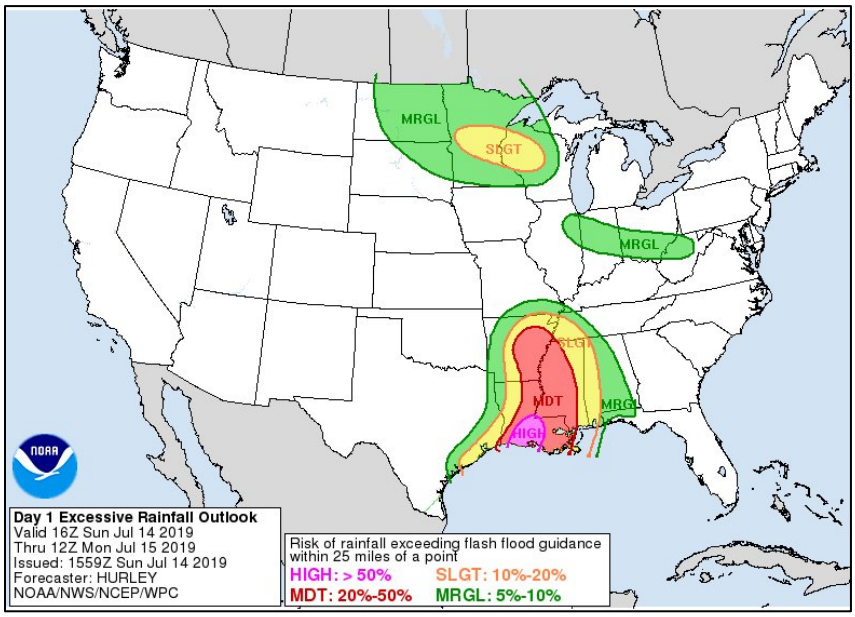
United States Department of Agriculture

Water and Climate Update

July 18, 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.

Hurricane Barry first major tropical storm to reach land this season



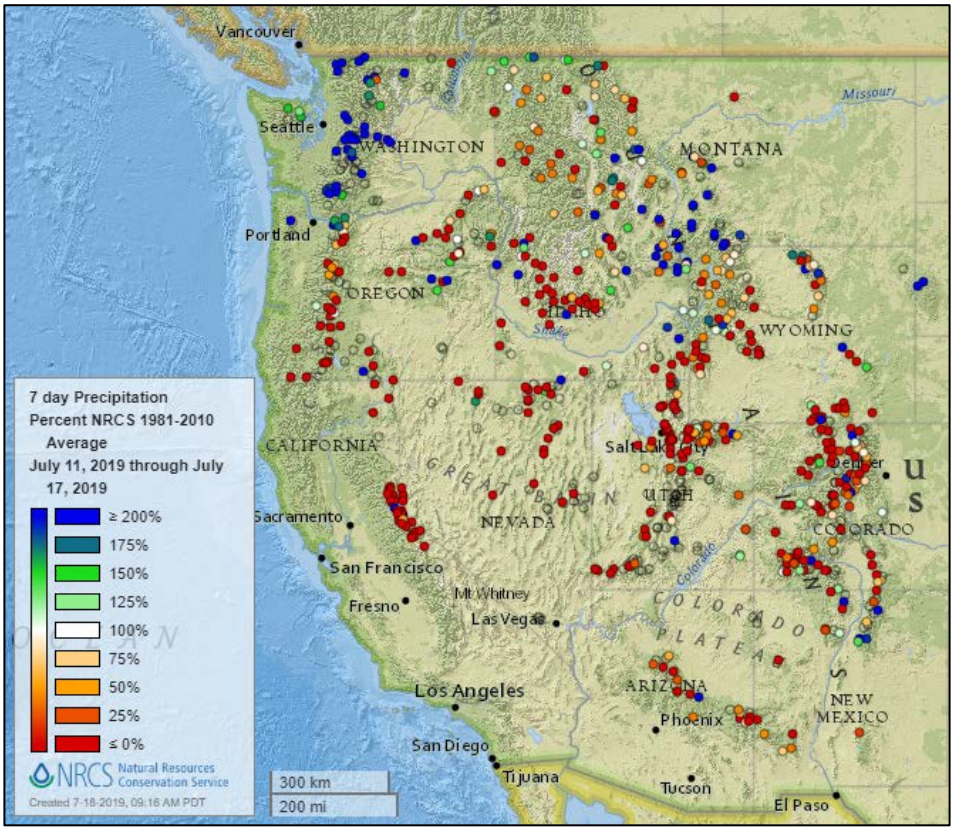
Hurricane Barry grew to a Category 1 hurricane in the Gulf of Mexico, making landfall on the coast of Louisiana on July 13. Barry is the first hurricane of the 2019 season with sustained winds of 75 mph and intense rainfall and thunderstorms. The town of Ragley, Louisiana, had a record rainfall total of 23.43 inches from the storm and over 12 inches fell in other towns in the area. Flash flooding was widespread in parts of Louisiana, Mississippi, and Arkansas. By Wednesday, the remnants of Barry had moved northeast into New England with continued thunderstorms, heavy rain, and flooding along its path.

Related:

SW Louisiana records highest rain totals statewide from Barry – KPLC (LA)
Remnants of Hurricane Barry lash Lake Charles area, but most of state sparred catastrophic rain – NOLA.com (LA)
Barry downgraded to a depression but still brings risk of flooding rain from Louisiana to Arkansas – The Washington Post
Barry marches inland, bringing rain, tornado threats – Arkansas Democrat-Gazette (AR)
Barry may still pack a punch with heavy downpours, localized flooding – UPI.com
Barry Still Soaking, Flooding Parts Of The South – Yahoo! News
Barry's flood threat lingers as storm slowly sweeps inland – ABC

Precipitation

Last 7 Days, NRCS SNOTEL Network

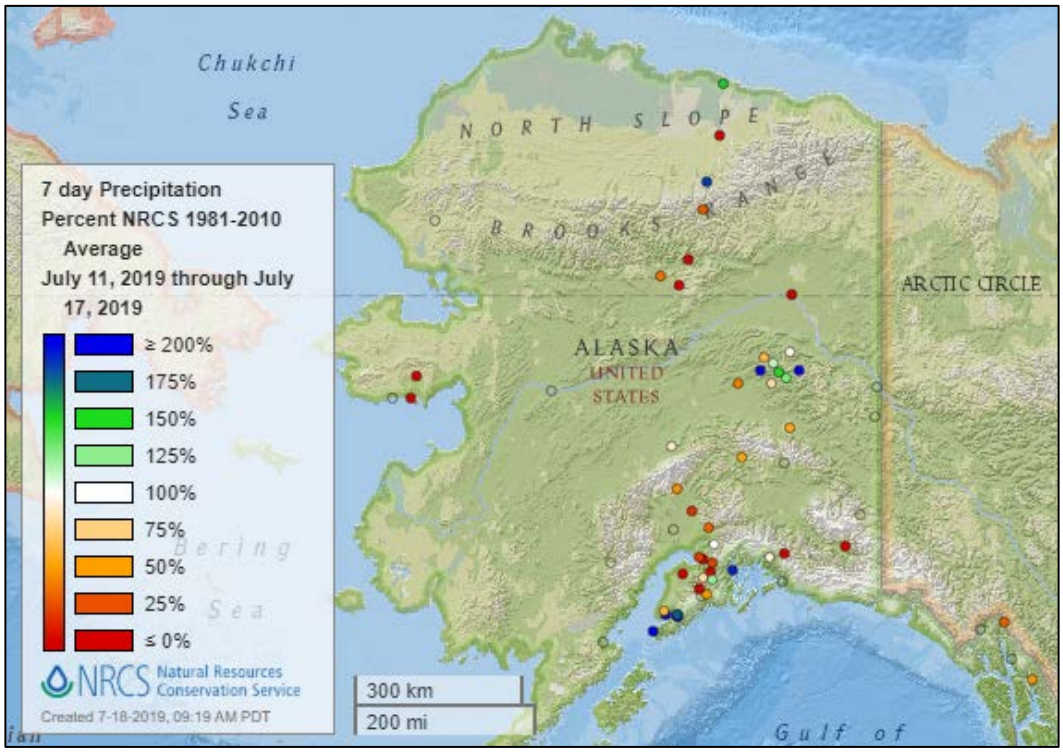


[7-day precipitation percent of average map]

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]

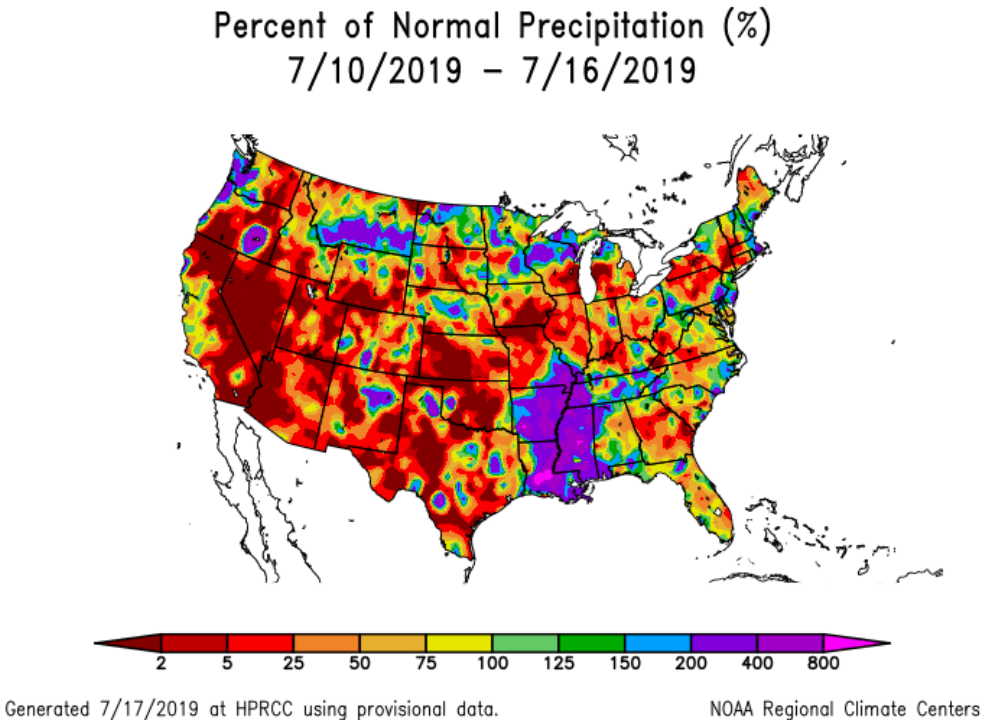


Last 7 Days, National Weather Service (NWS) Networks

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

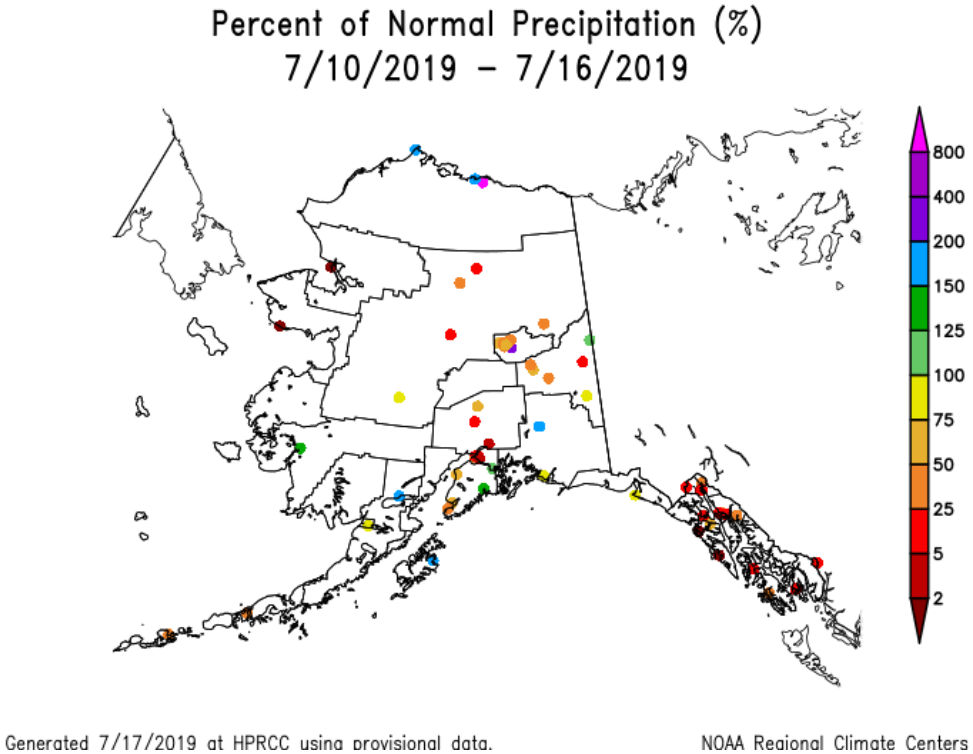


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

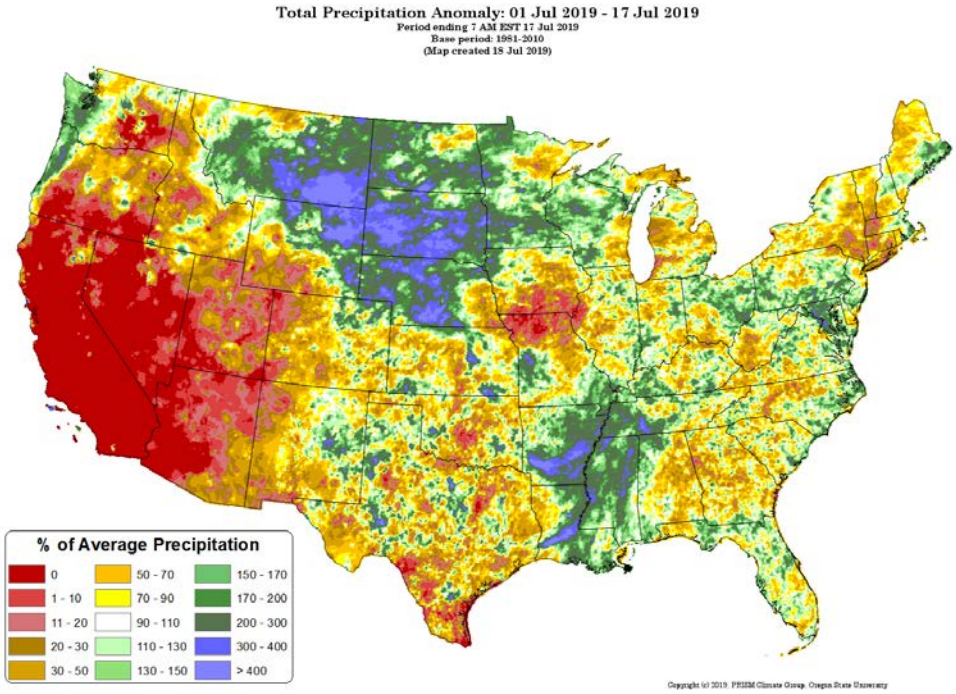
7-day precipitation anomaly map for Alaska.

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



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

Source: PRISM

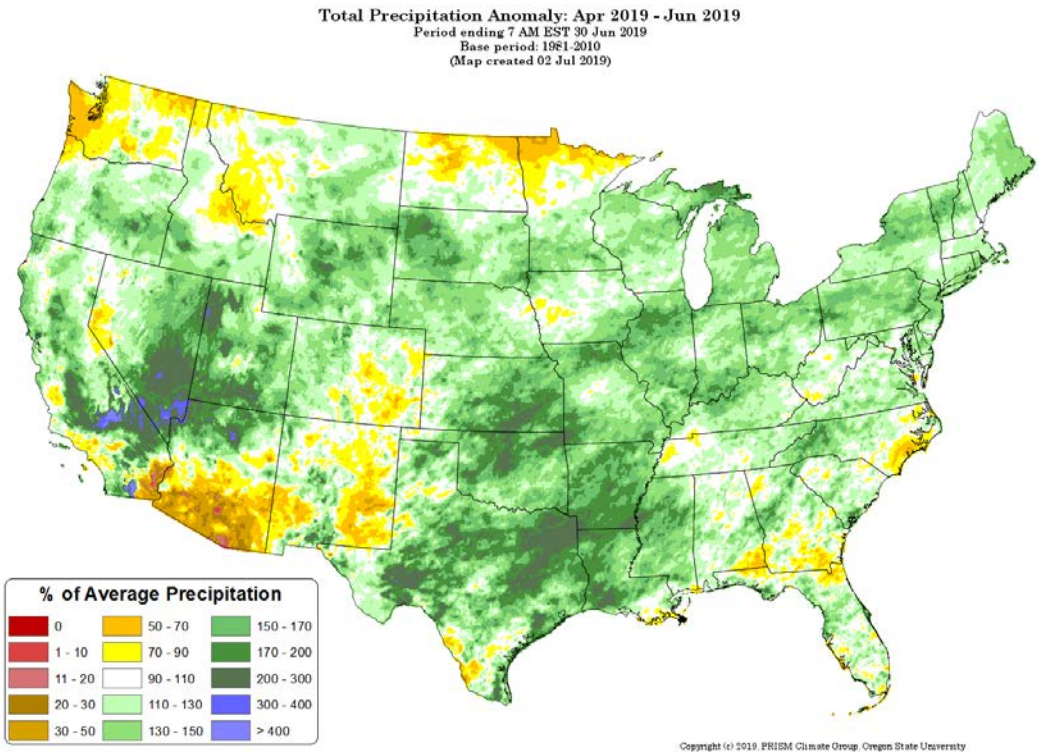


Month-to-date national total precipitation percent of average map

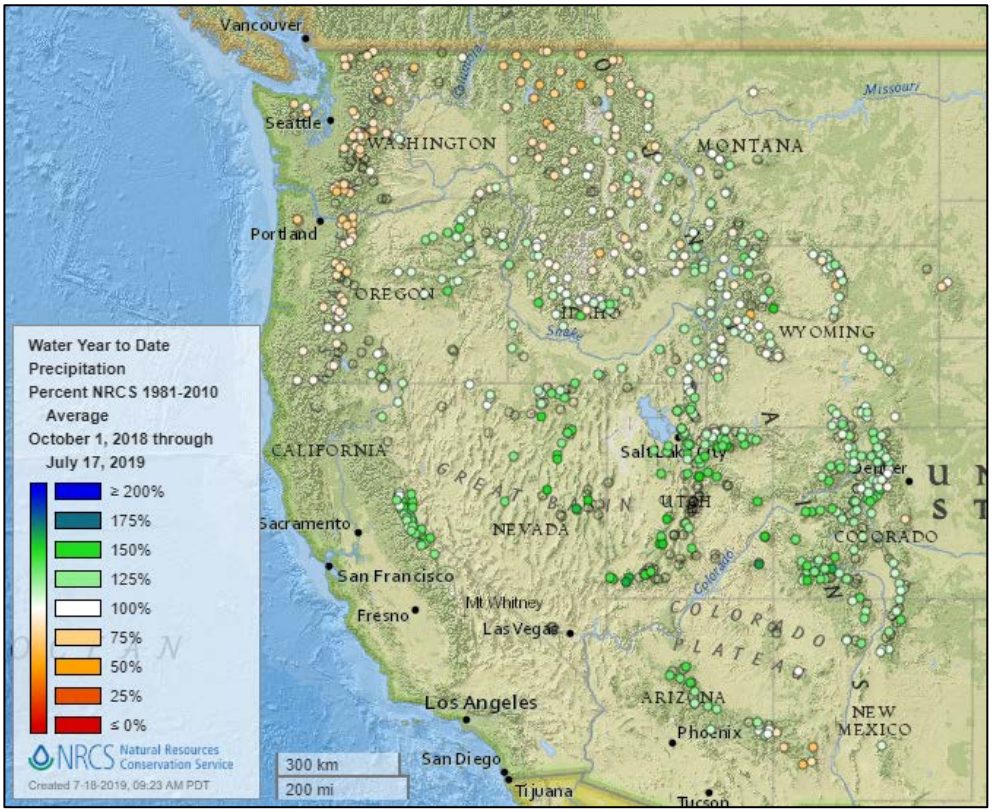
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

April through June 2019 total precipitation percent of average map

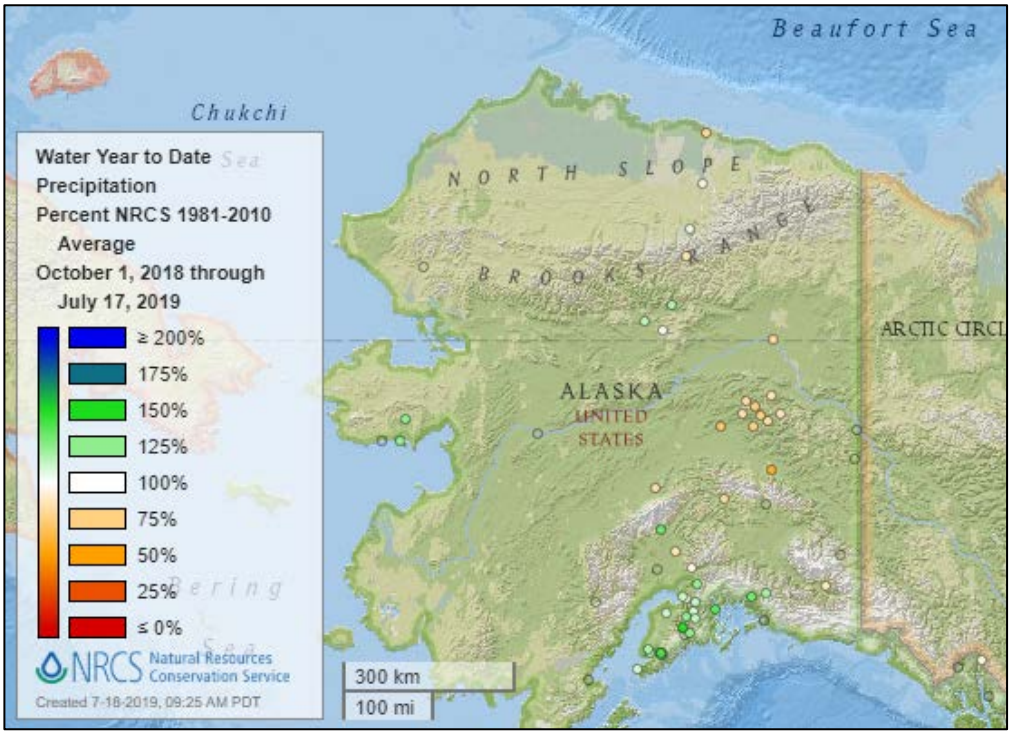


Water Year-to-Date, NRCS SNOTEL Network



[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]

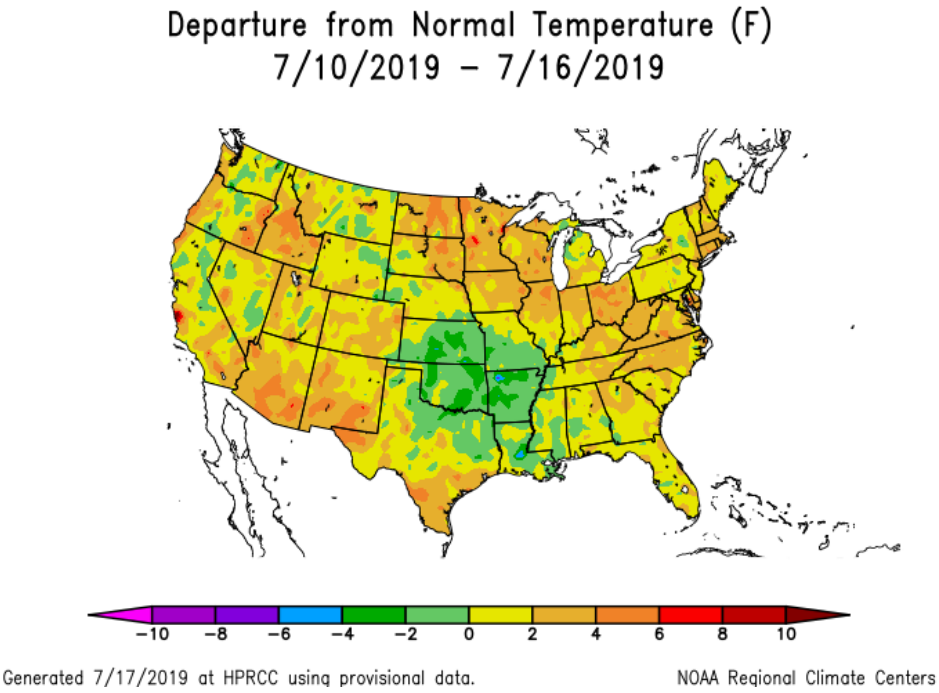
See also: [Alaska 2019 water year-to-date precipitation values (inches) map]

Temperature

Last 7 Days, National Weather Service (NWS) Networks
Source: Regional Climate Centers

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

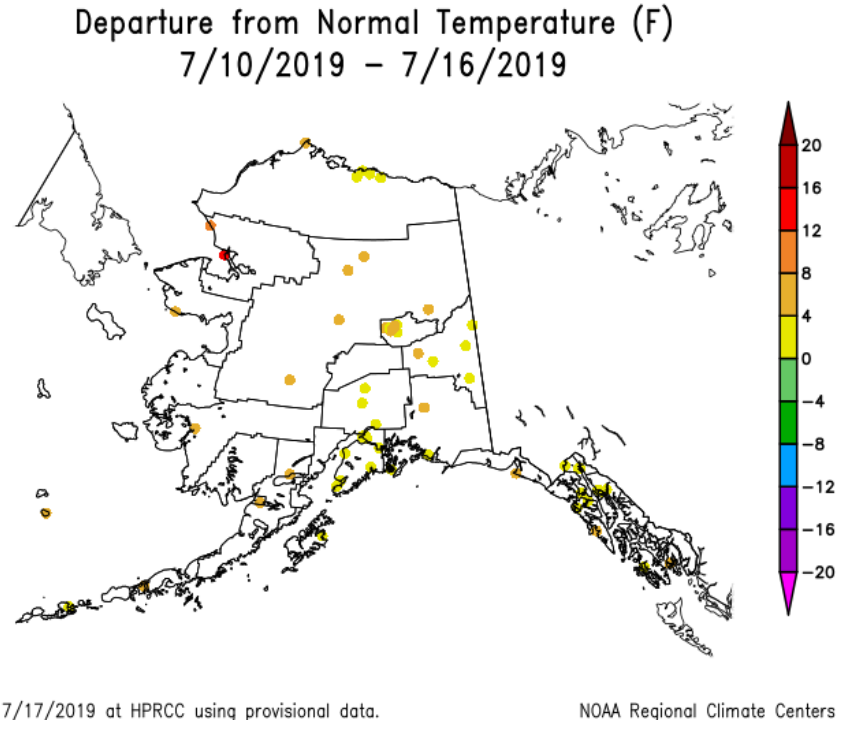
See also: [7-day temperature (° F) map]



Last 7 Days, National Weather Service (NWS) Networks
Source: Regional Climate Centers

[7-day temperature anomaly map] for Alaska.

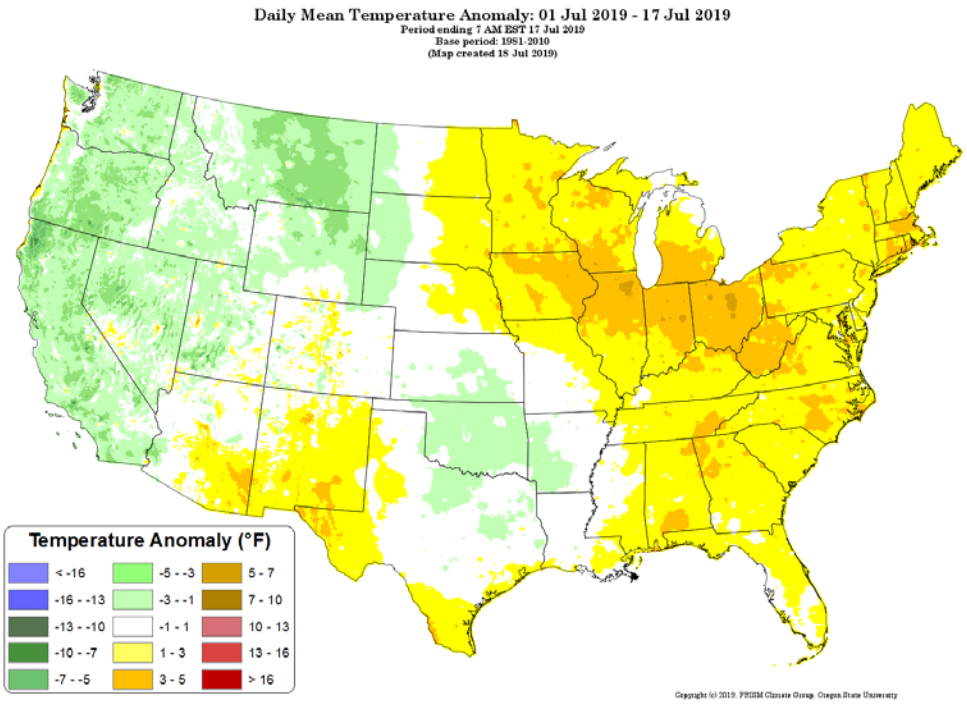
See also:
[7-day temperature (° F) map]



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

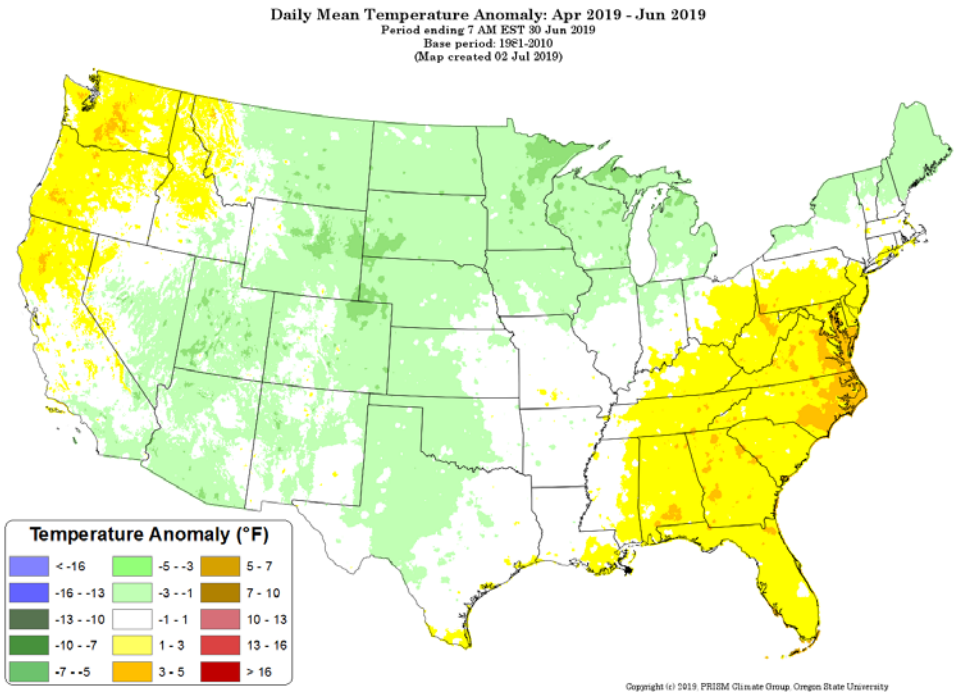
Source: PRISM

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



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

Source: PRISM

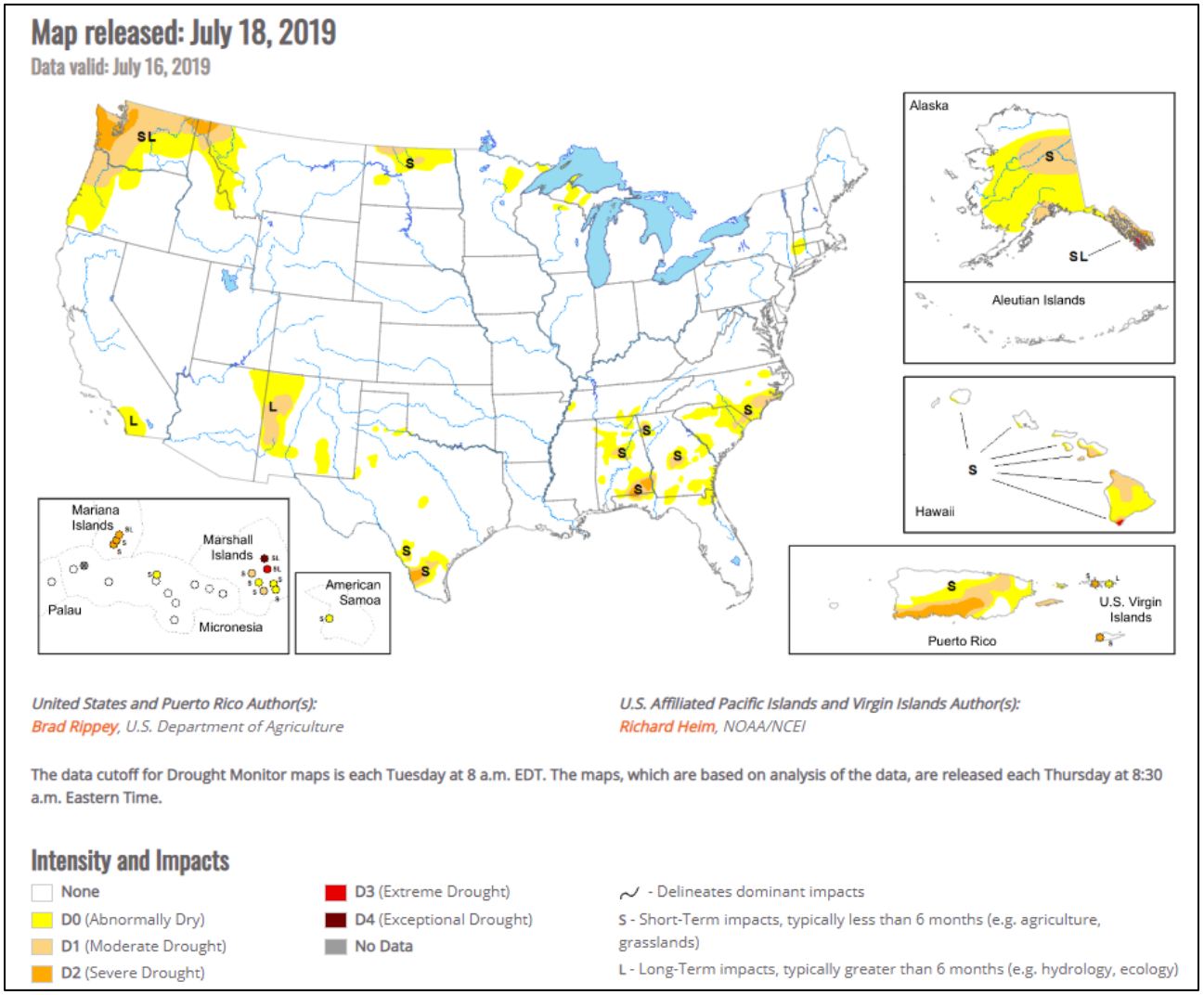


[April through June 2019 daily mean temperature anomaly map]

Drought

U.S. Drought Monitor
Source: National Drought Mitigation Center

U.S. Drought Portal
Source: NOAA



Current National Drought Summary, July 18, 2019

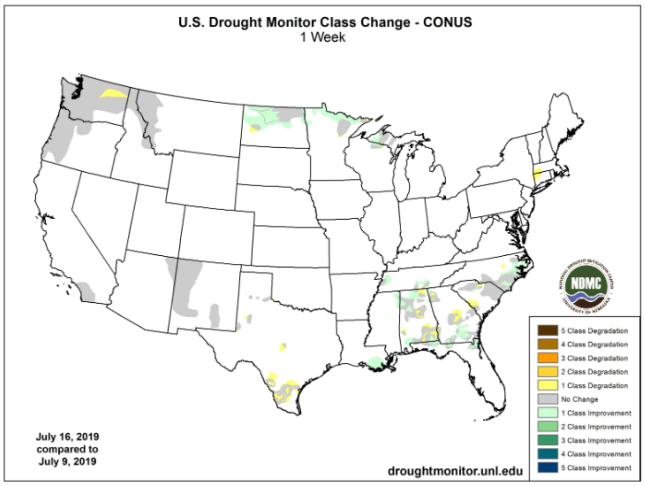
Source: National Drought Mitigation Center

"Hurricane Barry made landfall in southern Louisiana on July 13, delivering locally heavy showers and a modest storm surge but largely sparing crops and communities in the path of the poorly organized storm. Once inland, Barry drifted northward and was quickly downgraded to a tropical storm and—by July 14—a tropical depression. Outside of Barry's sphere of influence, locally heavy showers dotted the Southeastern and Mid-Atlantic States, sparking local flooding. Locally heavy rain also soaked portions of the North, with some of the highest totals reported across the northern half of the Plains and the upper Midwest. Many other areas of the country, including a large expanse of the West and parts of the southern Plains and the Midwest, experienced warm, dry weather. In fact, near- or above-normal temperatures dominated the country, as mid-summer heat began to build. Areas affected by Barry's remnants, including the mid-South, remained somewhat cooler due to cloudy, showery weather. In part due to mid-July heat, short-term dryness was of great concern across the lower Midwest, where compaction, crusting, and dryness was reported in previously saturated topsoils."

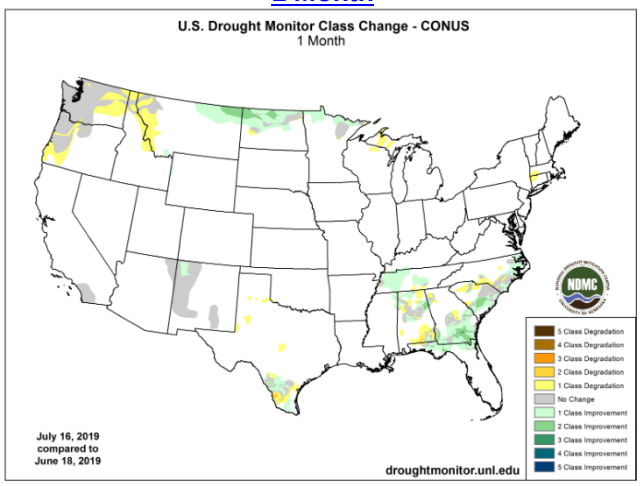
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

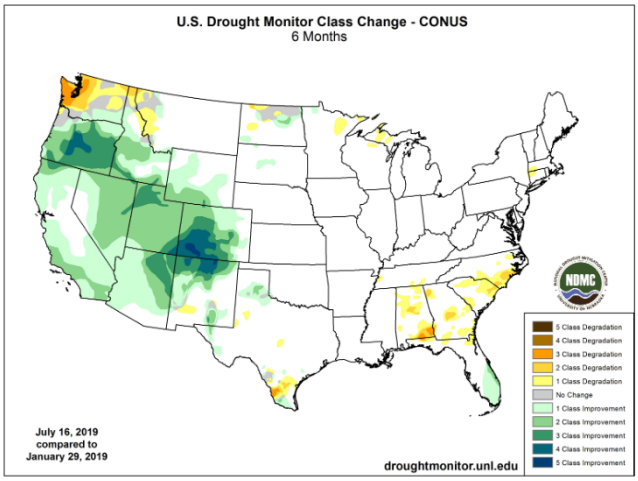
1 Week



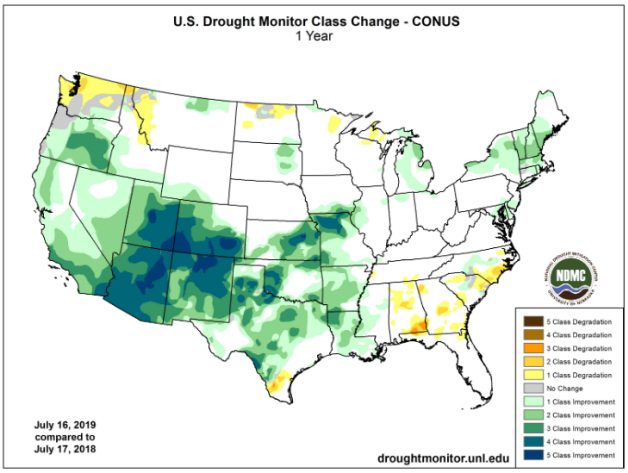
1 Month



6 Months



1 Year



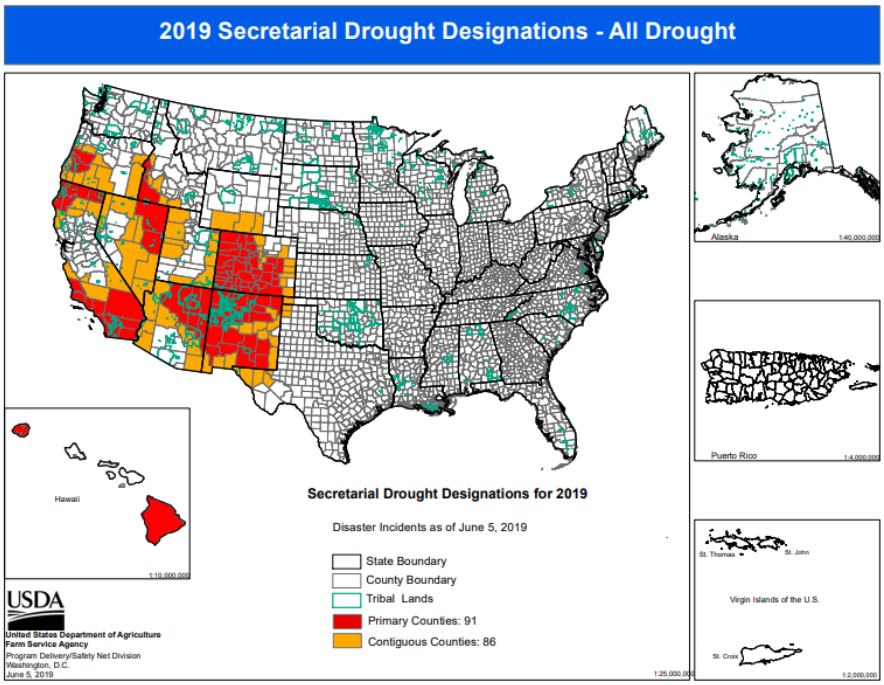
Changes in drought conditions over the last 12 months for the contiguous U.S.

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

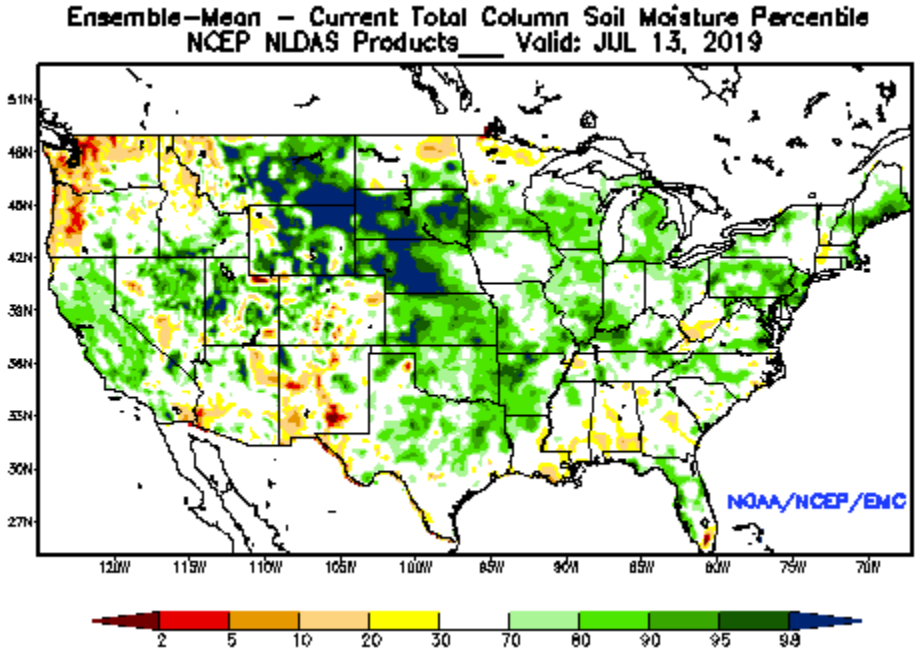
Highlighted Wildfire Resources

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

Other Climatic and Water Supply Indicators

Soil Moisture

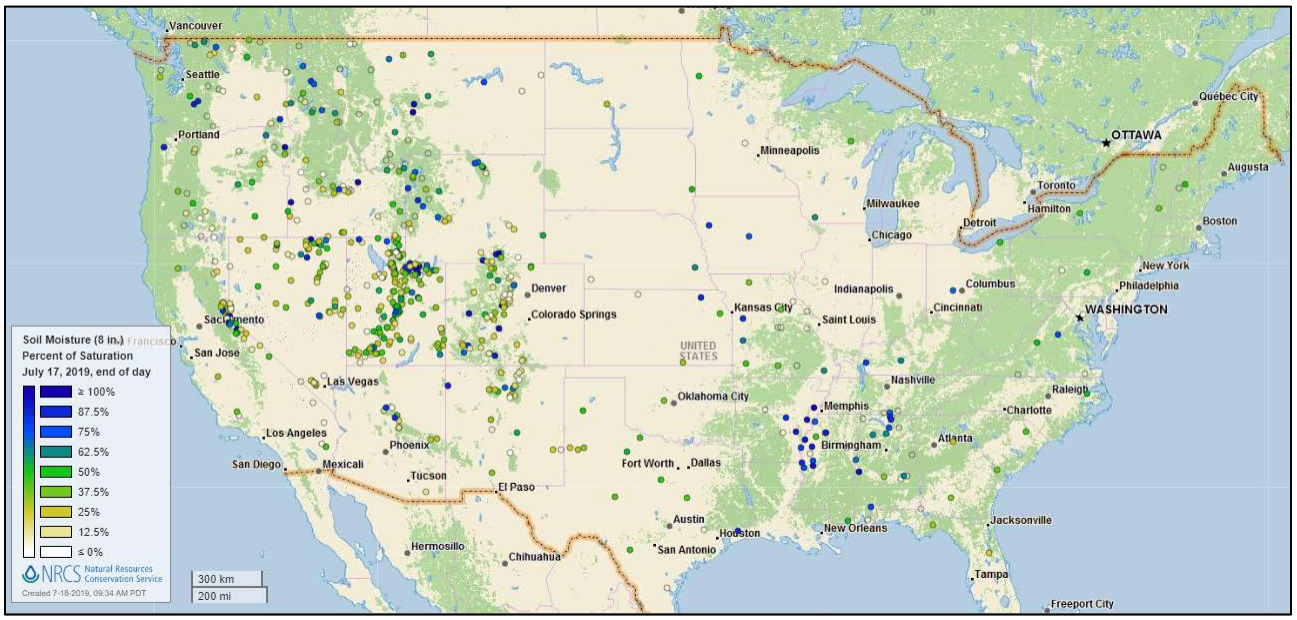
Source: NOAA National Centers for Environmental Prediction



Modeled soil moisture percentiles as of July 13, 2019

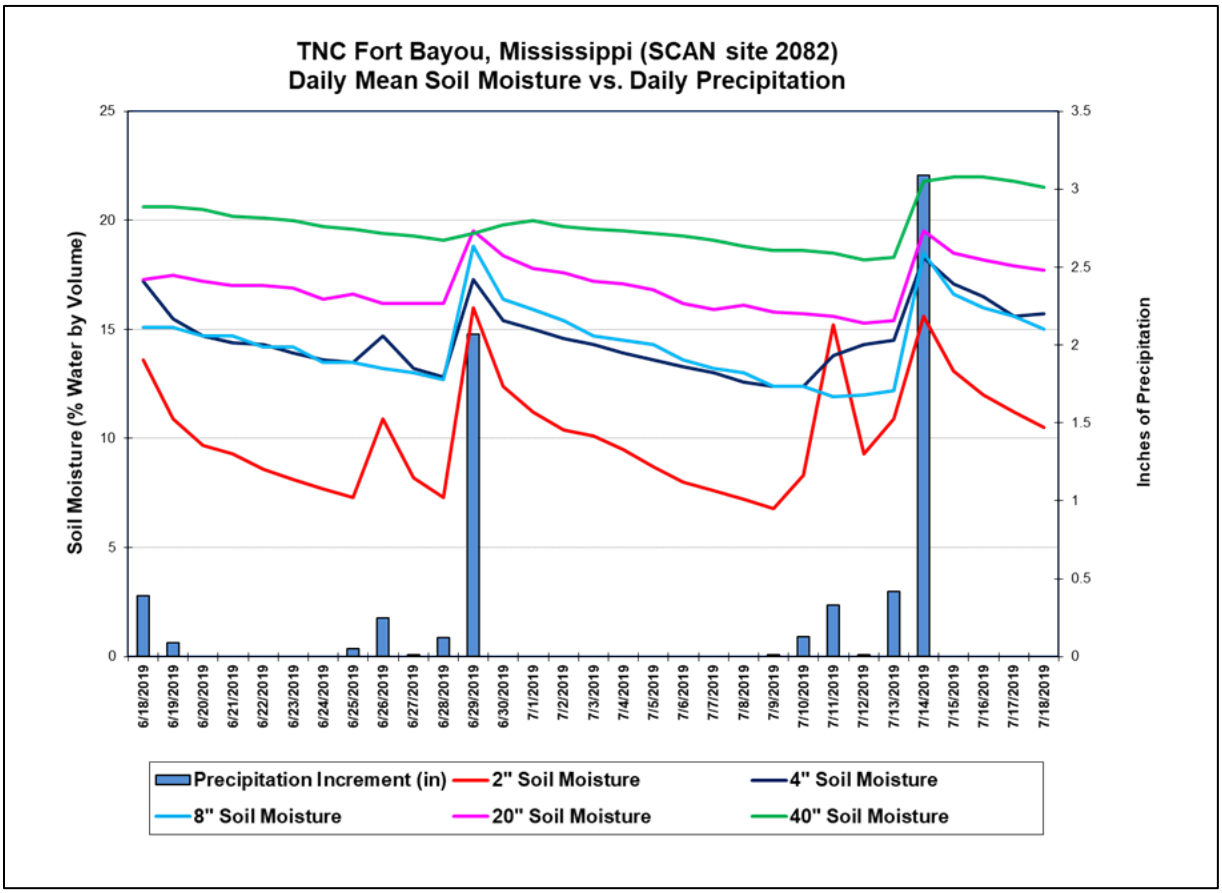
Soil Moisture Percent of Saturation

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



Soil Moisture Data

Source: NRCS Soil Climate Analysis Network (SCAN)



This graph shows the soil moisture and precipitation for the last 30 days at the TNC Fort Bayou SCAN site 2082 in Mississippi. This station is located in an area impacted by Hurricane Barry. Between 7/13/19 - 7/14/19, accumulated precipitation totaled 3.51 inches and soil moisture increased at all sensor levels.

Soil Moisture Data Portals

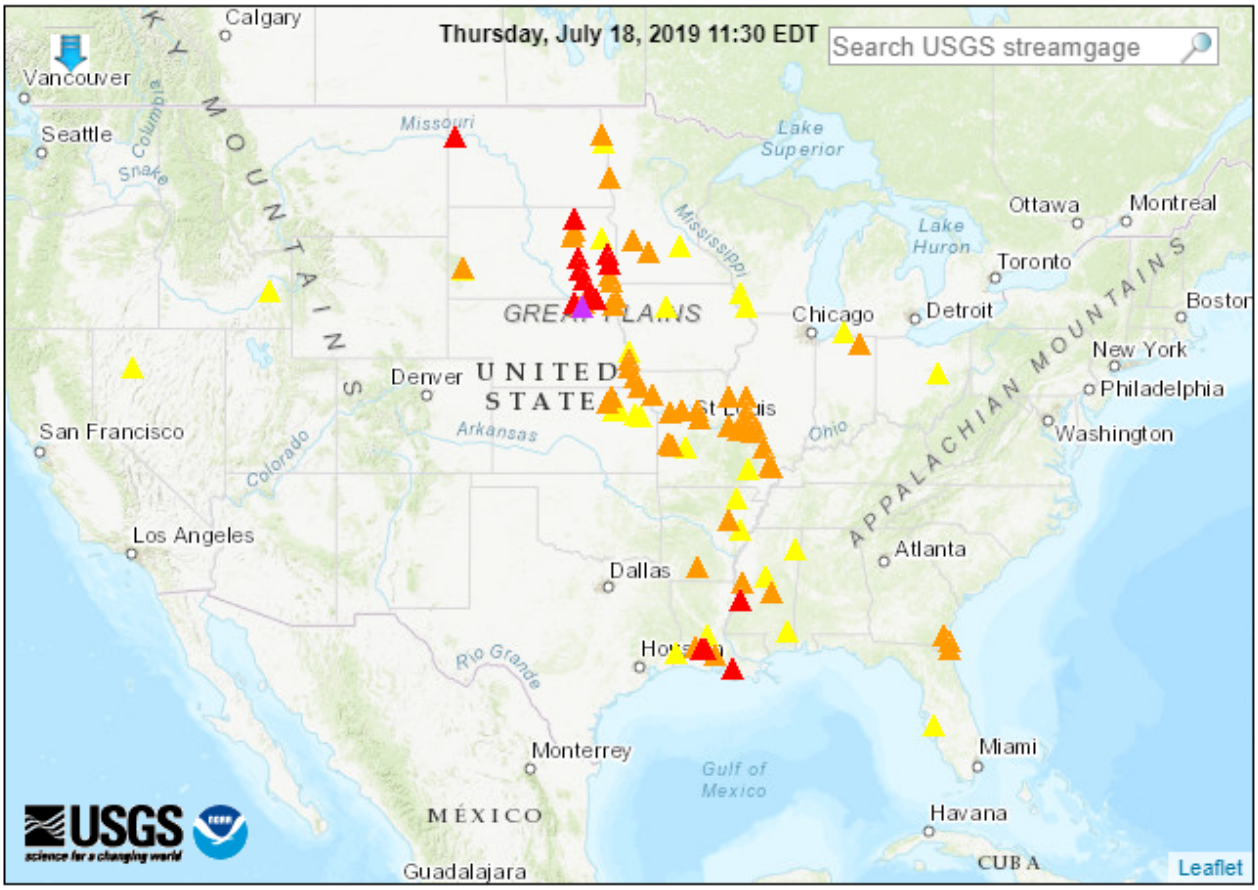
- CRN Soil Moisture
- Texas A&M University North American Soil Moisture Database
- University of Washington Experimental Modeled Soil Moisture

Streamflow, Drought, Flood, and Runoff

Source: U.S. Geological Survey

Map of flood and high flow conditions

(1 in major flood, 14 in moderate flood, 48 in minor flood, 26 in near flood)



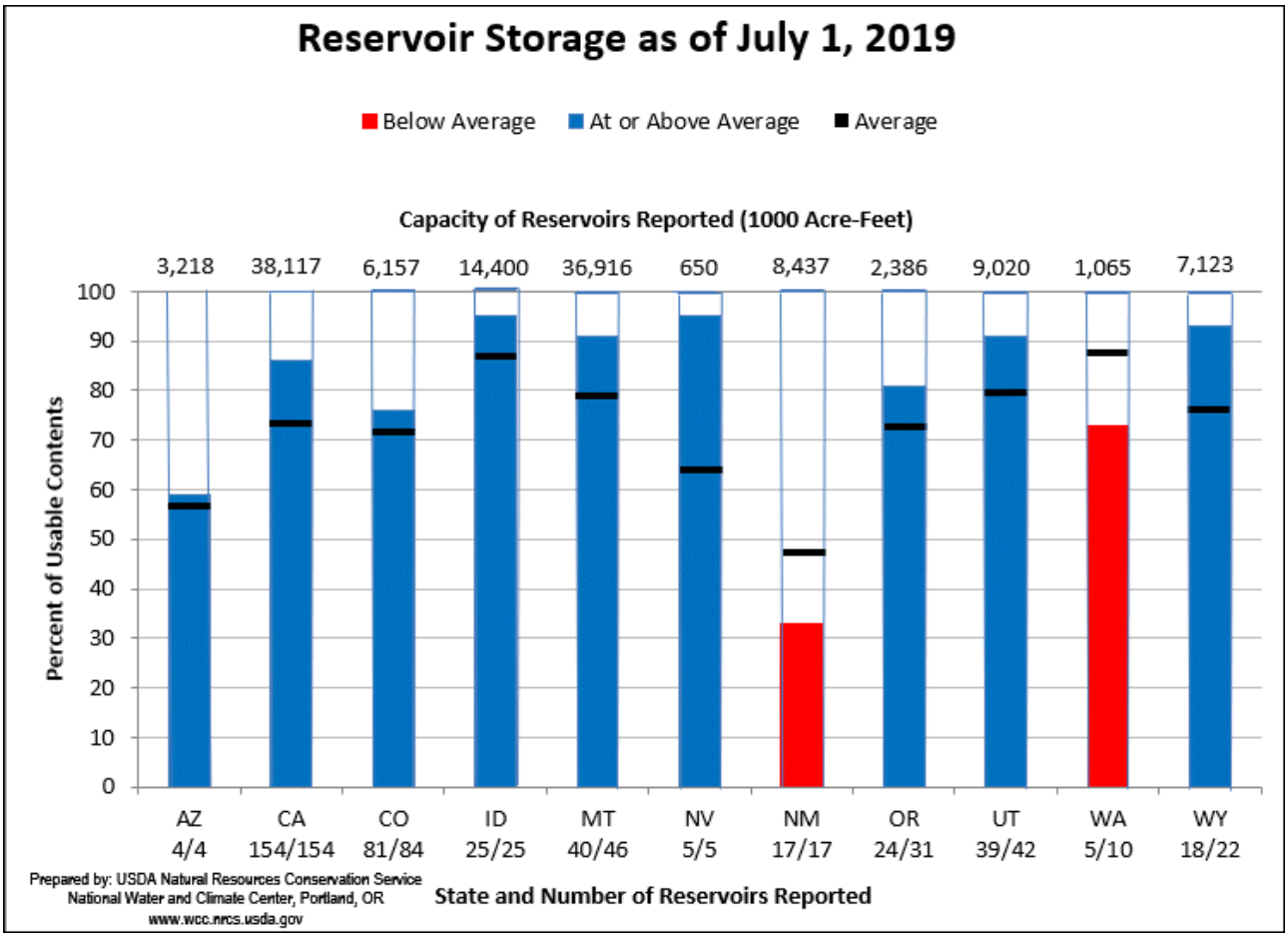
Explanation - Percentile classes						
<95	95-98	>= 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage
△ Streamgage with flood stage ○ Streamgage without flood stage						

[WaterWatch: Streamflow, drought, flood, and runoff conditions]

Reservoir Storage

Western States Reservoir Storage

Source: NRCS National Water and Climate Center



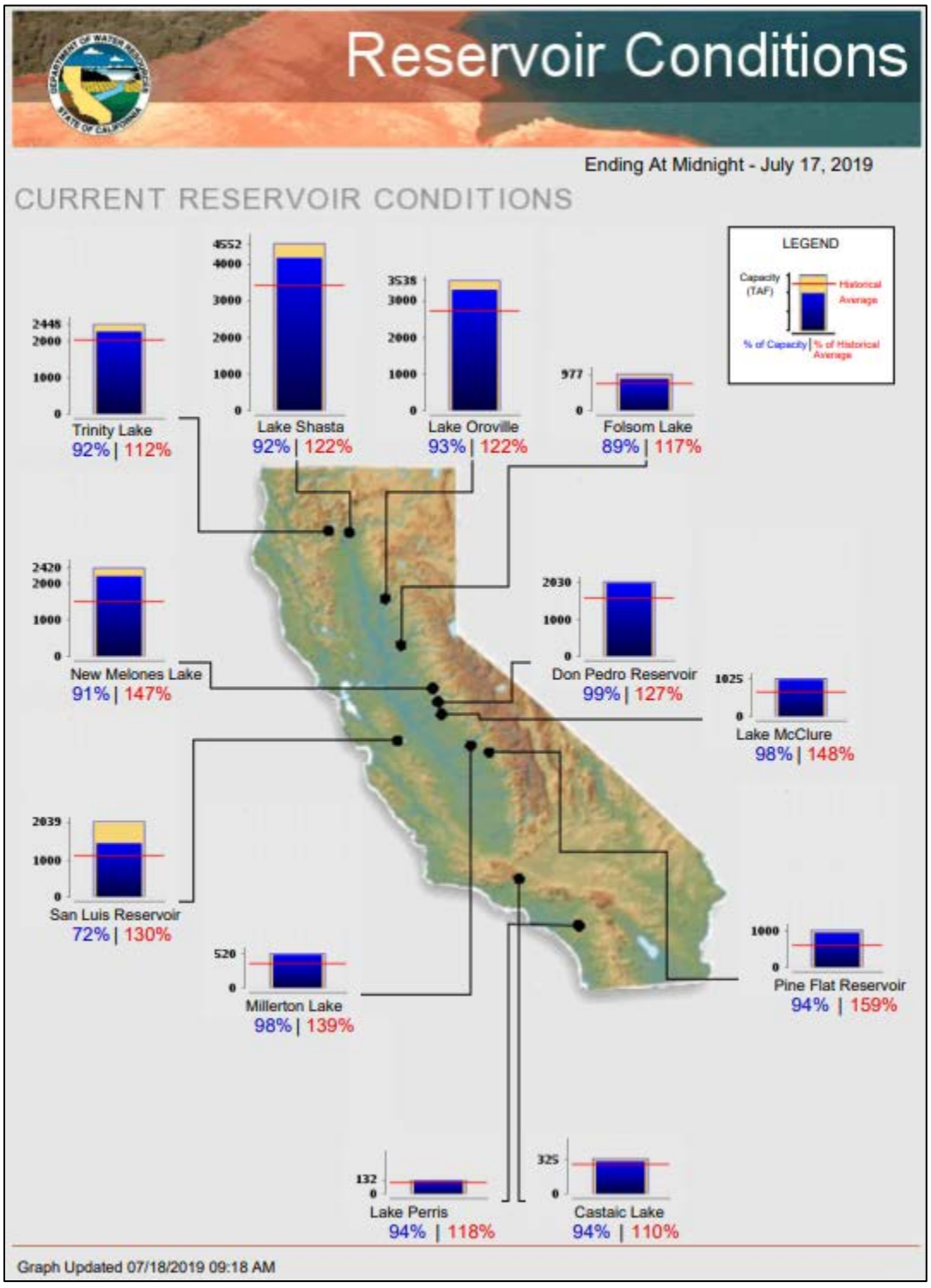
July 1, 2019 Reservoir Storage: Chart | Dataset

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

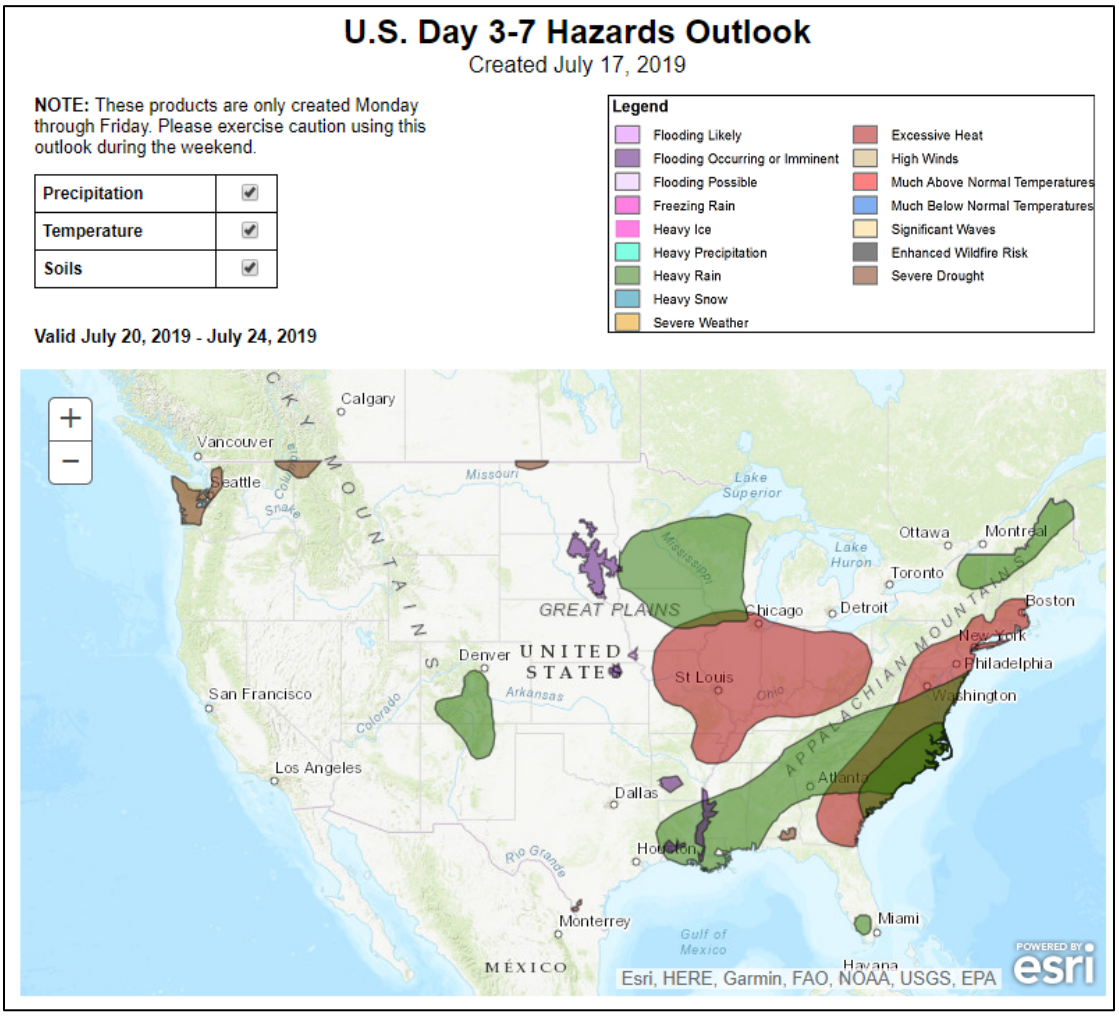
Agricultural Weather Highlights

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

National Outlook, Wednesday, July 18, 2019: “Heat and high humidity levels will persist into the weekend from the central and southern Plains to the East Coast, followed by a surge of cooler, drier air. The cool air, currently confined to the northernmost Plains and the Northwest, will overspread the Plains and upper Midwest by Sunday and cover most areas east of the Rockies early next week—preceded and accompanied by widespread showers and thunderstorms. Five-day rainfall totals could reach 1 to 3 inches, with locally higher amounts, in scattered locations across the eastern half of the U.S. Elsewhere, shower activity will increase in the central and southern Rockies and the Desert Southwest, but dry weather will prevail in much of Texas and from the Pacific Coast to the Great Basin and northern Rockies. The NWS 6- to 10-day outlook for July 23 – 27 calls for the likelihood of below-normal temperatures from the central and southern Plains to the Atlantic Seaboard, excluding southern Florida, while hotter-than-normal conditions will dominate the West and the northern High Plains. Meanwhile, below-normal rainfall in the Midwest and along the northern Pacific Coast should contrast with wetter-than-normal weather along the Atlantic Coast, in the Deep South, and across the Intermountain West.”

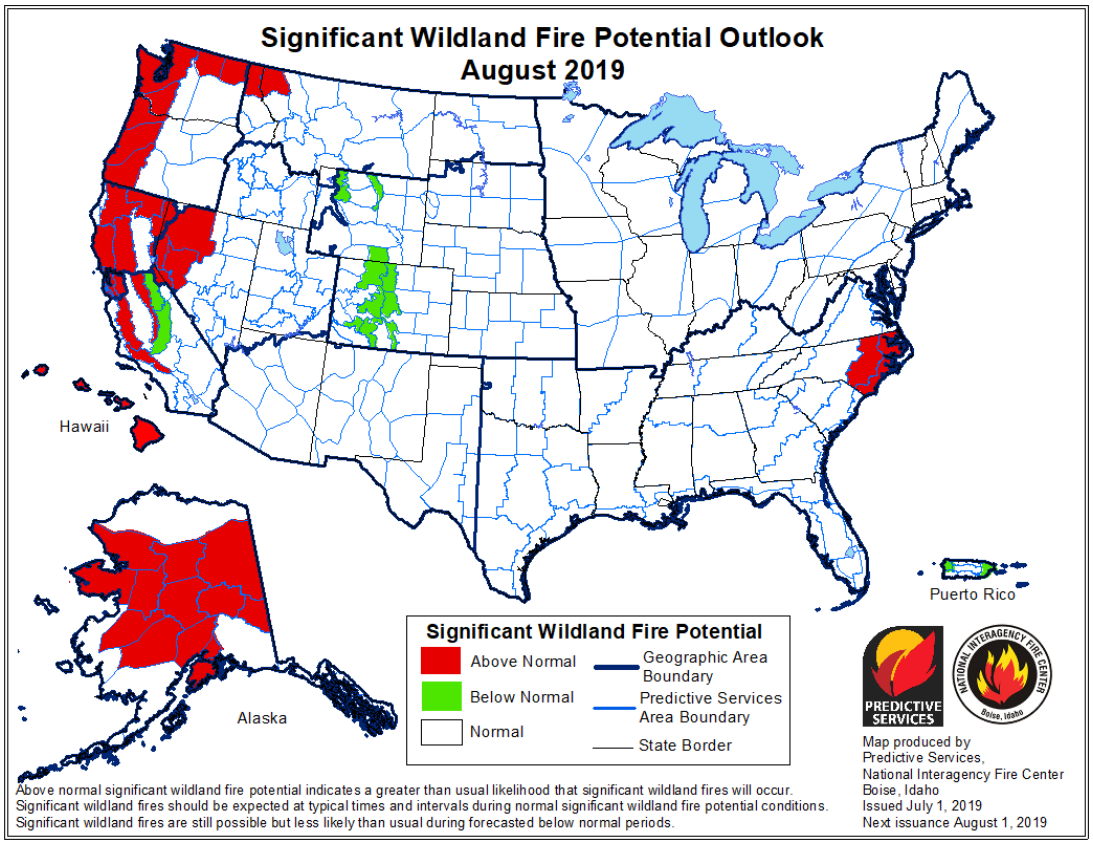
Weather Hazards Outlook: July 20 – July 24, 2019

Source: NOAA Climate Prediction Center



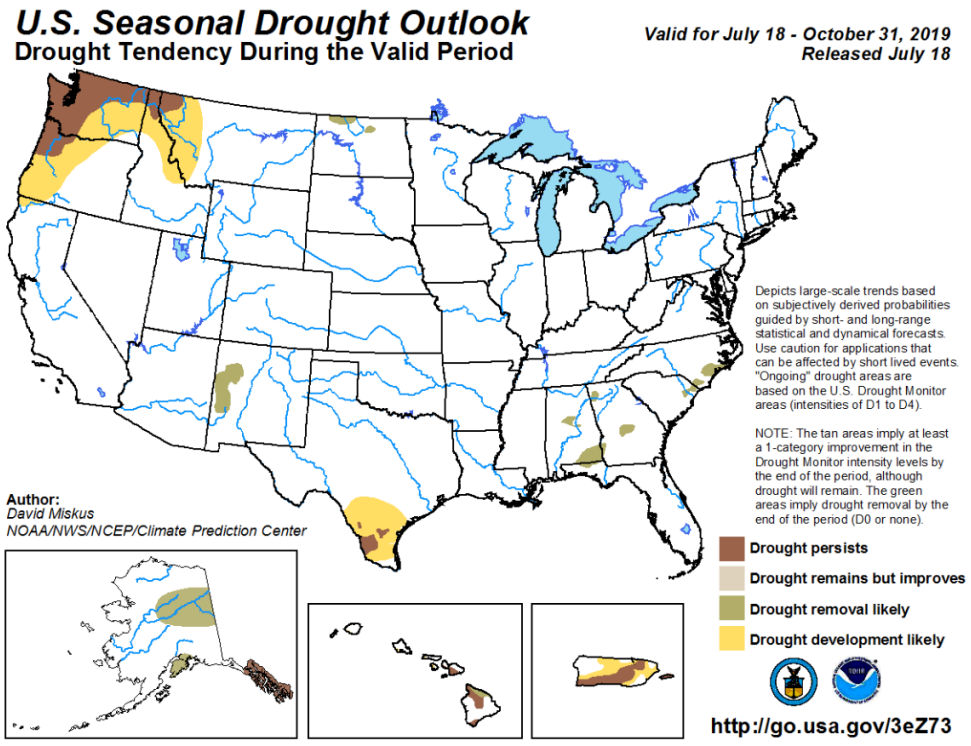
Significant Wildland Fire Potential Outlook

Source: National Interagency Fire Center



Seasonal Drought Outlook: July 18 – October 31, 2019

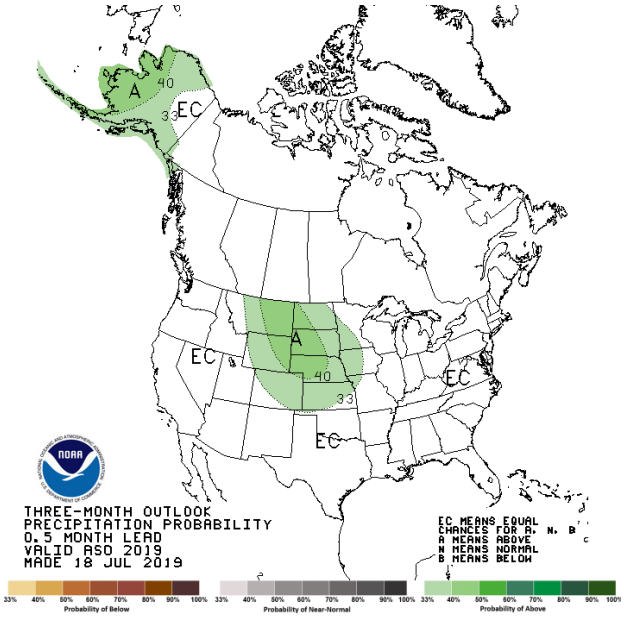
Source: National Weather Service



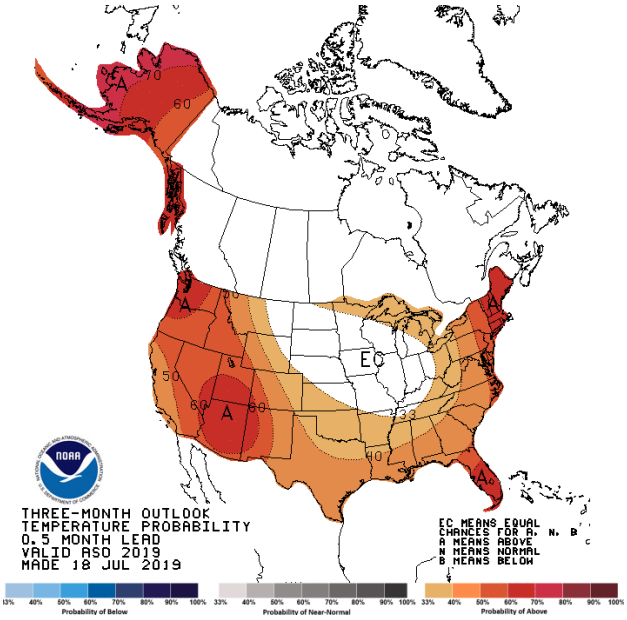
Climate Prediction Center 3-Month Outlook

Source: National Weather Service

Precipitation



Temperature



August-September-October (ASO) 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.