

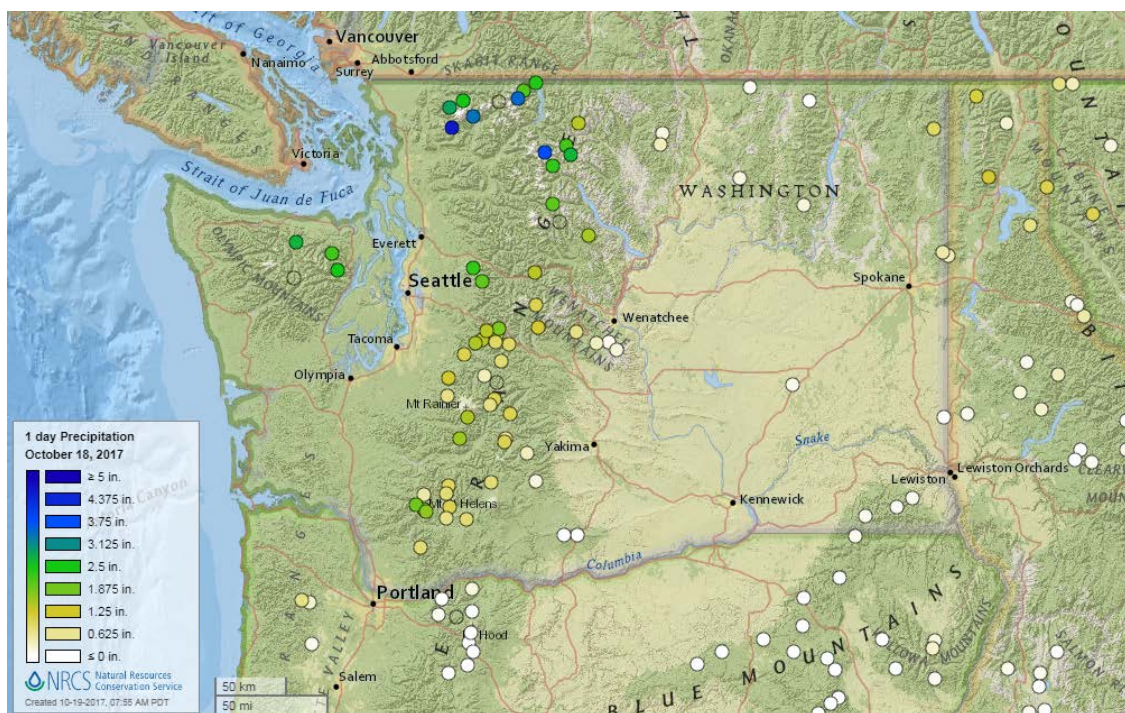
Water and Climate Update

October 19, 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
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Atmospheric river aimed at the Pacific Northwest



The first day of the [atmospheric river](#) pointed at Washington and southwest British Columbia brought heavy rain, with SNOTEL network precipitation amounts reaching over four inches at some locations in the north Cascades. The atmospheric river extends from Asia nearly 5,000 miles across the Pacific Ocean. Forecast precipitation from the multi-day event is expected to exceed 15 inches, including heavy mountain snow and flooding. Some of the rain will reach the California wildfires.

Related:

[5000-mile long 'river in the sky' to deliver heavy rain, feet of snow to Northwest](#)

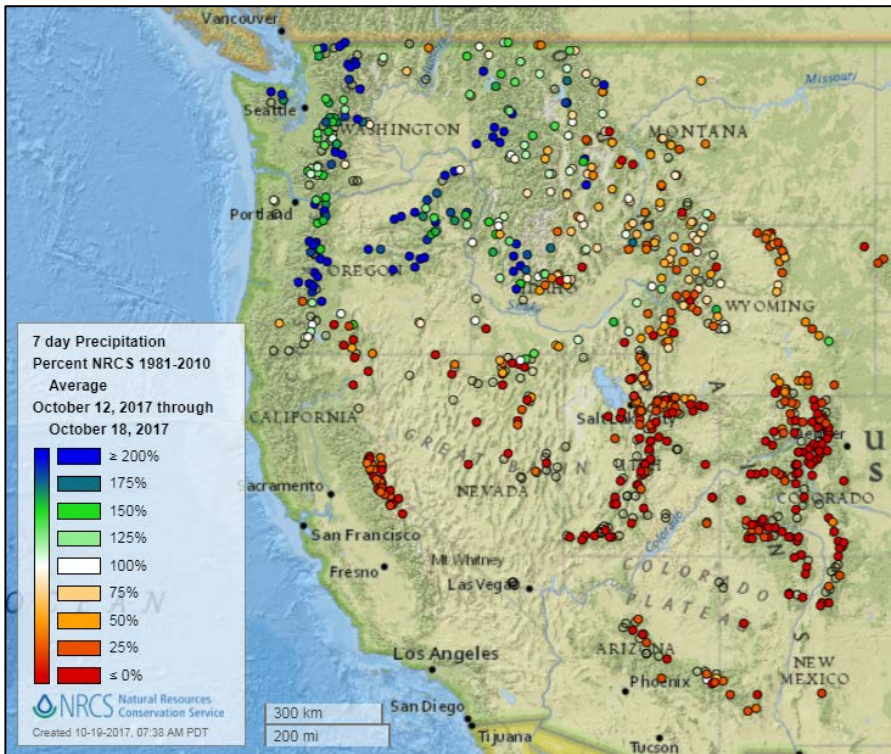
['Atmospheric river' will deluge Washington state, Oregon](#)

['The Big Dark' is here as first of three storms rolls into Northwest on stretch of trans-Pacific moisture](#)

[Storms to batter northwestern US with rain, mountain snow through this weekend](#)

Precipitation

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



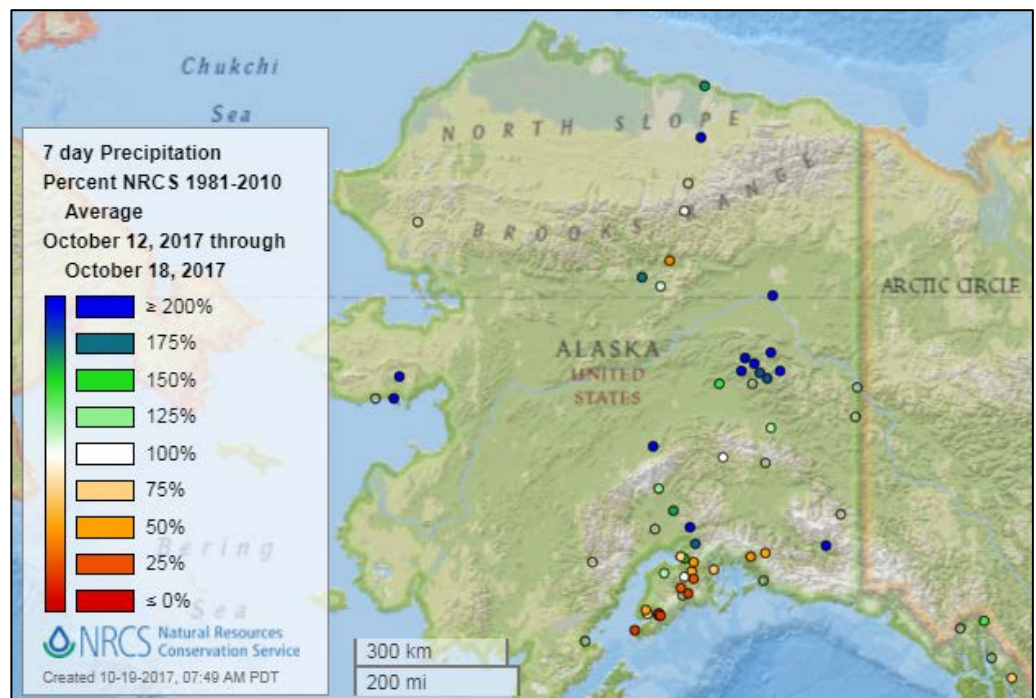
[7-day precipitation percent of average map](#)

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](#)

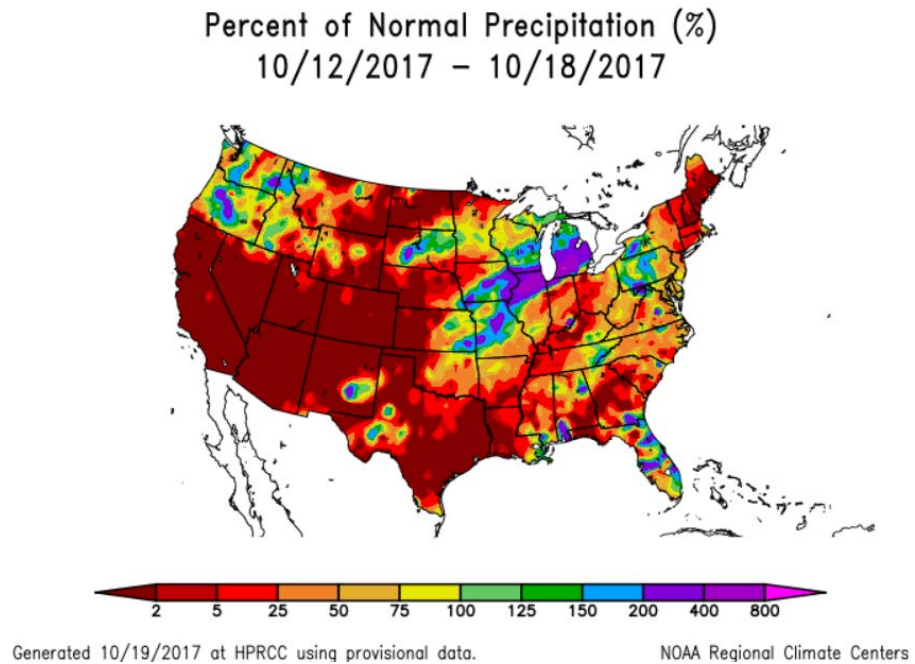


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

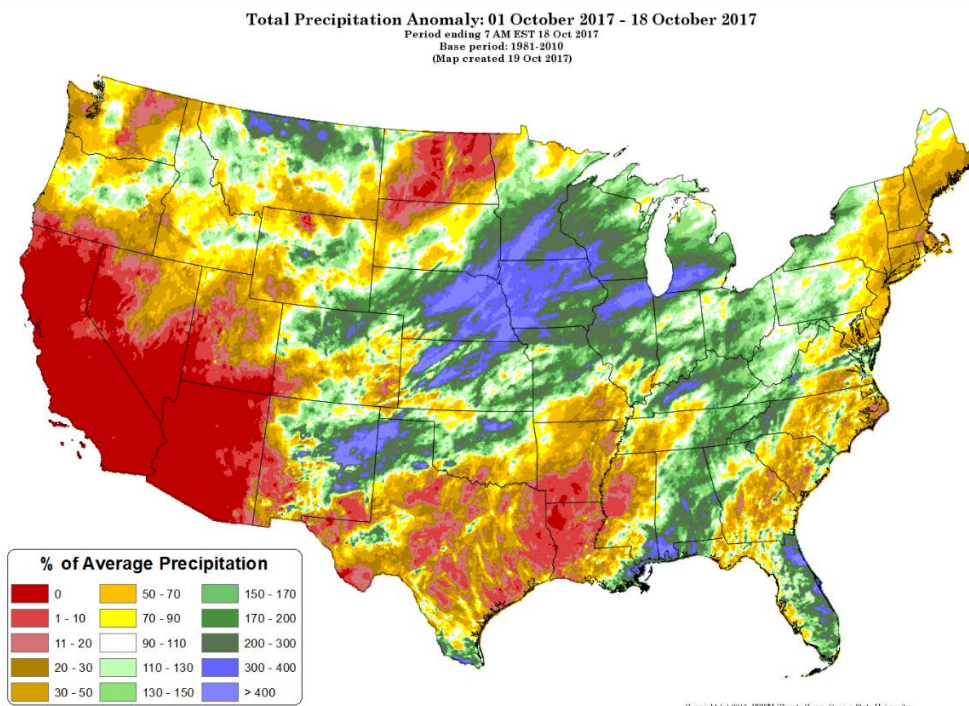
[7-day precipitation percent of normal map](#) for the continental U.S.

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



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

Source: PRISM

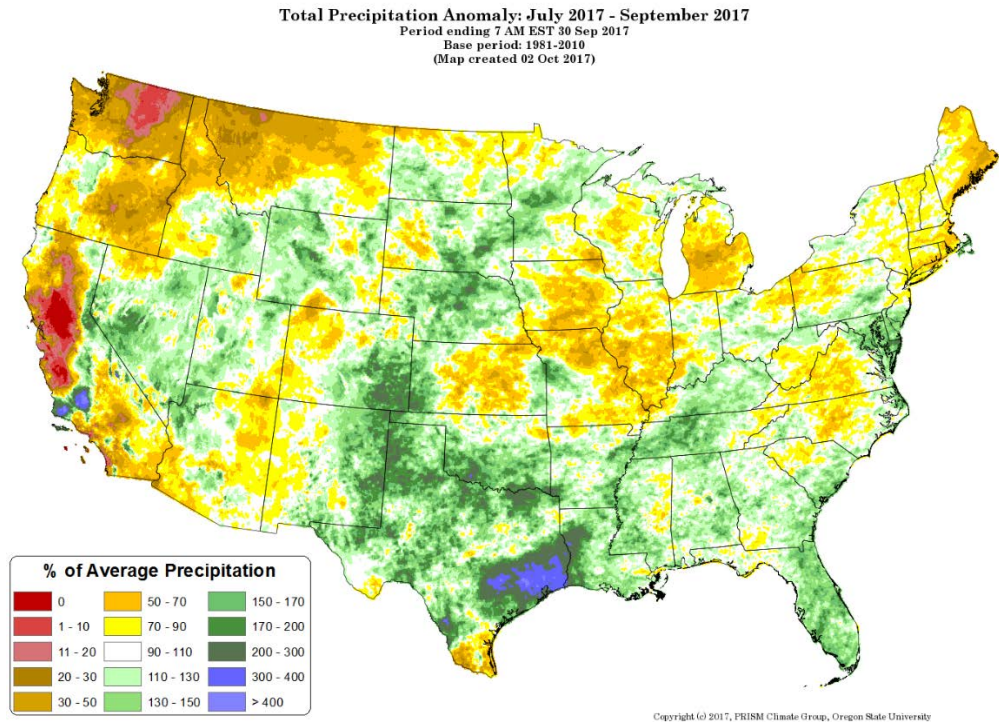


[Month-to-date national precipitation percent of average map](#)

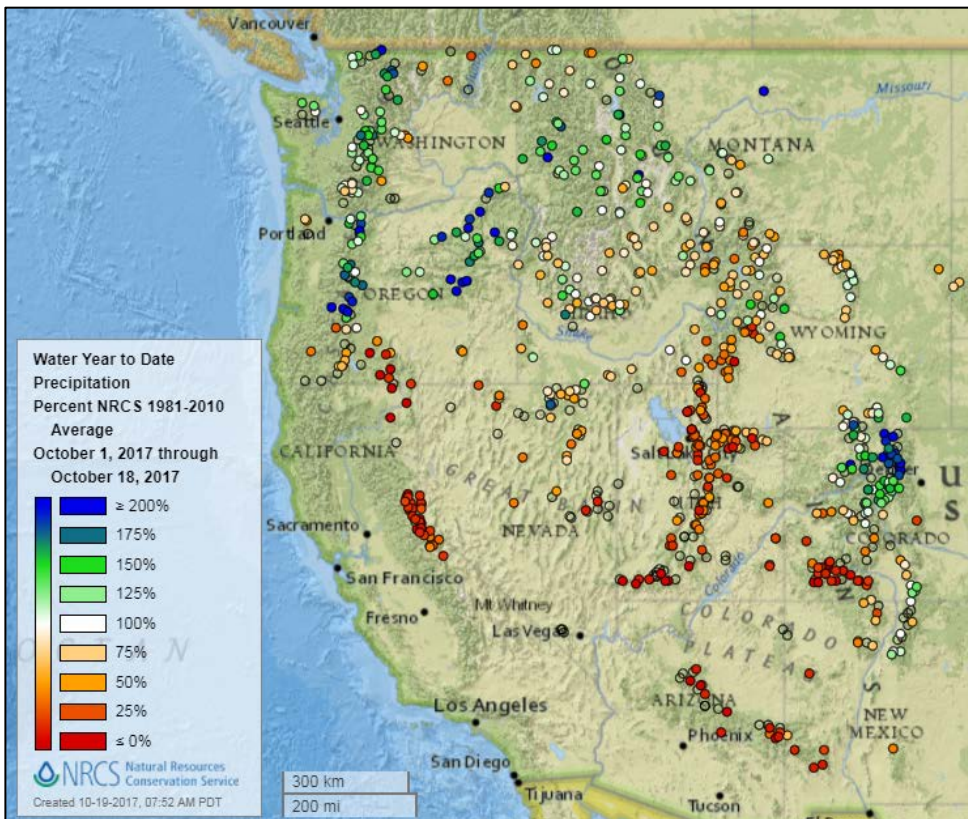
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

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



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

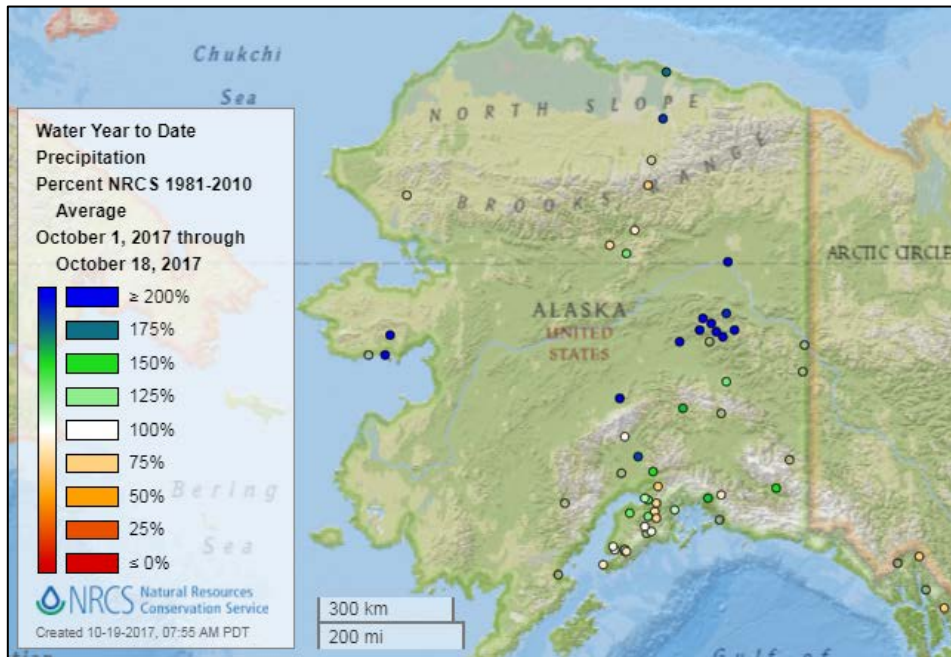


Note: October 1 marked the beginning of the 2018 Water Year

[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

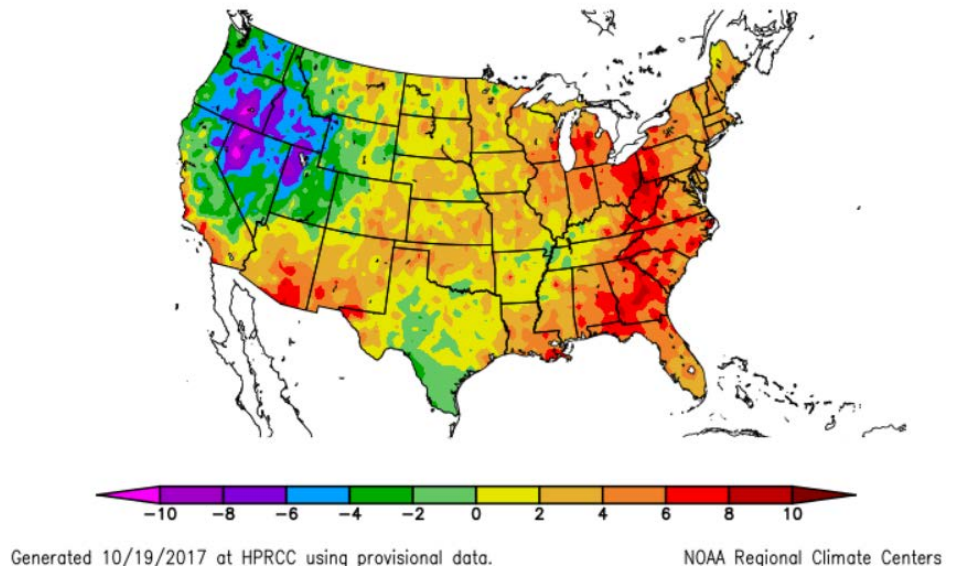
Last 7 Days, National Weather Service (NWS) Networks

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) 10/12/2017 – 10/18/2017



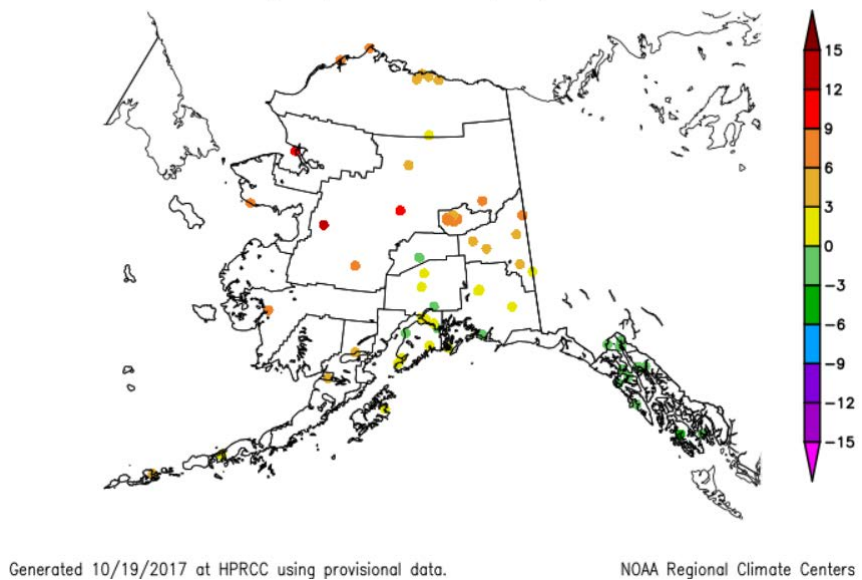
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F) 10/12/2017 – 10/18/2017

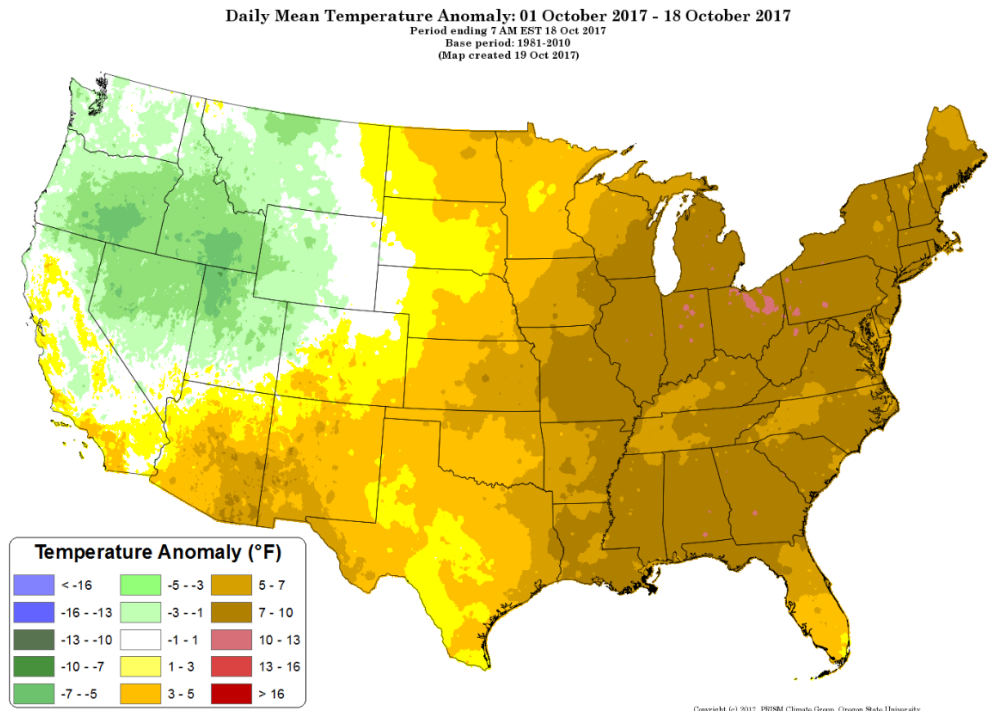


Water and Climate Update

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

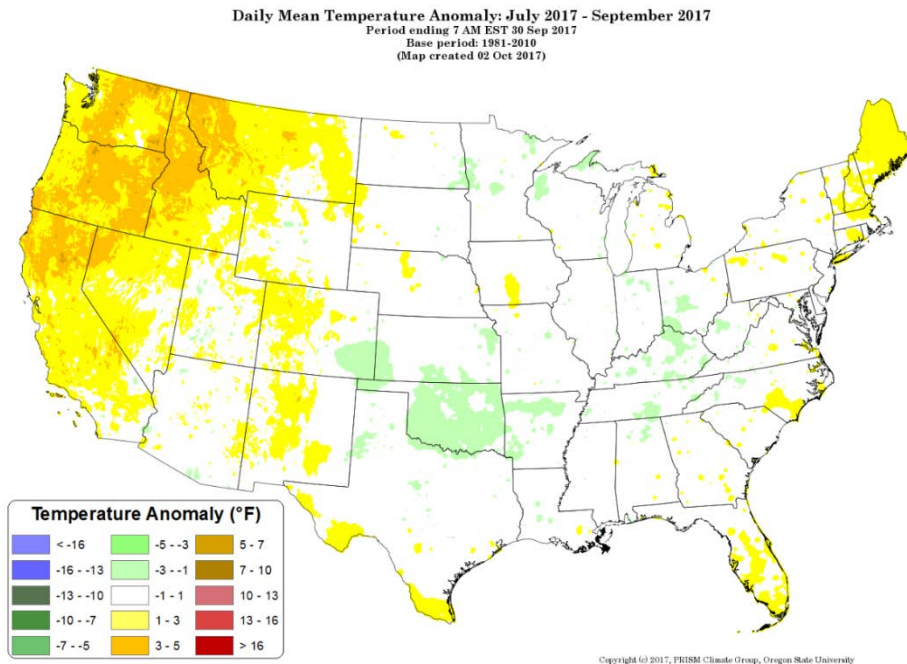
Source: PRISM

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



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

Source: PRISM

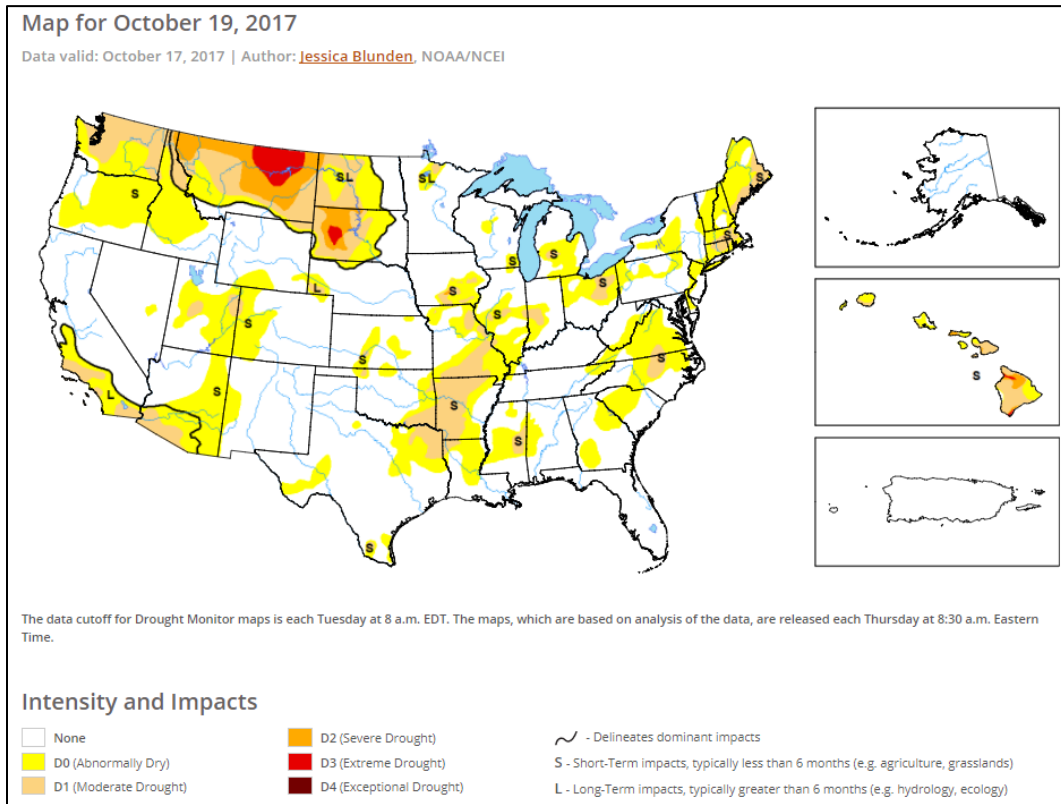


[July through September
2017 daily mean
temperature anomaly map](#)

Drought and Wildfires

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

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



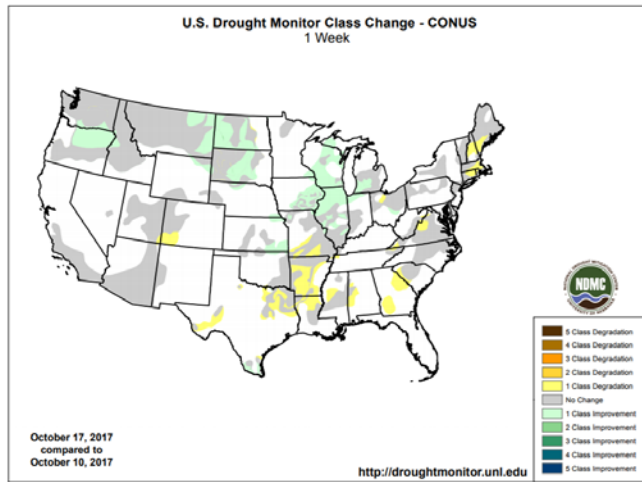
Current [National Drought Summary](#), October 17, 2017

Author: Jessica Blunden, NOAA/NCEI

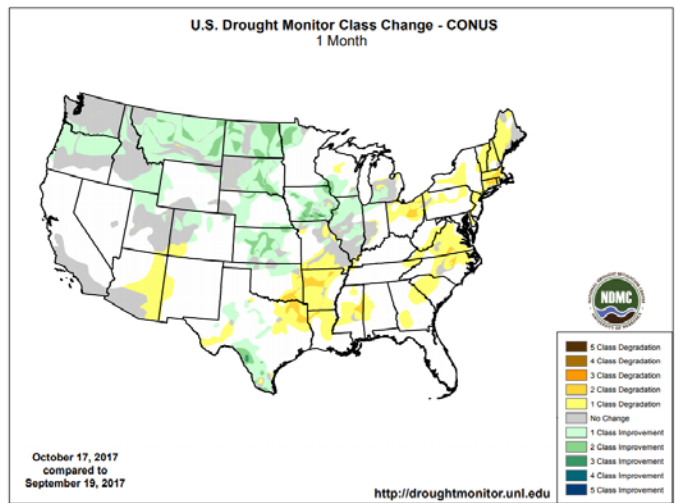
“As usual, there were winners and losers with respect to precipitation this week. Heavy rain fell across much of the Midwest, particularly notable in an area stretching from eastern Iowa northeastward to Michigan where upwards of 600% of typical precipitation for the week was received. Rainfall was below-average across most of the Northeast, the South, and Southeast. Additionally, temperatures were almost summer-like for several days from the Midwest to the Northeast, where departures were up to 15-30 degrees F above average in places, making it feel like August rather than October in many places. The dryness and heat brought about expansion of dry areas across parts the South, Southeast, and Northeast, while the Midwest saw the most improvements this week.”

Changes in Drought Monitor Categories over Time

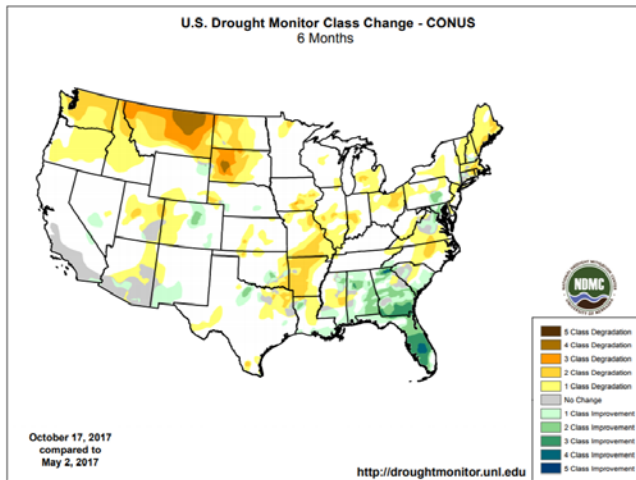
1 Week



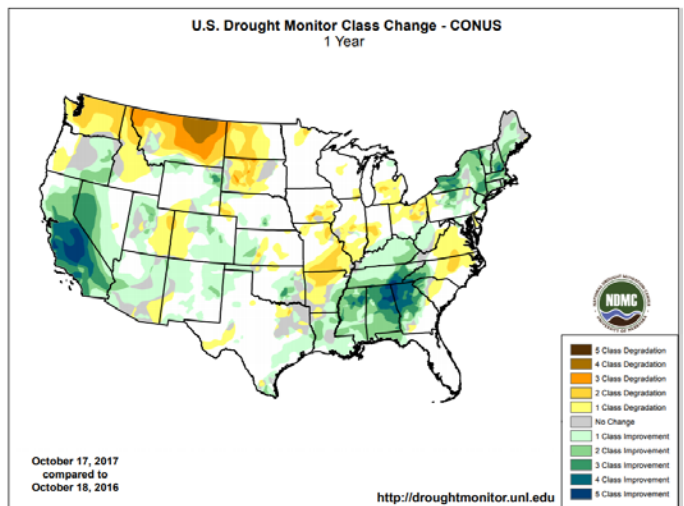
1 Month



6 Months



1 Year

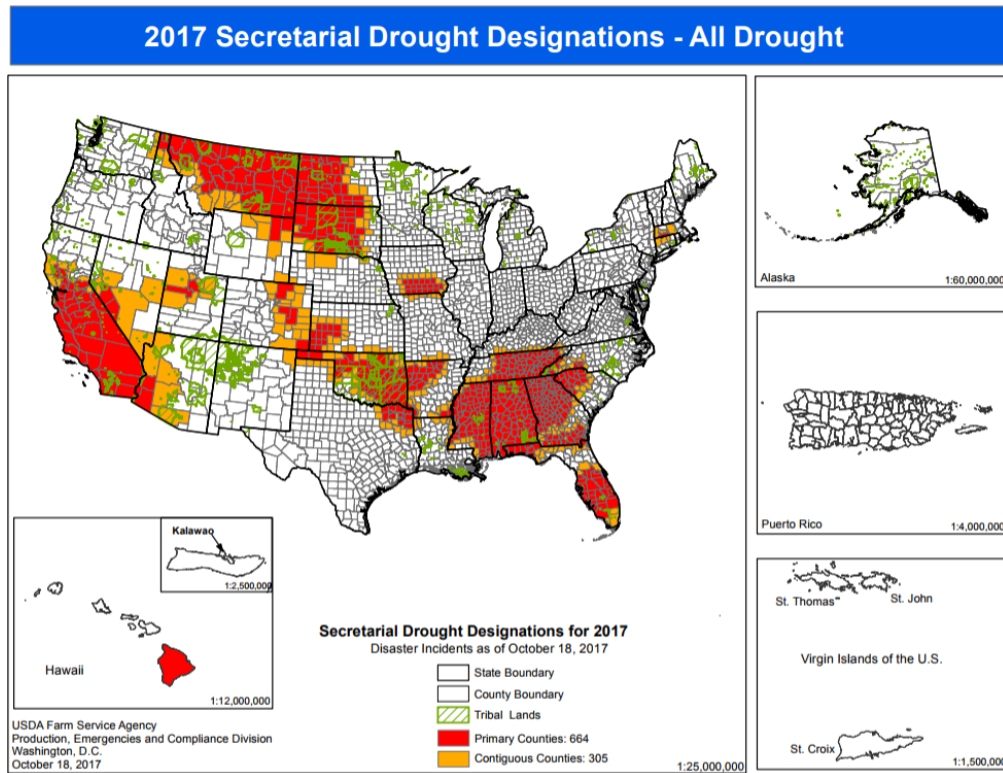


Changes in drought conditions over the last 12 months

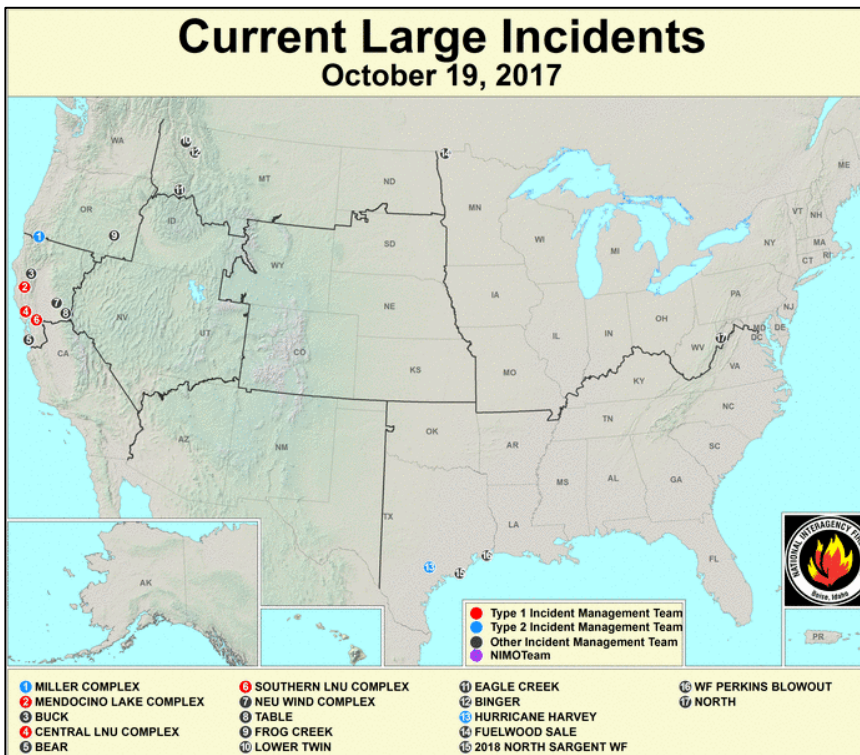
Highlighted Drought Resources

- [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](#)

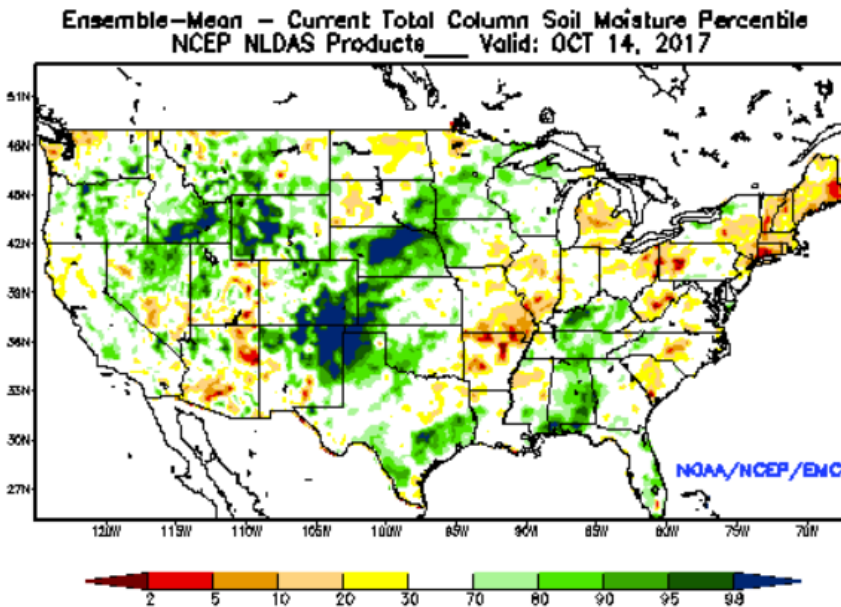


Highlighted Wildfire Resources

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

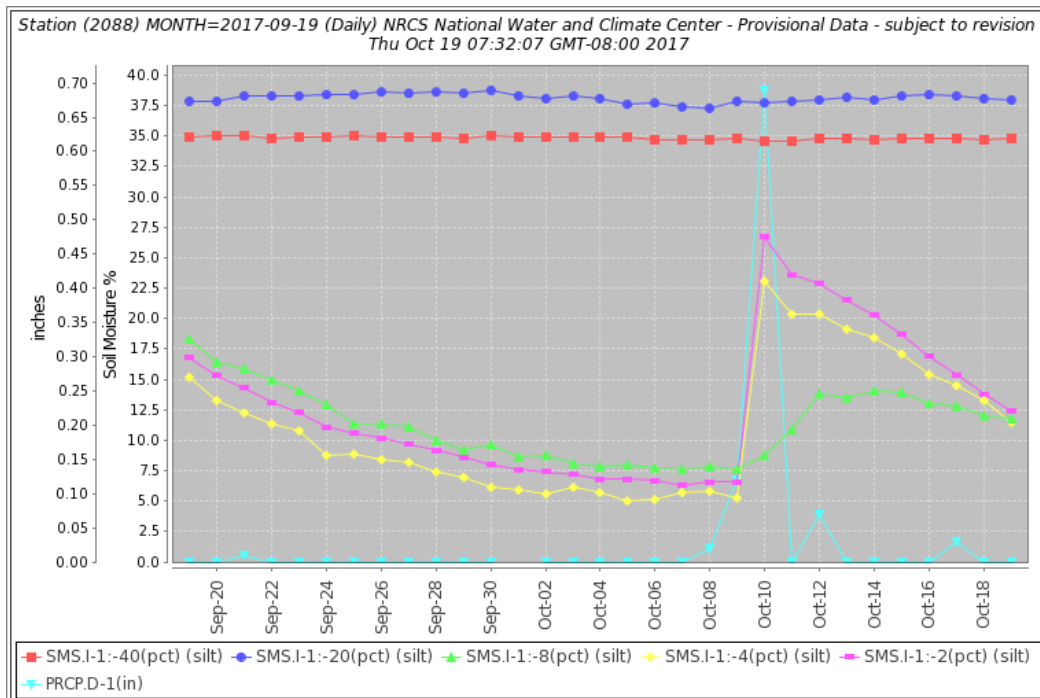
Other Climatic and Water Supply Indicators

Soil Moisture



[Modeled soil moisture percentiles](#) as of October 14, 2017.

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



The chart shows precipitation and soil moisture at the [Shenandoah SCAN site 2088](#) in Virginia. Precipitation over the last 30 days shows dry conditions until a major event on October 8-10. The precipitation caused soil moisture increases at the 2-, 4-, and 8-inch sensors but no changes at the 20- and 40-inch sensors.

Soil Moisture Data Portals

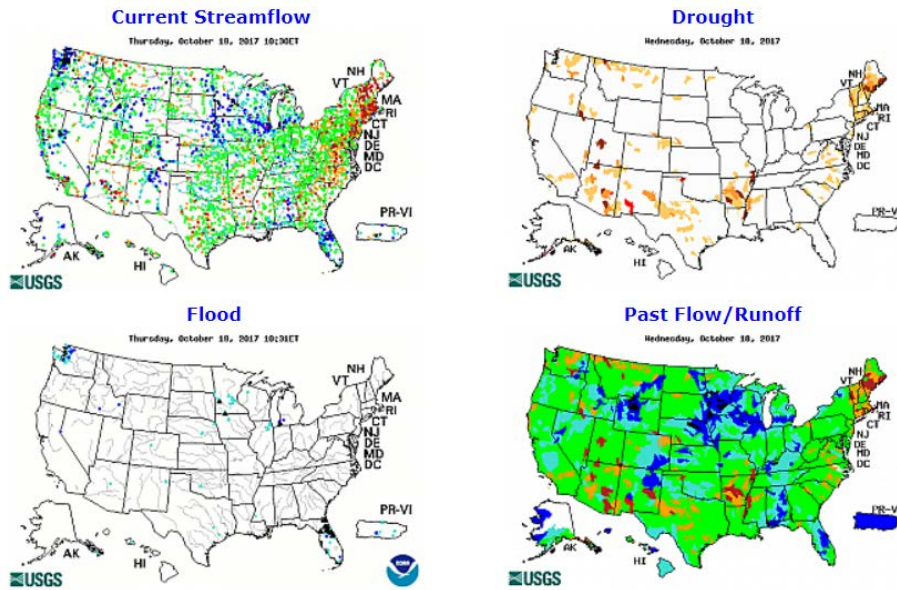
[CRN Soil Moisture](#)

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

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

Streamflow

Source: USGS

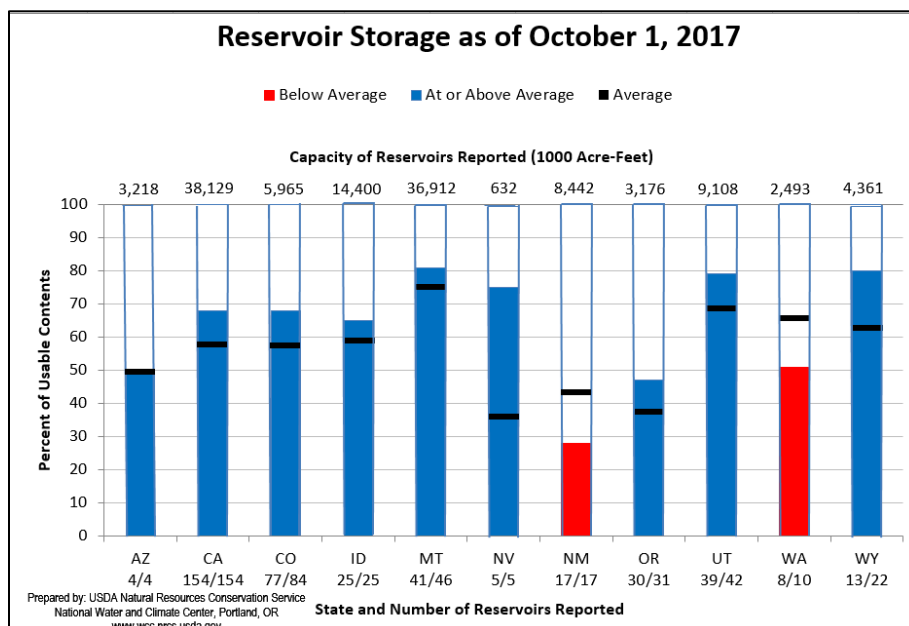


[WaterWatch: Streamflow, drought, flood, and runoff conditions](#)

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](#)

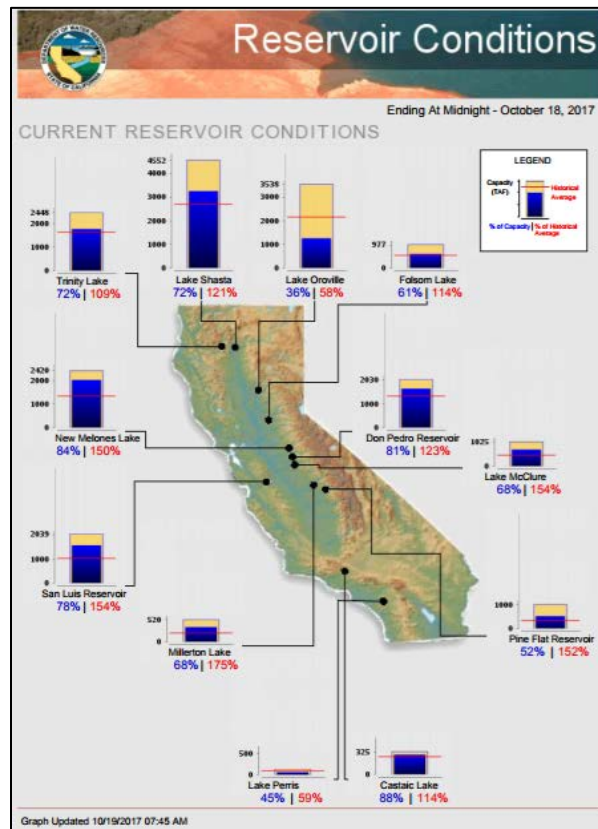
[Pacific Northwest/Snake/Columbia](#)

[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

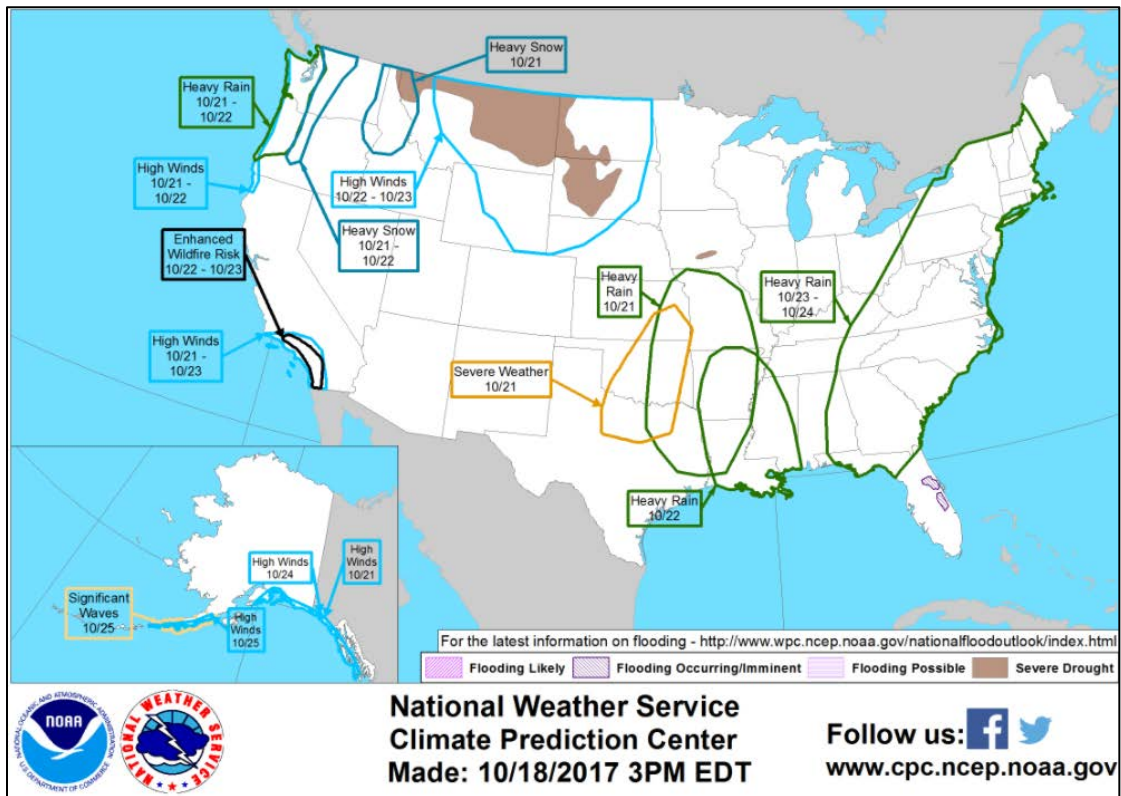
Agricultural Weather Highlights

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

[National Outlook, Thursday, October 19, 2017](#): "Periods of stormy weather will continue into early next week from the Pacific Northwest to the northern Rockies, with snow expected at higher elevations. Later today into Friday, precipitation will spread as far south as northern California, but subsequently retreat into the Northwest. Five-day precipitation totals could locally exceed 10 inches in the Pacific Northwest and reach 2 to 4 inches in the northernmost Rockies. During the weekend and early next week, rain will develop along and east of a line from eastern Texas to Lake Superior. Through Monday, much of the eastern half of the U.S. could receive 1 to 3 inches of rain, except for lingering dry conditions in the northern Atlantic States. Warm weather will dominate the central and eastern U.S. during the next few days, but cooler air will arrive across the West, starting on Friday. The NWS 6- to 10-day outlook for October 24 – 28 calls for above-normal temperatures in the Northeast and from the Pacific Coast to the High Plains, while cooler-than-normal conditions can be expected from the Gulf Coast northward into the central and eastern Corn Belt. Meanwhile, below-normal precipitation in most areas from the Mississippi Valley westward should contrast with wetter-than-normal weather in the East."

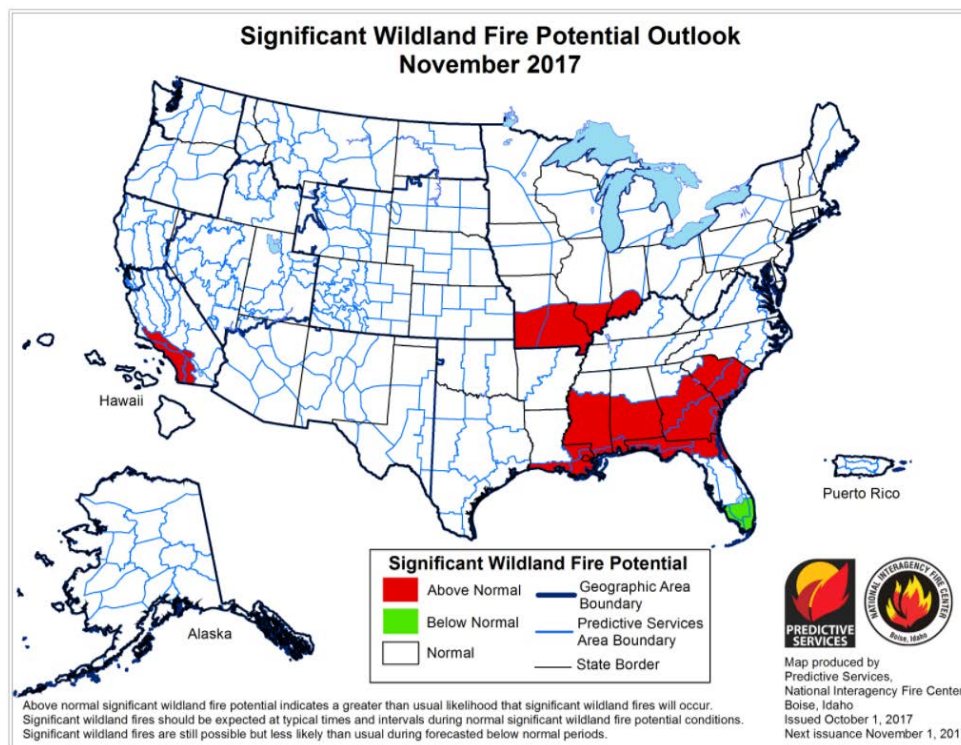
Weather Hazard Outlook [October 21 - 25, 2017](#)

Source: Climate Prediction Center

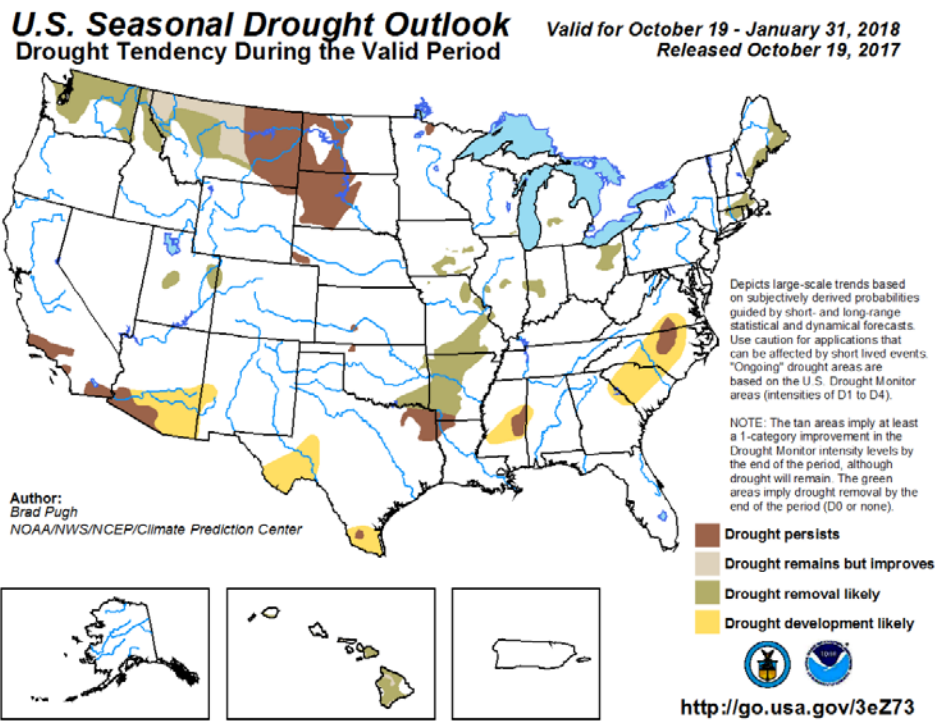


Significant Wildland [Fire Potential Outlook](#)

Source: National Interagency Fire Center



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

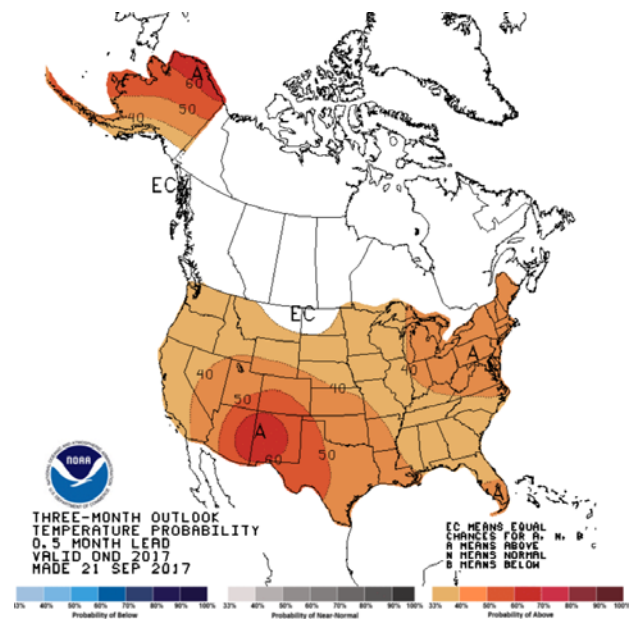
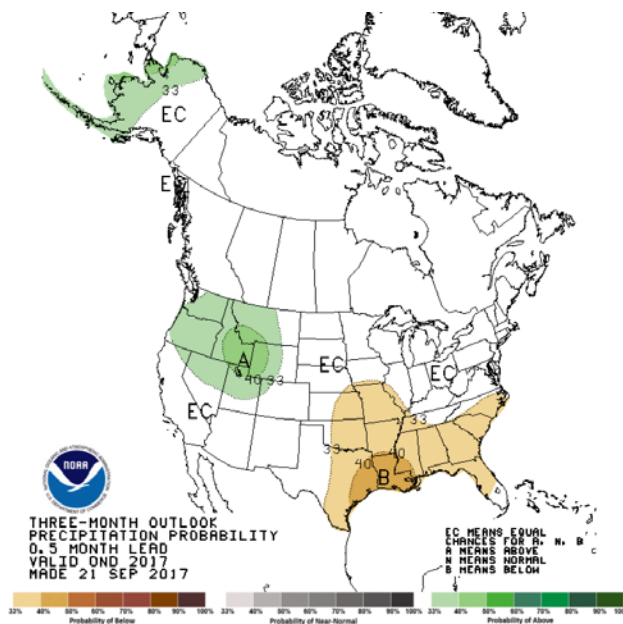


Climate Prediction Center 3-Month Outlook

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](#).