

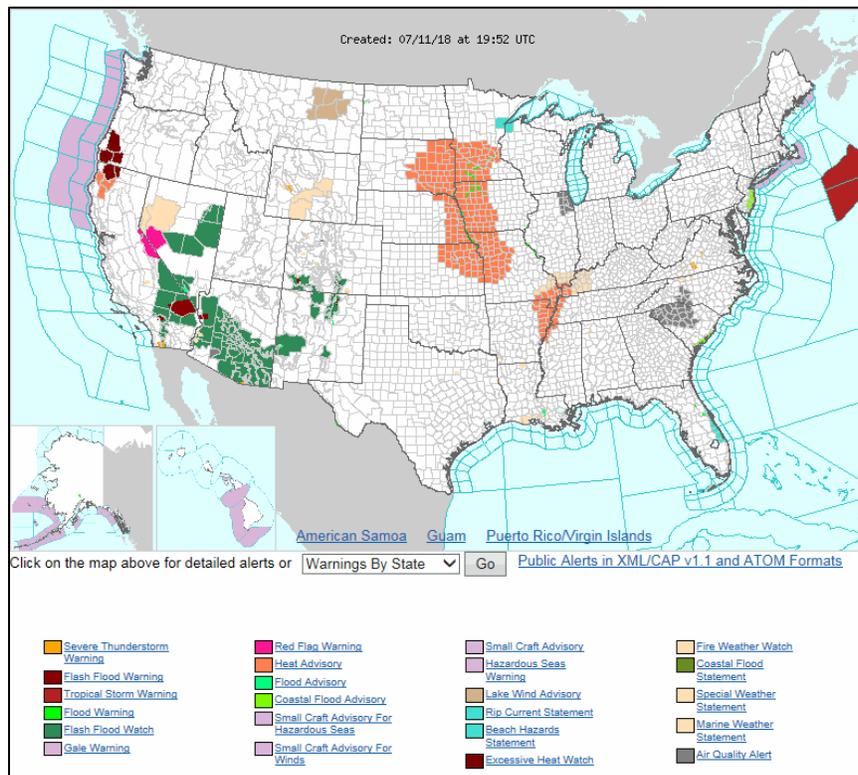
Water and Climate Update

July 12, 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.

Precipitation	1	Other Climatic and Water Supply Indicators	12
Temperature	6	Short- and Long-Range Outlooks.....	16
Drought	8	More Information	18

Southwest monsoon season arrives



Map: National Weather Service (weather.gov)

Severe thunderstorms, high winds, and heavy rain from the first major storm of the monsoon season caused damage throughout Phoenix and surrounding towns in Arizona this week.

The high winds caused home and building damage, power outages, and arrived with a [haboob](#) of blowing dust. The precipitation led to flash flooding in the area and was reportedly responsible for a train derailment.

Flash flood watches and warnings are currently posted from southern California to New Mexico and southern Colorado.

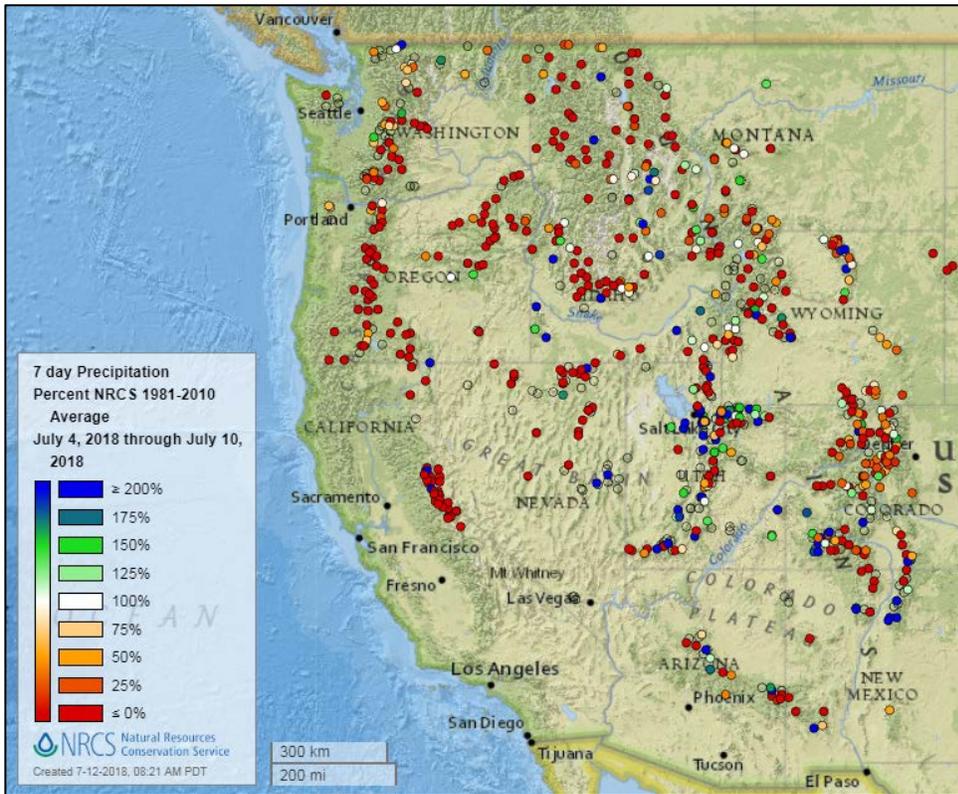
Although the start of the monsoon provides welcome rain to relieve the extremely dry conditions in the region, much more precipitation will be needed to increase soil moisture and streamflows to more normal conditions. See drought map on page 10.

Related:

- [Wall of dust, powerful monsoon storms slam Phoenix area](#) – CBS News
- [Monsoon storms, haboobs cause train derailment, wreck havoc across Arizona](#) – WHIO
- [Cleanup begins in Mesa after first major monsoon storm of 2018 rips through area](#) – Local Source (AZ)
- [Monsoon Rains Provide Some Relief to Drought-Stricken New Mexico](#) – News Deeply (CA)
- [Monsoon storms: Flash flood watch for Tucson, SE Arizona](#) – Tucson Sentinel (AZ)
- [Monsoon season arrives in Las Vegas Valley; more rain possible](#) – Las Vegas Review-Journal (NV)

Precipitation

Last 7 Days, NRCS SNOTEL Network

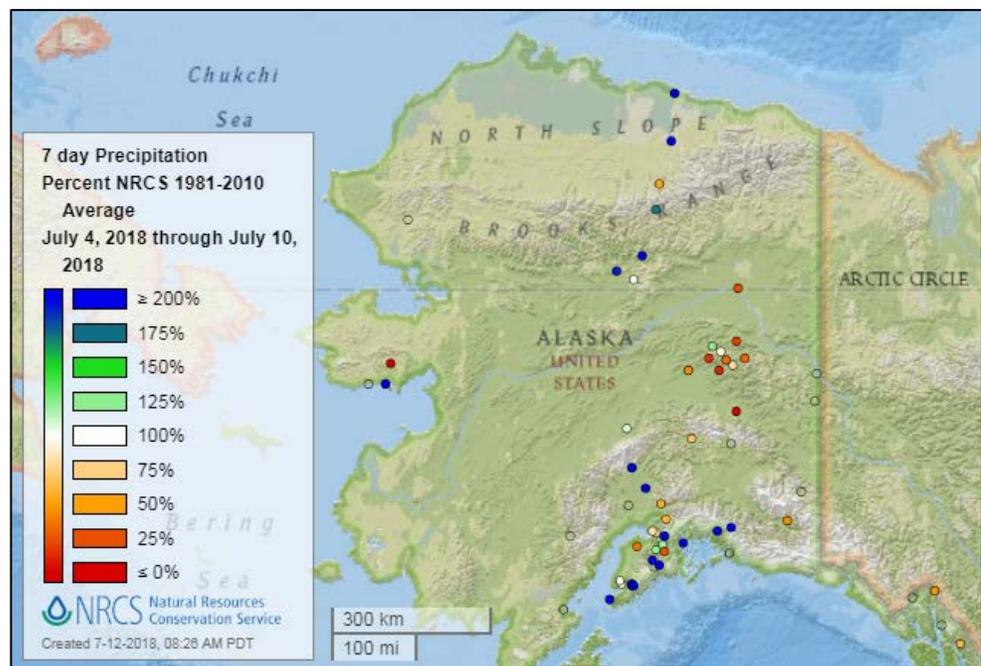


[7-day precipitation percent of average map](#)

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](#)



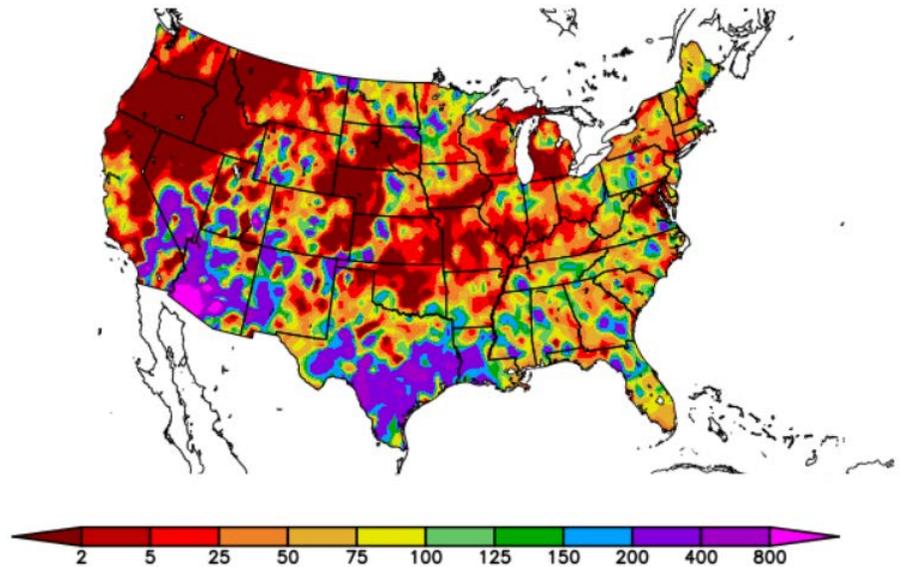
Last 7 Days, National Weather Service (NWS) Networks

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 (%)
7/5/2018 – 7/11/2018



Generated 7/12/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

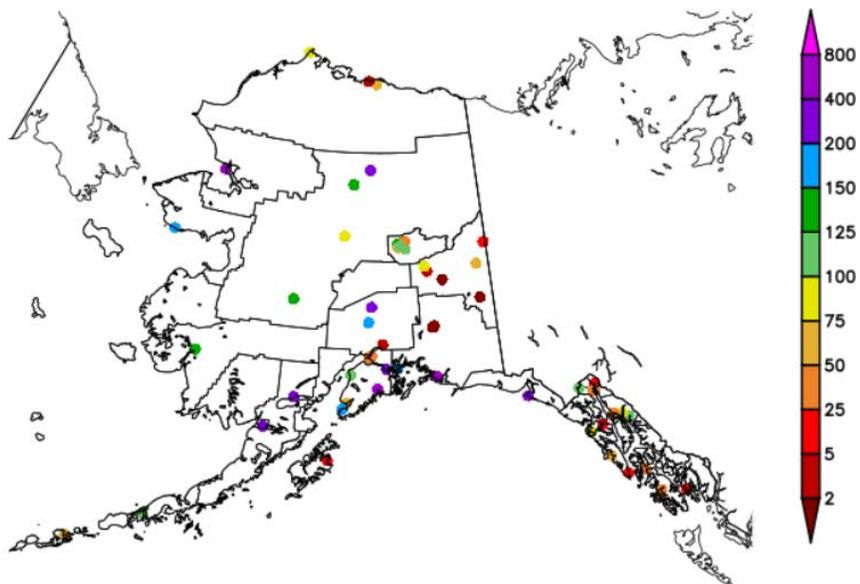
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)
7/5/2018 – 7/11/2018



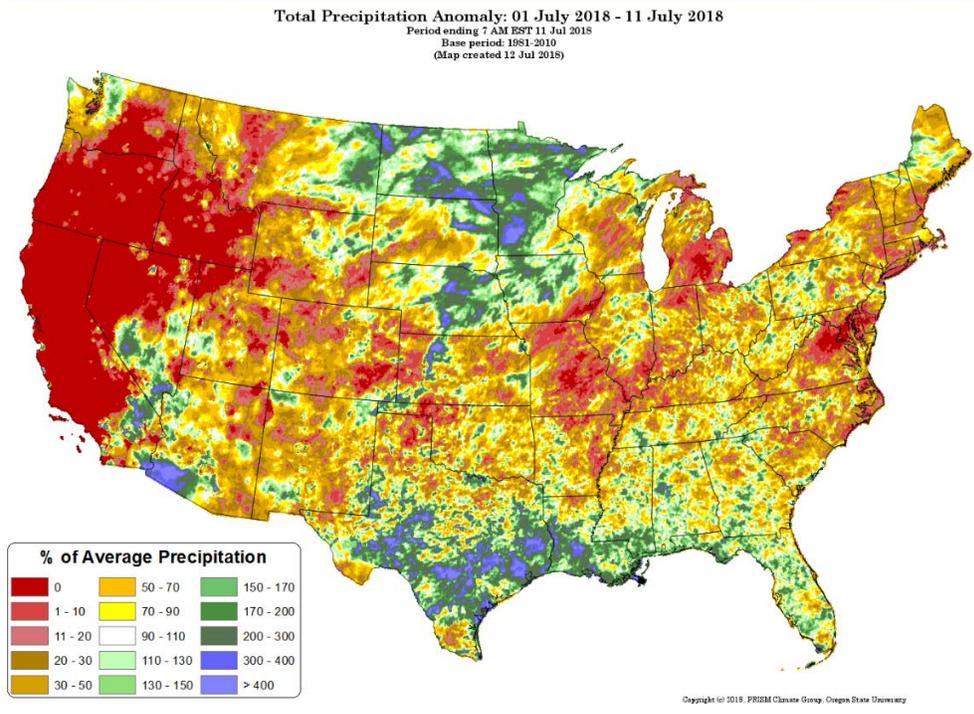
Generated 7/12/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

Water and Climate Update

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

Source: PRISM

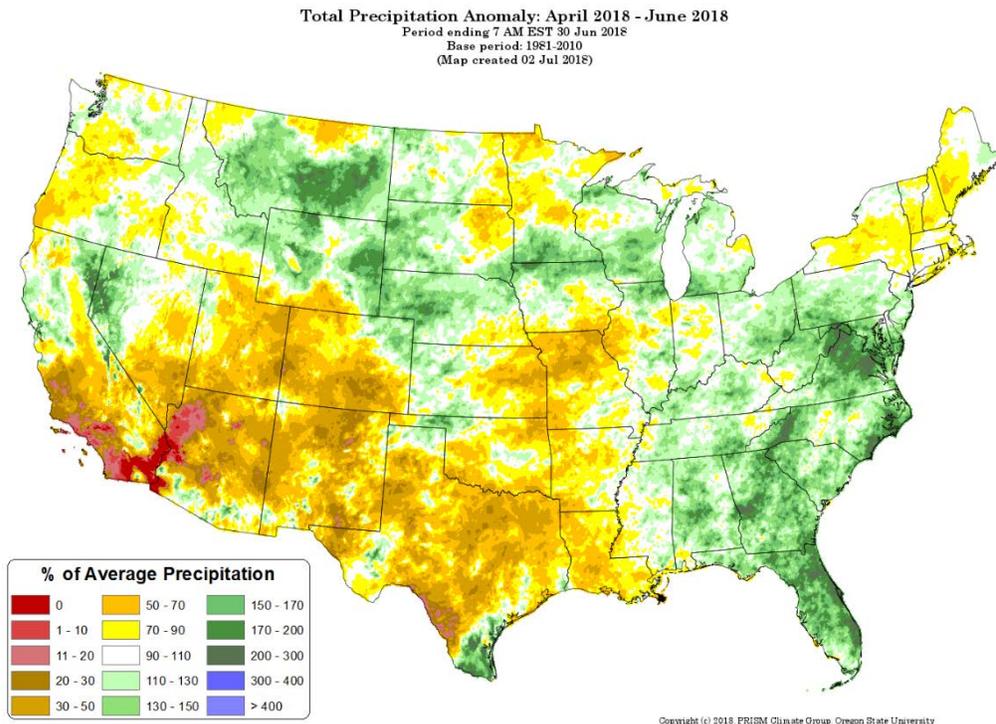


[Month-to-date national total precipitation percent of average map](#)

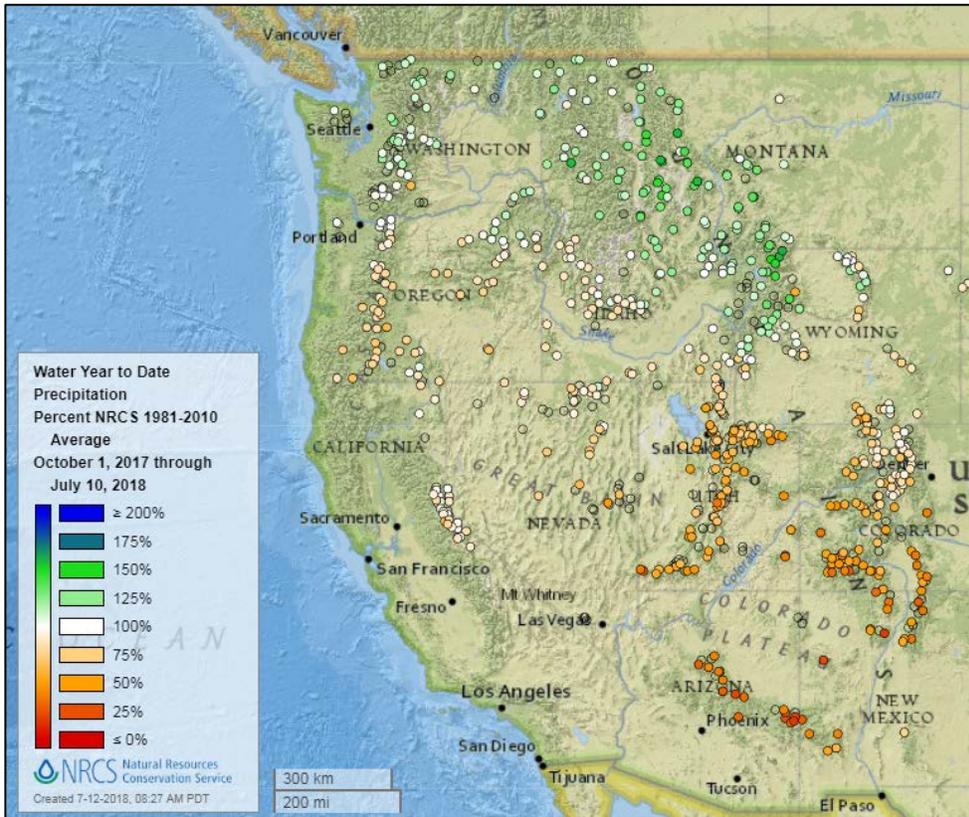
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

[April through June 2018 total precipitation percent of average map](#)

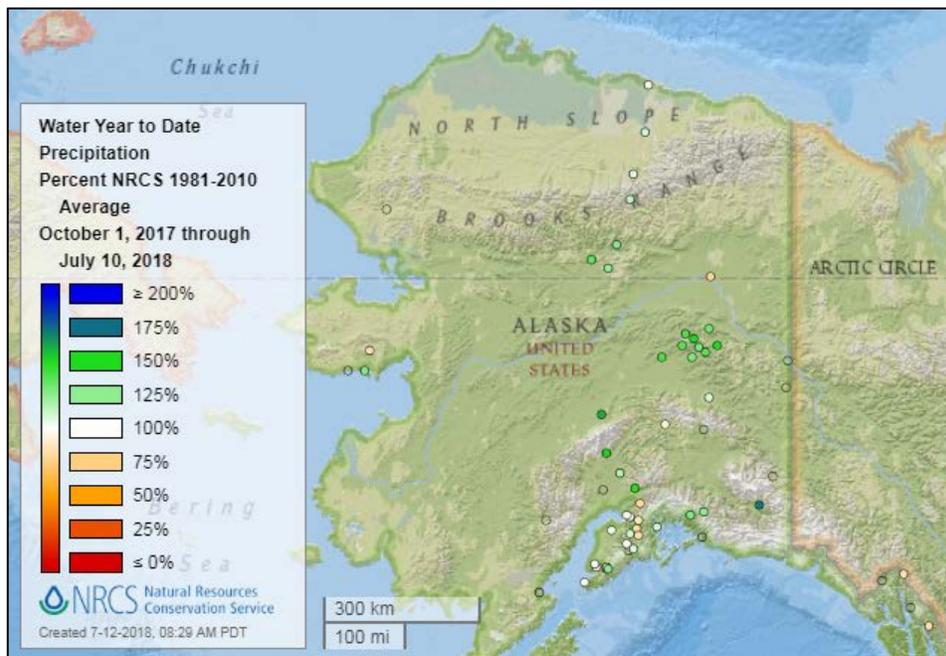


Water Year-to-Date, NRCS SNOTEL Network



[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

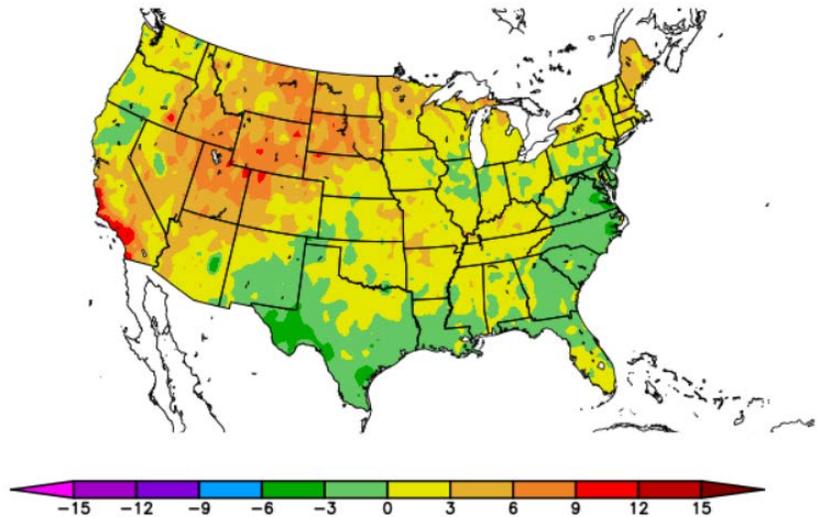
Last 7 Days, National Weather Service (NWS) Networks

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)
7/5/2018 – 7/11/2018



Generated 7/12/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

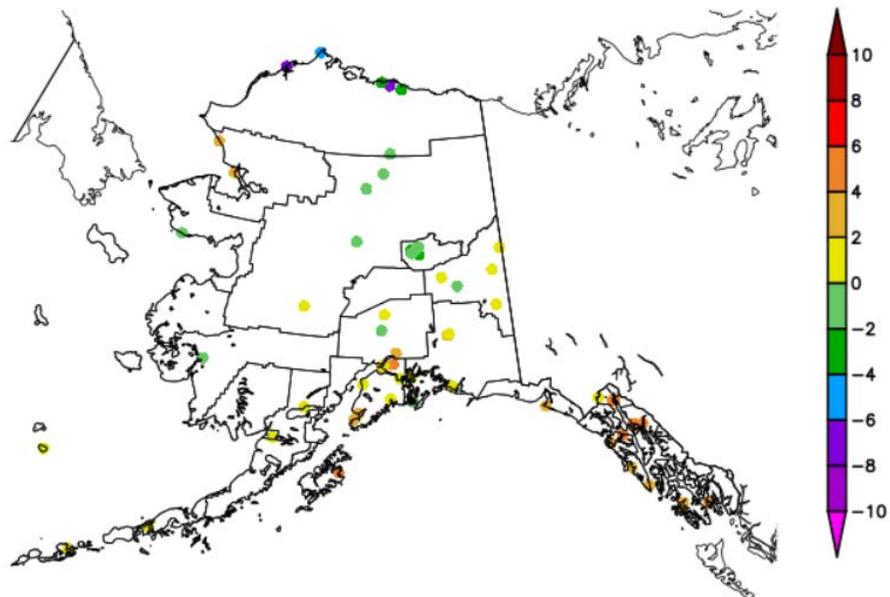
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
7/5/2018 – 7/11/2018



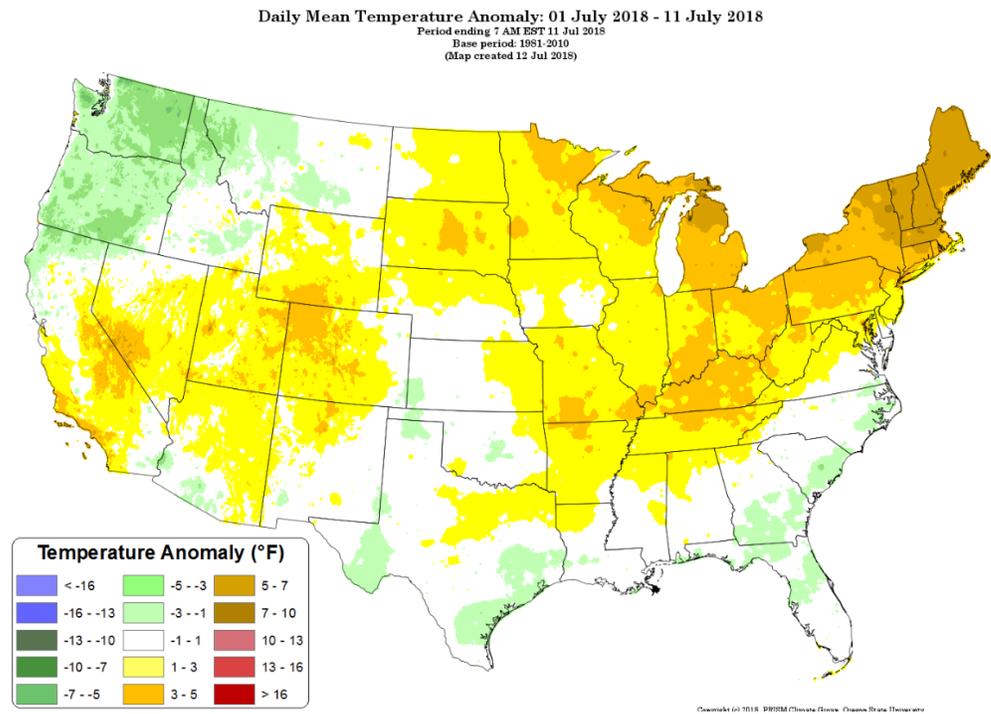
Generated 7/12/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

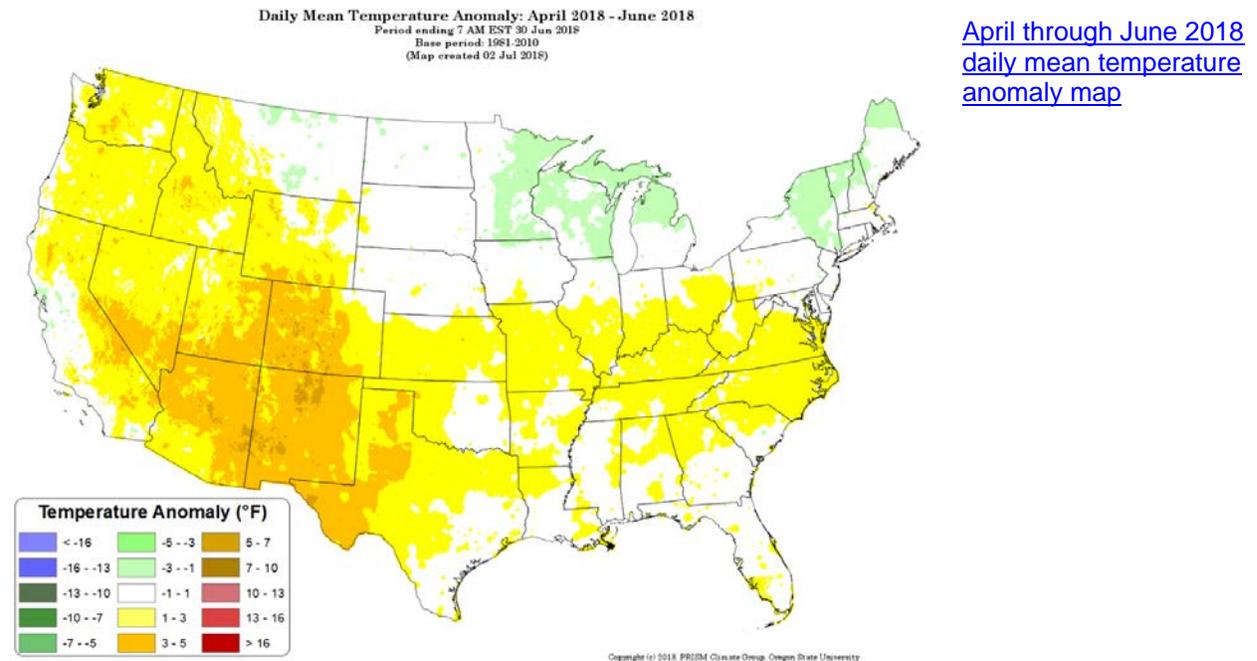
Water and Climate Update

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

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



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

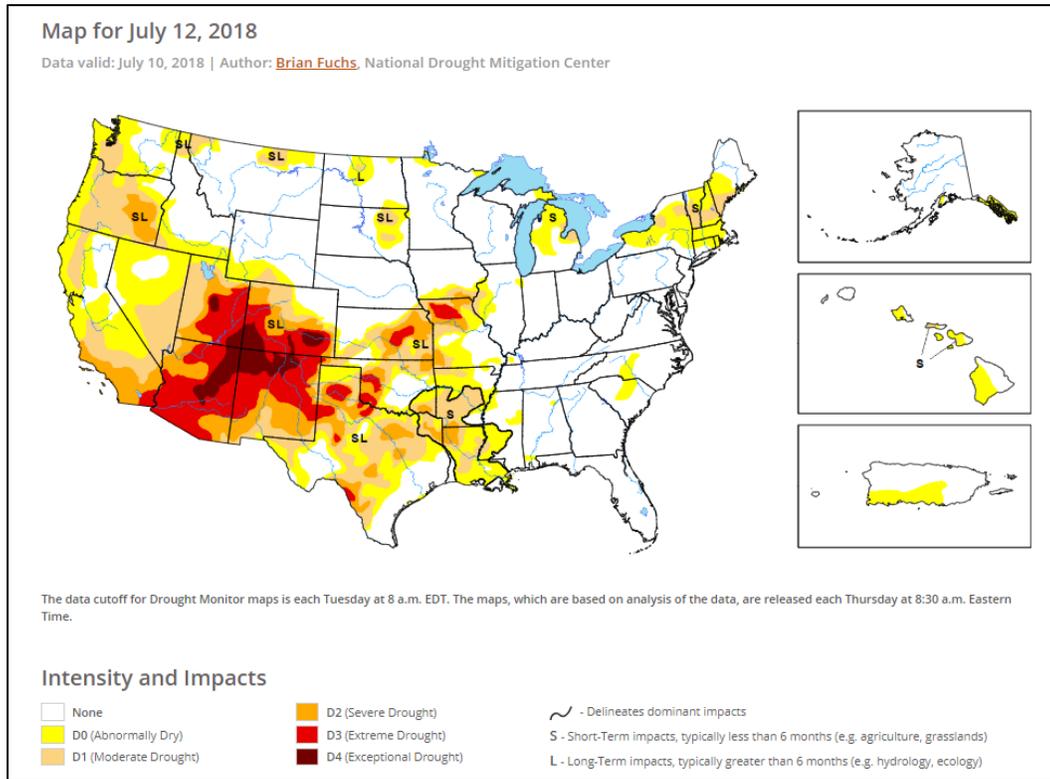


[April through June 2018 daily mean temperature anomaly map](#)

Drought

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

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



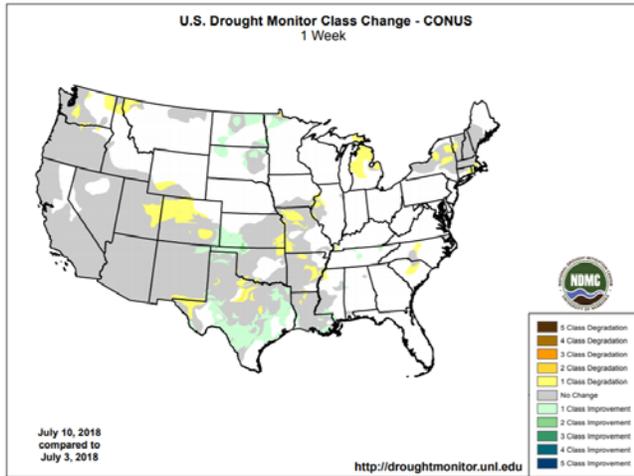
Current [National Drought Summary](#), July 12, 2018

Author: Brian Fuchs, National Drought Mitigation Center

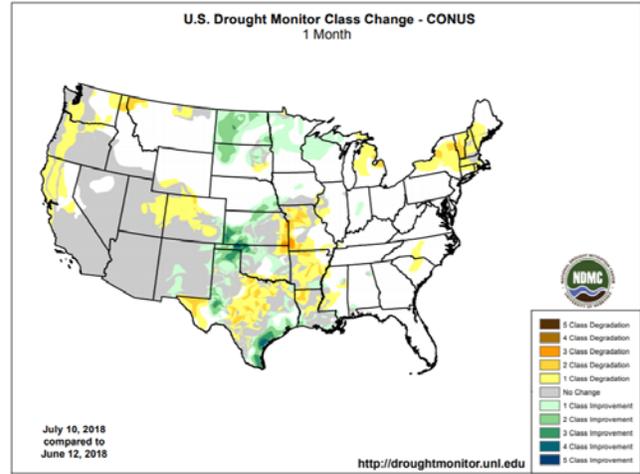
“An active summer pattern continued over the central and northern Plains and into the upper Midwest, with several areas seeing well above normal precipitation associated with thunderstorms. Along the Gulf Coast from Texas to Florida, precipitation was plentiful and widespread as ample moisture continued to be transported into the region. The precipitation along the Gulf also helped to keep temperatures 1-3 degrees cooler than normal for this time of year. Some monsoon activity started up in the Southwest with some scattered precipitation while most of the rest of the West remained warm and dry with an increase in fire danger and active fires throughout the region.”

Changes in Drought Monitor Categories over Time

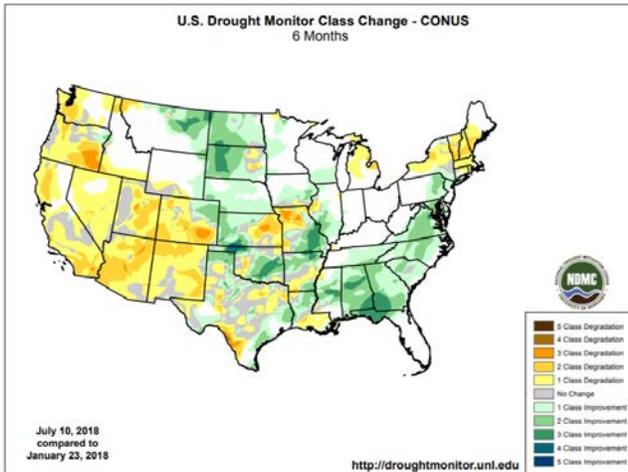
1 Week



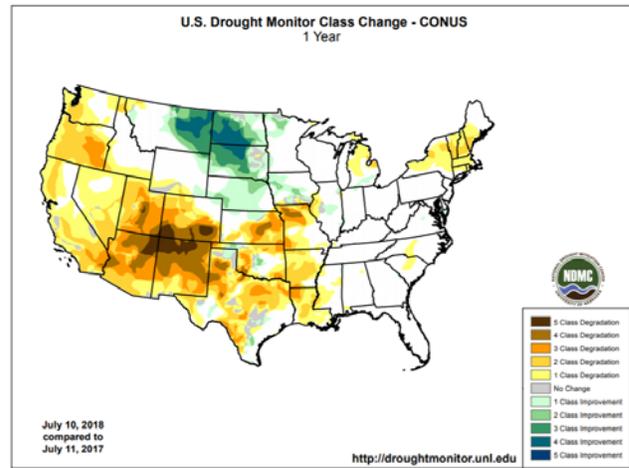
1 Month



6 Months



1 Year

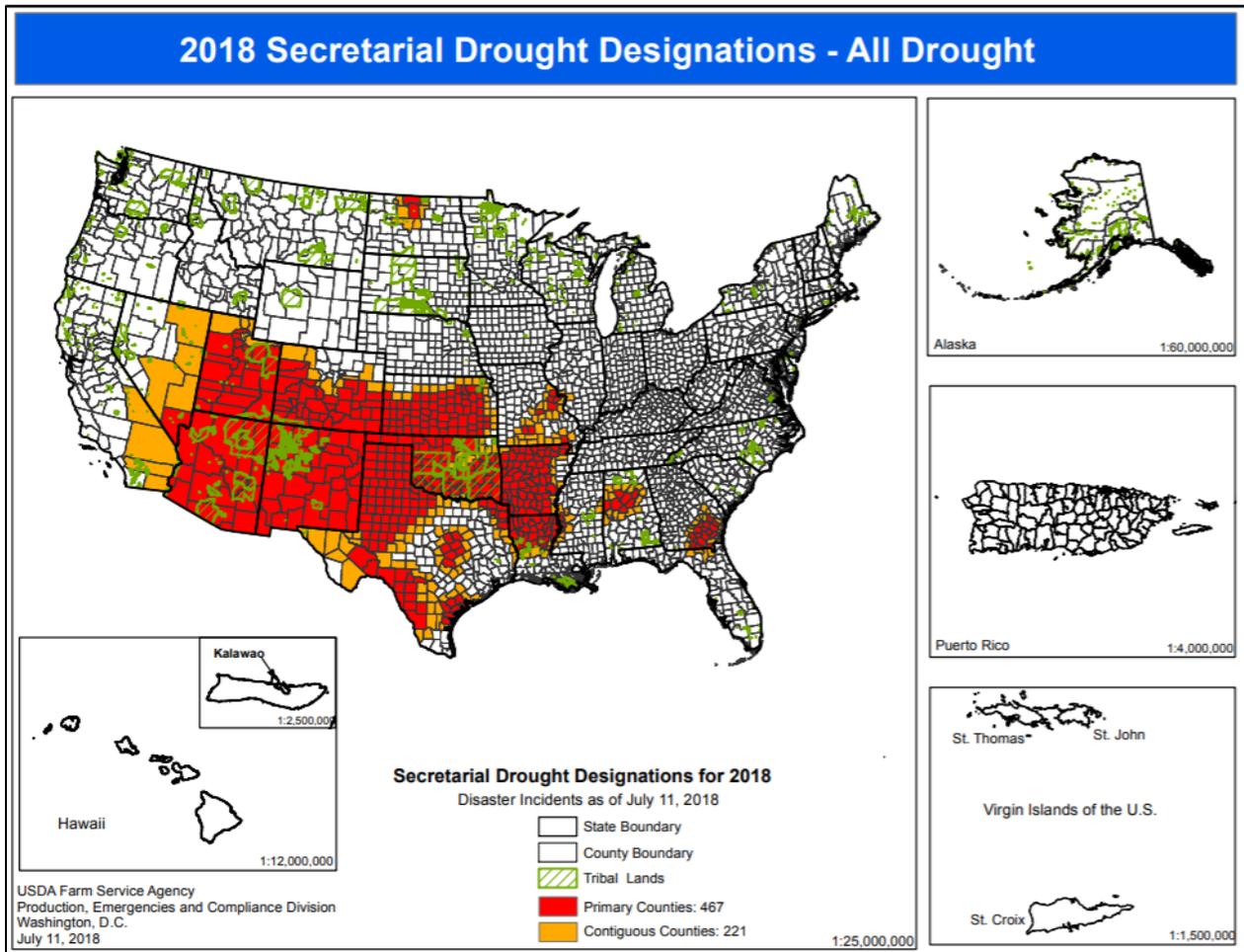


Changes in drought conditions over the last 12 months

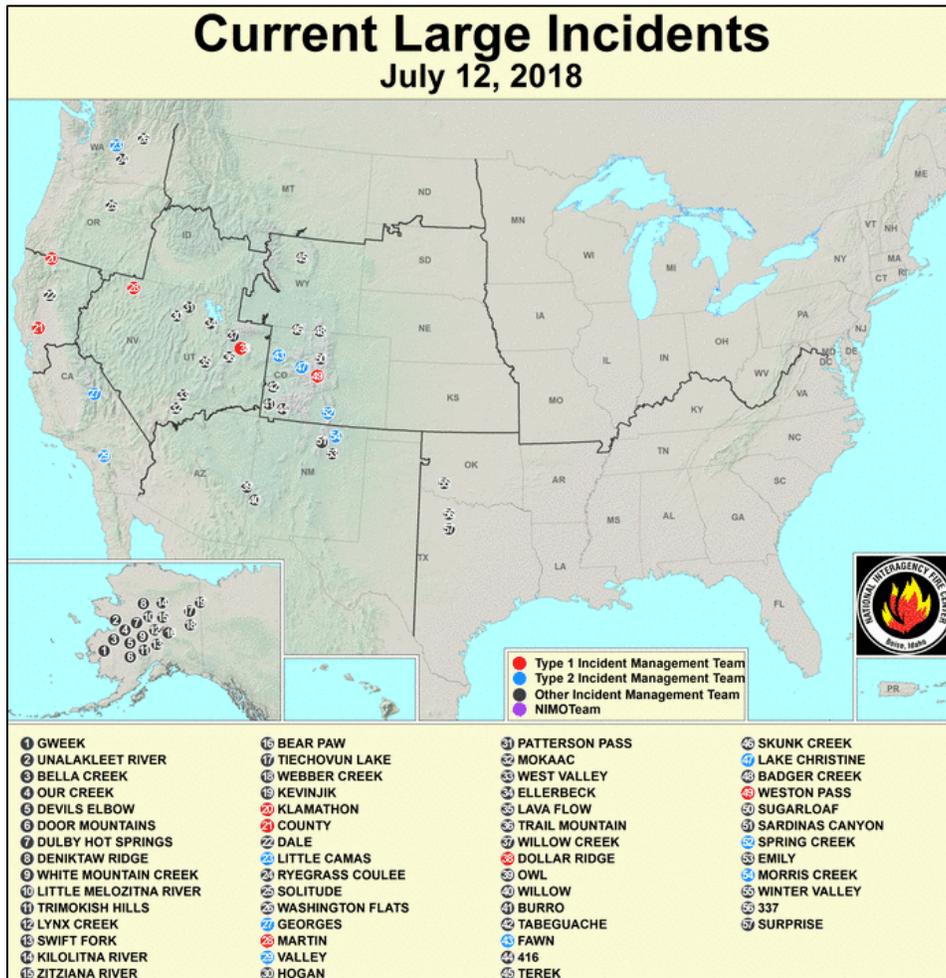
Highlighted Drought Resources

- [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](#)



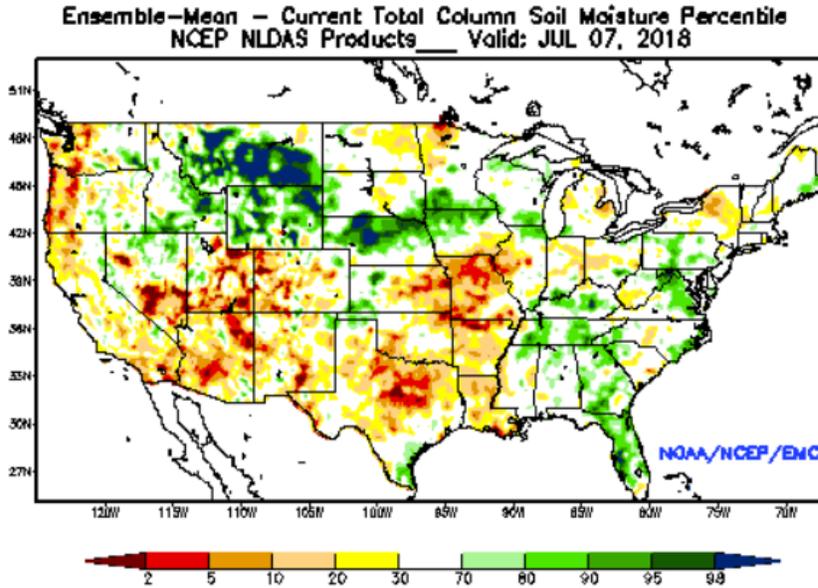
Highlighted Wildfire Resources

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

Other Climatic and Water Supply Indicators

Soil Moisture

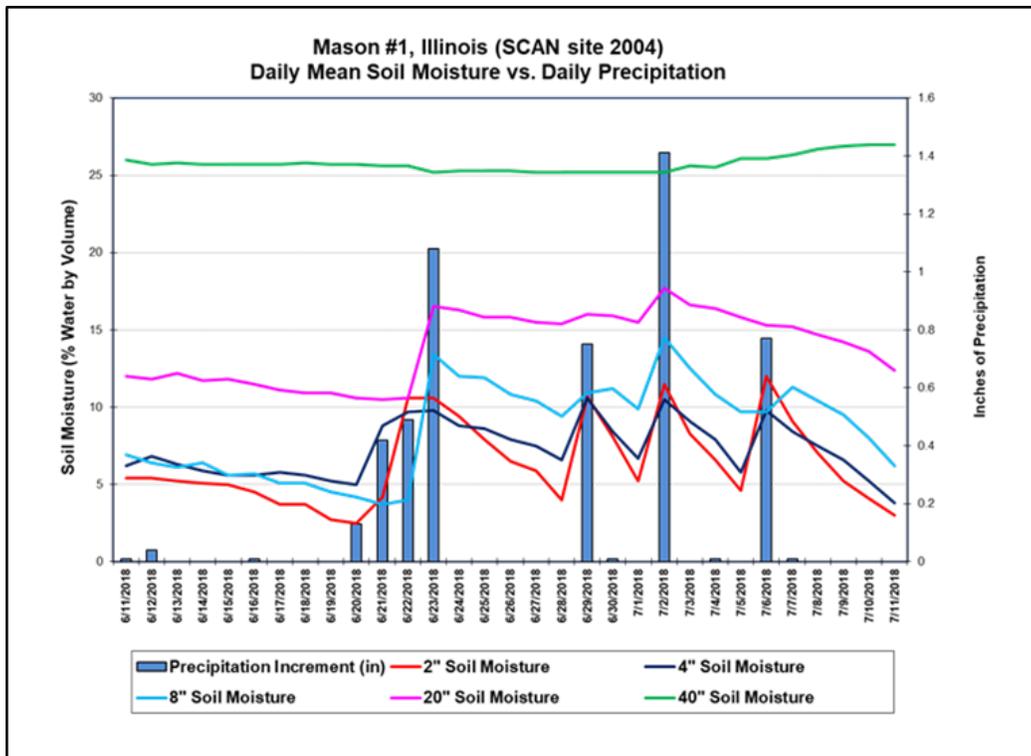
Source: NOAA National Centers for Environmental Prediction



[Modeled soil moisture percentiles](#) as of July 7, 2018.

Soil Moisture Data

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



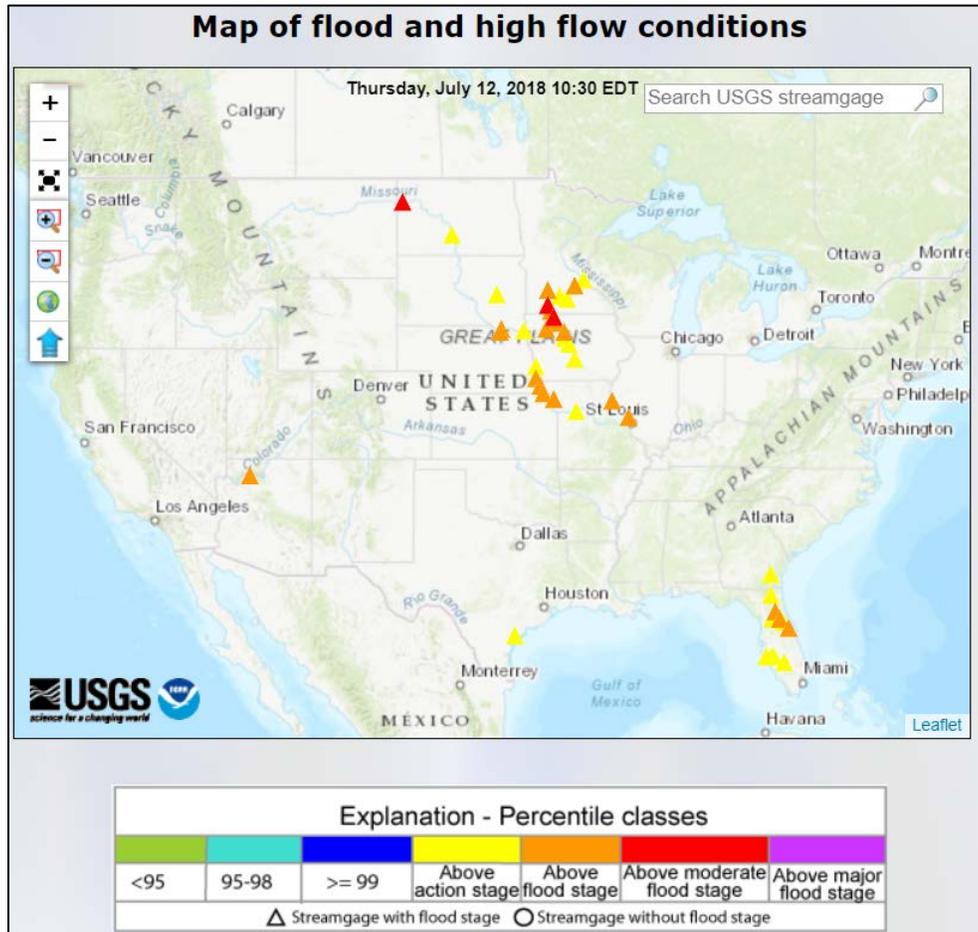
This chart shows the precipitation and soil moisture for the last 30 days at the [Mason #1 SCAN site 2004](#) in Illinois. The largest, single event occurred on July 2, where daily accumulated precipitation totaled 1.41 inches. In response, all the sensors showed an increase in soil moisture levels, with the 2-, 4-, and 8-inch sensors showing rapid declines following the event.

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

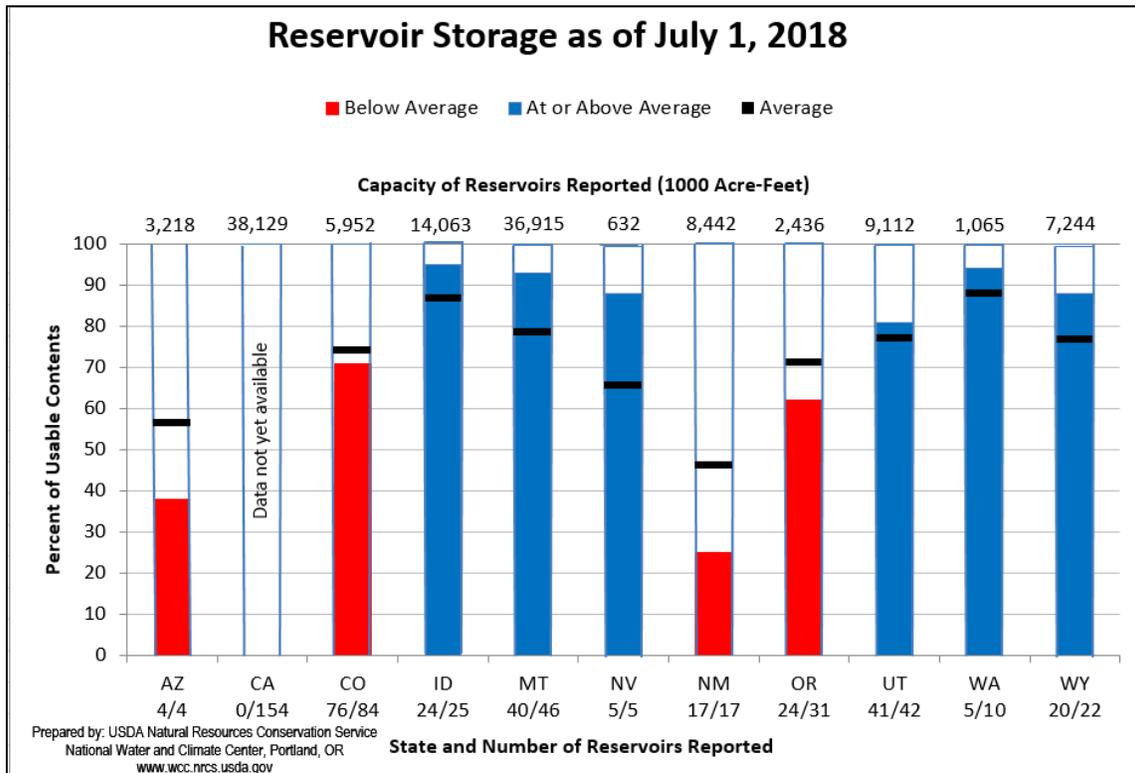


[WaterWatch: Streamflow, drought, flood, and runoff conditions](#)

Reservoir Storage

Western States Reservoir Storage

Source: NRCS National Water and Climate Center



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

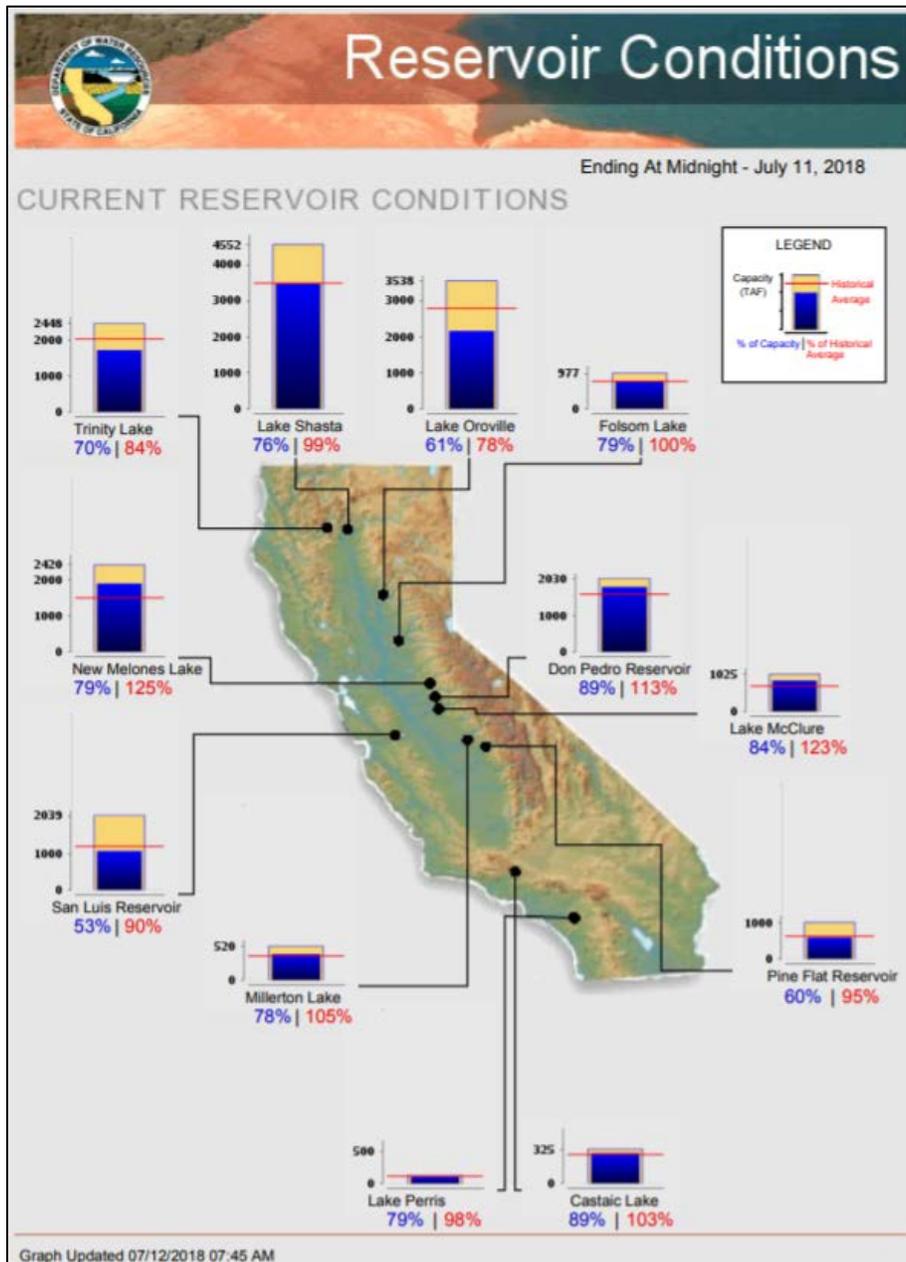
U.S. Bureau of Reclamation Hydromet Tea Cup Reservoir Depictions

- [Upper Colorado](#)
- [Pacific Northwest/Snake/Columbia](#)
- [Sevier River Water, Utah](#)
- [Upper Missouri, Kansas, Oklahoma, Texas](#)

Water and Climate Update

Current California Reservoir Conditions

Source: California Department of Water Resources



[Current California Reservoir Conditions](#)

Short- and Long-Range Outlooks

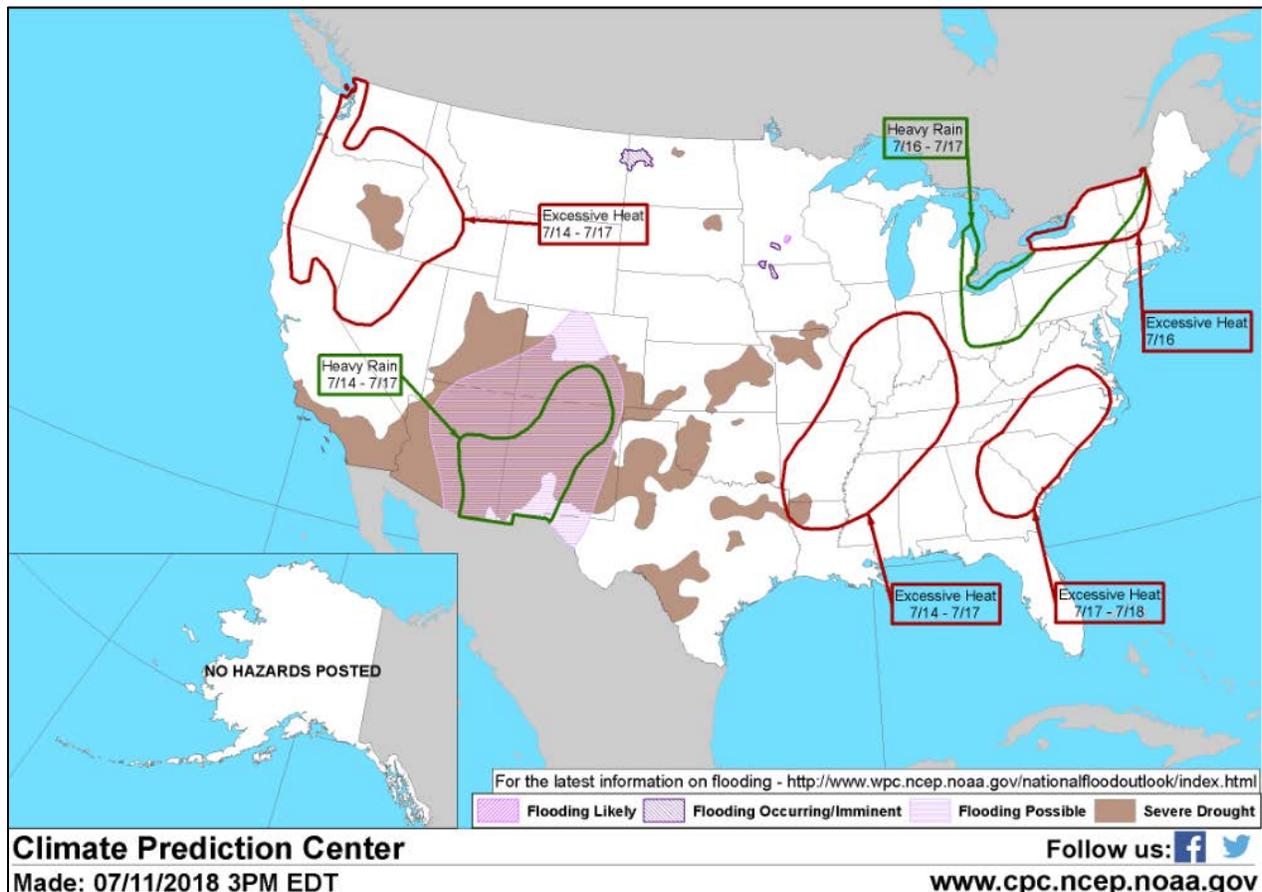
Agricultural Weather Highlights

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

National Outlook, Thursday, July 12: “A warm weather pattern, featuring near- or above-normal temperatures, will cover much of the country during the next several days. However, cloudiness and showers will suppress temperatures in the Southwest, while a heat wave will intensify across northern California, the Great Basin, and the Northwest. During the weekend, markedly cooler air will arrive across the northern Plains. Meanwhile, the interaction between the Southwestern monsoon circulation and a pair of cold fronts will generate widespread rainfall (locally 1 to 3 inches or more) from the Four Corners States into the upper Midwest. Elsewhere, scattered showers will dot the Southeast, while mostly dry weather will prevail in California and the Northwest. The NWS 6- to 10-day outlook for July 16 – 20 calls for the likelihood of above-normal temperatures across the South, East, and Far West, while cooler-than-normal conditions will be limited to the upper Midwest and parts of the Southwest. Meanwhile, below-normal rainfall in the western Gulf Coast region and from the Pacific Northwest to the upper Great Lakes region should contrast with wetter-than-normal weather in the Southwest, the central Plains, and the eastern one-third of the U.S.”

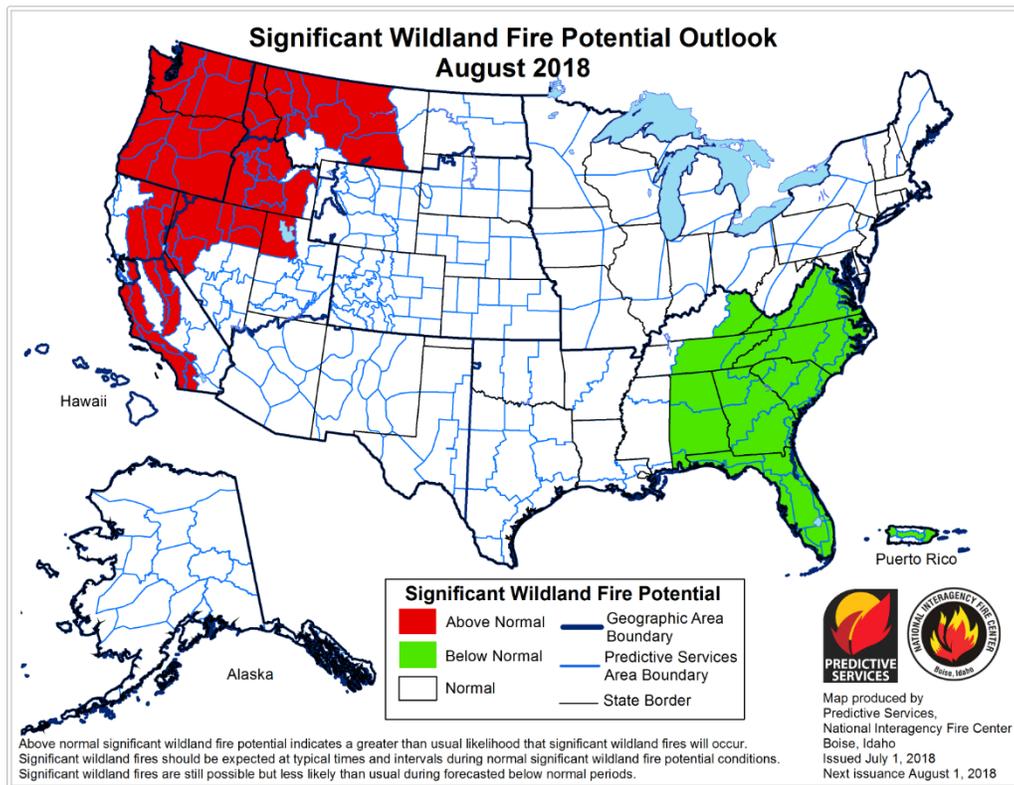
Weather Hazard Outlook [July 14 – July 18, 2018](#)

Source: Climate Prediction Center



Significant Wildland [Fire Potential Outlook](#)

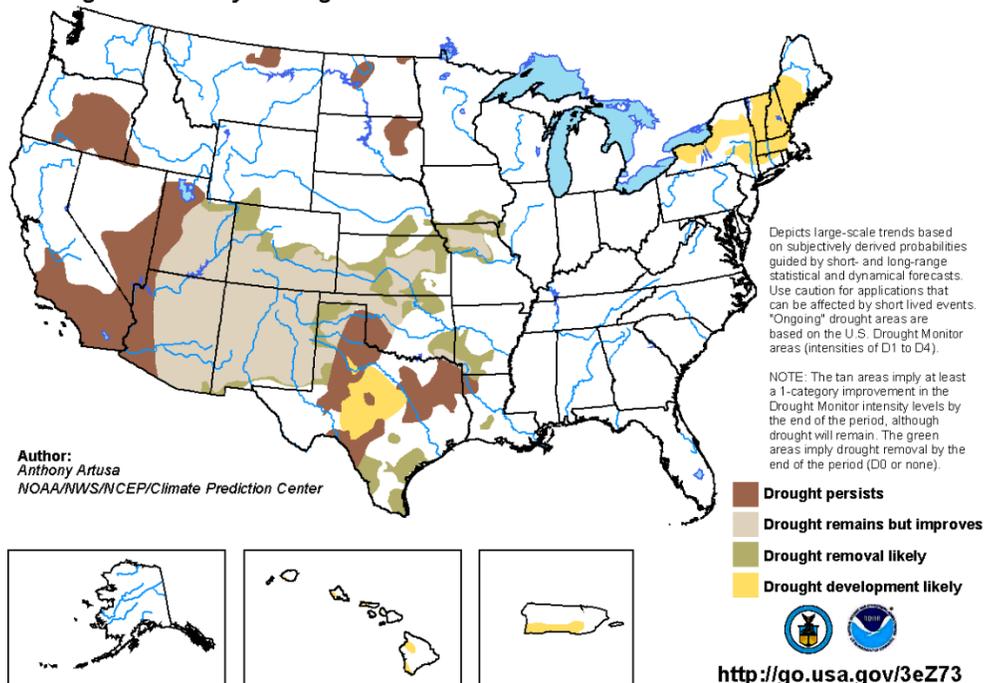
Source: National Interagency Fire Center



Seasonal Drought Outlook: [June 21 – September 30, 2018](#)

Source: National Weather Service

U.S. Seasonal Drought Outlook Valid for June 21 - September 30, 2018
Drought Tendency During the Valid Period Released June 21, 2018

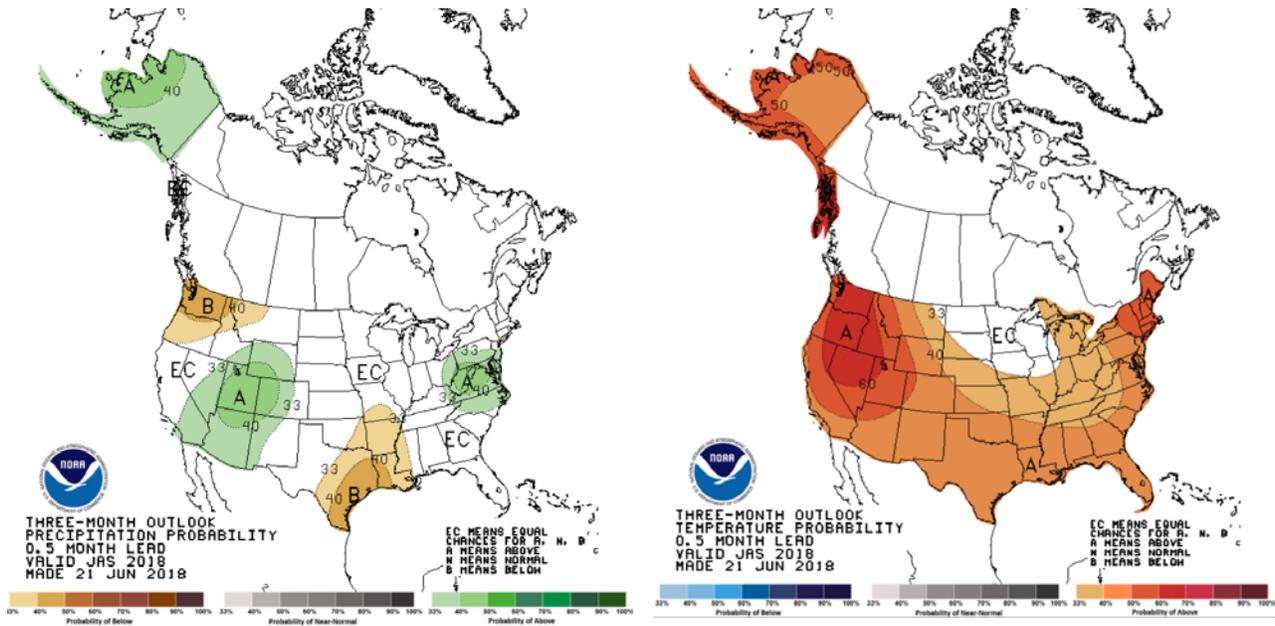


Climate Prediction Center 3-Month Outlook

Source: National Weather Service

Precipitation

Temperature



[July-August-September \(JAS\) 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](#).