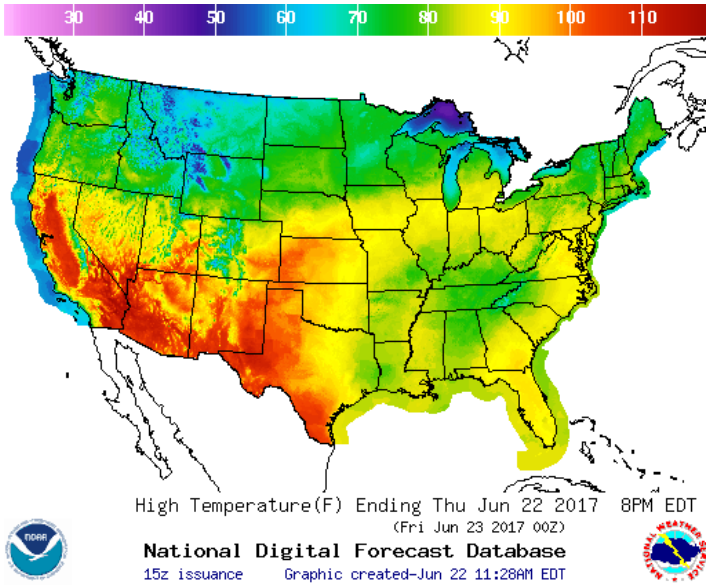
United States Department of Agriculture

Water and Climate Update

June 22, 2017

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.

Record-breaking temperatures in the Southwest this week



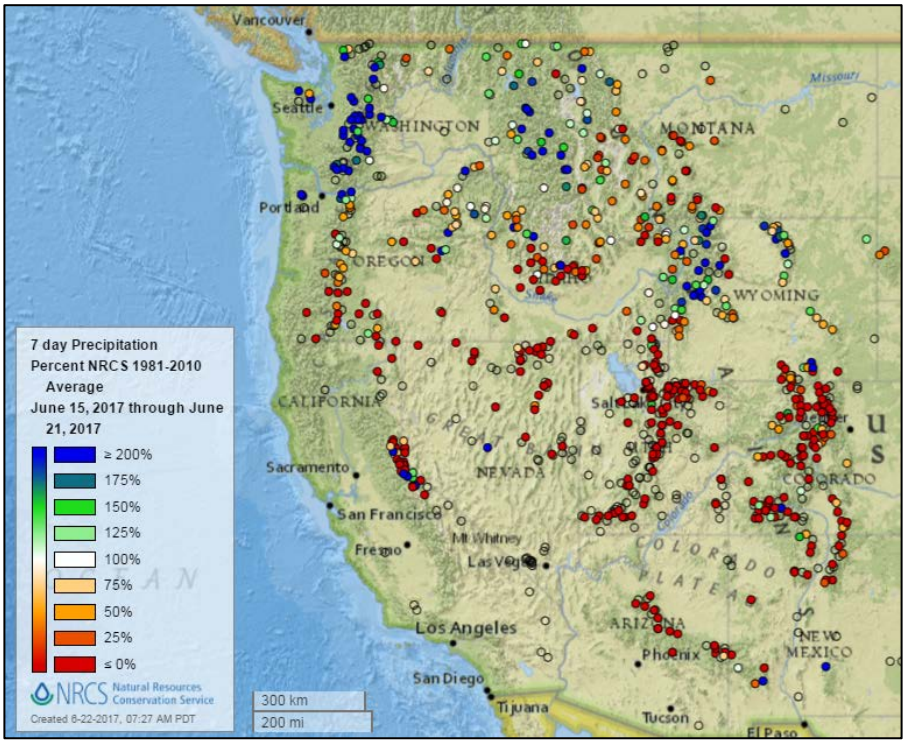
From California to Texas, high temperatures have been well above 100 degrees. In the desert Southwest, the intense heat has tied or broken all-time records. The heat has caused a wide variety of impacts, such as cancelled flights in Phoenix, a train derailment in California, record power usage, and several heat-related deaths.

More information:

- Extreme Heat Seared the Southwest This Week; Las Vegas Ties All-Time Record High
- Arizona so hot weather map almost runs out of colors
- How hot is it in the West? Let us count the ways
- California heatwave takes a toll on state's power grid
- Big power outages accompany record-breaking Bay Area heat
- Las Vegas hits 117 degrees, tying a record, as the Southwest bakes

Precipitation

Last 7 Days, Western Mountain Sites (NRCS SNOTEL Network)

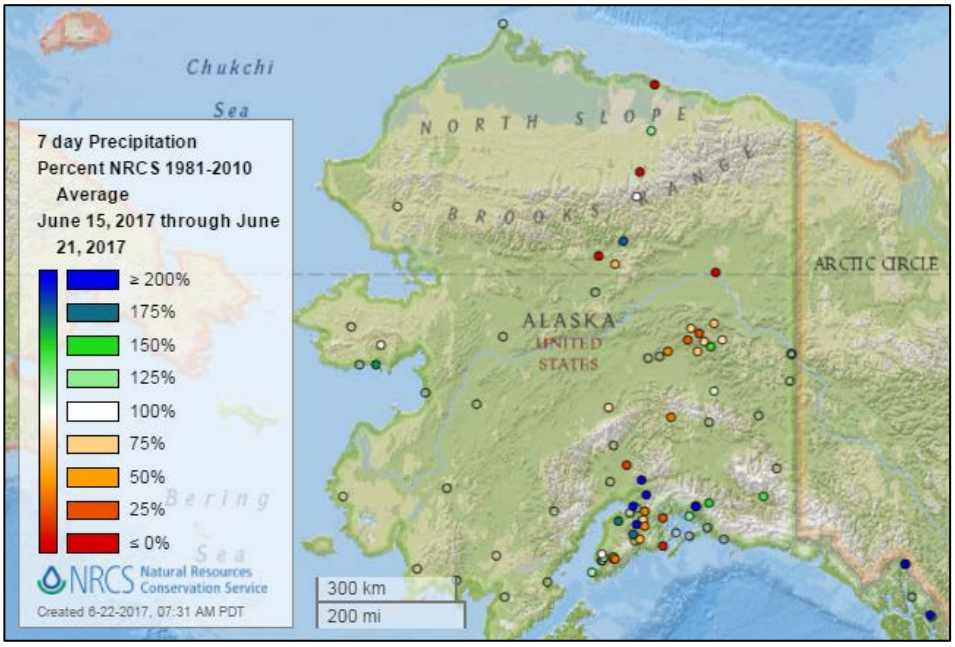


[7-day precipitation percent of average map]

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]

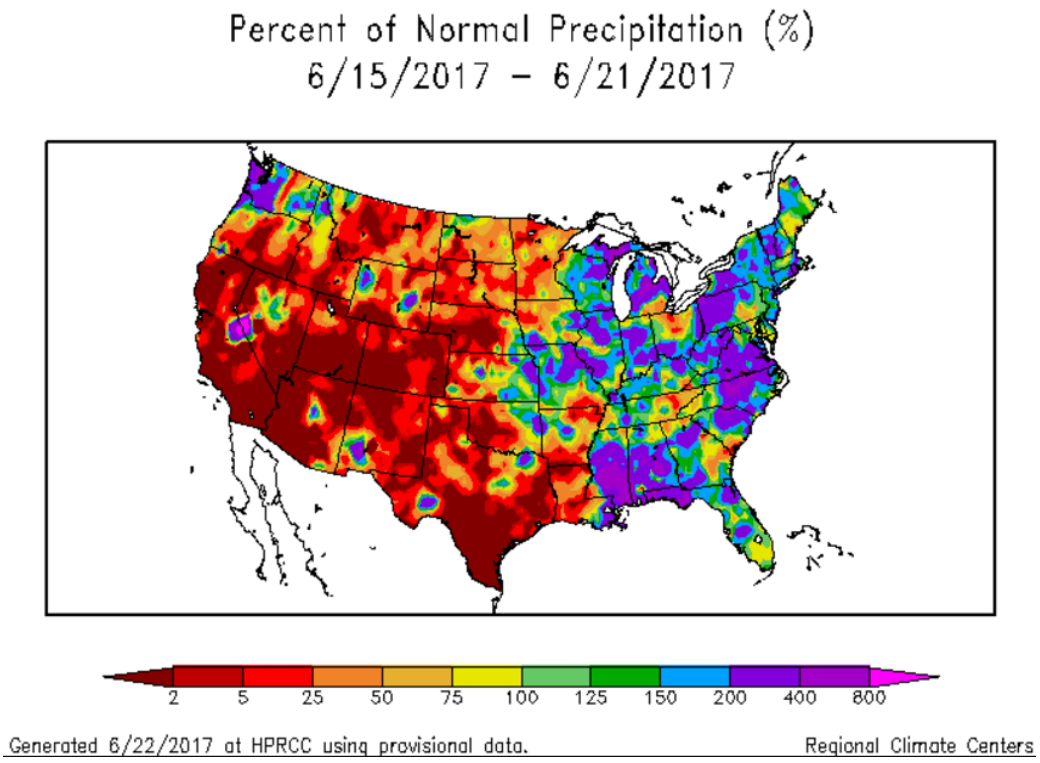


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

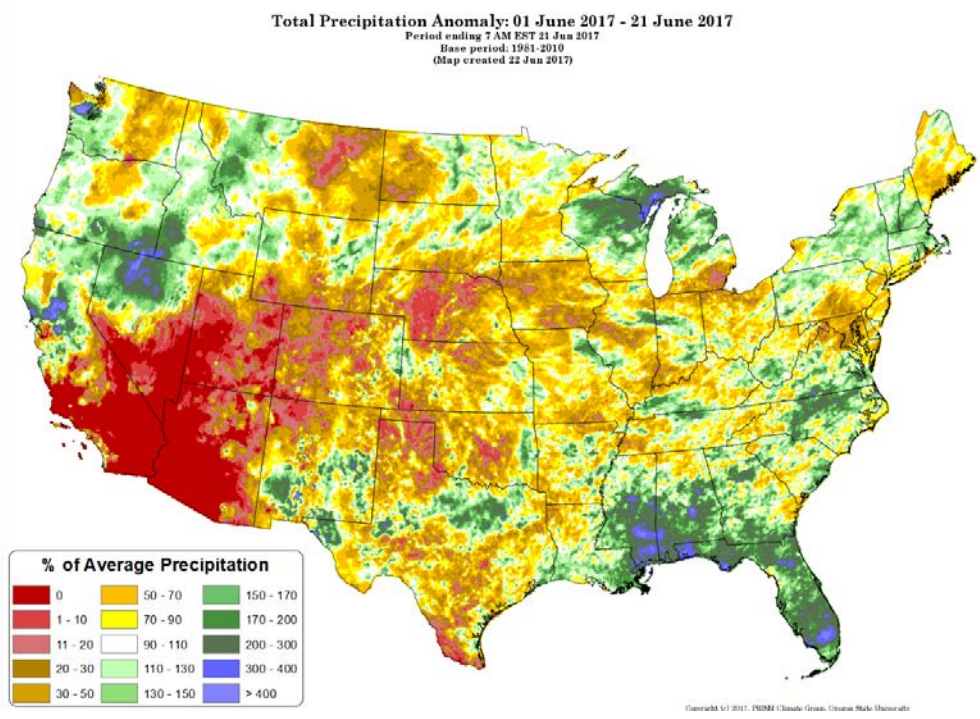
[7-day precipitation percent of normal map](#) for the continental U.S.

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



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

Source: PRISM

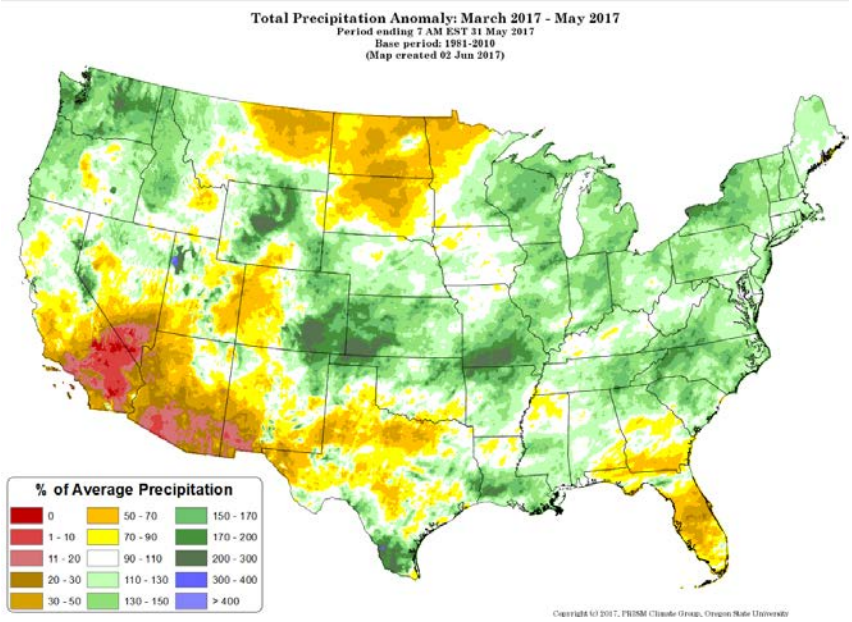


[Month-to-date national precipitation percent of average map](#)

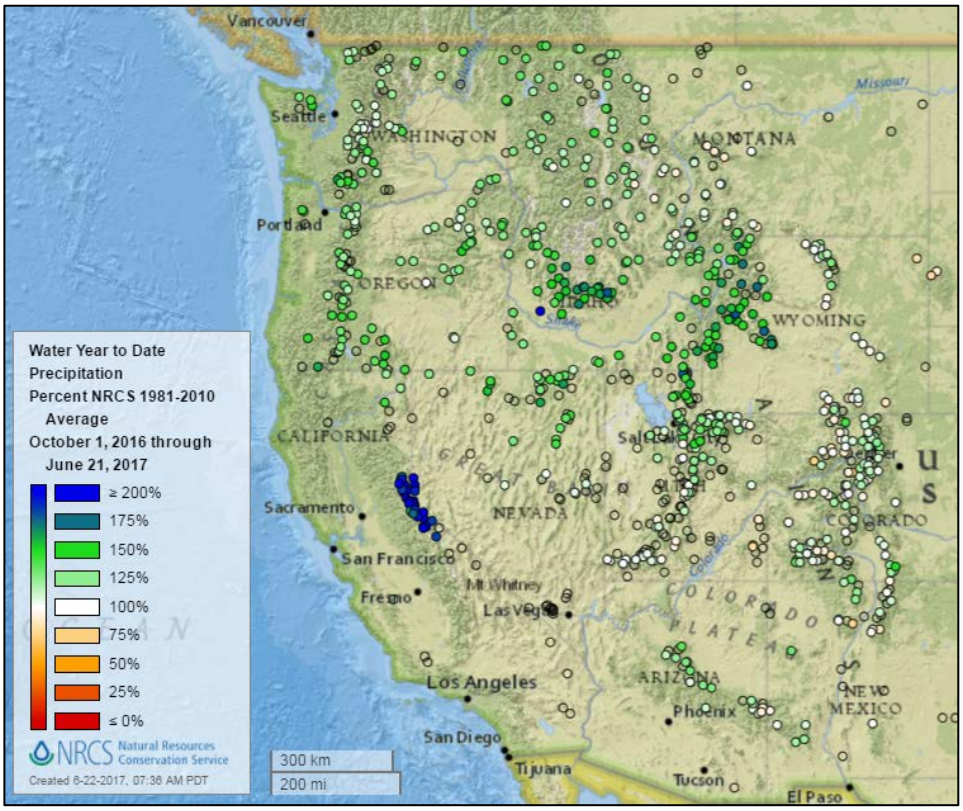
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

[March through May 2017 daily mean precipitation anomaly map]

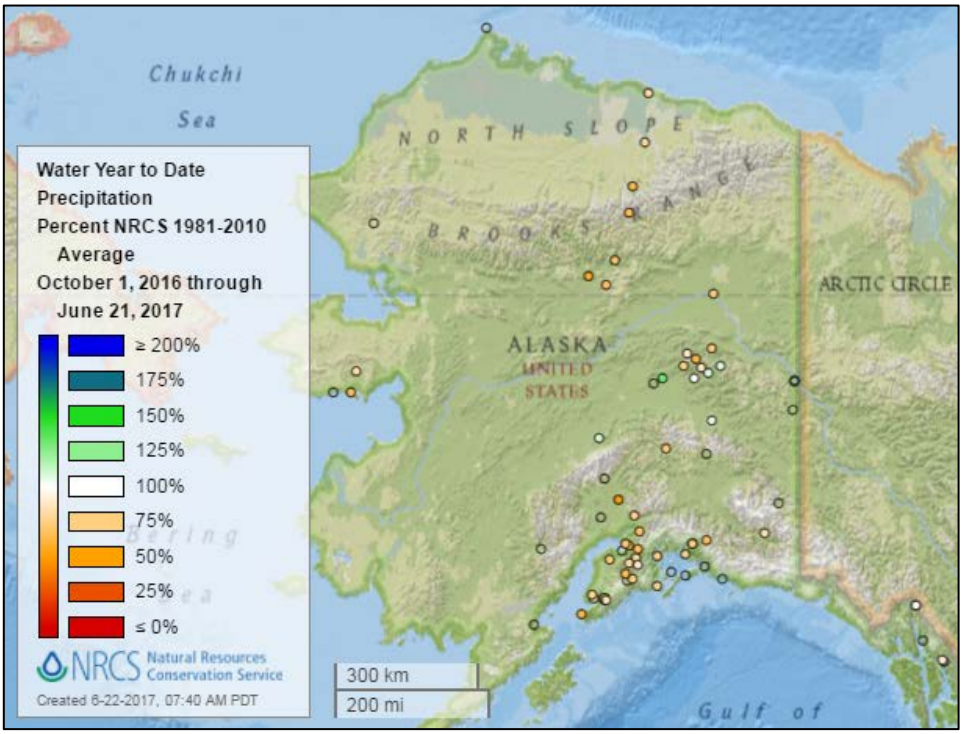


Water Year-to-Date, Western Mountain Sites (NRCS SNOTEL Network)



[2017 water year-to-date precipitation percent of average map]

See also: [2017 water year-to-date precipitation values (inches)]



Alaska 2017 water year-to-date precipitation percent of average map

See also: Alaska 2017 water year-to-date precipitation values (inches) map

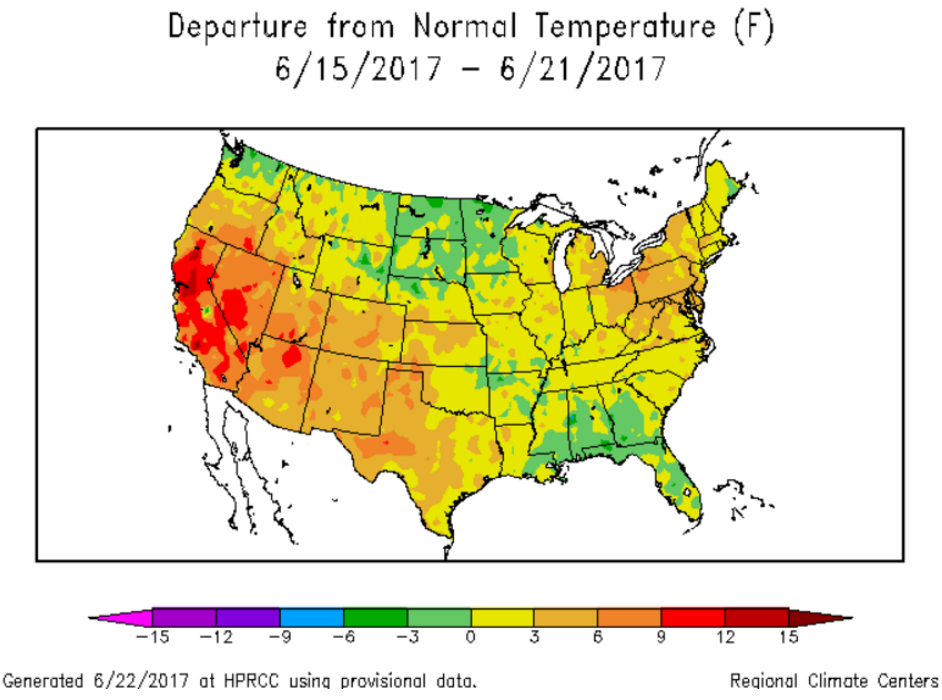
Temperature

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

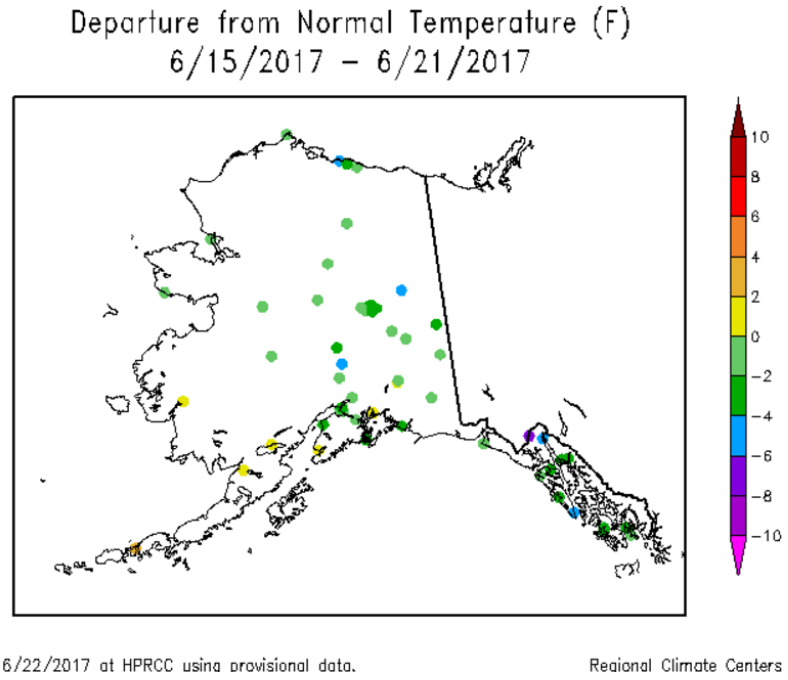


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day temperature anomaly map] for Alaska.

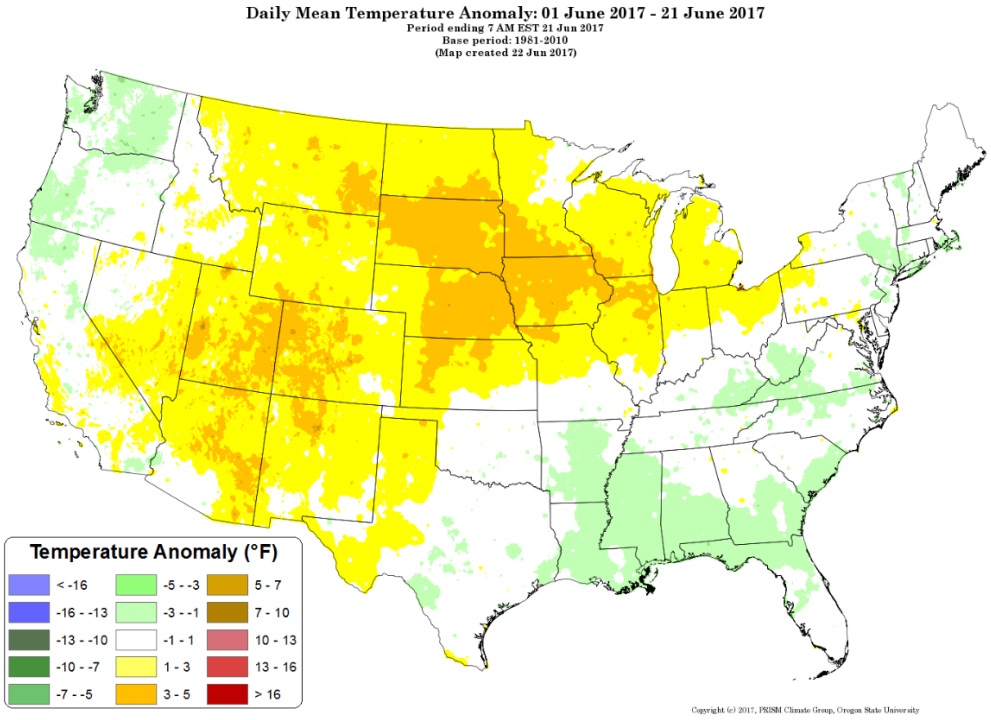
See also: [7-day temperature (° F) map]



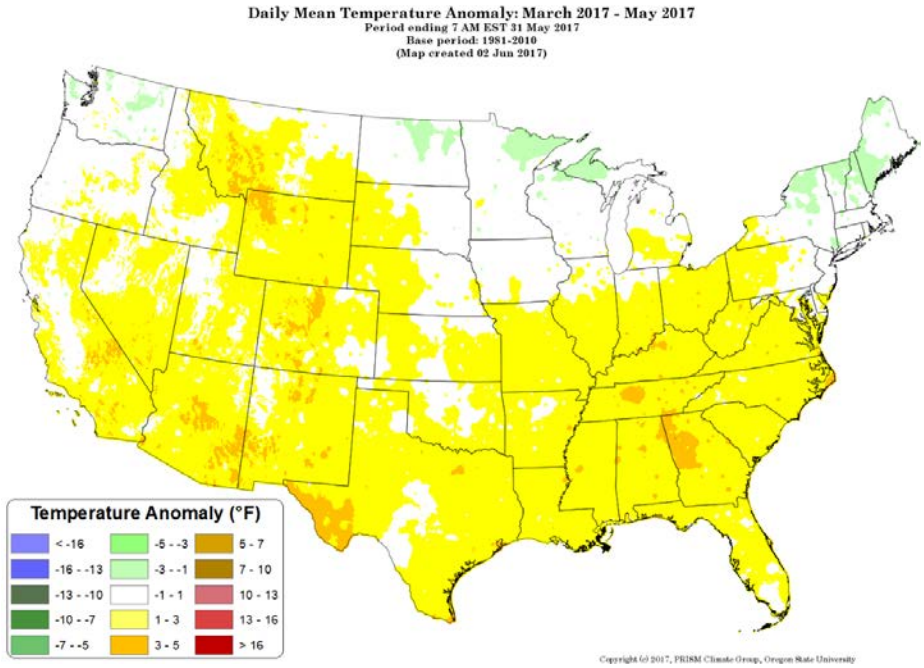
Month-to-Date, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

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



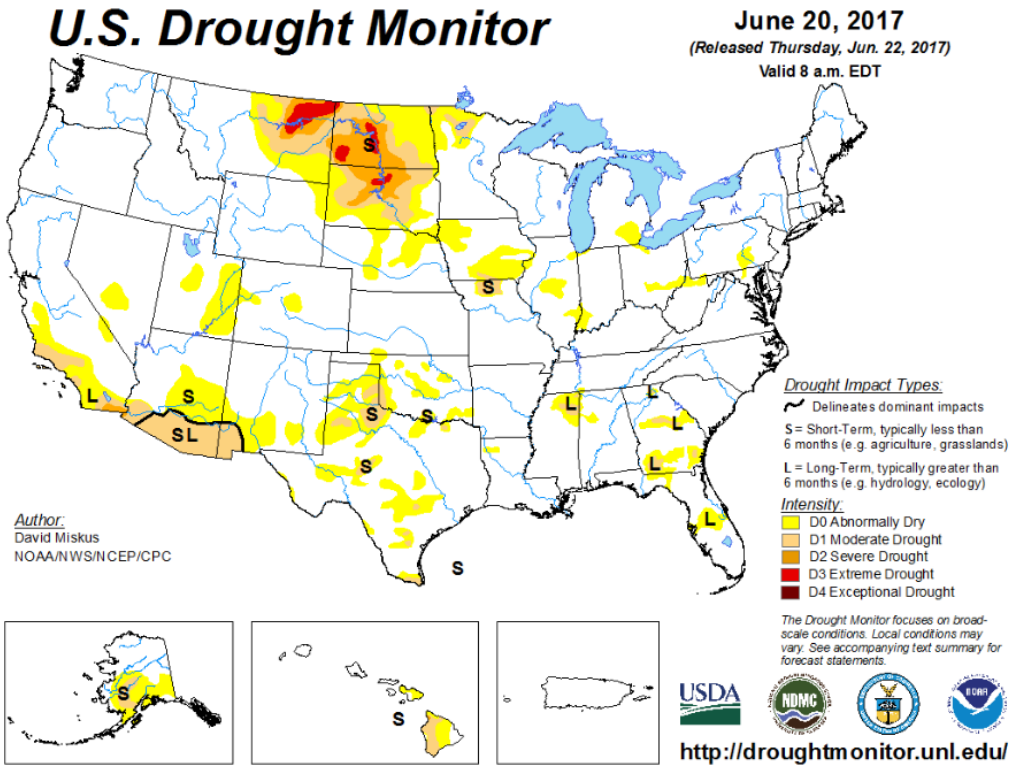
Last 3 Months, All Available Data Including SNOTEL and NWS Networks Source: PRISM



[March through May 2017 daily mean temperature anomaly map]

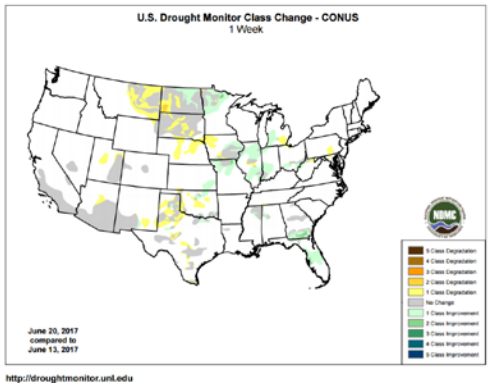
Drought

[U.S. Drought Monitor] See map below. [U.S. Drought Portal] Comprehensive drought resource.

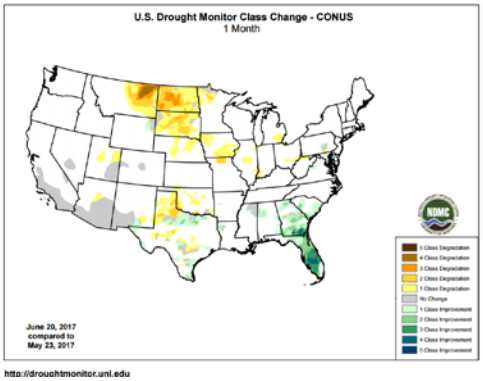


Changes in Drought Monitor Categories over Time

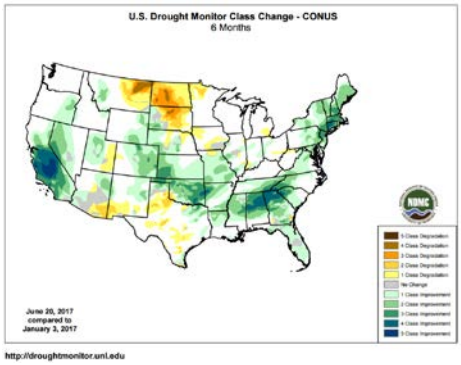
1 Week



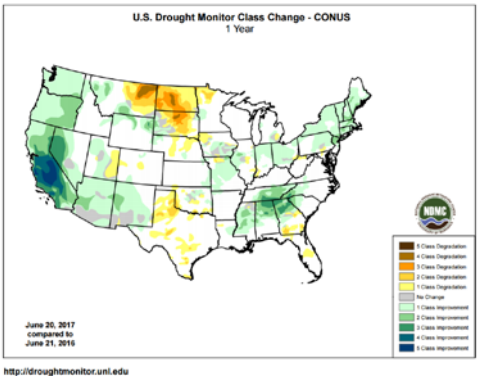
1 Month



6 Months



1 Year



Changes in drought conditions over the last 12 months

Current National Drought Summary, June 20, 2017

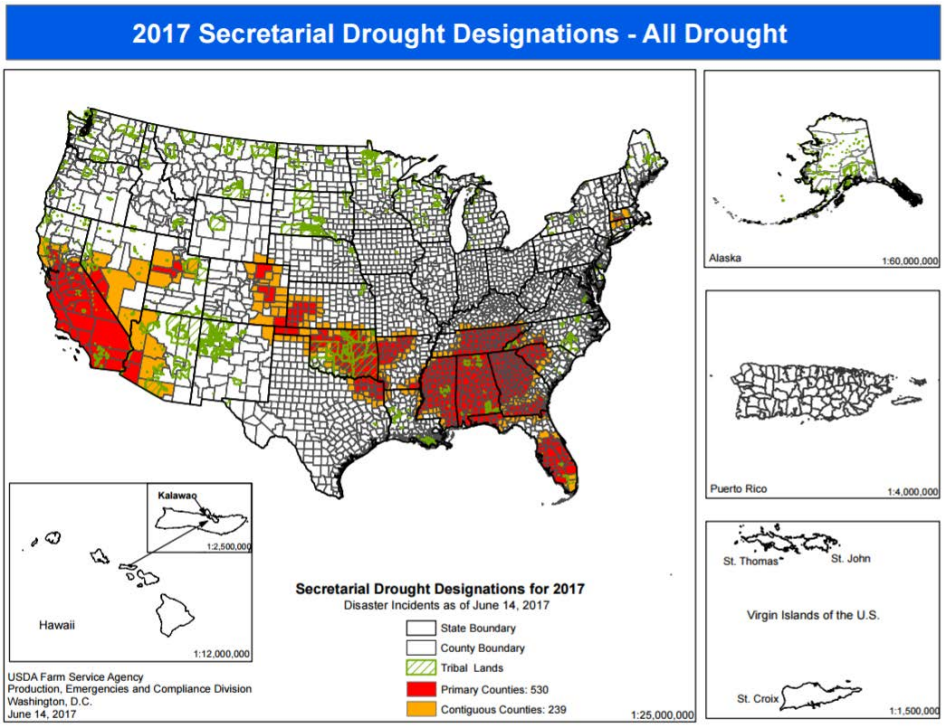
Author: David Miskus, NOAA/NWS/NCEP/CPC

“A weather pattern change brought badly-needed, widespread showers and thunderstorms across the eastern half of the Nation, right after abnormal dryness (D0) developed in many areas of the Midwest and south-central Plains last week. This occurred after a wet May had alleviated many areas of drought - which was abruptly followed by dry and warm weather starting in late May into early June, a critical time for crop growth and development. In addition, heavy showers fell along the eastern Gulf Coast, providing additional improvement to Florida and southern Georgia. Unfortunately, little or no rain fell on most of the northern third of the High Plains and southern Plains, drying out conditions in Texas and Oklahoma and worsening the flash drought in eastern Montana and the western Dakotas. In the Southwest, although June is climatologically dry and warm, extreme heat late in the period, subnormal precipitation during the past 60-days, and some impacts was enough to expand D0 in Utah, central Arizona, and southern New Mexico. On Hawaii’s Big Island, some deterioration was made as field reports indicated worse conditions than expected while scattered showers in southwestern Alaska were not enough to improve low stream flow levels, thus D0 and D1 was slightly expanded there.”

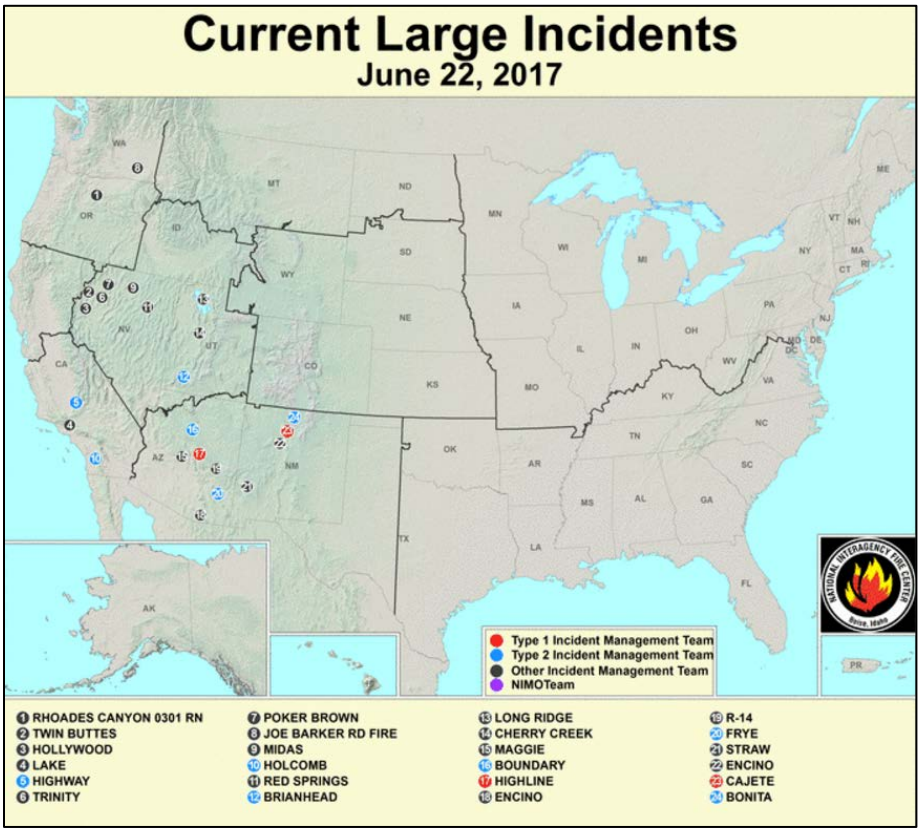
Highlighted Drought Resources

- 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 2017 Secretarial Drought Designations

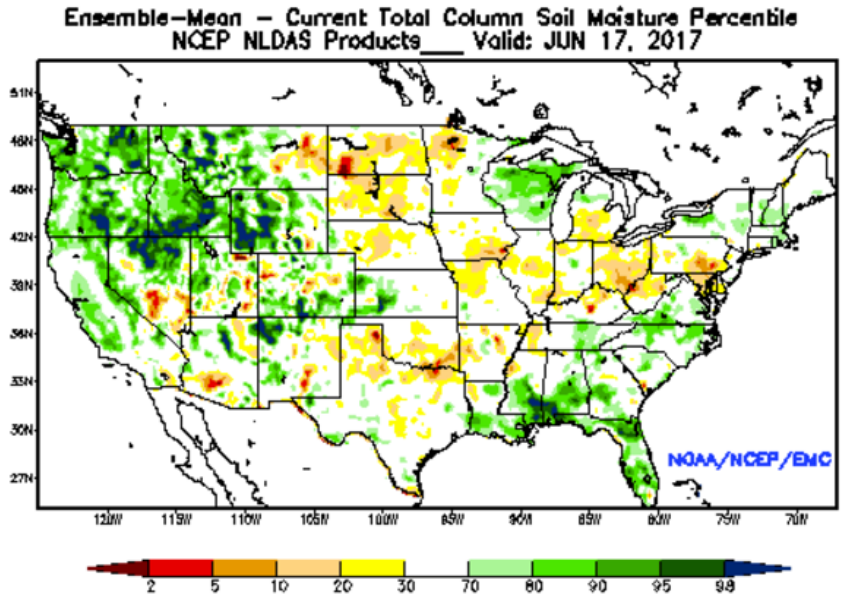


Wildfires: USDA Forest Service Active Fire Mapping



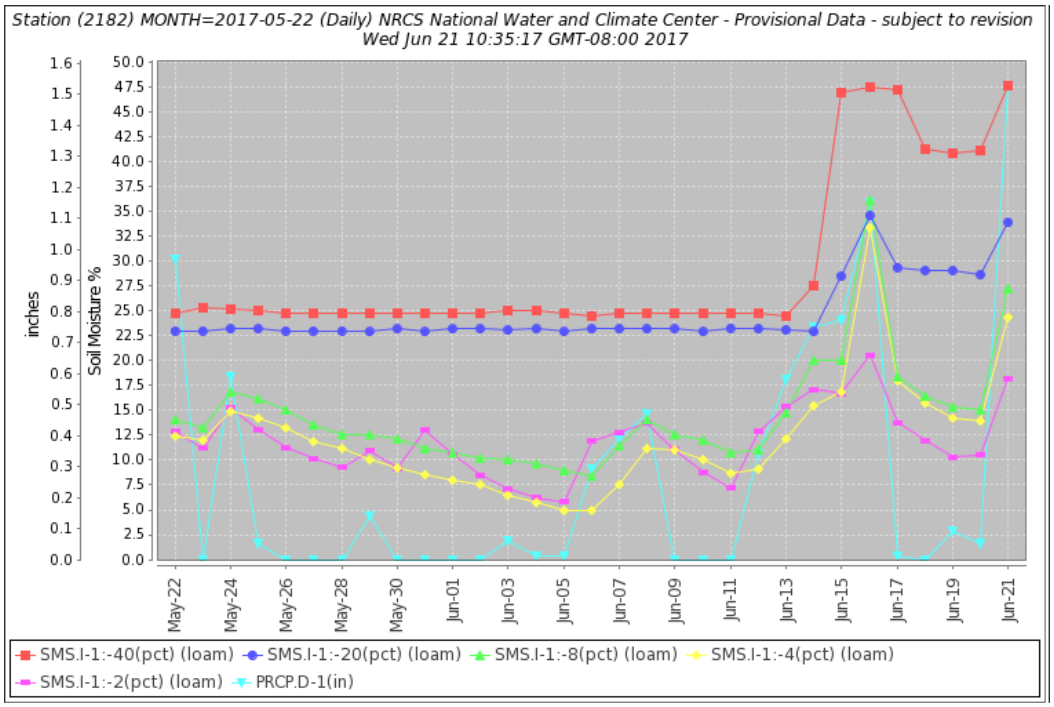
Other Climatic and Water Supply Indicators

Soil Moisture



Modeled soil moisture percentiles as of June 17, 2017.

Soil Moisture Data: NRCS Soil Climate Analysis Network (SCAN)



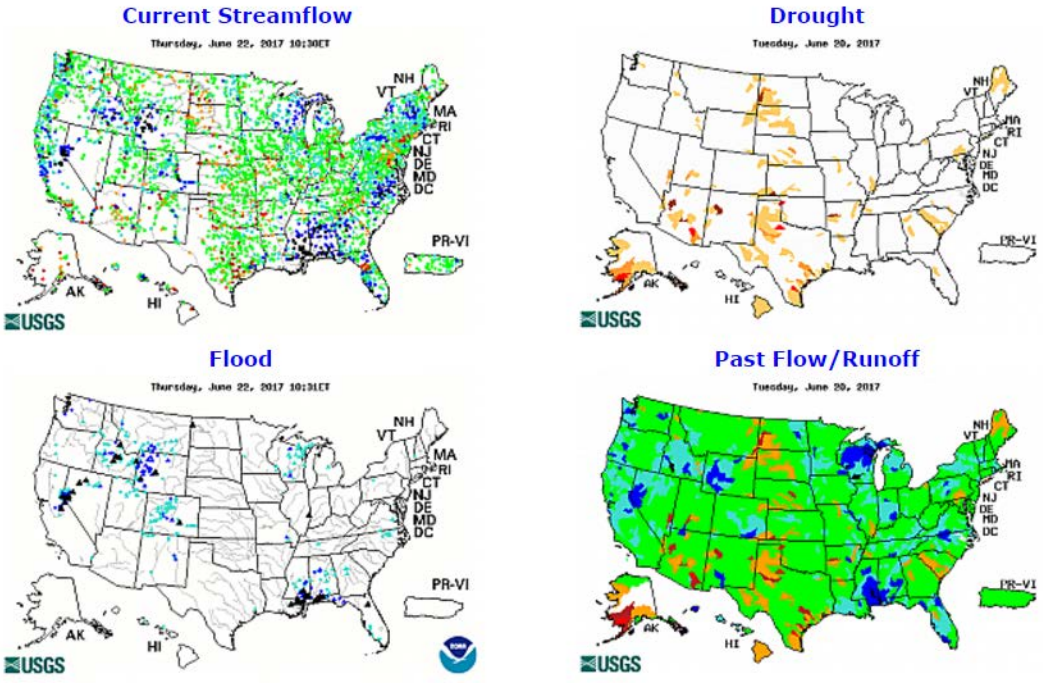
Soil moisture (at 2-, 4-, 8-, 20-, and 40-inch depths) and precipitation for the past 30 days at the River Road Farms SCAN site 2182 in Alabama. The smaller precipitation events affected the shallow 2-, 4-, and 8-inch depth sensors, whereas the deeper sensors only showed a large increase in soil moisture from the five days of heavy rain from June 12 – 16. Yesterday, all sensors also reported an increase in soil moisture when 1.6 inches of rain fell at the station.

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



Current streamflow maps Click image to enlarge and display legends

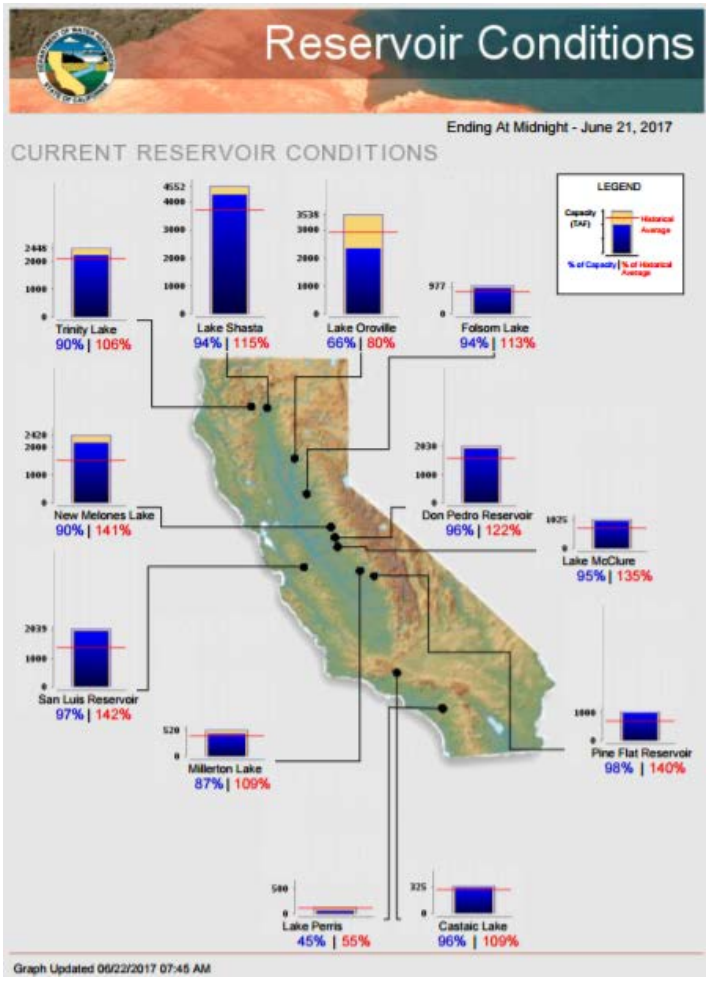
Reservoir Storage

National Water and Climate Center Reservoir Data

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

California Current Reservoir Conditions



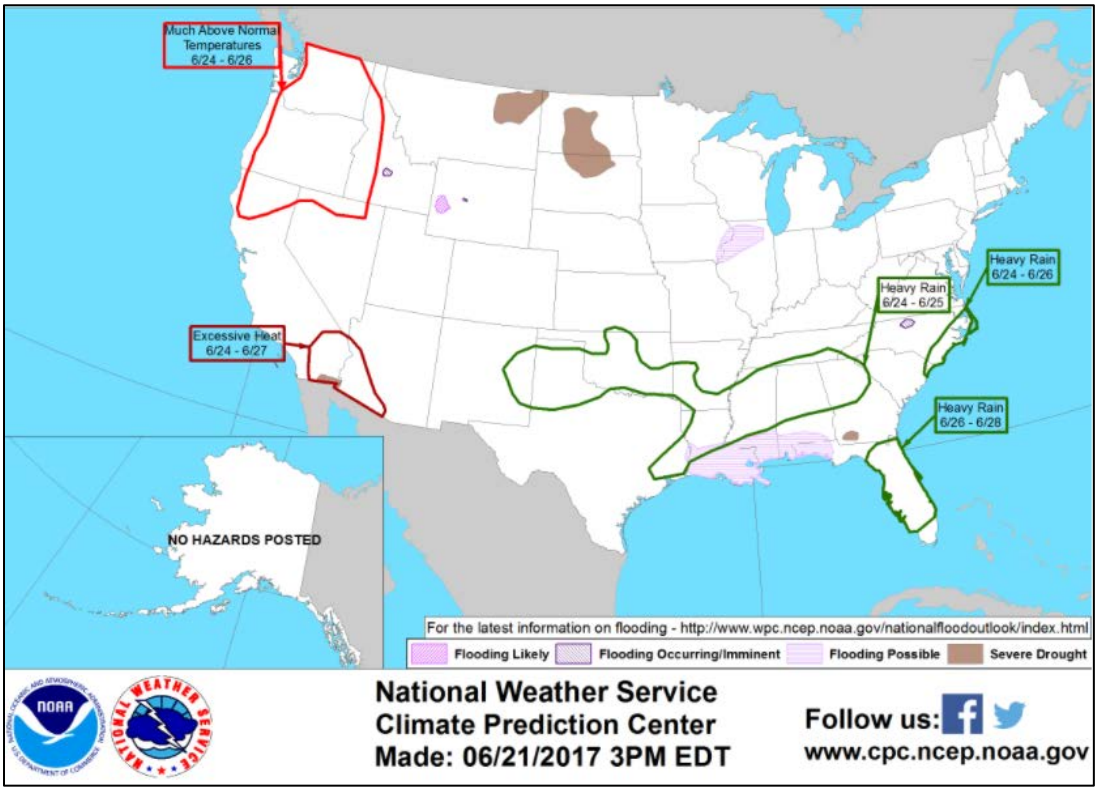
Short- and Long-Range Outlooks

Agricultural Weather Highlights

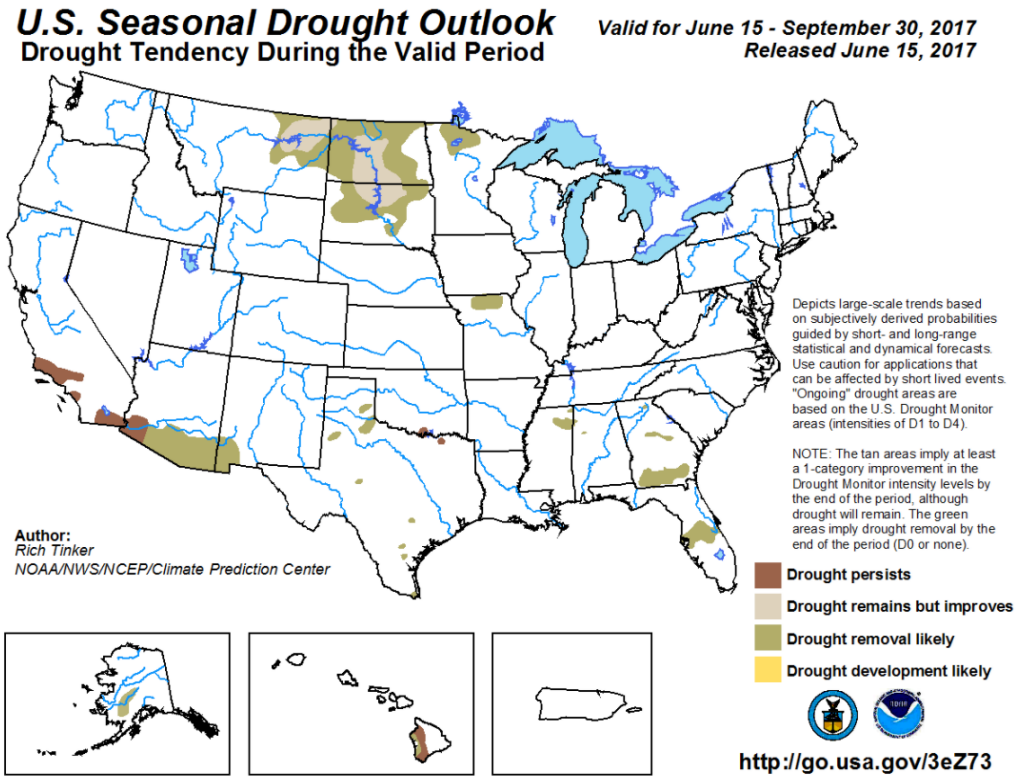
Authors: Brad Rippey and Seth Cohen, Meteorologists, USDA/OCE/WAOB

National Outlook, Thursday, June 22, 2017**:** "As the remnants of Cindy move farther inland, flooding will remain a concern. Additional rainfall could reach 3 to 6 inches from the Gulf Coast northward into the Tennessee Valley and the central Appalachians. Higher totals may occur along the central Gulf Coast. Meanwhile, scattered showers and thunderstorms will cross the Midwest and East, followed by another surge of cool, dry air during the weekend. In fact, below-normal temperatures will dominate areas from the Plains to the East Coast, starting late this week. The NWS 6- to 10-day outlook for June 27 – July 1 calls for the likelihood of above-normal temperatures in southern Florida and the West, while cooler-than-normal conditions will dominate the eastern half of the U.S. Meanwhile, below-normal rainfall in the Tennessee Valley and the Northwest should contrast with wetter-than-normal weather from the Great Lakes region to New England and from the southern Rockies into the lower Southeast."

NWS Climate Prediction Center Weather Hazard Outlook: June 24 - 28, 2017

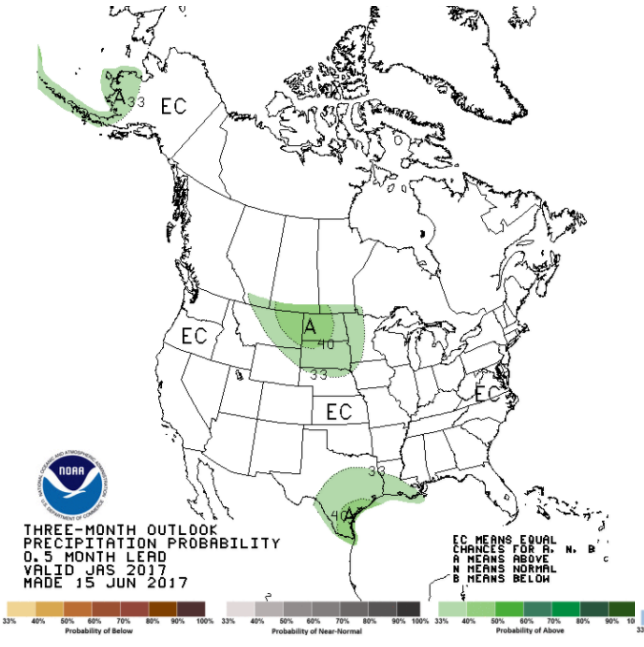


NWS Seasonal Drought Outlook: June 15 - September 30, 2017

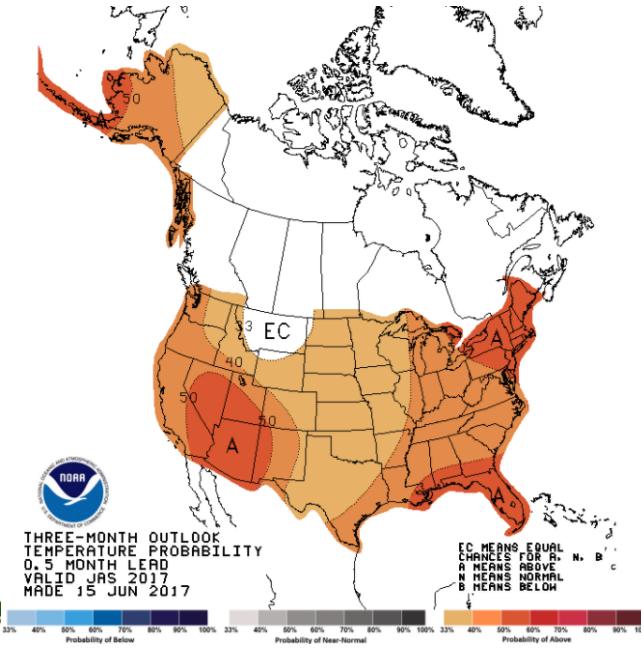


NWS Climate Prediction Center 3-Month Outlook

Precipitation



Temperature



July-August-Sep (JAS) 2017 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.