

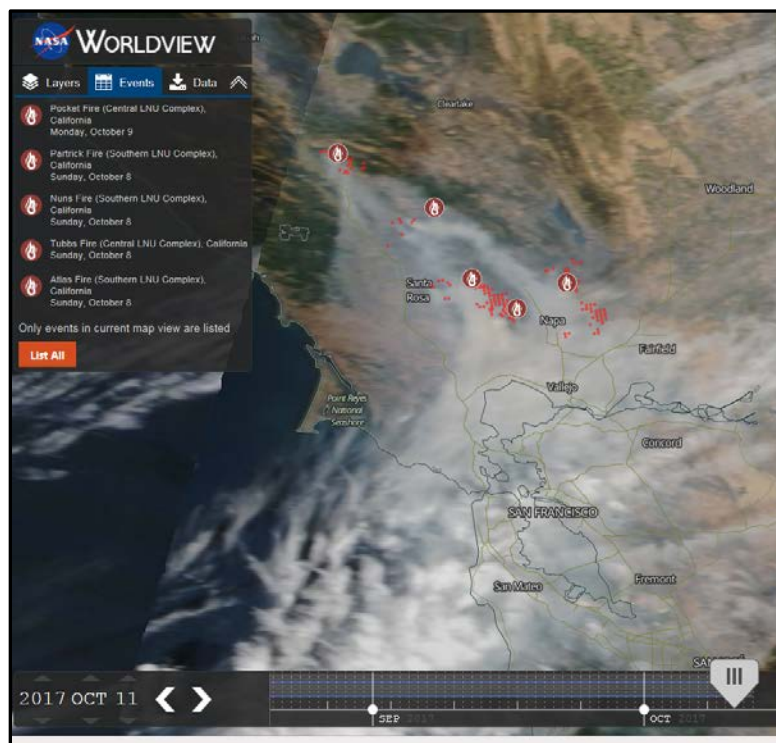
## Water and Climate Update

October 12, 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>	<i>1</i>	<i>Other Climatic and Water Supply Indicators .....</i>	<i>11</i>
<i>Temperature.....</i>	<i>6</i>	<i>Short- and Long-Range Outlooks.....</i>	<i>13</i>
<i>Drought and Wildfires.....</i>	<i>8</i>	<i>More Information.....</i>	<i>16</i>

### Strong, dry winds drive California wildfires



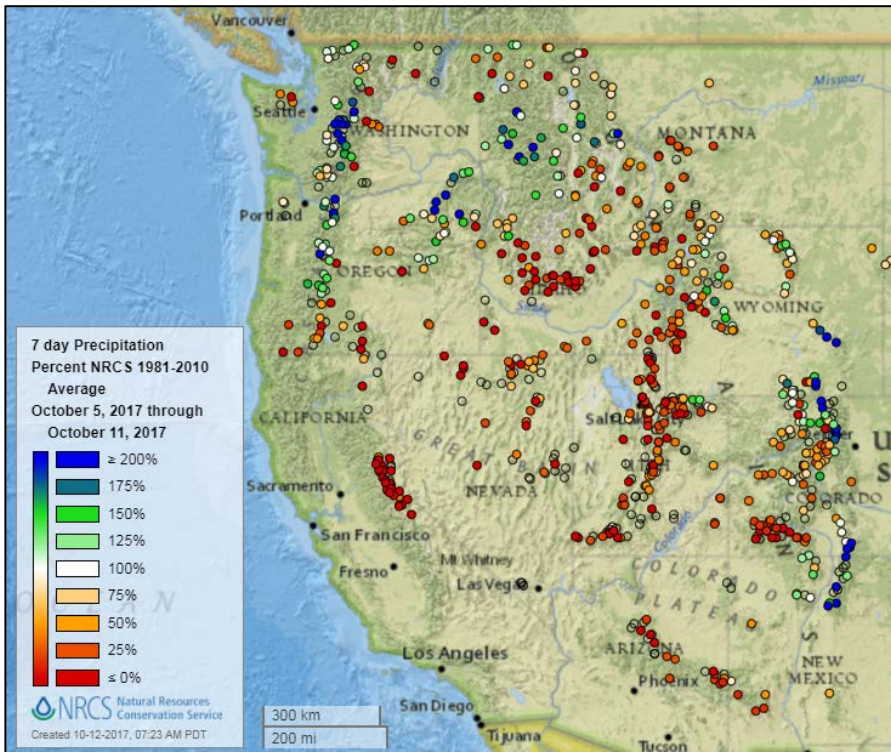
This recent NASA satellite view of the deadly fires in northern California point out the thermal anomalies in areas actively burning and the large smoke plumes over much of the region. The wind-driven combined fires cover over 170,000 acres as of Wednesday, with more than 20,000 residents evacuated. The fires have destroyed several wineries, many businesses, and thousands of homes, with firefighters from many parts of the state and the West joining the firefight.

#### Related:

[Strong winds, low humidity drive another round of deadly California wildfires](#)  
[Hundreds missing, 23 dead as dry gusts fan California wildfires](#)  
[Deadly and vast Northern California wildfires could gain momentum](#)  
[Fire Weather to Persist as Crews Battle Deadly California Blazes](#)  
[California wildfires threaten some of the US's top wineries](#)  
[Smoke, fire leads to dirtiest air ever recorded in Sonoma County as high winds expected to return](#)  
[Minutes to Escape: How One California Wildfire Damaged So Much So Quickly](#)

## Precipitation

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



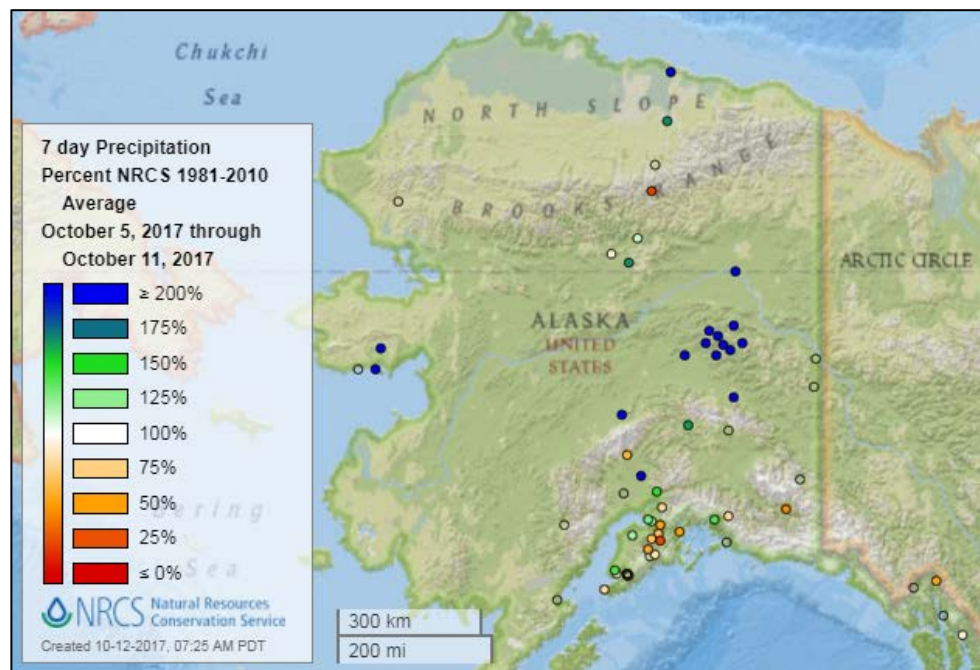
[7-day precipitation percent of average map](#)

**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](#)



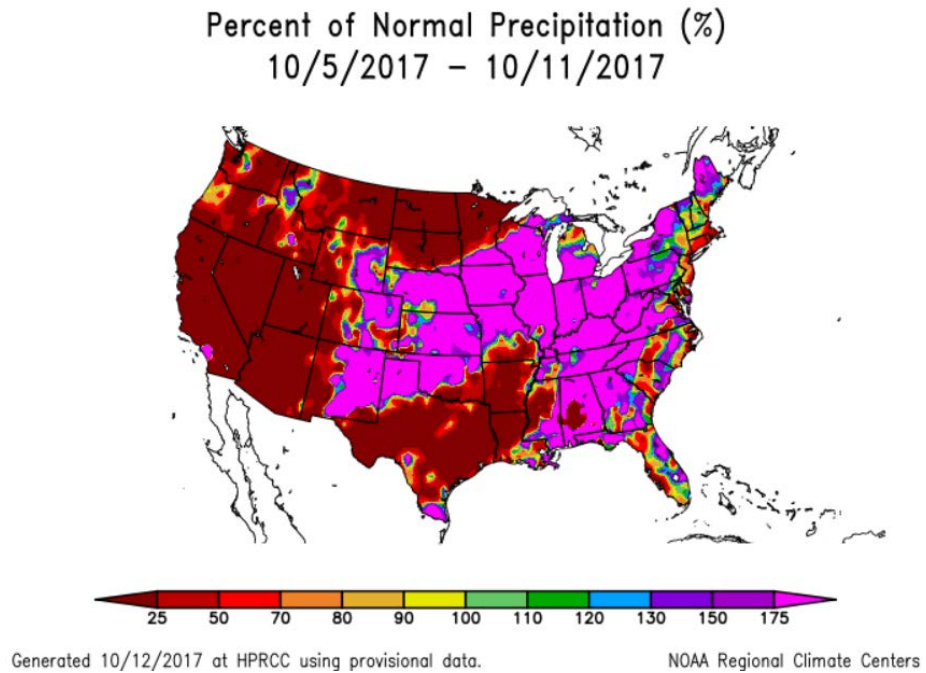


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

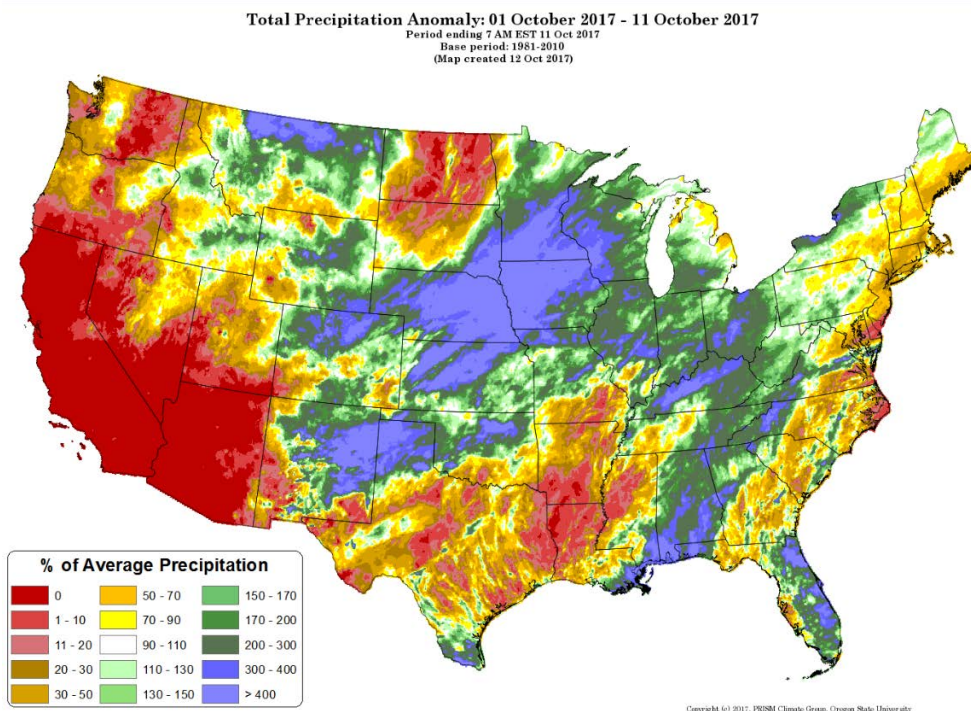
[7-day precipitation percent of normal map](#) for the continental U.S.

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



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

Source: PRISM

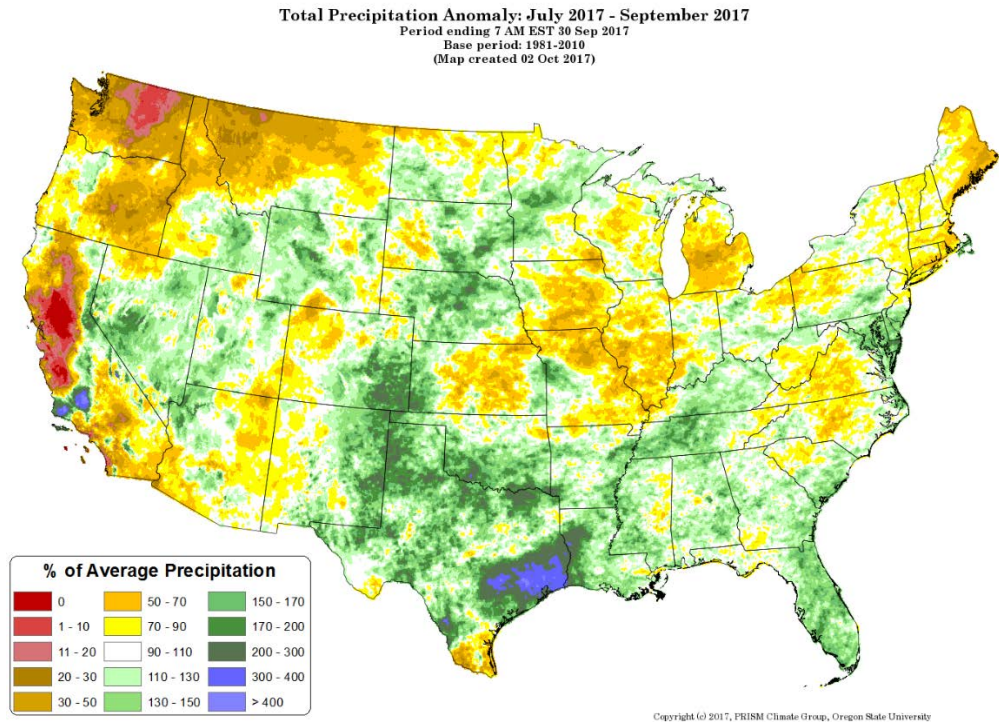


[Month-to-date national precipitation percent of average map](#)

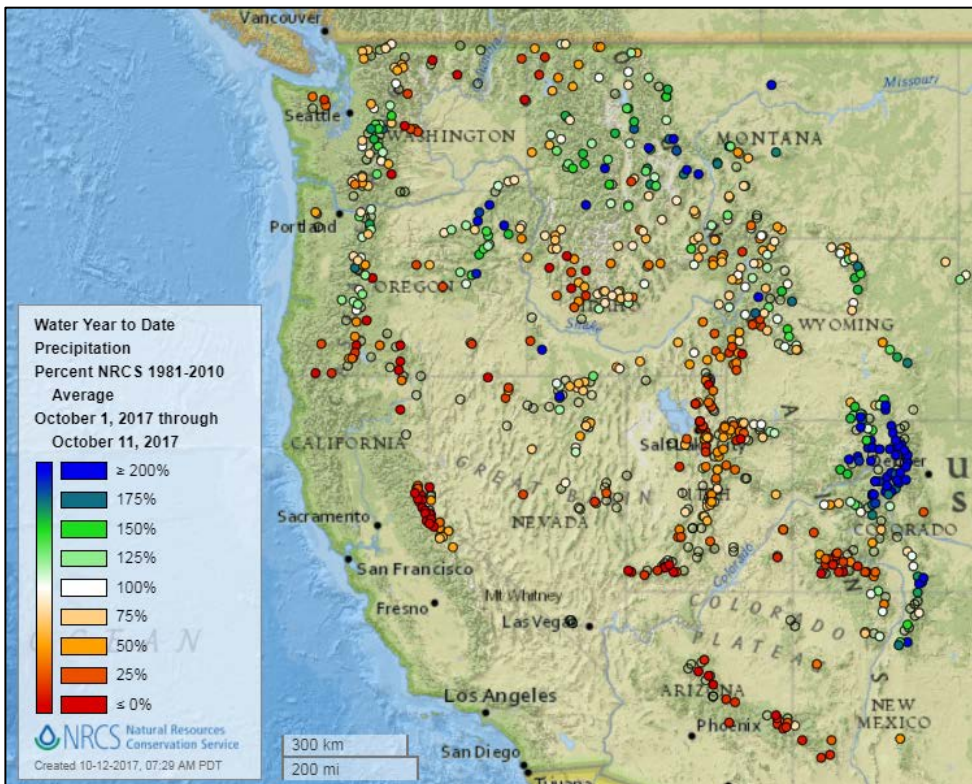
## Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

[July through September 2017 total precipitation anomaly map](#)



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



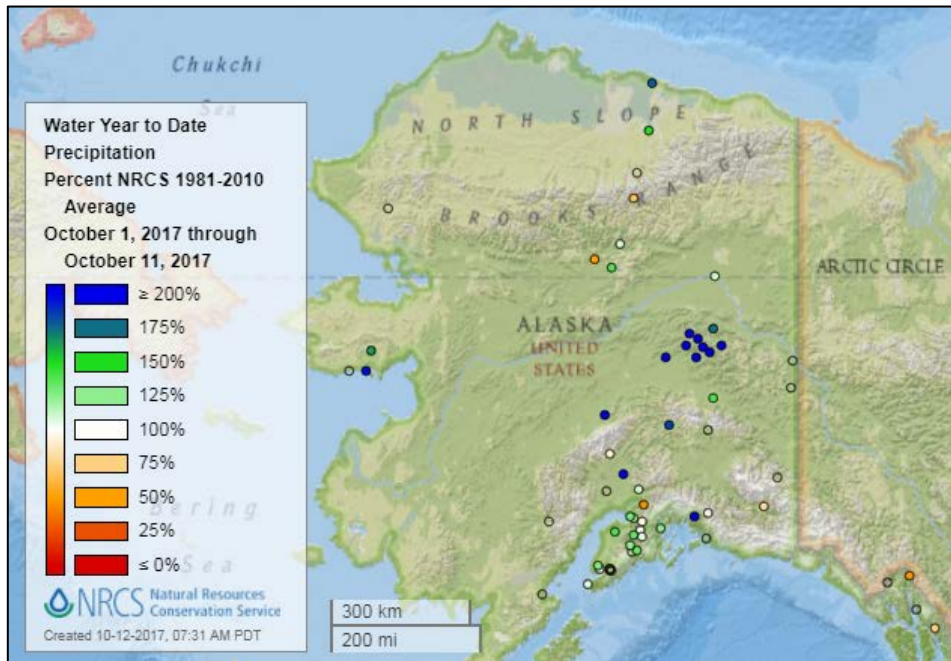
**Note:** October 1 marked the beginning of the 2018 Water Year

[2018 water year-to-date precipitation percent of average map](#)

**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-to-date precipitation values \(inches\) map](#)

## Temperature

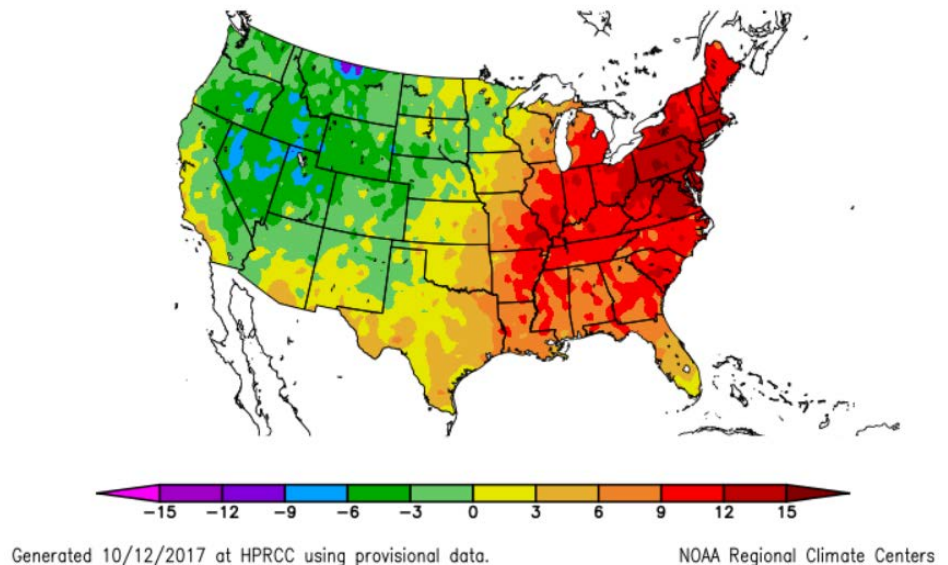
### Last 7 Days, National Weather Service (NWS) Networks

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)  
10/5/2017 – 10/11/2017



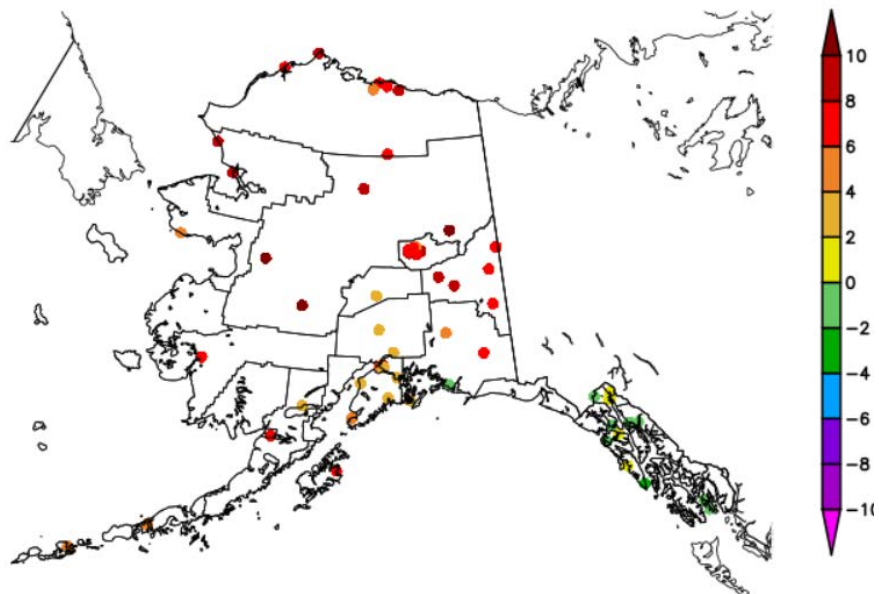
### Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)  
10/5/2017 – 10/11/2017

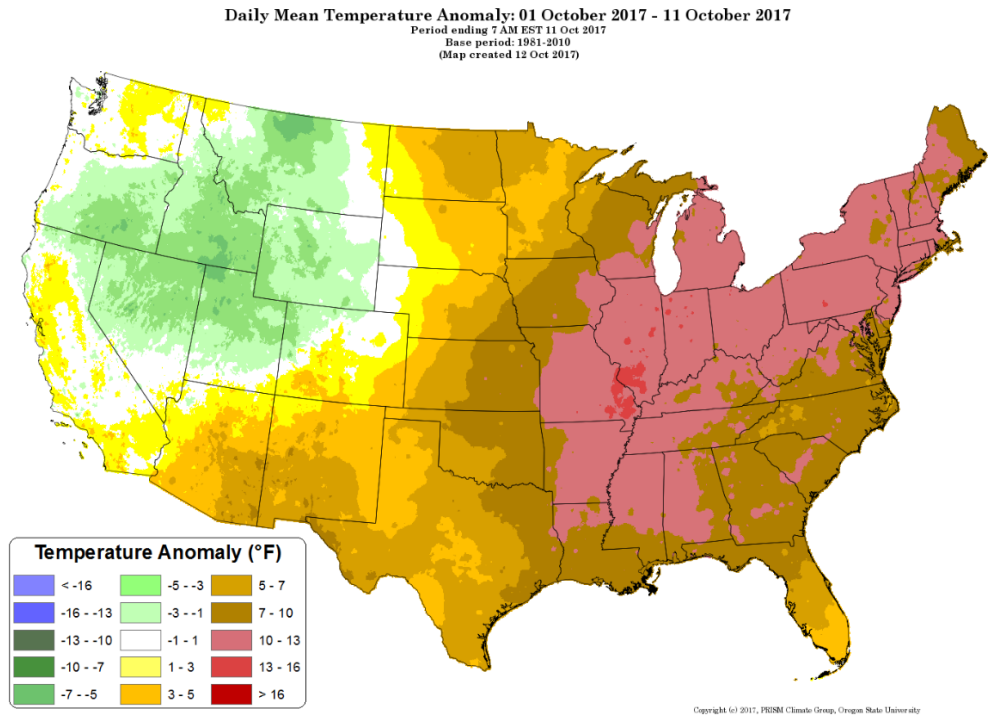


## Water and Climate Update

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

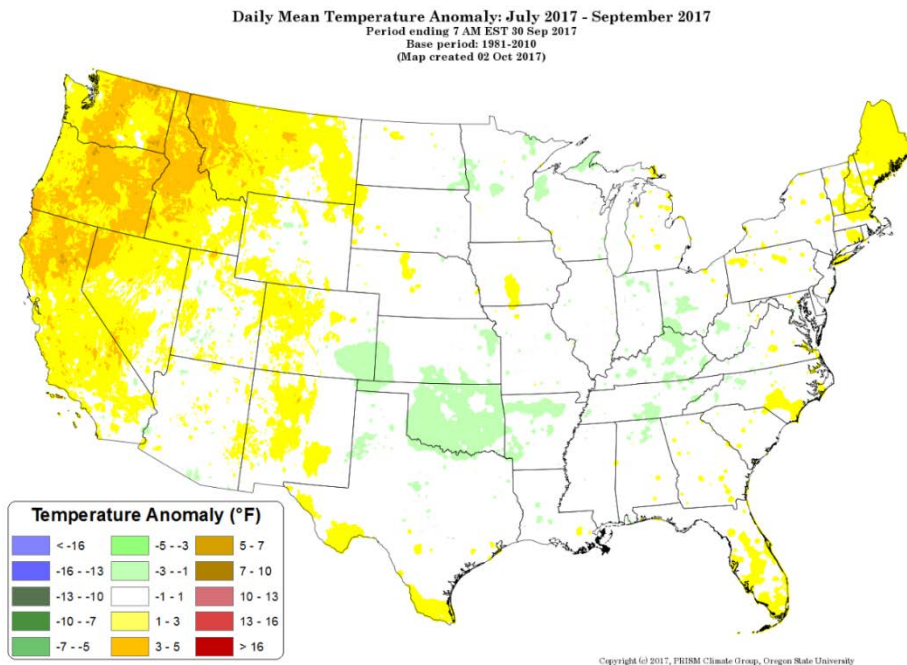
Source: PRISM

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



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

Source: PRISM



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

## Drought and Wildfires

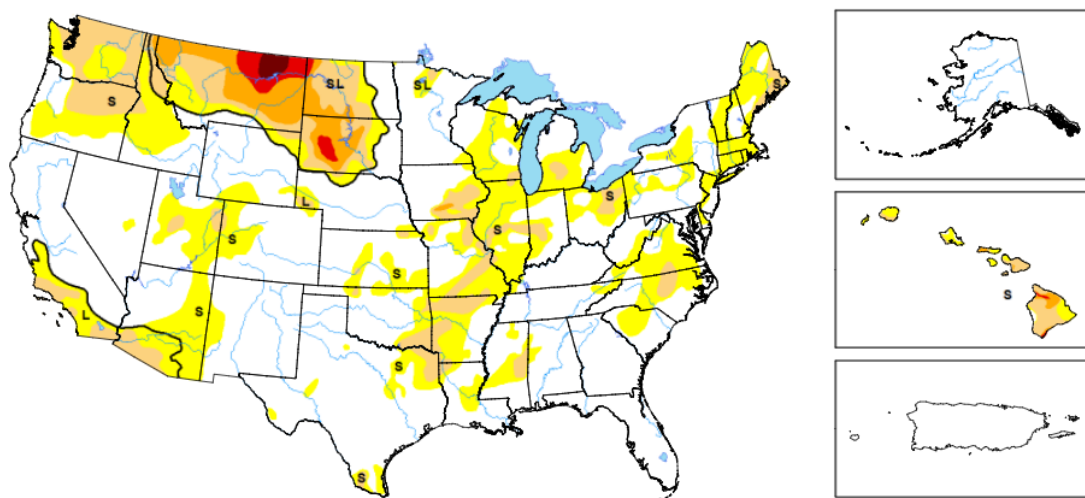
[U.S. Drought Monitor](#) Select map below.

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

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

Map for October 12, 2017

Data valid: October 10, 2017 | Author: [Anthony Artusa](#), NOAA/NWS/NCEP/CPC



The data cutoff for Drought Monitor maps is each Tuesday at 8 a.m. EDT. The maps, which are based on analysis of the data, are released each Thursday at 8:30 a.m. Eastern Time.

### Intensity and Impacts



### Current [National Drought Summary](#), October 10, 2017

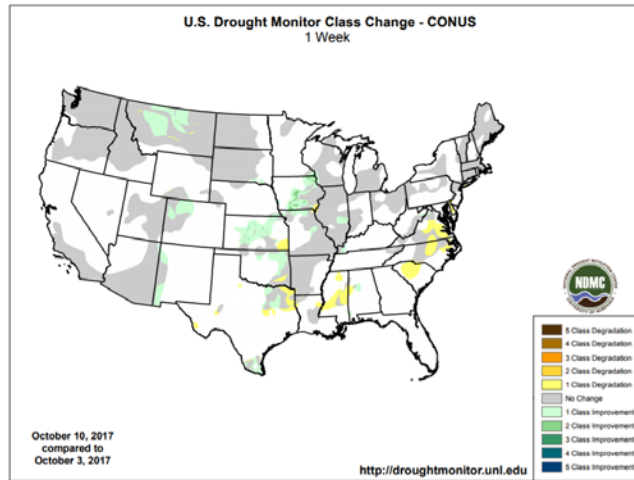
Author: Anthony Artusa, NOAA/NWS/NCEP/CPC

"At the beginning of the drought week, a cold front stretched from the Upper Mississippi Valley southwestward across the Central Plains and far southern Rockies. East and south of this front, daytime temperatures reached the 70's and 80's, with the exception of New England which topped out only in the 60's. During the ensuing 48 hours, the progressive northern portion of the cold front reached the New England coast, while the southern portion remained over the Central Plains. This area, from the Northeast across the Midwest to the south-central Great Plains, served as the focus for much of this week's precipitation. By Saturday, the southern portion of this frontal boundary made some eastward progress, apparently in response to an approaching 500-hPa shortwave trough. This overall setup was conducive to steering Hurricane Nate northward from the central Gulf of Mexico to the central Gulf Coast, where it made landfall as a category-1 hurricane near the mouth of the Mississippi River, on Saturday night. The remnants of Nate brought additional rainfall to the Appalachians and Atlantic Coast states on Sunday and Monday."

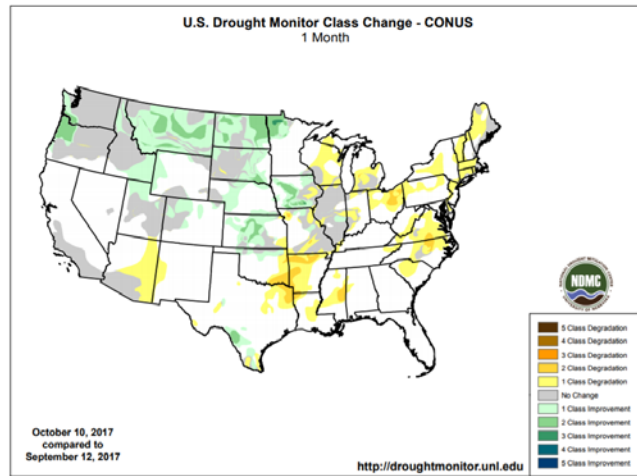


## Changes in Drought Monitor Categories over Time

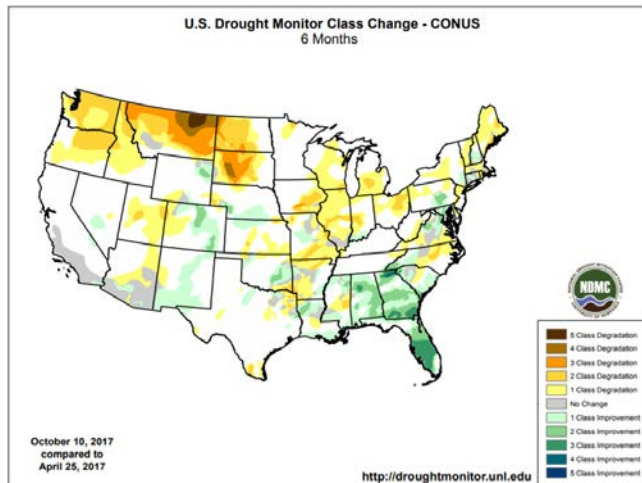
### 1 Week



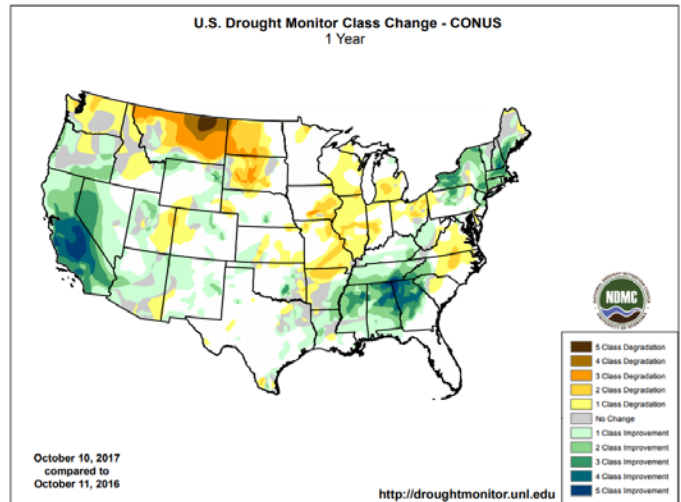
### 1 Month



### 6 Months



### 1 Year

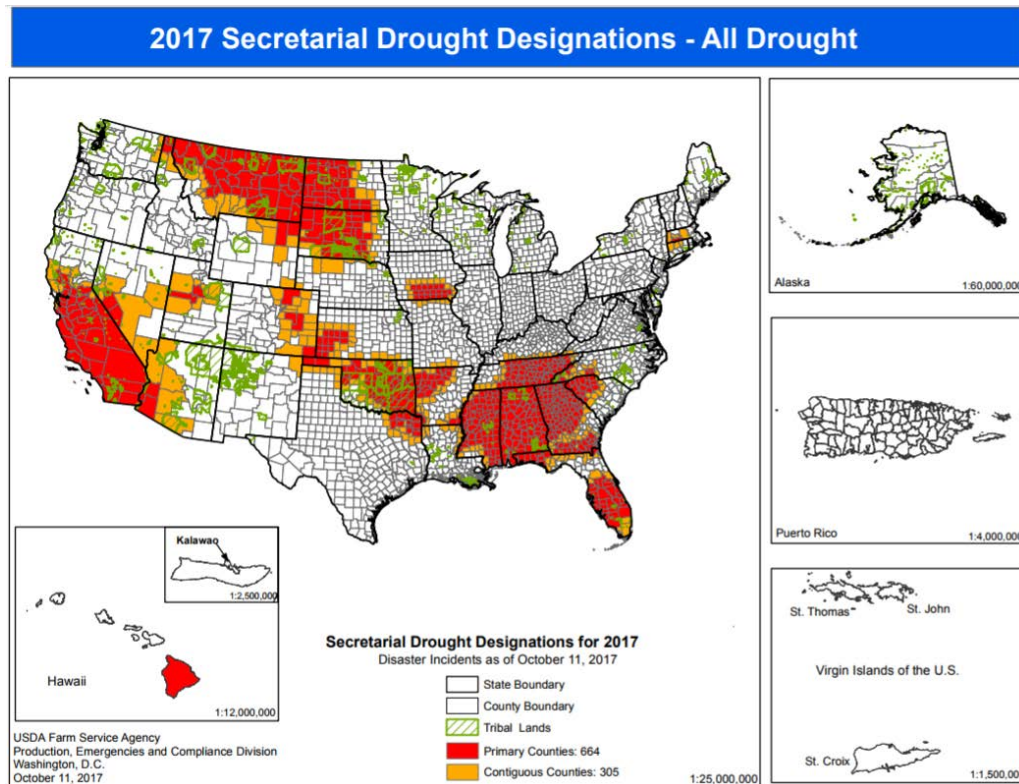


### Changes in drought conditions over the last 12 months

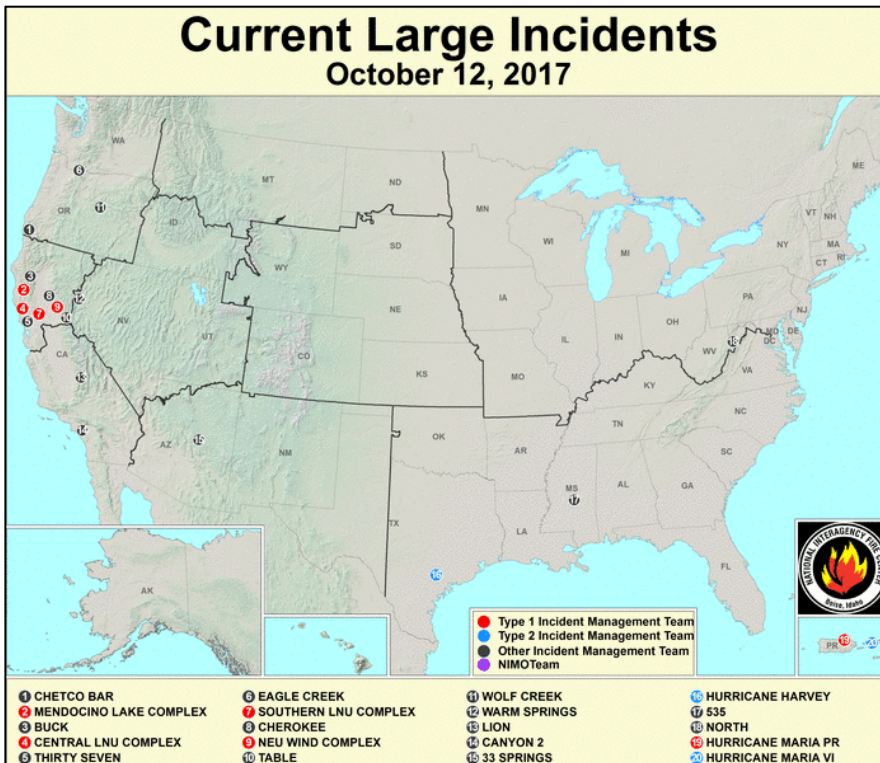
## Highlighted Drought Resources

- [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 2017 Secretarial [Drought Designations](#)



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

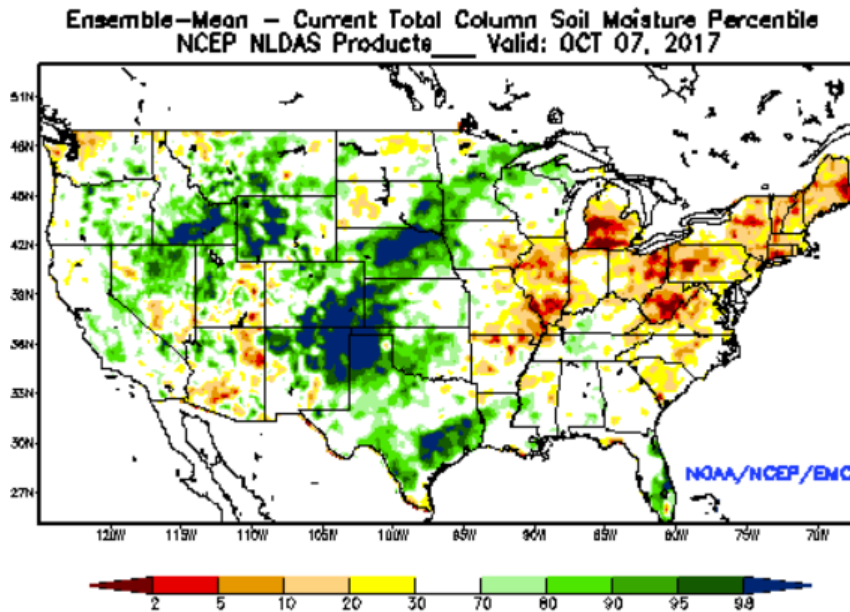


### Highlighted Wildfire Resources

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

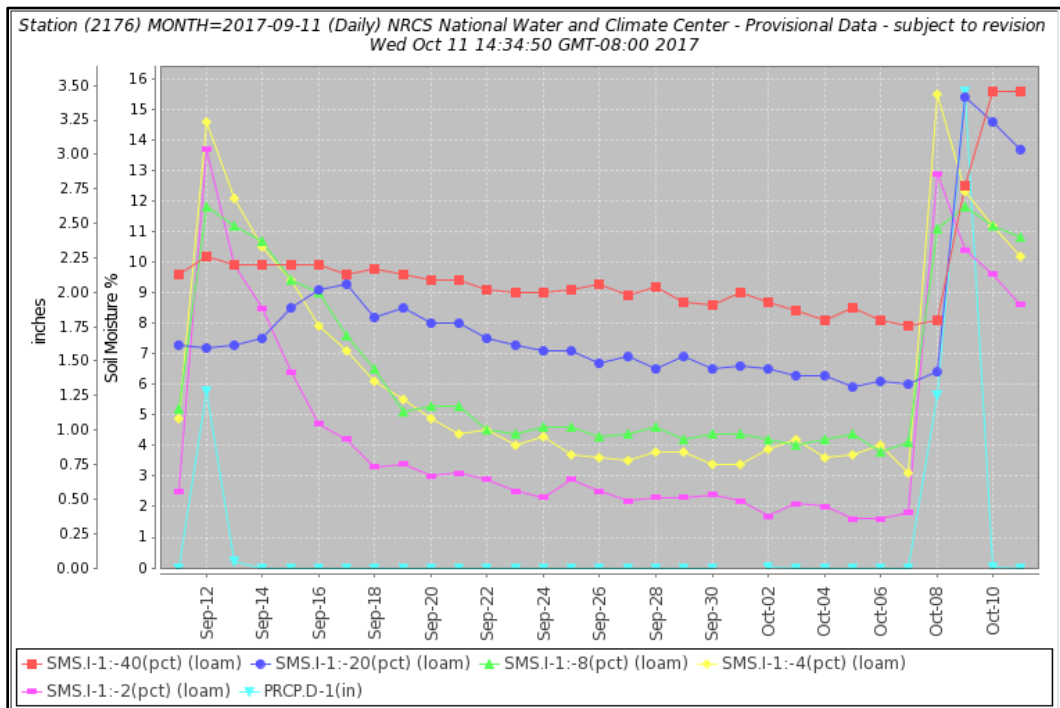
## Other Climatic and Water Supply Indicators

### Soil Moisture



[Modeled soil moisture percentiles](#) as of October 7, 2017.

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



The chart shows precipitation and soil moisture for the last 30 days at the [Selma SCAN site 2176](#) in Alabama. Precipitation over the last 30 days shows dry conditions since September 12, with a rapid drying at the 2-, 4-, and 8-inch sensor depths, and a slow and steady decline at the 20- and 40-inch depths. A recent storm of over 4 inches on October 8-9 caused all soil moisture sensors to rebound.



## Soil Moisture Data Portals

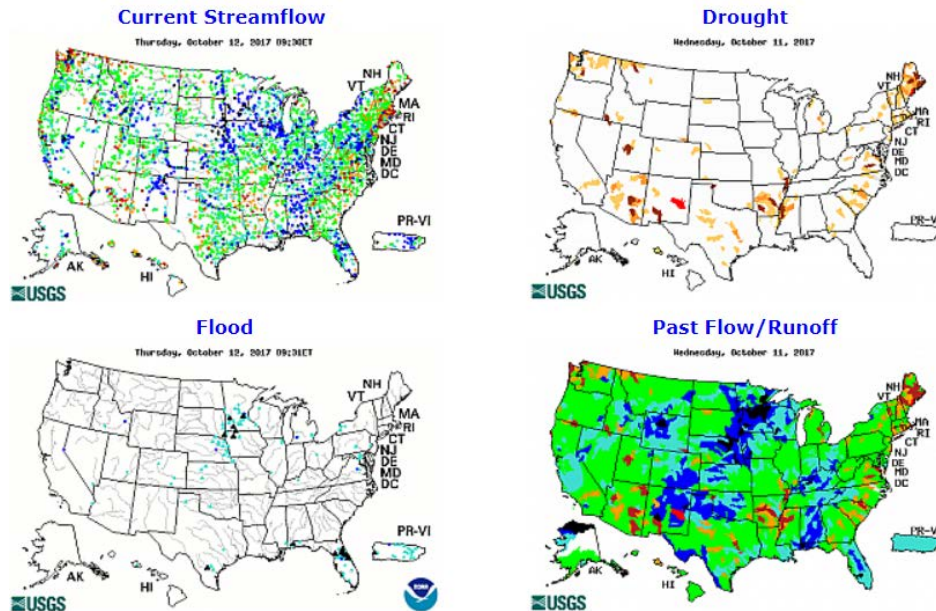
[CRN Soil Moisture](#)

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

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

## Streamflow

Source: USGS

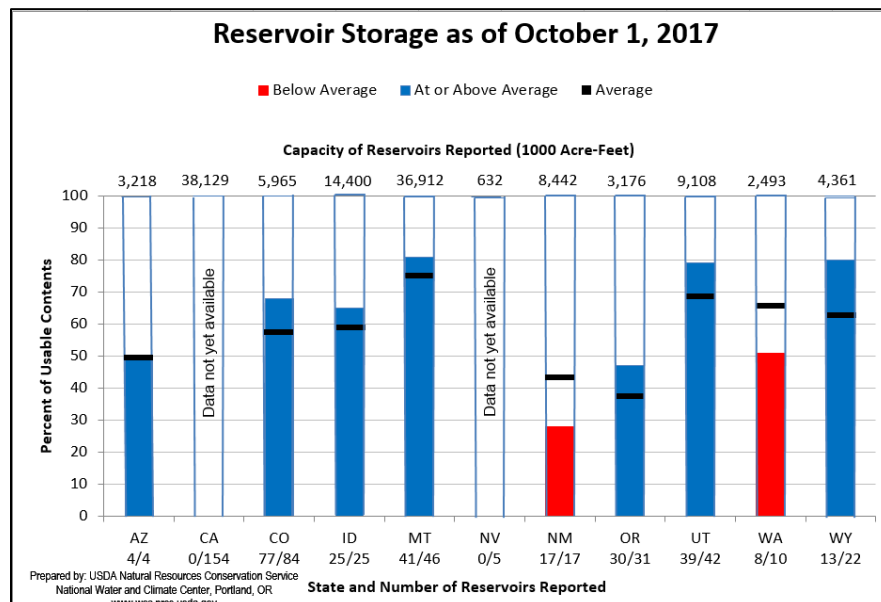


[Flood and high flow conditions interactive map](#)

## Reservoir Storage

### Western States Reservoir Storage

Source: NRCS National Water and Climate Center



October 1 Reservoir Storage: [Chart](#) | [Dataset](#)

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

[Upper Colorado](#)

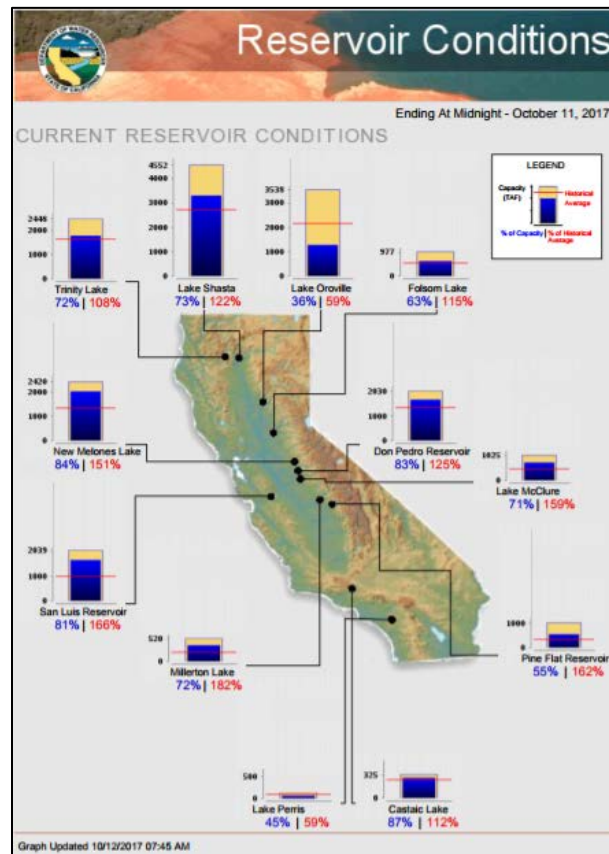
[Pacific Northwest/Snake/Columbia](#)

[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

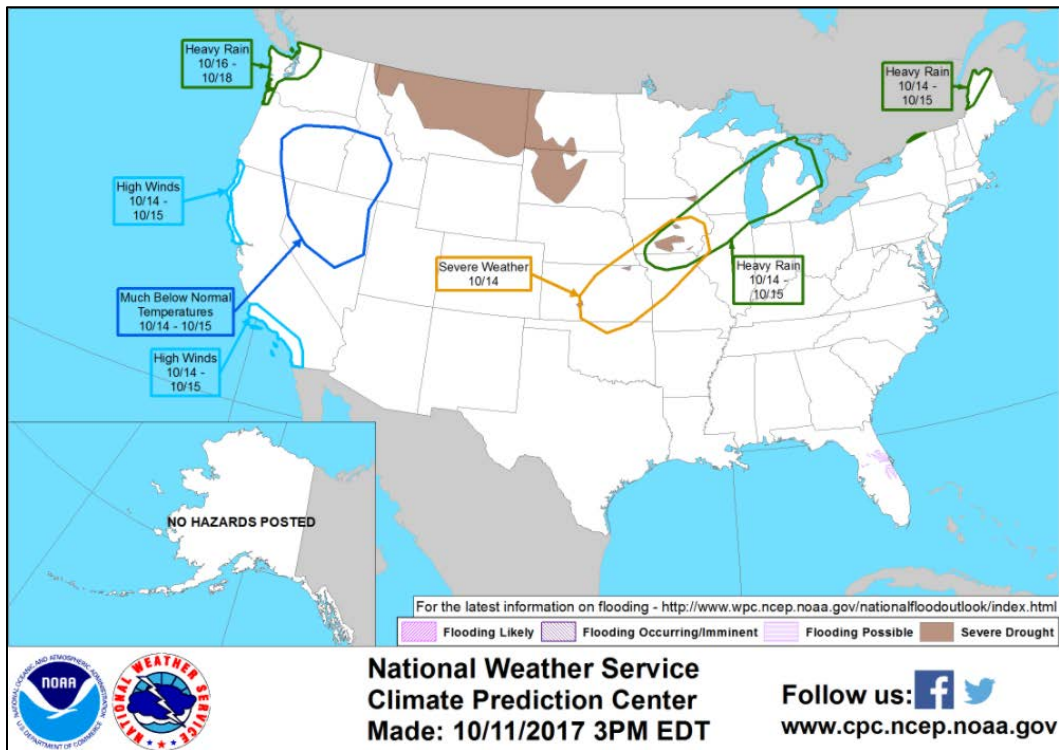
### Agricultural Weather Highlights

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

[National Outlook, Thursday, October 12, 2017](#): "Cool conditions across the nation's mid-section will be quickly replaced by warmer weather, as a new surge of cold air arrives in the West. By week's end, cool air will engulf nearly all areas from the Pacific Coast to the northern Plains. Early next week, temperatures will again flip, with sudden warmth in the West contrasting with a surge of cooler weather across the central and eastern U.S. Meanwhile, significant precipitation will be limited to a few areas, including the Northwest (locally 1 to 2 inches during the next 3 days) and the Midwest (as much as 1 to 4 inches during the weekend). However, mostly dry weather will prevail from California into the Southeast, except for locally heavy showers across southern Florida. The NWS 6- to 10-day outlook for October 16 – 20 calls for the likelihood of above-normal temperatures nationwide, except for cooler-than-normal conditions in the Northwest. Meanwhile, near- to below-normal precipitation across most of the country should contrast with wetter-than-normal weather in the Northwest, the upper Great Lakes region, and parts of the Southeast."

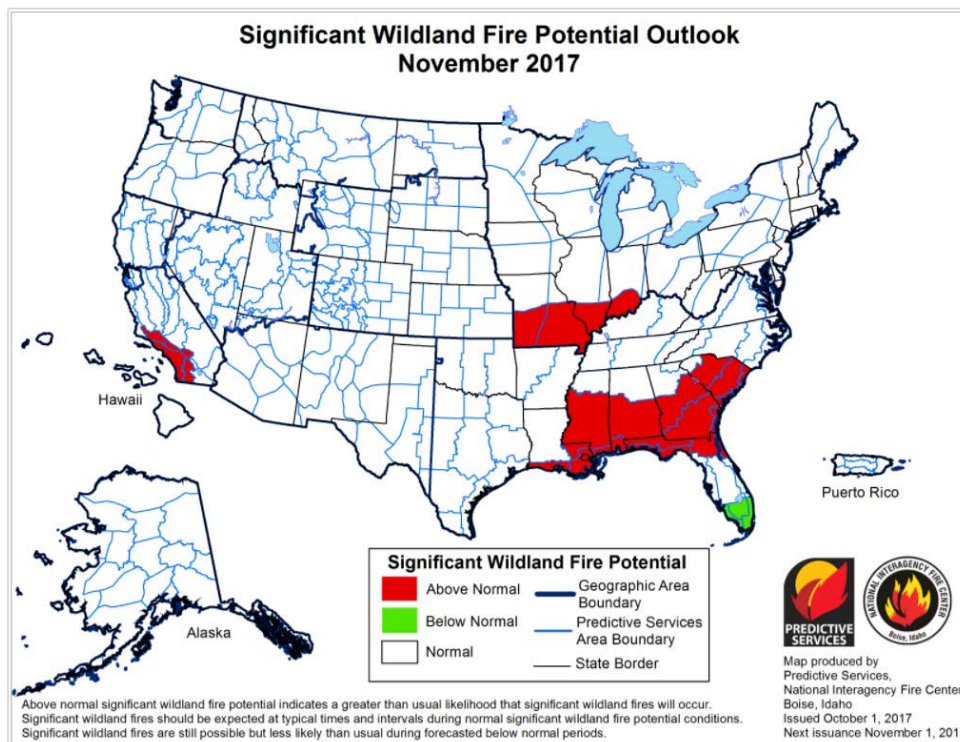
Weather Hazard Outlook [October 14 - 18, 2017](#)

Source: Climate Prediction Center



Significant Wildland [Fire Potential Outlook](#)

Source: National Interagency Fire Center

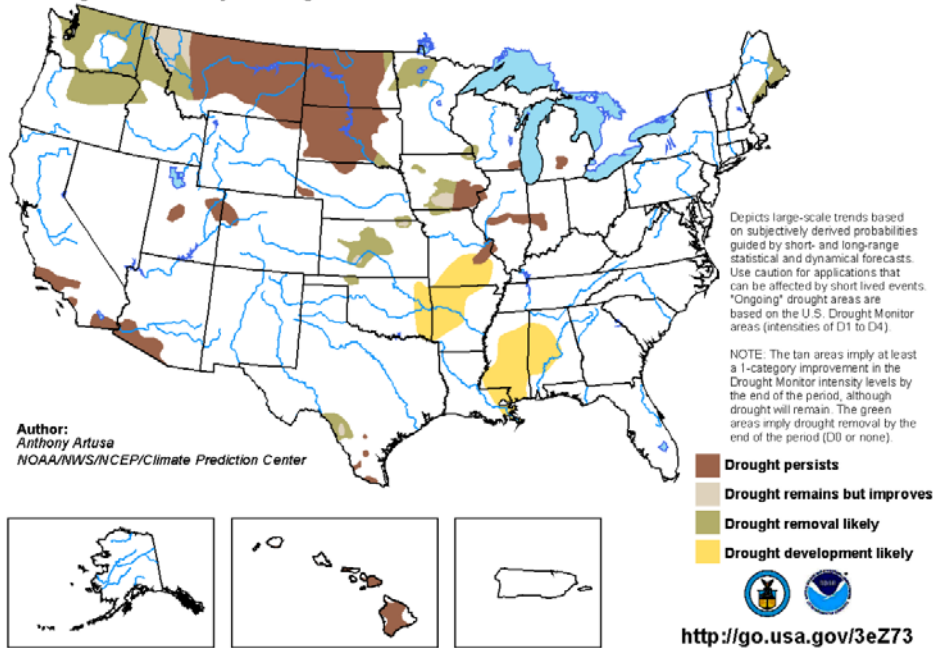




Seasonal Drought Outlook: [September 21 - December 31, 2017](#)

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

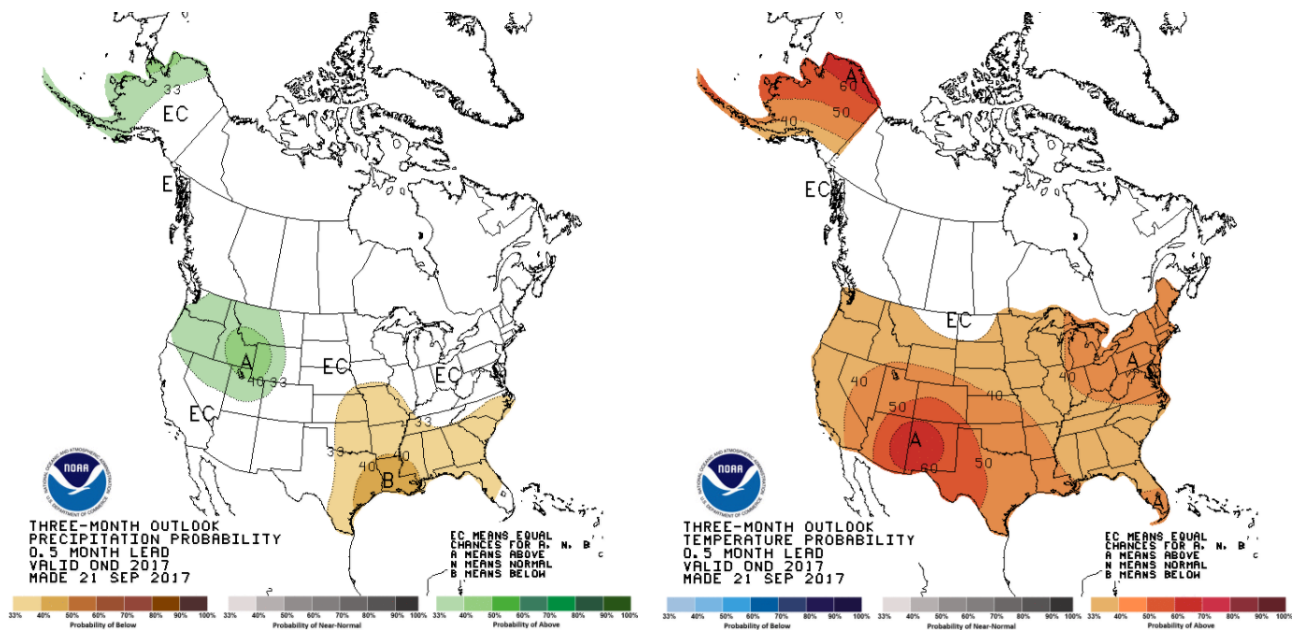


Climate Prediction Center 3-Month Outlook

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](#).