

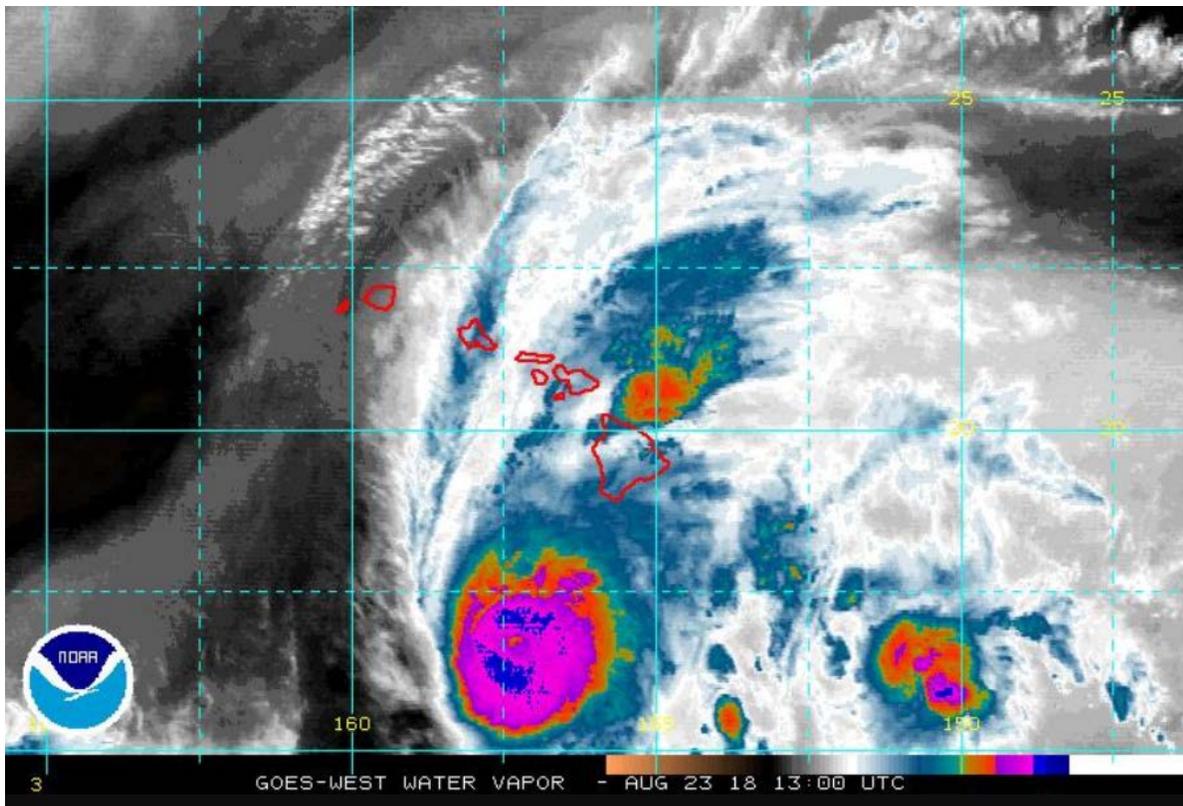
# Water and Climate Update

August 23, 2018

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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Temperature .....	6	Short- and Long-Range Outlooks.....	16
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## Category 4 Hurricane Lane approaches Hawaii



This view from the [NOAA GOES-West satellite](#) shows the water vapor associated with Hurricane Lane as it approaches the Hawaiian Islands. As of Thursday morning, the National Weather Service in Honolulu reports that portions of the Big Island have received 7-12 inches of rain in the past 12 hours. Hurricane watches and warnings are in effect from damaging winds, torrential flooding, rough surf, and coastal storm surge.

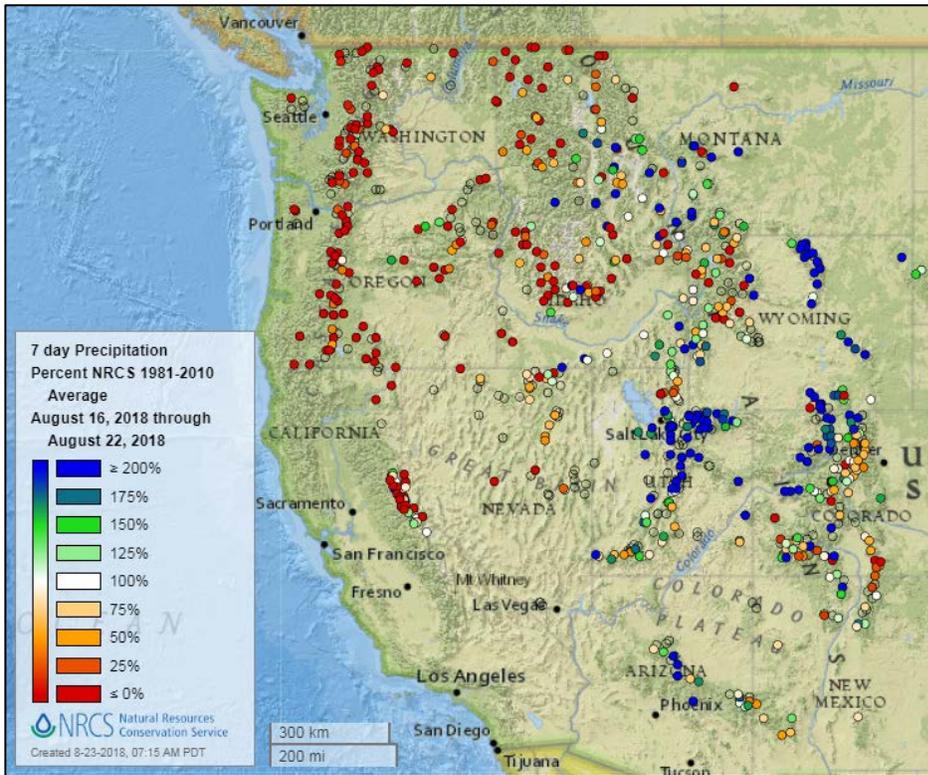
**Related:**

[Hurricane Lane is the biggest weather threat to Hawaii in decades](#) -- CNN

[Hurricane Lane a Slow-Moving, Potential Flood Disaster; Over 30 Inches of Rain Possible...](#) -- Weather Channel

## Precipitation

### Last 7 Days, NRCS SNOTEL Network

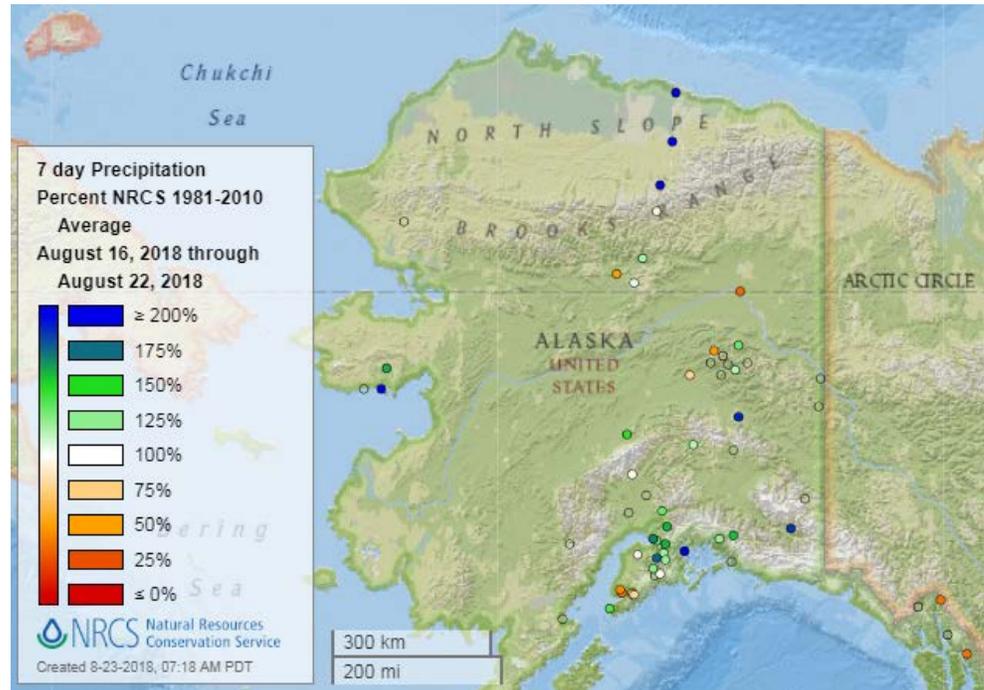


[7-day precipitation percent of average map](#)

**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](#)



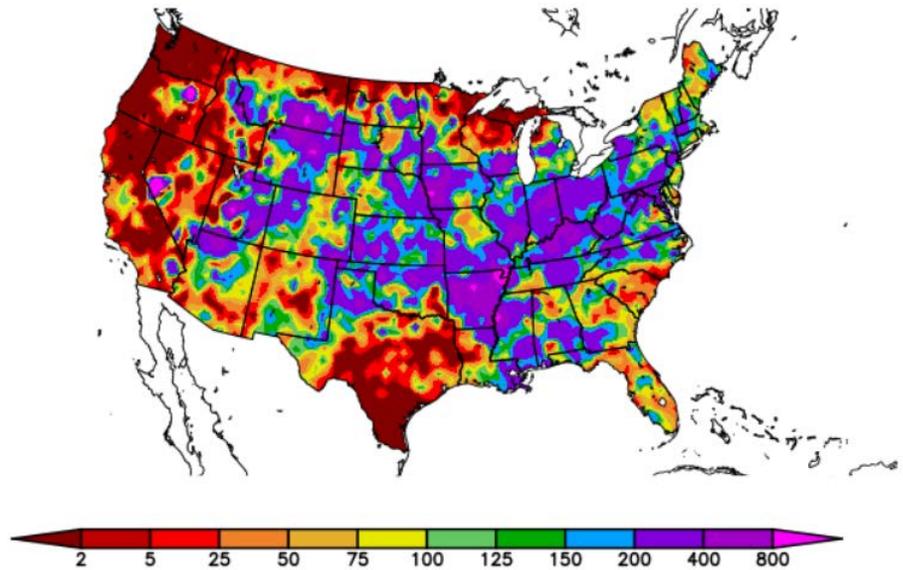
Last 7 Days, National Weather Service (NWS) Networks

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 (%)  
8/16/2018 – 8/22/2018



Generated 8/23/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

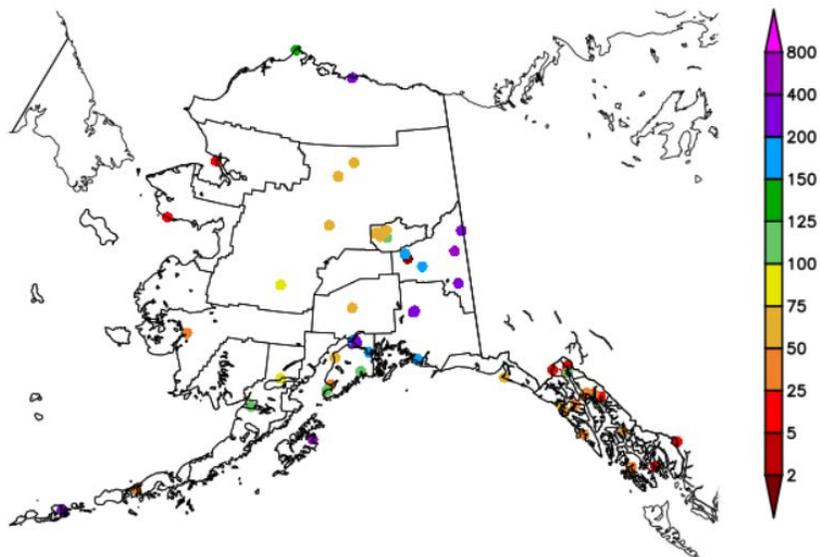
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)  
8/16/2018 – 8/22/2018



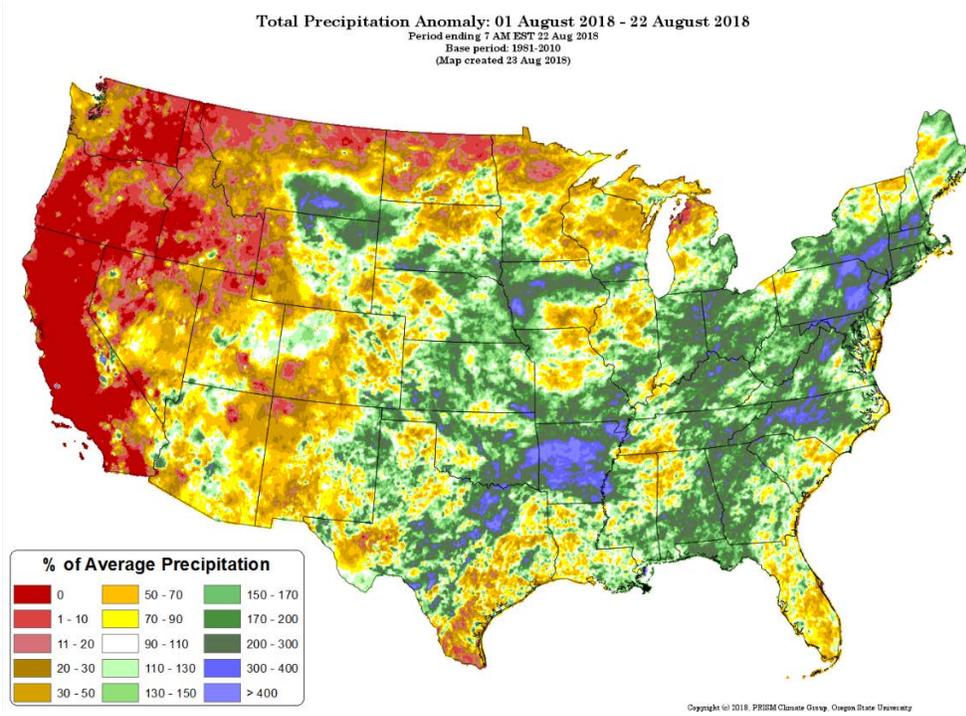
Generated 8/23/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

# Water and Climate Update

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

Source: PRISM

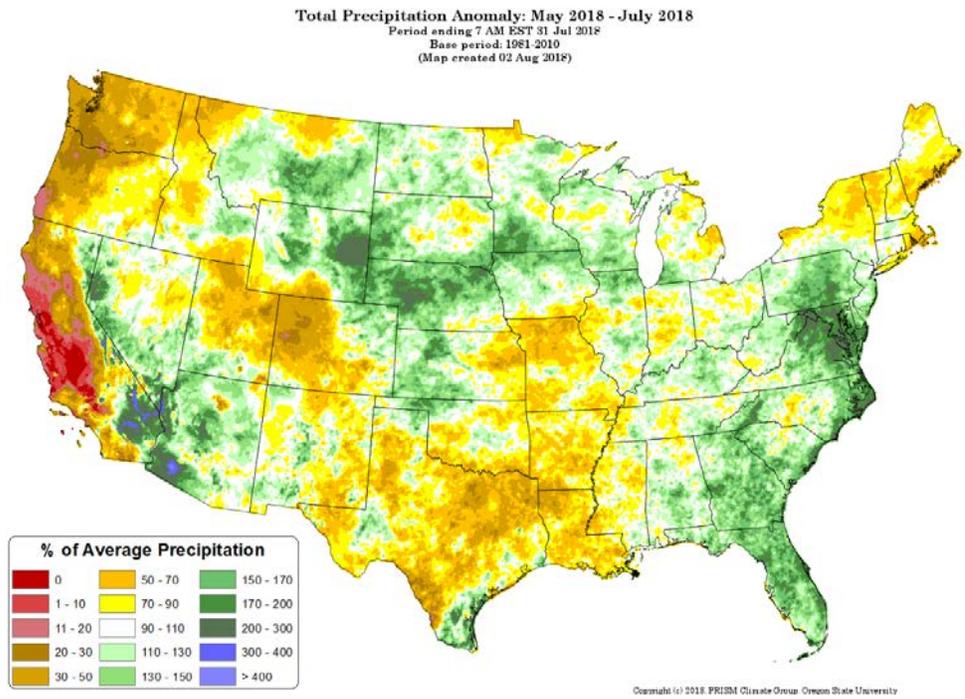


[Month-to-date national total precipitation percent of average map](#)

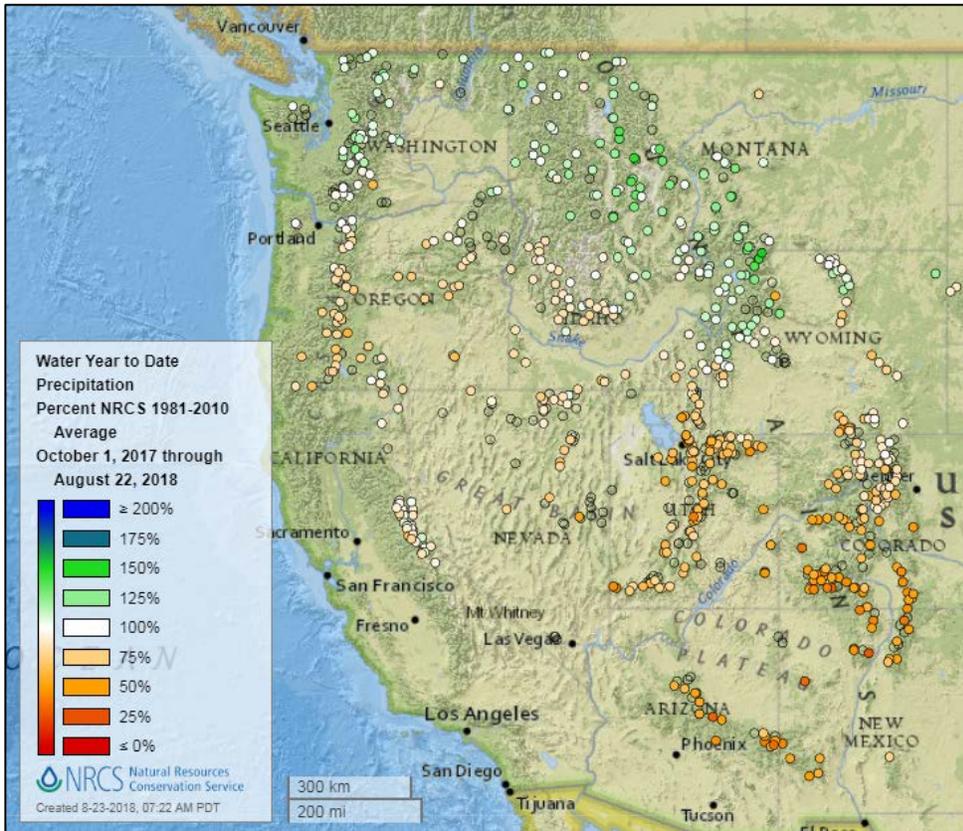
## Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

[May through July 2018 total precipitation percent of average map](#)



Water Year-to-Date, NRCS SNOTEL Network



[2018 water year-to-date precipitation percent of average map](#)

**See also:** [2018 water year-to-date precipitation values \(inches\) map](#)



[Alaska 2018 water year-to-date precipitation percent of average map](#)

**See also:** [Alaska 2018 water year-to-date precipitation values \(inches\) map](#)

## Temperature

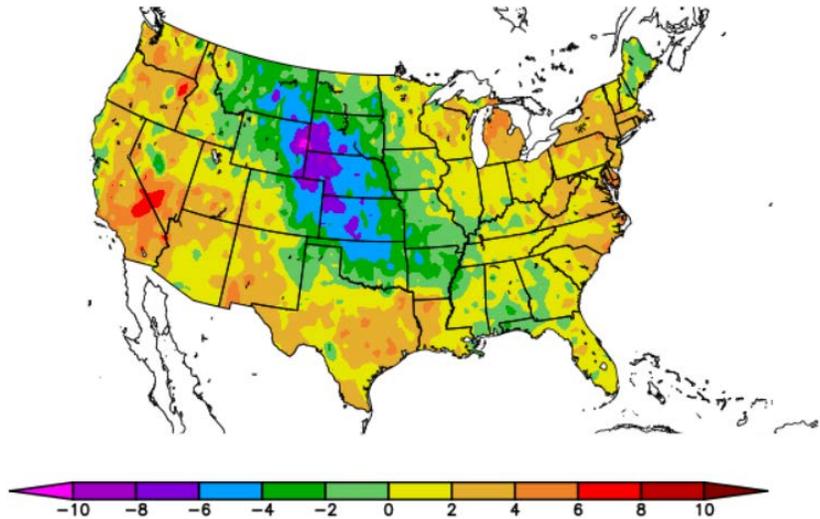
### Last 7 Days, National Weather Service (NWS) Networks

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)  
8/16/2018 – 8/22/2018



Generated 8/23/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

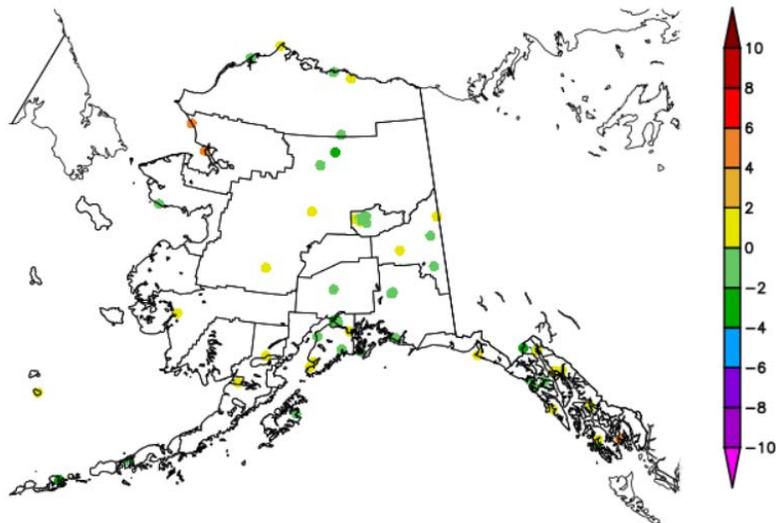
### Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)  
8/16/2018 – 8/22/2018



Generated 8/23/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

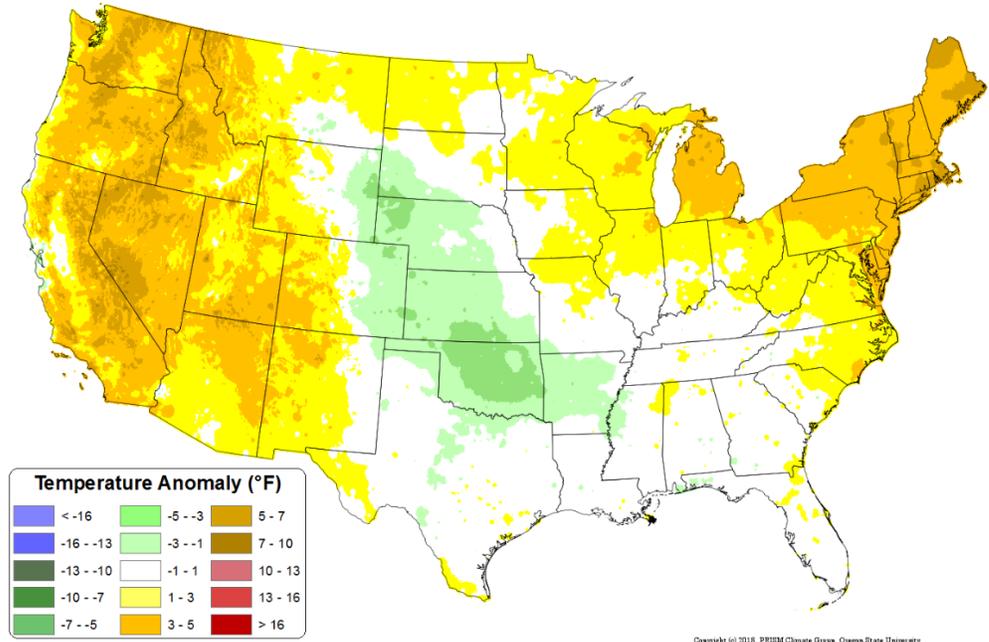
# Water and Climate Update

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

Source: PRISM

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

Daily Mean Temperature Anomaly: 01 August 2018 - 22 August 2018  
Period ending 7 AM EST 22 Aug 2018  
Base period: 1981-2010  
(Map created 23 Aug 2018)

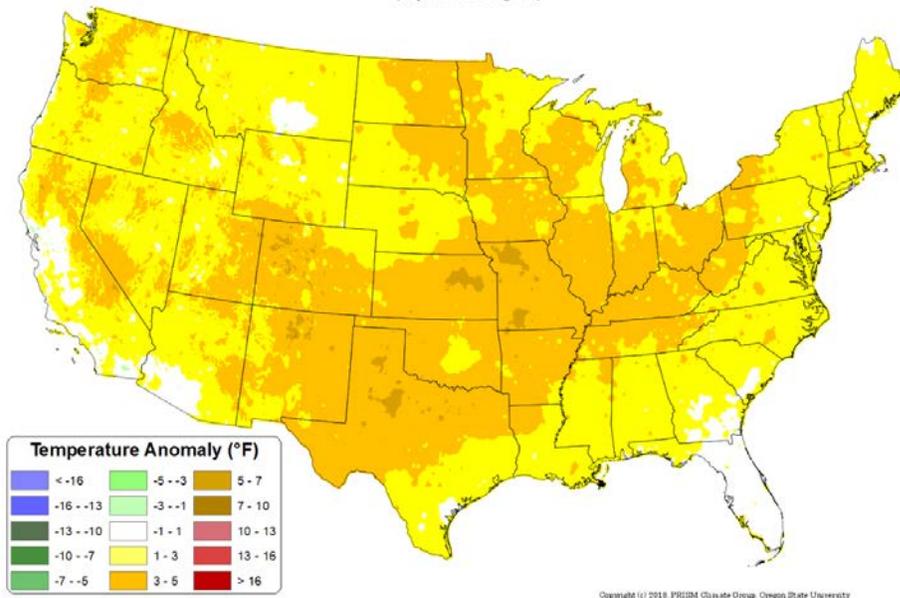


## Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

[May through July 2018 daily mean temperature anomaly map](#)

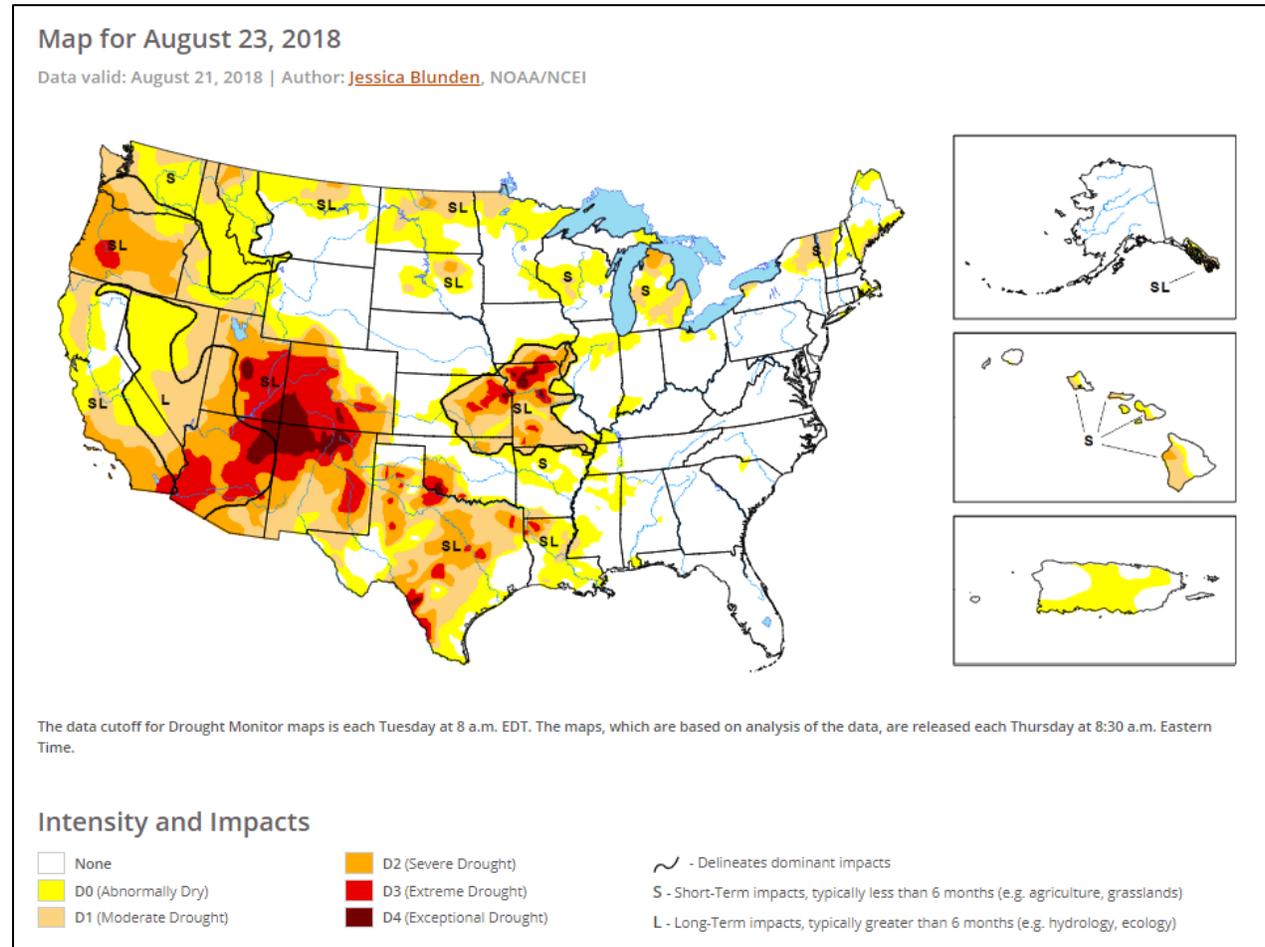
Daily Mean Temperature Anomaly: May 2018 - July 2018  
Period ending 7 AM EST 31 Jul 2018  
Base period: 1981-2010  
(Map created 02 Aug 2018)



## Drought

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

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



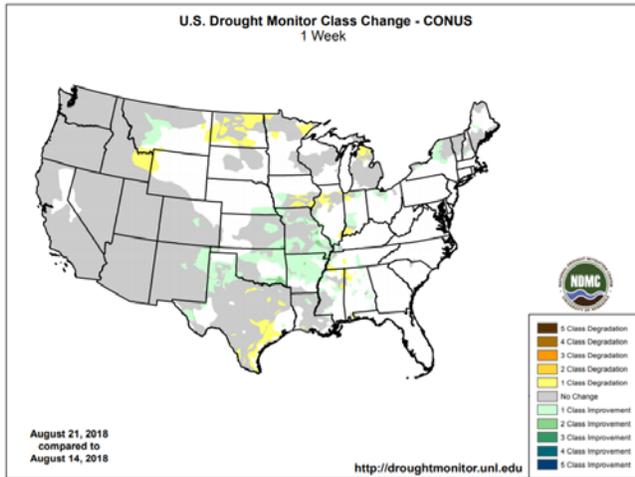
### Current [National Drought Summary](#), August 23, 2018

Author: Jessica Blunden, NOAA/NCEI

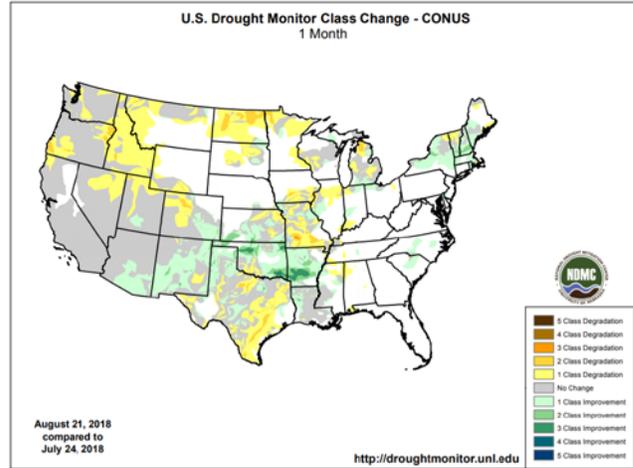
“Areas of low pressure brought heavy to excessive rainfall to many parts of the U.S. during this past drought week (August 14-21). Some storms brought more rainfall to already inundated areas such as the Northeast, but some activity occurred over drought regions badly in need of moisture, including the Central and Southern Plains, the Midwest, and the South. Other areas, especially along the northern tier of the country, continued to dry out amid a combined lack of rainfall and anomalously high temperatures. Some areas of northern Michigan and Wisconsin averaged daily maximum temperatures 6-8 degrees F above their typical average for this time of year.”

## Changes in Drought Monitor Categories over Time

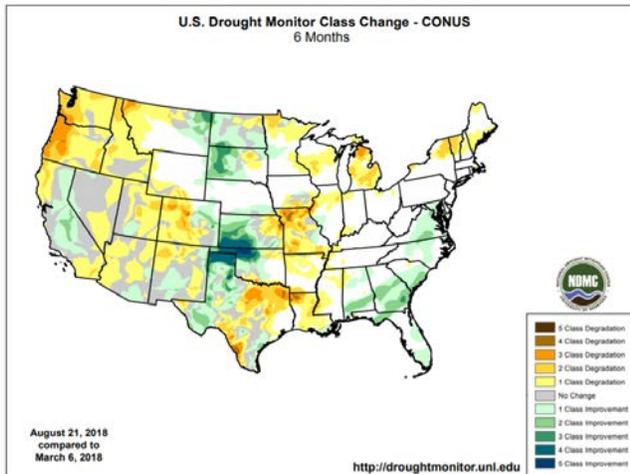
### 1 Week



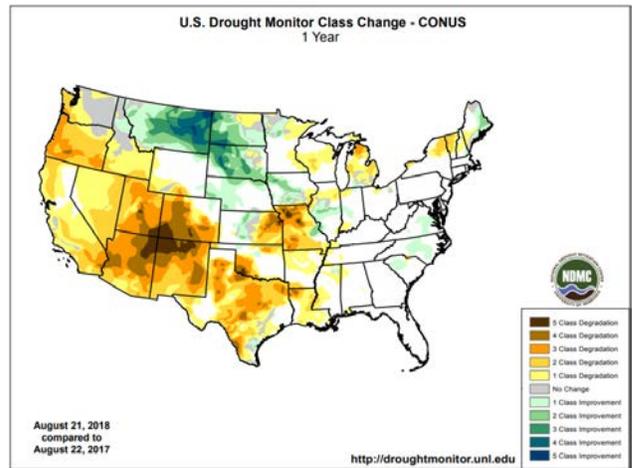
### 1 Month



### 6 Months



### 1 Year

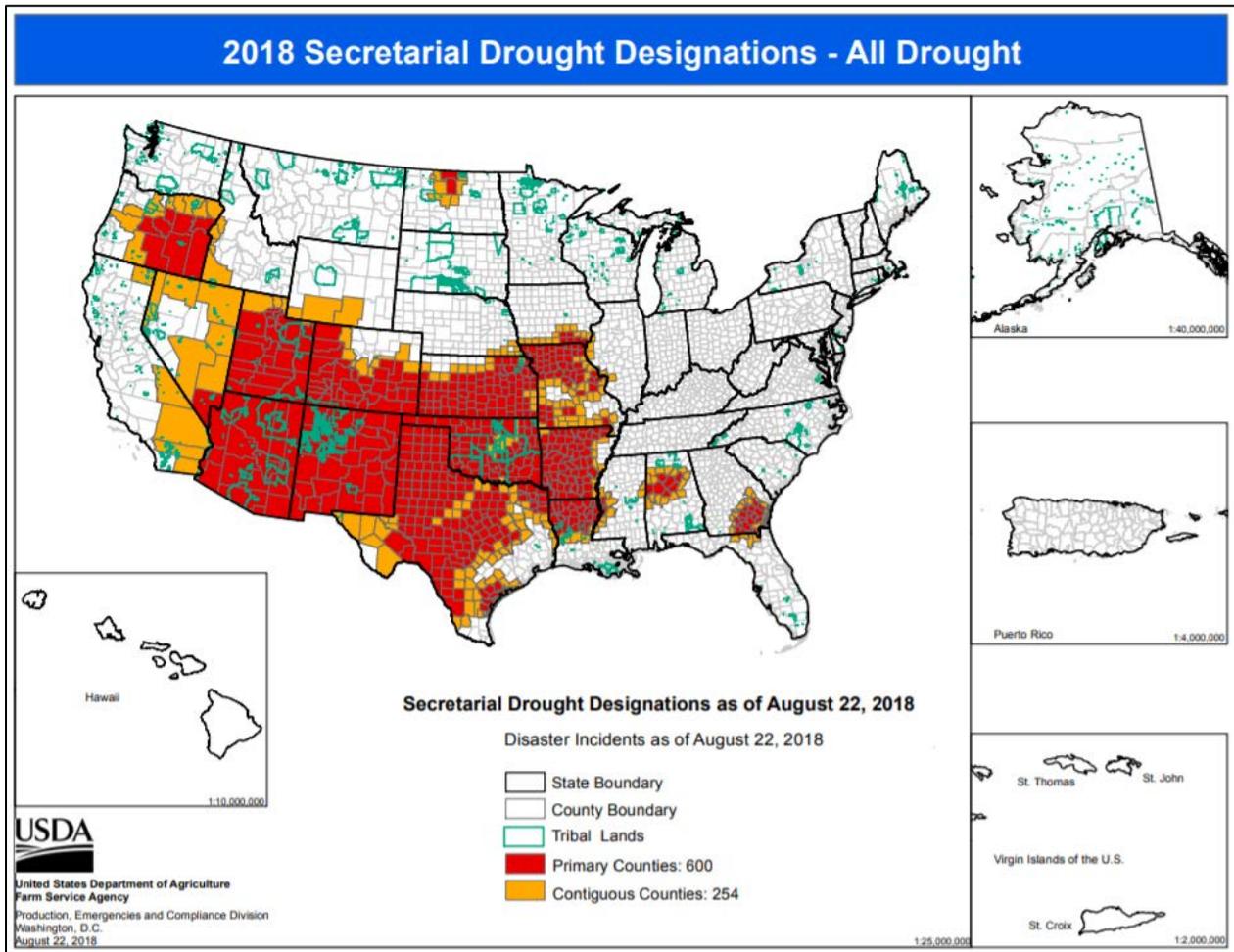


### Changes in drought conditions over the last 12 months

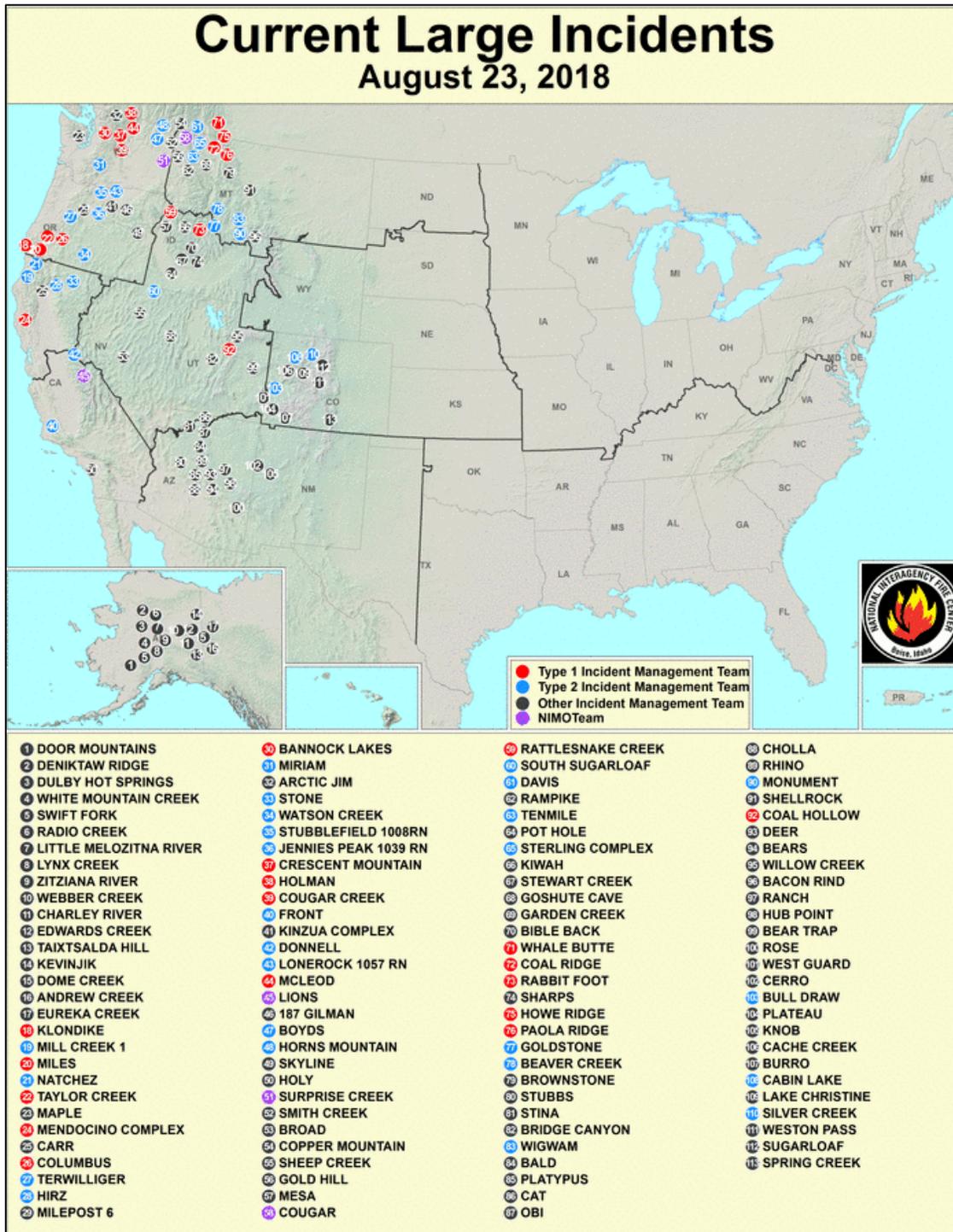
## Highlighted Drought Resources

- [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 2018 Secretarial [Drought Designations](#)



Wildfires: [USDA Forest Service Active Fire Mapping](#)



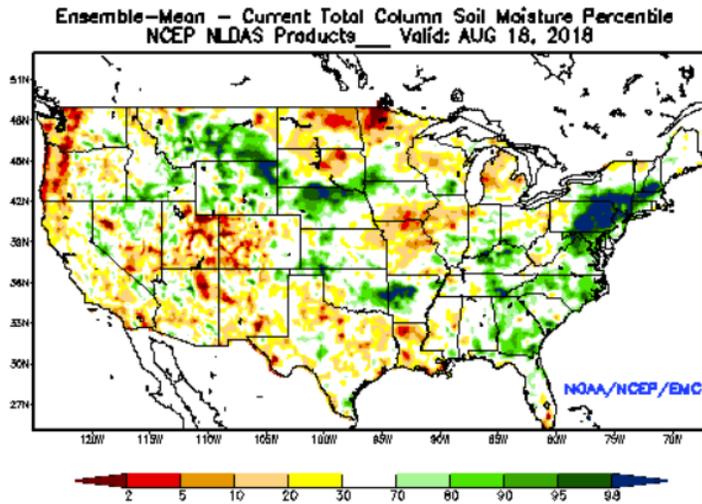
**Highlighted Wildfire Resources**

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

## Other Climatic and Water Supply Indicators

### Soil Moisture

Source: NOAA National Centers for Environmental Prediction



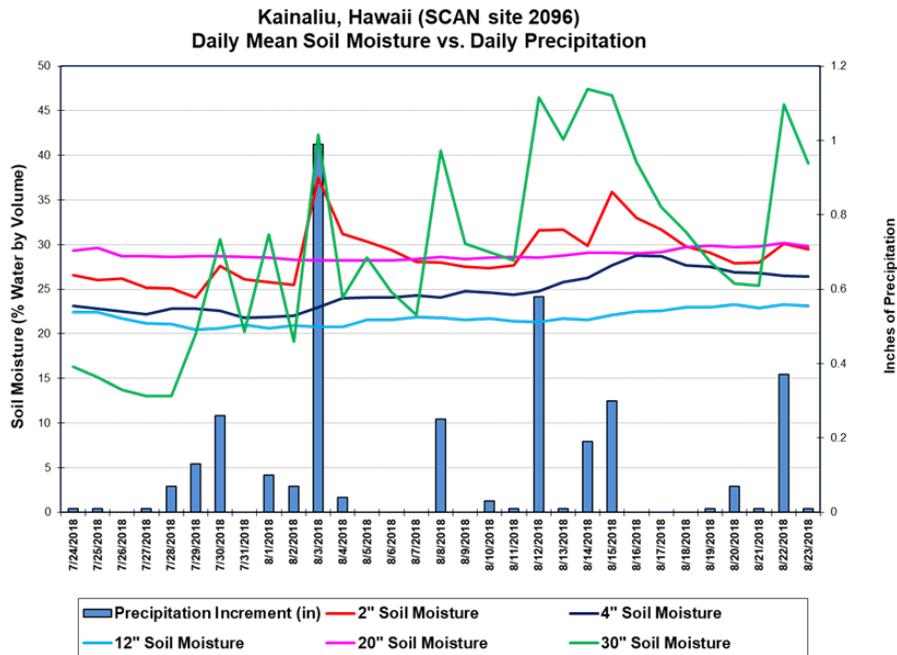
#### Soil Moisture Data Portals

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

[Modeled soil moisture percentiles](#) as of August 18, 2018

### Soil Moisture Data

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

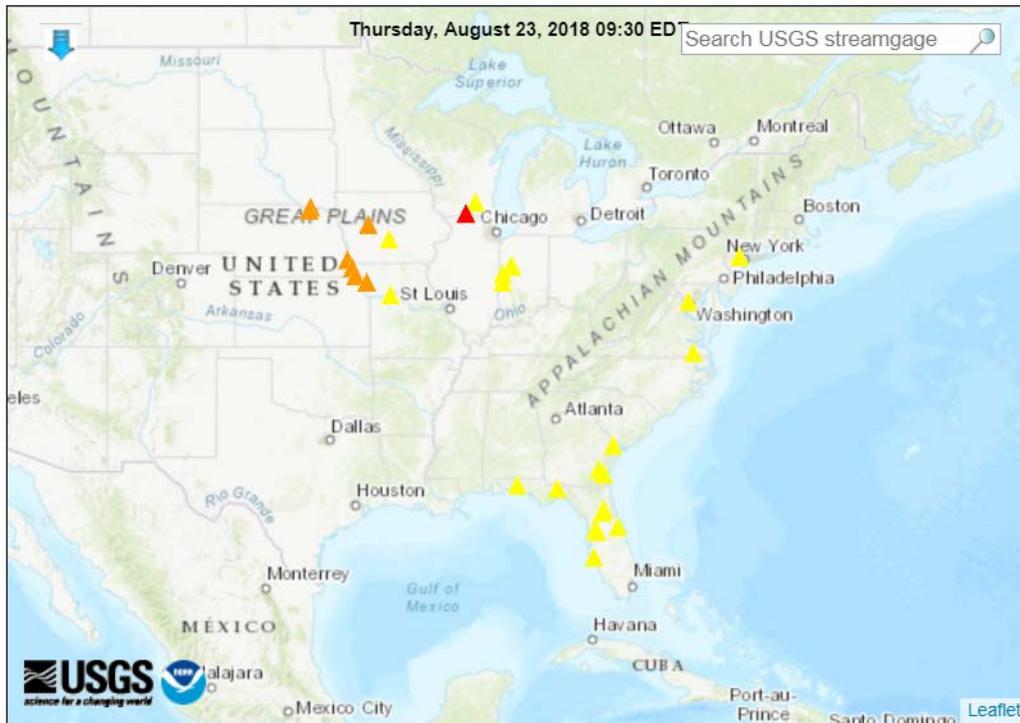


This chart shows the precipitation and soil moisture for the last 30 days at the [Kainaliu SCAN site](#) on the Big Island of Hawaii. The largest event occurred on August 3<sup>rd</sup>, where accumulated precipitation totaled 0.99 inches. During this event the 2-, 4-, and 30-inch sensors showed an increase in soil moisture. The 30-inch soil moisture sensor increased due to lateral flow from upslope to the lower soil horizon.

Streamflow

Source: USGS

Map of flood and high flow conditions



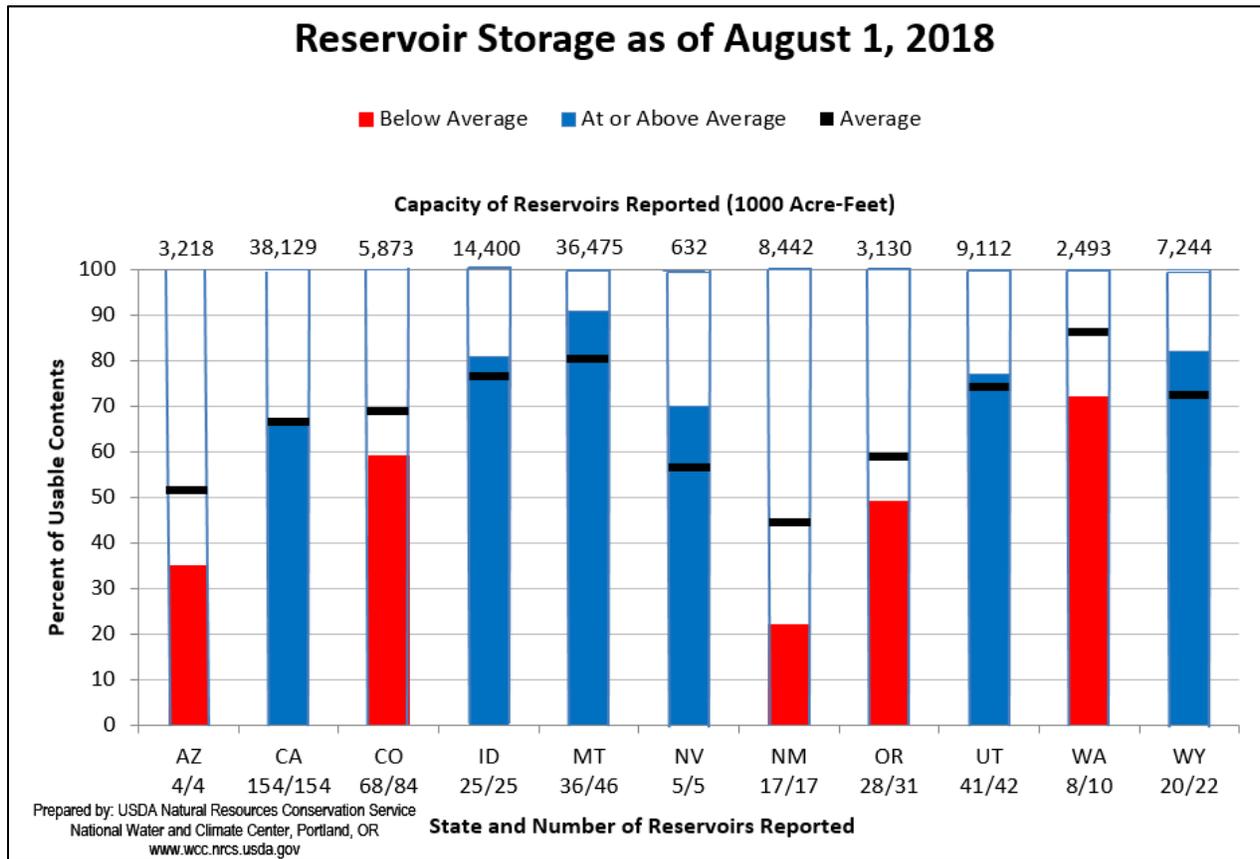
Explanation - Percentile classes						
<95	95-98	>= 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage
△ Streamgage with flood stage			○ Streamgage without flood stage			

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

## Reservoir Storage

### Western States Reservoir Storage

Source: NRCS National Water and Climate Center



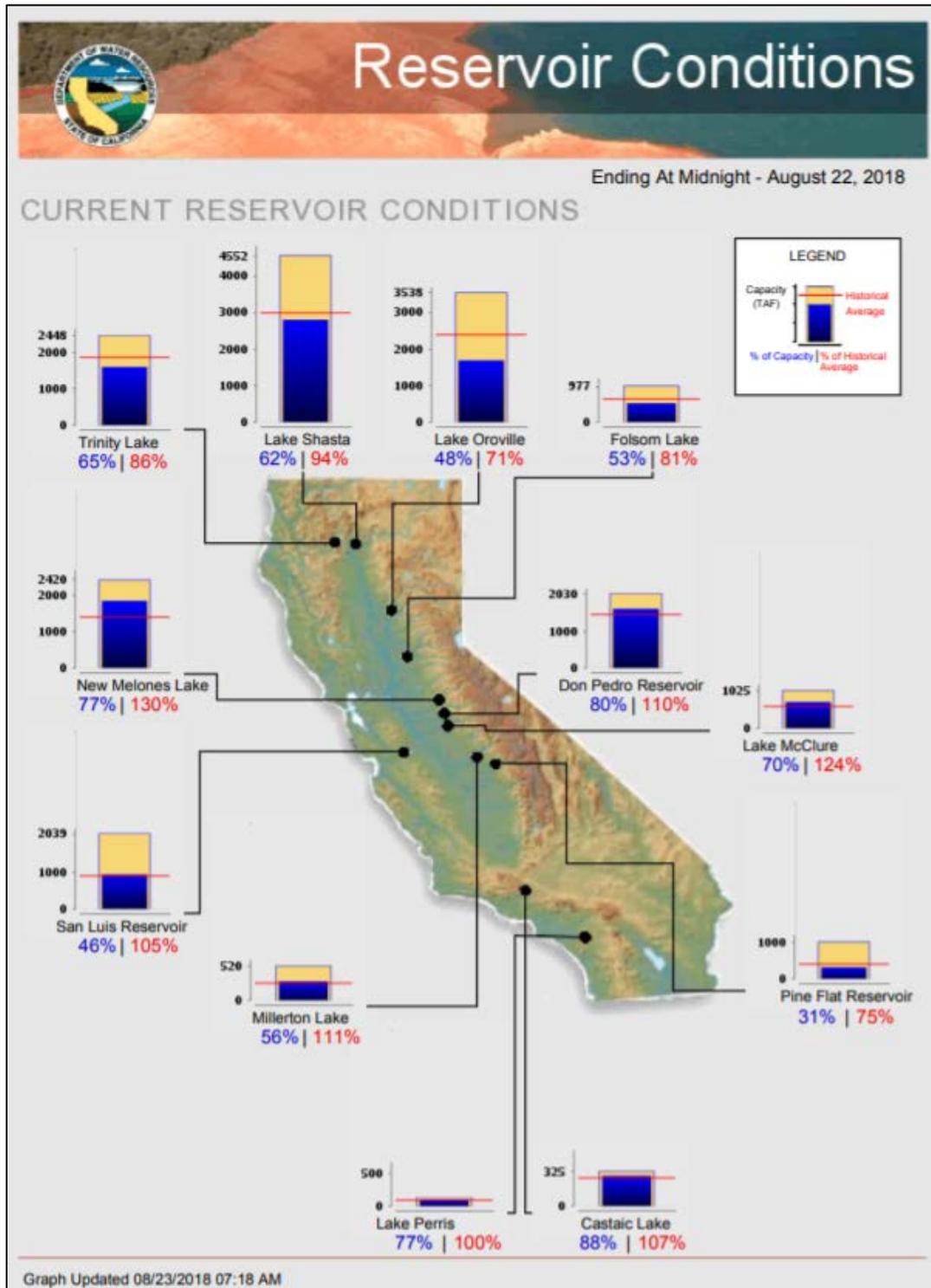
August Reservoir Storage: [Chart](#) | [Dataset](#)

### 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



[Current California Reservoir Conditions](#)

## Short- and Long-Range Outlooks

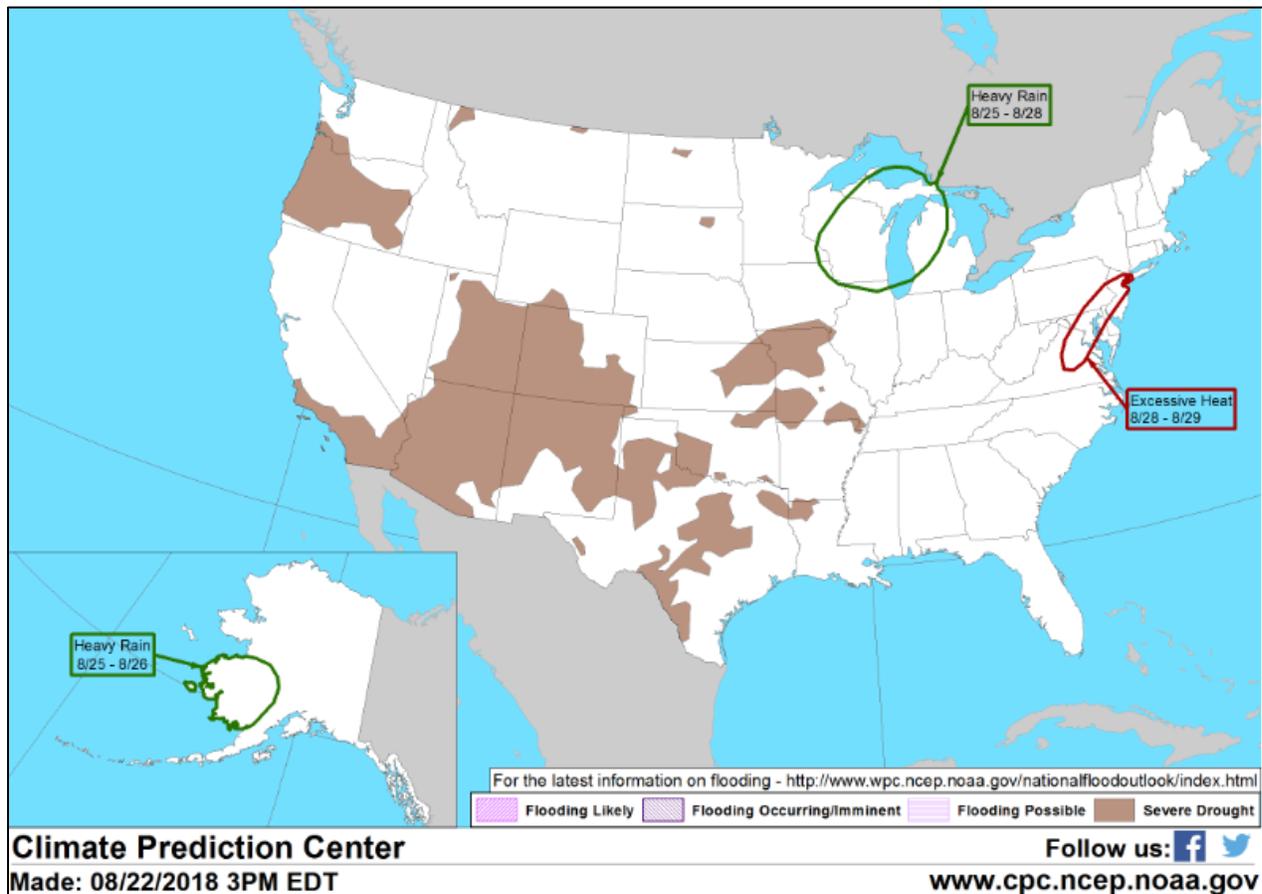
### Agricultural Weather Highlights

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

**National Outlook, Thursday, August 23:** “Hurricane Lane will drift closer to the Hawaiian Islands through Friday before veering westward. Although further weakening of the former Category 5 hurricane can be expected, Lane could still produce severe flooding, high winds, and damaging surf, especially on south-facing Hawaiian slopes and beaches, starting later today and continuing into Saturday. Meanwhile on the U.S. mainland, a storm system crossing the North will be the primary focus for rainfall during the next few days. Storm-total rainfall could reach 1 to 3 inches or more in the upper Midwest and the Great Lakes region. Other areas experiencing showers will include the lower Southeast and the Four Corners States. By week’s end, a changing weather pattern will result in cooler weather in the Northwest and building heat across the Plains and Midwest. The NWS 6- to 10-day outlook for August 28 – September 1 calls for the likelihood of above-normal temperatures along and east of a line from the southern Rockies to Lake Superior, while cooler-than-normal conditions can be expected across the northern High Plains and much of the West. Meanwhile, near- to below-normal rainfall in the southern two-thirds of the U.S. should contrast with wetter-than-normal weather across much of the North.”

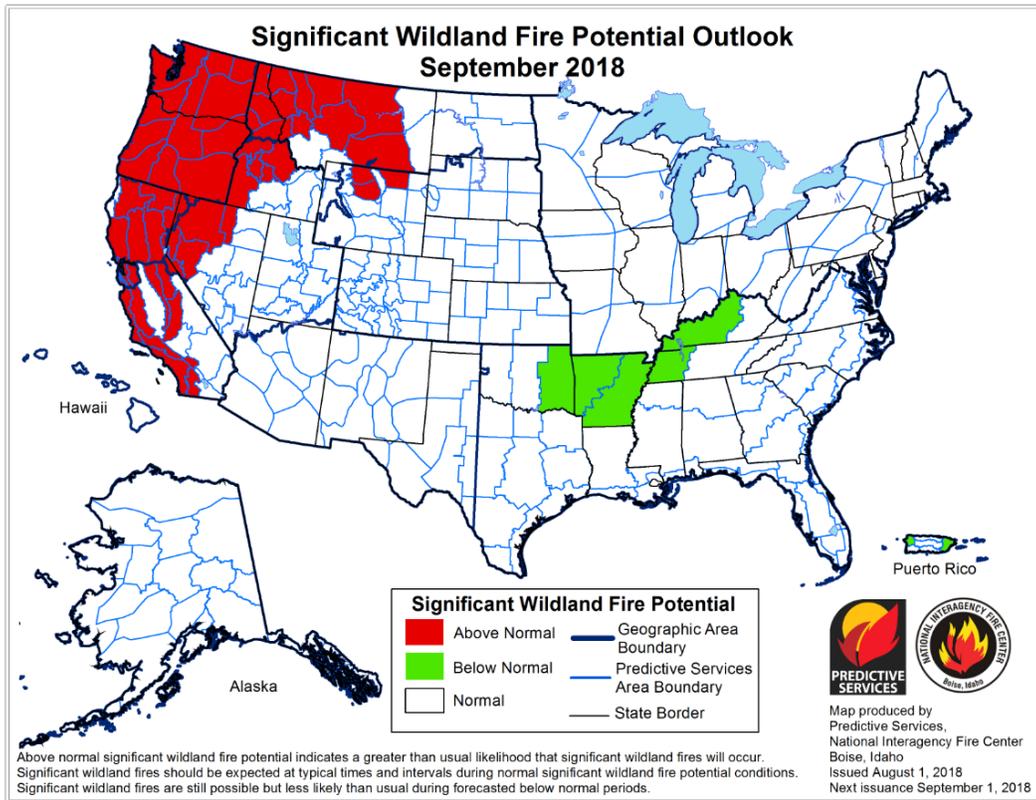
### Weather Hazard Outlook August 25 – 29, 2018

Source: Climate Prediction Center



Significant Wildland [Fire Potential Outlook](#)

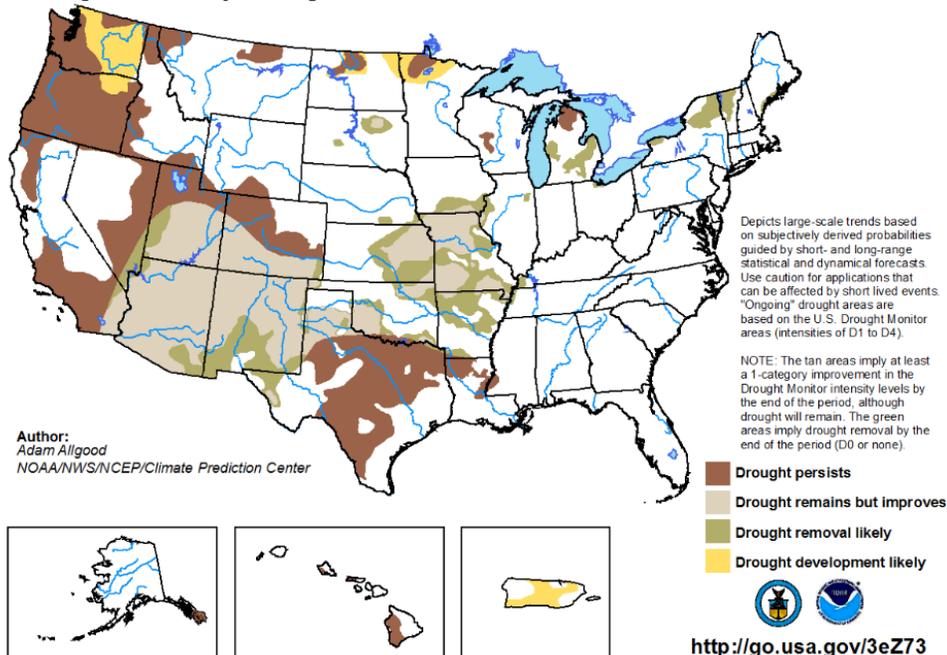
Source: National Interagency Fire Center



Seasonal Drought Outlook: [August 16 - November 30, 2018](#)

Source: National Weather Service

**U.S. Seasonal Drought Outlook** Valid for August 16 - November 30, 2018  
 Drought Tendency During the Valid Period Released August 16, 2018

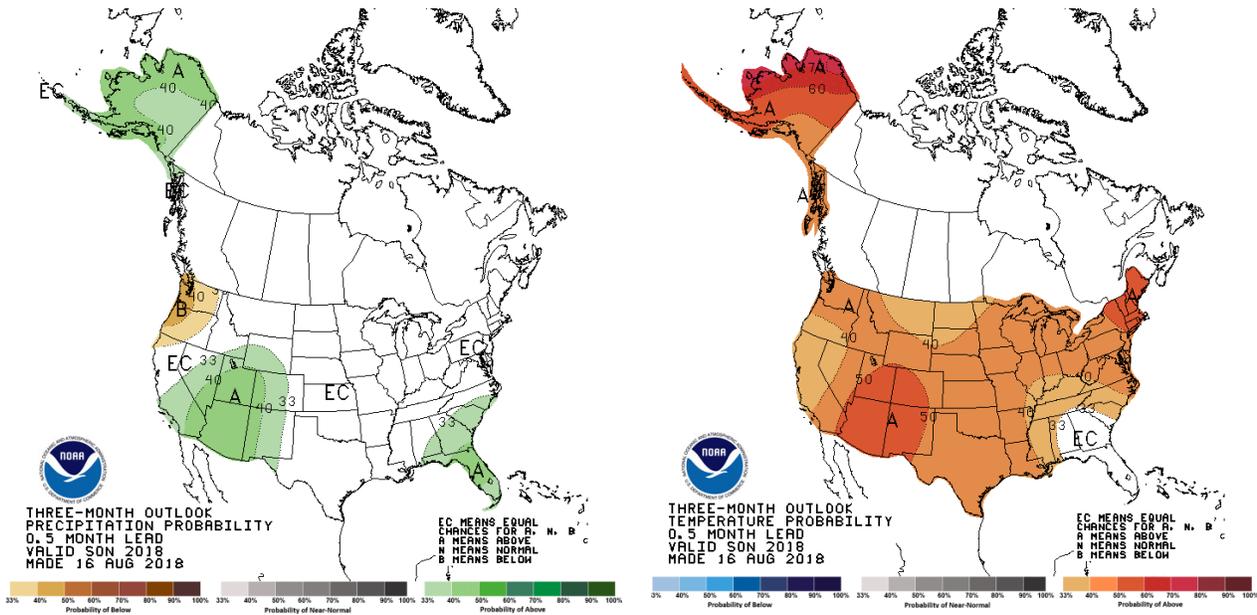


Climate Prediction Center 3-Month Outlook

Source: National Weather Service

Precipitation

Temperature



September-October-November (SOM) 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](#).