



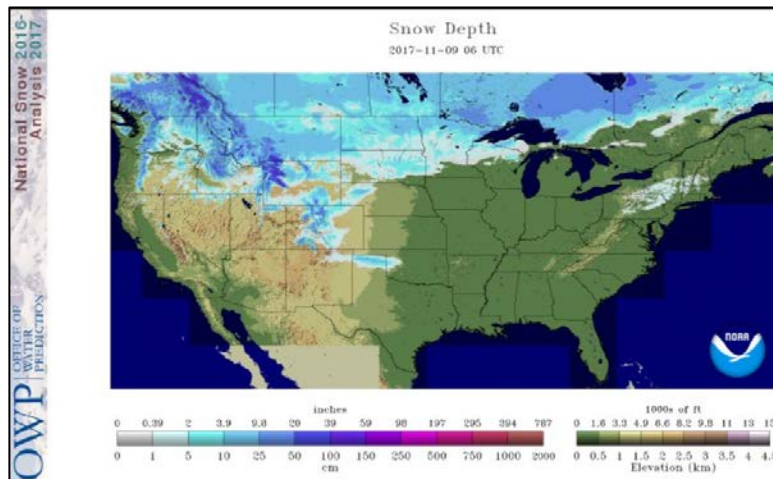
## Water and Climate Update

November 9, 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.

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### Snow covers one-quarter of contiguous U.S.



As of November 8, almost 26% of the contiguous U.S. had snow on the ground, according to an analysis from NOAA's [National Operational Hydrologic Remote Sensing Center](#) (NOHRSC).

This is the most expansive November 8 snow cover in the lower 48 in NOHRSC's 15-year analysis, topping the 21% coverage recorded on November 8, 2011.

The first week of November also produced one of the earliest snowfalls on record for the Seattle area. According to the [National Weather Service](#), the snowfall measured in Seattle on November 4 was the third earliest snow event on record, and the earliest such event since 1975.

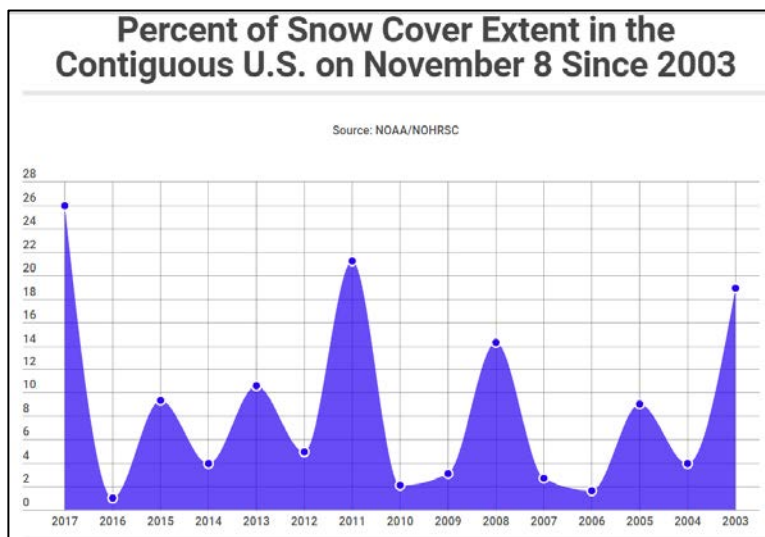
#### Related:

[Early November Snow Cover in North America the Highest in Over a Decade](#)

[More snow coming to Cascades this week](#)

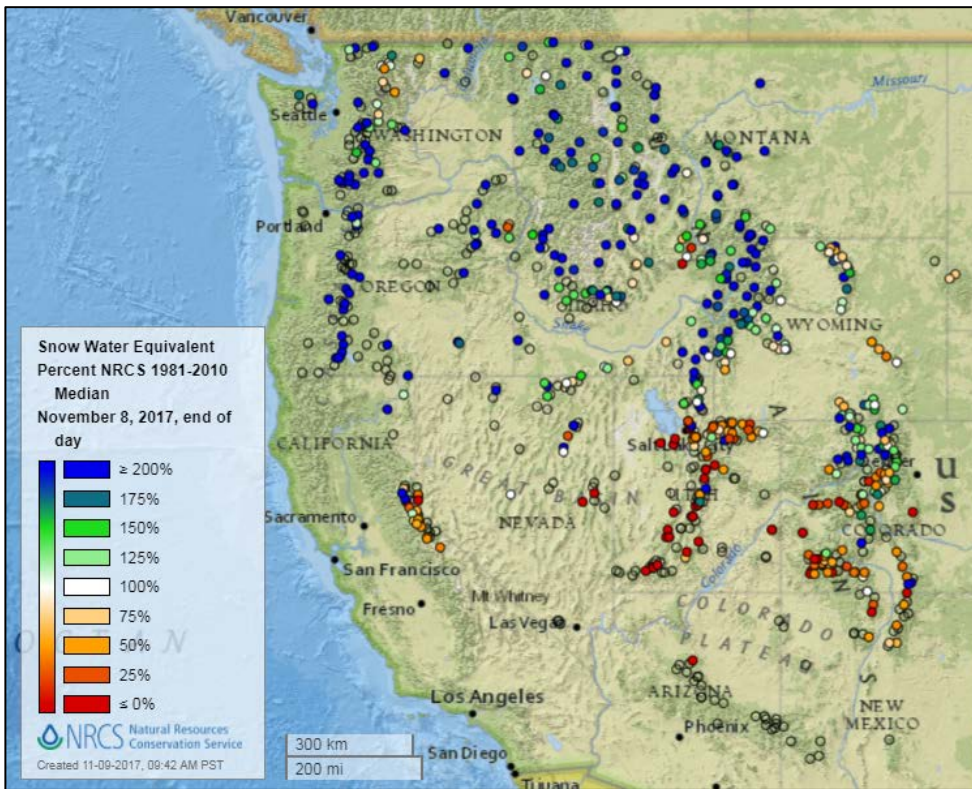
[Early snow storms prompts ski resorts to open early for season](#)

[It's Already Snowed in Seattle; Is the Pacific Northwest Poised For Another Cold, Snowy Winter?](#)



## Snow

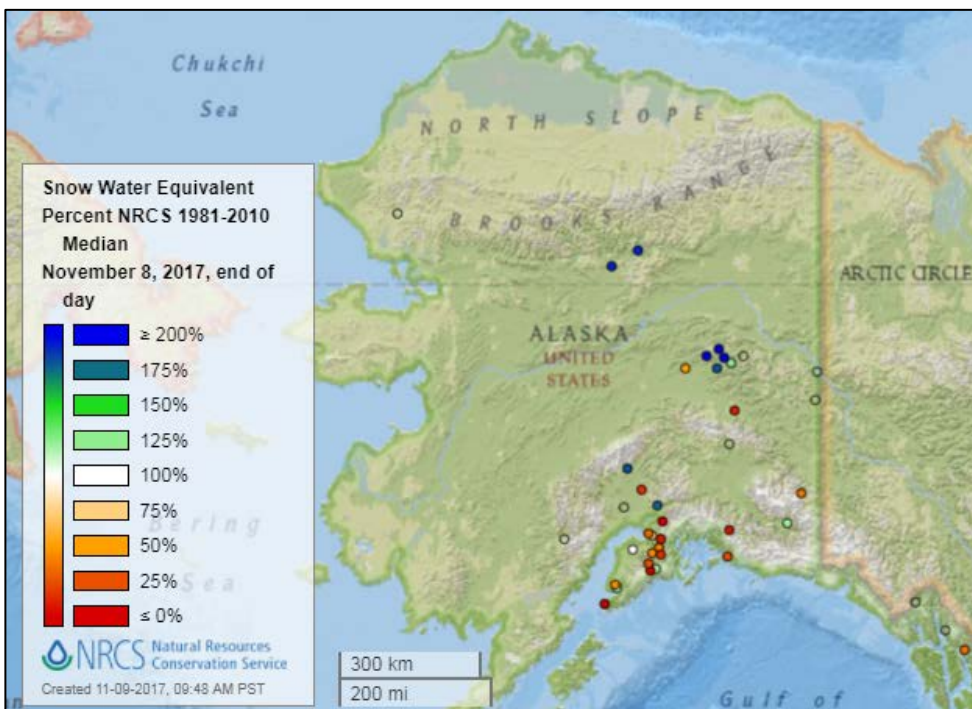
### Current Snow Water Equivalent, NRCS SNOTEL Network



[Snow water equivalent percent of median map](#)

See also:

[Snow water equivalent values \(inches\) map](#)



[Alaska snow water equivalent percent of median map](#)

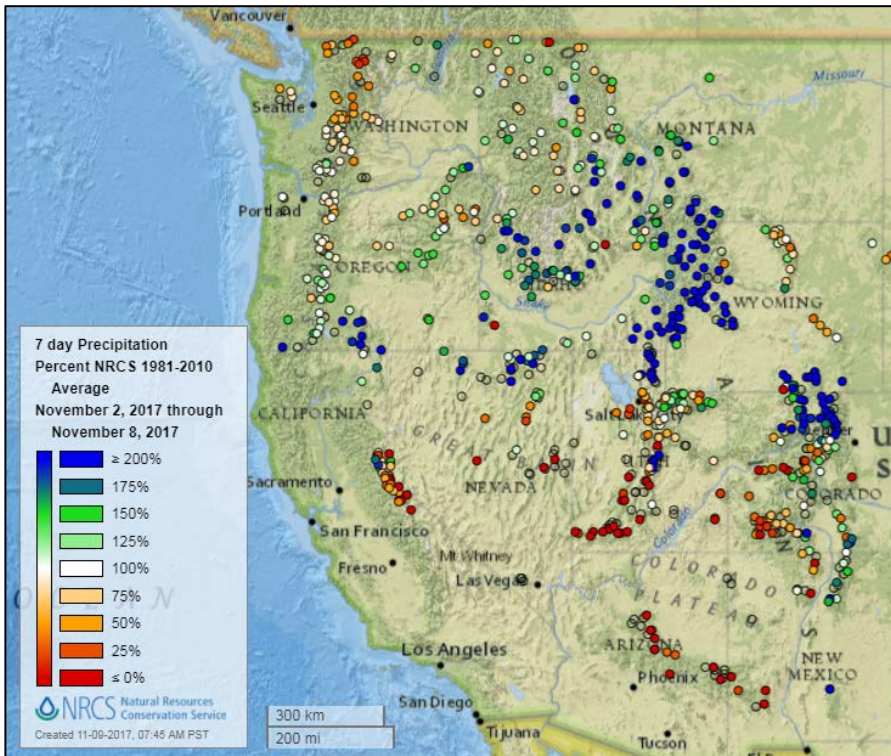
See also:

[Alaska snow water equivalent values \(inches\) map](#)



## Precipitation

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



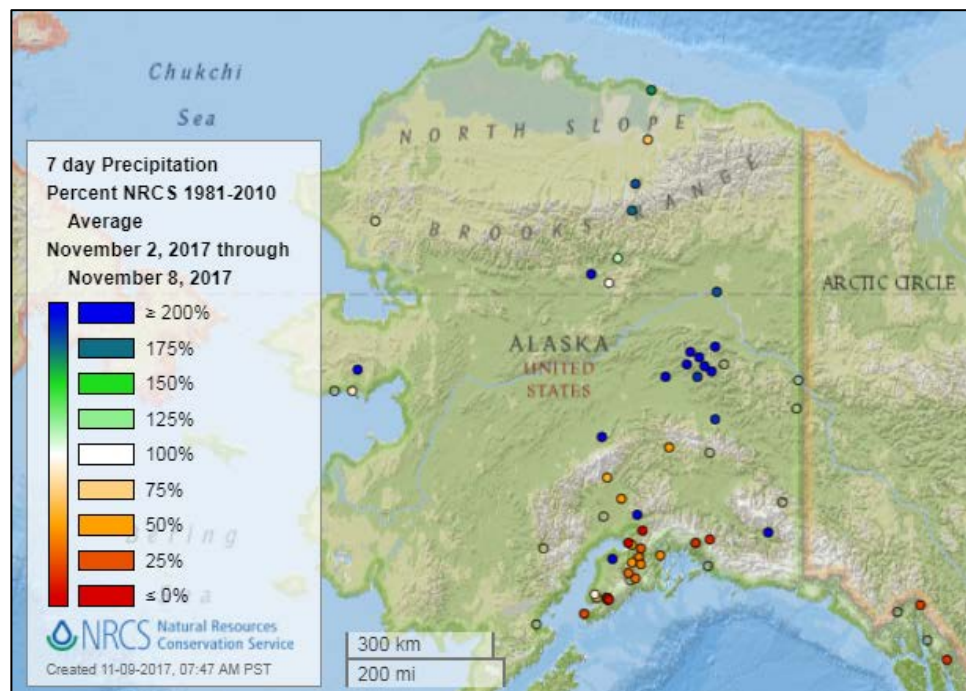
[7-day precipitation percent of average map](#)

**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](#)

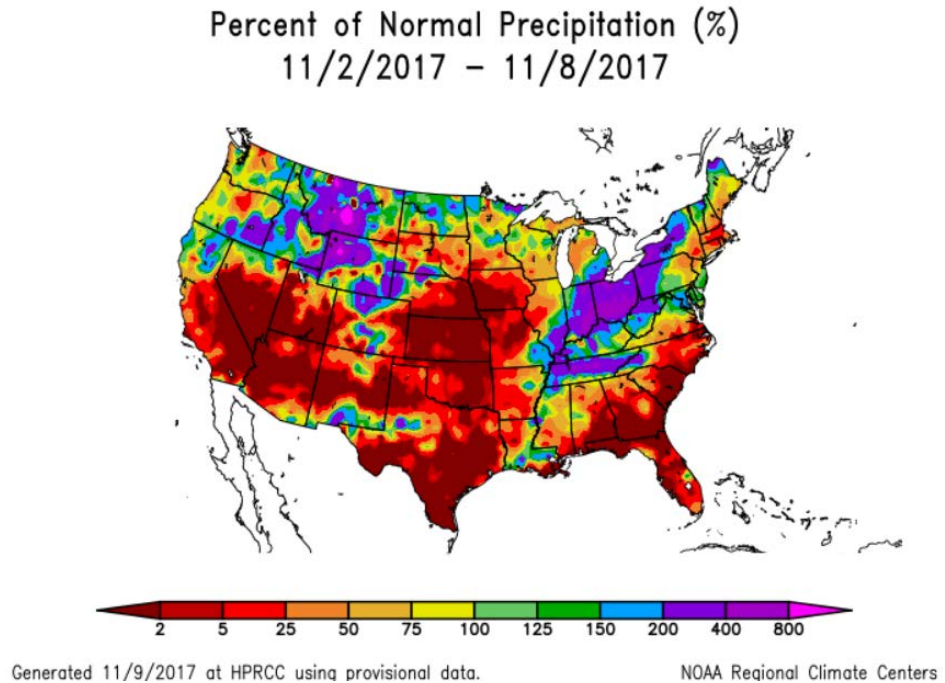


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

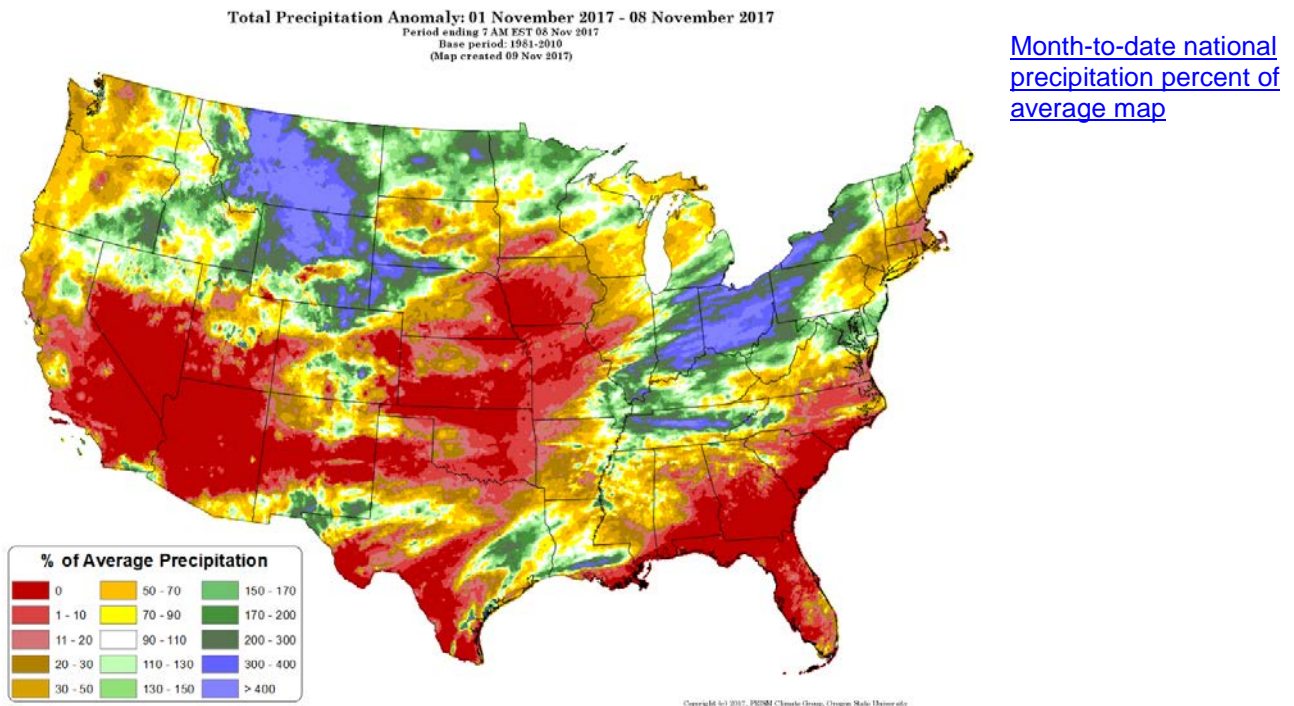
[7-day precipitation percent of normal map](#) for the continental U.S.

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



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

Source: PRISM

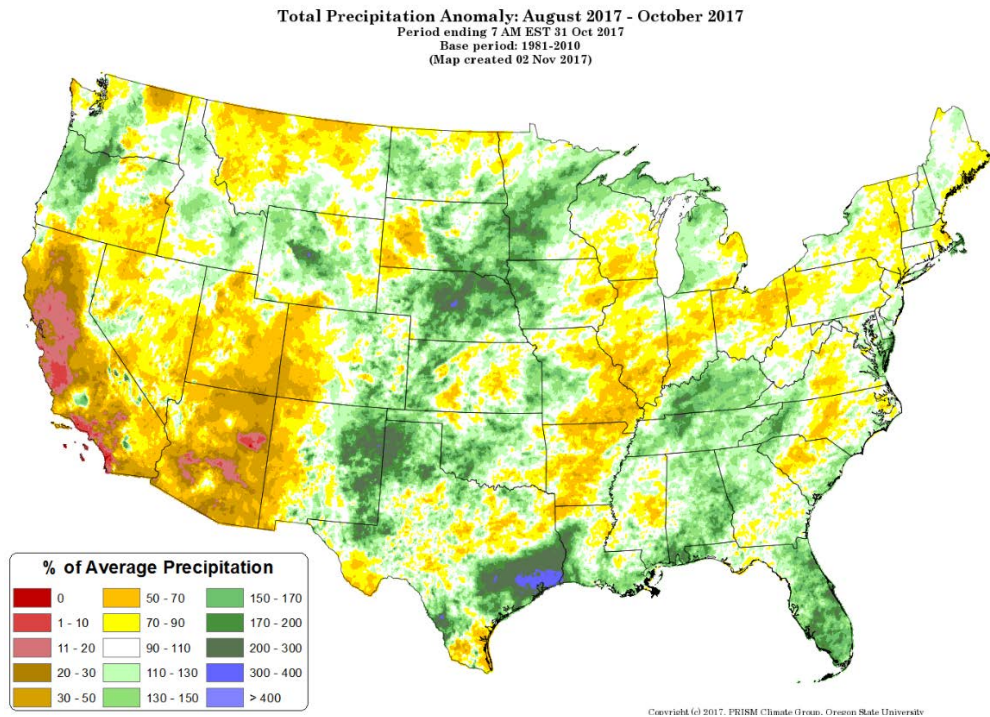




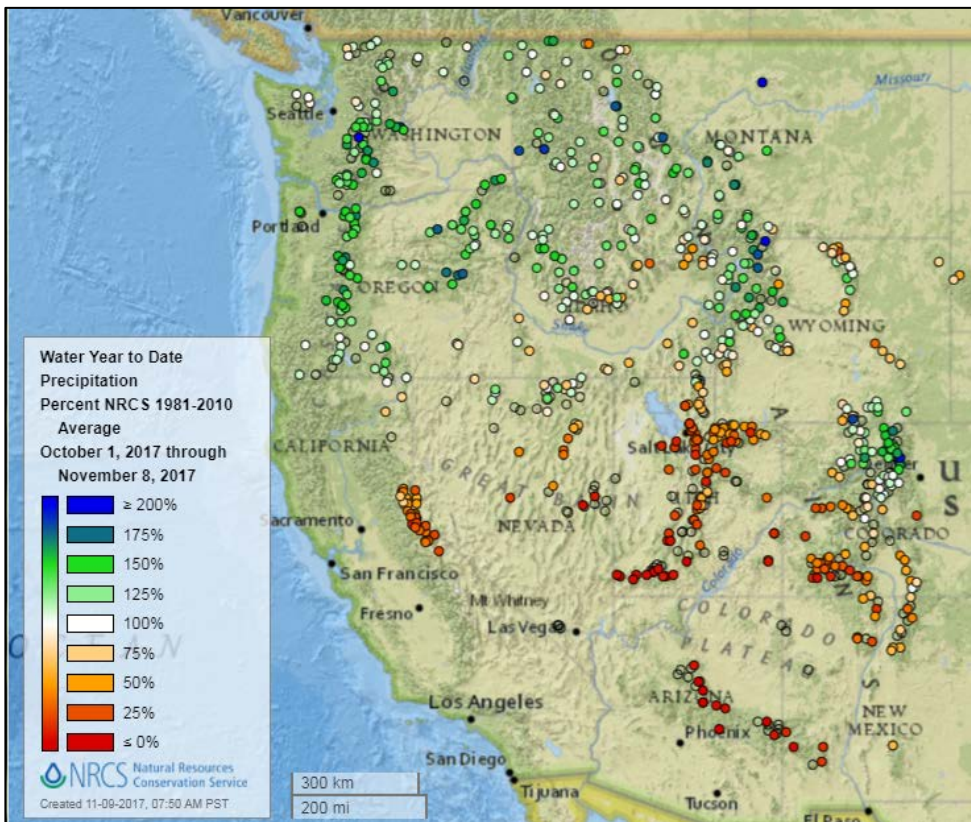
## Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

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



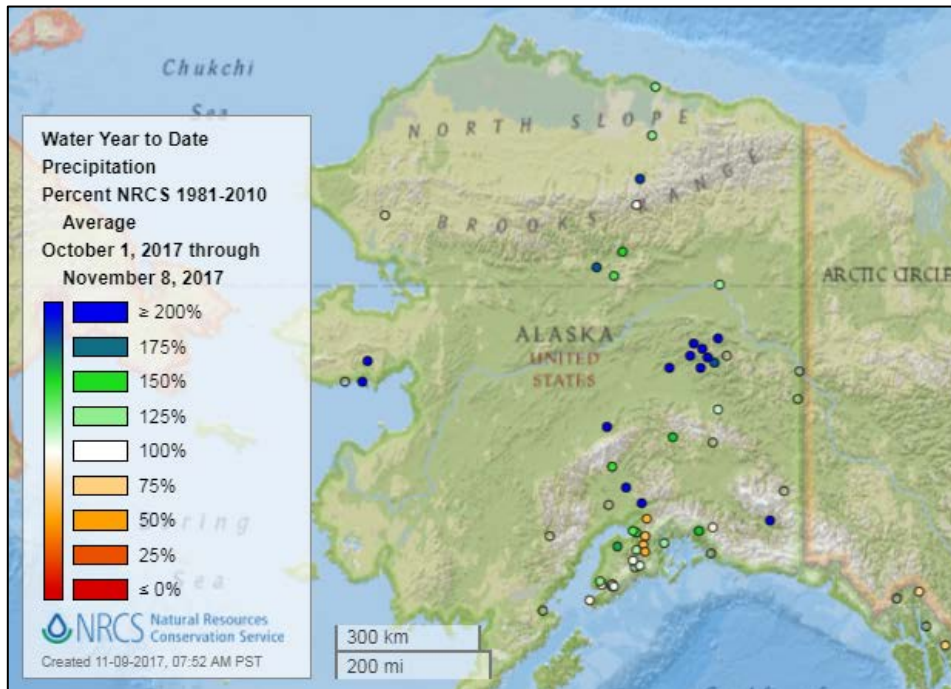
## Water Year-to-Date, Western Mountain Sites (NRCS SNOTEL Network)



[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

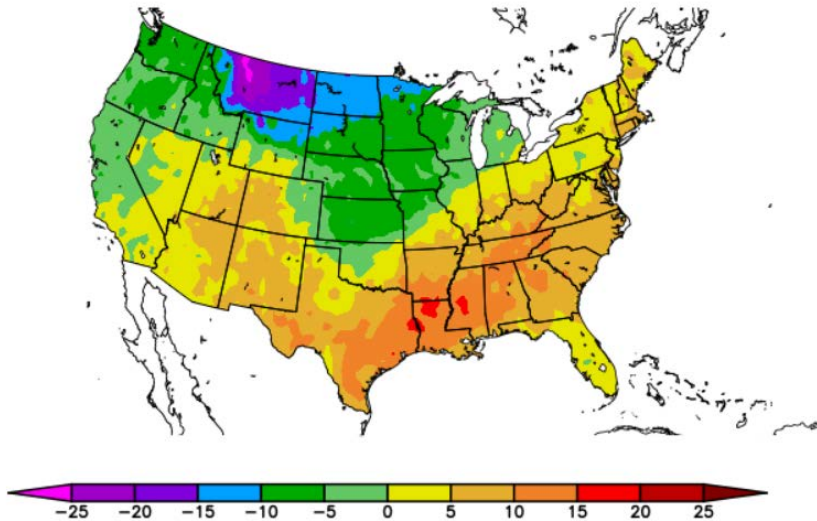
### Last 7 Days, National Weather Service (NWS) Networks

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) 11/2/2017 – 11/8/2017



Generated 11/9/2017 at HPRCC using provisional data.

NOAA Regional Climate Centers

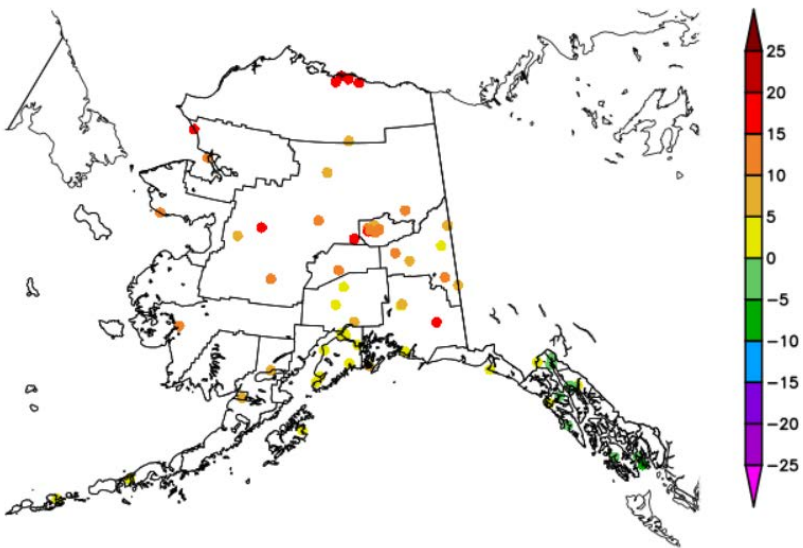
### Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

#### Departure from Normal Temperature (F) 11/2/2017 – 11/8/2017



Generated 11/9/2017 at HPRCC using provisional data.

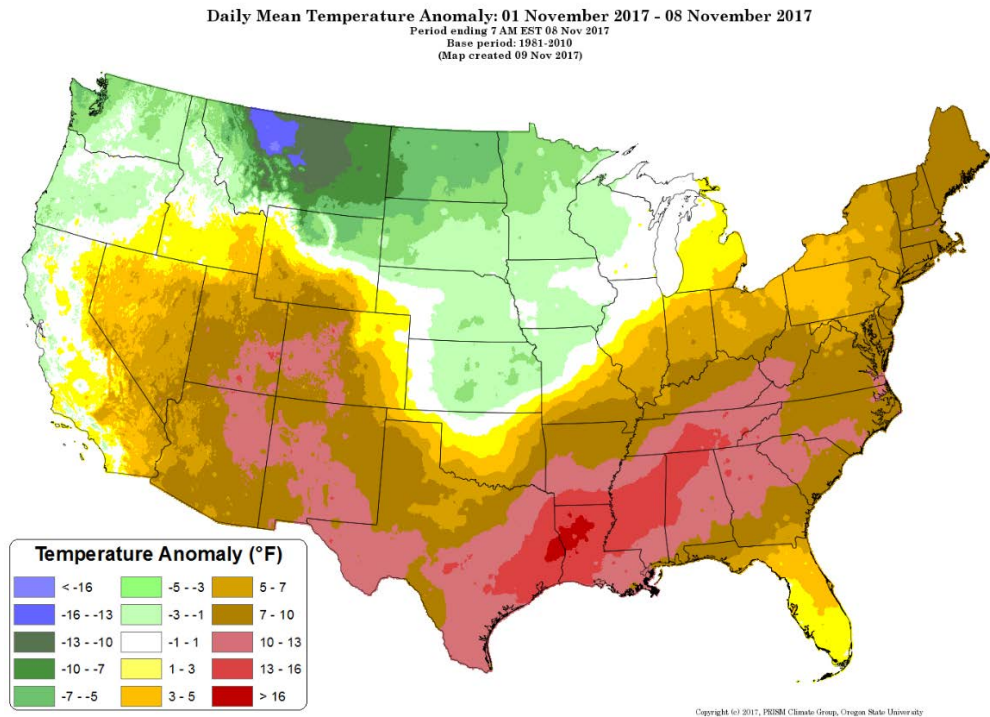
NOAA Regional Climate Centers



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

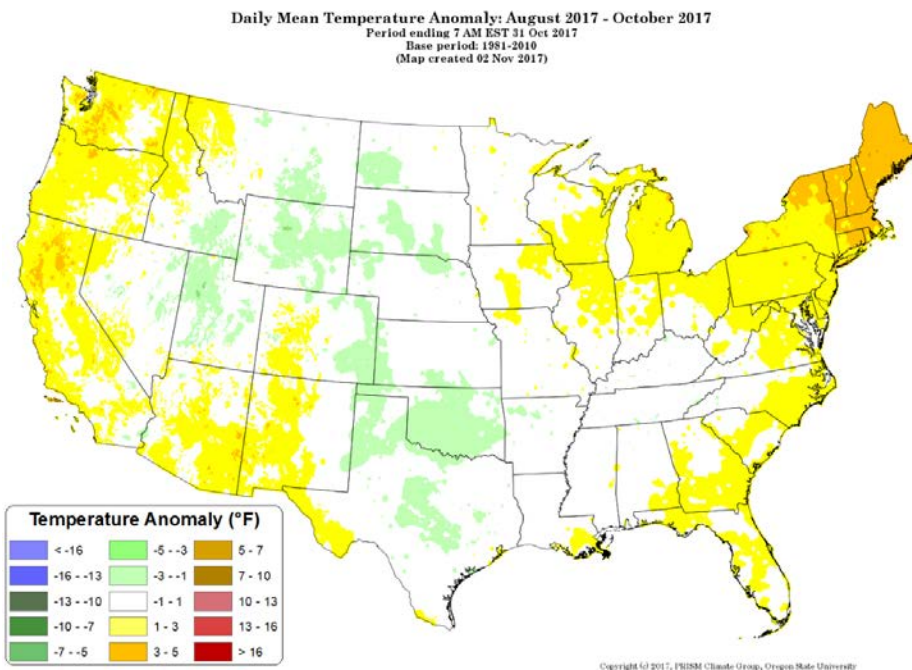
Source: PRISM

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



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

Source: PRISM



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

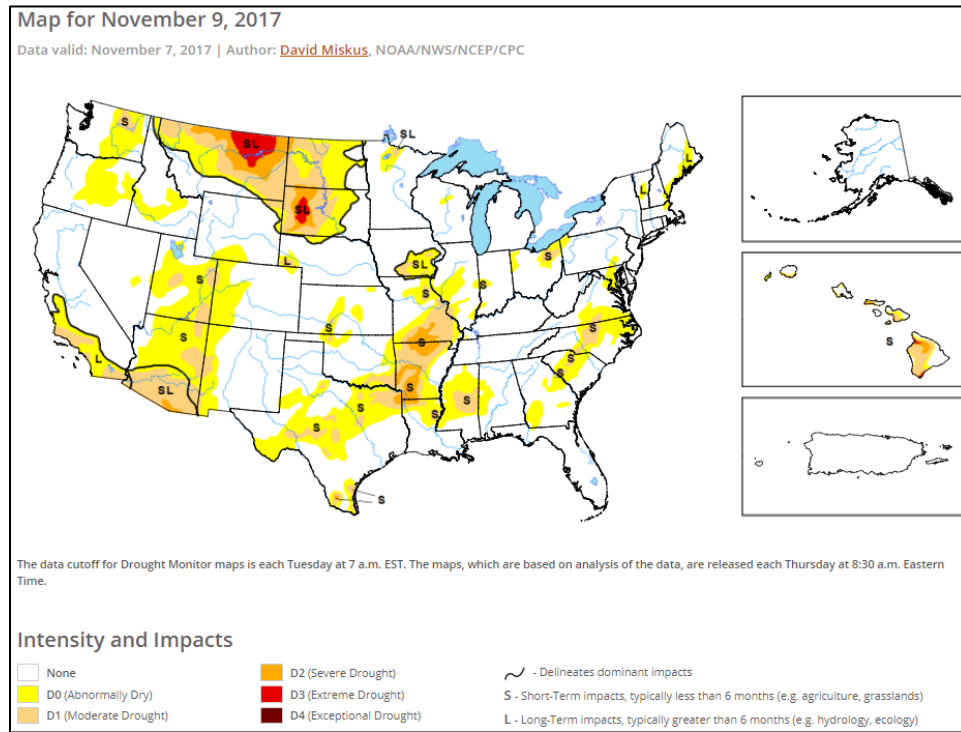


## Drought

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

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

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.



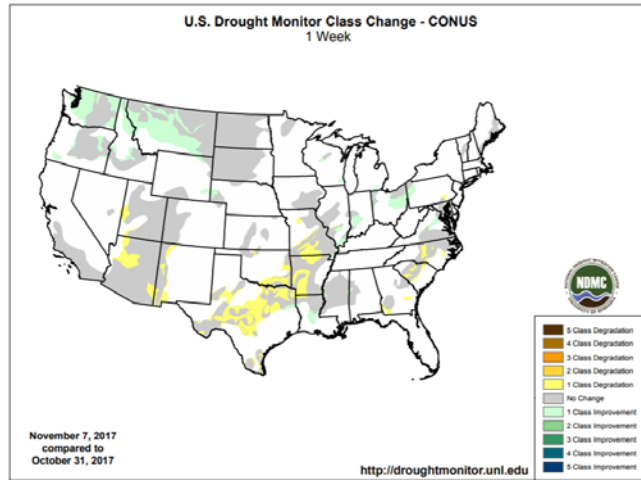
### Current [National Drought Summary](#), November 7, 2017

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

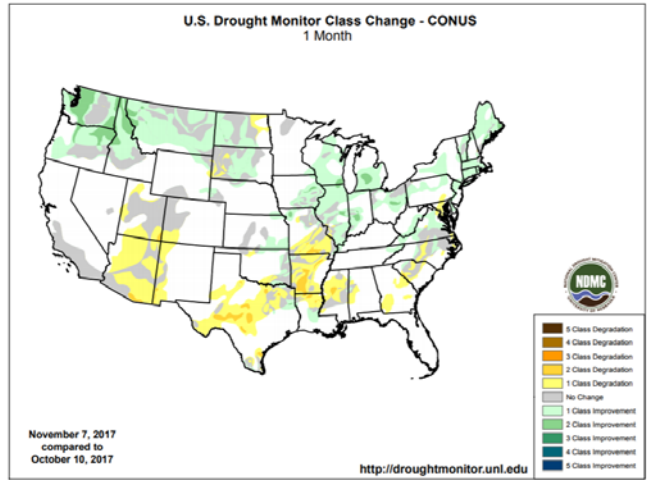
“A vigorous Pacific storm system and a series of low pressure centers traversing along a semi-stationary front in the eastern half of the Nation brought moderate to heavy precipitation to portions of the Northwest, the Ohio and Tennessee Valleys and eastern Great Lakes region, and parts of the lower Mississippi Valley and west-central Gulf Coast. With subnormal temperatures present, heavy snows fell on higher-elevations of the Cascades, northern Sierra Nevada, and northern and central Rockies, producing an early Water Year to Date (WYTD; Oct. 1-Nov. 7) basin average snow water content (SWC) much above normal across the northern half of the West, along with above-normal basin average precipitation. Unfortunately, the WYTD basin average SWC and precipitation values were below to much below-normal across the southern third of the West. In the East, strong upper-air energy and low-level moisture produced widespread showers and thunderstorms, including some that were severe, in the Ohio Valley. In contrast, little or no precipitation fell on Southwest, southern Rockies, much of the Plains, western Corn Belt, the Southeast, and along coastal New England. Temperatures averaged below normal in the Pacific Northwest, northern Rockies, northern half of the Plains, upper Midwest, and Florida while above-normal readings occurred across the Southwest, southern Plains, Southeast, Ohio Valley, East Coast, and Alaska. Drier weather returned to both Alaska and Hawaii after several weeks of ample precipitation while light to moderate showers fell across Puerto Rico.”

## Changes in Drought Monitor Categories over Time

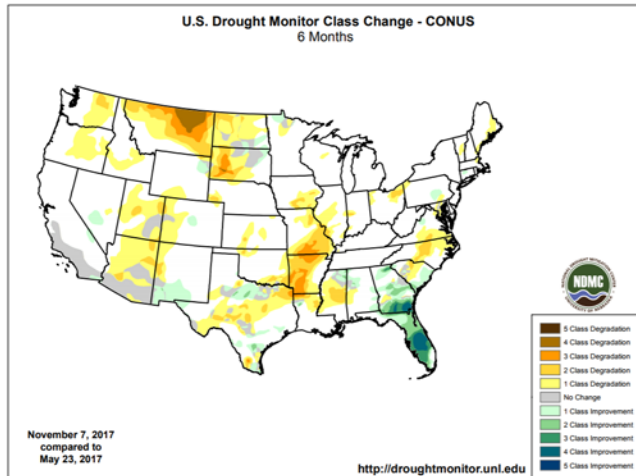
### 1 Week



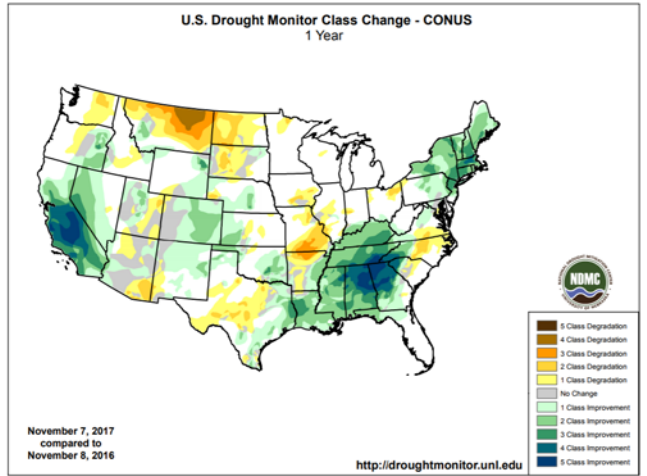
### 1 Month



### 6 Months



### 1 Year



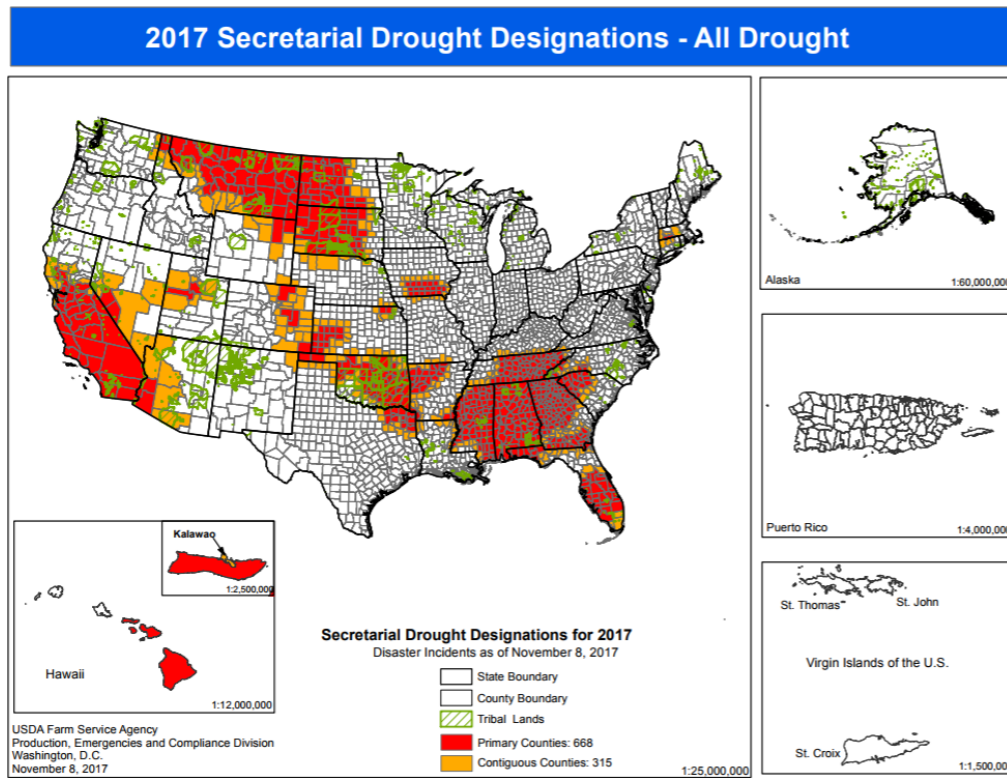
### Changes in drought conditions over the last 12 months

## 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](#)

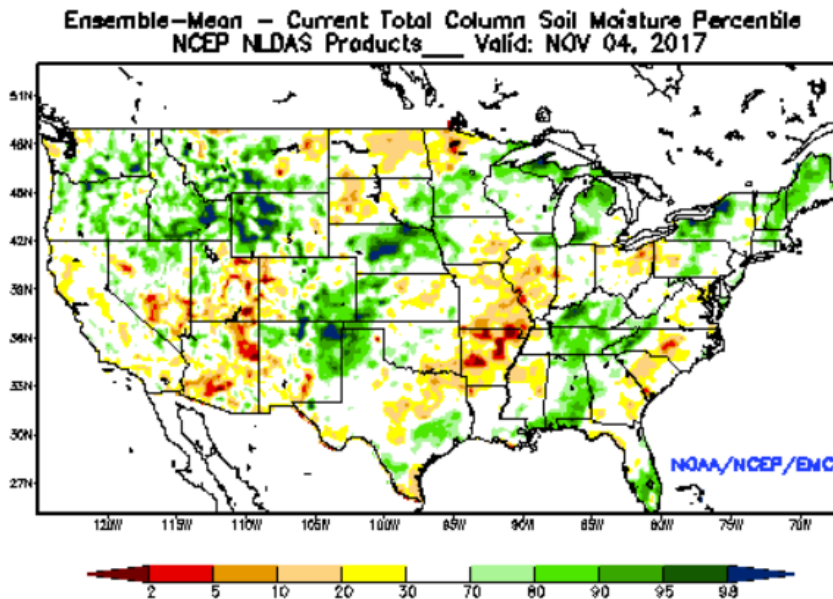


USDA 2017 Secretarial [Drought Designations](#)



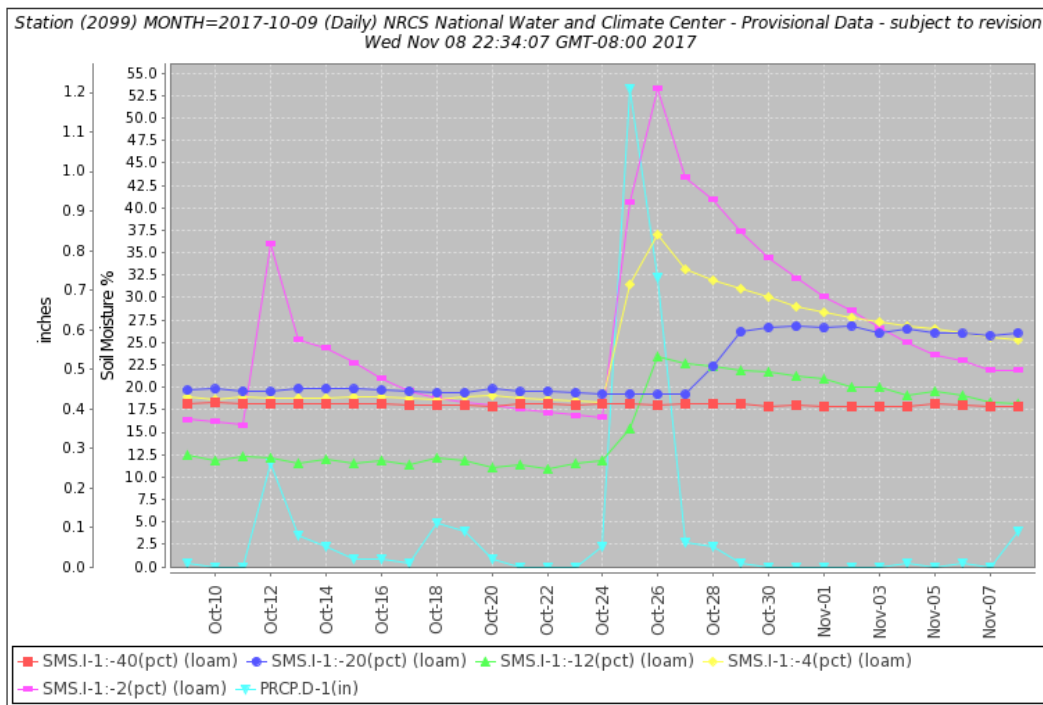
## Other Climatic and Water Supply Indicators

### Soil Moisture



[Modeled soil moisture percentiles](#) as of November 4, 2017.

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



The chart shows precipitation and soil moisture for the last 30 days at the [Waimea Plain SCAN site 2099 in Hawaii](#). Recent precipitation from rain on October 24-28 increased soil moisture at the 2-, 4-, and 8-inch depth sensors, with a slightly delayed response at the 20-inch sensor. The 40-inch sensor did not respond to the event.



## Soil Moisture Data Portals

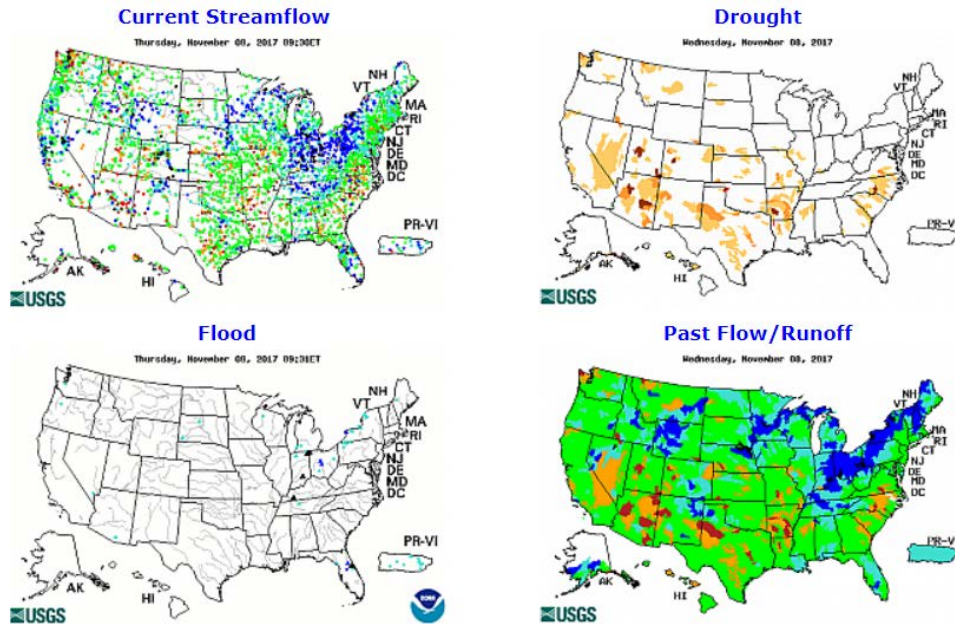
[CRN Soil Moisture](#)

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

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

## Streamflow

Source: USGS

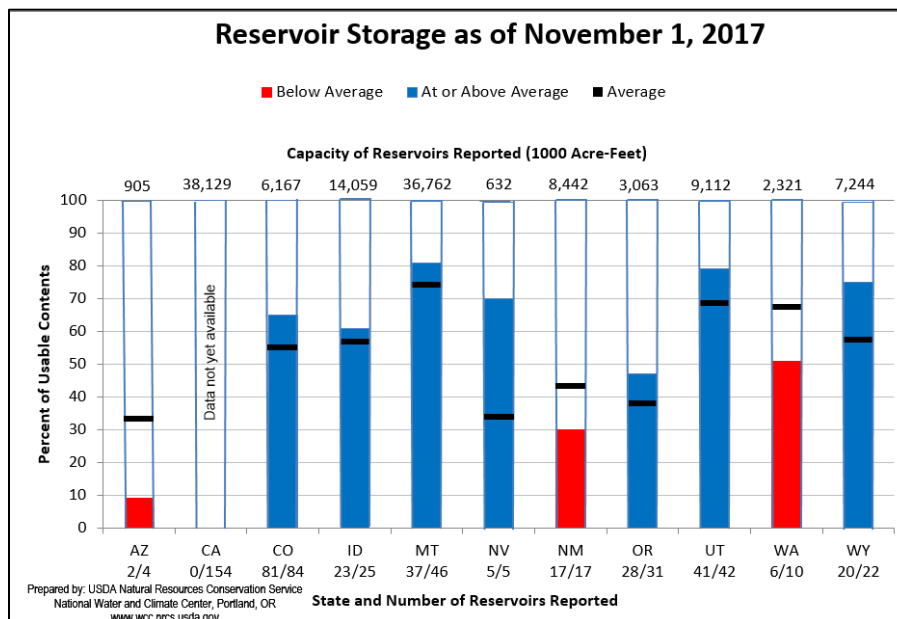


[WaterWatch: Streamflow, drought, flood, and runoff conditions](#)

## Reservoir Storage

### Western States Reservoir Storage

Source: NRCS National Water and Climate Center



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

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

[Upper Colorado](#)

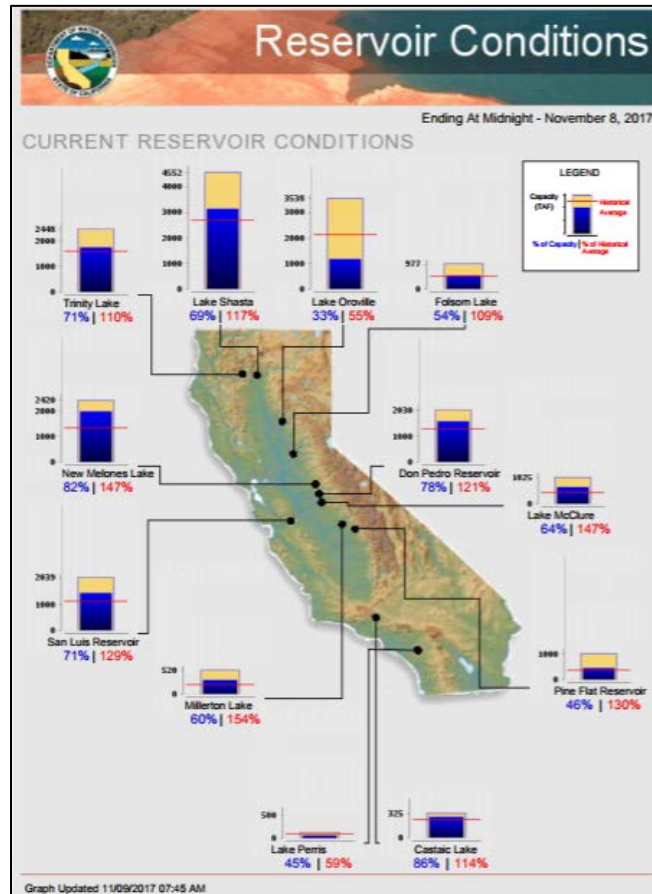
[Pacific Northwest/Snake/Columbia](#)

[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

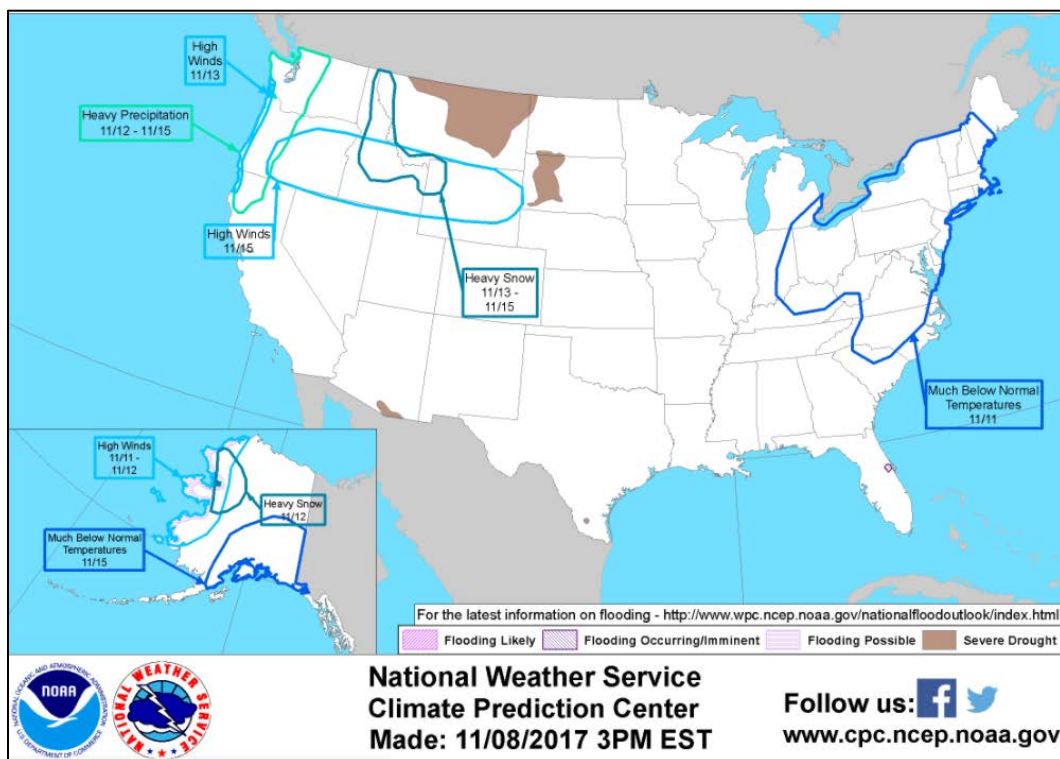
### Agricultural Weather Highlights

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

[National Outlook, Wednesday, November 8, 2017](#): “Cold air will remain in place across much of the central and eastern U.S. during the next few days. In fact, a strong, secondary surge of cold air will reach the Great Lakes and Northeastern States late in the week, preceded and accompanied by rain and snow showers. Late in the week, however, above-normal temperatures will return across the central and southern High Plains. In addition, much of the West will experience an extended period of late-season warmth. During the next 5 days, heavy precipitation will be confined to the Northwest, where some locations west of the Cascades could receive 2 to 8 inches. Precipitation will also spread into northern California, starting later today. Elsewhere, rain across the Deep South should end by Thursday. The NWS 6- to 10- day outlook for November 13 – 17 calls for the likelihood of near- to above-normal temperatures nationwide, except for cooler-than-normal conditions in northern California and the Pacific Northwest. Meanwhile, near- to below normal precipitation across most of the country should contrast with wetter-than-normal weather in the upper Great Lakes region, the northern Atlantic Coast States, and the Northwest.”

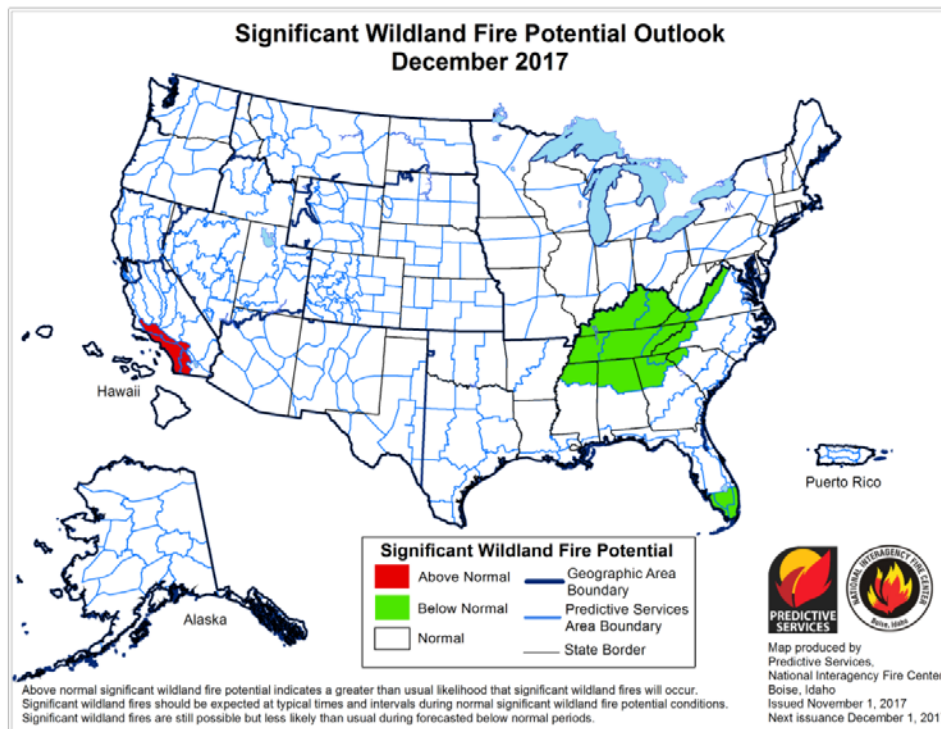
### Weather Hazard Outlook [November 11 – 15, 2017](#)

Source: Climate Prediction Center

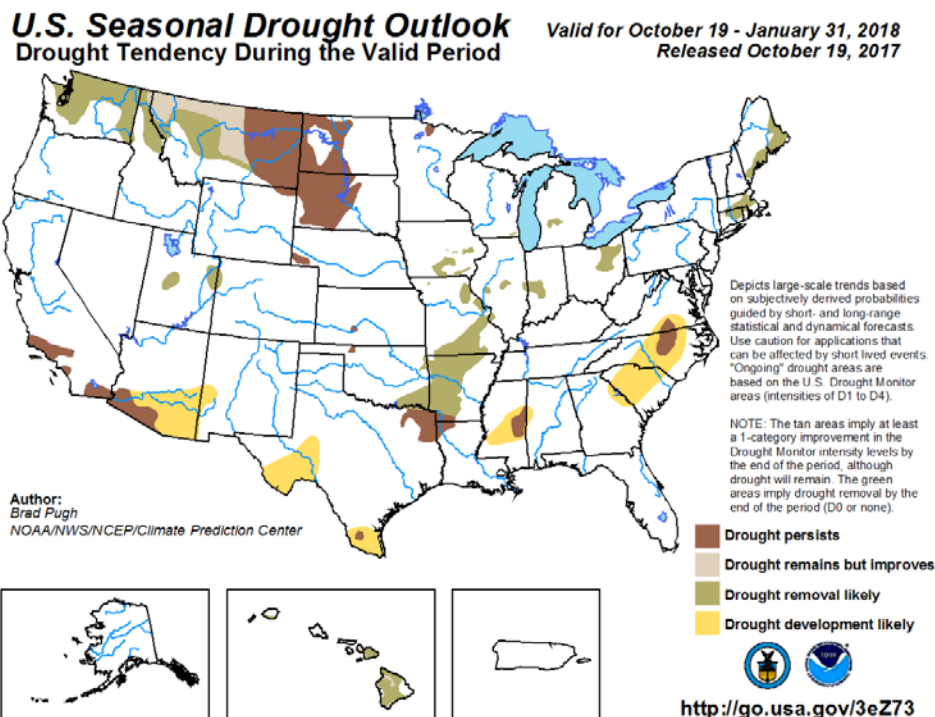


Significant Wildland [Fire Potential Outlook](#)

Source: National Interagency Fire Center



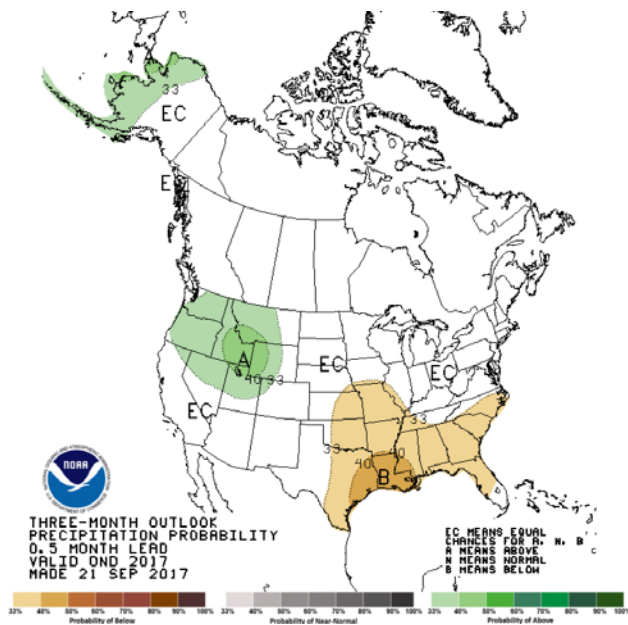
Seasonal Drought Outlook: [October 19, 2017 - January 31, 2018](#) Source: National Weather Service



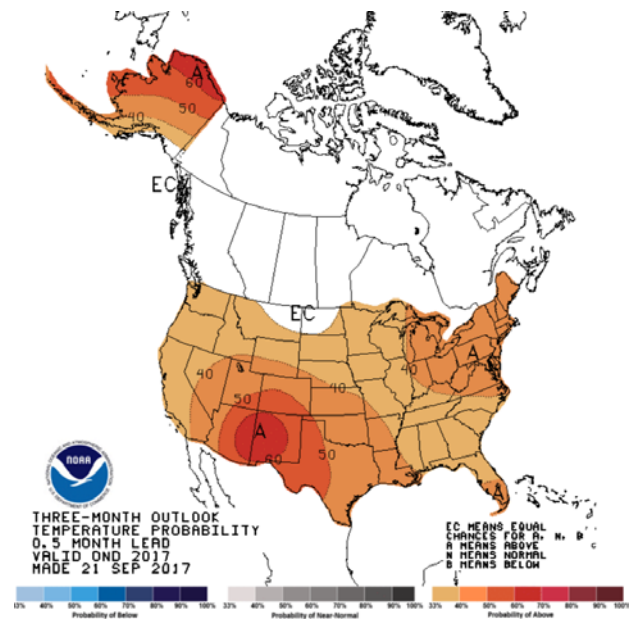
## Climate Prediction Center 3-Month Outlook

Source: National Weather Service

### Precipitation



### Temperature



[Nov-Dec-Jan \(NDJ\) 2017-2018 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](#).