

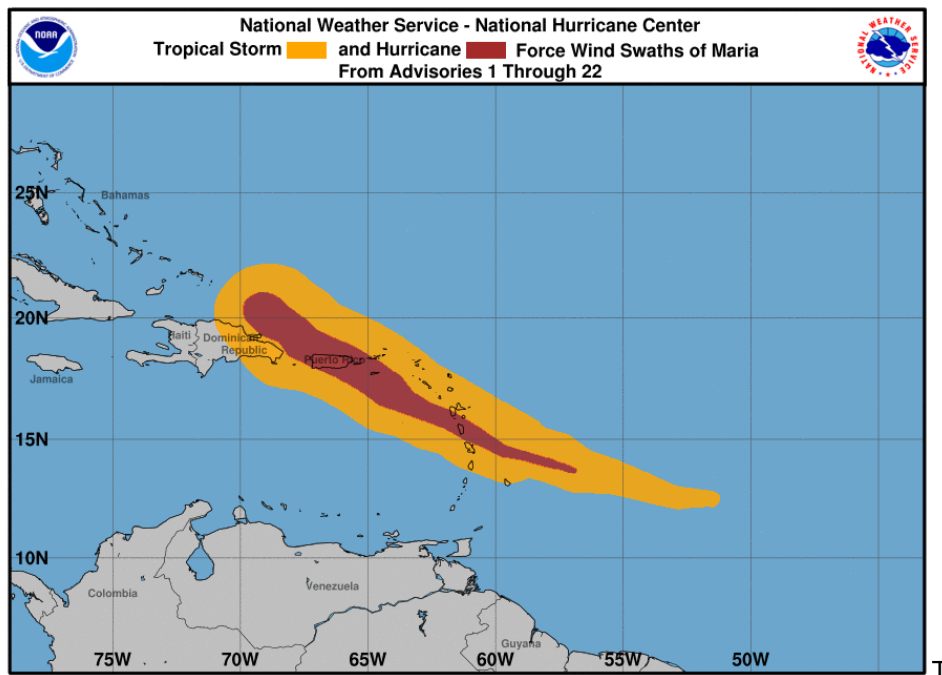
Water and Climate Update

September 21, 2017

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.

<i>Precipitation</i>	1	<i>Other Climatic and Water Supply Indicators</i>	11
<i>Temperature</i>	6	<i>Short- and Long-Range Outlooks</i>	14
<i>Drought and Wildfires</i>	8	<i>More Information</i>	16

Hurricane Maria devastates Puerto Rico



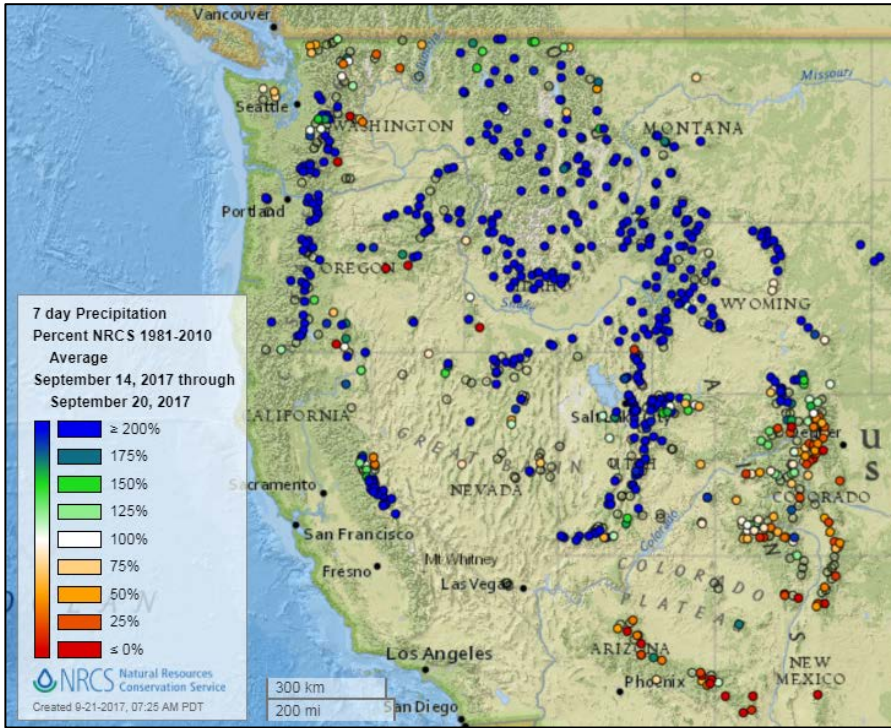
Hurricane Maria is the second major hurricane to strike the Caribbean in a fortnight. Maria followed a similar path to Hurricane Irma adding to the devastation in the region. The storm-battered Virgin Islands were impacted again by Maria, with Puerto Rico sustaining the most damage from the hurricane. Maria blanketed Puerto Rico with 20 – 35 inches of rain, sustained winds of 110 mph, and a storm surge of 6 - 9 feet, causing catastrophic flooding. 100% of Puerto Rico is currently without electricity, with major damage to the power grid system which will take months to restore.

Related:

- [Hurricane Maria Moving Away From Puerto Rico but Torrential Rains Continue](#)
- [Hurricane Maria Lashes Puerto Rico, Storm-Battered Caribbean](#)
- [Hurricane Maria Leaves Puerto Rico Facing Months without Power](#)
- [Puerto Rico, Dominica Crippled by Hurricane Maria; 'We're Looking at 4 to 6 Months without Electricity'](#)
- [Hurricane Maria: Photos, video from Puerto Rico show storm's fury](#)
- [All Power Out as Hurricane Maria's Winds, Floods Crush Puerto Rico](#)

Precipitation

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

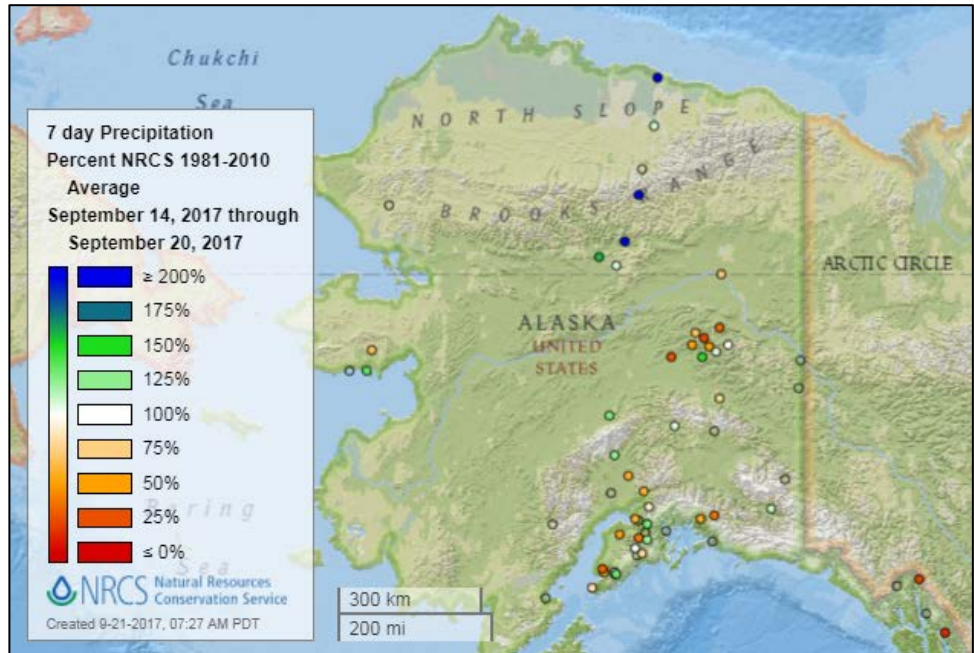


[7-day precipitation percent of average map](#)

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](#)



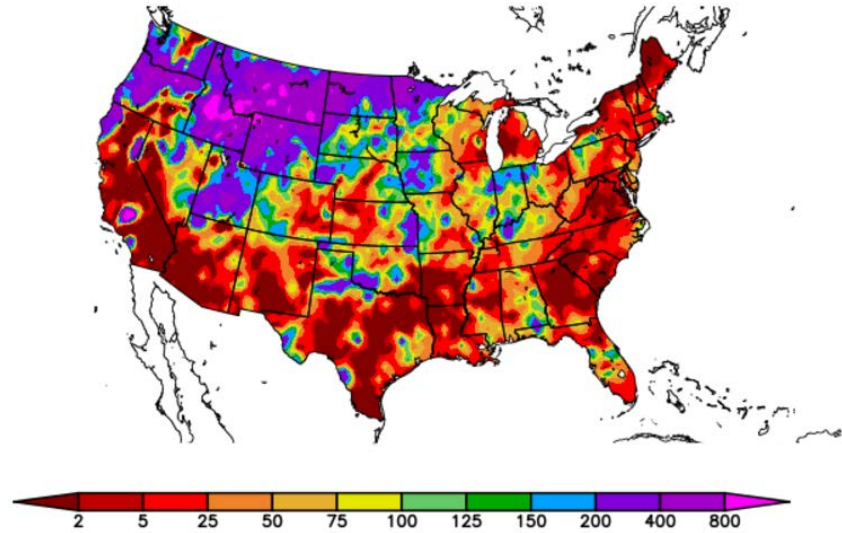
Last 7 Days, National Weather Service (NWS) Networks

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 (%)
9/14/2017 - 9/20/2017



Generated 9/21/2017 at HPRCC using provisional data.

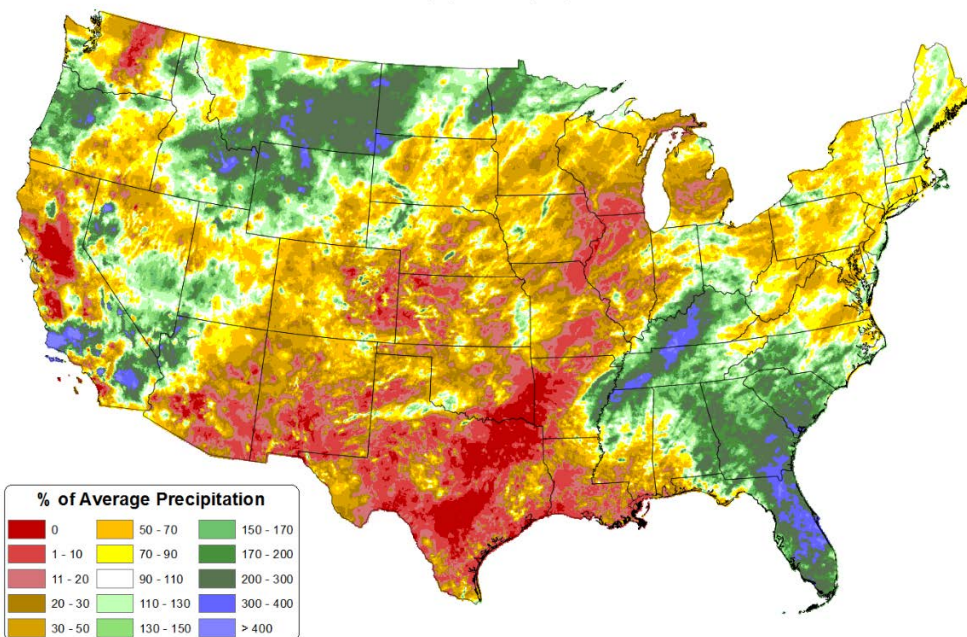
NOAA Regional Climate Centers

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

Source: PRISM

Total Precipitation Anomaly: 01 September 2017 - 20 September 2017
Period ending 7 AM EST 20 Sep 2017
Base period: 1981-2010
(Map created 21 Sep 2017)

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



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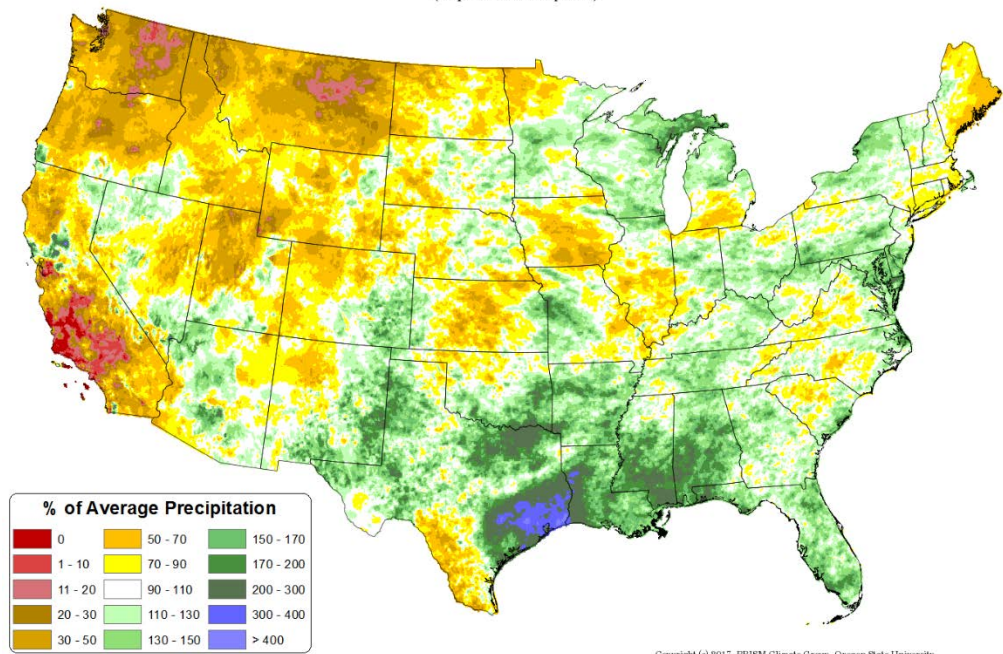
Water and Climate Update

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

Source: PRISM

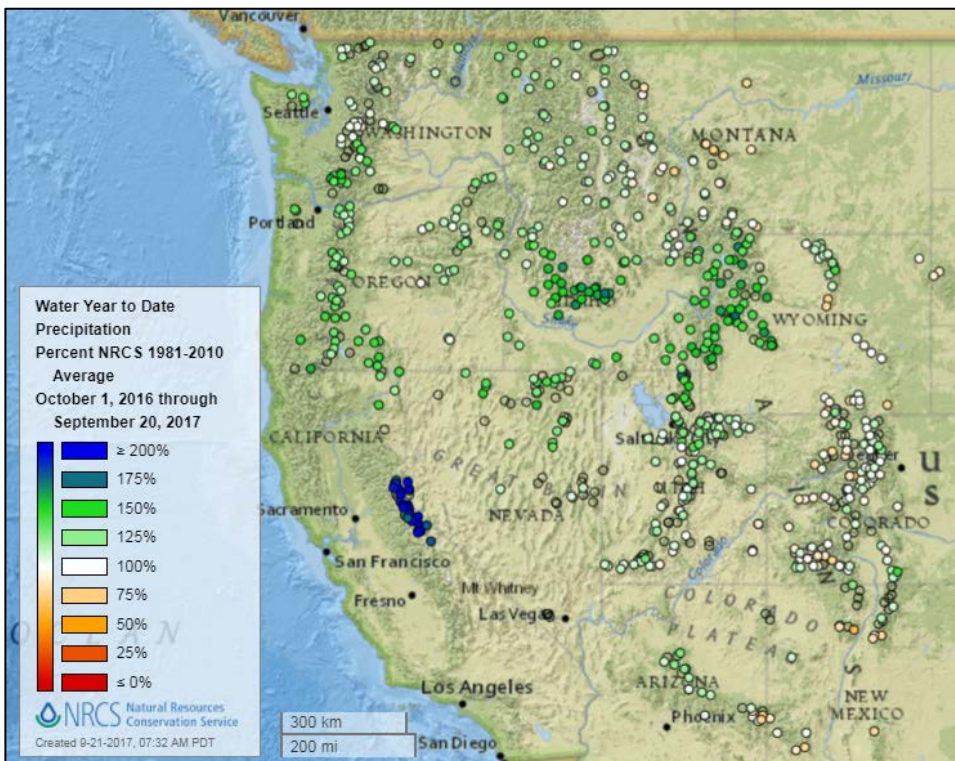
[June through August 2017 total precipitation anomaly map](#)

Total Precipitation Anomaly: June 2017 - August 2017
Period ending 7 AM EST 31 Aug 2017
Base period: 1981-2010
(Map created 02 Sep 2017)



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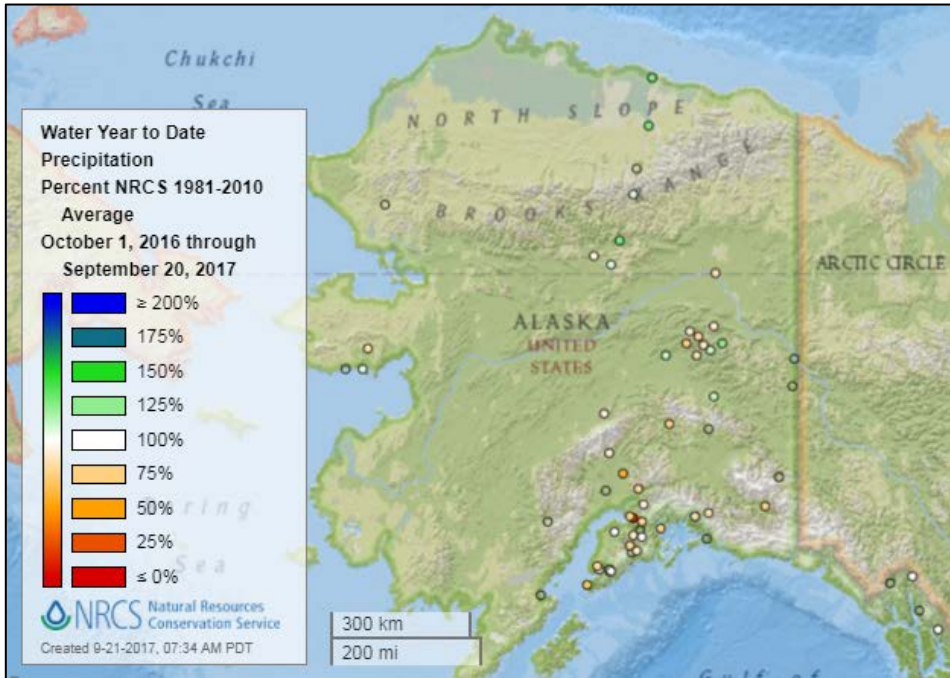
Water Year-to-Date, Western Mountain Sites (NRCS SNOTEL Network)



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

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

Water and Climate Update



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

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

Temperature

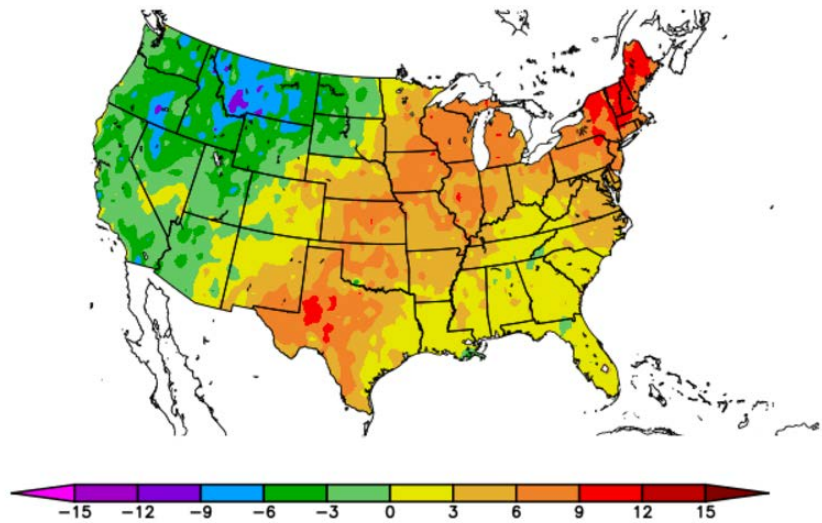
Last 7 Days, National Weather Service (NWS) Networks

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)
9/14/2017 – 9/20/2017



Generated 9/21/2017 at HPRCC using provisional data.

NOAA Regional Climate Centers

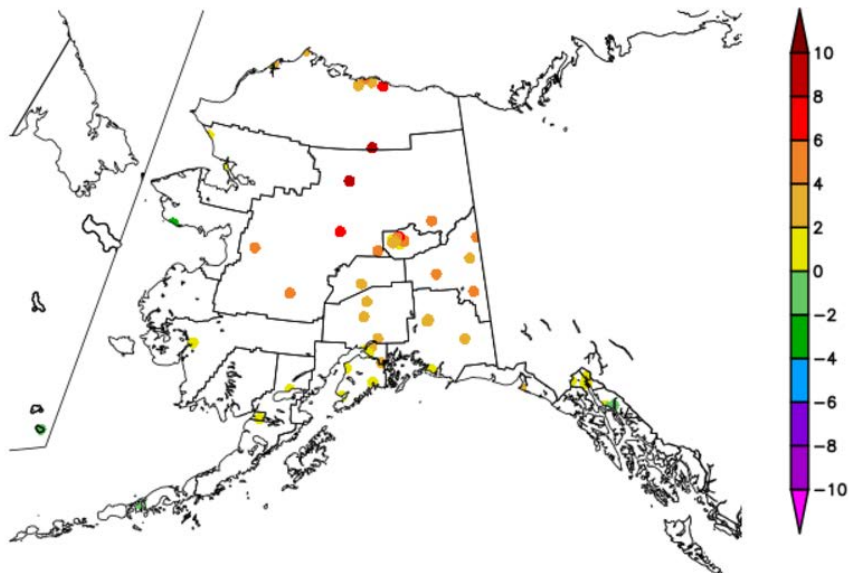
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
9/14/2017 – 9/20/2017



Generated 9/21/2017 at HPRCC using provisional data.

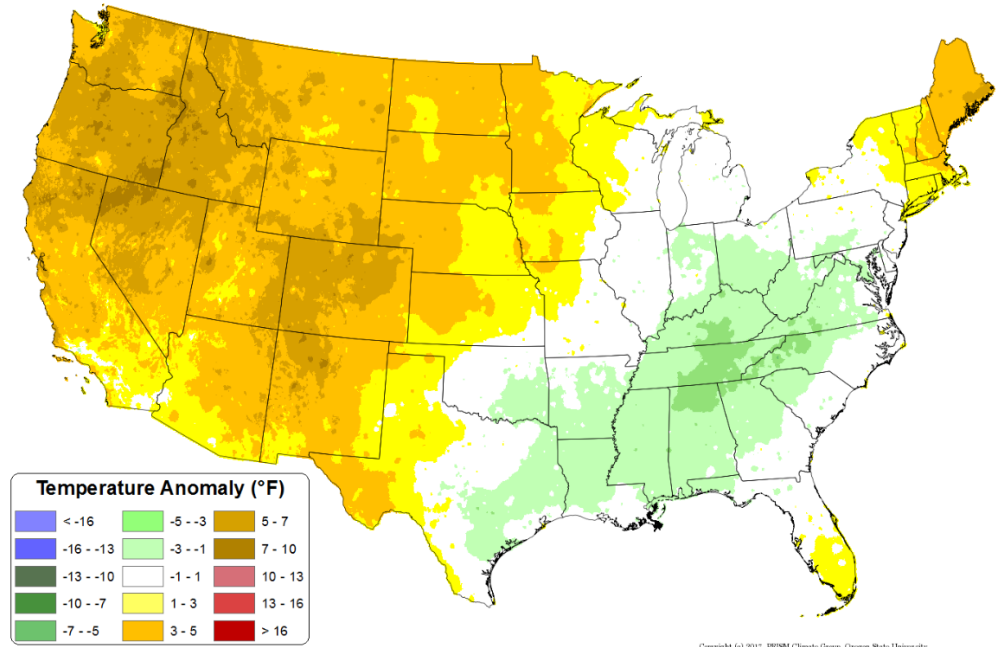
NOAA Regional Climate Centers

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](#)

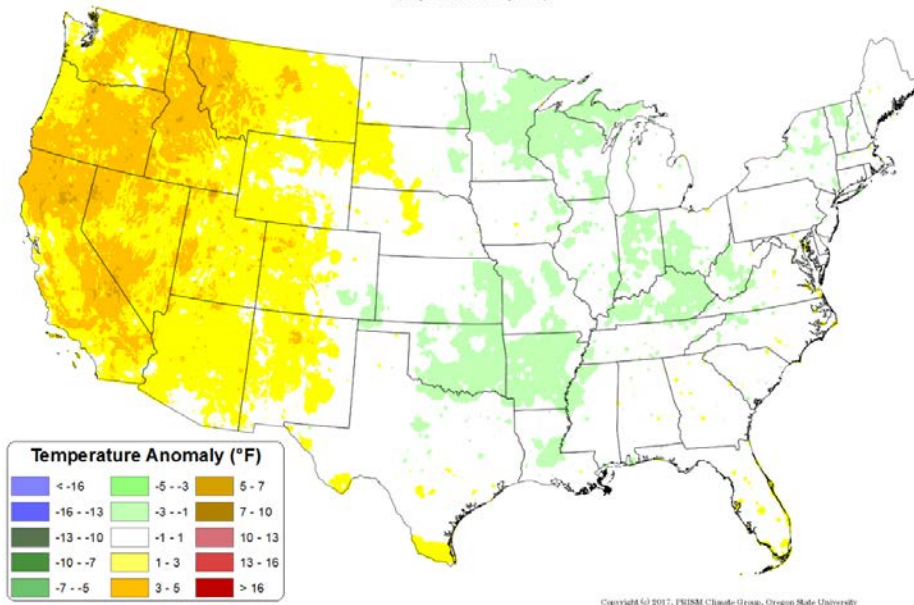
Daily Mean Temperature Anomaly: 01 September 2017 - 20 September 2017
Period ending 7 AM EST 20 Sep 2017
Base period: 1981-2010
(Map created 21 Sep 2017)



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

Daily Mean Temperature Anomaly: June 2017 - August 2017
Period ending 7 AM EST 31 Aug 2017
Base period: 1981-2010
(Map created 02 Sep 2017)

[June through August 2017 daily mean temperature anomaly map](#)

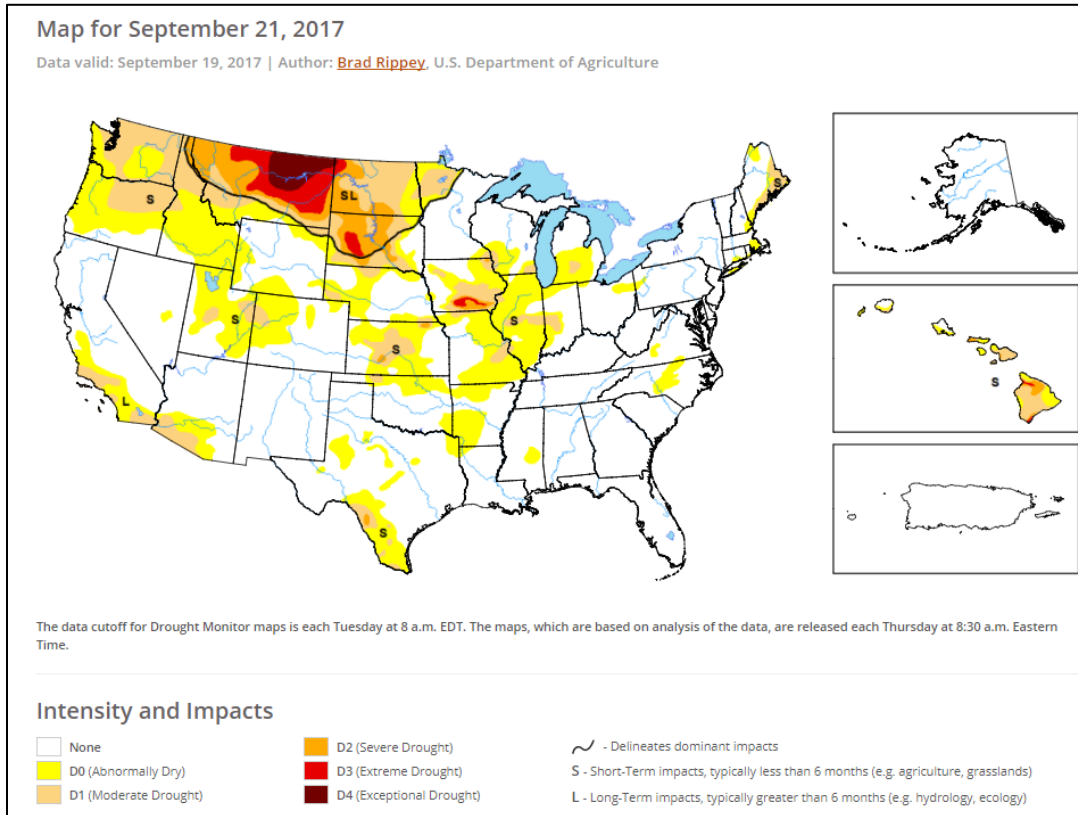


Drought and Wildfires

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

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

NEW LOOK! [Drought center launches fresh look for USDM site](#)

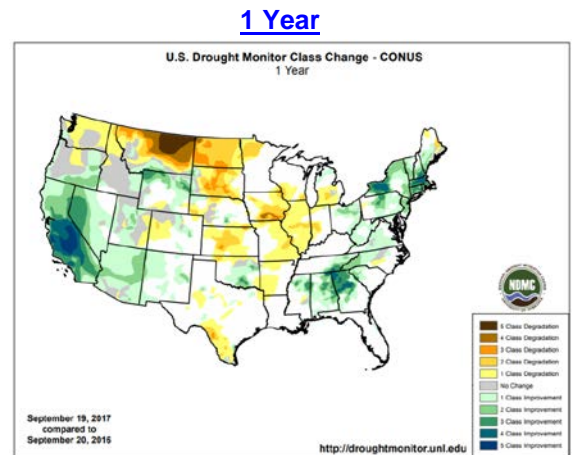
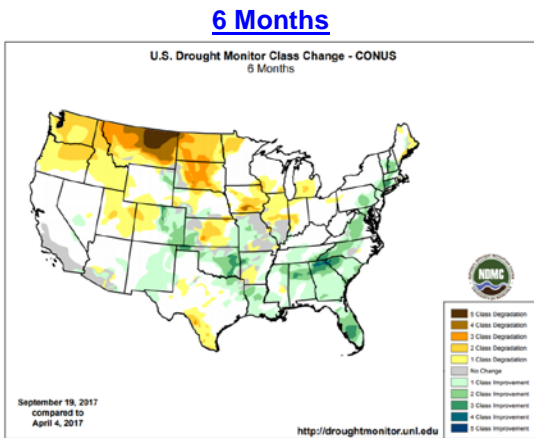
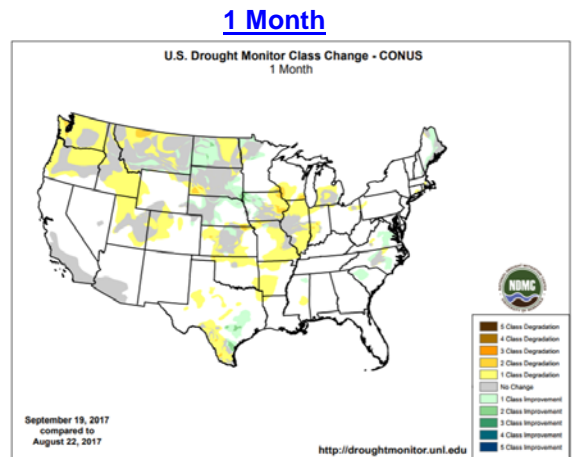
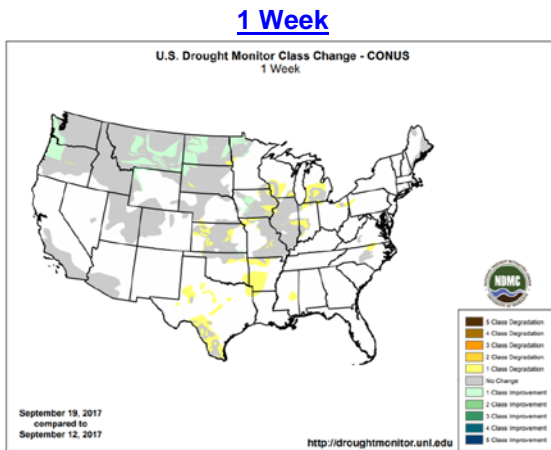


Current National [Drought Summary](#), September 19, 2017

Author: Brad Rippey, U.S. Department of Agriculture

“Following Hurricane Irma’s arrival in Florida on September 10 and subsequent demise across the Southeast, generally dry weather dominated the country for a few days. However, the first two significant autumn storms of the season arrived across the northern Plains and Northwest, starting on September 14. Eventually, precipitation fell as far south as the Intermountain West and eastward into the upper Midwest. Several areas of the country, however, remained mostly dry and continued to see mounting short-term rainfall deficits. As a result, portions of the central and southern Plains, as well as the mid-South and lower Midwest, experienced general increases in the coverage of dryness and drought. In mid-September, there was an abrupt weather-pattern change that not only provided the northern Plains and Northwest with much-needed precipitation, but also brought a warming trend to the eastern half of the nation and notably cooler weather to the West.”

Changes in Drought Monitor Categories over Time

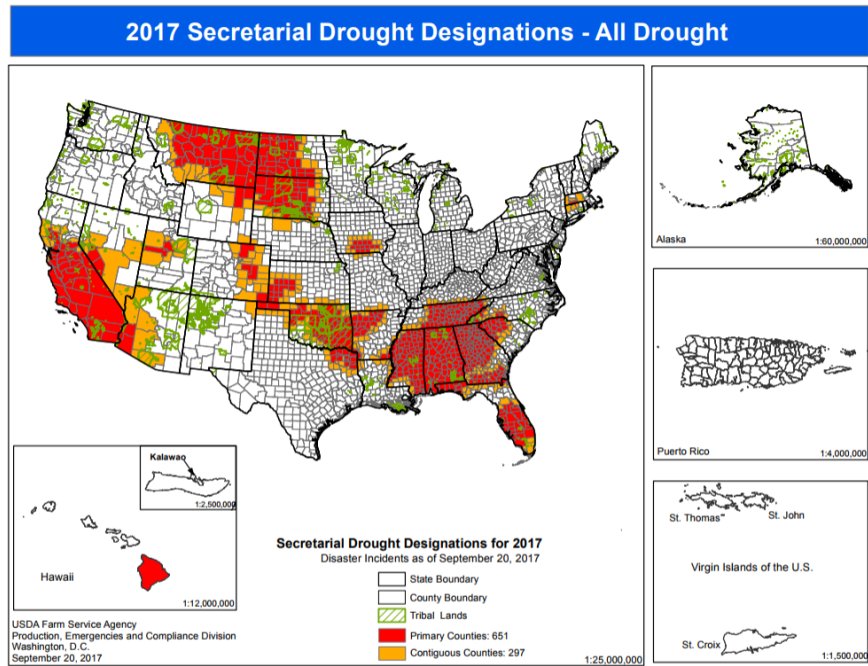


[Changes in drought conditions over the last 12 months](#)

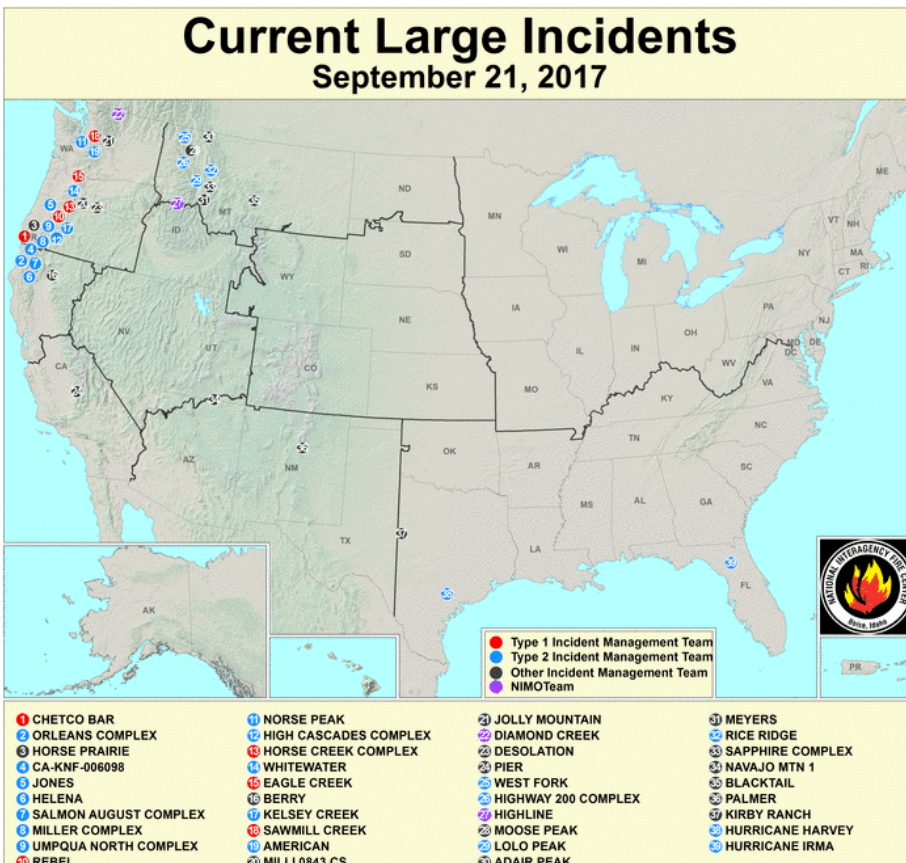
Highlighted Drought Resources

- [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 2017 Secretarial Drought Designations



Wildfires: USDA Forest Service Active Fire Mapping

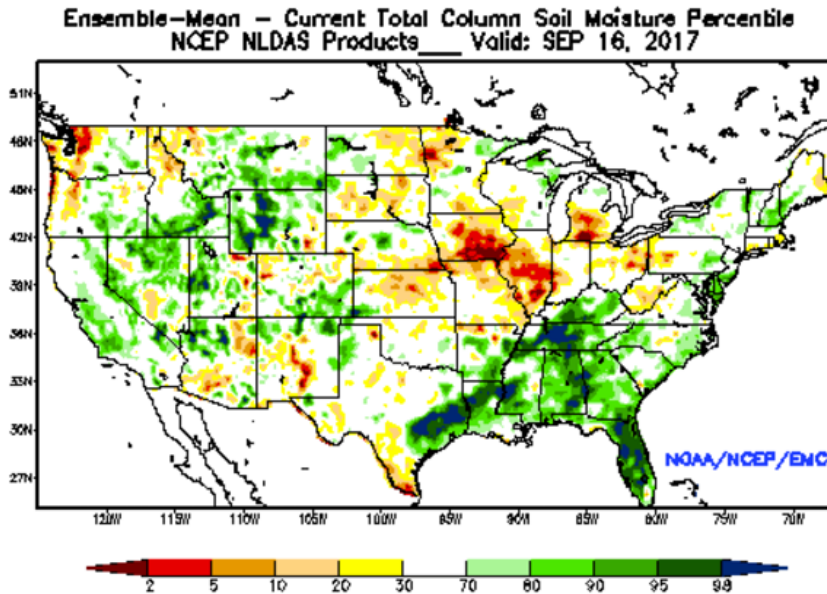


Highlighted Wildfire Resources

- [National Interagency Fire Center](#)
- [InciWeb Incident Information System](#)
- [Significant Wildland Fire Potential Outlook](#)

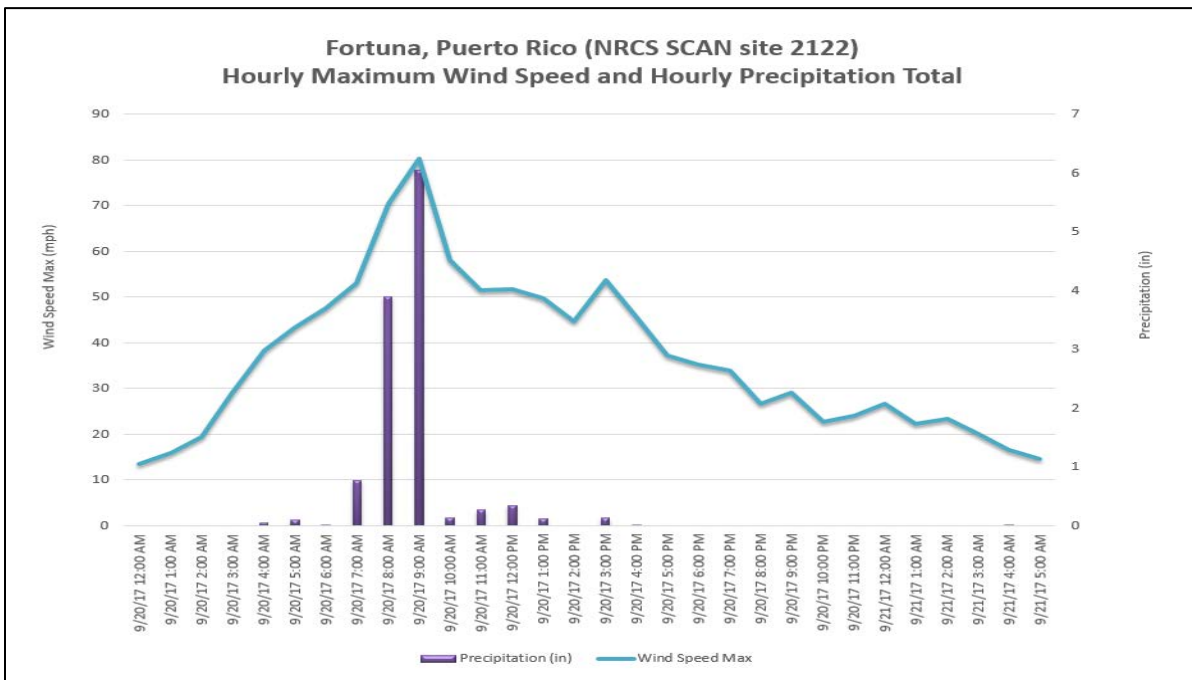
Other Climatic and Water Supply Indicators

Soil Moisture



[Modeled soil moisture percentiles](#) as of September 16, 2017.

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



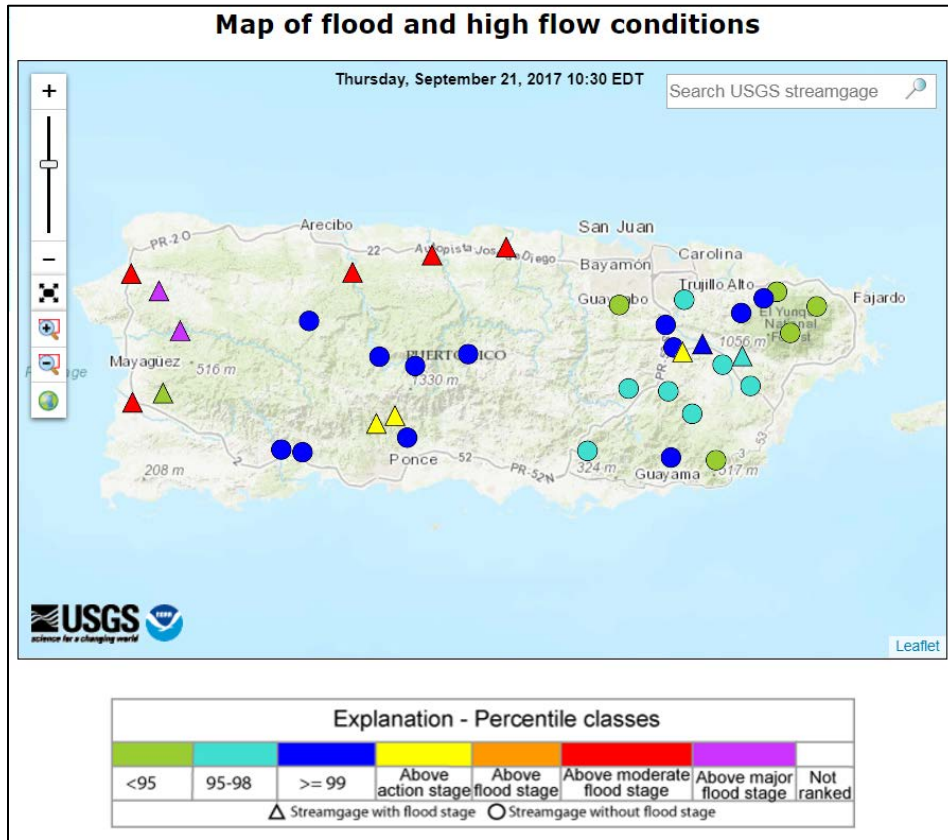
The chart shows hourly maximum wind speed and total precipitation from Hurricane Maria on September 20-21 at the [Fortuna SCAN Site 2122](#) in southern Puerto Rico. Hourly maximum wind speed reached 80 mph and rainfall totalled almost 6 inches at 9:00 am local Puerto Rico time on September 20.

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

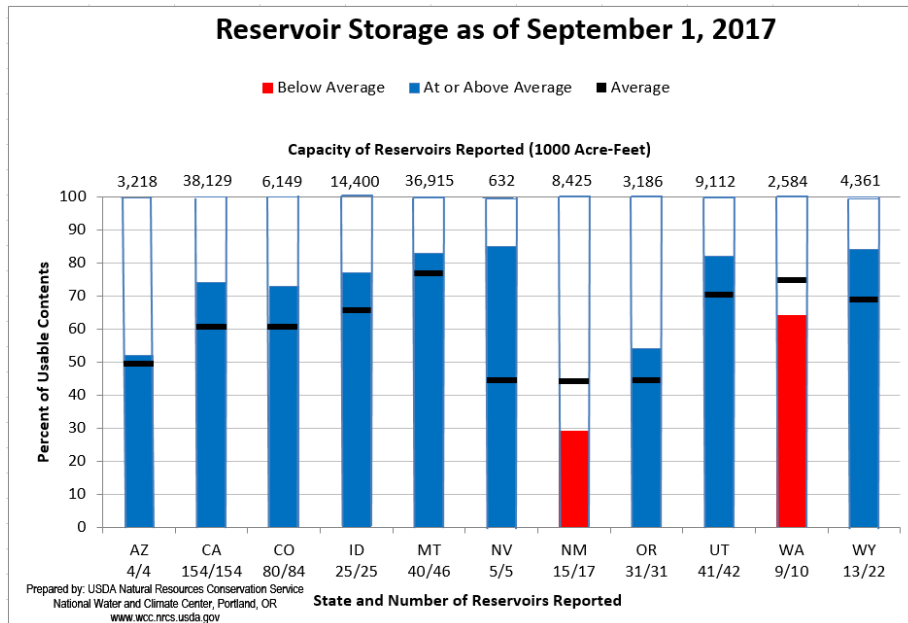


[Flood and high flow conditions interactive map](#)

Reservoir Storage

Western States Reservoir Storage

Source: NRCS National Water and Climate Center



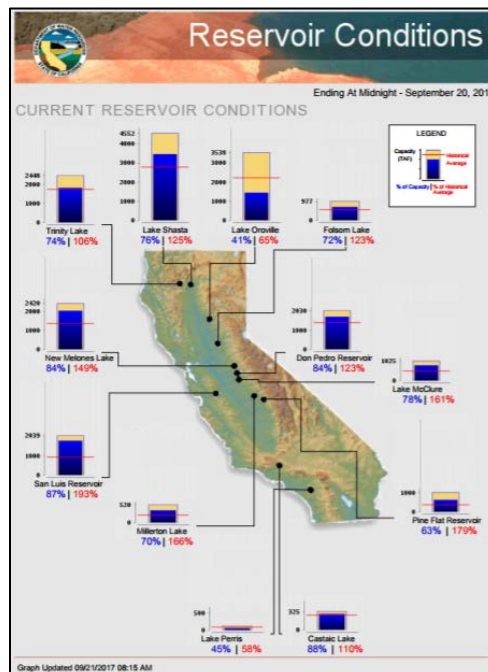
[National Water and Climate Center Reservoir Data](#)

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](#)

Current California Reservoir Conditions

Source: California Department of Water Resources



[California Current Reservoir Conditions](#)

Short- and Long-Range Outlooks

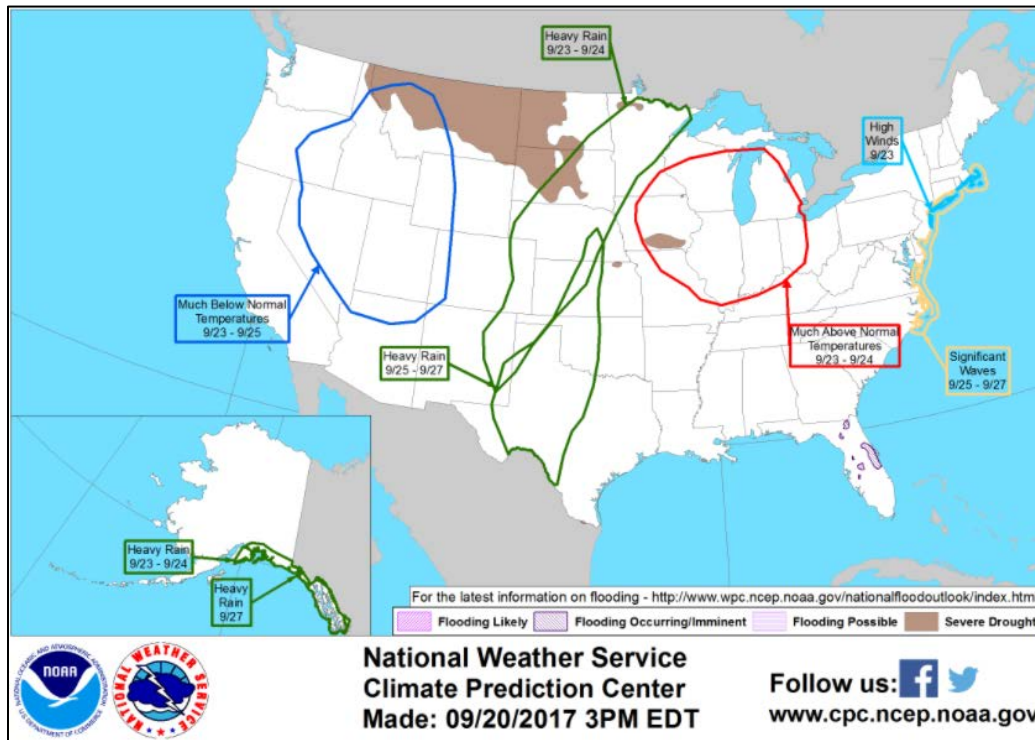
Agricultural Weather Highlights

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

[National Outlook, Thursday, September 21, 2017](#): “Hurricane recovery efforts will continue across St. Croix (of the U.S. Virgin Islands) and Puerto Rico, although locally heavy rain showers are disrupting clean-up efforts and maintaining the flash flood threat. Meanwhile, a storm system and its attendant cold front will push eastward during the next few days toward a ridge of high pressure parked over the eastern U.S. Initially, the front will make little progress, resulting in an axis of heavy rain stretching from the upper Midwest to the southern High Plains. Five-day rainfall totals could reach 2 to 5 inches or more along that axis, while 1- to 2-inch amounts can be expected in the northern Rockies. Early next week, a warming trend will commence in the Far West, while cool air will shift eastward across the Plains. Late-season warmth and general dryness will continue, however, in the East. The NWS 6- to 10-day outlook for September 26 – 30 calls for the likelihood of below-normal temperatures across large sections of the Rockies and Plains, while warmer-than-normal weather will prevail in the Pacific Coast States and across the eastern one-third of the U.S. Meanwhile, below-normal rainfall in the Southeast and Northwest should contrast with wetter-than-normal conditions across New England, the upper Great Lakes region, and southern portions of the Rockies and Plains.”

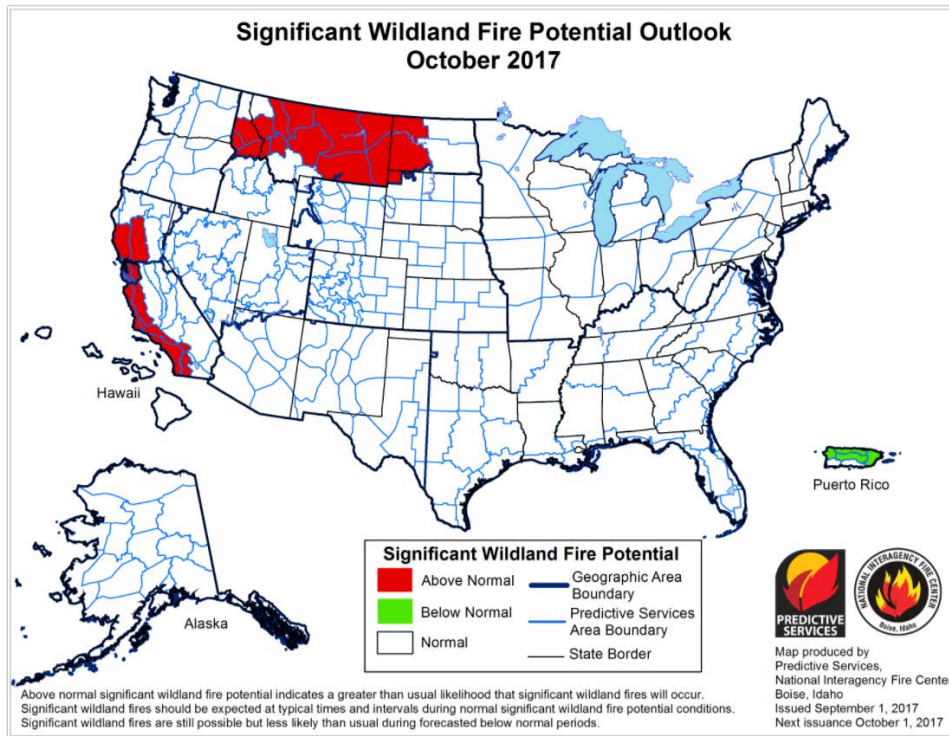
Weather Hazard Outlook [September 23 - 27, 2017](#)

Source: Climate Prediction Center



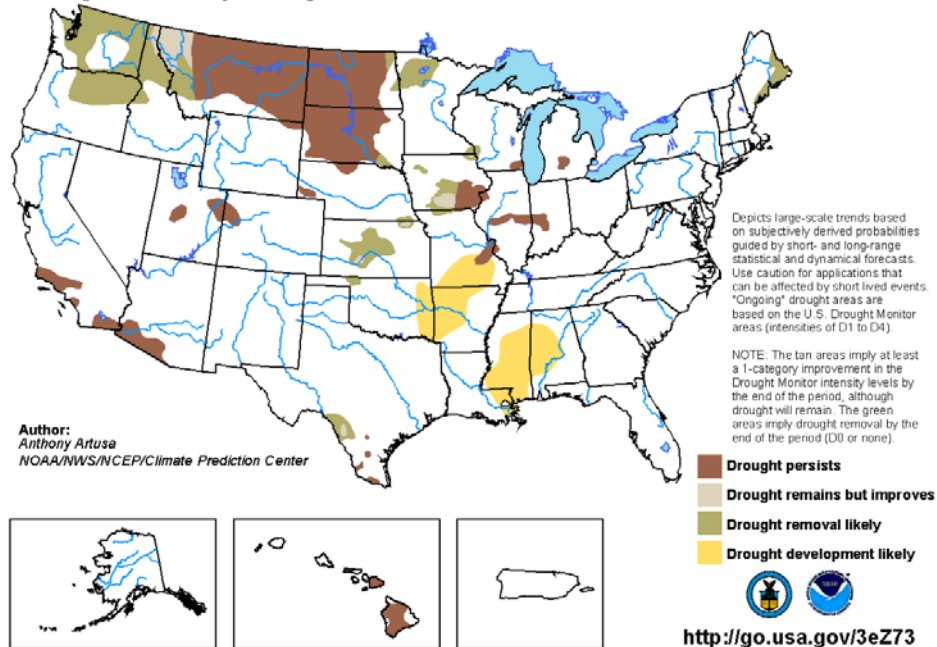
Significant Wildland [Fire Potential Outlook](#)

Source: National Interagency Fire Center



Seasonal Drought Outlook: [September 21 - December 31, 2017](#) Source: National Weather Service

U.S. Seasonal Drought Outlook valid for September 21 - December 31, 2017
Drought Tendency During the Valid Period Released September 21, 2017

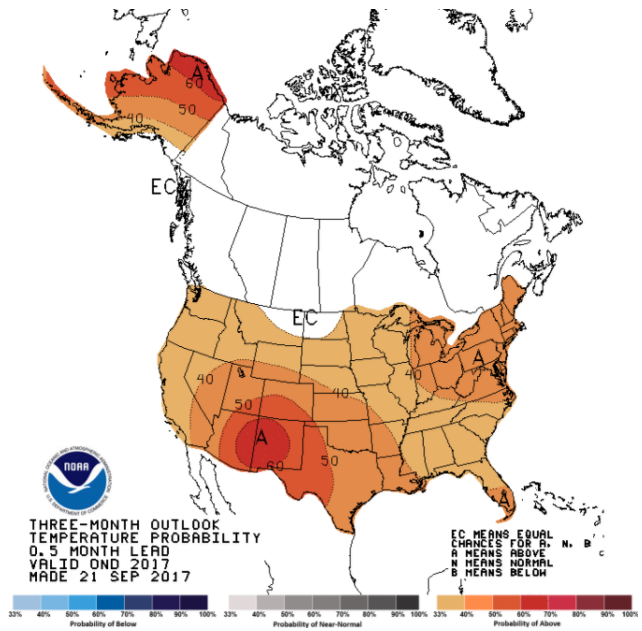
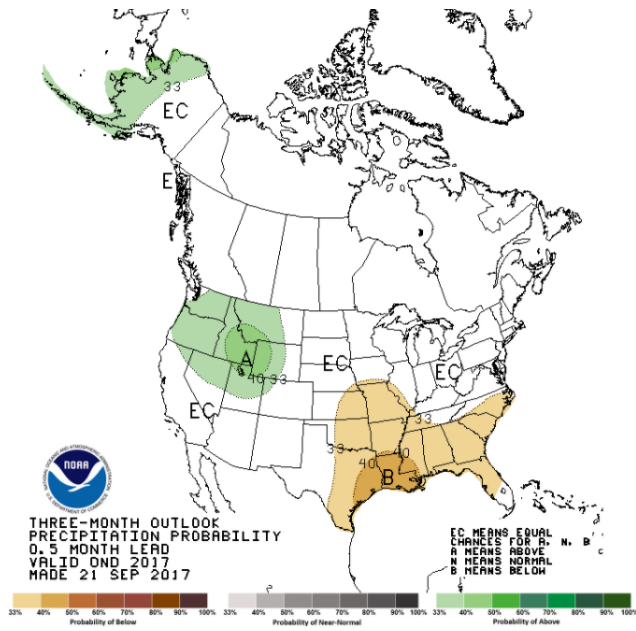


Climate Prediction Center 3-Month Outlook

Source: National Weather Service

Precipitation

Temperature



[Oct-Nov-Dec \(OND\) 2017 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](#).