

# Water and Climate Update

August 29, 2019

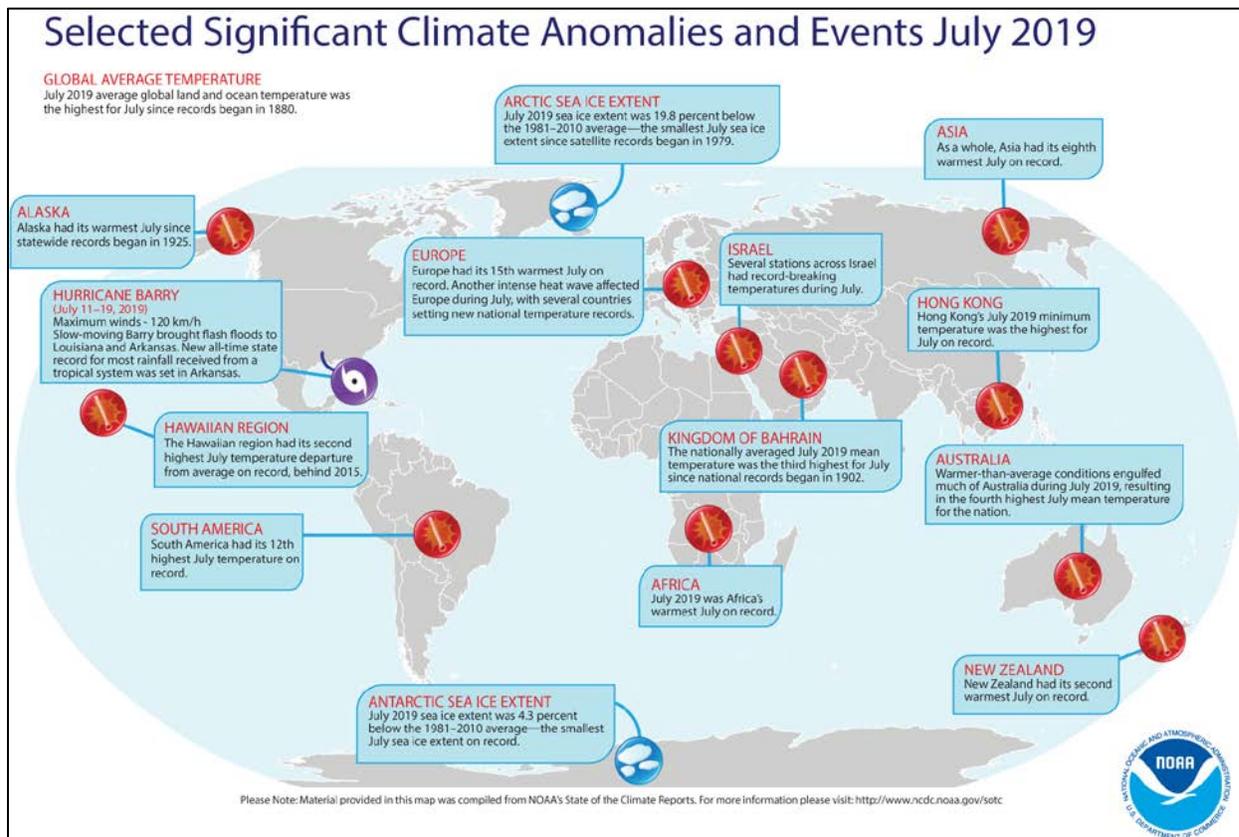
The Natural Resources Conservation Service produces this weekly report using data and products from the [National Water and Climate Center](#) and other agencies. The report focuses on seasonal snowpack, precipitation, temperature, and drought conditions in the U.S.

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## July 2019: Hottest month on record globally

July 2019 was the Earth's hottest month since record-keeping began in 1880. According to the National Oceanic and Atmospheric Administration (NOAA), the global temperature for July was 62.13°F, which was 1.71 degrees higher than the average for the 20th century.

NOAA also reported that nine out of 10 of the hottest Julys have occurred since 2005, with the last five years ranking as the five hottest.

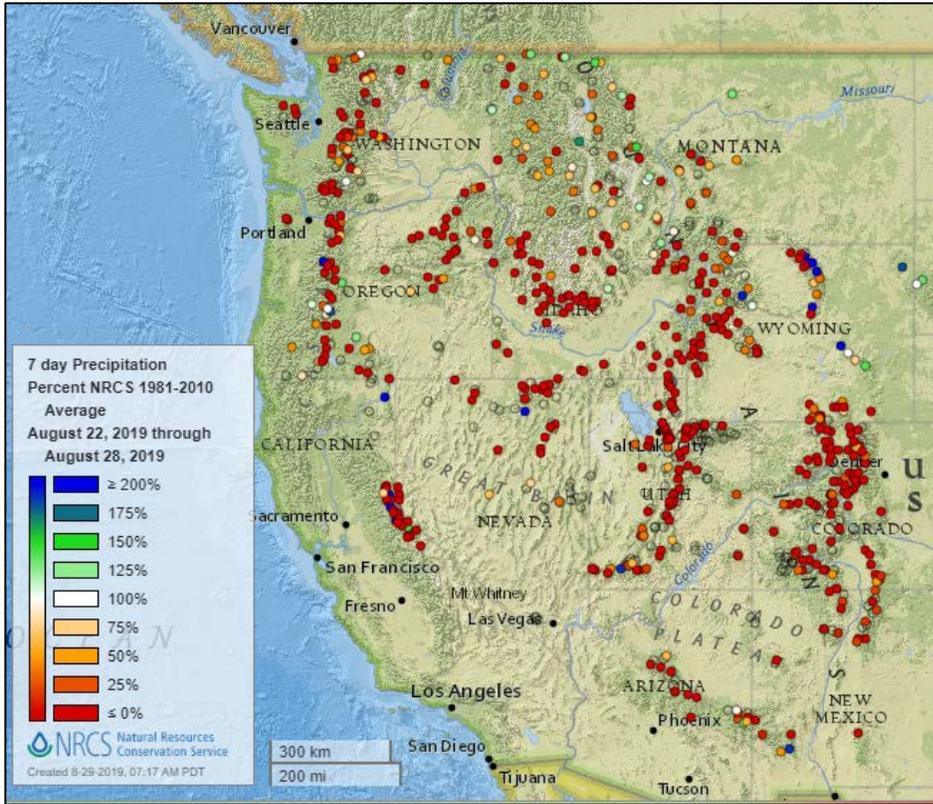


**Related:**

- [July 2019 was hottest month on record for the planet](#) NOAA
- [Assessing the Global Climate in July 2019](#) National Centers for Environmental Information (NCEI)
- [July 2019 was Earth's hottest month on record in any year dating back to 1880](#) USA Today

# Precipitation

## Last 7 Days, NRCS SNOTEL Network

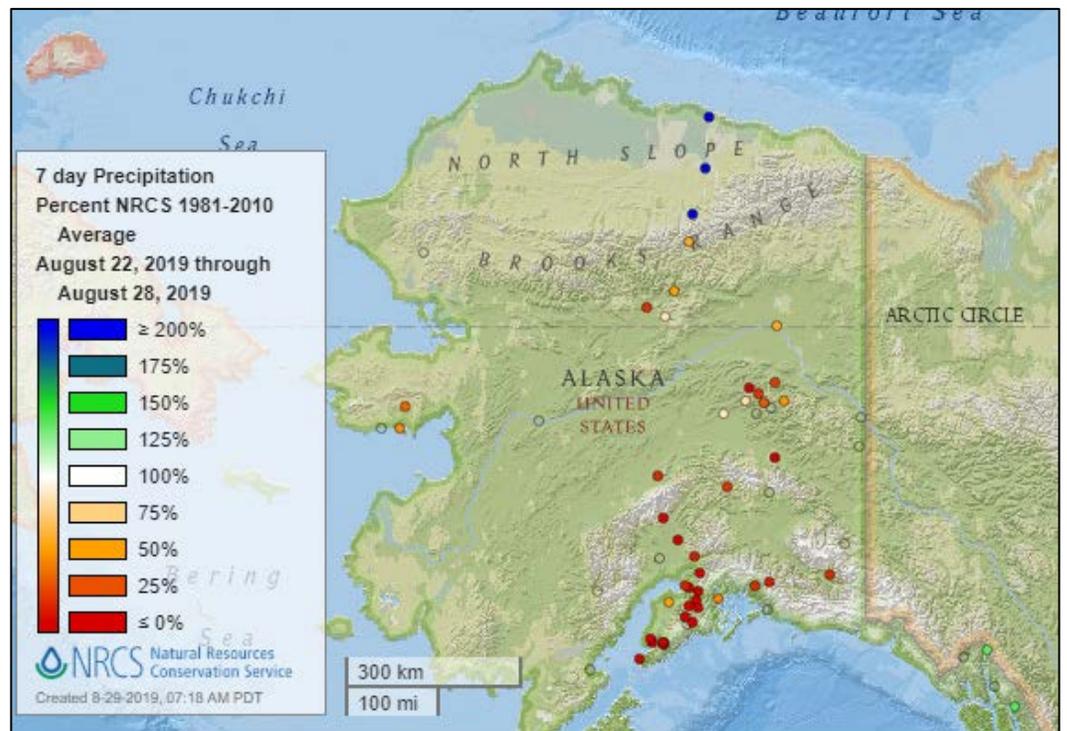


[7-day precipitation percent of average map](#)

**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](#)



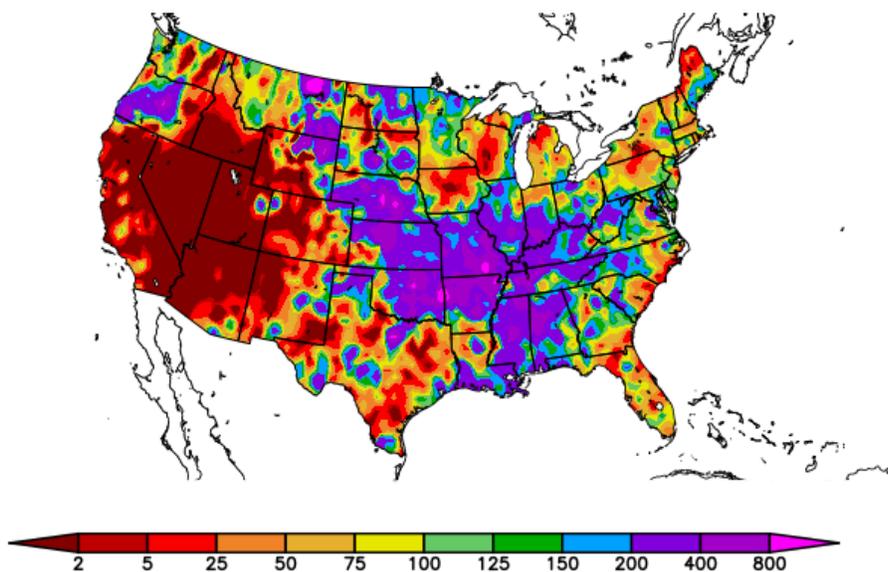
**Last 7 Days, National Weather Service (NWS) Networks**

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 (%)  
8/21/2019 – 8/27/2019



Generated 8/28/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

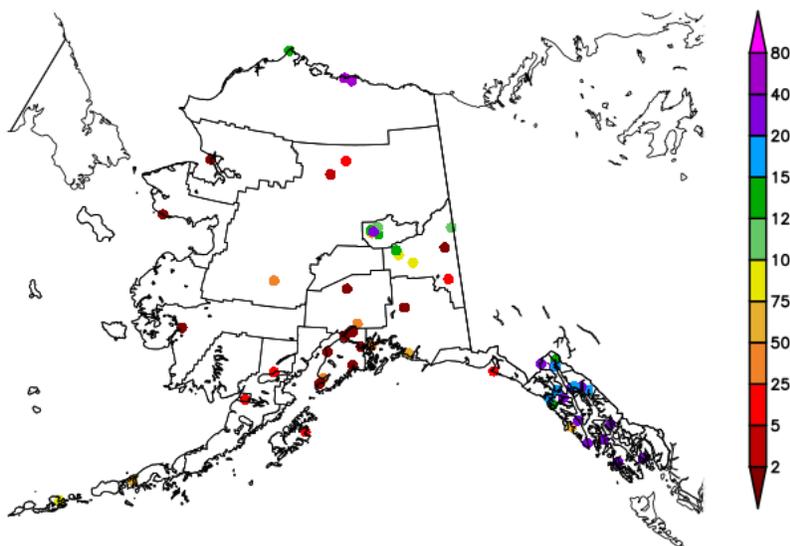
**Last 7 Days, National Weather Service (NWS) Networks**

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)  
8/21/2019 – 8/27/2019

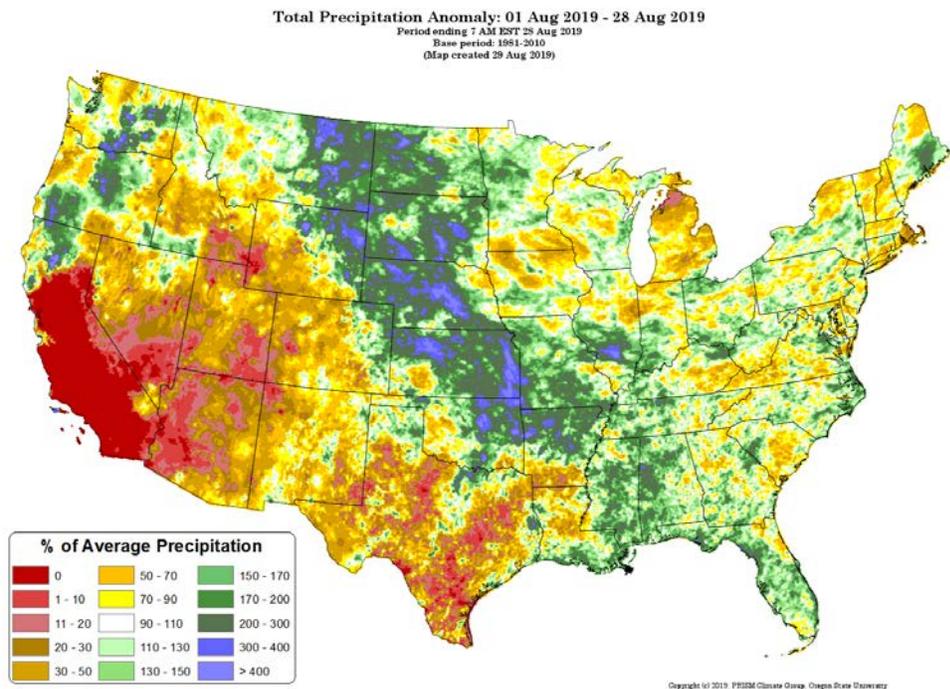


Generated 8/28/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

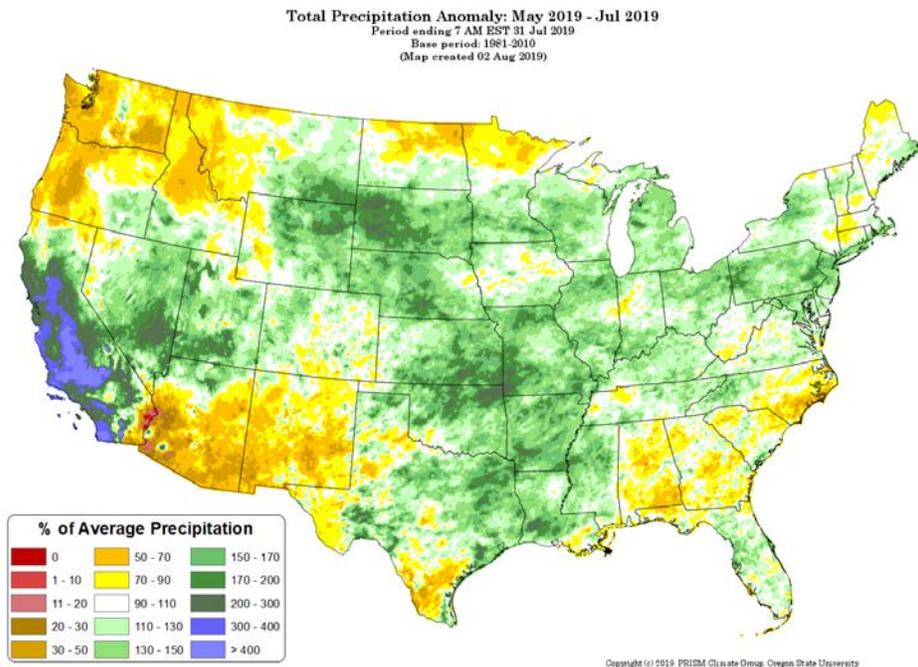


[Month-to-date national total precipitation percent of average map](#)

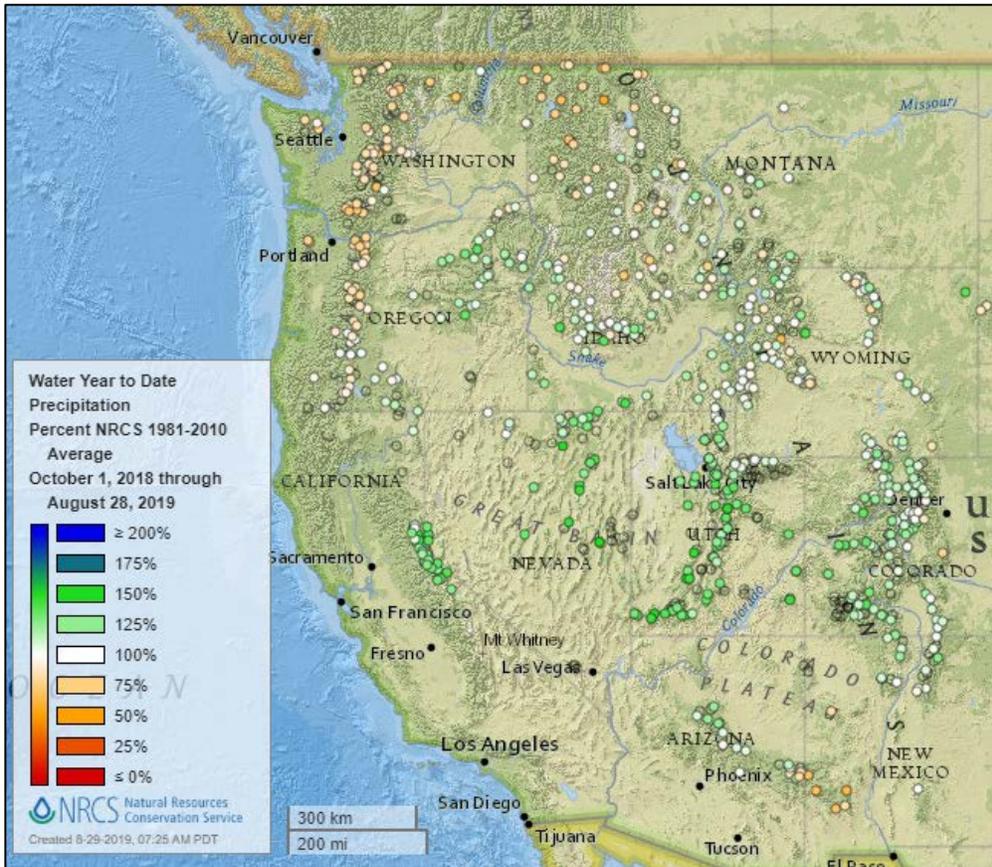
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

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

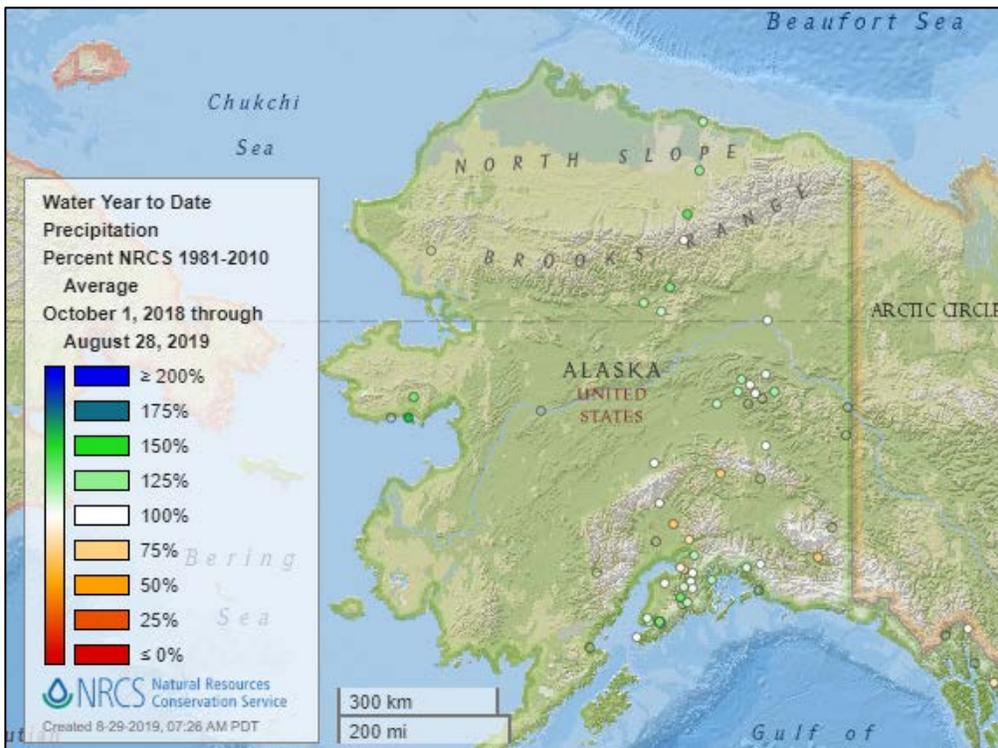


Water Year-to-Date, NRCS SNOTEL Network



[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

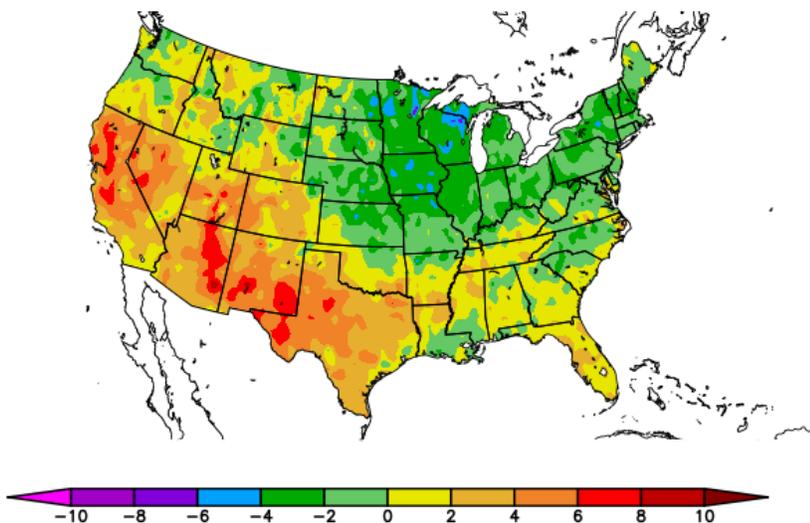
### Last 7 Days, National Weather Service (NWS) Networks

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)  
8/21/2019 – 8/27/2019



Generated 8/28/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

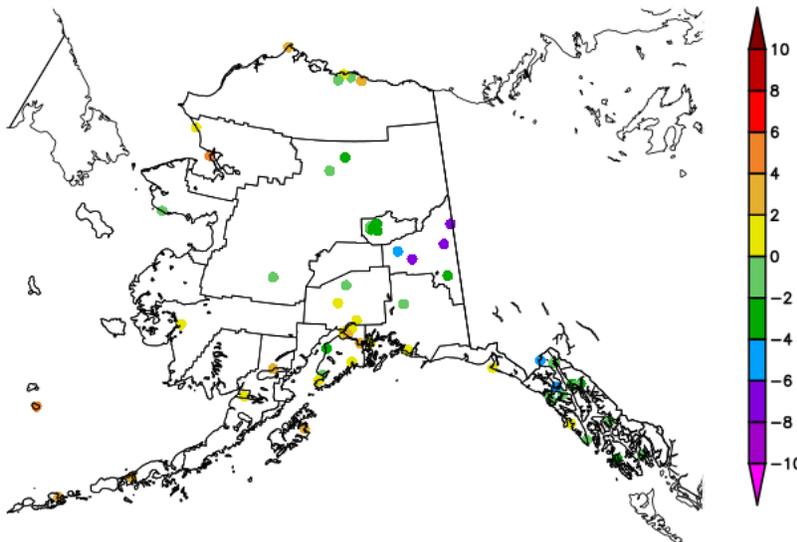
### Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)  
8/21/2019 – 8/27/2019



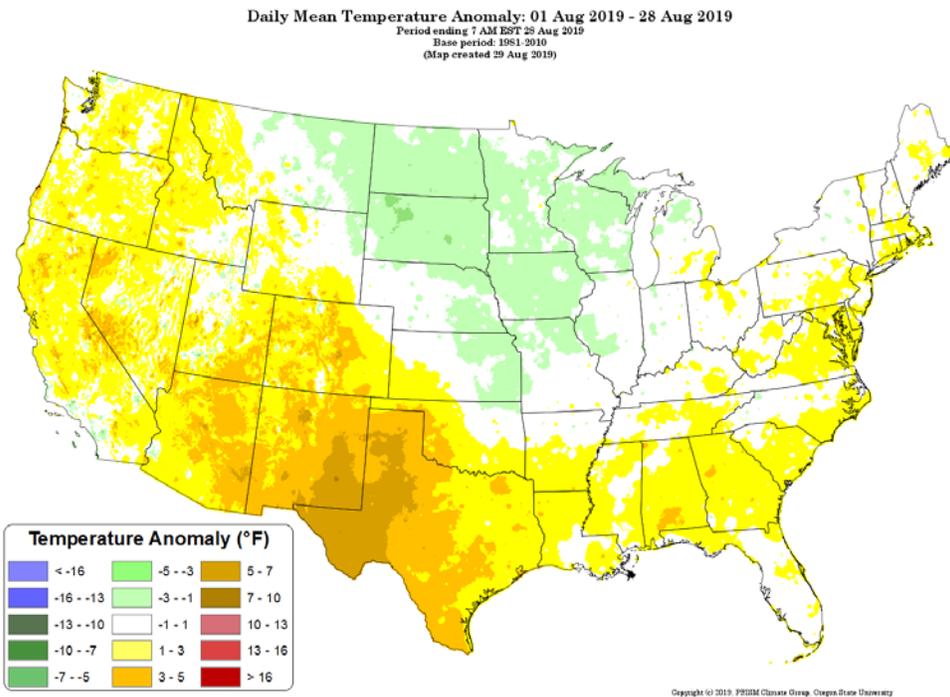
Generated 8/28/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

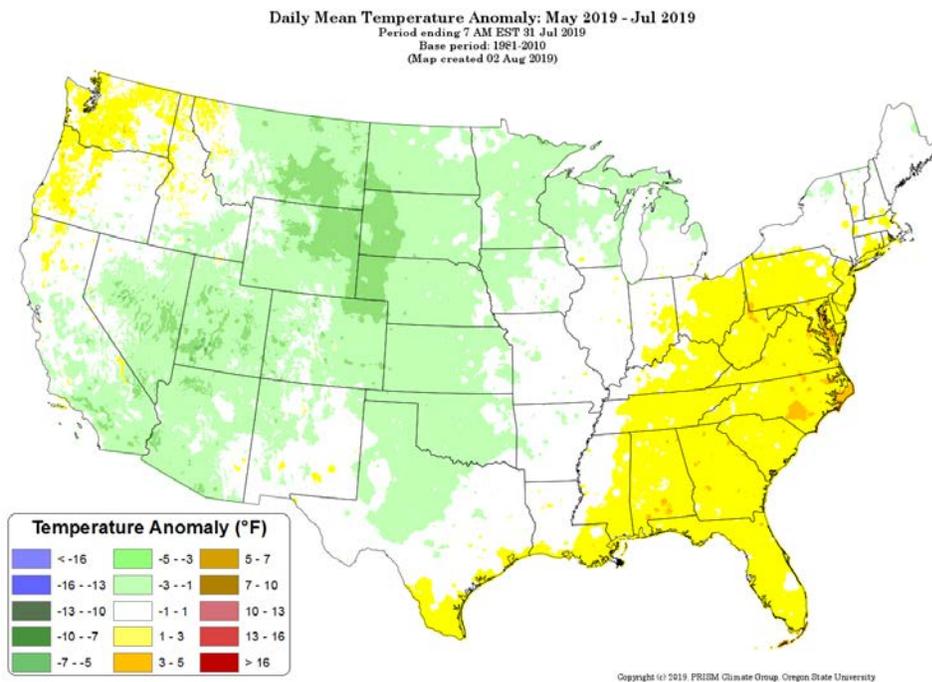
[Month-to-date national daily mean temperature anomaly map](#)



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

Source: PRISM

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



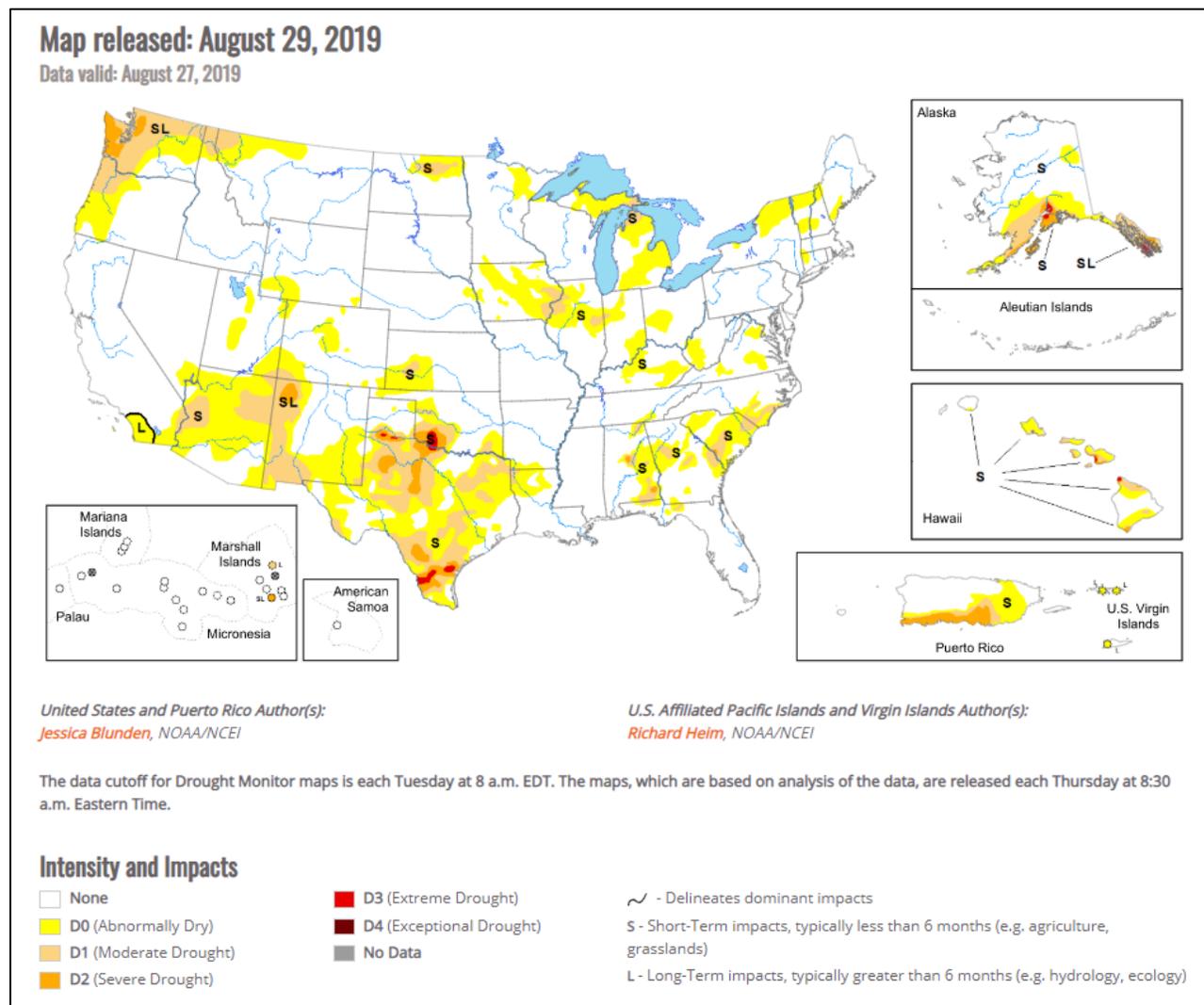
## Drought

### [U.S. Drought Monitor](#)

Source: National Drought Mitigation Center

### [U.S. Drought Portal](#)

Source: NOAA



### Current [National Drought Summary](#), August 29, 2019

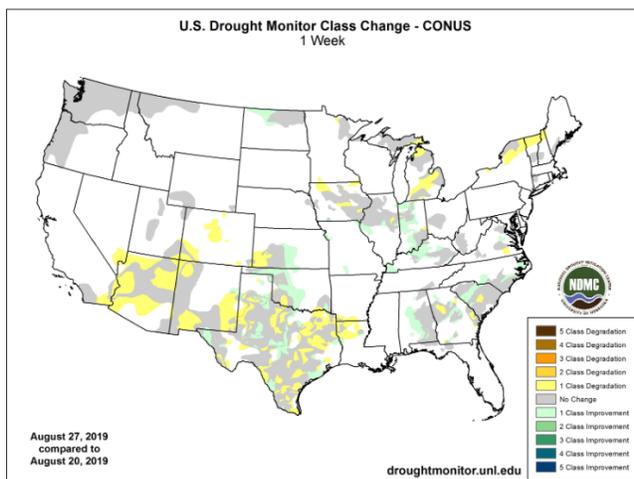
Source: National Drought Mitigation Center

“Summer thunderstorms brought heavy rainfall to the Central Plains into parts of the Northeast, with showers and thunderstorms also occurring across parts of the Northwest, Southern Rockies, and Central Gulf Coast. Below-average temperatures accompanied the heavy precipitation for the most part. The Southwest saw little to no rain and record to near-record heat, while heat and humidity continued to the east. The above-average temperatures and dry conditions brought elevated fire risk over the Great Basin and portions of the northern Intermountain West. South central Alaska remained dry and fires continued to burn, with smoke warnings in effect. Heavy rains, flash flooding, and severe weather occurred as a front stretched from the Southern Mid-Atlantic into the Southern Plains.”

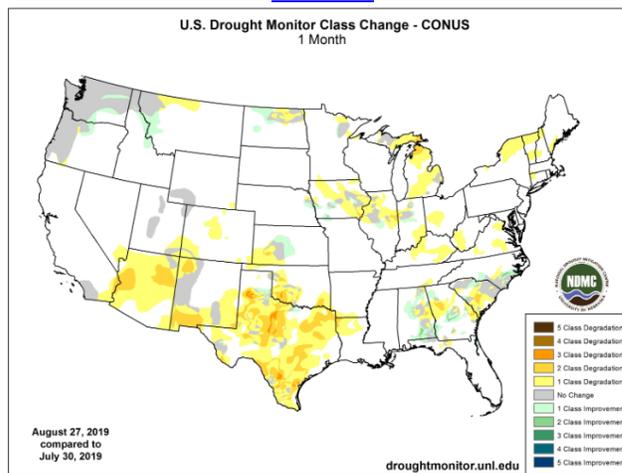
## Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

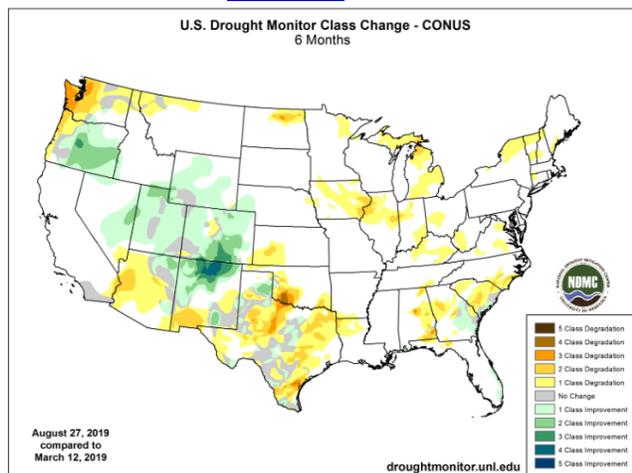
### 1 Week



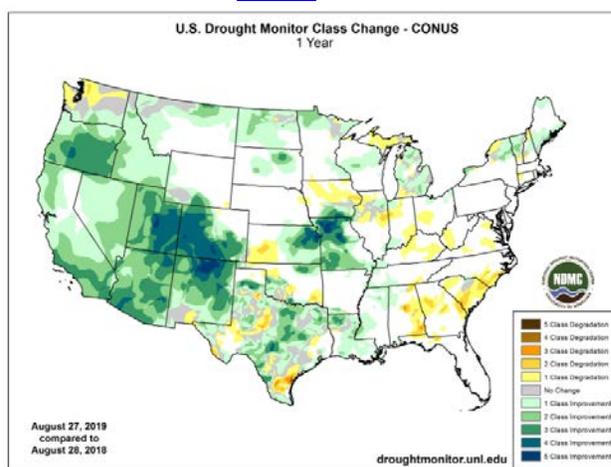
### 1 Month



### 6 Months



### 1 Year



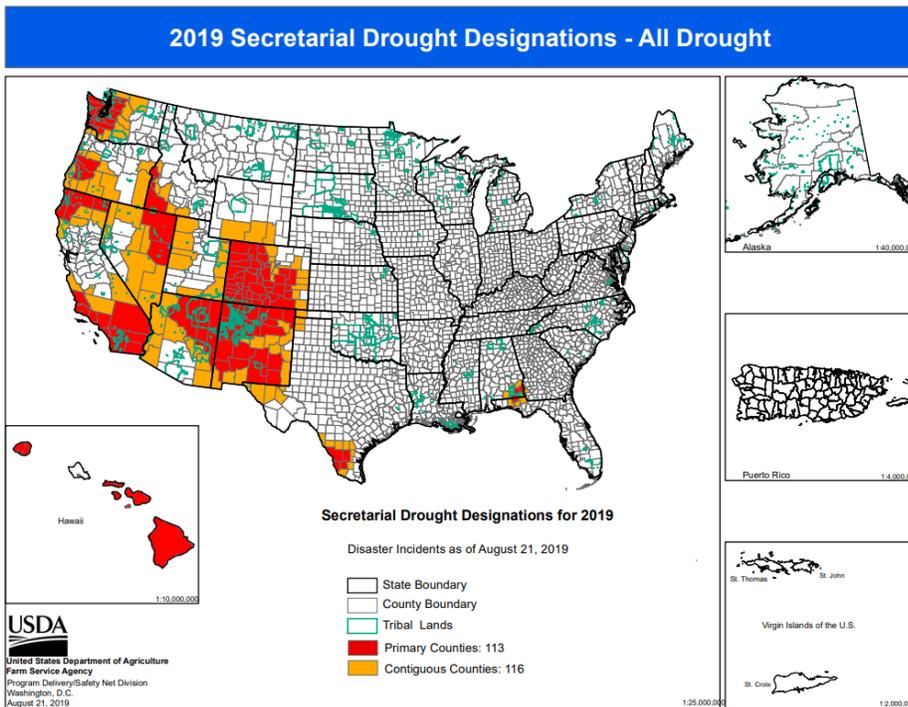
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

### Highlighted Drought Resources

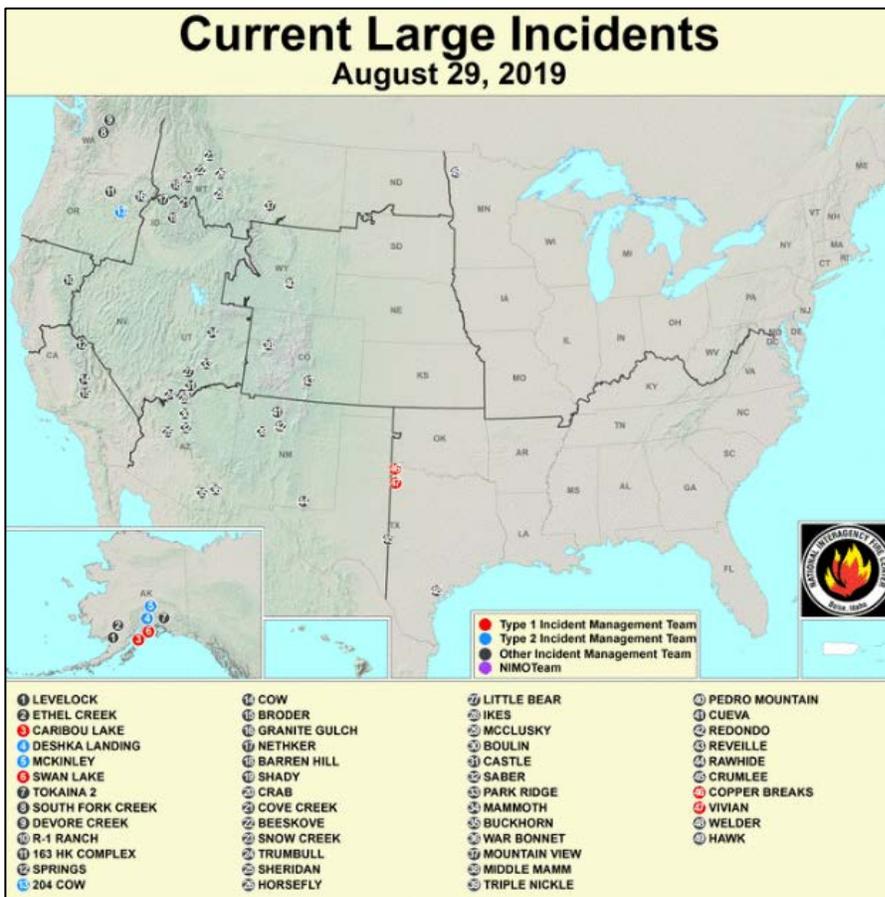
- [Drought Impact Reporter](#)
- [Quarterly Regional Climate Impacts and Outlook](#)
- [U.S. Drought Portal Indicators and Monitoring](#)
- [U.S. Population in Drought, Weekly Comparison](#)
- [USDA Disaster and Drought Information](#)

**Secretarial Drought Designations**

Source: USDA Farm Service Agency



**Wildfires: USDA Forest Service Active Fire Mapping**



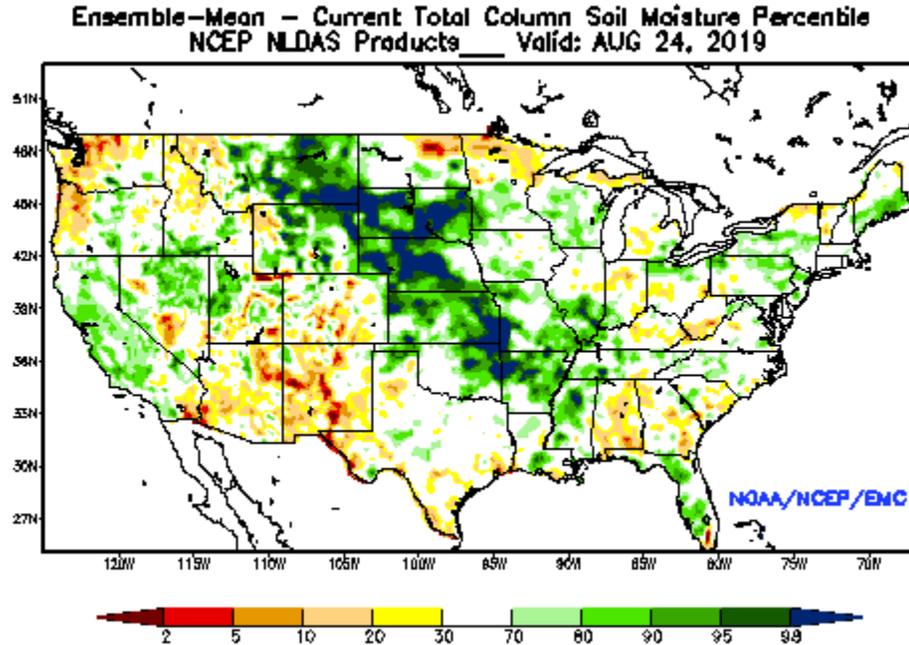
**Highlighted Wildfire Resources**

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

## Other Climatic and Water Supply Indicators

### Soil Moisture

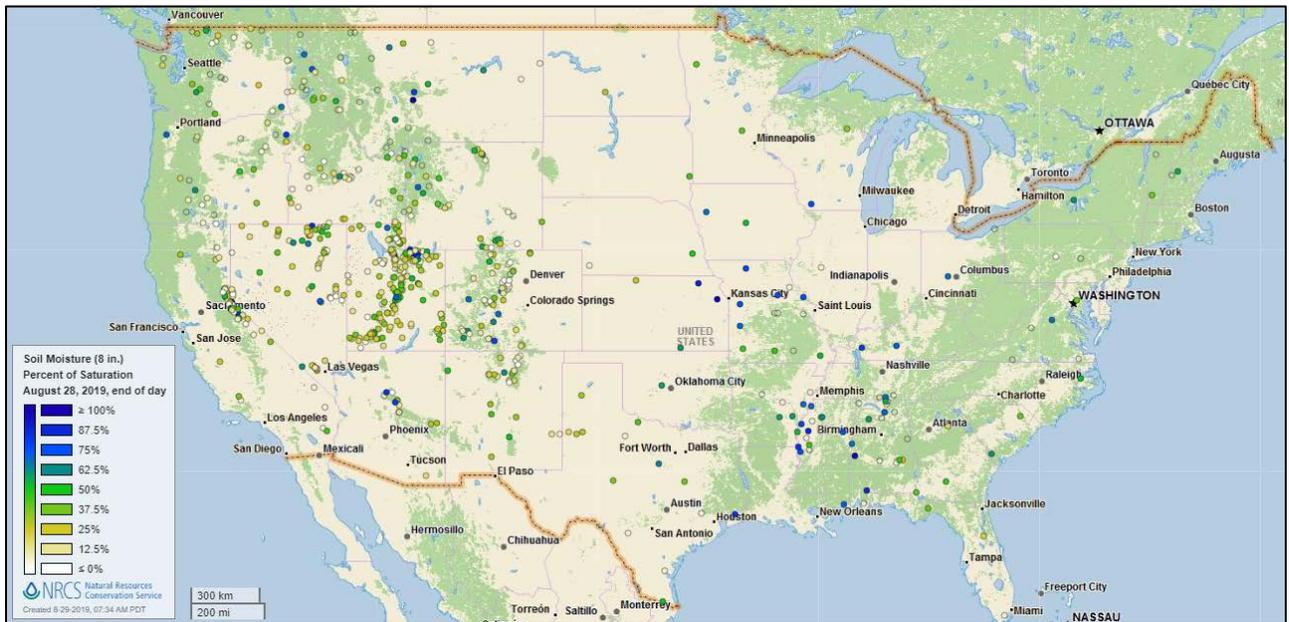
Source: NOAA National Centers for Environmental Prediction



[Modeled soil moisture percentiles](#) as of August 24, 2019

### Soil Moisture Percent of Saturation

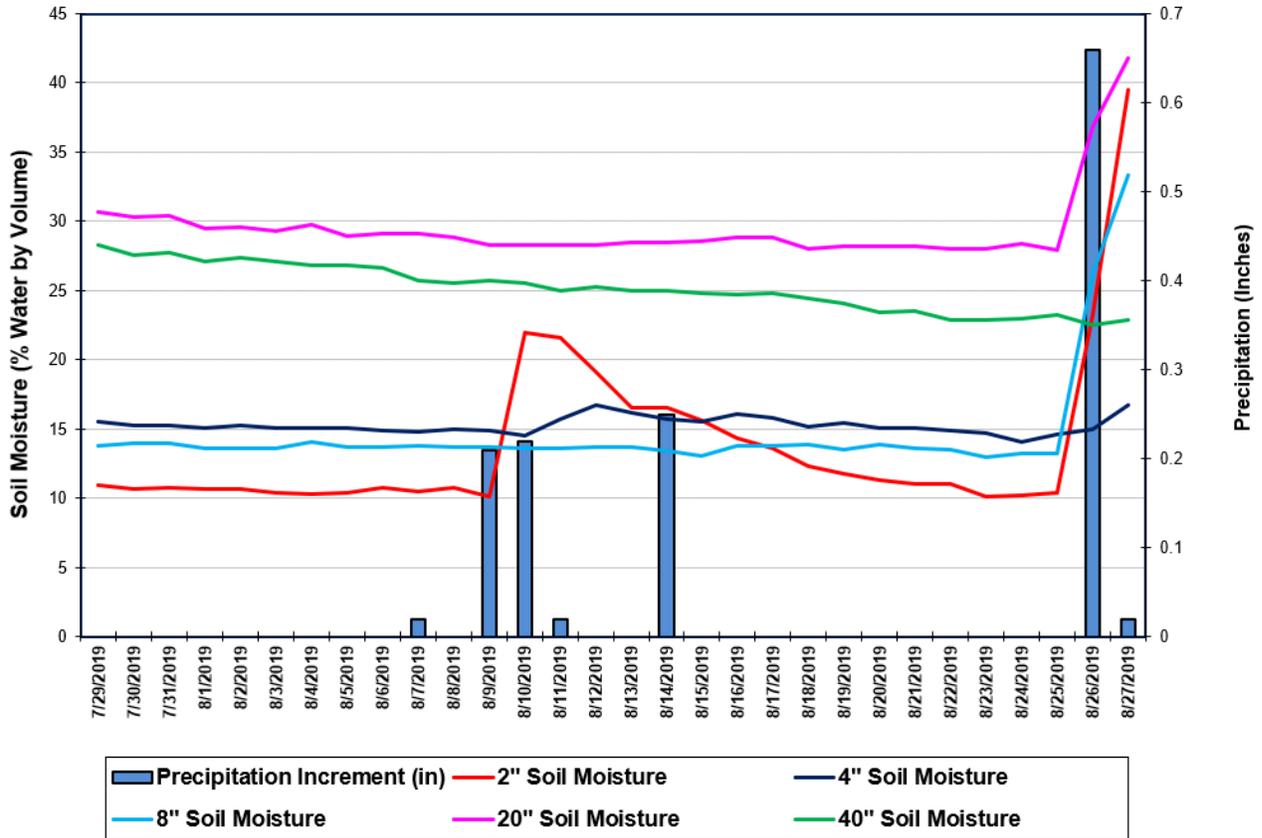
Source: NRCS SNOTEL and [Soil Climate Analysis Network](#) (SCAN)



**Soil Moisture Data**

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

**Fort Reno #1, OK (SCAN site 2022)**  
**Daily Mean Soil Moisture vs. Daily Precipitation**



This chart shows the soil moisture and precipitation for the last 30 days at the [Fort Reno #1 SCAN site](#) in Oklahoma. Precipitation on August 26 measured 0.66 inches and increased soil moisture at the -2", -4", -8", and -20" sensor levels. The -40" sensor showed a gradual decrease in soil moisture during this 30-day period.

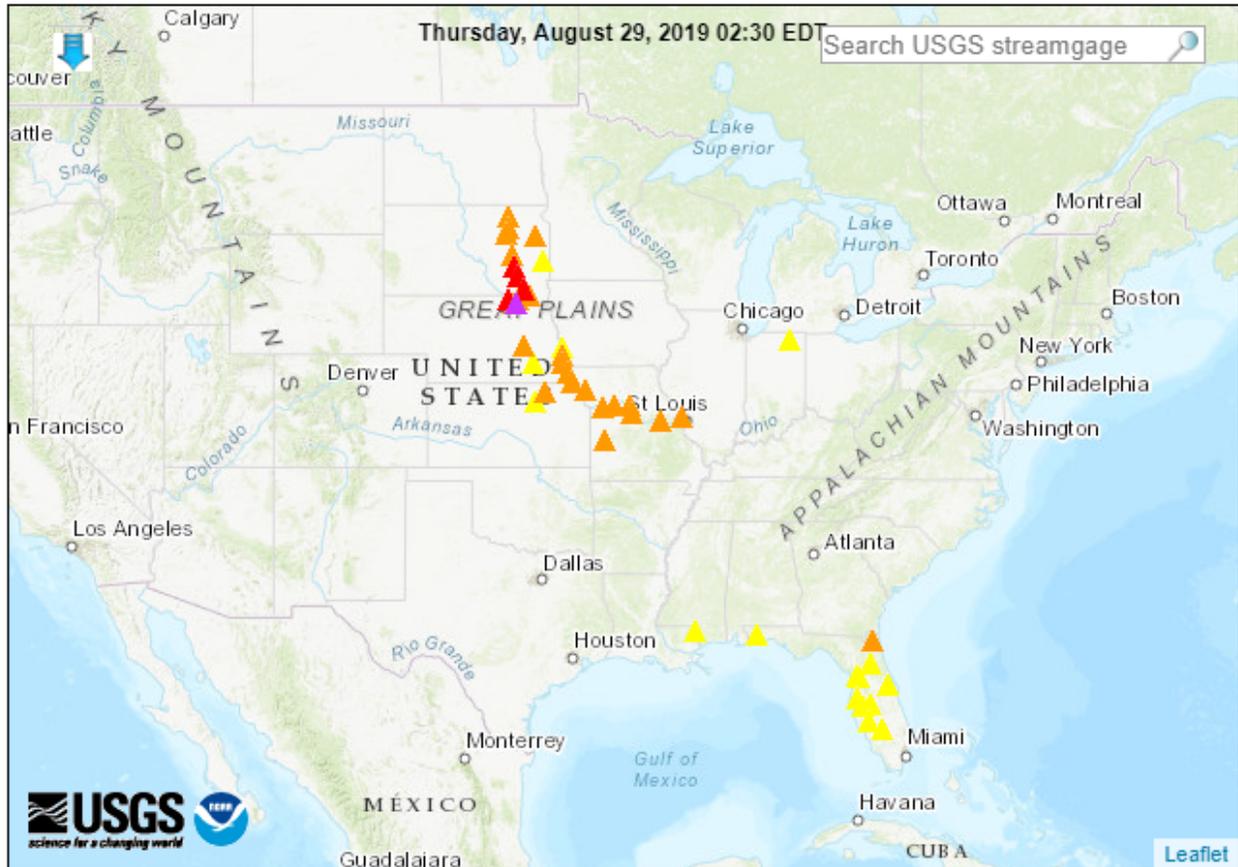
**Soil Moisture Data Portals**

- [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**  
 (28 in floods [major: 1, moderate: 4, minor: 23], 16 in near-flood)



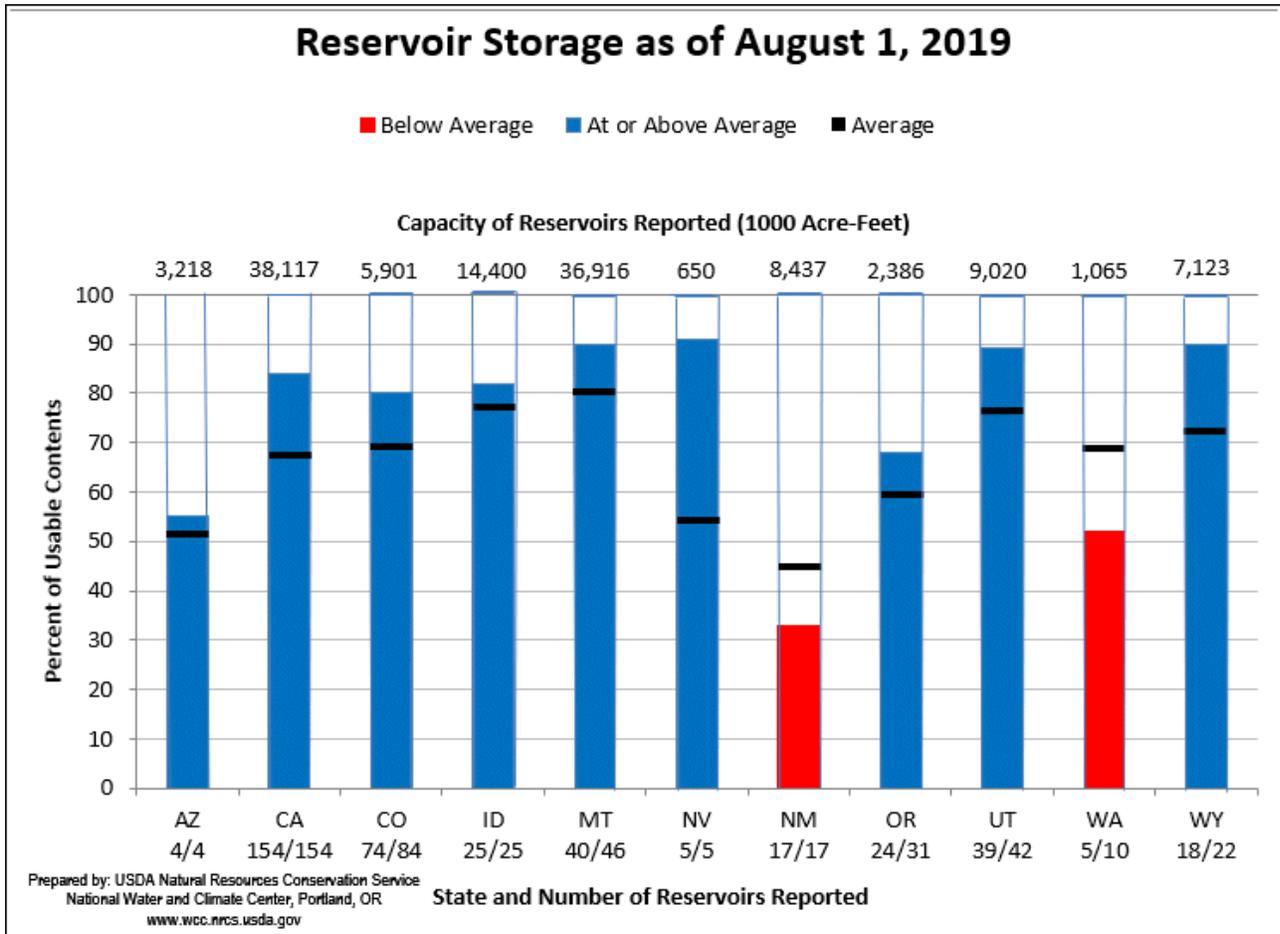
Explanation - Percentile classes						
<95	95-98	>= 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage
Streamgage with flood stage			Streamgage without flood stage			

[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](#)

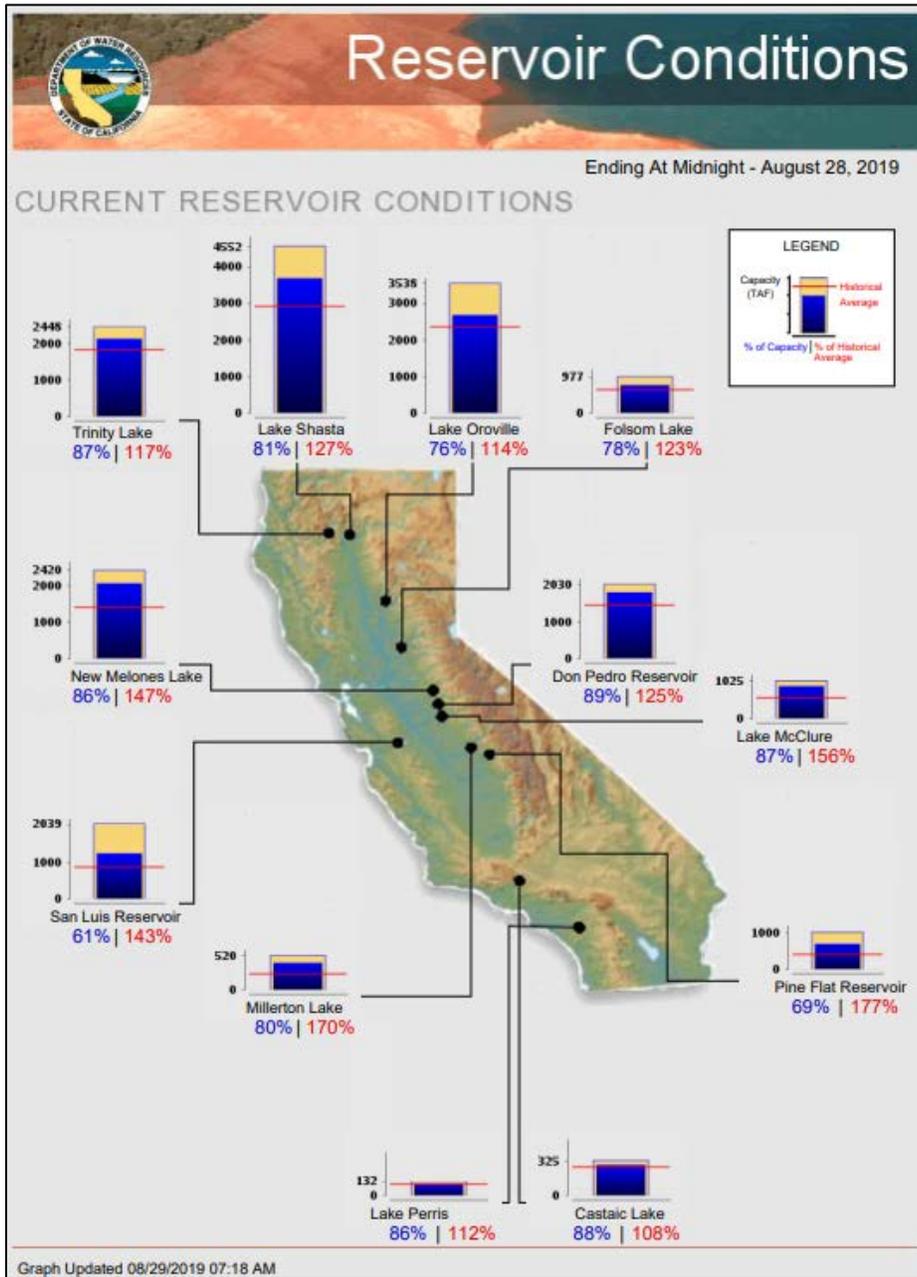
### Hydromet Tea Cup Reservoir Depictions

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

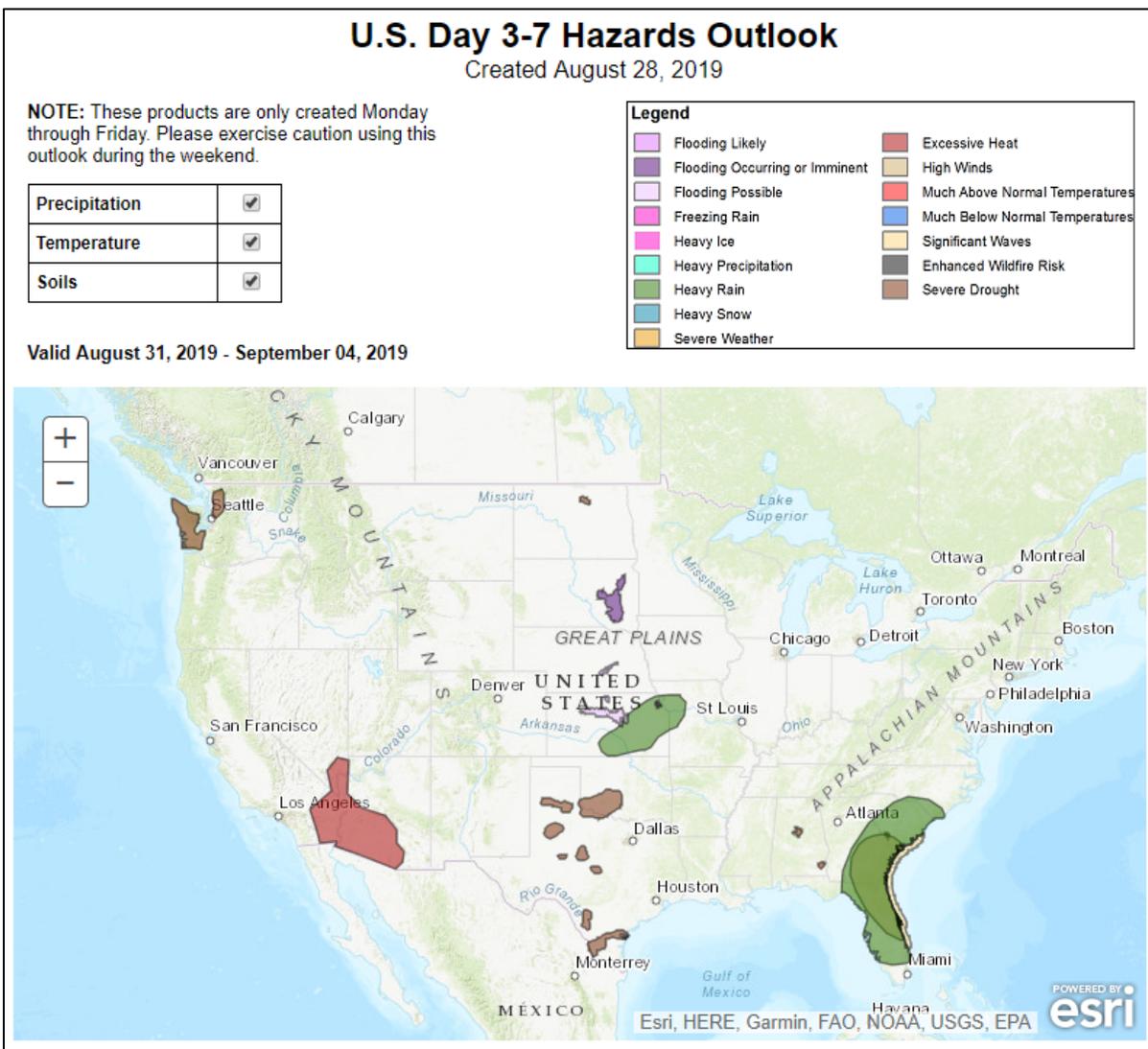
### Agricultural Weather Highlights

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

**National Outlook, Thursday, August 22, 2019:** “For the remainder of today, the post-tropical remnants of Erin will graze the northern Atlantic Coast. Meanwhile, Hurricane Dorian is forecast to further strengthen and could reach Florida’s east coast as a major hurricane during the Labor Day weekend. The official forecast from the National Hurricane Center has Dorian making landfall in Florida on Monday, September 2. Dorian could result in excessive rainfall in the southern Atlantic region, along with damaging winds and a coastal storm surge. Elsewhere, significant rainfall during the next 5 days should be confined to the east-central Plains and environs. Widely scattered showers will affect the remainder of the Plains, as well as the Midwest and Northeast, but mostly dry weather will prevail west of the Rockies and across the interior Southeast. Late-summer heat will persist across much of the western U.S., while temperatures will rebound to above-normal levels by early next week from the Plains eastward. The NWS 6- to 10-day outlook for September 2 – 6 calls for the likelihood of cooler-than-normal conditions from the Midwest into the Northeast, while above-normal temperatures will dominate the southern and western U.S. Meanwhile, drier-than-normal weather in the south-central U.S. will contrast with above-normal rainfall across the remainder of the country.”

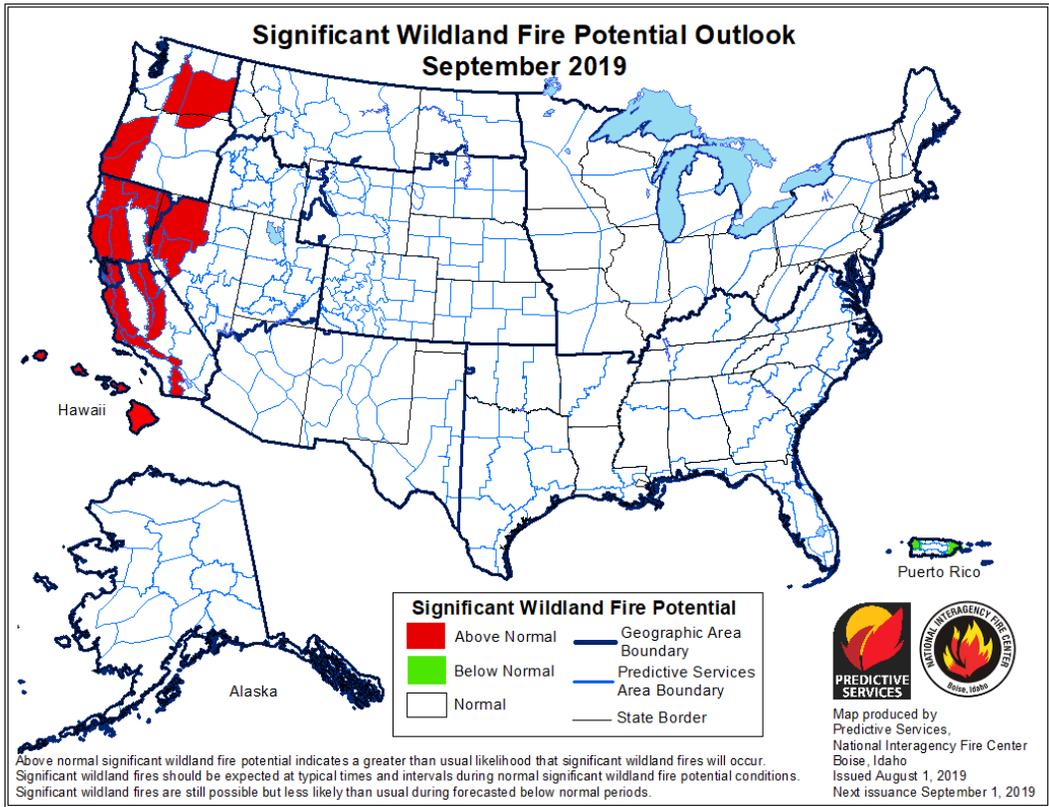
### Weather Hazards Outlook: [August 31 – September 4, 2019](#)

Source: NOAA Climate Prediction Center



**Significant Wildland [Fire Potential Outlook](#)**

Source: National Interagency Fire Center

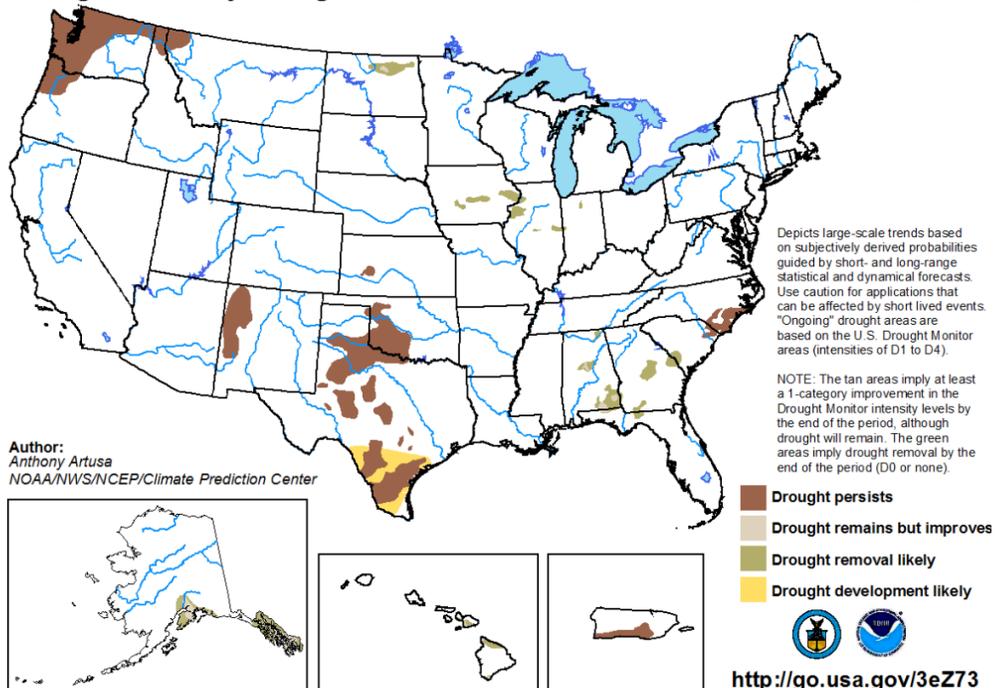


**Seasonal Drought Outlook: [August 15 – November 30, 2019](#)**

Source: National Weather Service

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

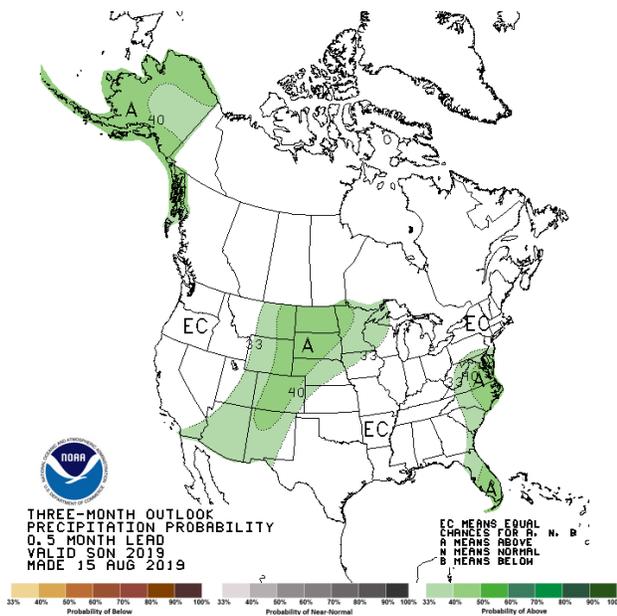
Valid for August 15 - November 30, 2019  
Released August 15



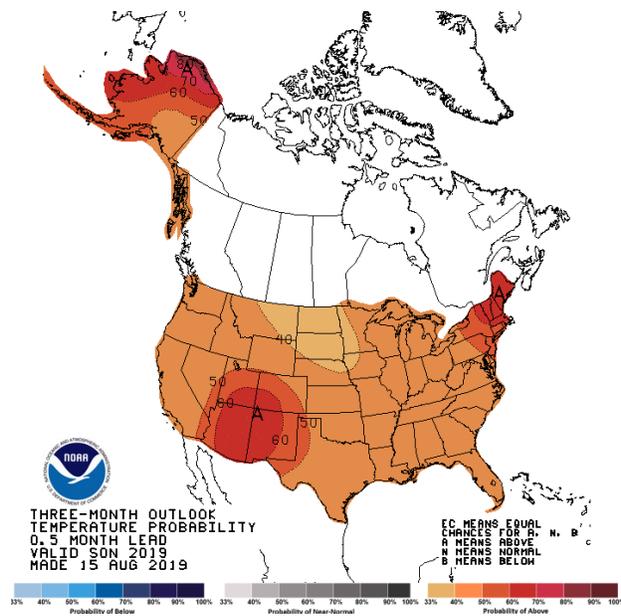
### Climate Prediction Center 3-Month Outlook

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](#).