisional data.

NOAA Regional Climate Centers

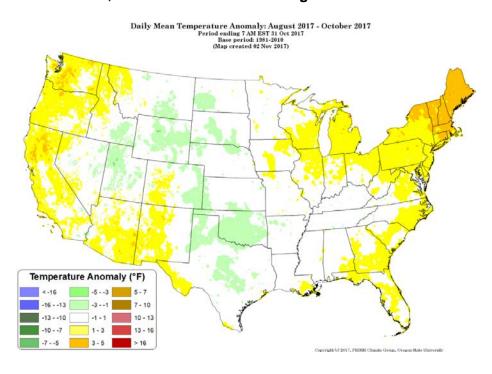
Source: Regional Climate Centers

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



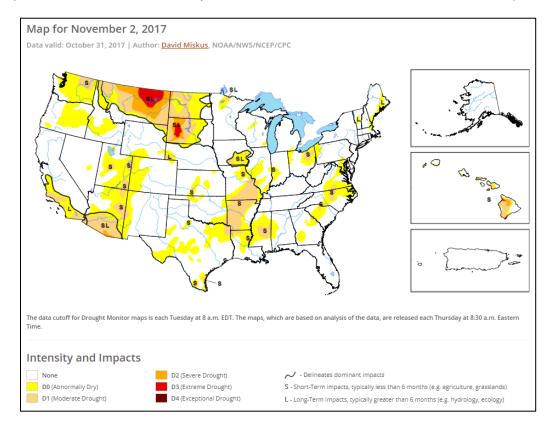
August through October 2017 daily mean temperature anomaly map

Drought

U.S. Drought Monitor Select map below.

U.S. Drought Portal Comprehensive drought resource.

PLEASE NOTE – The Drought Monitor reflects observed precipitation through Tuesday, 1200 UTC (8 am, EDT); any rain that falls after the Tuesday 1200 UTC cutoff will be reflected in next week's map.

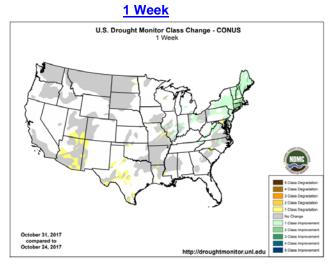


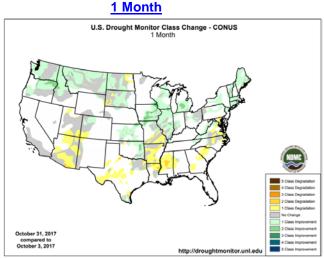
Current National Drought Summary, October 31, 2017

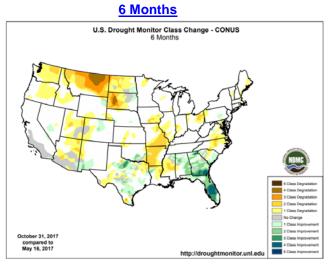
Author: David Miskus, NOAA/NWS/NCEP/CPC

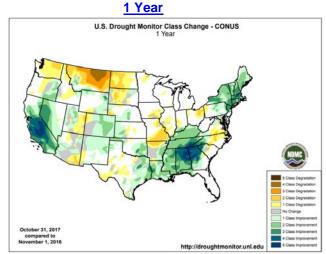
"A series of storm systems traversed from the Canadian Prairies southeastward across the eastern half of the Nation during the week, with a strong weekend storm tapping ample tropical moisture from the Gulf of Mexico, the Caribbean Sea, and disorganized Tropical Storm Philippe that was eventually absorbed into the system. With plentiful moisture available to the weekend storm system, widespread, copious rains (2-6 inches, locally to 12 inches) inundated most of the Northeast, especially New England, abruptly ameliorating short-term deficits accumulated during the late summer and fall months. Heavy rains also fell on southern Florida (from Philippe), while light to moderate precipitation occurred in the Great Lakes region, Ohio and Tennessee Valleys, and the Appalachians. With high pressure entrenched over the West, little or no precipitation was reported west of the Mississippi River. Temperatures averaged well below normal east of the Rockies and to the Appalachians, especially in the South and Midwest that had weekly departures of -6 to -12 deg F. Sub-freezing readings were common across the northern and central Plains and Midwest, along with decent snows in the upper Midwest. In contrast, above-normal temperatures prevailed across the West and New England. Showers frequented the Hawaiian Islands during the week, maintaining a recent wet pattern that allowed for additional improvements to some windward locations."

Changes in Drought Monitor Categories over Time







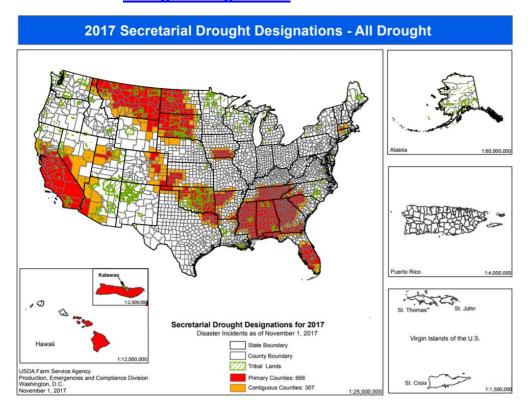


Changes in drought conditions over the last 12 months

Highlighted Drought Resources

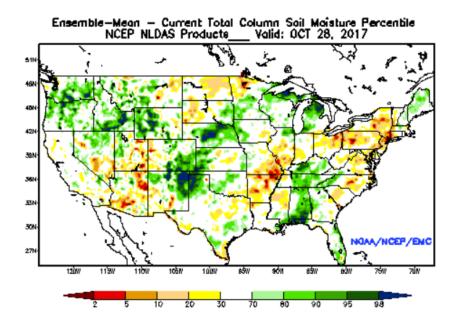
- <u>Drought Impact Reporter</u>
- Quarterly Regional Climate Impacts and Outlook
- U.S. Drought Portal Indicators and Monitoring
- U.S. Population in Drought, Weekly Comparison
- USDA Disaster and Drought Information

USDA 2017 Secretarial <u>Drought Designations</u>



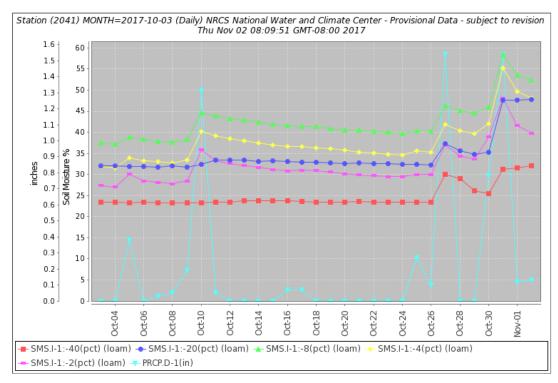
Other Climatic and Water Supply Indicators

Soil Moisture



Modeled soil moisture percentiles as of October 28, 2017.

Soil Moisture Data: NRCS Soil Climate Analysis Network (SCAN)



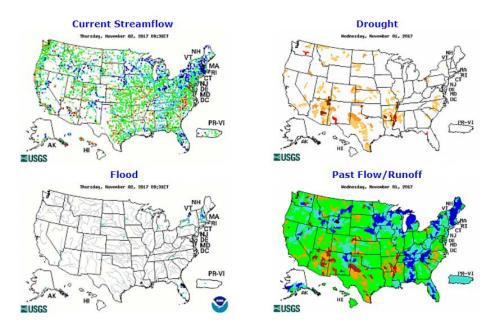
The chart shows precipitation and soil moisture for the last 30 days at the Mount Mansfield SCAN site 2041 in Vermont. The chart shows recent precipitation from storms on October 25-27, and October 30-November 1, increased soil moisture at all sensor levels. The event on October 10 did not provide enough precipitation to increase the soil moisture at the 40-inch sensor depth.

Soil Moisture Data Portals

CRN Soil Moisture

<u>Texas A&M University North American Soil Moisture Database</u> University of Washington Experimental Modeled Soil Moisture

Streamflow Source: USGS

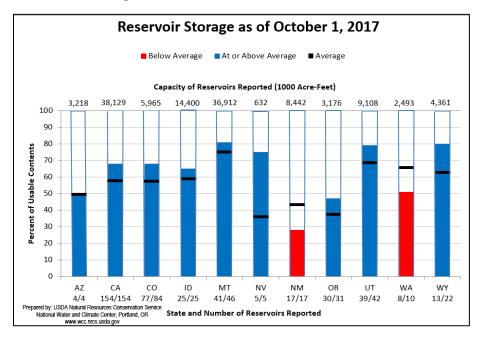


WaterWatch: Streamflow, drought, flood, and runoff conditions

Reservoir Storage

Western States Reservoir Storage

Source: NRCS National Water and Climate Center



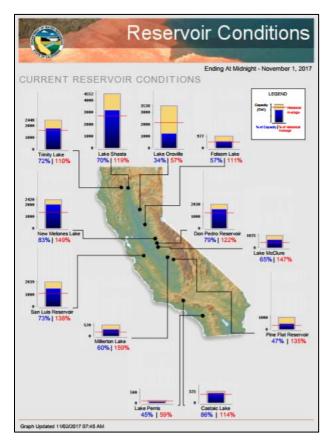
October 1 Reservoir Storage: Chart | Dataset

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

Current California Reservoir Conditions

Source: California Department of Water Resources



California Current Reservoir Conditions

Short- and Long-Range Outlooks

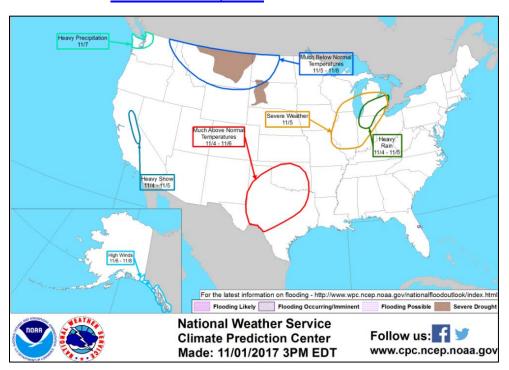
Agricultural Weather Highlights

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

National Outlook, Thursday, November 2, 2017: "During the next several days, Northwestern precipitation will spread eastward across the nation's northern tier and as far south as central California and the Intermountain West. Significant, high-elevation snow can be expected from the Cascades and Sierra Nevada to the northern Rockies. Late-week snow should also blanket portions of the northern Plains and far upper Midwest. Farther east, significant rain (1 to 3 inches) should occur from the Tennessee Valley into the lower Great Lakes region and northern New England. In contrast, mostly dry weather will prevail in the southern Atlantic region and from the Desert Southwest to the southern Plains. The NWS 6- to 10-day outlook for November 7 – 11 calls for the likelihood of below-normal temperatures from the Pacific Coast to the northern Plains and upper Midwest, while warmer-than-normal conditions will prevail from the southern Rockies into the Southeast. Meanwhile, below-normal precipitation across the Deep South and the north-central U.S. should contrast with wetter-than-normal weather in northern California and the Pacific Northwest, and from the Ohio Valley into the Northeast."

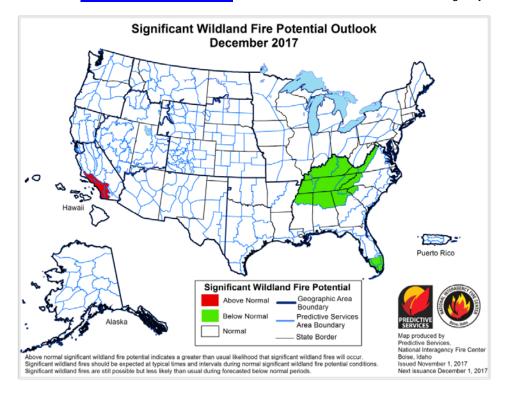
Source: Climate Prediction Center

Weather Hazard Outlook November 4 – 8, 2017

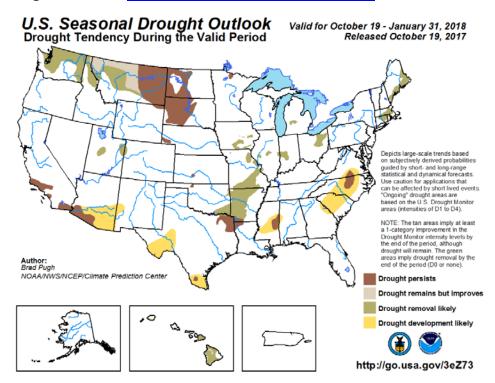


Significant Wildland Fire Potential Outlook

Source: National Interagency Fire Center

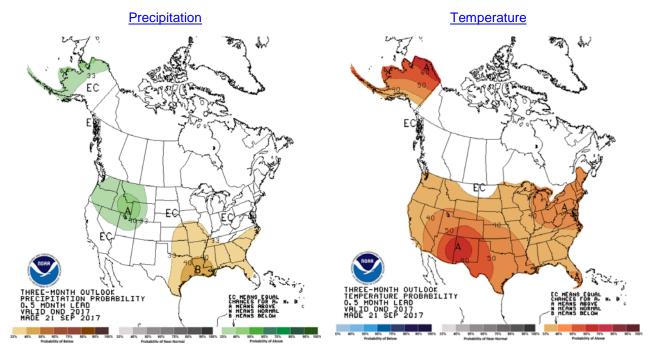


Seasonal Drought Outlook: October 19, 2017 - January 31, 2018 Source: National Weather Service



Climate Prediction Center 3-Month Outlook

Source: National Weather Service



Nov-Dec-Jan (NDJ) 2017-2018 precipitation and temperature outlook summaries

More Information

The NRCS <u>National Water and Climate Center</u> publishes this weekly report. We welcome your feedback. If you have questions or comments, please <u>contact us</u>.