

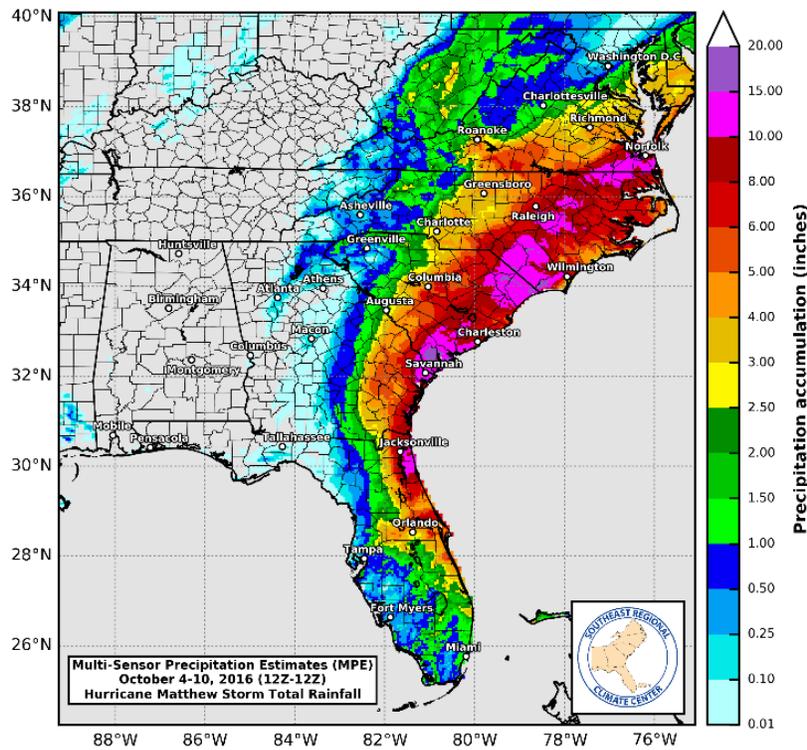
Water and Climate Update

October 13, 2016

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.

Precipitation	2	Other Climatic and Water Supply Indicators	9
Temperature	5	Short- and Long-Range Outlooks.....	11
Drought	7	More Information	14

Hurricane Matthew effects devastate the Southeast

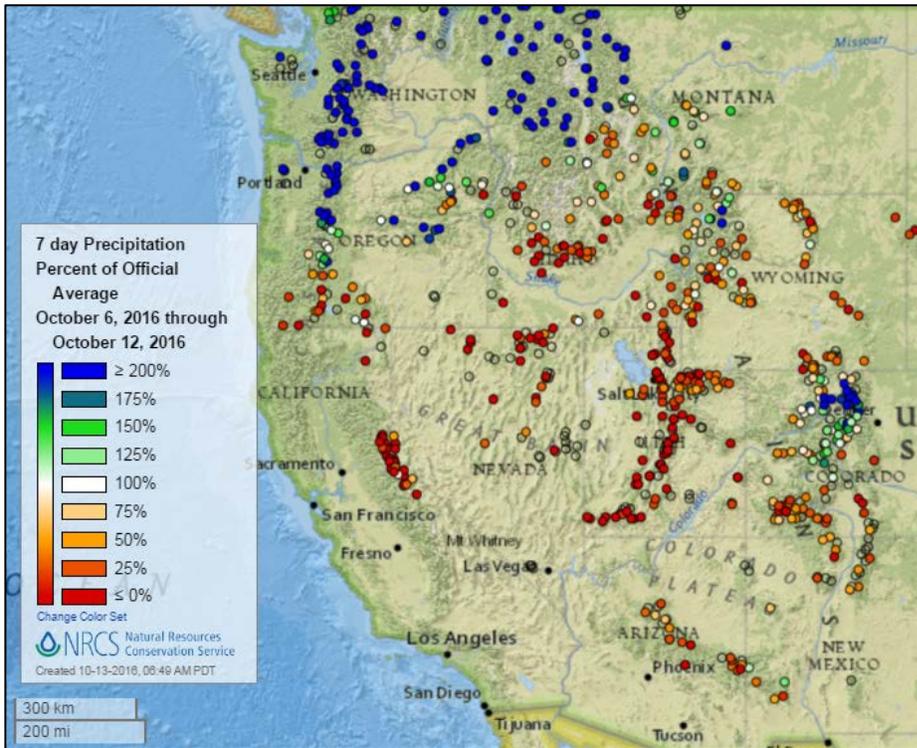


[Precipitation from Hurricane Matthew](#) inundated the Southeast this past week with over 15 inches of rain across the coast and inland, as shown in this map from the Southeast Regional Climate Center. Devastation from high winds, storm surges, and severe flooding is widespread in the region, with [North Carolina rivers](#) near record levels and still rising along many of the larger rivers draining the eastern part of the state.

[NC Flood Inundation Mapping and Alert Network \(FIMAN\)](#)
[North Carolina's flood disaster is more than 'peak crest.' It's going to last for days.](#)
[North Carolina Flooding: Hurricane Matthew Water-Swollen Rivers Set To Rise](#)
[North Carolina urges more people to flee the floods after Hurricane Matthew](#)

Precipitation

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

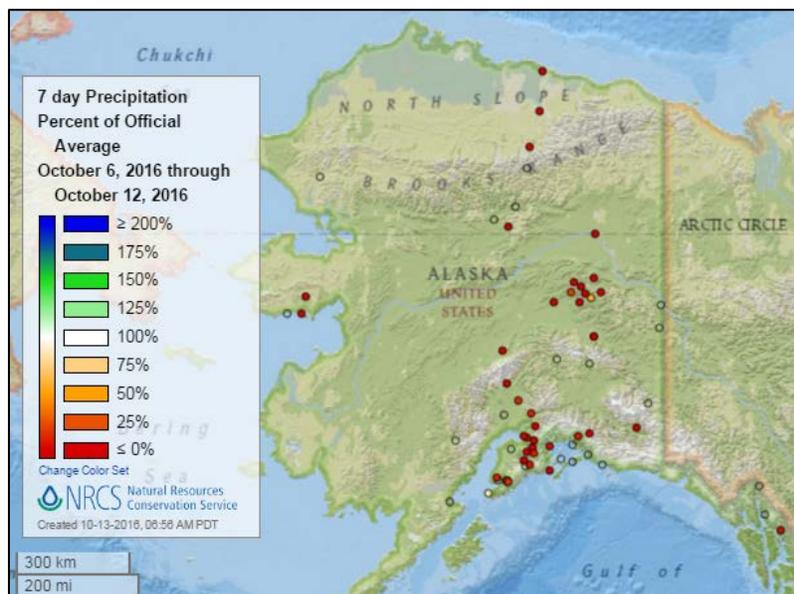


[7-day precipitation percent of average map](#)

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

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

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



Water and Climate Update

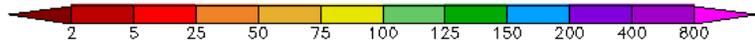
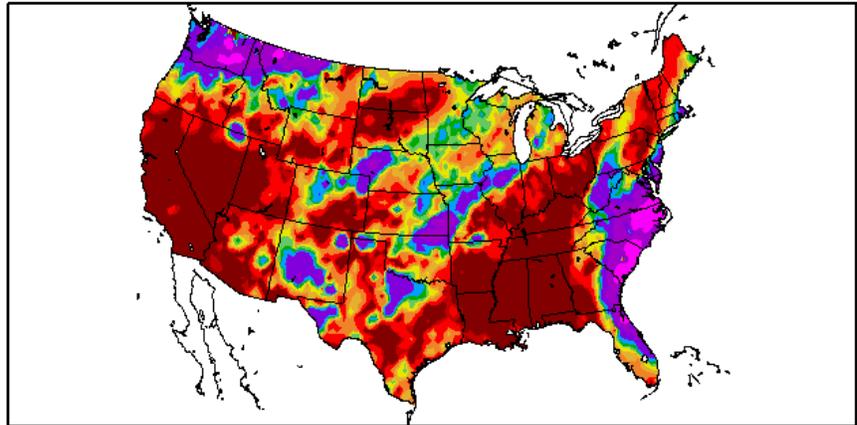
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day precipitation percent of normal map](#) for the continental U.S.

Percent of Normal Precipitation (%)
10/6/2016 – 10/12/2016

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



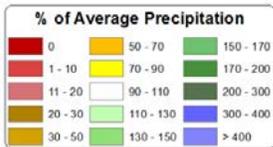
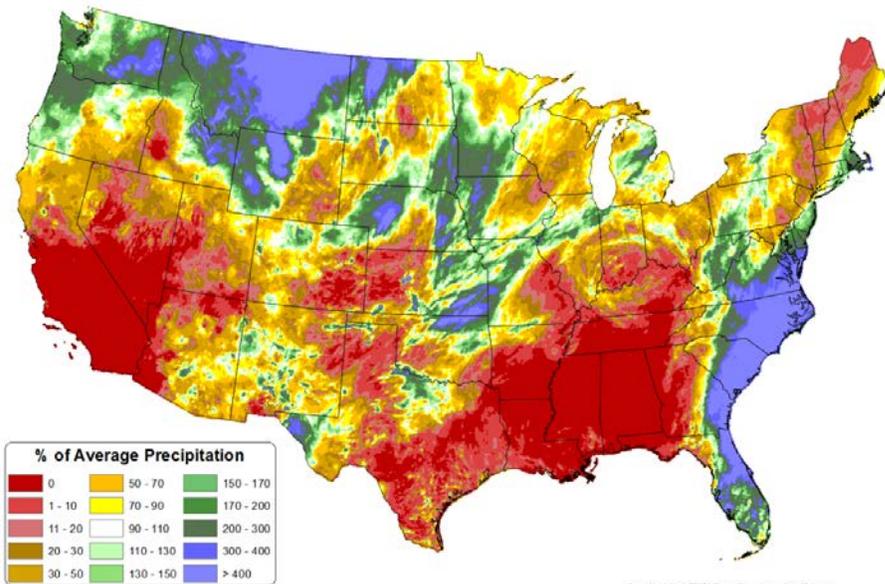
Generated 10/13/2016 at HPRCC using provisional data.

Regional Climate Centers

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

Source: PRISM

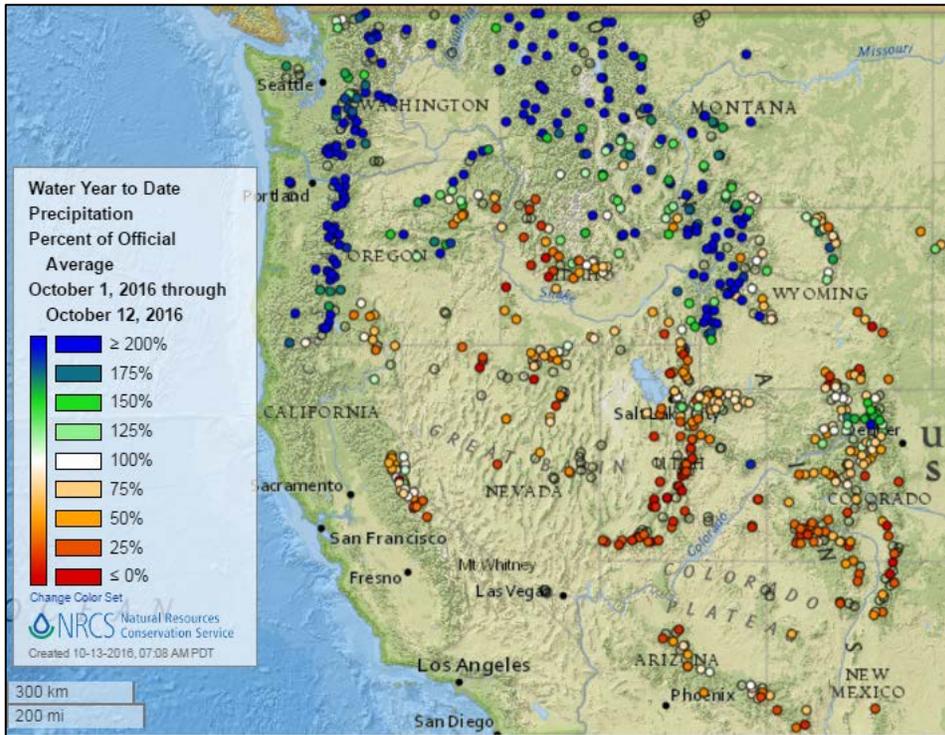
Total Precipitation Anomaly: 01 October 2016 - 12 October 2016
Period ending 7 AM EST 12 Oct 2016
Base period: 1961-2010
Map created 12 Oct 2016



Copyright © 2016, PRISM Climate Group, Oregon State University

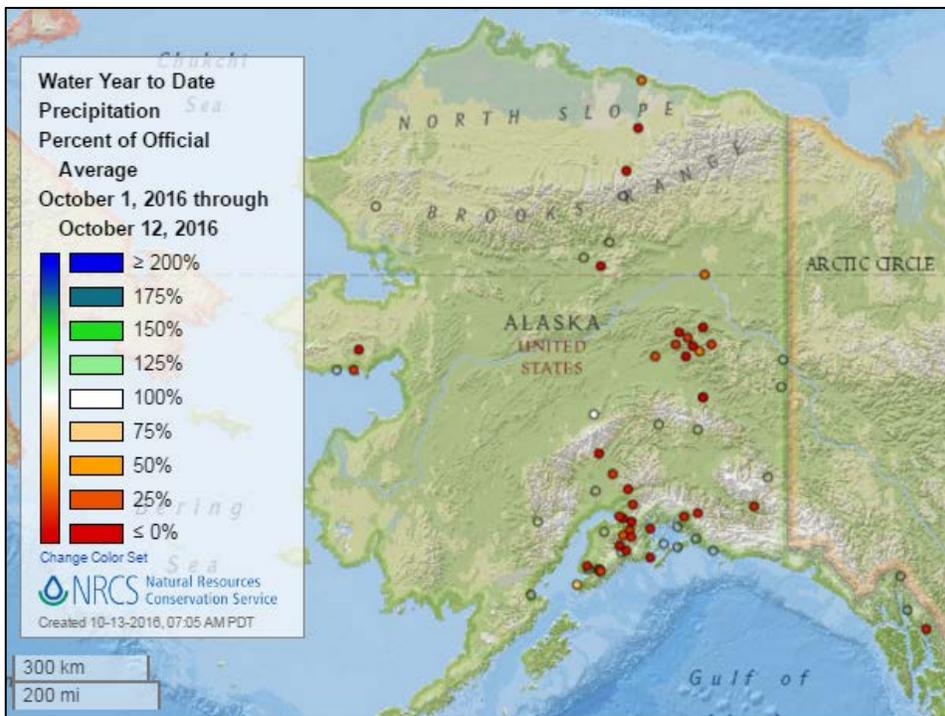
[Month-to-date national precipitation percent of average map](#)

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



[2017 water year-to-date precipitation percent of average map](#)

See also: [2017 water year-to-date precipitation values \(inches\)](#)



[Alaska 2017 water year-to-date precipitation percent of average map](#)

See also: [Alaska 2017 water year-to-date precipitation values \(inches\) map](#)

Temperature

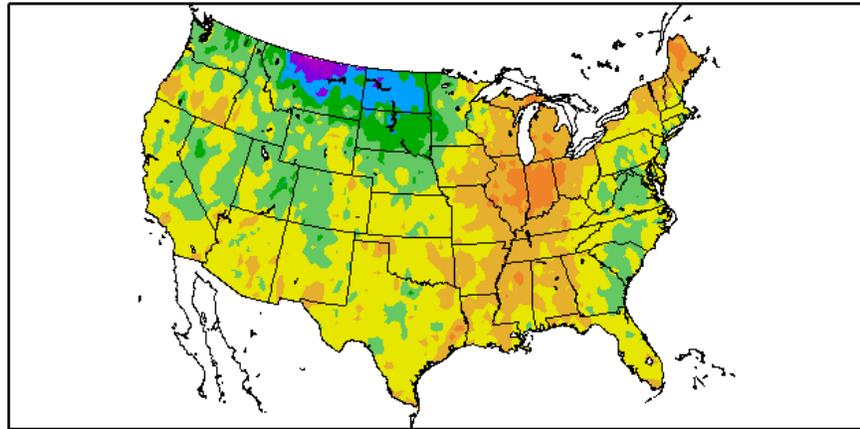
Last 7 Days, National Weather Service (NWS) Networks

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)
10/6/2016 – 10/12/2016



Generated 10/13/2016 at HPRCC using provisional data.

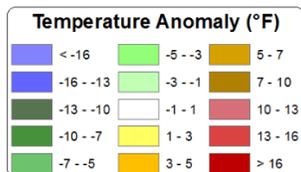
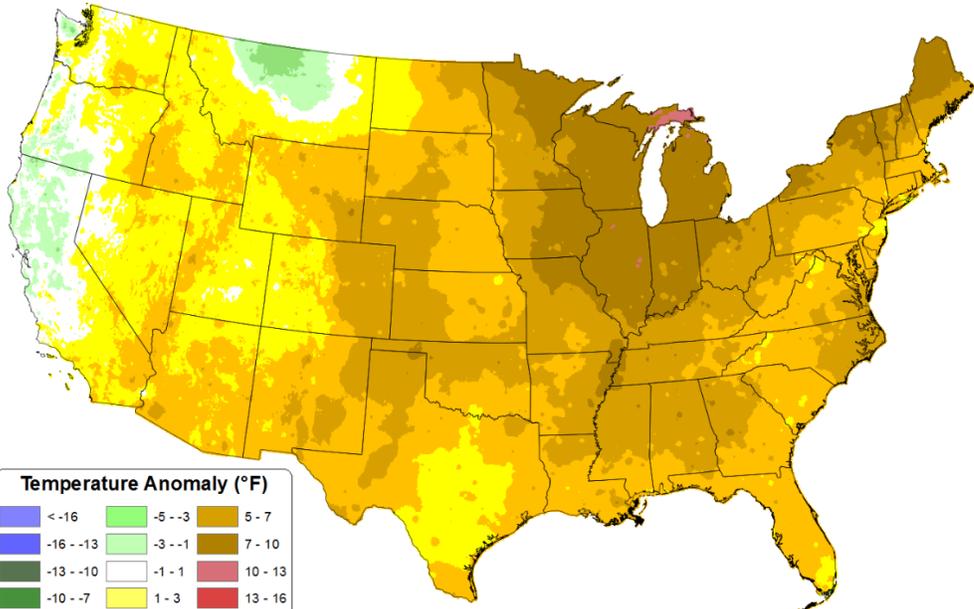
Regional Climate Centers

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 October 2016 - 12 October 2016
Period ending 7 AM EST 12 Oct 2016
Base period: 1981-2010
(Map created 13 Oct 2016)



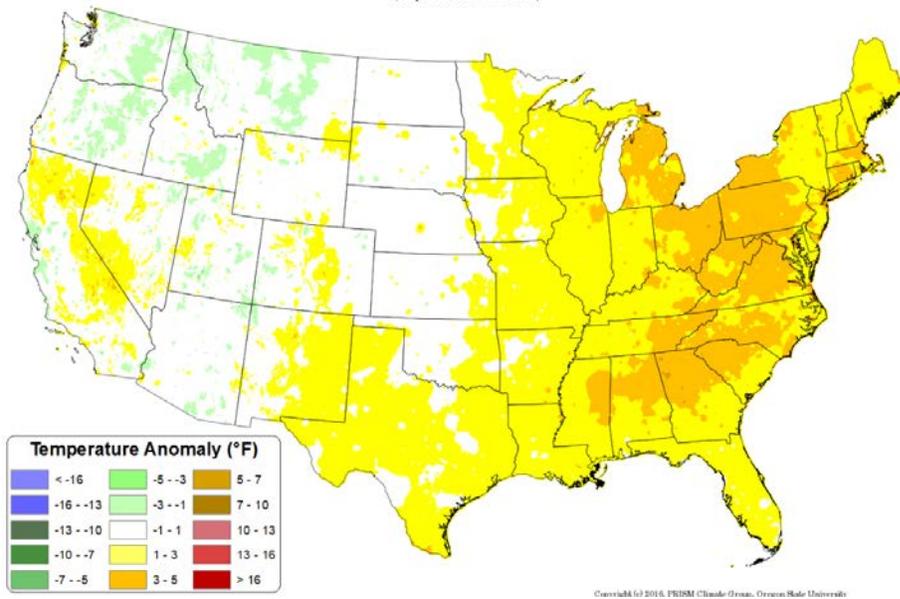
Copyright (c) 2016, PRISM Climate Group, Oregon State University

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

Source: PRISM

Daily Mean Temperature Anomaly: July 2016 - September 2016
Period ending 7 AM EST 30 Sep 2016
Base period: 1981-2010
(Map created 03 Oct 2016)

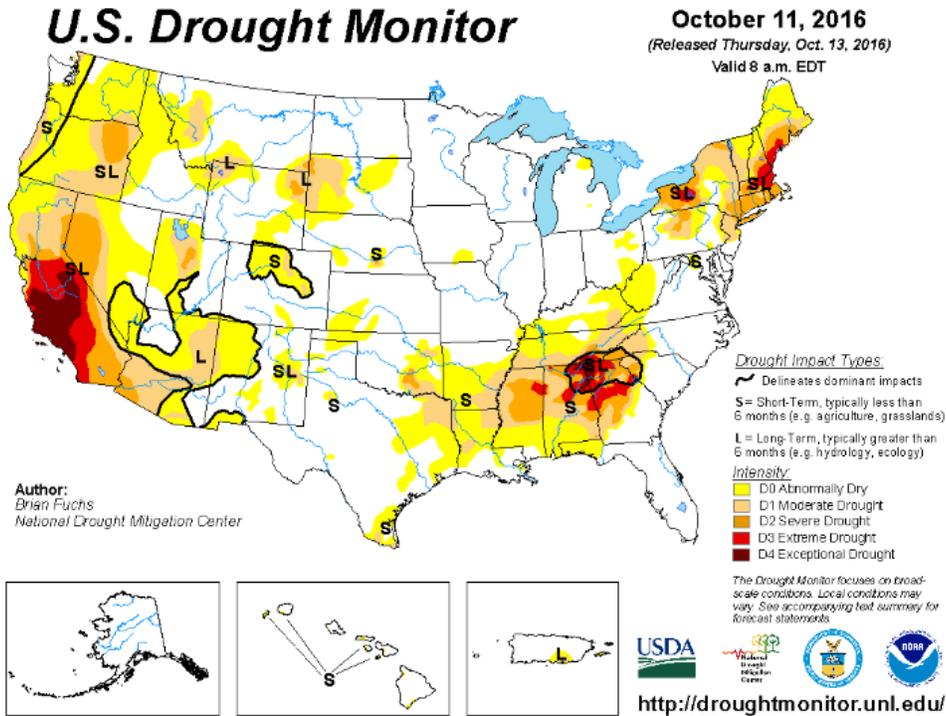
[July through September daily mean temperature anomaly map](#)



Drought

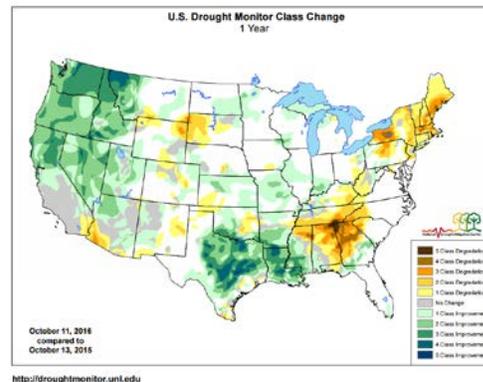
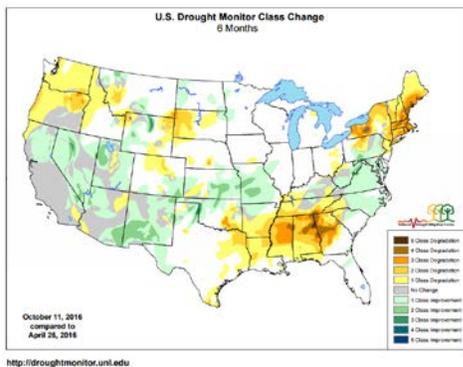
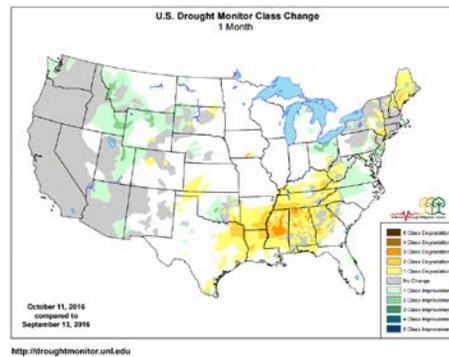
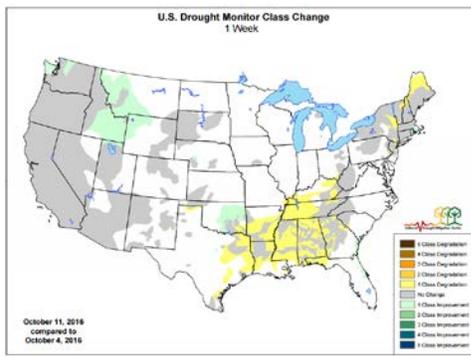
[U.S. Drought Monitor](#) See map below.

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



Changes in Drought Monitor Categories over Time

Click any map to enlarge



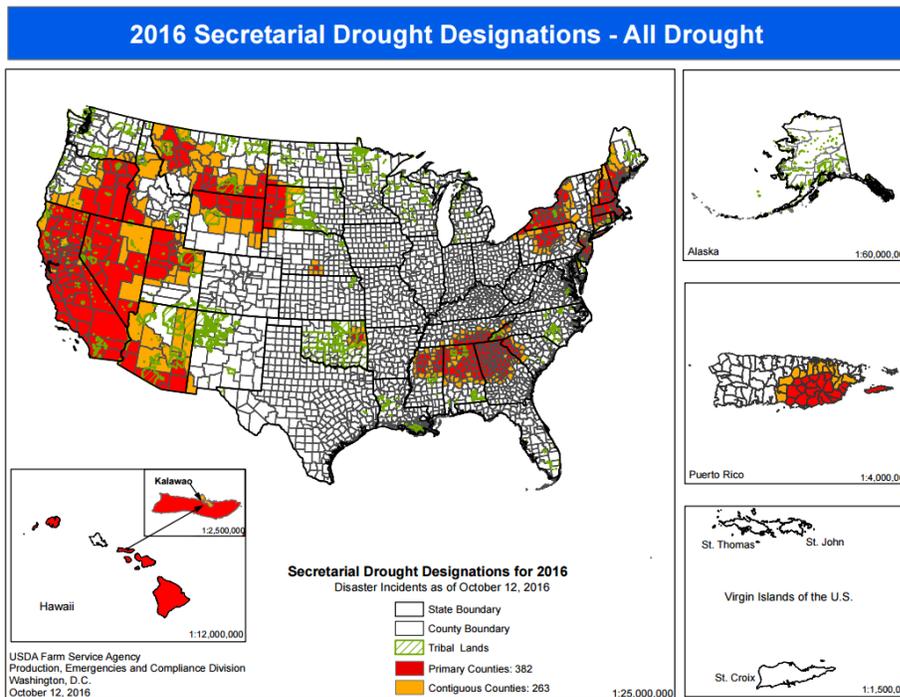
[Changes in drought conditions over the last 12 months](#)

Current National [Drought Summary](#), October 11, 2016

Author: Brian Fuchs, National Drought Mitigation Center

“Hurricane Matthew approached the east coast of Florida as a category 4 hurricane, having many bracing for the impact during this last week. The eye of the storm stayed offshore for the most part, but did bring with it intense rain and associated flooding along with wind damage. Some reports of 14+ inches of rain were noted in South Carolina and North Carolina, but these rains did not impact any of the drought regions of the Southeast. The storm pushed rain up the east coast and into southern New England. Significant rain also fell with a slow-moving storm system that impacted much of southeast Kansas and northeast Oklahoma, but it stalled out as it approached the Ozarks. The Pacific Northwest continues to stay active with multiple storms coming ashore and bringing rain along the coastal areas of Washington and Oregon and into the northern Rocky Mountains. Most of the rest of the United States was dry this week and the significant dryness over the Southeast during the last several months is starting to rapidly deteriorate conditions there with widespread impacts.”

USDA 2016 Secretarial [Drought Designations](#)

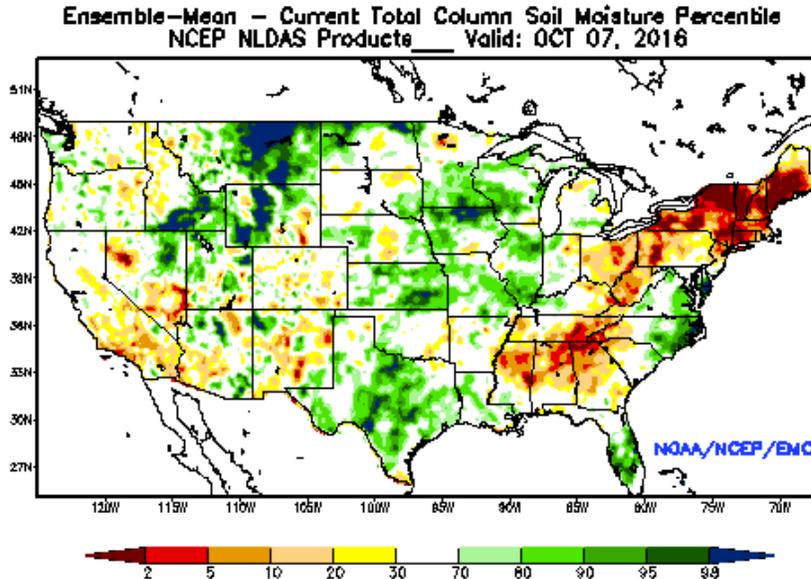


Highlighted Drought Resources

- [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](#)

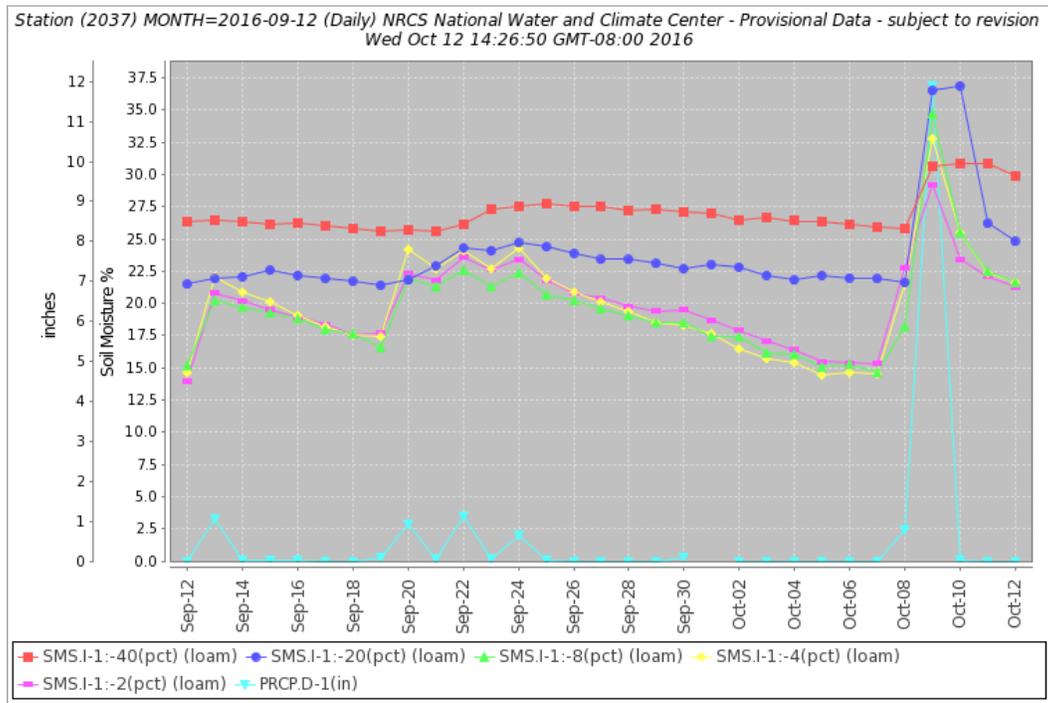
Other Climatic and Water Supply Indicators

Soil Moisture



[Modeled soil moisture percentiles](#) as of October 7, 2016.

Soil Moisture Data: NRCS [Soil Climate Analysis Network \(SCAN\)](#)



Soil moisture (at 2-, 4-, 8-, 20-, and 40-inch depths) and precipitation for the past 30 days at the [Pee Dee SCAN site 2037](#) in South Carolina. Towering above other precipitation events in the last 30 days, Hurricane Matthew produced precipitation of nearly 12 inches on October 9. This event increased soil moisture by nearly 15 percent at all sensors, which doubled the soil moisture percentage at the 2-, 4-, and 8-inch depth sensors.

Soil Moisture Data Portals

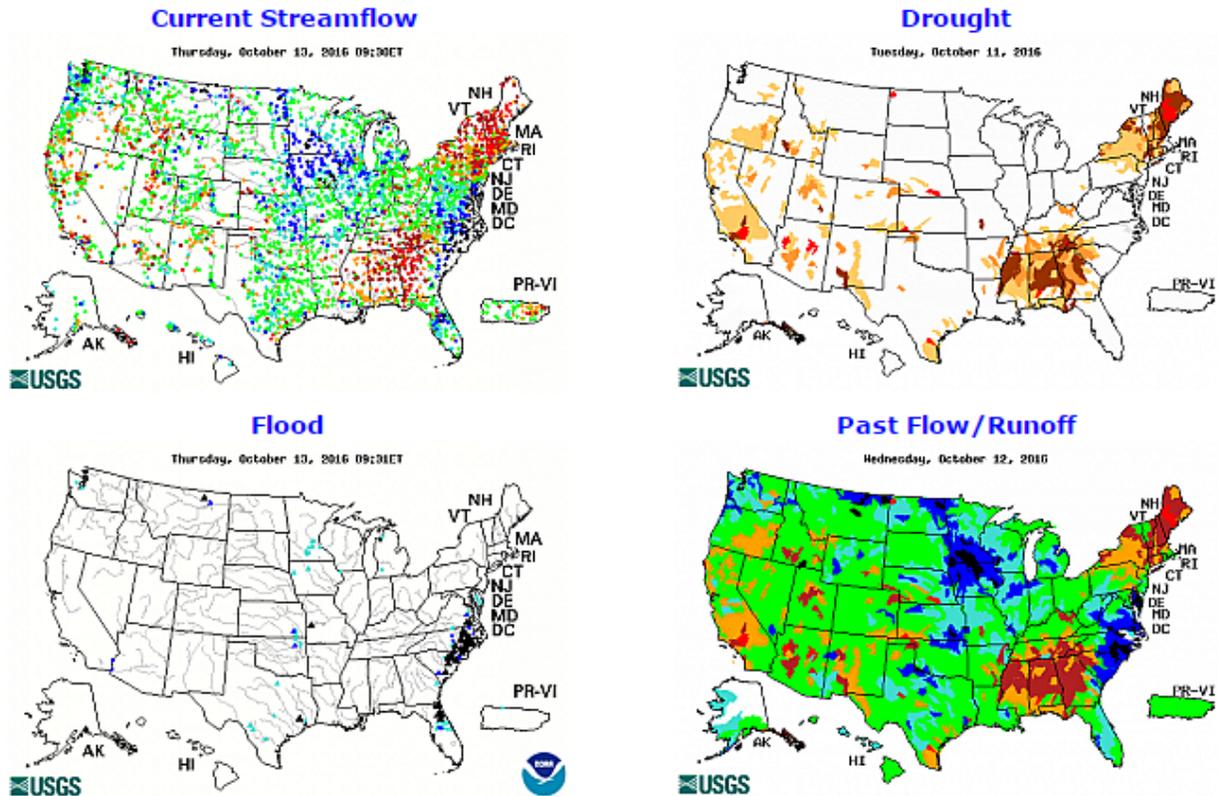
[CRN Soil Moisture](#)

[Texas A&M University North American Soil Moisture Database](#)

[University of Washington Experimental Modeled Soil Moisture](#)

Streamflow

Source: USGS



Click to enlarge and display legends

[Current streamflow maps](#)

Current Reservoir Storage

[National Water and Climate Center Reservoir Data](#)

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

[Upper Colorado](#)

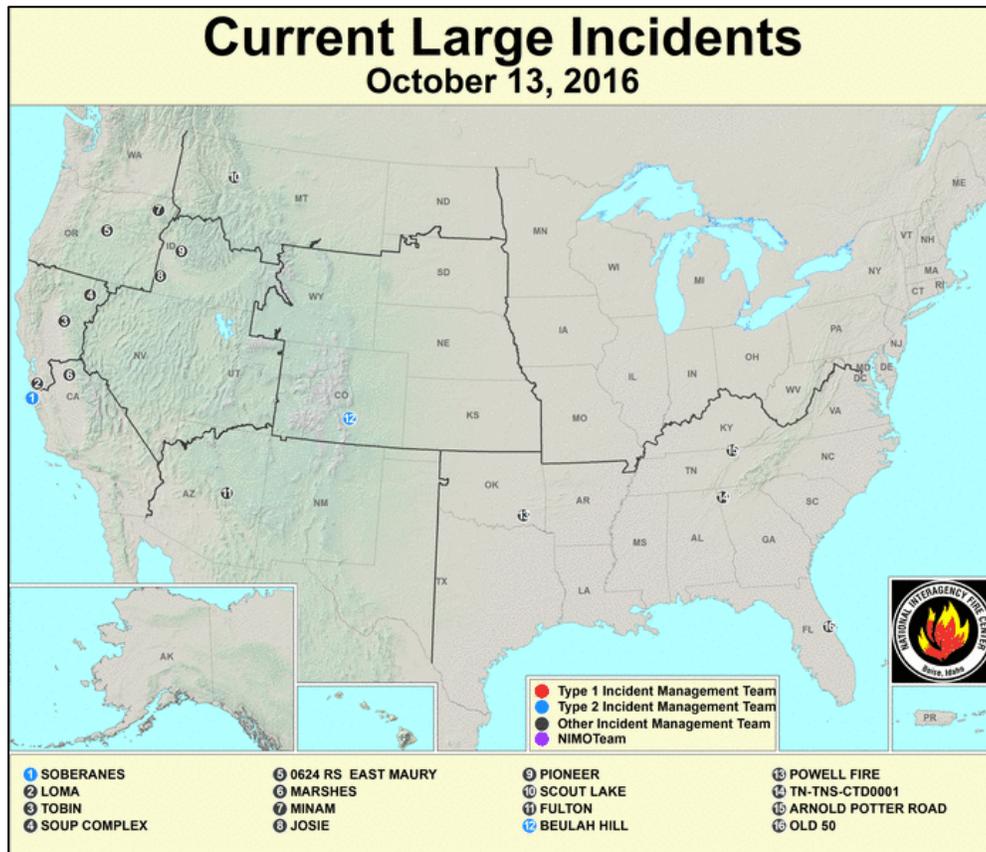
[Pacific Northwest/Snake/Columbia](#)

[Sevier River Water, Utah](#)

[Upper Missouri, Kansas, Oklahoma, Texas](#)

[California Reservoir Conditions](#)

Wildfires: [USDA Forest Service Active Fire Mapping](#)



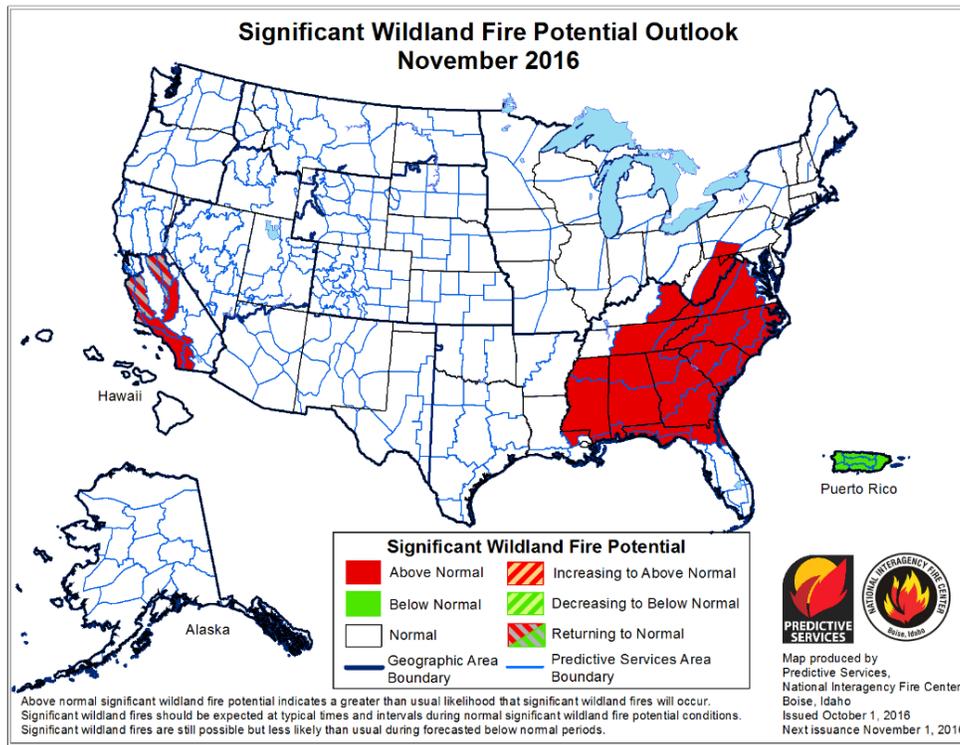
Short- and Long-Range Outlooks

Agricultural Weather Highlights

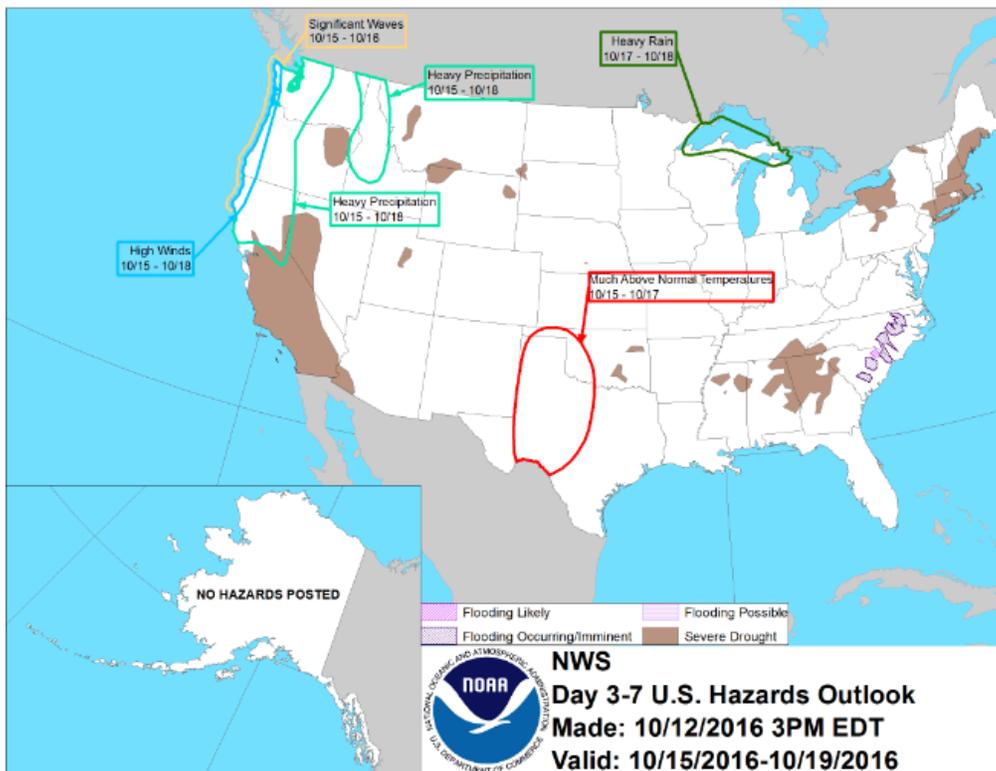
Author: Eric Luebehusen, Agricultural Meteorologist, USDA/OCE/WAOB

[National Outlook, October 13, 2016](#): “Multiple storms will cross the Northwest during the next several days, resulting in heavy to locally excessive precipitation. In favored coastal and upslope regions of northern California and the Pacific Northwest, 5- day totals could reach 10 to 20 inches or more, leading to possible flooding. Totals of 2 to 6 inches can be expected in parts of the northern Rockies, with some high-elevation precipitation falling as snow. In addition, strong winds will accompany some of the Northwestern storminess. In contrast, generally light late-week showers across the southern half of the U.S. will be confined to Florida’s peninsula and from the southern Plains into the mid-South. During the weekend, showery weather will return to the Great Lakes States. Except in the Far West, above-normal temperatures will dominate the U.S. by week’s end into early next week. The NWS 6- to 10-day outlook for October 18 – 22 calls for the likelihood of above-normal temperatures nationwide, except for colder-than-normal conditions across the Intermountain West. Meanwhile, near- to above-normal precipitation across most of the country will contrast with drier-than-normal weather in the southern Atlantic region.”

Fire Potential Outlook: [November 2016](#)

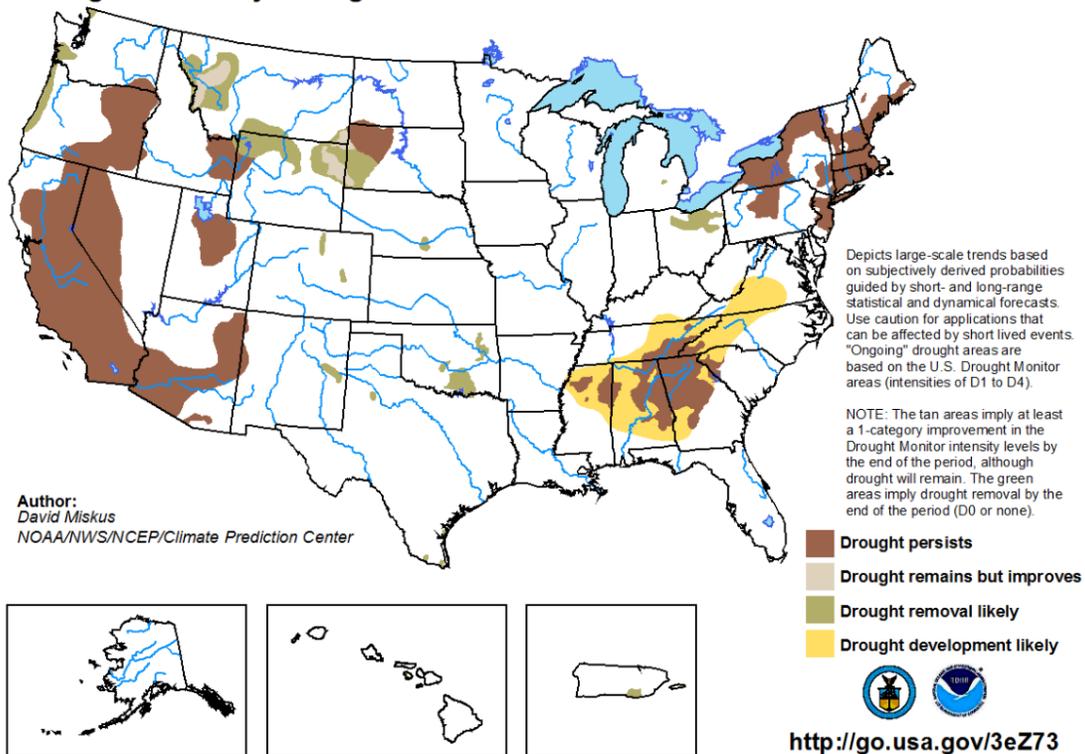


NWS Climate Prediction Center [Weather Hazard Outlook: October 15-19, 2016](#)

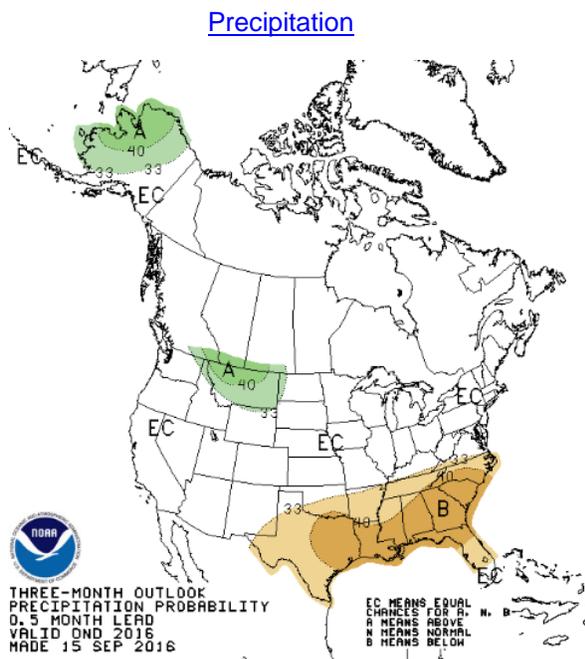


Seasonal Drought Outlook: [September 15-December 31, 2016](#)

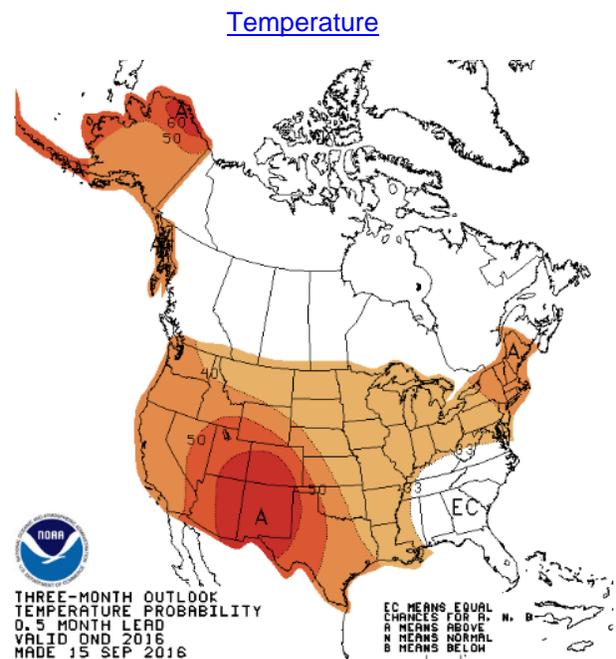
U.S. Seasonal Drought Outlook valid for September 15 - December 31, 2016
 Drought Tendency During the Valid Period
 Released September 15, 2016



NWS Climate Prediction Center 3-Month Outlook



[October-November-December \(OND\) 2016 precipitation outlook summary](#)



[October-November-December \(OND\) 2016 temperature outlook summary](#)

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](#).