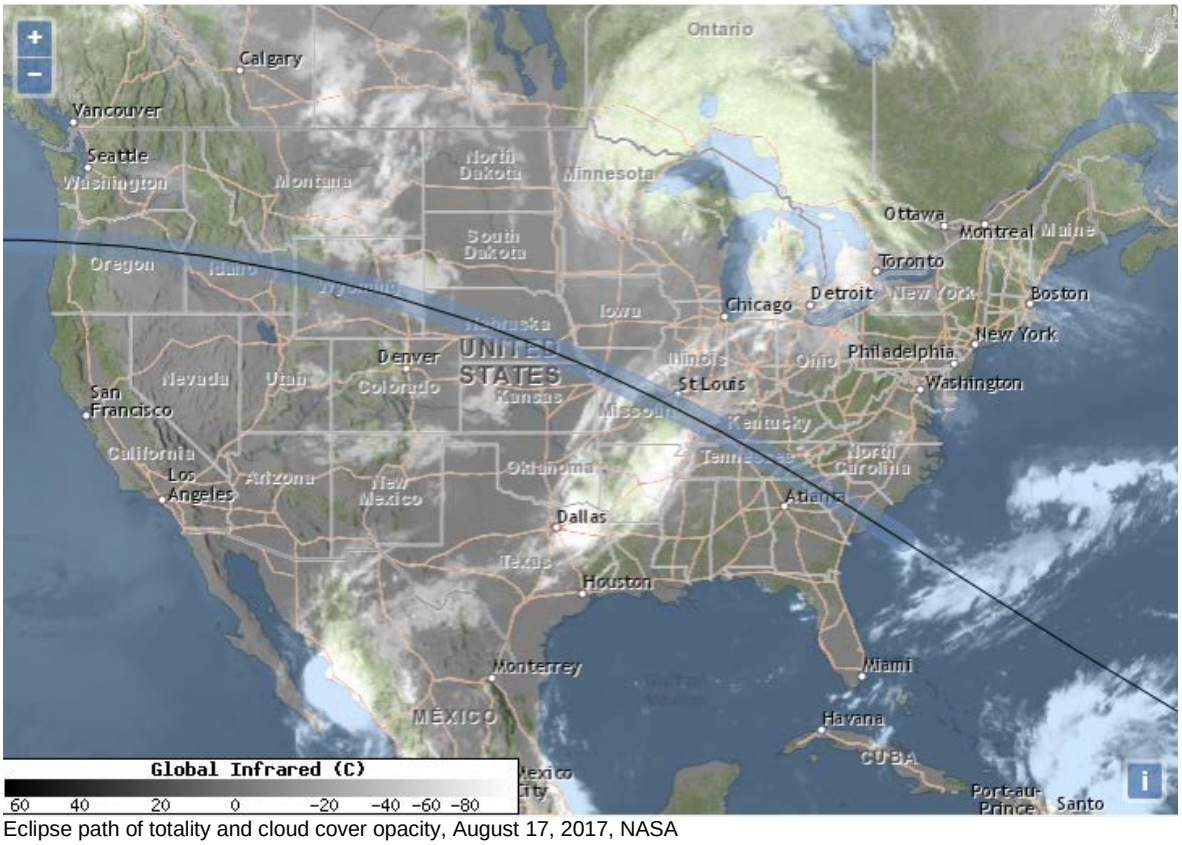
United States Department of Agriculture

Water and Climate Update

August 17, 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.

Total eclipse weather forecast generally favorable



Eclipse path of totality and cloud cover opacity, August 17, 2017, NASA

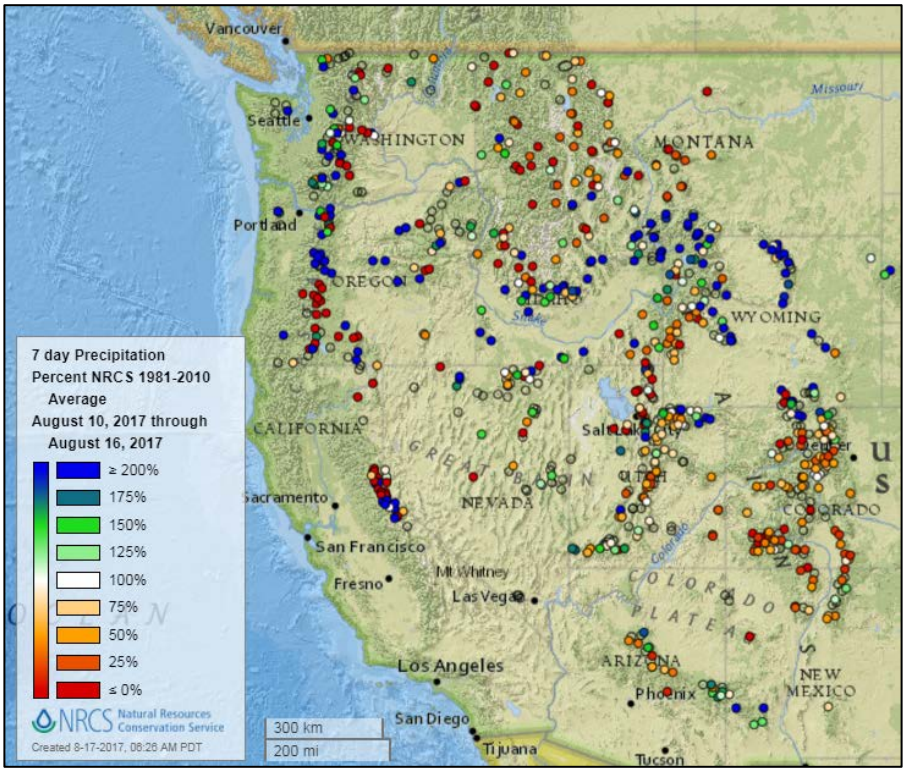
The total solar eclipse on August 21 will track across the U.S. from the Pacific to the Atlantic. Totality will begin in Newport, OR at 10:16 a.m. PDT and will end near Charleston, SC at 11:48 a.m. PDT. A partial solar eclipse will be viewable over the remainder of the U.S. Although subject to change, the general weather pattern across the country shows mostly favorable conditions along the path of totality.

Note: The map above is interactive. Weather forecasts are available for each location along the path. Click anywhere on the map for a local forecast.

Related:
6 Ways Weather Could Change During the Great American Eclipse
Solar Eclipse Weather Forecast: Will Clouds Block Your View?

Precipitation

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

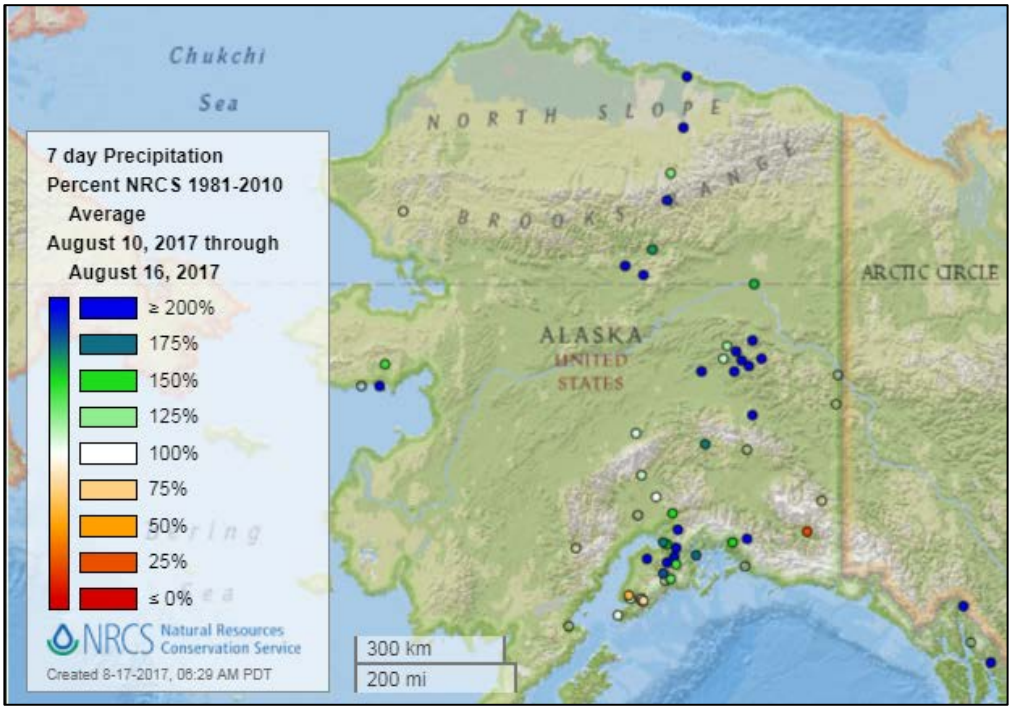


[7-day precipitation percent of average map]

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]

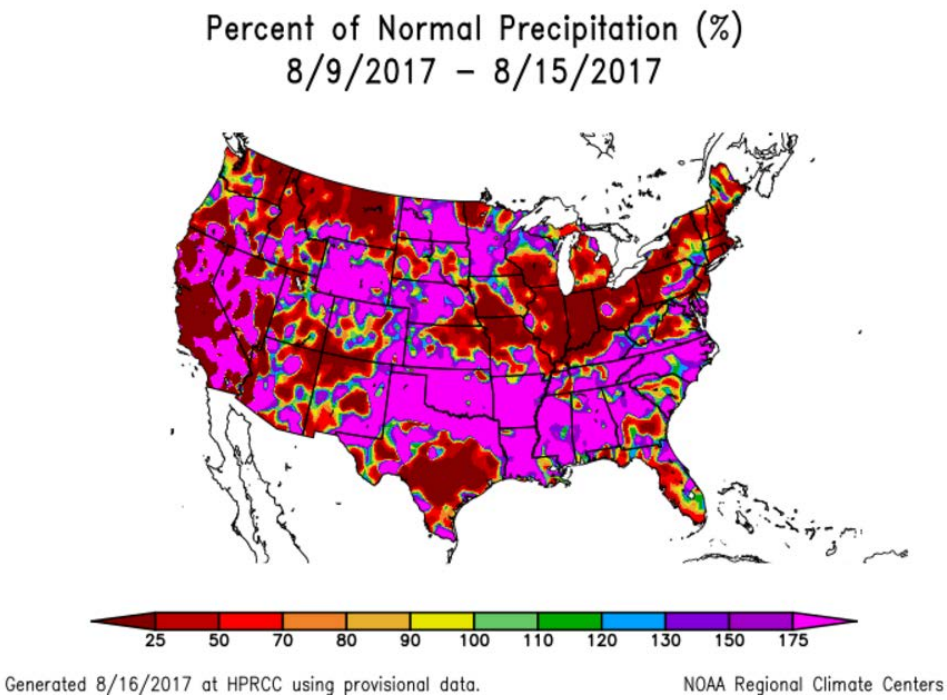


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

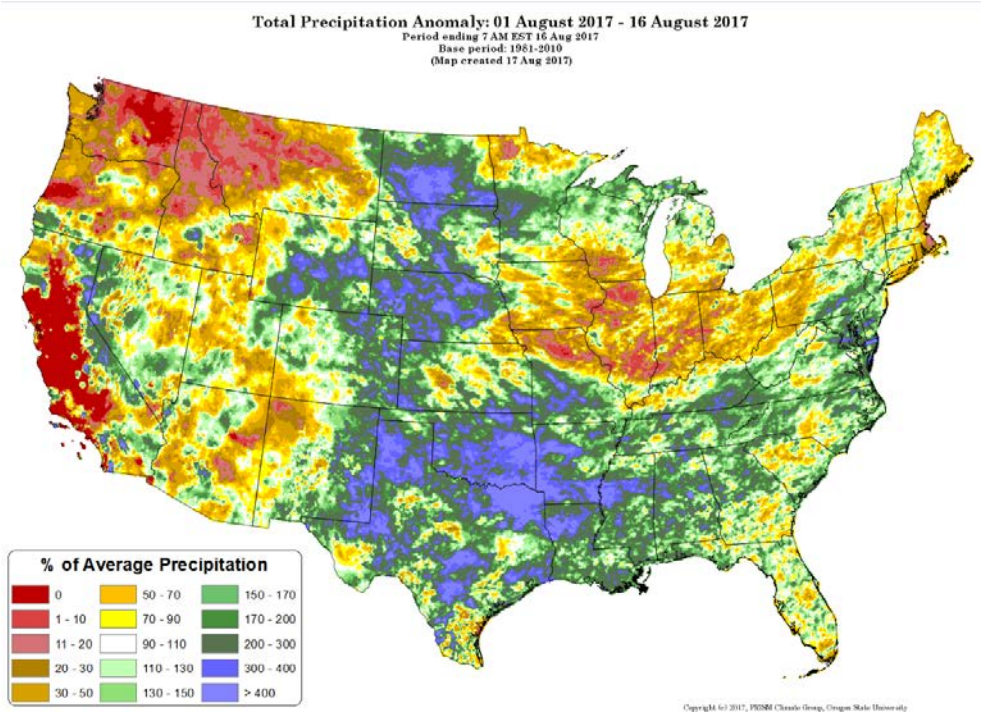
[7-day precipitation percent of normal map](#) for the continental U.S.

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



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

Source: PRISM

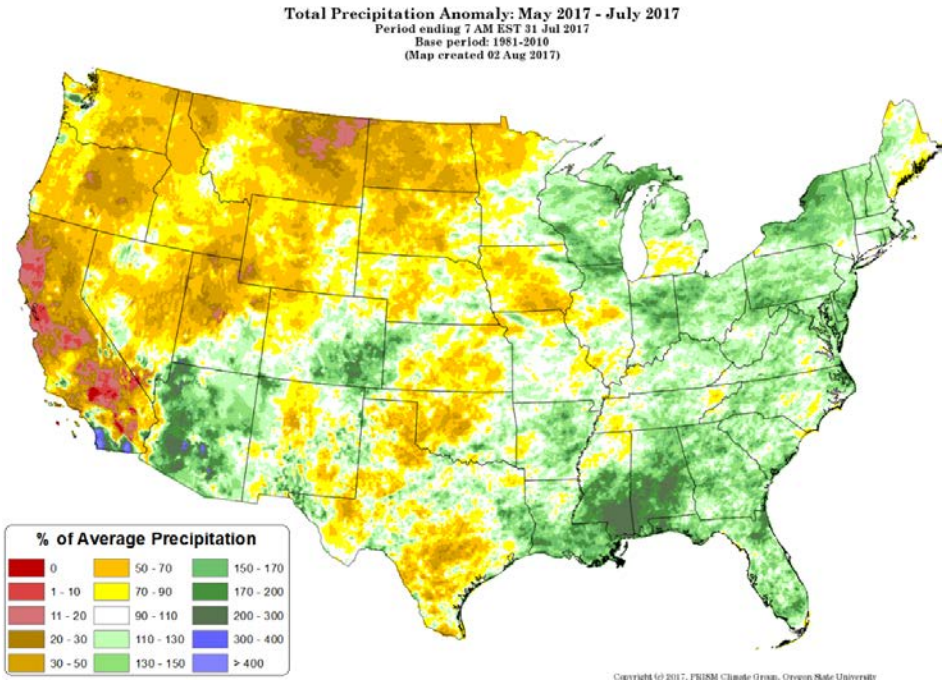


[Month-to-date national precipitation percent of average map](#)

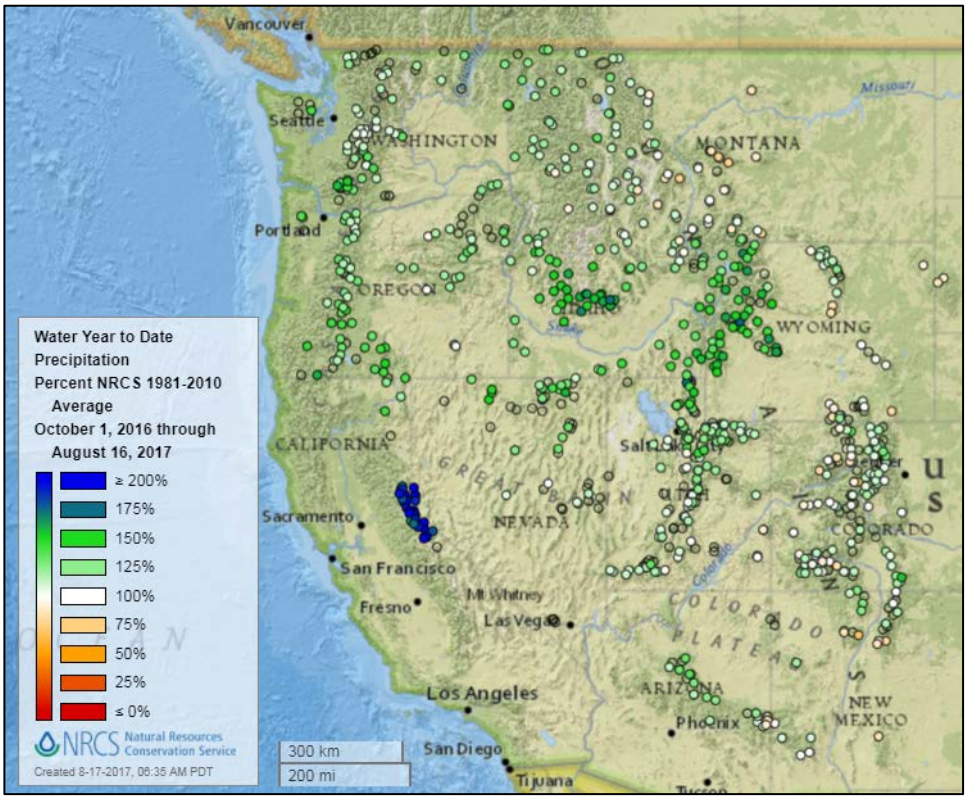
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

[May through July 2017 daily mean precipitation anomaly map]

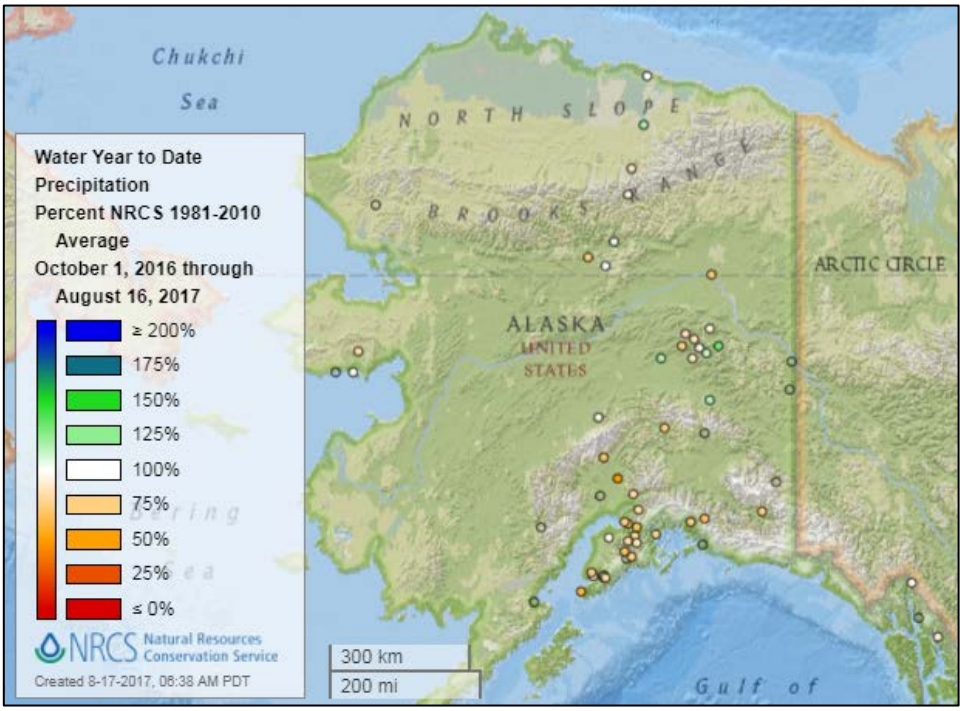


Water Year-to-Date, Western Mountain Sites (NRCS SNOTEL Network)



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

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



Alaska 2017 water year-to-date precipitation percent of average map

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

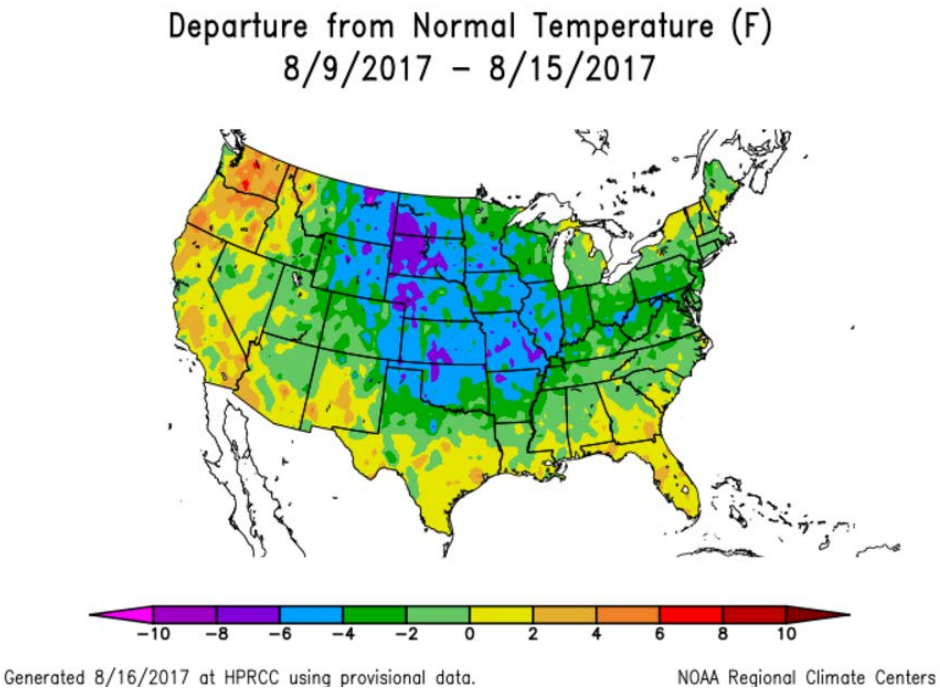
Temperature

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

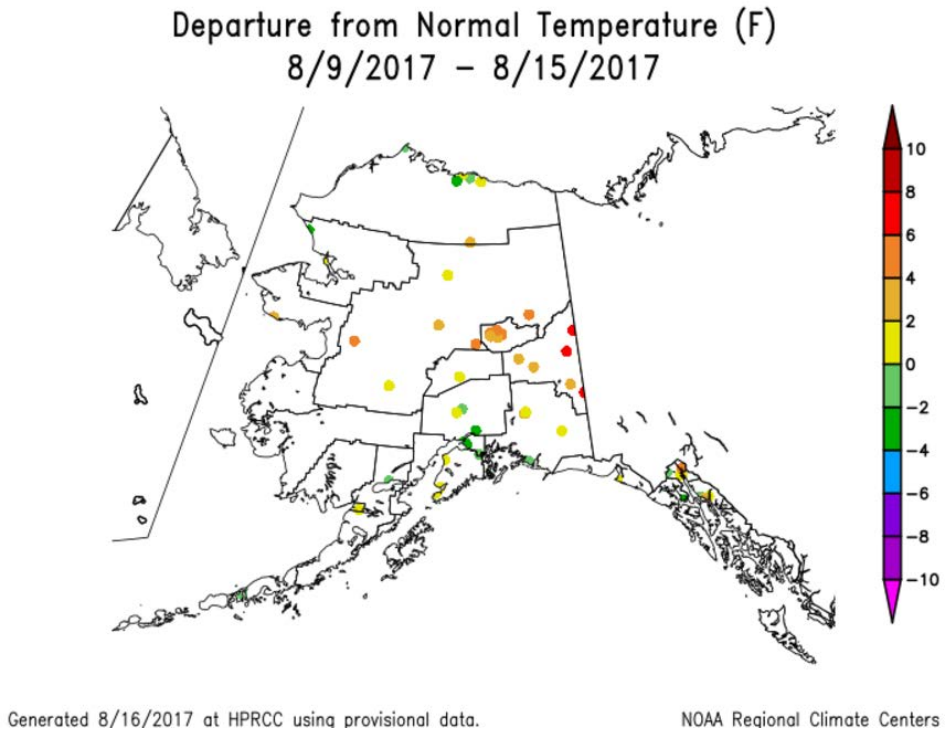


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

7-day temperature anomaly map for Alaska.

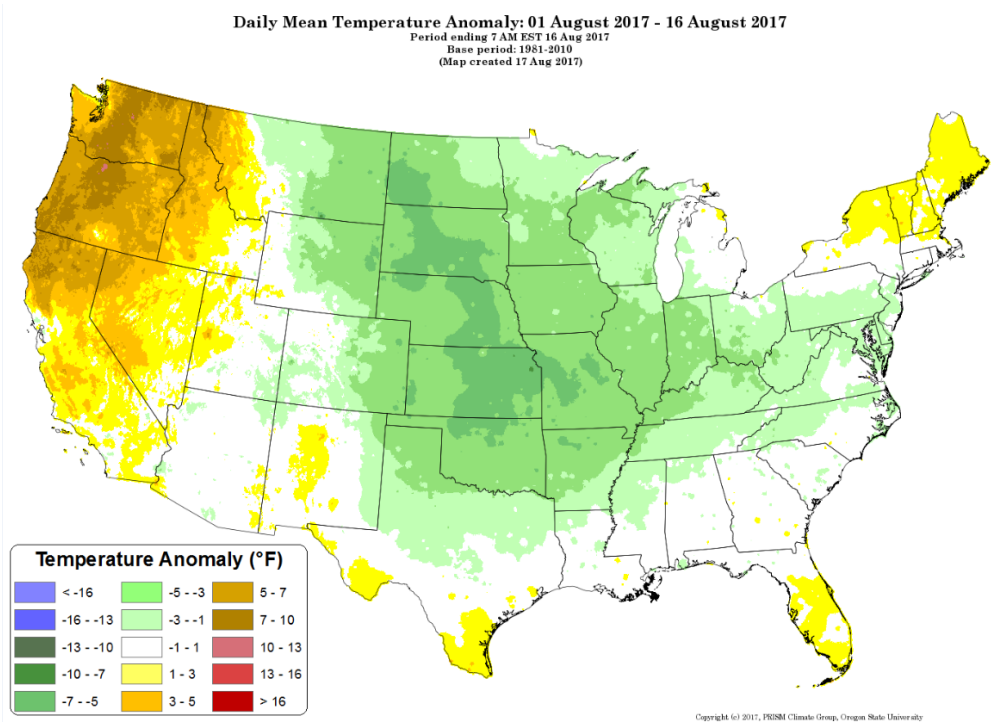
See also: 7-day temperature (° F) map



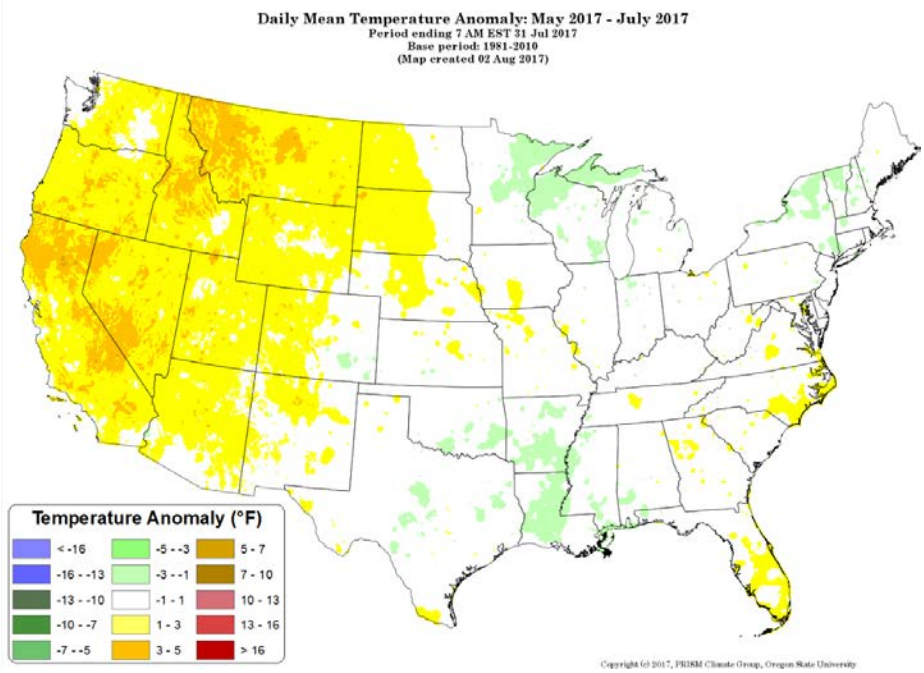
Month-to-Date, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

Month-to-Date national daily mean temperature anomaly map



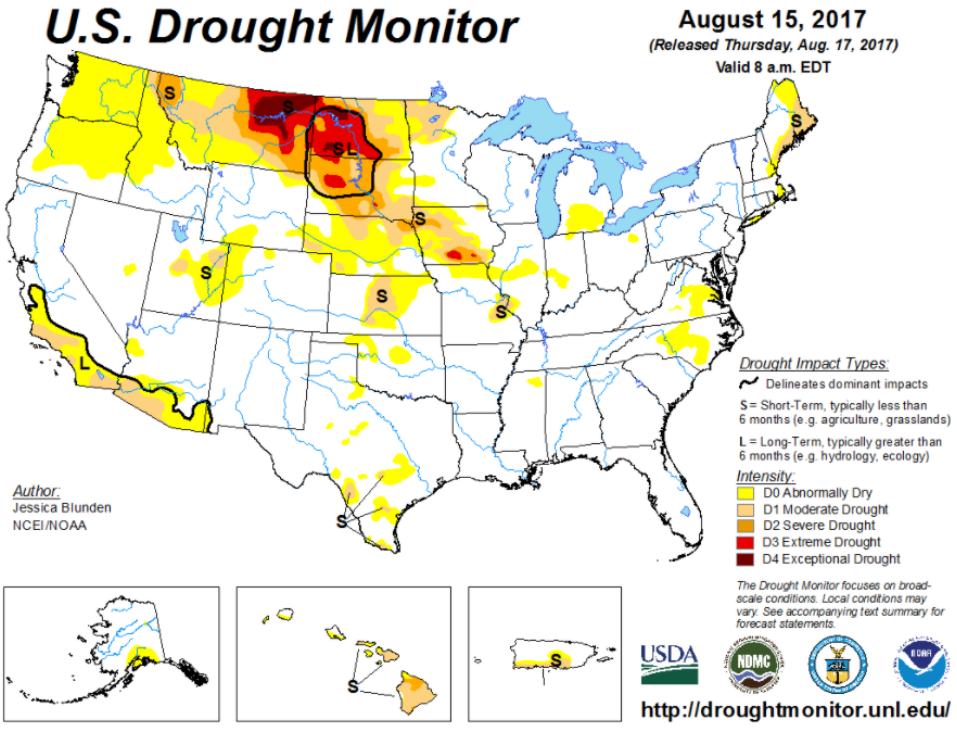
Last 3 Months, All Available Data Including SNOTEL and NWS Networks Source: PRISM



May through July 2017 daily mean temperature anomaly map

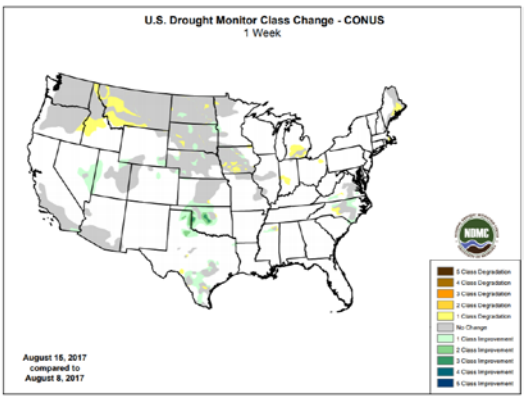
Drought

U.S. Drought Monitor Click on map below. U.S. Drought Portal Comprehensive drought resource.

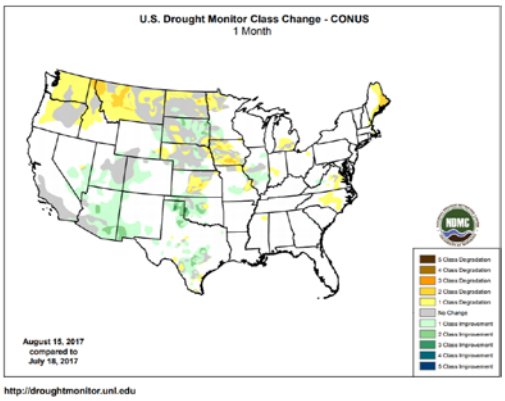


Changes in Drought Monitor Categories over Time

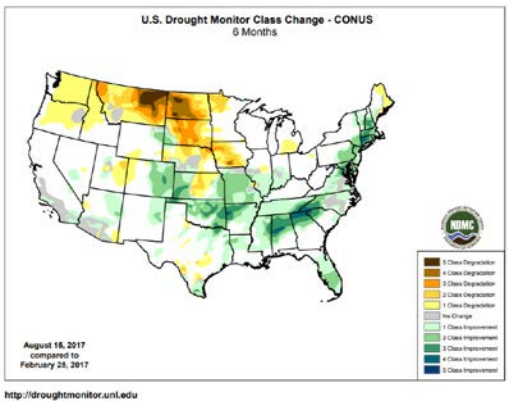
1 Week



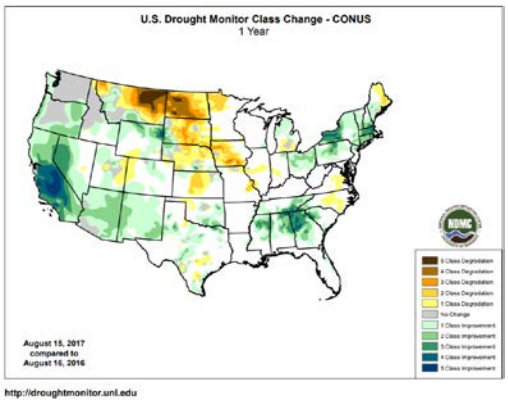
1 Month



6 Months



1 Year



Changes in drought conditions over the last 12 months

Current National Drought Summary, August 15, 2017

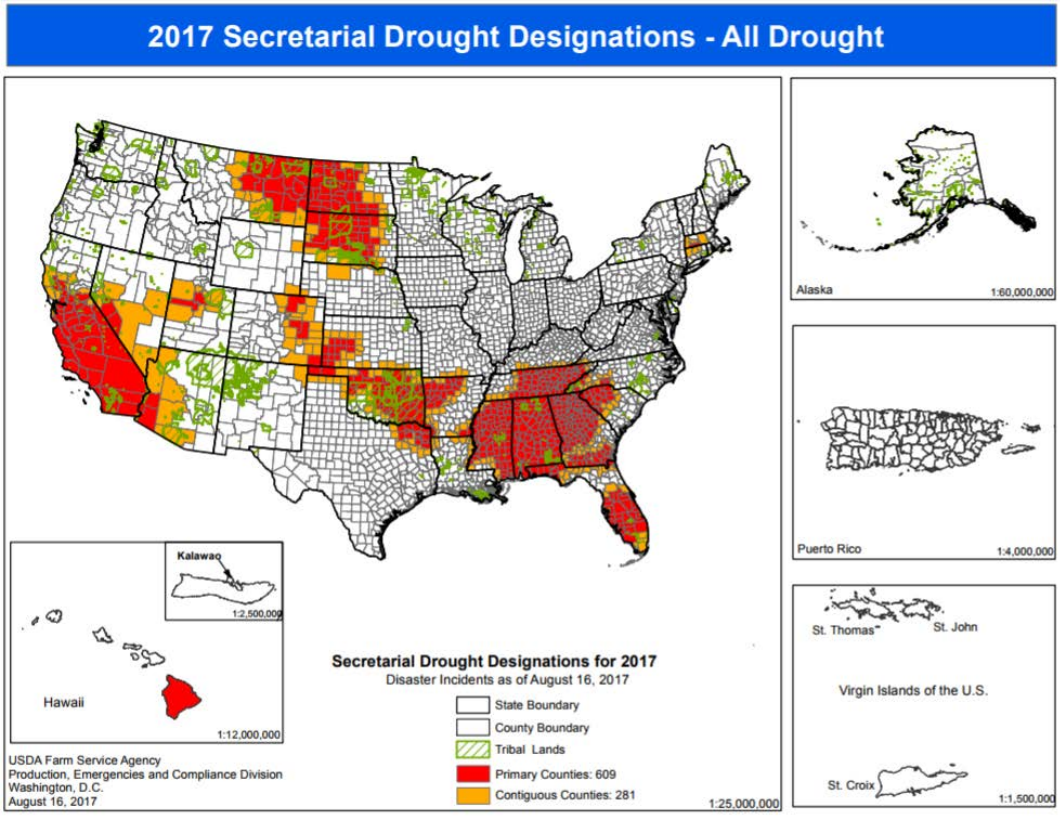
Author: Jessica Blunden, NOAA/NCEI

“Temperatures were cooler than average for much of the contiguous U.S. this week, including 4-8 degrees F below average across a large part of the Plains and Midwest this past week. Only Washington and Oregon saw temperatures more than 4 degrees above average for the period. With the below-average temperatures came a lot of rain in some regions, notably across northern Texas and much of Oklahoma, where rainfall was more than 600% of normal for this time of year. There were also substantial rains in parts of Wyoming, Nebraska, parts of the Dakotas, and in many places across the southeast. Rainfall was below average in southern Texas, parts of the midwest, northeast, and northwest, particularly notable in Montana where wildfires are prevalent.”

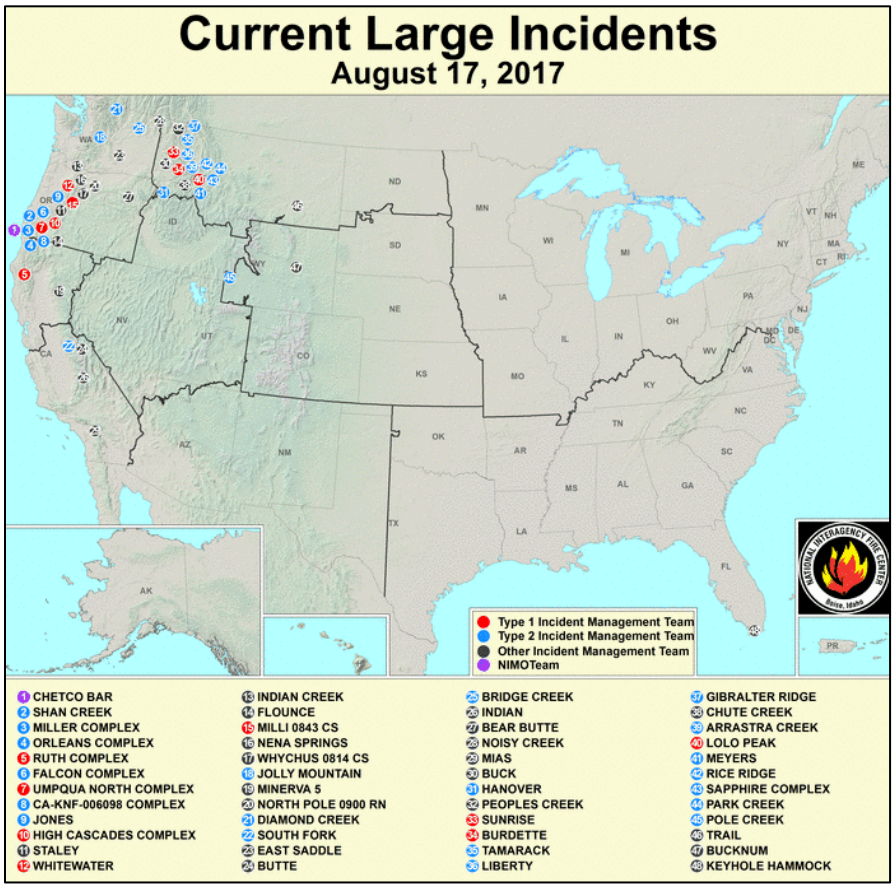
Highlighted Drought Resources

- 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]

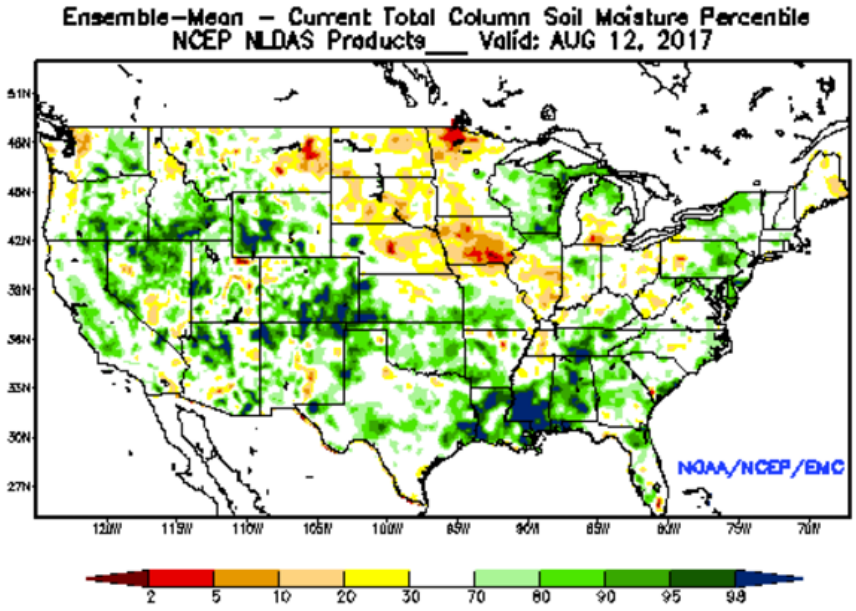


Highlighted Wildfire Resources

- National Interagency Fire Center
- InciWeb Incident Information System
- Significant Wildland Fire Potential Outlook

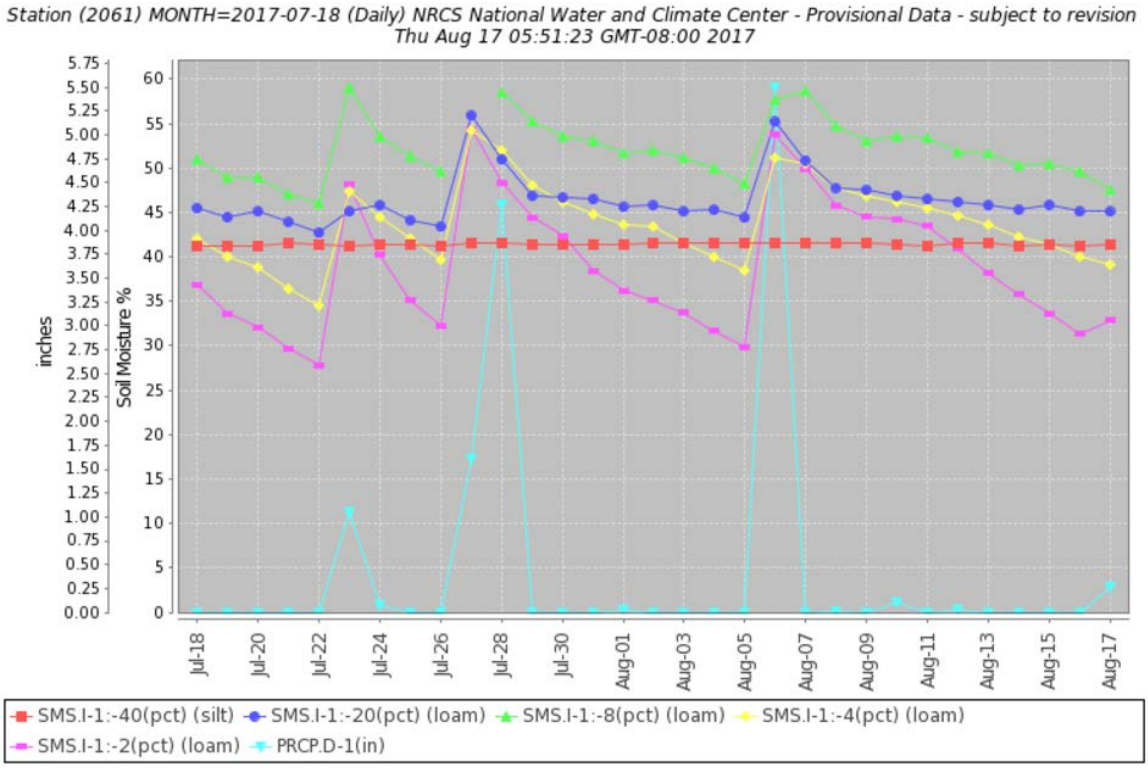
Other Climatic and Water Supply Indicators

Soil Moisture



[Modeled soil moisture percentiles] as of August 12, 2017.

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



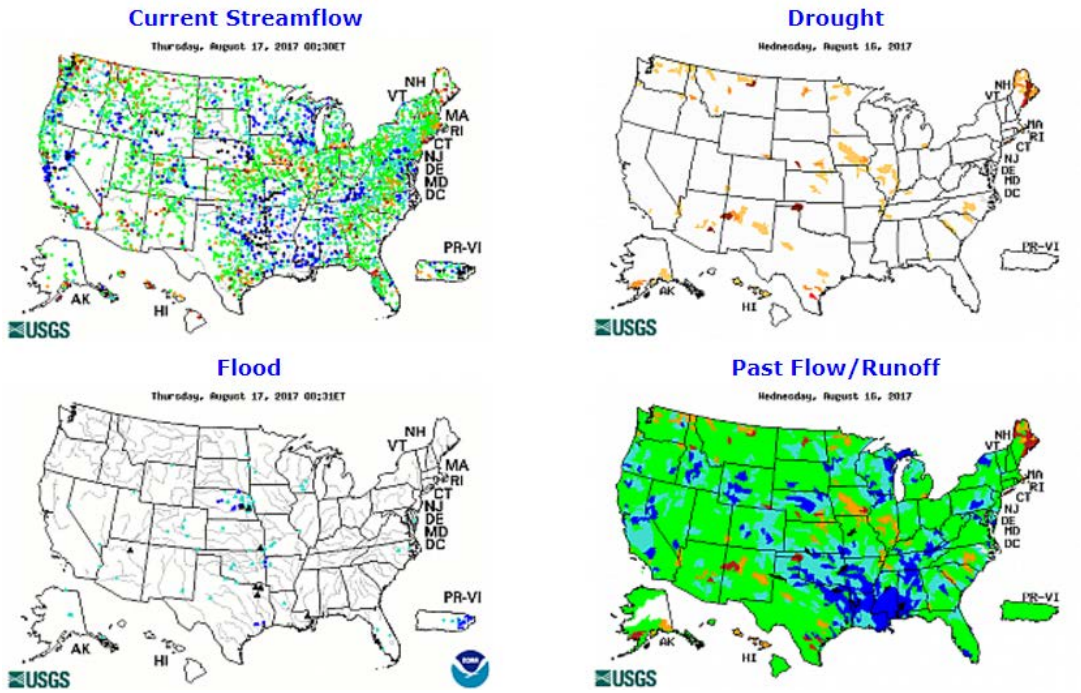
The chart shows precipitation and soil moisture for the last 30 days at the [Powell Gardens SCAN site 2061] in Missouri. Precipitation events throughout July and early August increased soil moisture at the 2-, 4-, 8-, and 20-inch sensor depths. However, soil moisture at the 40-inch sensor remained unchanged.

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

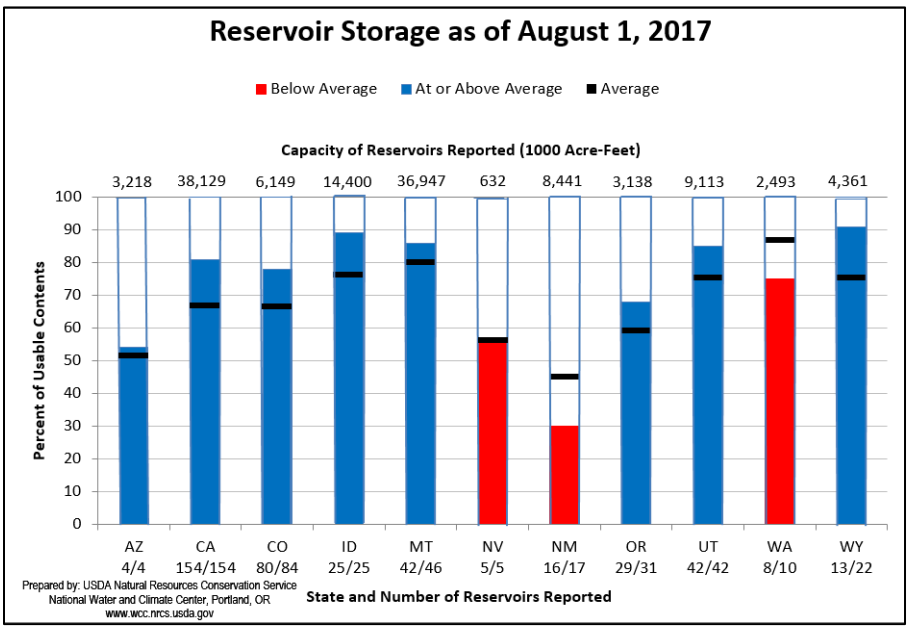


[Current streamflow maps] Click image to enlarge and display legends

Reservoir Storage

August 1 Western States Reservoir Storage

Source: NRCS National Water and Climate Center

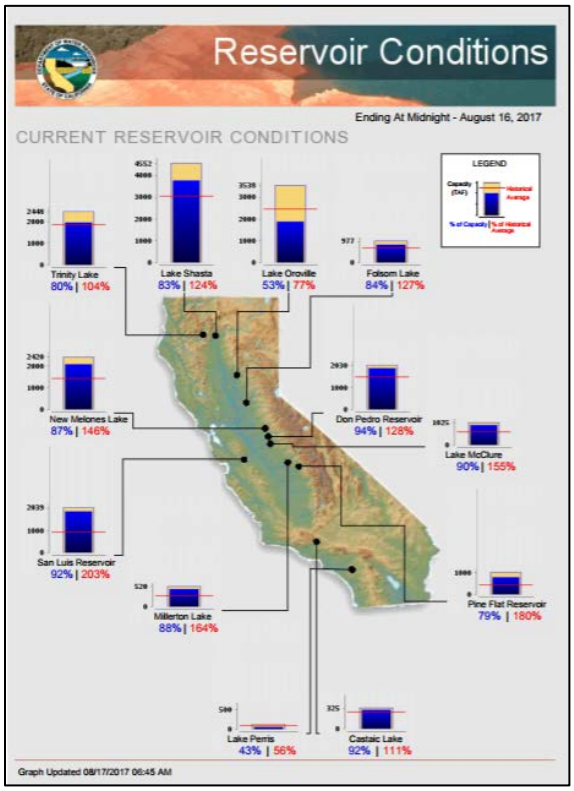


[National Water and Climate Center Reservoir Data]

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

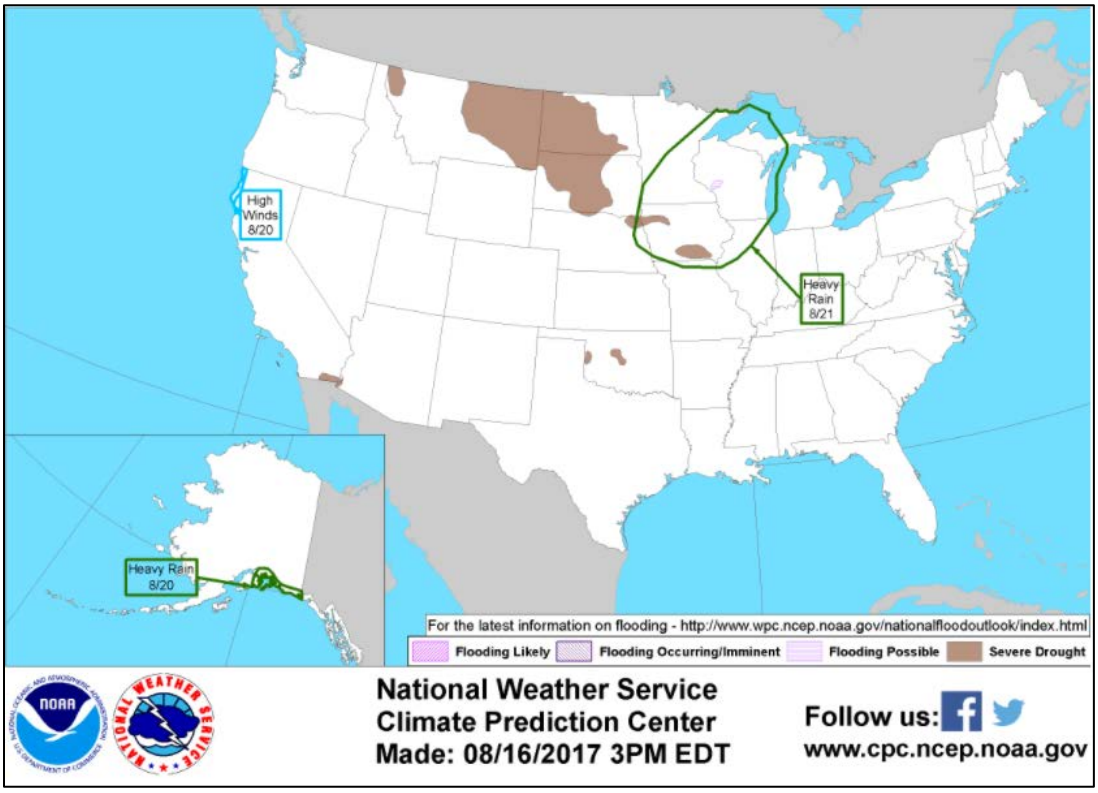
Agricultural Weather Highlights

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

National Outlook, Wednesday, August 17, 2017**:** "During the next several days, much of the nation will experience late-summer warmth. Some of the hottest weather will spread from the Pacific Northwest to the High Plains. During the weekend, a resurgence of the monsoon circulation should result in an increase in shower activity in the Southwest. Farther east, a cold front currently crossing the Midwest will reach the Atlantic Seaboard toward week's end, accompanied by widespread showers and thunderstorms. Another area of rain should develop by early next week across the upper Midwest. Five-day rainfall totals could reach 1 to 3 inches in the upper Midwest, along the Atlantic Coast, and across parts of the Deep South. The NWS 6- to 10-day outlook for August 22 – 26 calls for the likelihood of near- to above-normal temperatures nationwide. Meanwhile, near- to above-normal rainfall across most of the nation should contrast with drier-than-normal conditions in central and southern Texas and across the northern Plains and upper Midwest."

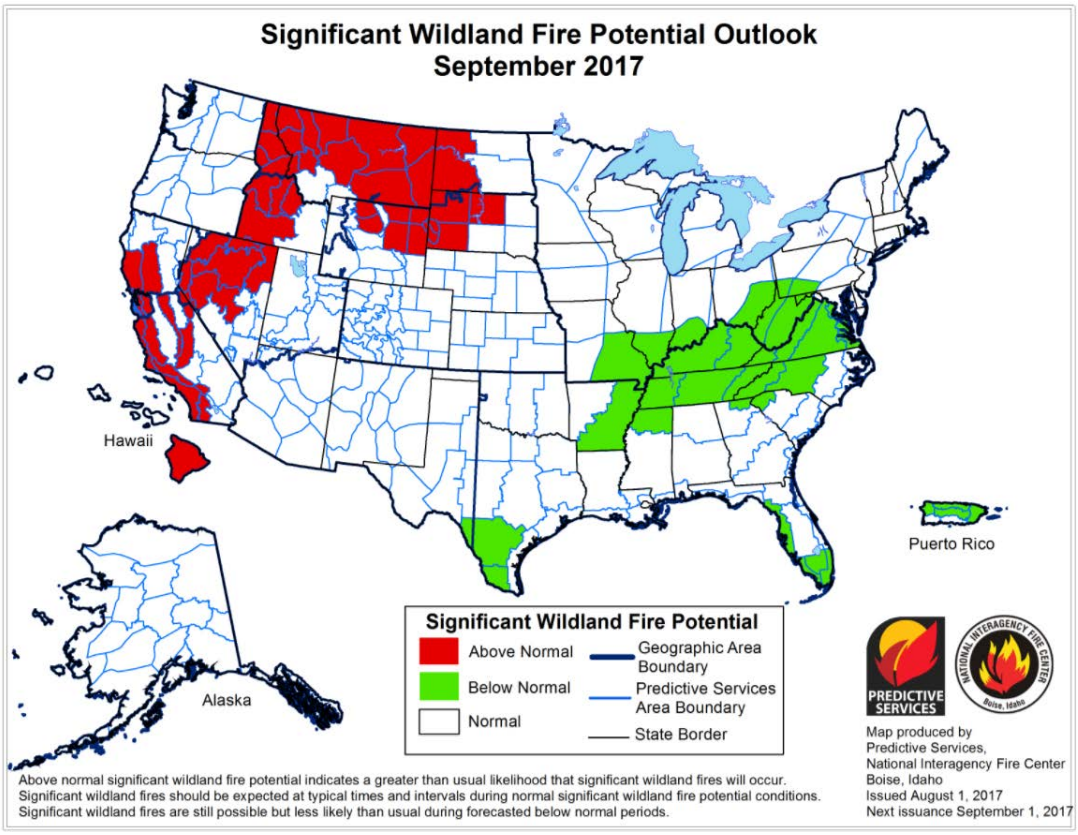
Weather Hazard Outlook [August 19 - 23, 2017]

Source: Climate Prediction Center



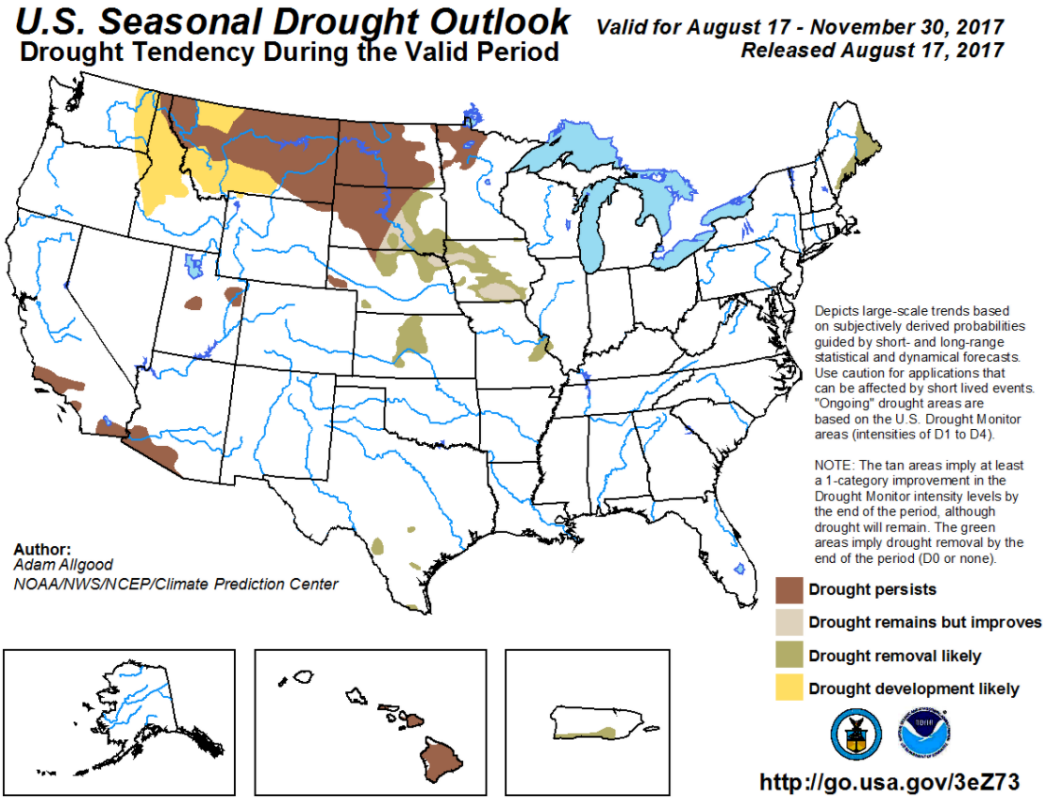
Significant Wildland [Fire Potential Outlook]

Source: National Interagency Fire Center



Seasonal Drought Outlook: August 17 - November 30, 2017

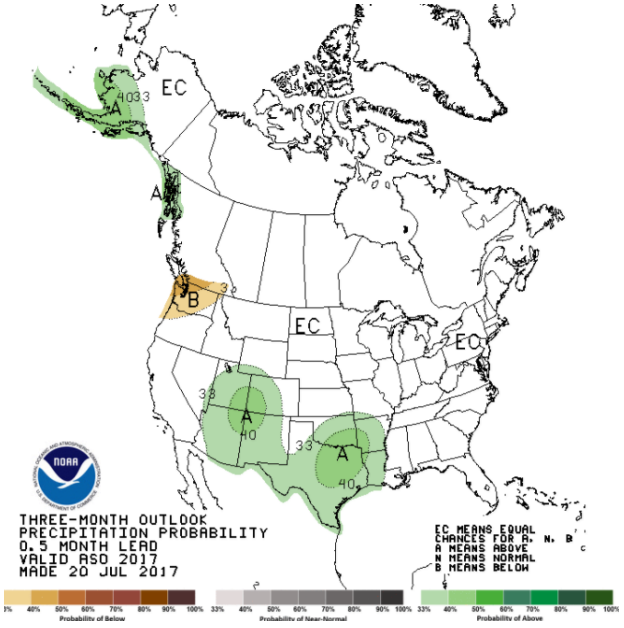
Source: National Weather Service



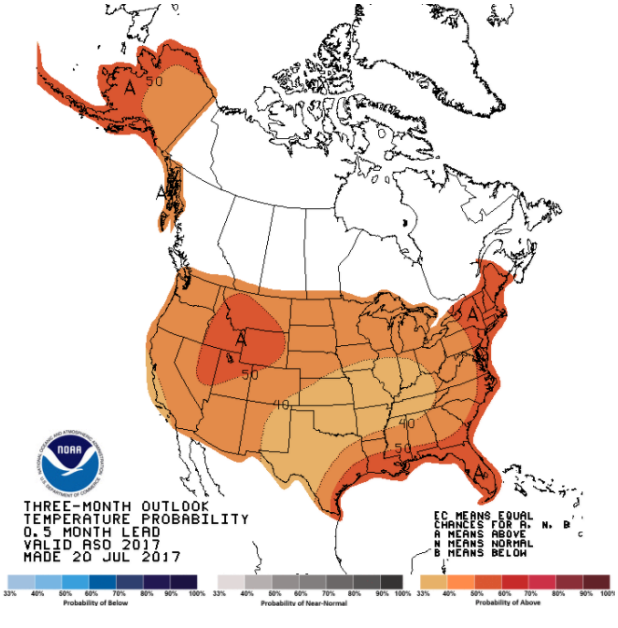
Climate Prediction Center 3-Month Outlook

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.