

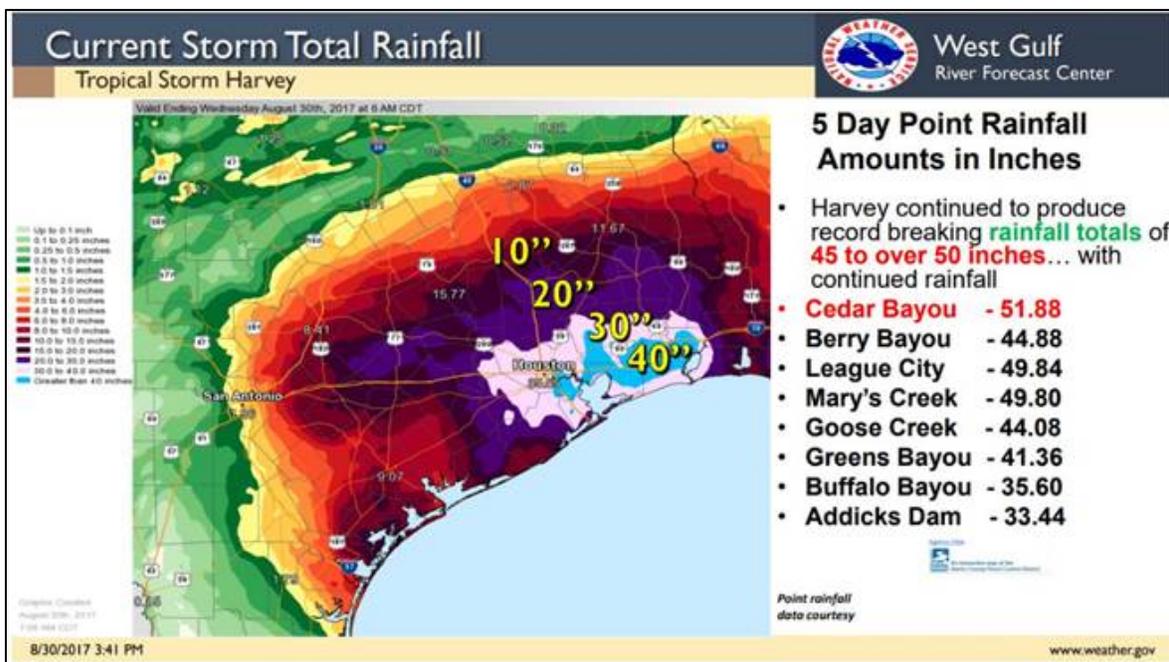
# Water and Climate Update

August 31, 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.

Precipitation .....	1	Other Climatic and Water Supply Indicators .....	11
Temperature.....	5	Short- and Long-Range Outlooks.....	14
Drought.....	7	More Information.....	16

## Hurricane Harvey sets preliminary precipitation record



According to the National Weather Service, Hurricane Harvey has set a preliminary record, surpassing 50 inches for the greatest amount of single-storm rainfall ever measured for the continental U.S. Additional rainfall accumulations of 6 to 12 inches are expected to the north and east of Houston from far east Texas into southwestern Louisiana. This is producing devastating flooding throughout the region. Numerous Flash Flood Warnings are currently in effect. Refer to page 12 for a map of current flood and high flow conditions.

### Related:

[Tropical Storm Harvey Makes Final Landfall; Major Flooding Swamps East Texas; Heavy Rain Threat from Louisiana to Kentucky](#), Weather.com

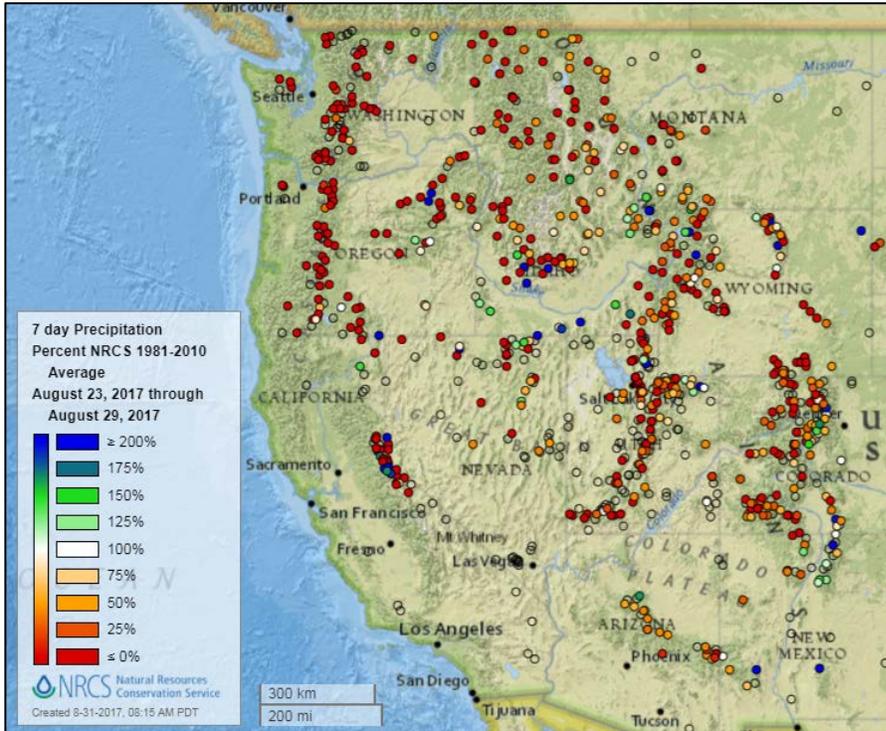
[Harvey sets preliminary US rainfall record with 51.88 inches: National Weather Service](#), ABC News

[Harvey to be costliest natural disaster in U.S. history, with an estimated cost of \\$160 billion](#), USA Today

[U.S. Department of Agriculture Hurricane Resources](#)

## Precipitation

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

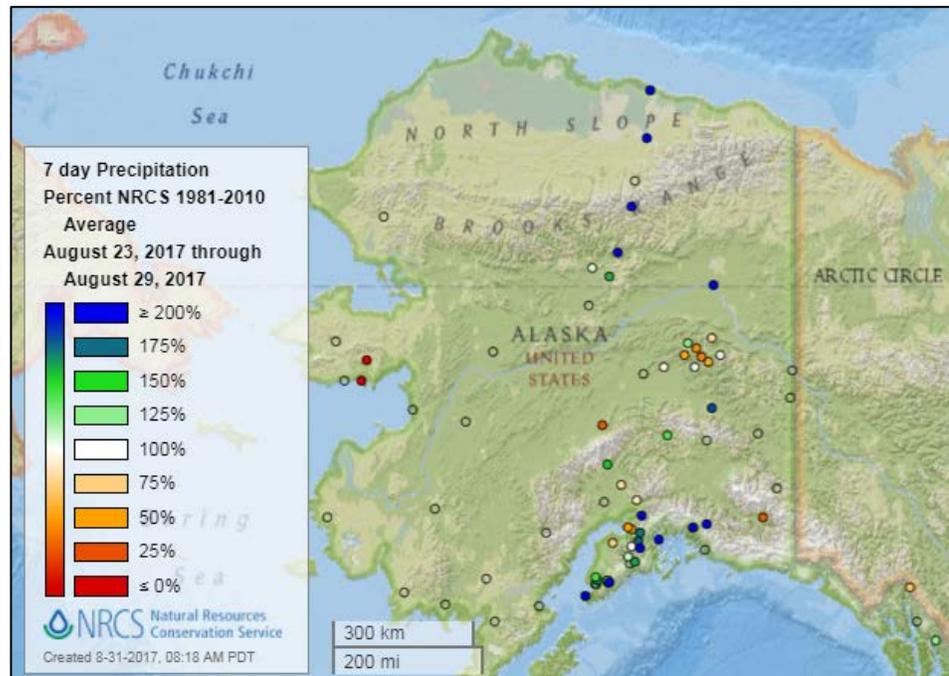


[7-day precipitation percent of average map](#)

**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

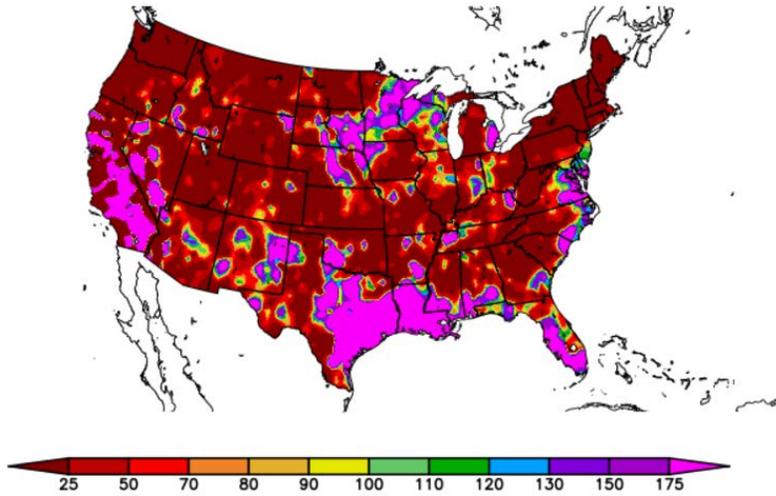
## Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)  
8/24/2017 - 8/30/2017



Generated 8/31/2017 at HPRCC using provisional data.

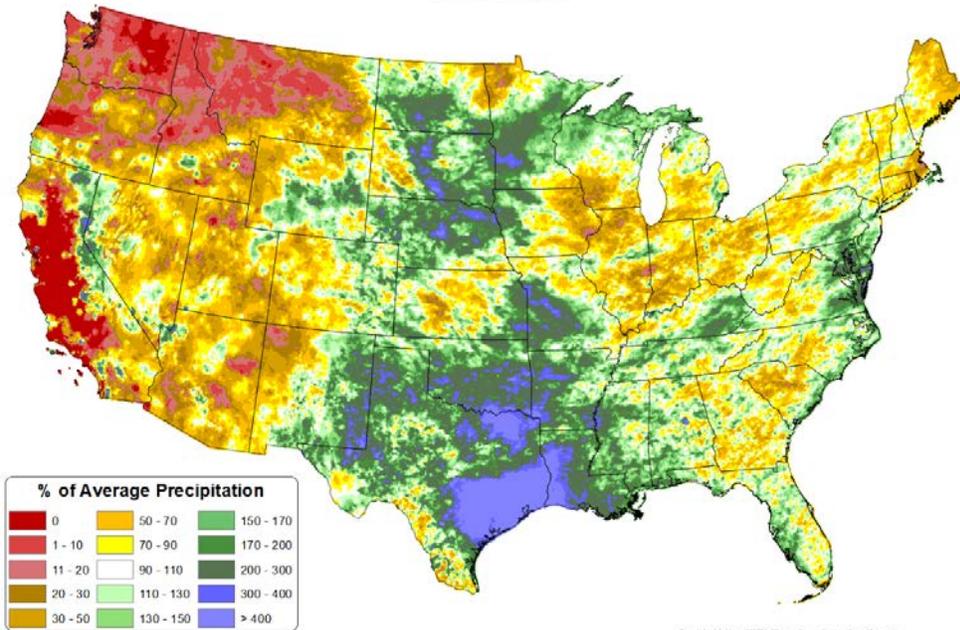
NOAA Regional Climate Centers

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

Source: PRISM

Total Precipitation Anomaly: 01 August 2017 - 30 August 2017  
Period ending 7 AM EST 30 Aug 2017  
Base period: 1981-2010  
(Map created 31 Aug 2017)

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

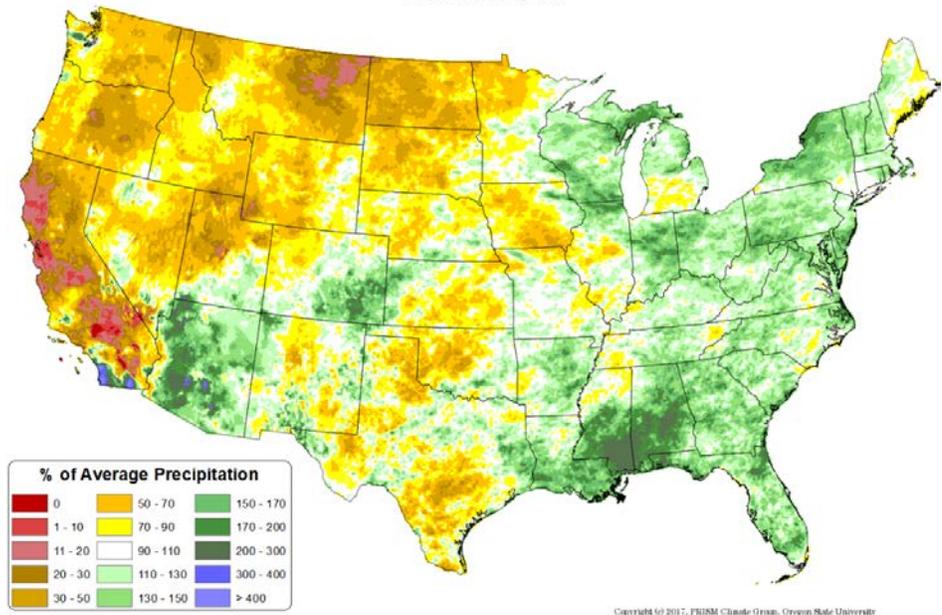


Last 3 Months, All Available Data Including SNOTEL and NWS Networks

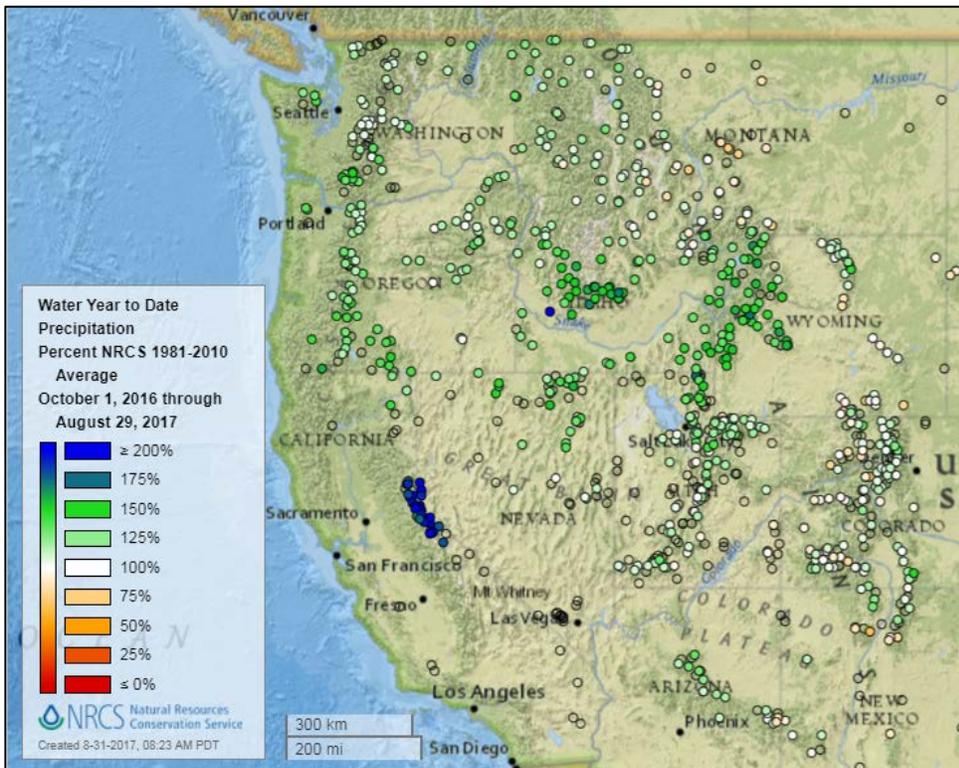
Source: PRISM

[May through July 2017 daily mean precipitation anomaly map](#)

Total Precipitation Anomaly: May 2017 - July 2017  
Period ending 7 AM EST 31 Jul 2017  
Base period: 1981-2010  
(Map created 02 Aug 2017)



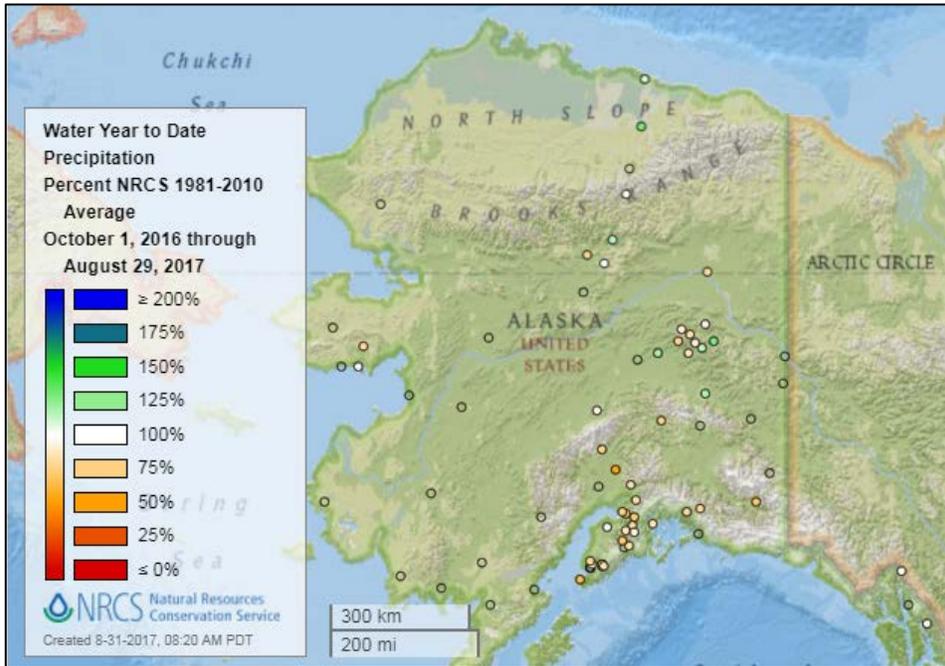
Water Year-to-Date, Western Mountain Sites (NRCS SNOTEL Network)



[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

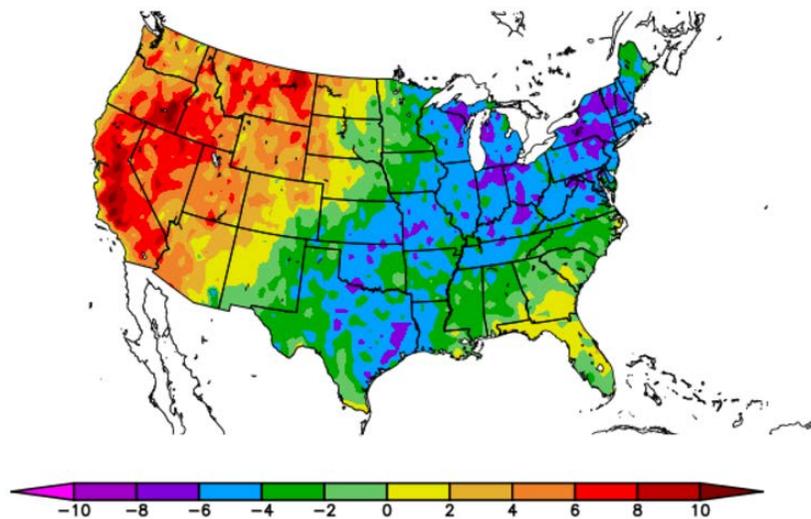
Last 7 Days, National Weather Service (NWS) Networks

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)  
8/24/2017 – 8/30/2017



Generated 8/31/2017 at HPRCC using provisional data.

NOAA Regional Climate Centers

# Water and Climate Update

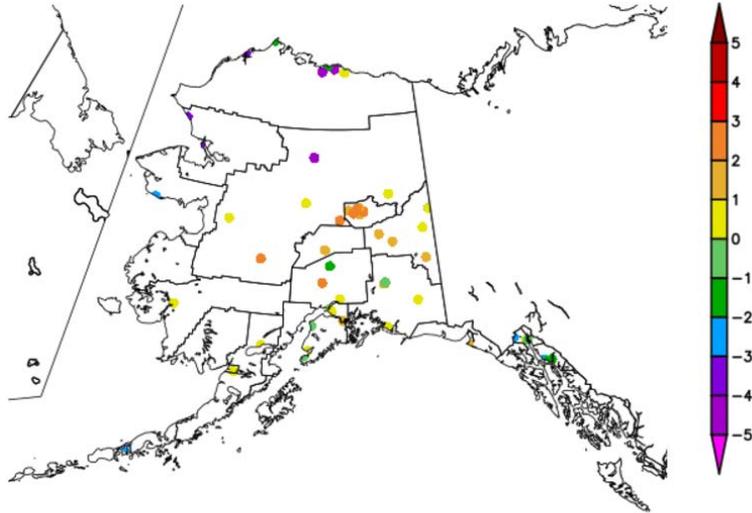
## Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

### Departure from Normal Temperature (F) 8/24/2017 – 8/30/2017



Generated 8/31/2017 at HPRCC using provisional data.

NOAA Regional Climate Centers

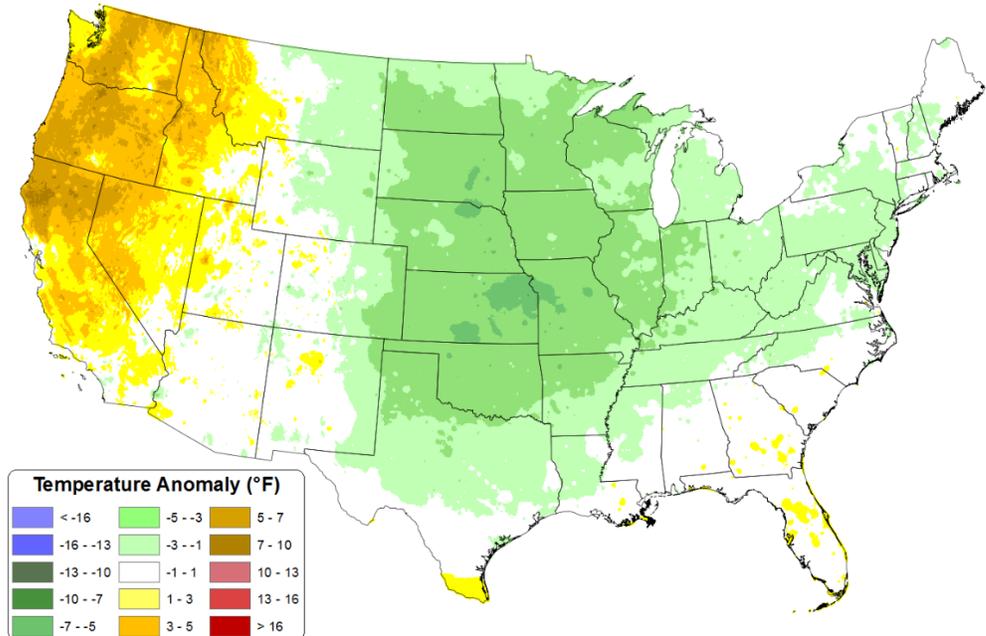
## Month-to-Date, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

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

### Daily Mean Temperature Anomaly: 01 August 2017 - 30 August 2017

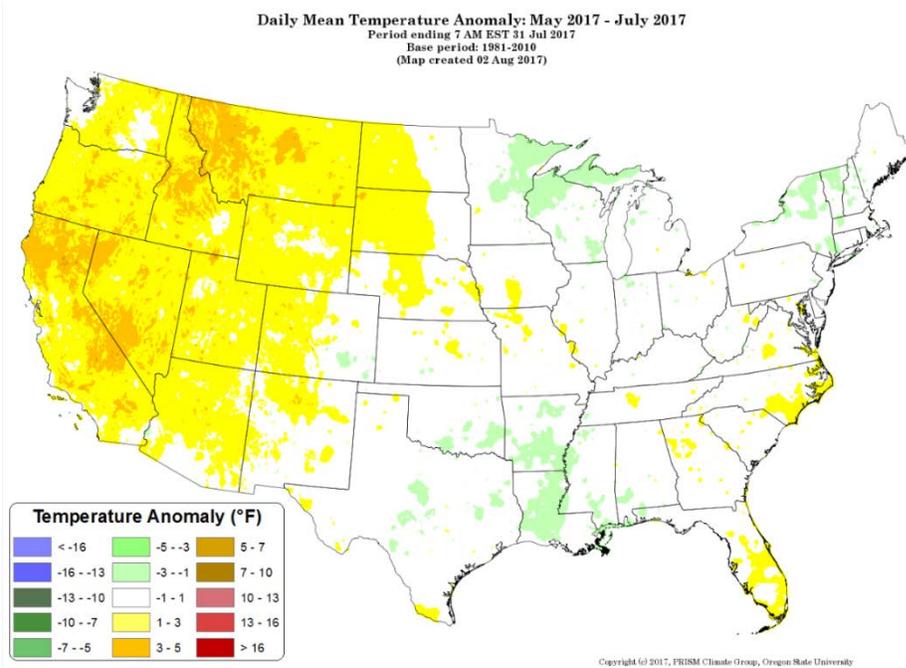
Period ending 7 AM EST 30 Aug 2017  
Base period: 1981-2010  
(Map created 31 Aug 2017)



Copyright © 2017, PRISM Climate Group, Oregon State University

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

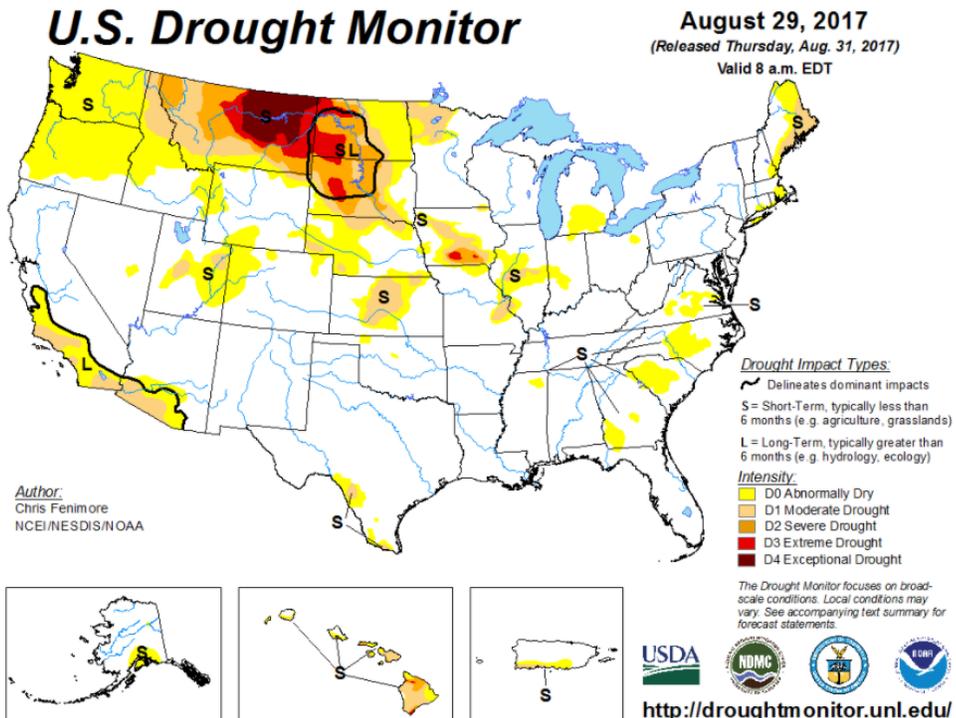
Source: PRISM



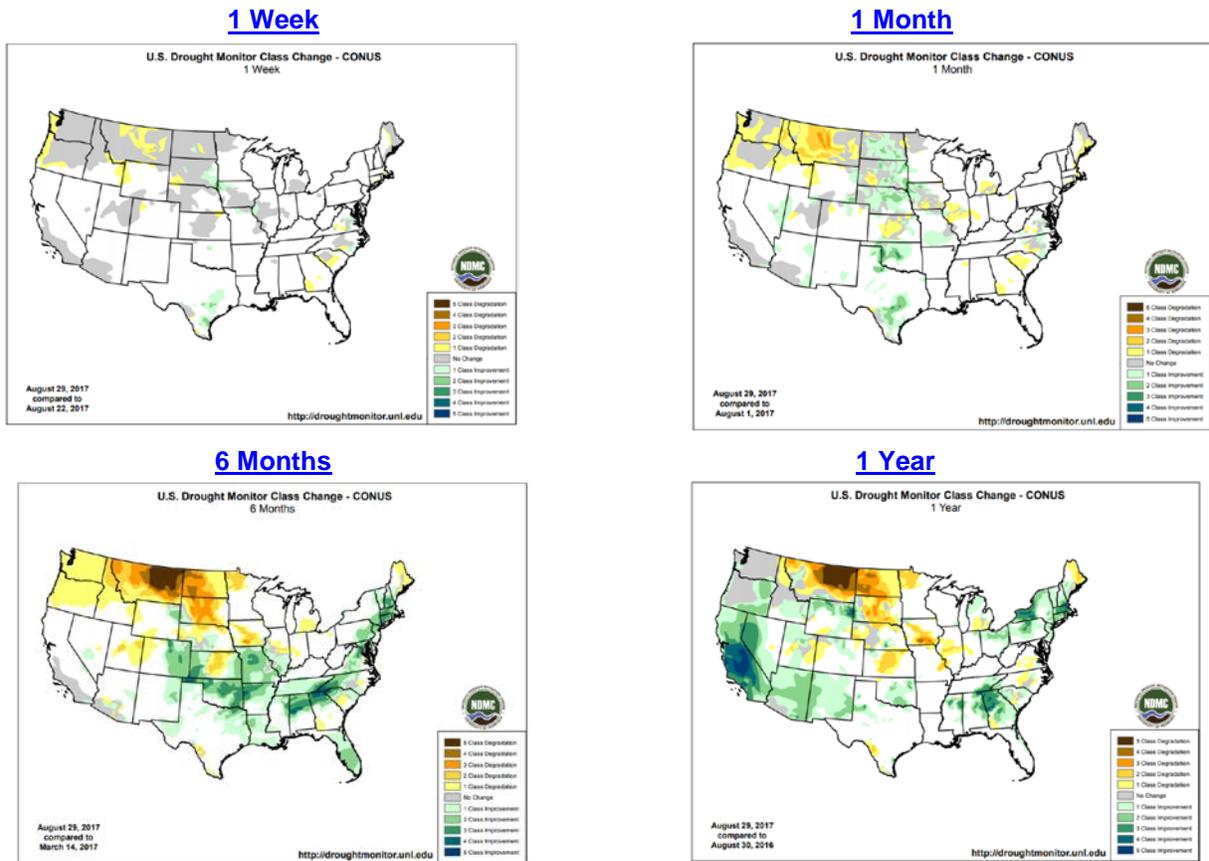
[May through July 2017 daily mean temperature anomaly map](#)

## Drought

[U.S. Drought Monitor](#) Click on map below. [U.S. Drought Portal](#) Comprehensive drought resource.



Changes in Drought Monitor Categories over Time



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

Current National [Drought Summary](#), August 29, 2017

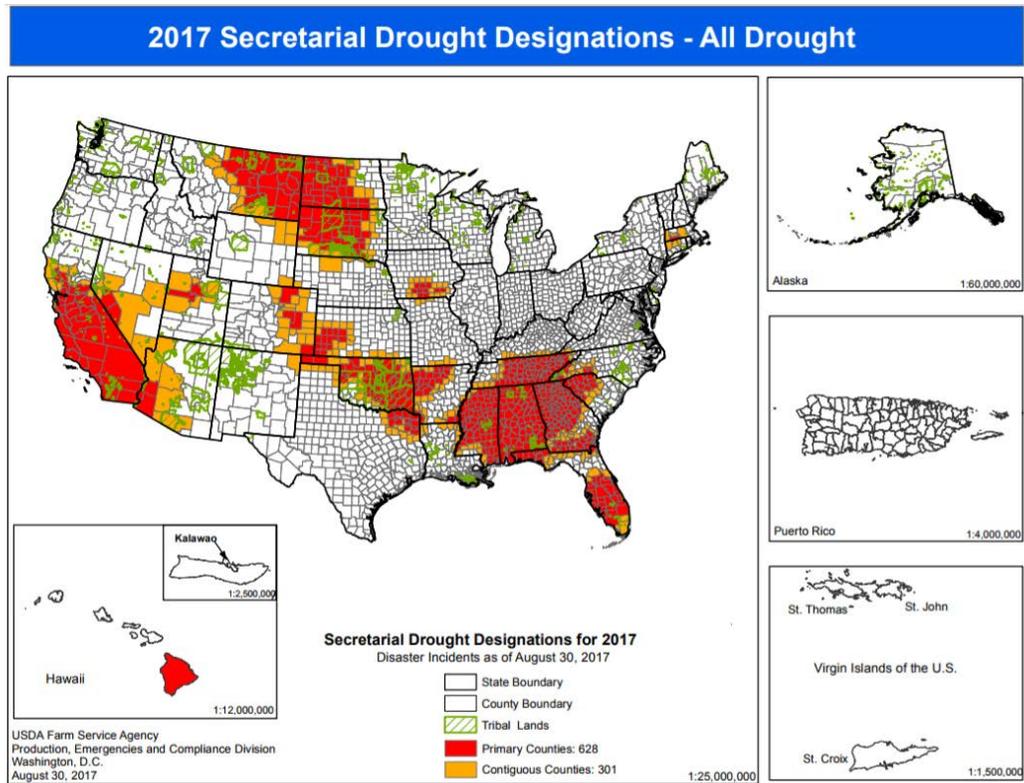
Author: Chris Fenimore, NOAA/NESDIS/NCEI

“Precipitation during this USDM week (August 23-29, 2017) was above normal for some of the country’s midsection, the Northern Plains to Upper Midwest, southwestern Florida, parts of New Mexico and much of Texas and Louisiana. Hurricane Harvey made landfall north of Corpus Christi as a category 4 storm bringing with it rainfall amounts there were unprecedented. In Houston, the nation’s fourth-most populous city, rainfall totals approached 50 inches in five days resulting in historical flooding. Drier than normal conditions existed for much of the Southeast, mid-Atlantic to Northeast, and western Northern Plains to Northwest. Temperatures were above normal for much of the western third of the nation and parts of the Southeast. Temperatures elsewhere were below normal. Parts of the Upper Peninsula of Michigan experienced their first freeze of the season, 3-6 weeks earlier than normal.”

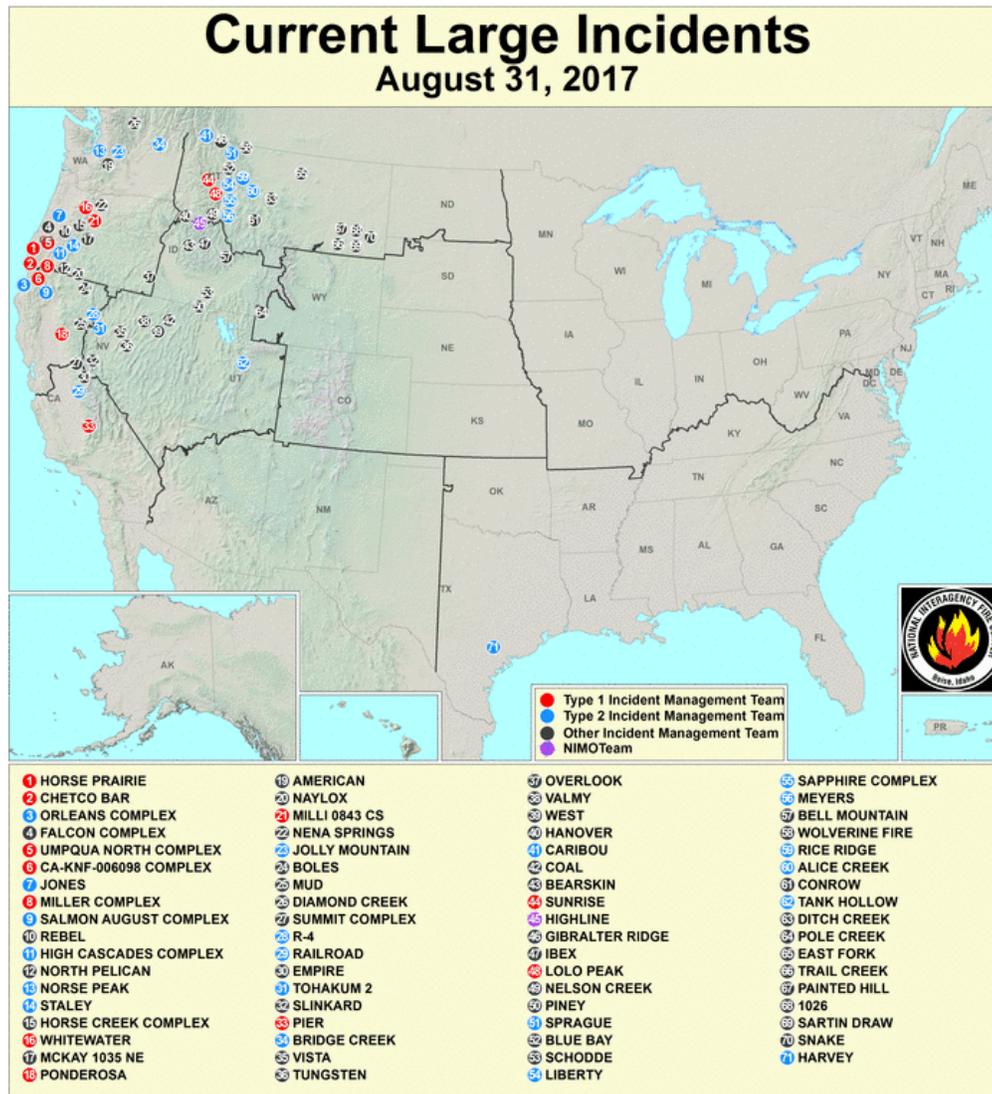
### Highlighted Drought Resources

- [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](#)

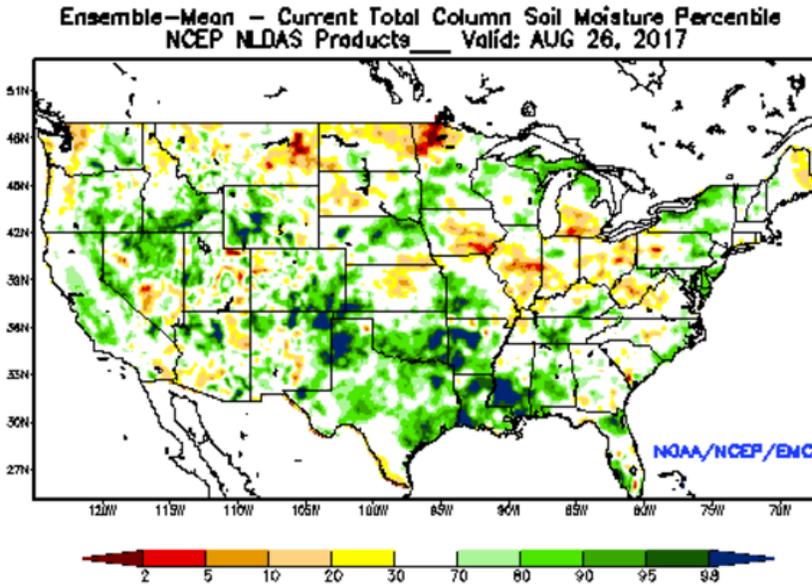


Highlighted Wildfire Resources

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

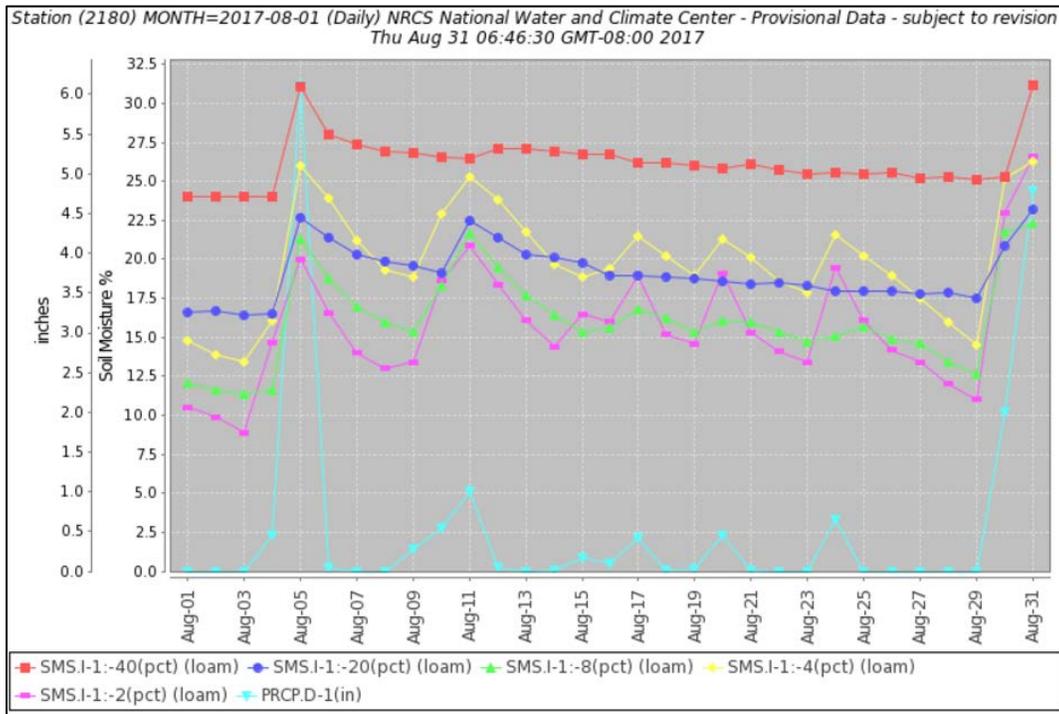
## Other Climatic and Water Supply Indicators

### Soil Moisture



[Modeled soil moisture percentiles](#) as of August 26, 2017.

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



The chart shows precipitation and soil moisture for the last 30 days at the [Koptis Farms SCAN site 2180](#) in Alabama. A large precipitation event on August 4 increased soil moisture at all sensor depths. The impact of Hurricane Harvey is seen on August 30, with additional increases at all sensor depths.

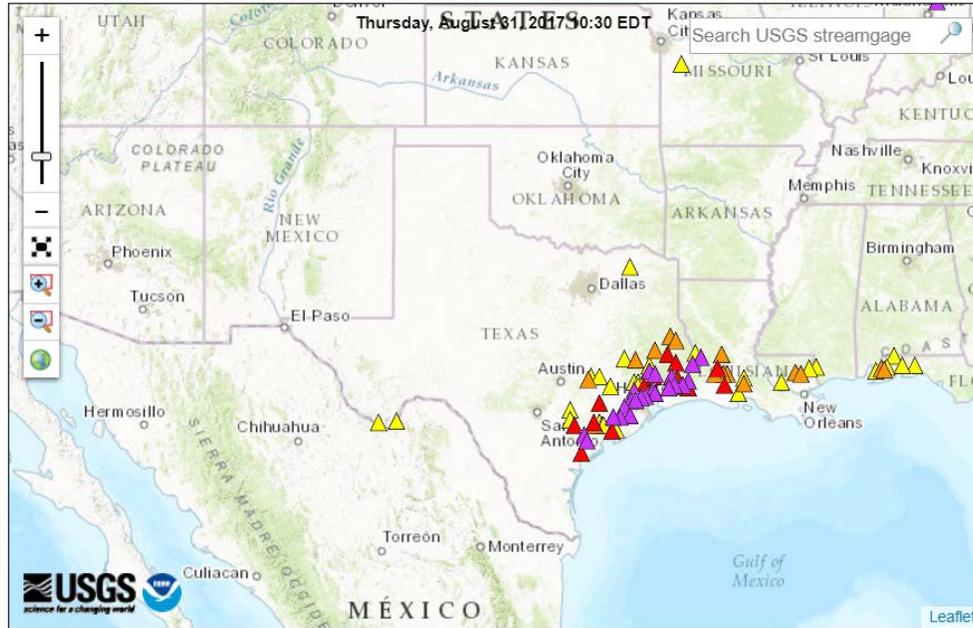
Soil Moisture Data Portals

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

Streamflow

Source: USGS

Map of flood and high flow conditions



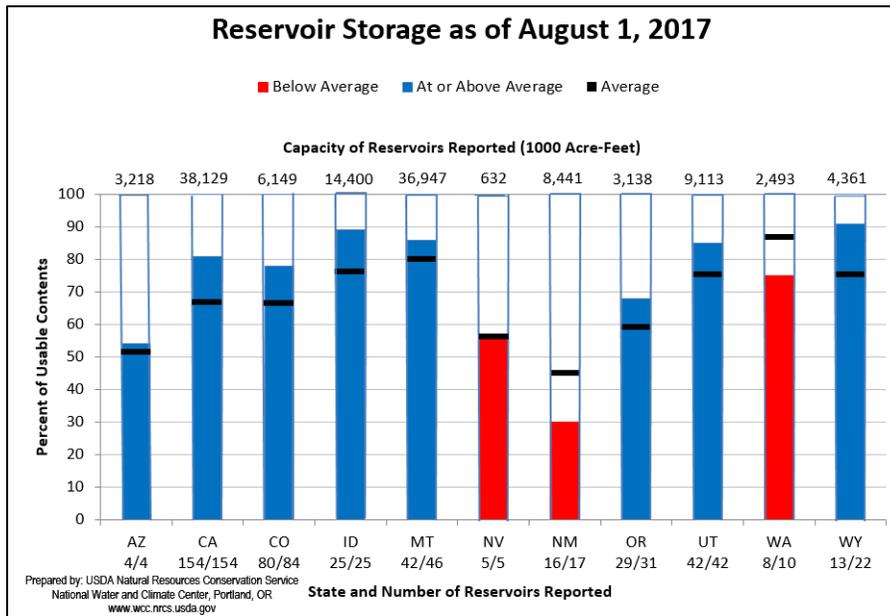
Explanation - Percentile classes							
<95	95-98	>= 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage	Not ranked
			▲ Streamgage with flood stage	○ Streamgage without flood stage			

[Current streamflow maps](#)

## Reservoir Storage

### August 1 Western States Reservoir Storage

Source: NRCS National Water and Climate Center



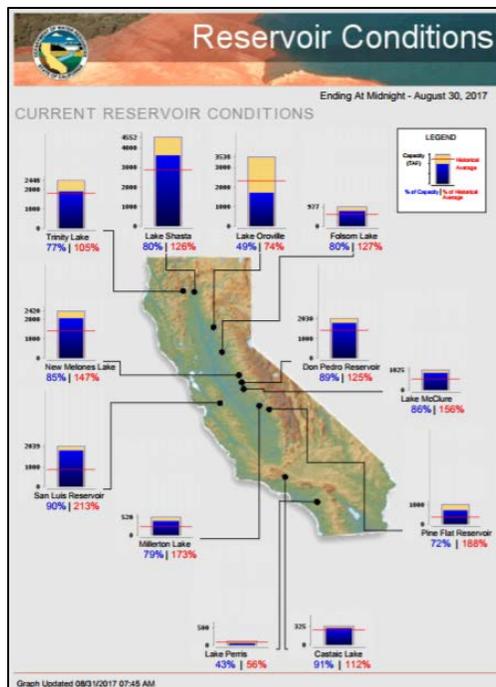
[National Water and Climate Center Reservoir Data](#)

### 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

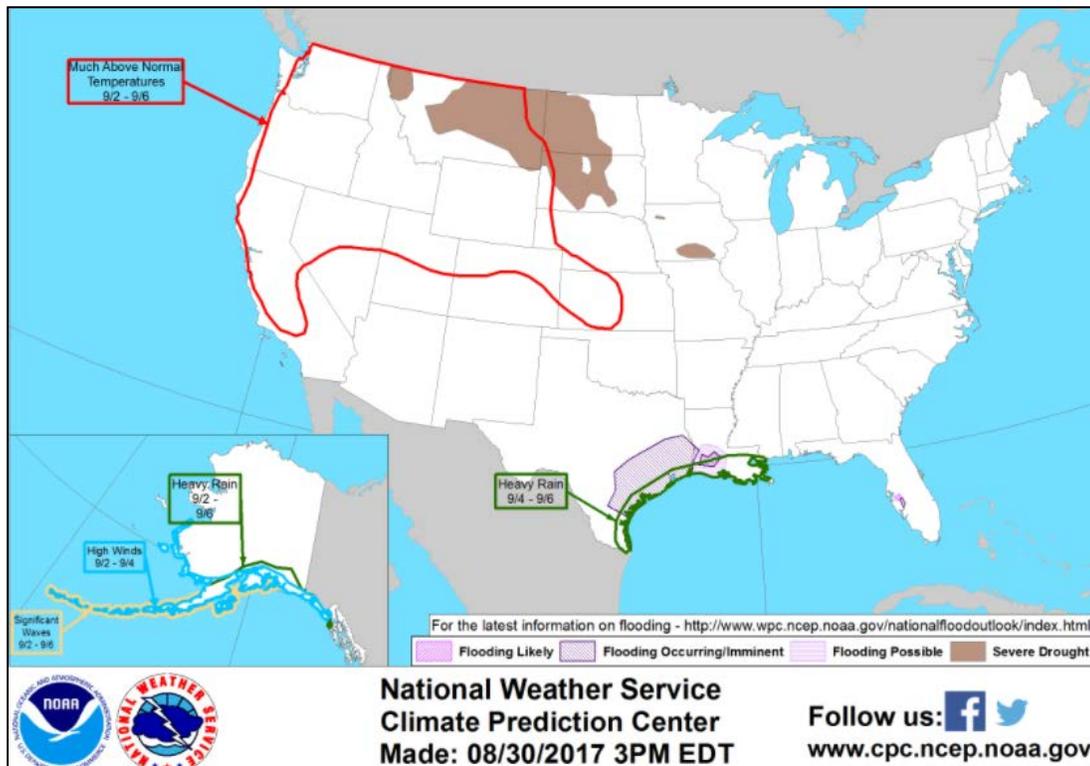
### Agricultural Weather Highlights

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

[National Outlook, Thursday, August 31, 2017](#): “Lowland flooding in the western Gulf Coast region will complicate recovery efforts, especially where high water levels continue to pressure or overtop dams or levees and restrict access to heavily damaged farms, neighborhoods, and industrial areas. Some computer guidance continues to suggest that showers could return to flood-affected areas early next week. Farther north, the remnants of Harvey should move into the Ohio Valley by Saturday. Additional rainfall totals of 3 to 5 inches, with locally higher amounts, should occur from the northern Delta into the middle Ohio Valley. Meanwhile, the western and central U.S. will continue to experience mostly dry weather. In addition, late-season heat will persist in the Northwest and across the drought-stricken northern High Plains, maintaining an elevated wildfire threat. During the weekend, warmth will briefly expand across the northcentral U.S., including areas of the upper Midwest where crop development is lagging the normal pace. The NWS 6- to 10-day outlook for September 5 – 9 calls for the likelihood of below-normal temperatures across much of the eastern half of the U.S., while warmer-than-normal weather should cover the southern Atlantic region and the West. Meanwhile, below-normal rainfall across the Rockies, Plains, and upper Midwest should contrast with wetter-than-normal conditions in southern California and east of a line from coastal Texas to Lake Michigan.”

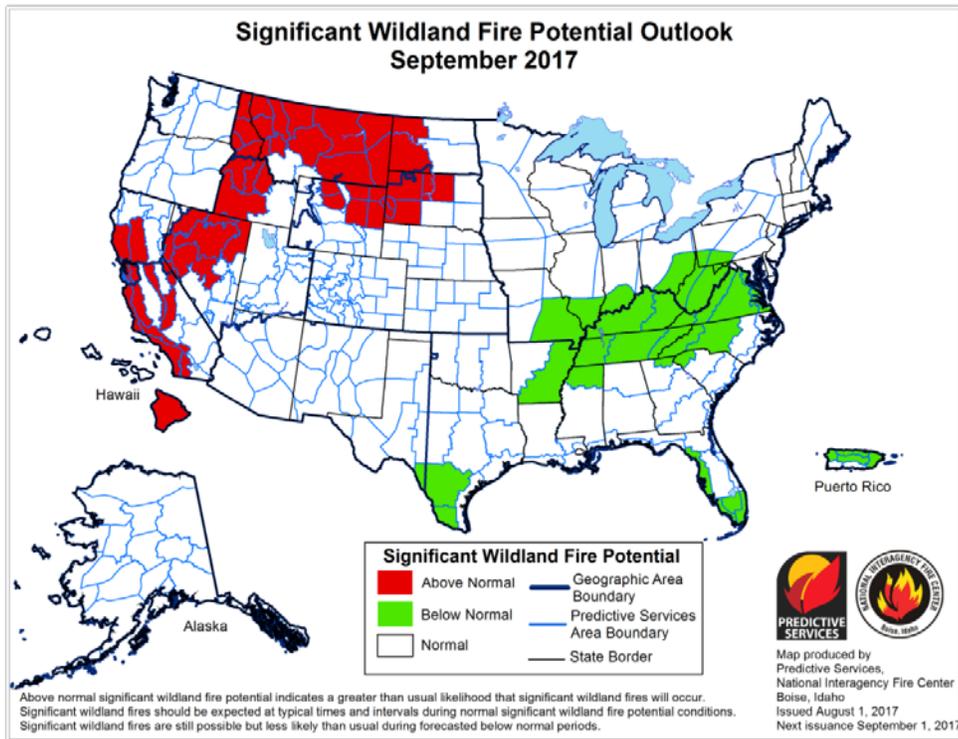
### Weather Hazard Outlook [September 2 - 6, 2017](#)

Source: Climate Prediction Center



Significant Wildland [Fire Potential Outlook](#)

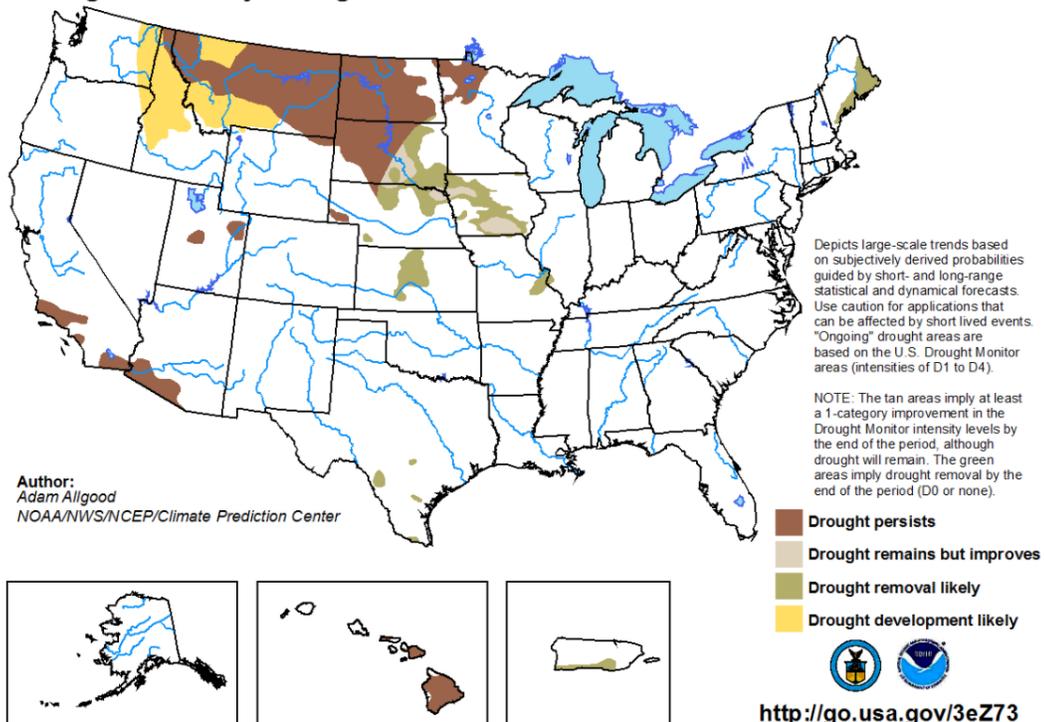
Source: National Interagency Fire Center



Seasonal Drought Outlook: [August 17 - November 30, 2017](#)

Source: National Weather Service

**U.S. Seasonal Drought Outlook** Valid for August 17 - November 30, 2017  
Drought Tendency During the Valid Period Released August 17, 2017

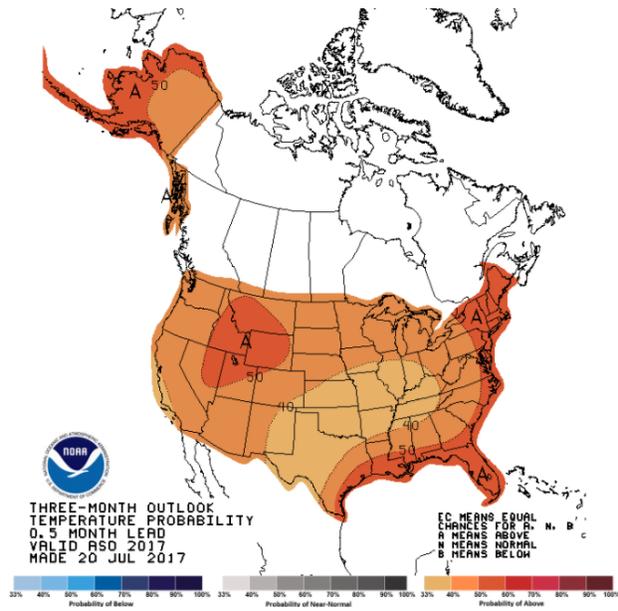
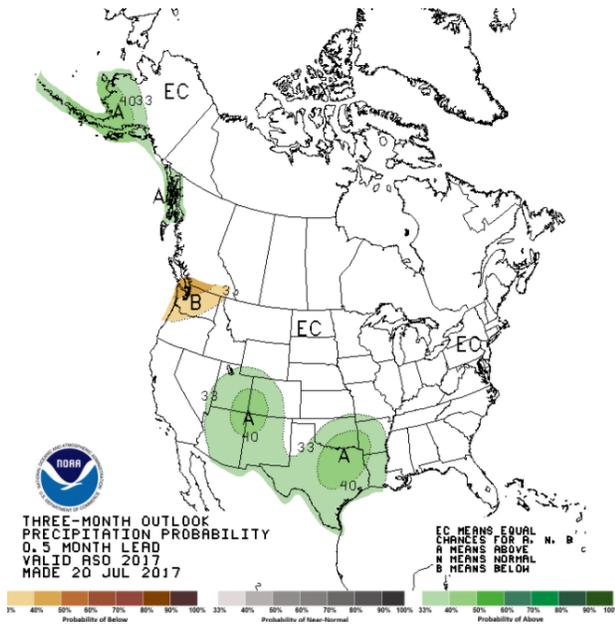


Climate Prediction Center 3-Month Outlook

Source: National Weather Service

Precipitation

Temperature



[Sep-Oct-Nov \(SON\) 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](#).