

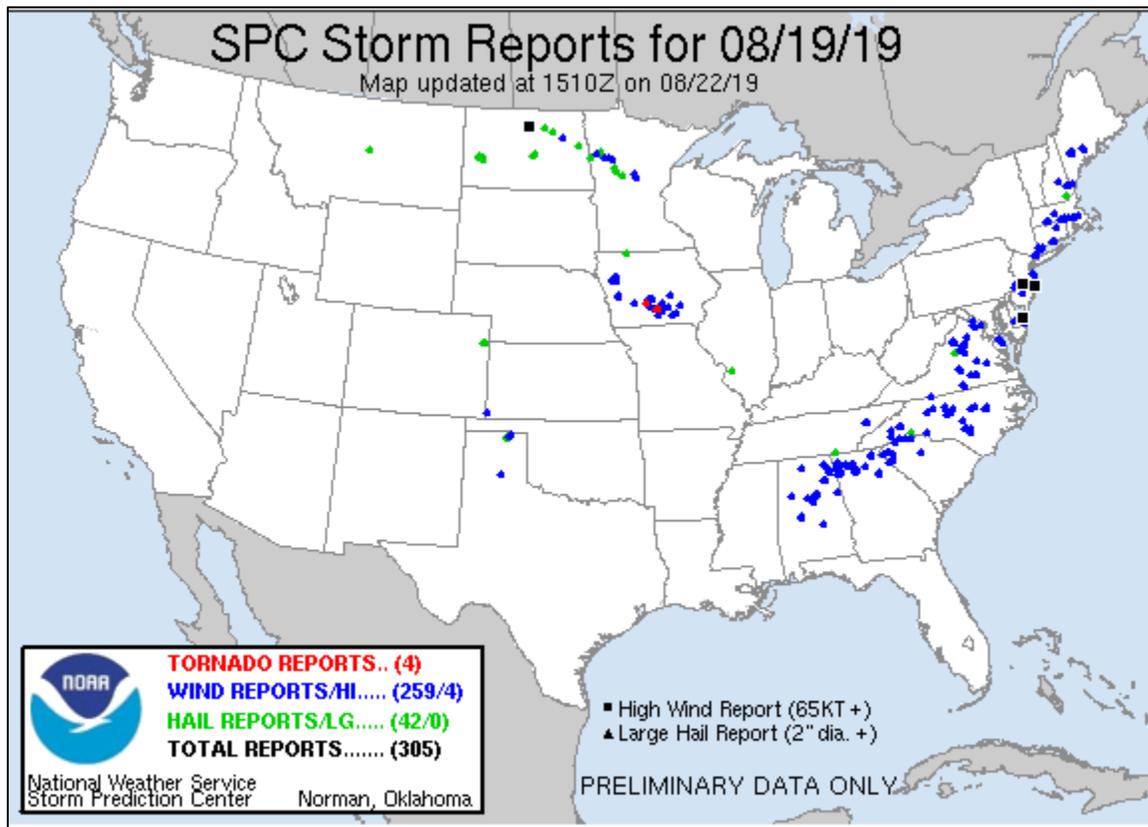
Water and Climate Update

August 22, 2019

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	2	Other Climatic and Water Supply Indicators	11
Temperature.....	6	Short- and Long-Range Outlooks.....	15
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Severe weather in the Upper Midwest and East Coast



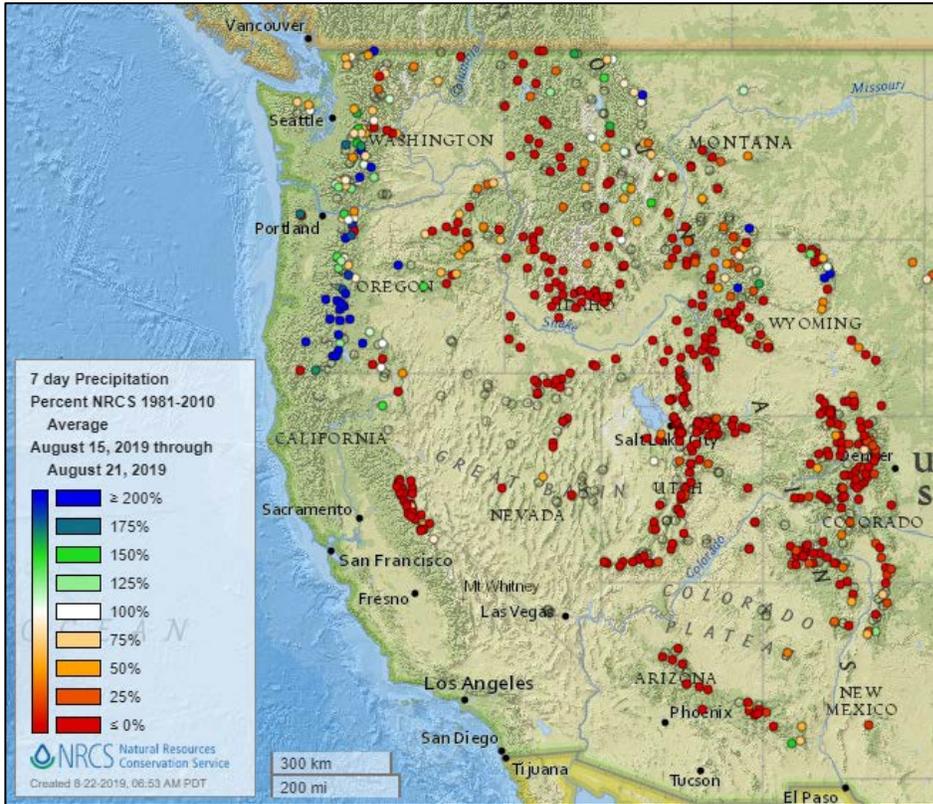
Thunderstorms were forecast across much of the northern Midwest and East Coast this week, with storm reports shown in the illustration above. Severe thunderstorms with damaging winds and tornadoes caused damage and flash flooding in Iowa and into northwest Illinois. The storms produced areas of straight-line wind damage with four tornadoes reported in south-central Iowa.

Related:

- [National Weather Service confirms De Soto, Lacona tornadoes](#) – KCCI (IA)
- [Gov. Reynolds Issues Disaster Proclamation for Storm-Impacted Counties](#) – WHOTV (IA)
- [Severe Storm Spawns Tornadoes, Causes Major Damage and Flash Flooding](#) – WHOTV (IA)
- [Three central Iowa counties get funding to help with tornado, storm damage](#) – ABC KCRG 9 (IA)

Precipitation

Last 7 Days, NRCS SNOTEL Network

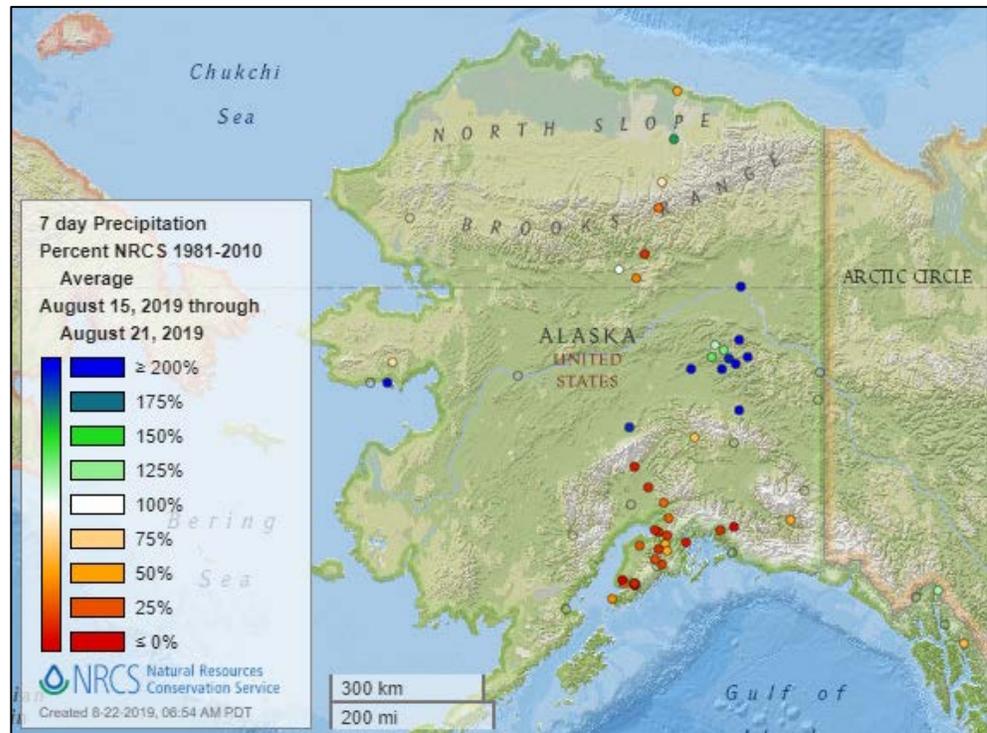


[7-day precipitation percent of average map](#)

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](#)



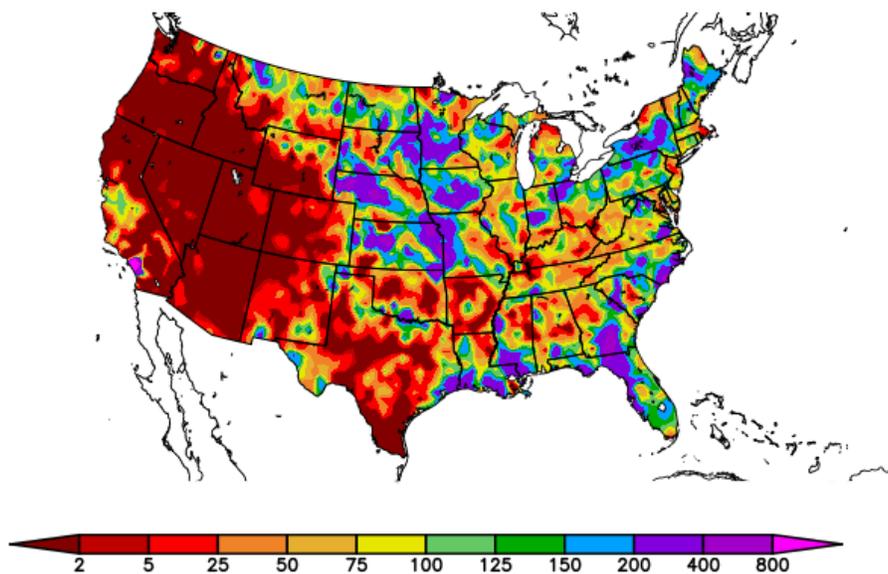
Last 7 Days, National Weather Service (NWS) Networks

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](#)

Percent of Normal Precipitation (%)
8/14/2019 – 8/20/2019



Generated 8/21/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

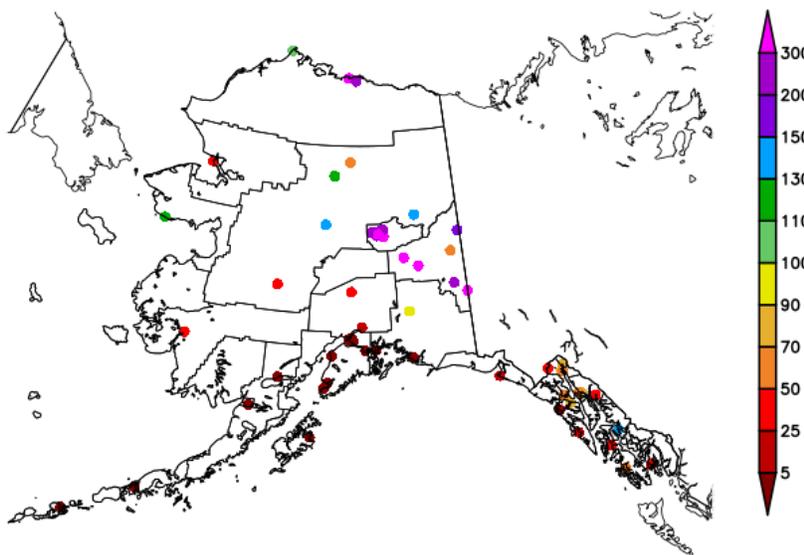
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)
8/14/2019 – 8/20/2019

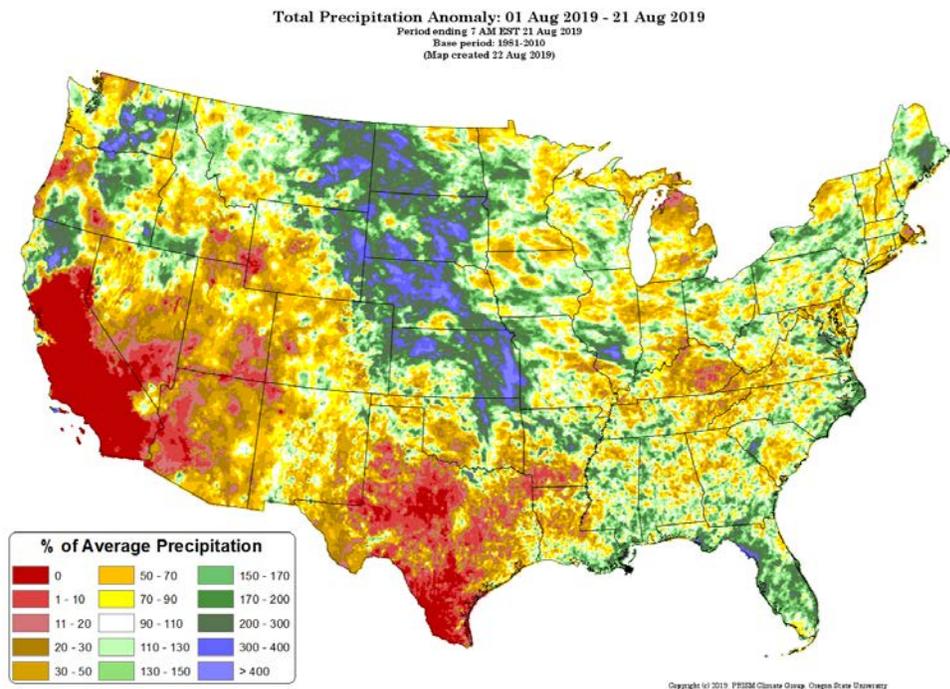


Generated 8/21/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

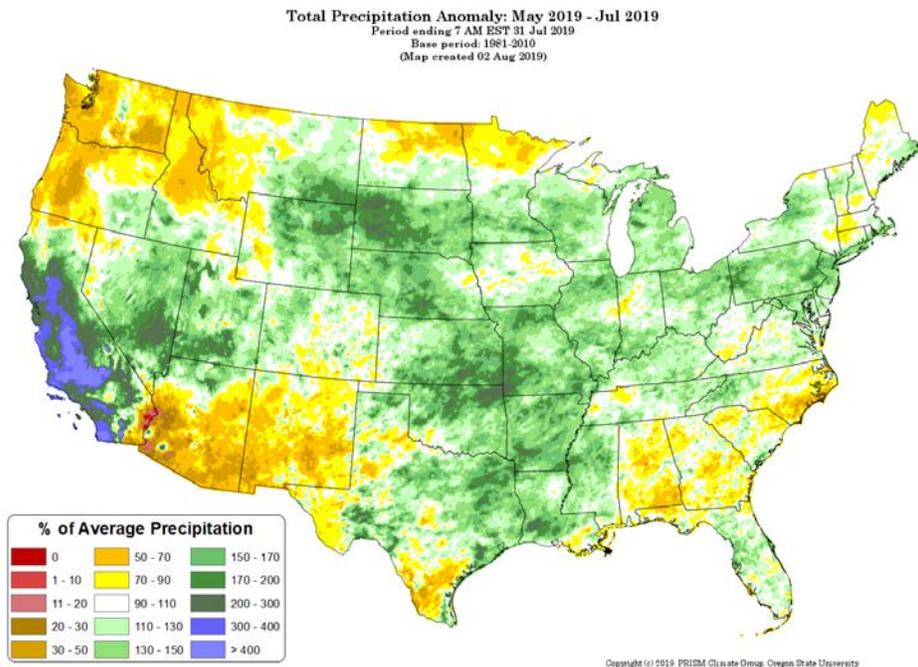


[Month-to-date national total precipitation percent of average map](#)

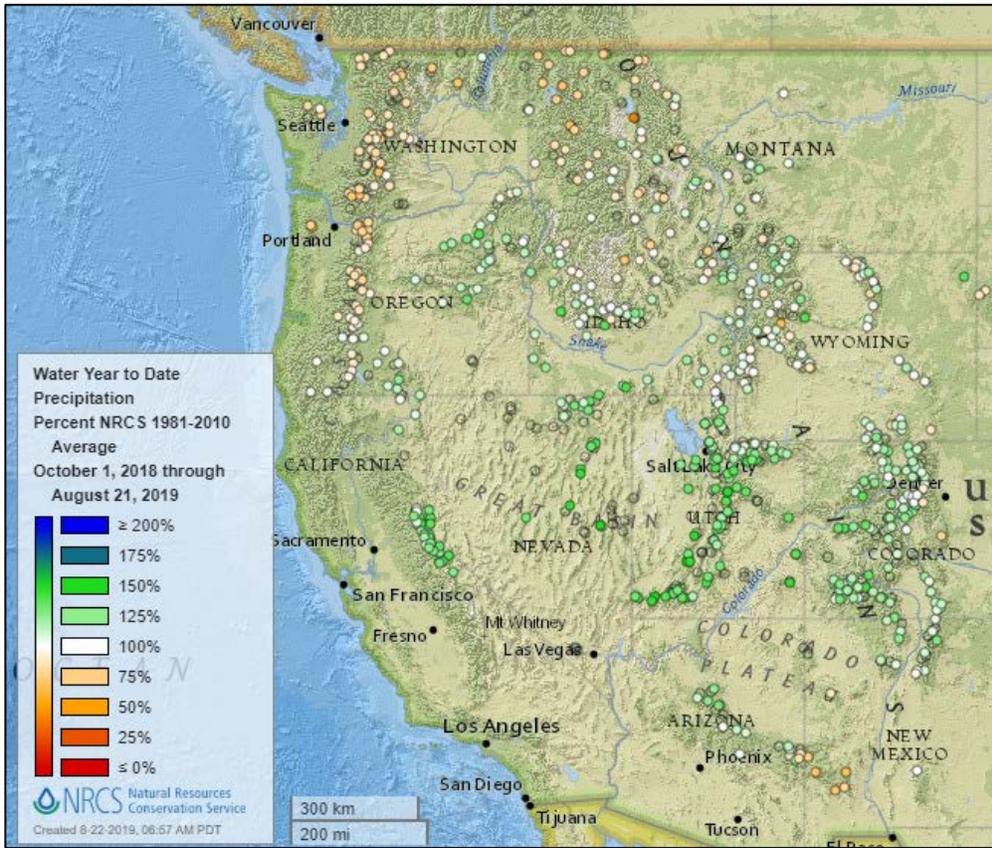
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

[May through July 2019 total precipitation percent of average map](#)

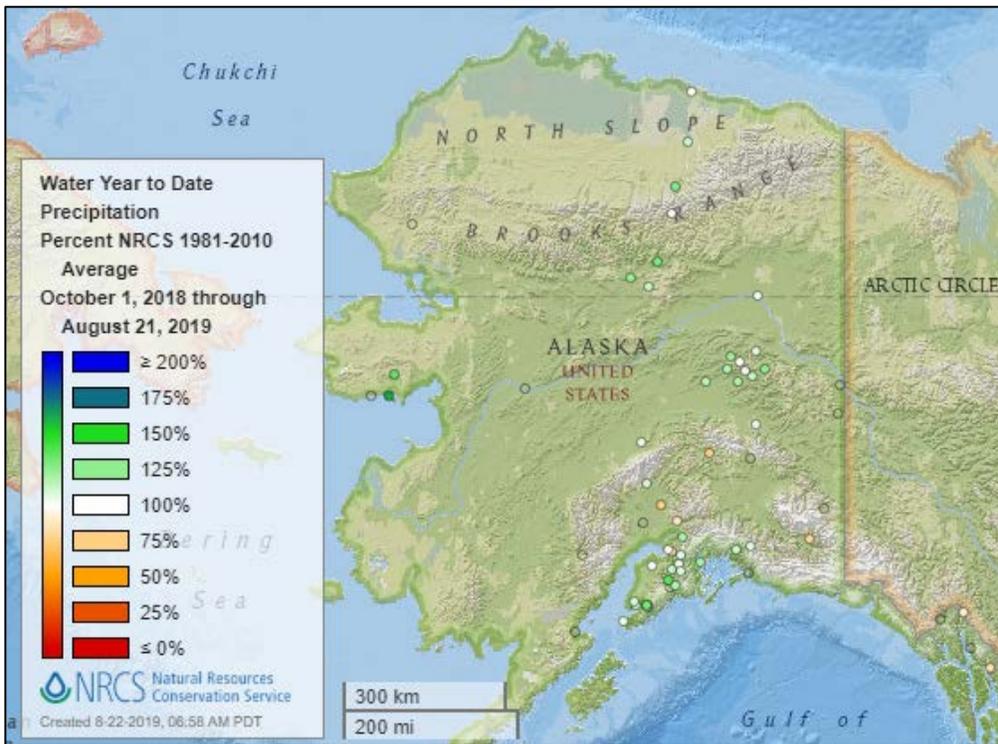


Water Year-to-Date, NRCS SNOTEL Network



[2019 water year-to-date precipitation percent of average map](#)

See also:
[2019 water year-to-date precipitation values \(inches\) map](#)



[Alaska 2019 water year-to-date precipitation percent of average map](#)

See also: [Alaska 2019 water year-to-date precipitation values \(inches\) map](#)

Temperature

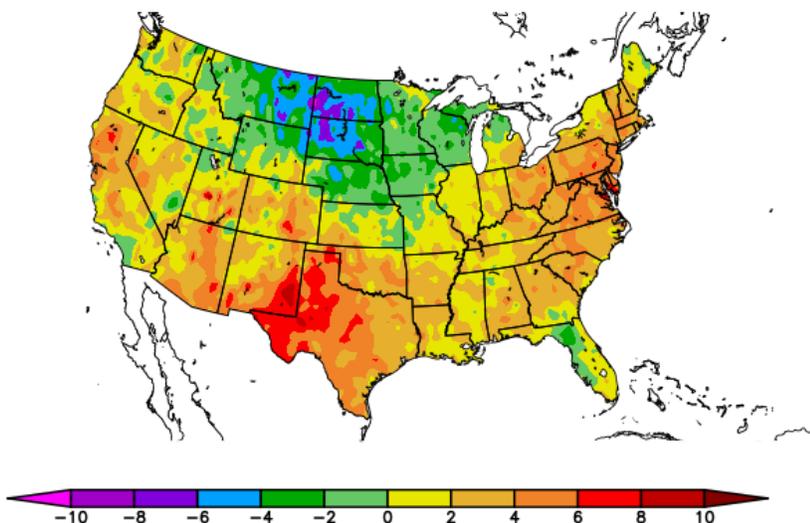
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day temperature anomaly map](#) for the contiguous U.S.

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

Departure from Normal Temperature (F)
8/14/2019 – 8/20/2019



Generated 8/21/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

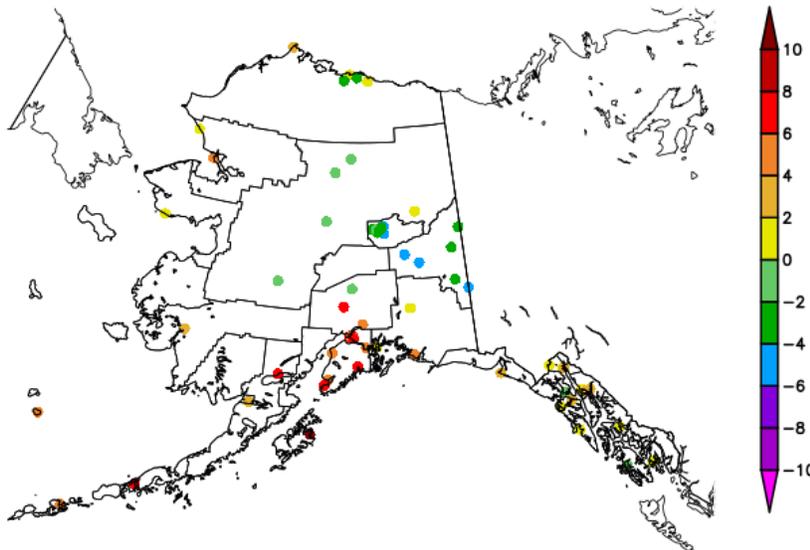
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
8/14/2019 – 8/20/2019



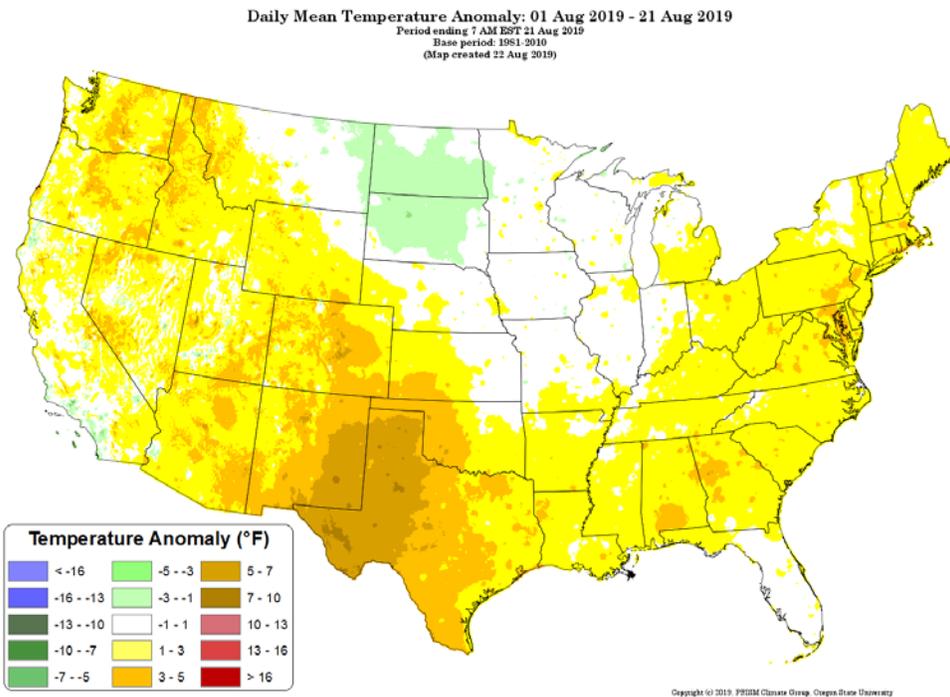
Generated 8/21/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

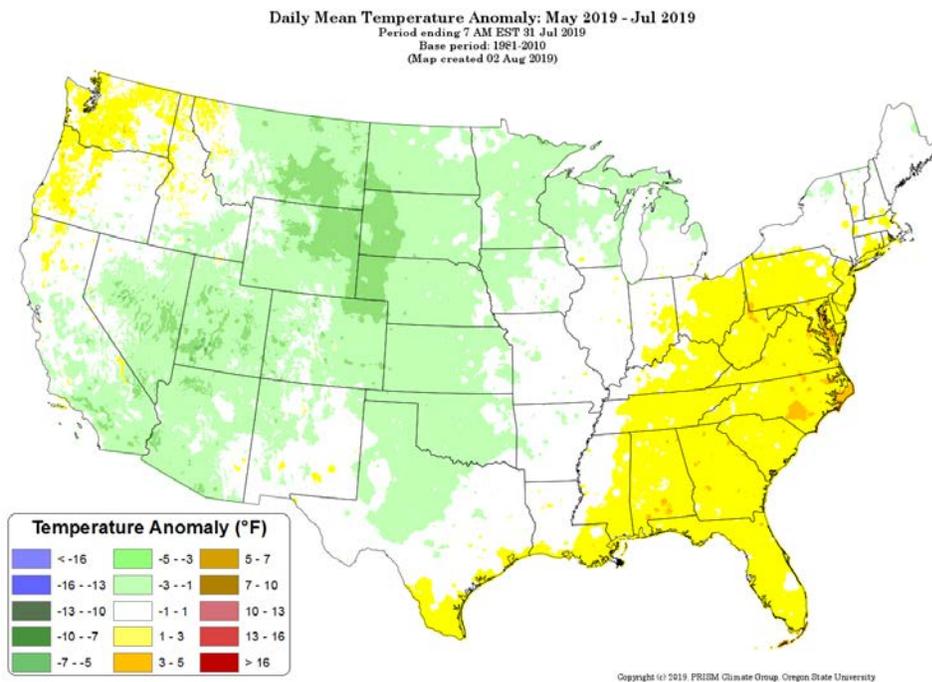
[Month-to-date national daily mean temperature anomaly map](#)



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

Source: PRISM

[May through July 2019 daily mean temperature anomaly map](#)



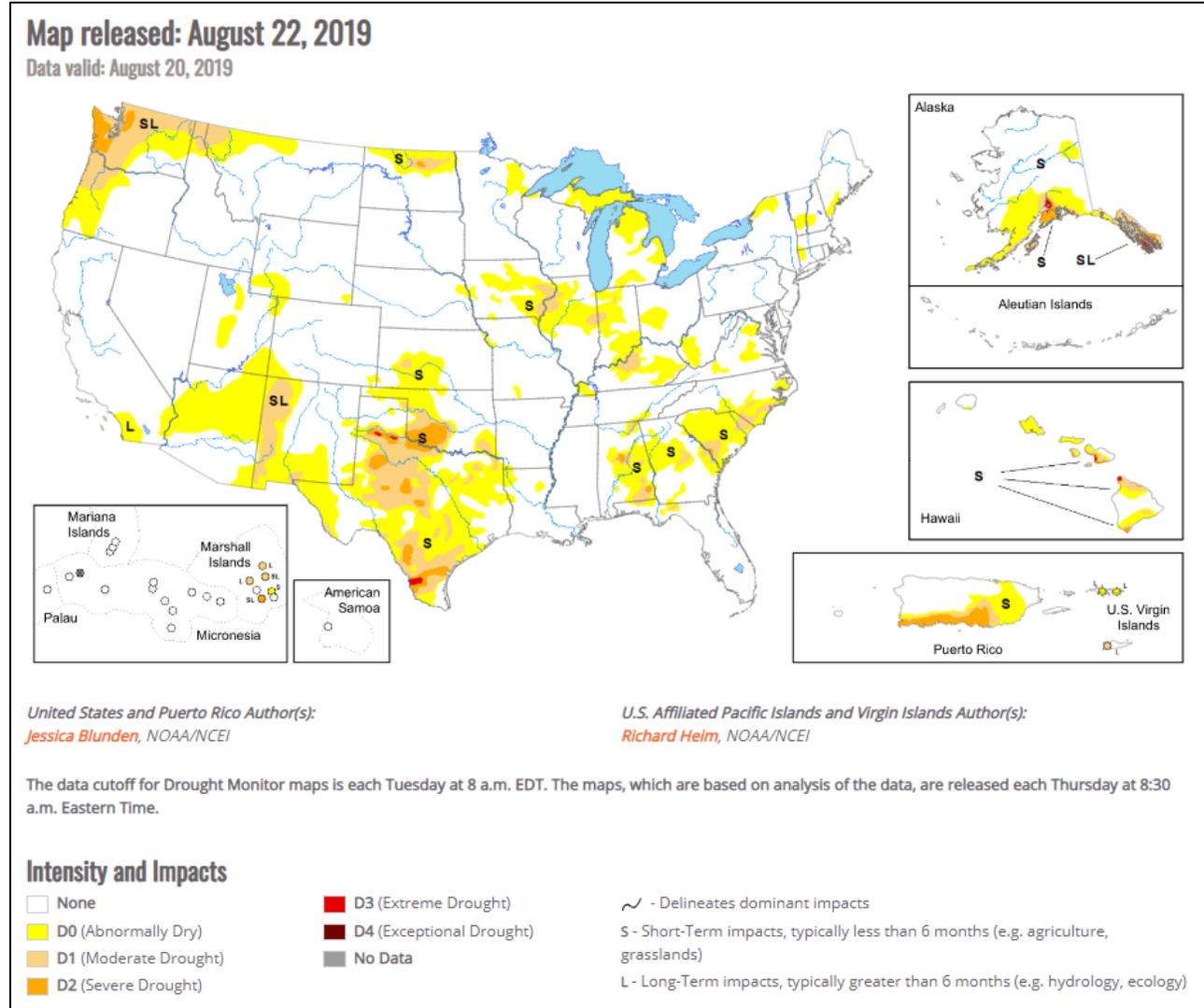
Drought

[U.S. Drought Monitor](#)

Source: National Drought Mitigation Center

[U.S. Drought Portal](#)

Source: NOAA



[Current National Drought Summary, August 22, 2019](#)

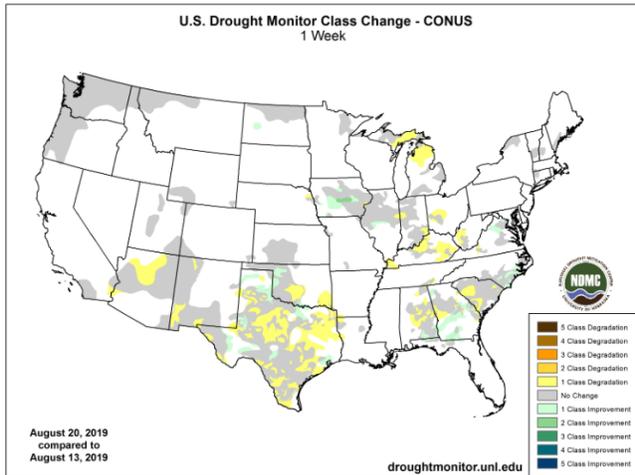
Source: National Drought Mitigation Center

“The United States is in the thralls of summer, and with that can come heat, flash droughts, and occasional, if not frequent, thunderstorm activity. Several areas of the U.S. experienced extreme heat this past week, particularly notable across much of the South and in the East. Parts of western Texas and eastern New Mexico were 6-10 degrees F above their typical averages, with little rainfall to speak of in much of the region. On the other hand much of the northern tier of the U.S. into the Upper Midwest was cool for this time of year, although precipitation amounts there were a mixed bag. In the Southwest, the North American monsoon continues to fail, worsening conditions in areas that had received more than ample precipitation over the winter and spring. To the north, south central Alaska continues to see record or near-record heat and dryness, and conditions are deteriorating quickly there, with severe impacts.”

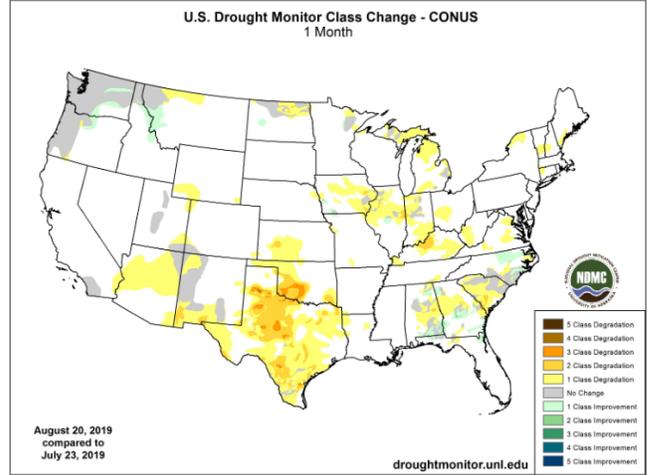
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

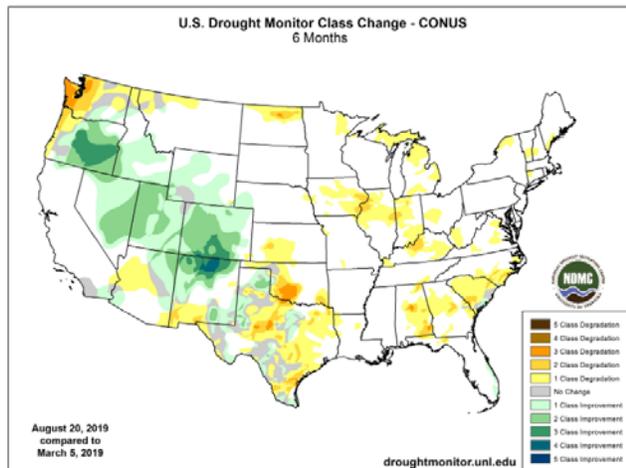
1 Week



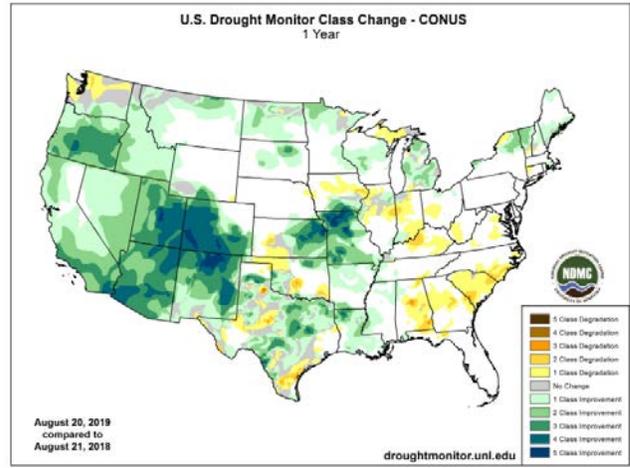
1 Month



6 Months



1 Year



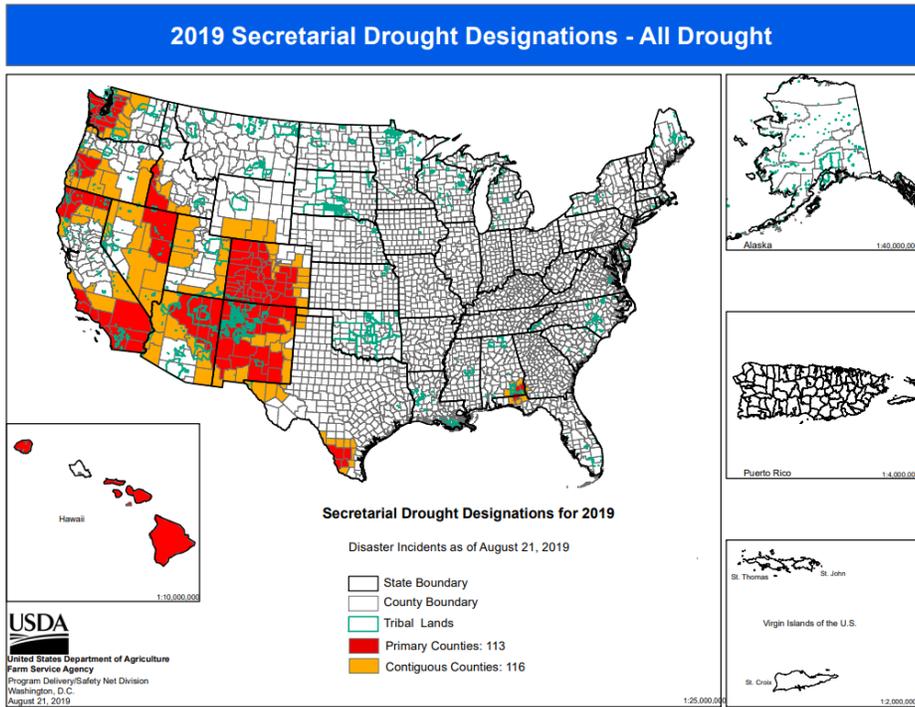
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

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](#)

Secretarial Drought Designations

Source: USDA Farm Service Agency



Wildfires: USDA Forest Service Active Fire Mapping



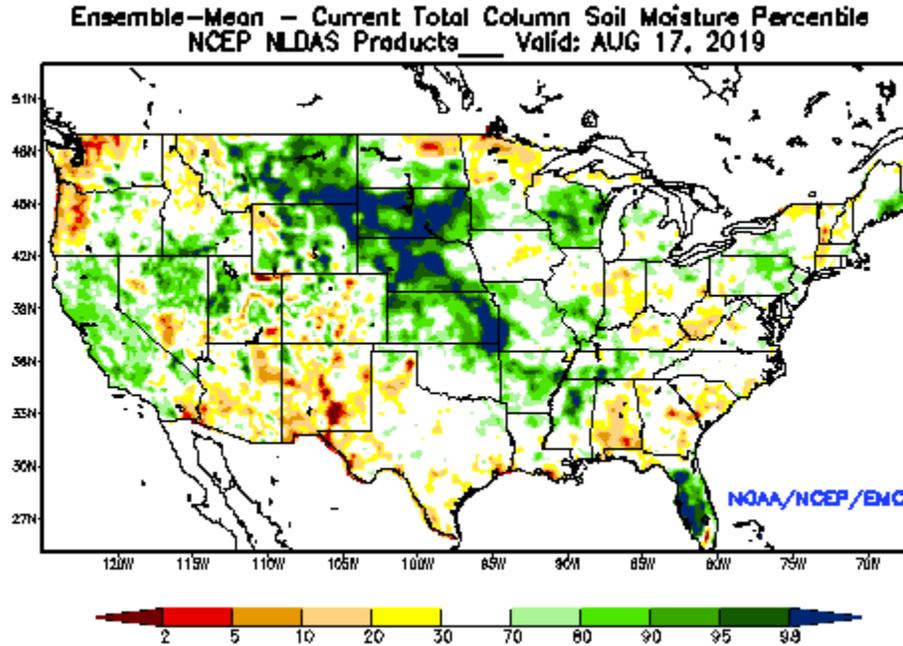
Highlighted Wildfire Resources

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

Other Climatic and Water Supply Indicators

Soil Moisture

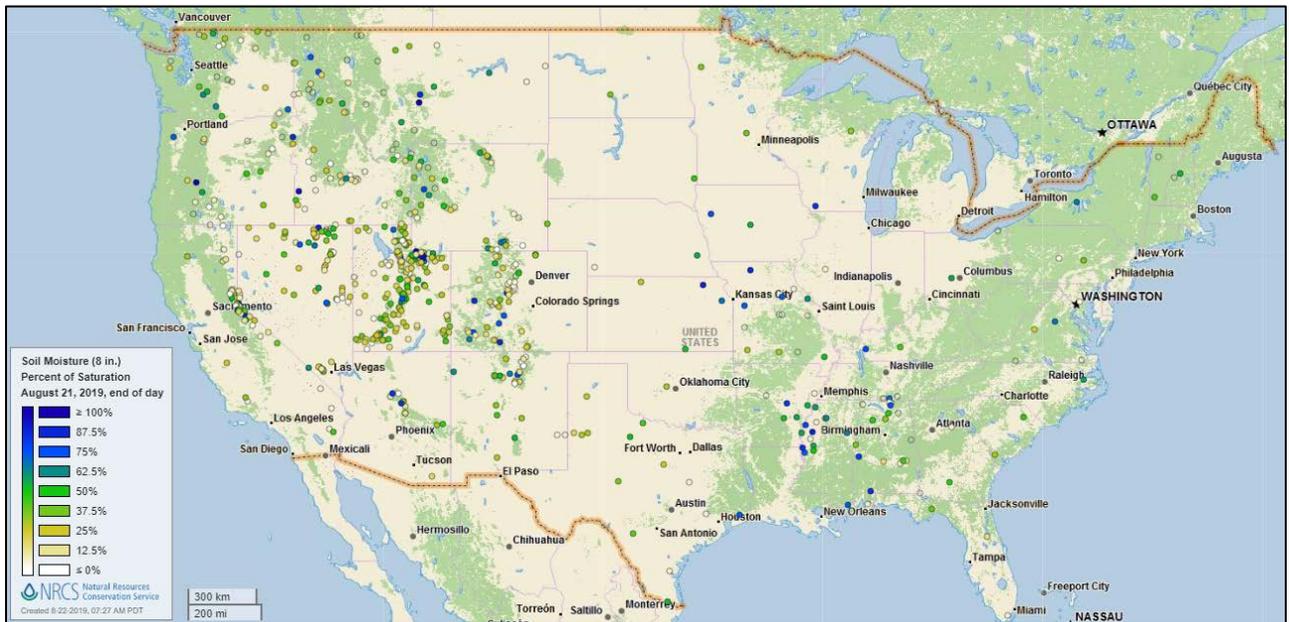
Source: NOAA National Centers for Environmental Prediction



[Modeled soil moisture percentiles](#) as of August 17, 2019

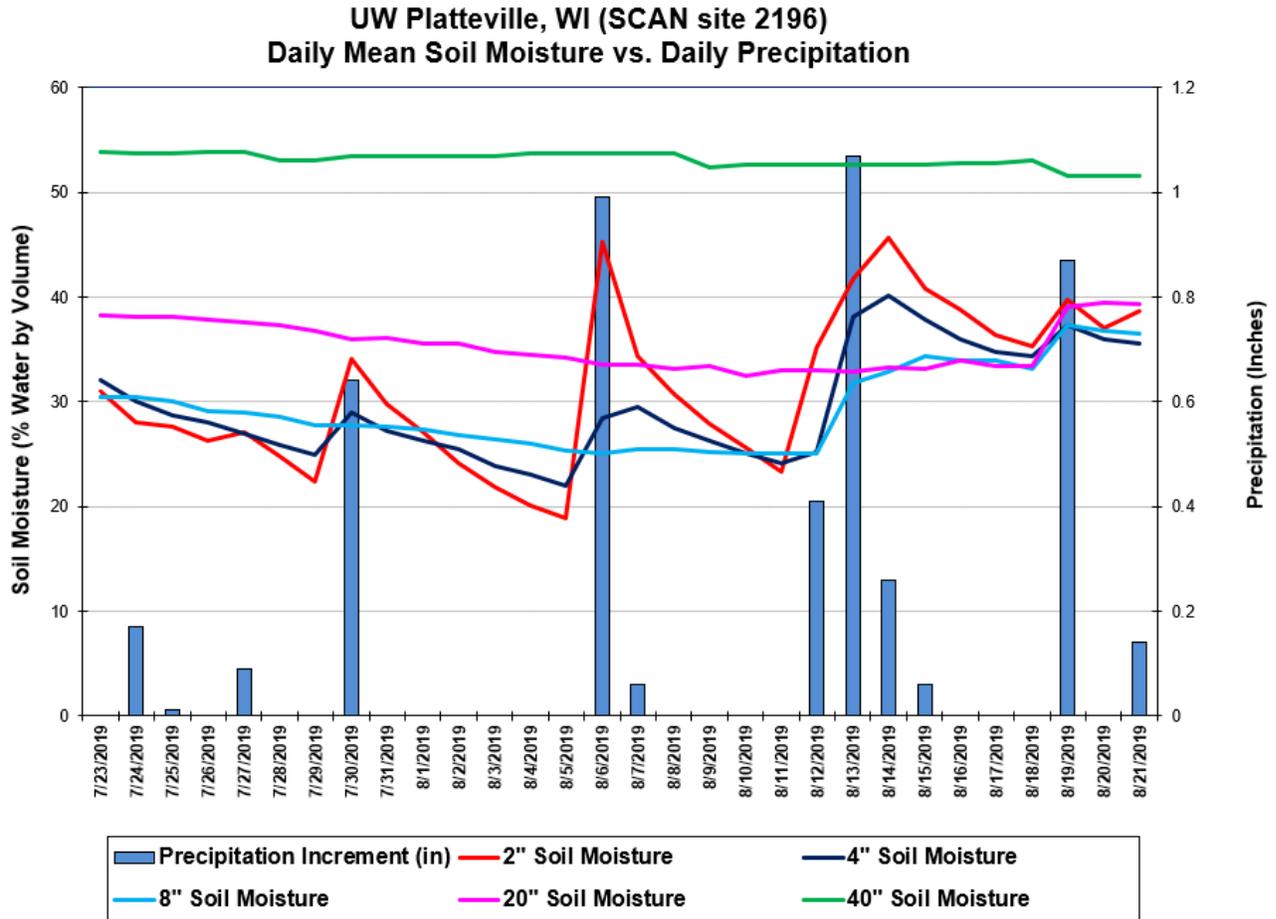
Soil Moisture Percent of Saturation

Source: NRCS SNOTEL and [Soil Climate Analysis Network](#) (SCAN)



Soil Moisture Data

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



This chart shows the soil moisture and precipitation for the last 30 days at the [UW Platteville SCAN site](#) in Wisconsin. Several precipitation events throughout the month increased soil moisture at the -2", -4", and -8" sensor levels. Accumulated precipitation throughout the period resulted in an increase in soil moisture at the -20" inch sensor, whereas the -40" sensor showed little change in soil moisture.

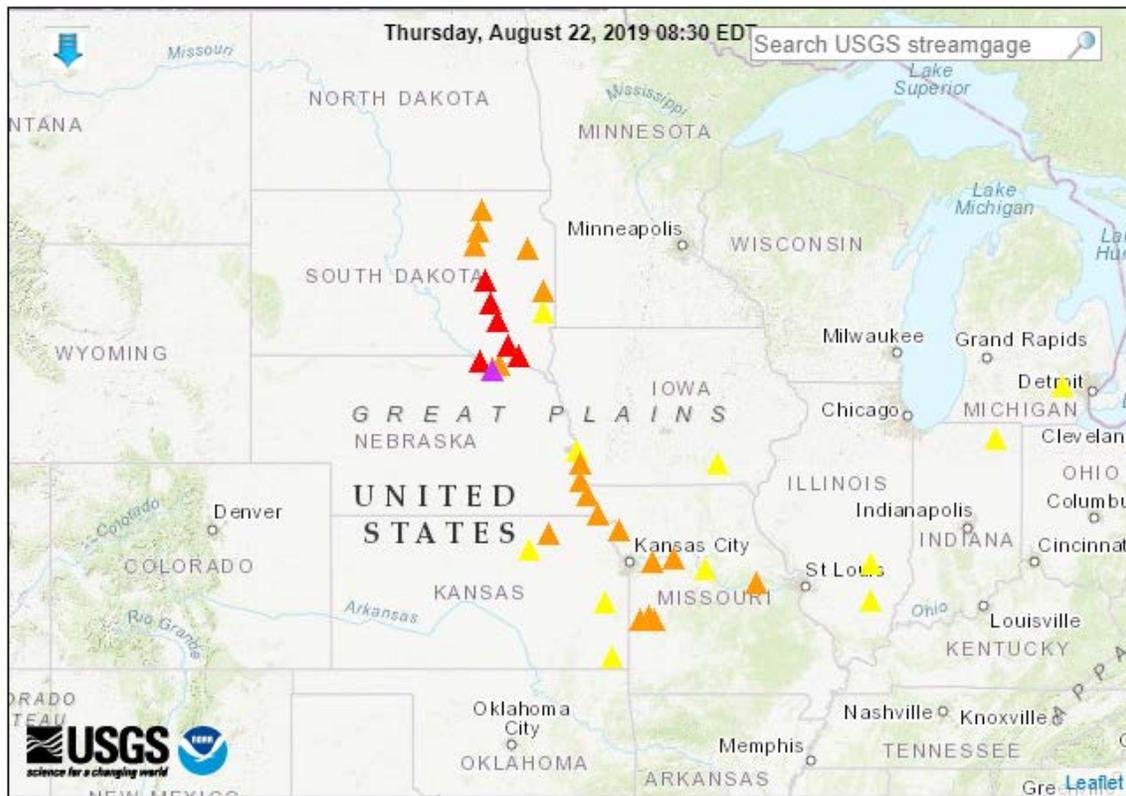
Soil Moisture Data Portals

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

Streamflow, Drought, Flood, and Runoff

Source: U.S. Geological Survey

Map of flood and high flow conditions
 (32 in floods [major: 1, moderate: 6, minor: 25], 20 in near-flood)



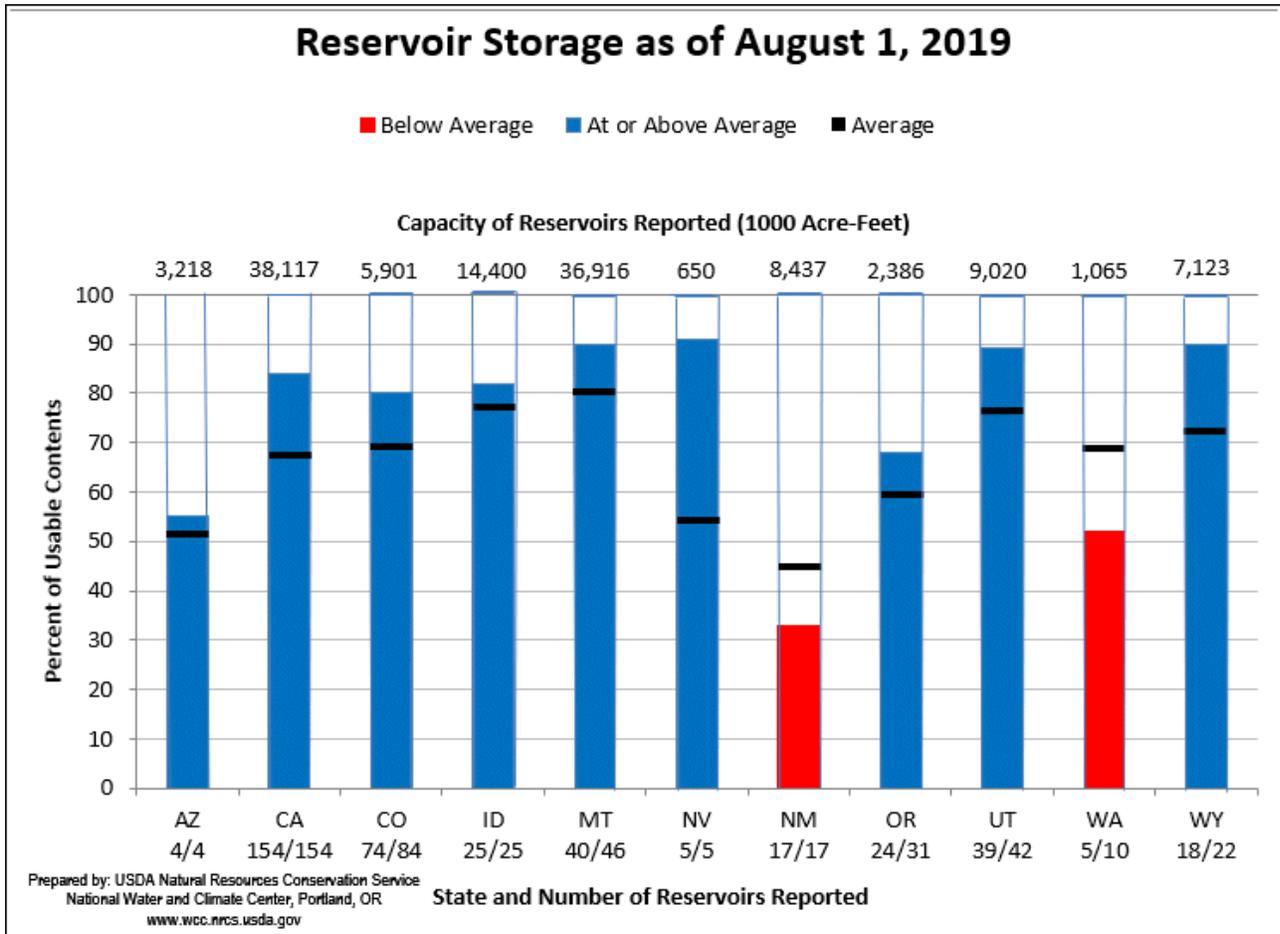
Explanation - Percentile classes						
<95	95-98	>= 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage
			△ Streamgauge with flood stage	○ Streamgauge without flood stage		

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

Reservoir Storage

Western States Reservoir Storage

Source: NRCS National Water and Climate Center



August 1, 2019 Reservoir Storage: [Chart](#) | [Dataset](#)

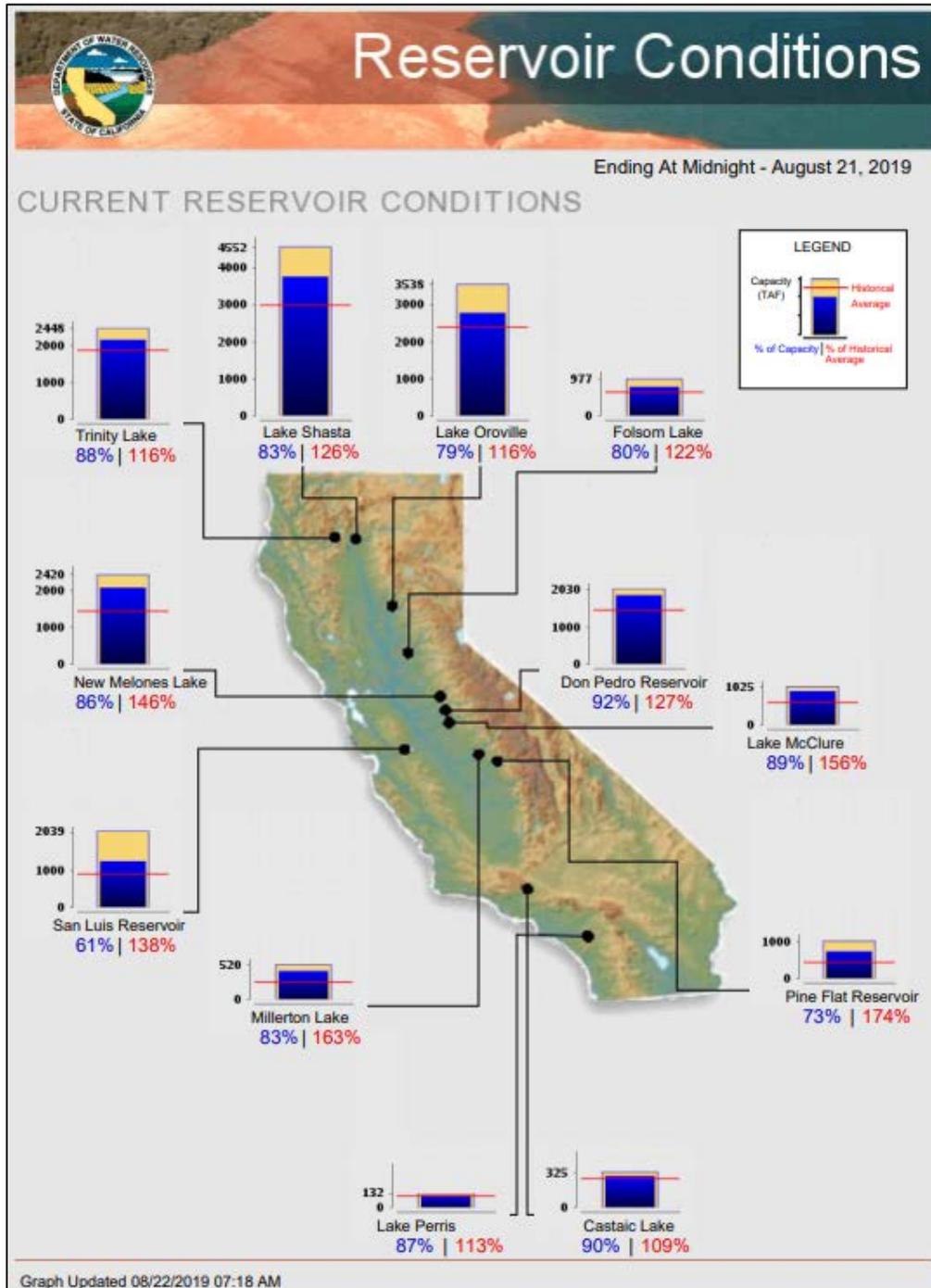
Hydromet Tea Cup Reservoir Depictions

Source: U.S. Bureau of Reclamation

- [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



[Current California Reservoir Conditions](#)

Short- and Long-Range Outlooks

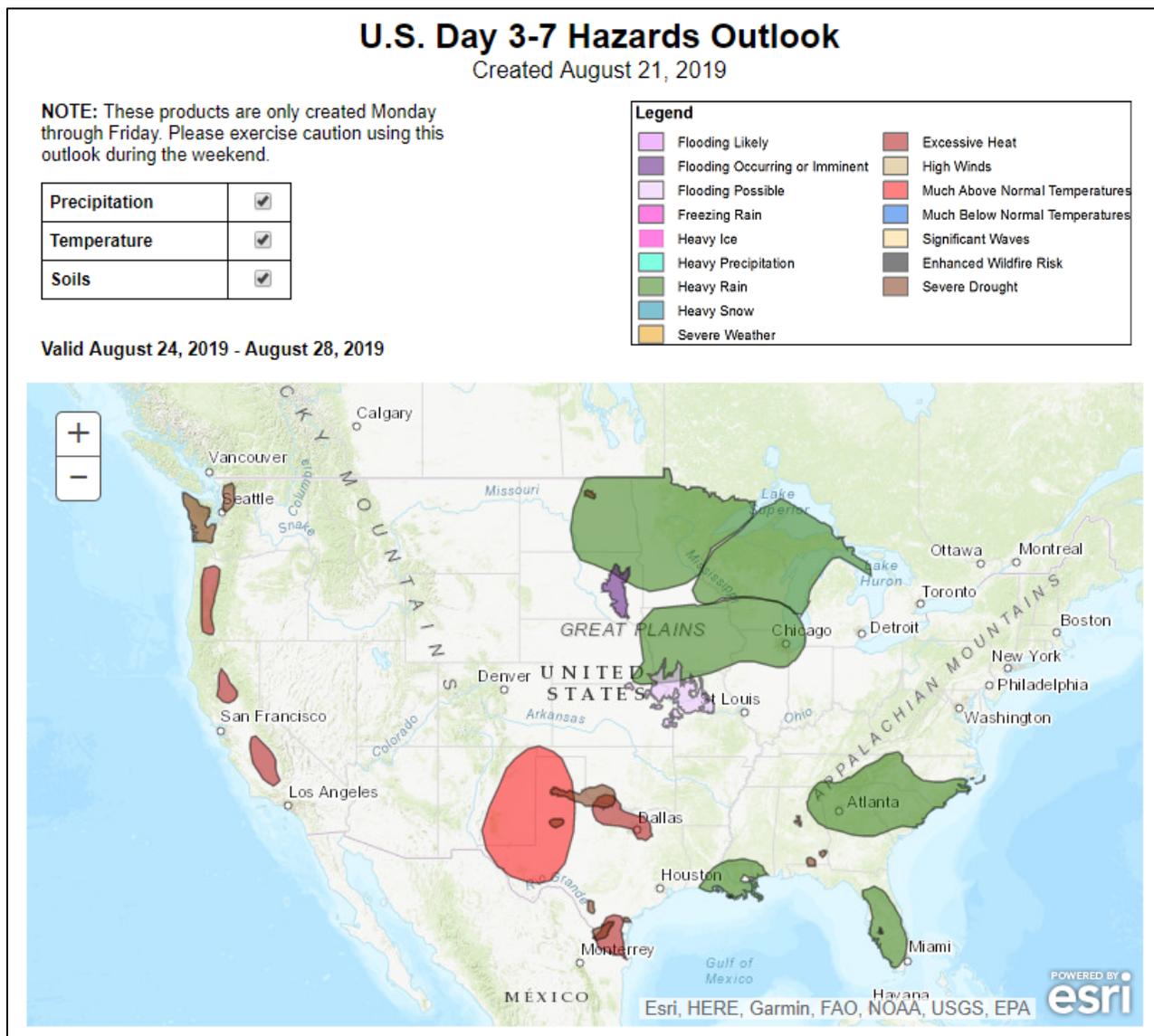
Agricultural Weather Highlights

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

National Outlook, Thursday, August 22, 2019: “During the next several days, cold fronts will have some success in suppressing heat and humidity across the central and eastern U.S. However, hot, humid conditions will persist along and near the Gulf Coast, while the southern Plains will experience only a temporary reprieve before excessively hot weather returns late in the weekend. Hot weather will also persist into next week across much of the interior West, where little or no rain will fall. In contrast, 5-day rainfall totals could reach 1 to 3 inches or more in several areas, including the upper Midwest, the central Gulf Coast region, and from the central Plains to the middle and southern Atlantic Coast. The NWS 6- to 10-day outlook for August 27 – 31 calls for cooler-than-normal conditions across the Plains, mid-South, and upper Midwest, while above-normal temperatures will cover the East, the Rio Grande Valley, and areas west of the Rockies. Meanwhile, drier-than-normal weather in the Northwest will contrast with near- or above-normal rainfall across the remainder of the country.”

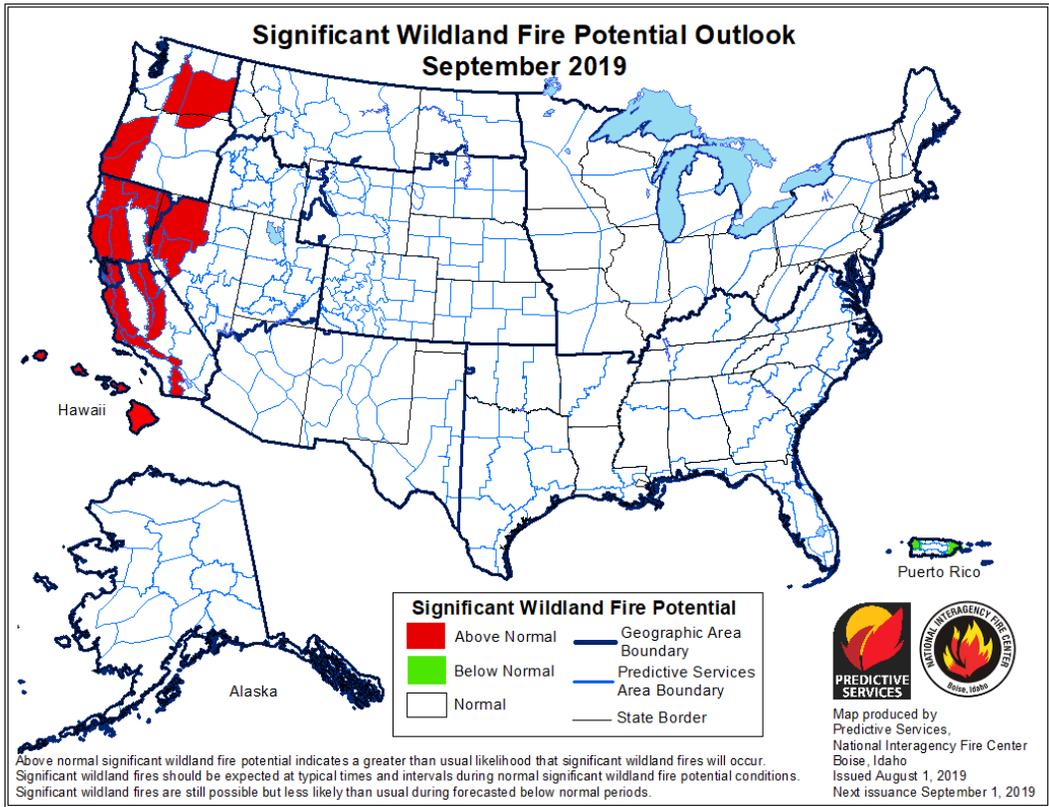
Weather Hazards Outlook: [August 24 – 28, 2019](#)

Source: NOAA Climate Prediction Center



Significant Wildland [Fire Potential Outlook](#)

Source: National Interagency Fire Center

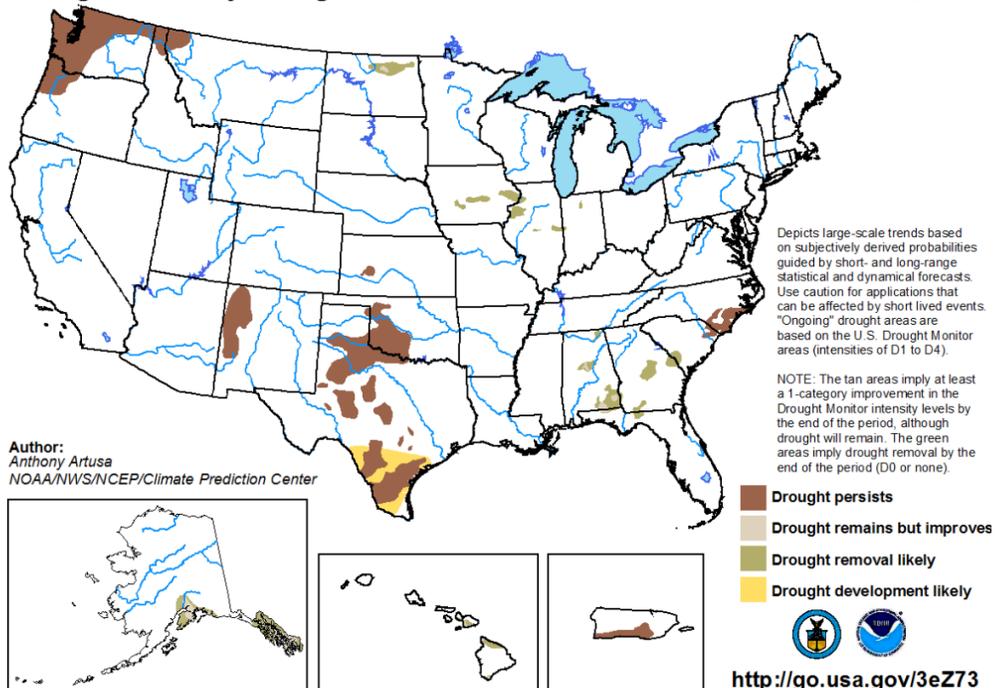


Seasonal Drought Outlook: [August 15 – November 30, 2019](#)

Source: National Weather Service

U.S. Seasonal Drought Outlook
Drought Tendency During the Valid Period

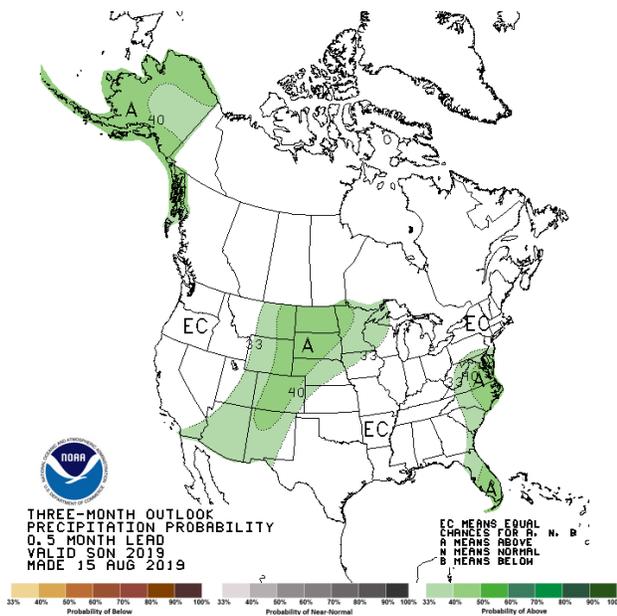
Valid for August 15 - November 30, 2019
Released August 15



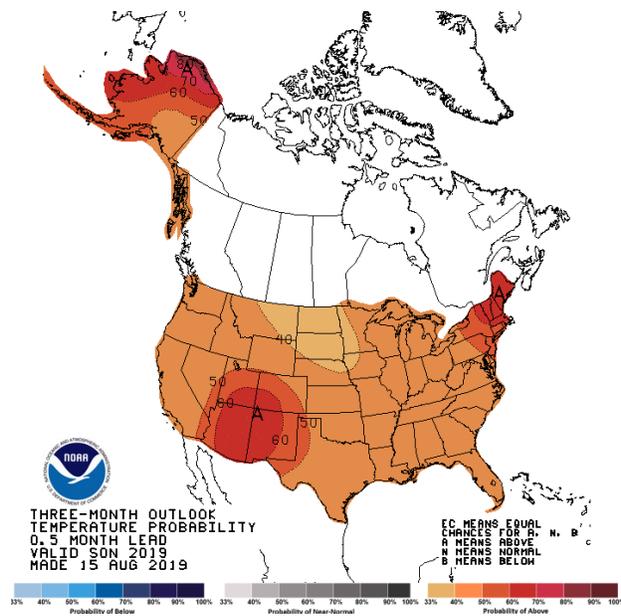
Climate Prediction Center 3-Month Outlook

Source: National Weather Service

Precipitation



Temperature



[September-October-November \(SON\) 2019 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](#).