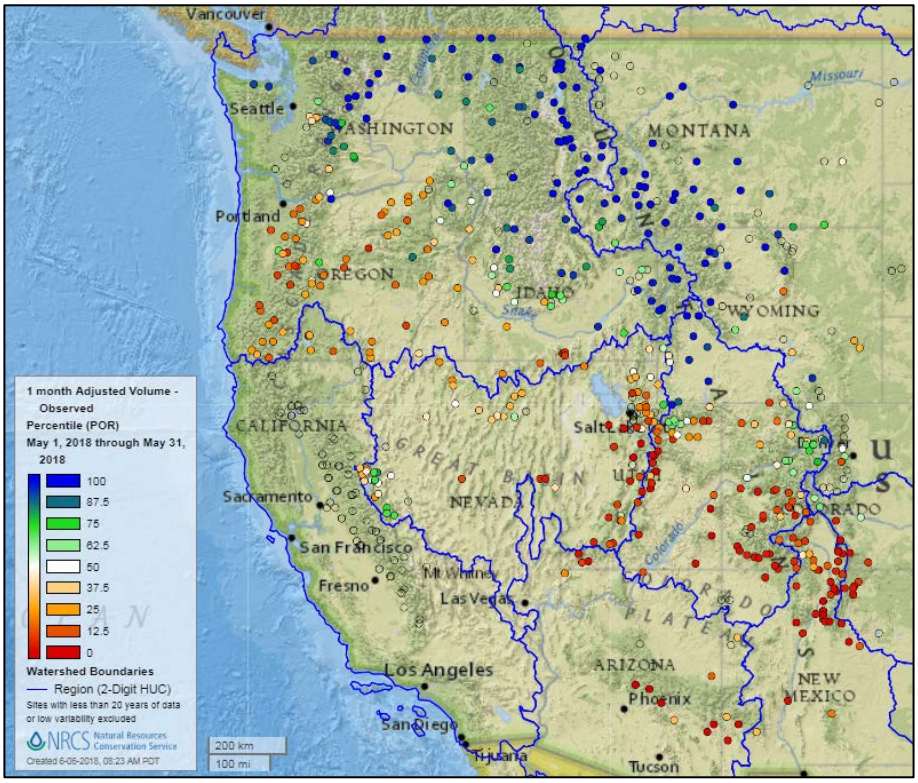
United States Department of Agriculture

Water and Climate Update

June 7, 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.

Extreme high and low streamflows during May



Abundant snowpack, which has persisted all year, combined with very warm temperatures, led to rapid and intense snowmelt in the northern areas of the West during the month of May. Streamflows in this area -- including Wyoming, Montana, northern Idaho, most of Washington, and on into southcentral British Columbia -- were at very high, often record, levels. This is reflected in the map, where the dark blue points represent the 100th percentile, meaning that this May is the highest flow in the historical record.

This extensive and rapid snowmelt led to flooding on several rivers. It also has been a much earlier melt than usual in this region, so that now most of the snowpack is gone, and rivers are receding rapidly. Meanwhile, in the southern parts of the West, May streamflows are at record low levels due to the lack of snowpack throughout the winter.

Related:

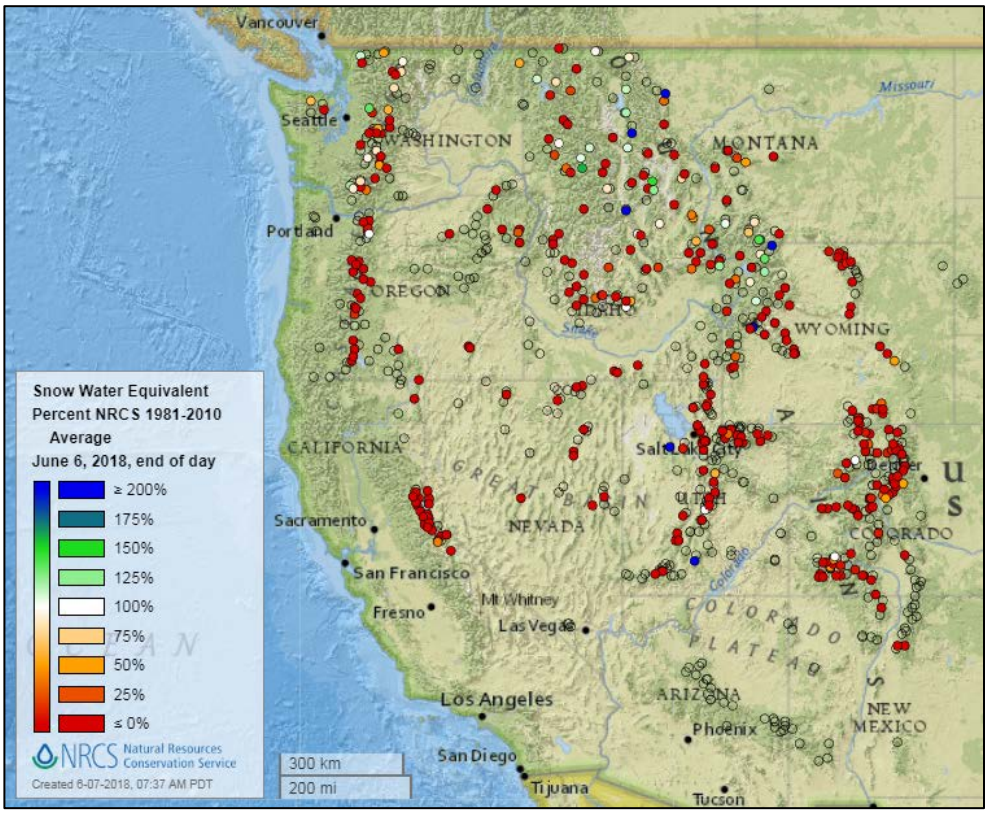
Rapid snowmelt causes record-breaking streamflows across the state of Montana during May NRCS News Release

Heavy Rains Cause Flooding, Evacuations in Pacific Northwest, NBC News Weather

Hot, dry weather lingers in regions battling wildfires in the Southwest, ABC News

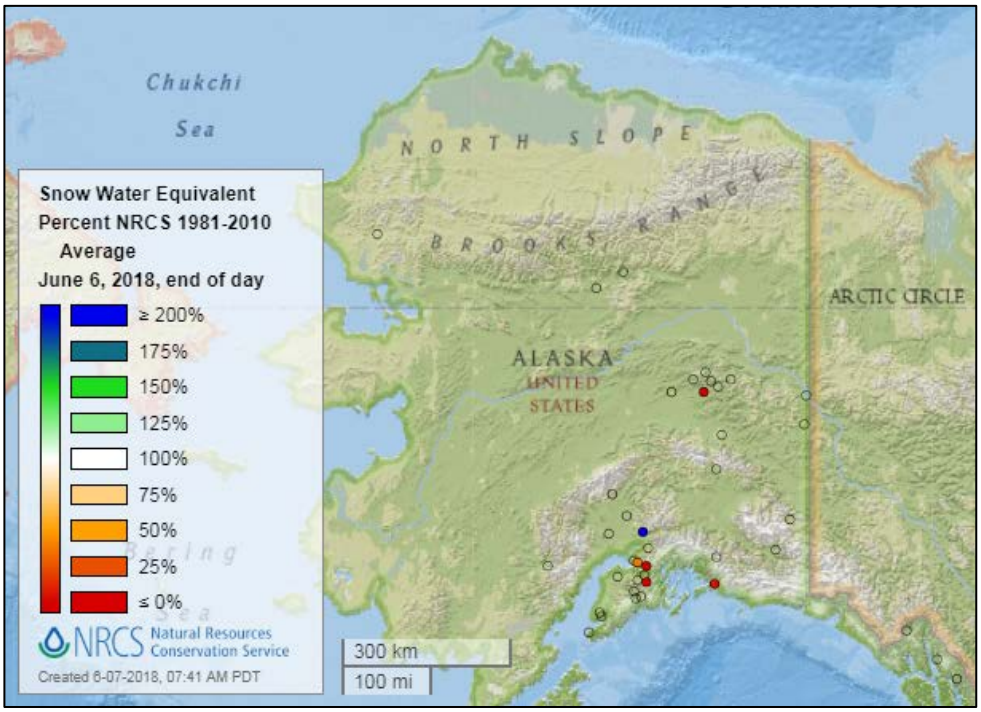
Snow

Current Snow Water Equivalent, NRCS SNOTEL Network



[Snow water equivalent percent of median map]

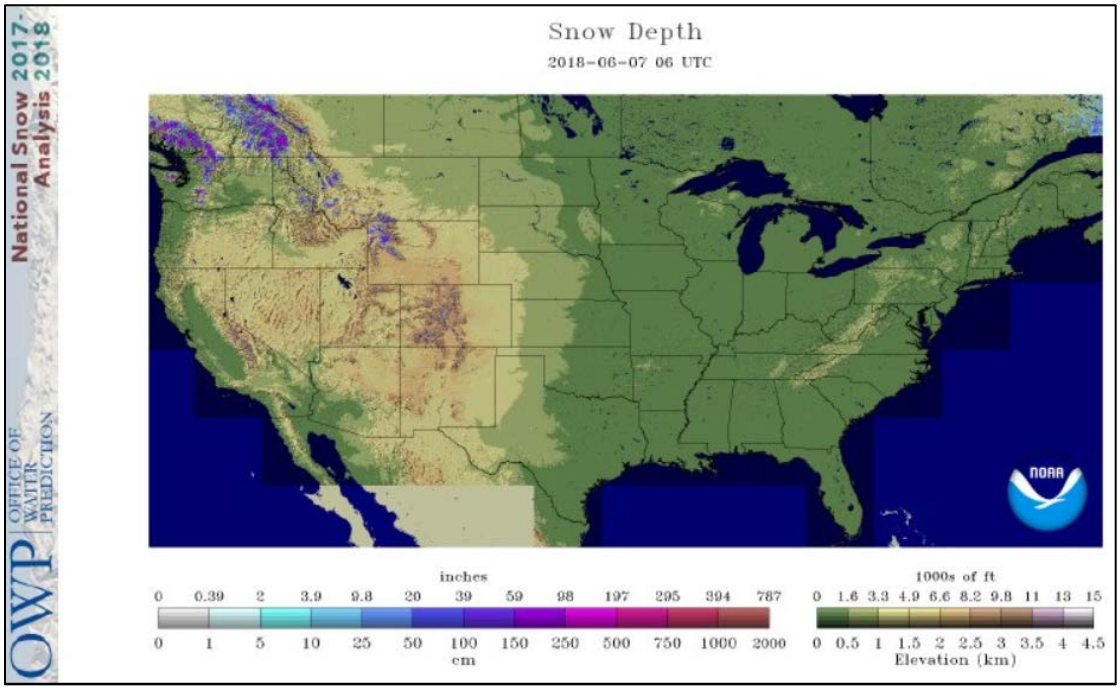
See also:
[Snow water equivalent values (inches) map]



[Alaska snow water equivalent percent of median map]

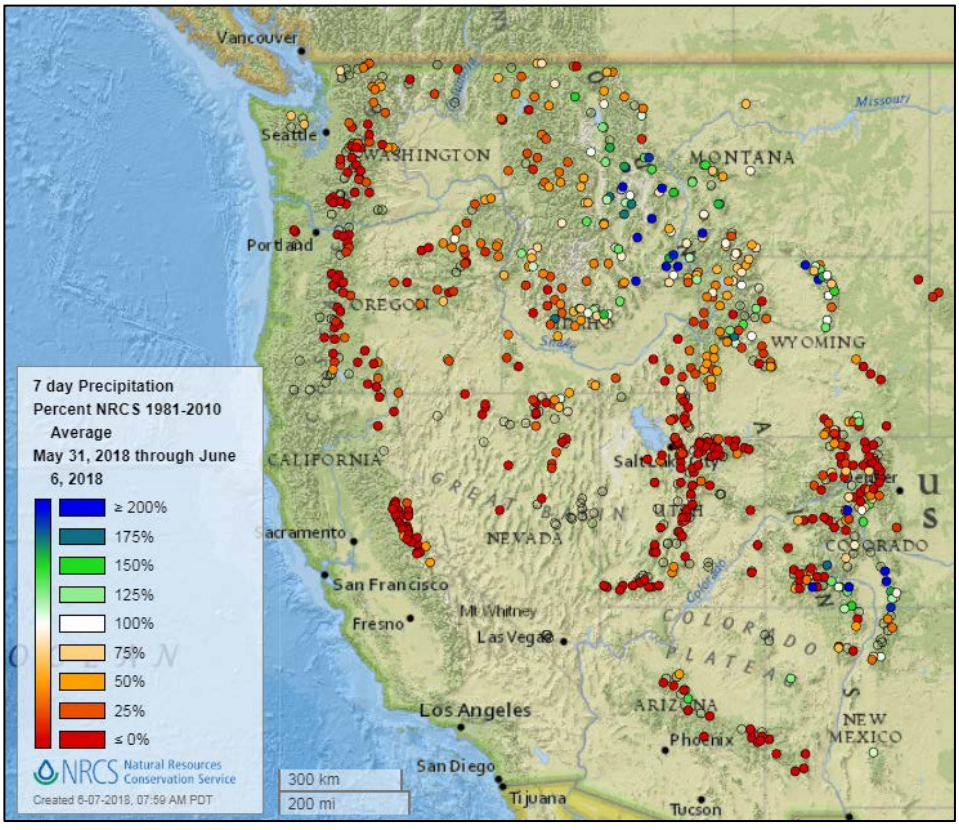
See also:
[Alaska snow water equivalent values (inches) map]

Current Snow Depth, National Weather Service Snow Analysis



Precipitation

Last 7 Days, NRCS SNOTEL Network

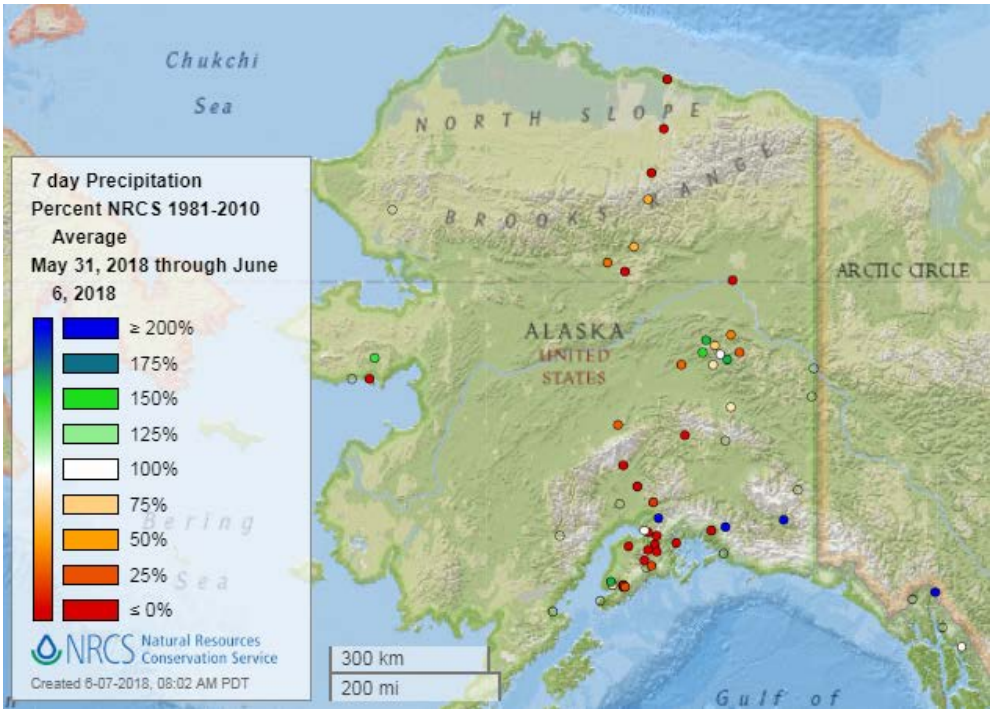


[7-day precipitation percent of average map]

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

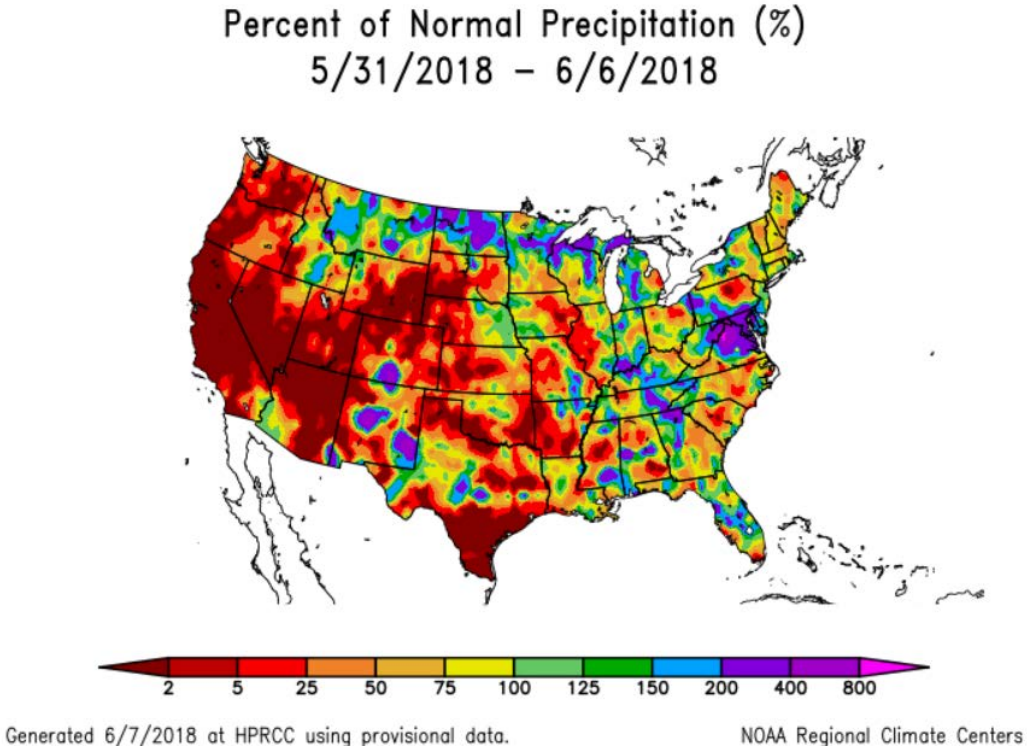


Last 7 Days, National Weather Service (NWS) Networks

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

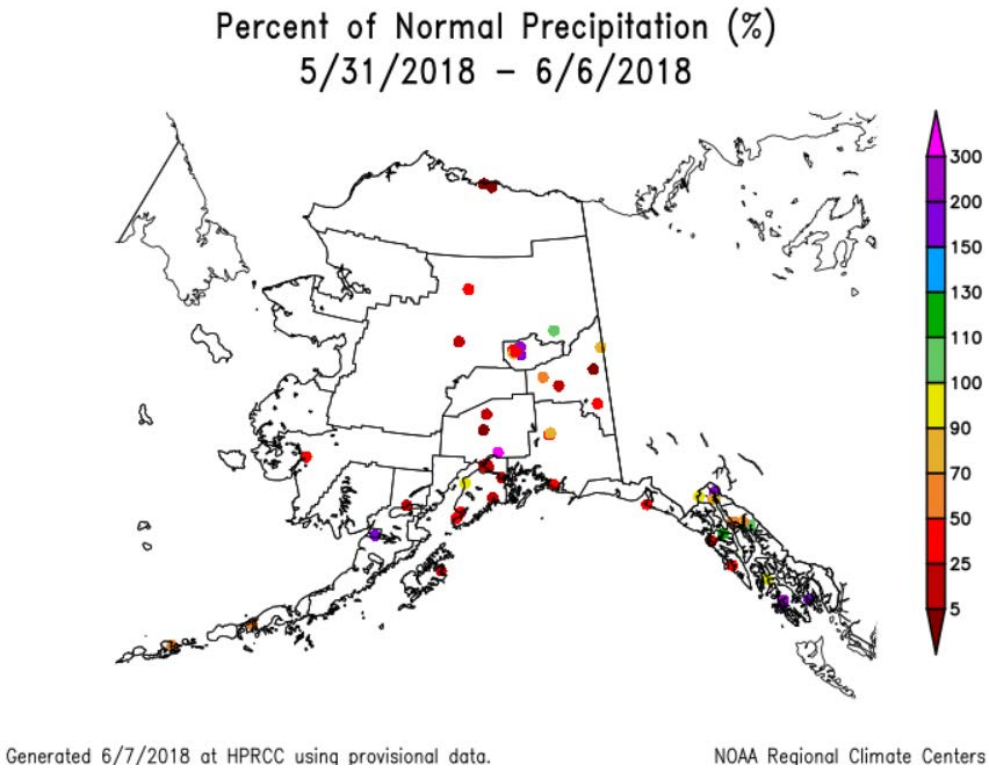


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

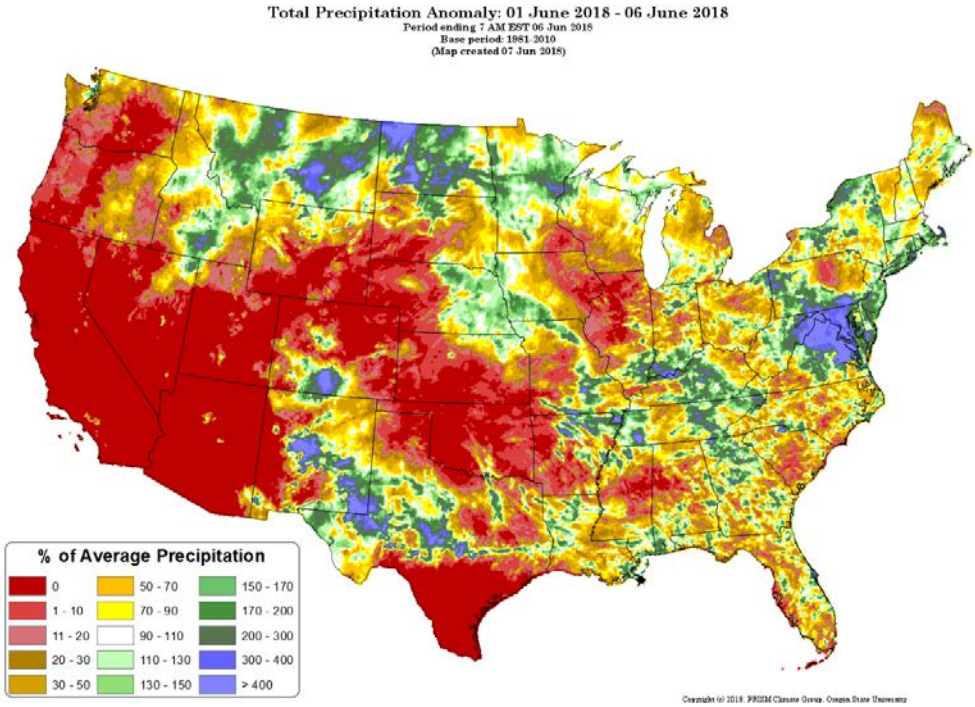
[7-day precipitation anomaly map] for Alaska.

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



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

Source: PRISM

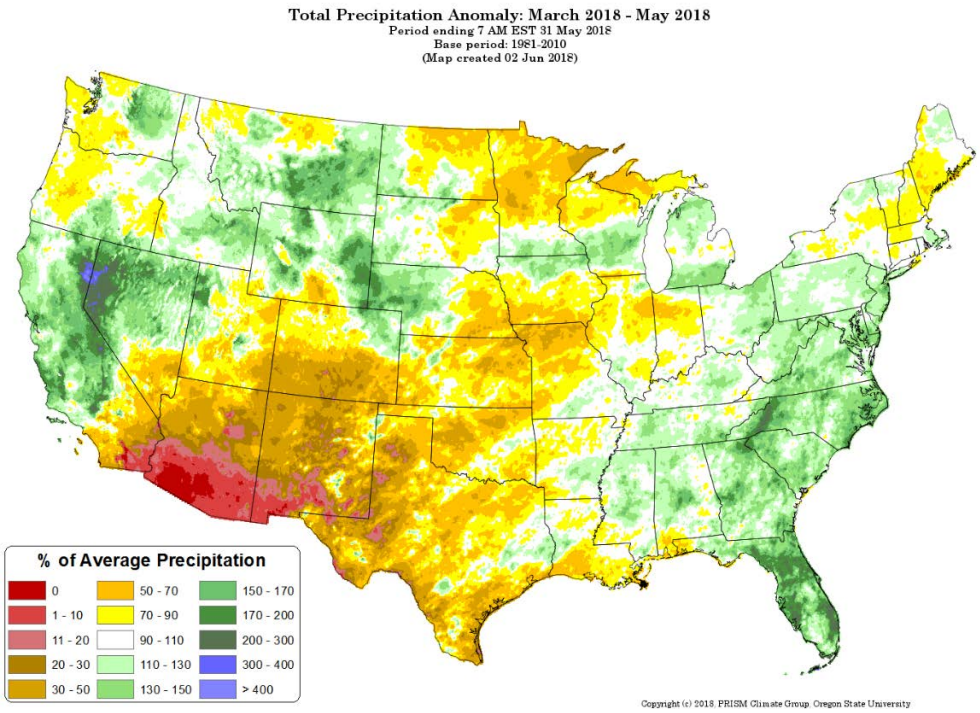


[Month-to-date national total precipitation percent of average map]

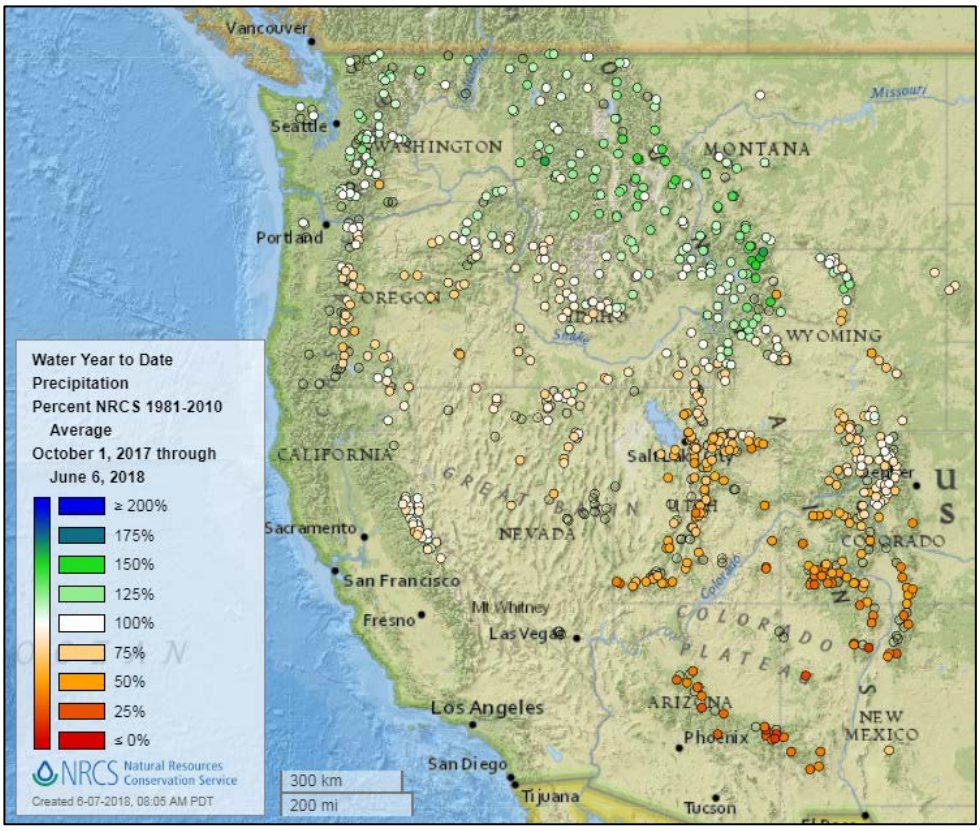
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

[March through May 2018 total precipitation percent of average map]

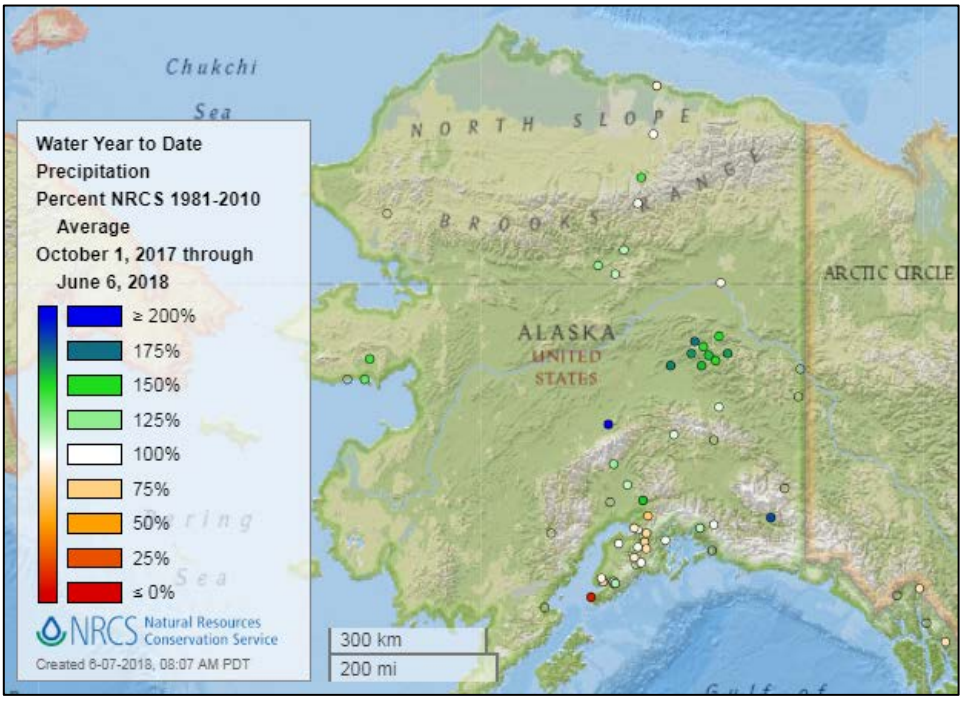


Water Year-to-Date, NRCS SNOTEL Network



[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]

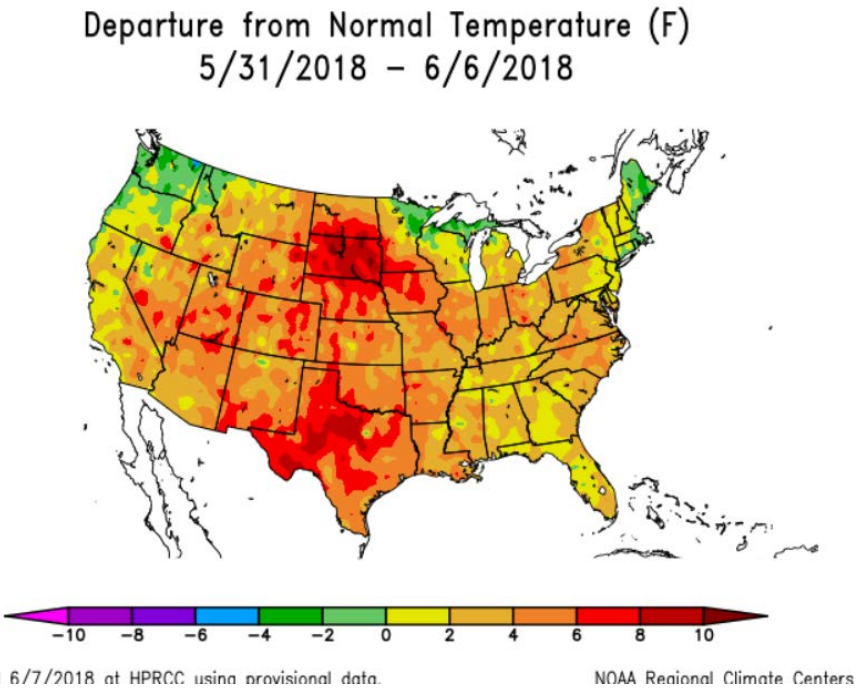
Temperature

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]

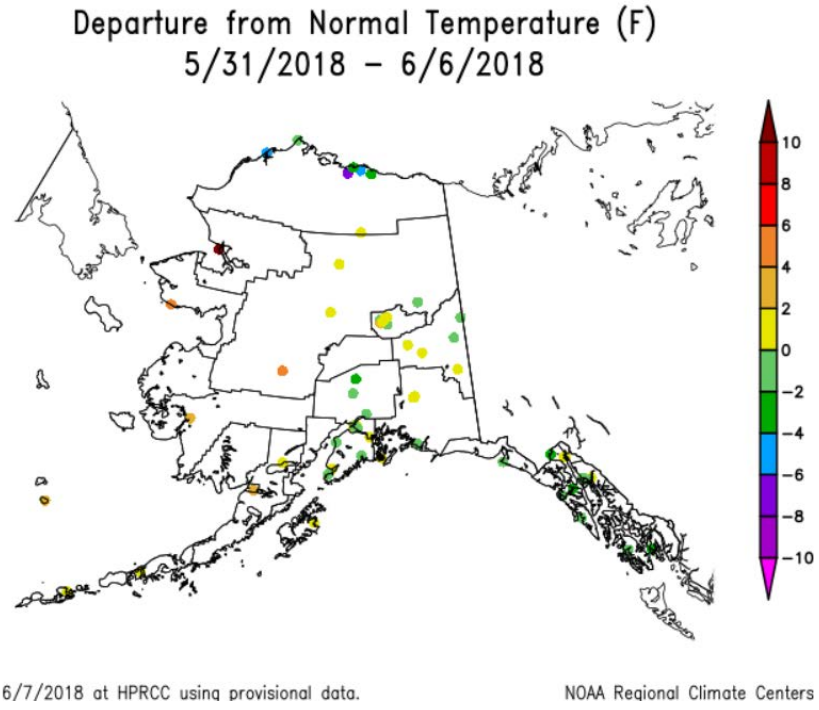


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

7-day temperature anomaly map for Alaska.

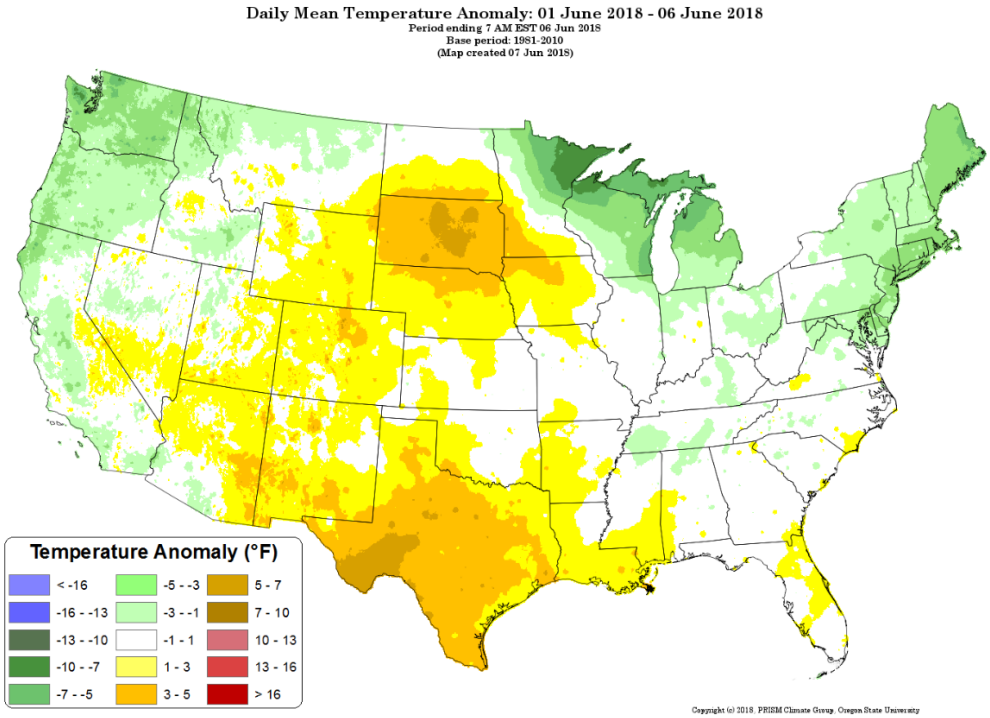
See also:
7-day temperature (° F) map



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

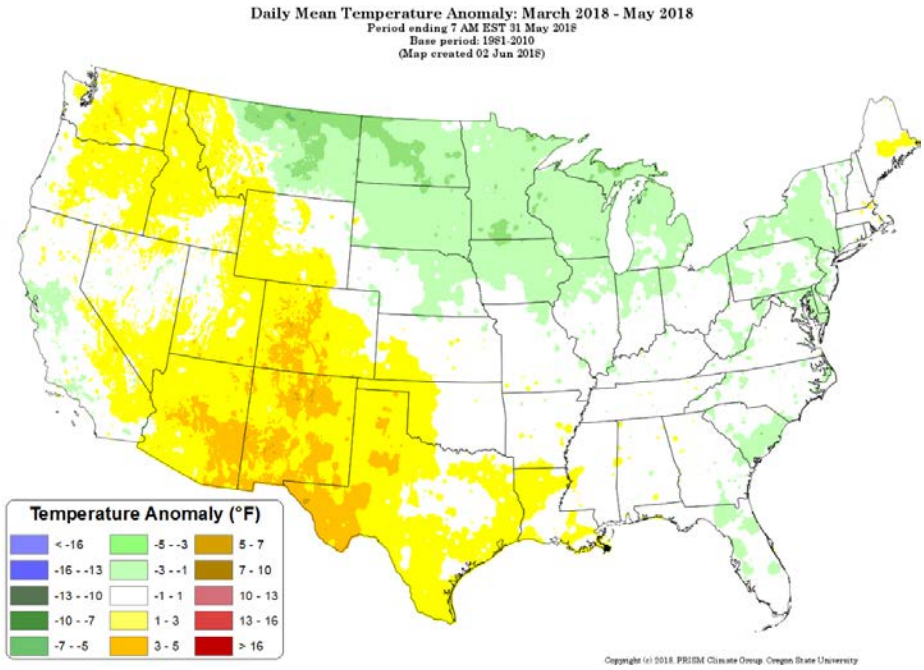
Source: PRISM

Month-to-date national daily mean temperature anomaly map



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

Source: PRISM

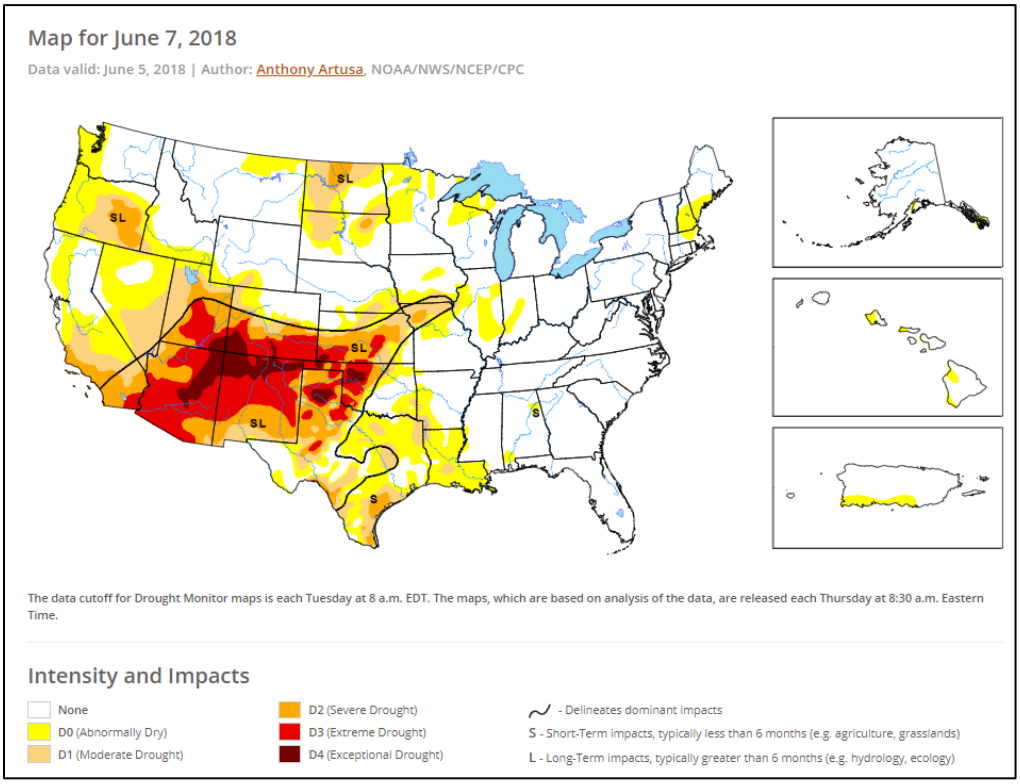


March through May 2018 daily mean temperature anomaly map

Drought

U.S. Drought Monitor Select map below.

U.S. Drought Portal Comprehensive drought resource.



Current National Drought Summary, June 7, 2018

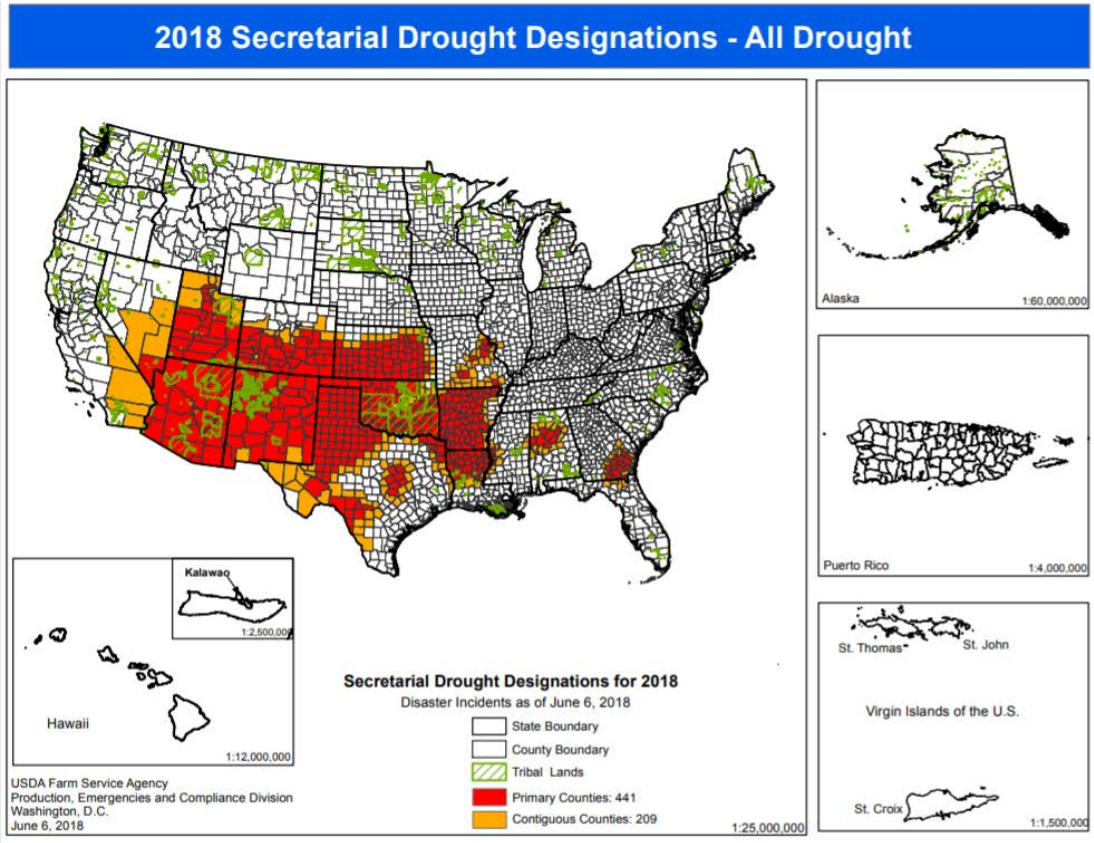
Author: Anthony Artusa, NOAA/NWS/NCEP/CPC

“Frontal and thunderstorm activity provided moderate to heavy rain (at least 0.5-inch) over northern, eastern, and central portions of the CONUS this past week. A weakness in the mid-tropospheric subtropical ridge over the Gulf of Mexico and southeastern states contributed to the influx of subtropical moisture across this region. Over the weekend, a cold front moved into the mid-Atlantic area and stalled, providing a lifting mechanism for the inflowing moisture. This resulted in heavy rain (generally 2-6 inches, locally greater) across much of Virginia, Maryland, eastern West Virginia, and southern Pennsylvania. Temperatures were near to above average across practically the entire contiguous U.S., with the greatest departures (6-12 degrees F above average, locally greater) for a large portion of the southern Great Plains, the Mississippi Valley, the Dakotas, the Great Lakes region, and the Ohio Valley.”

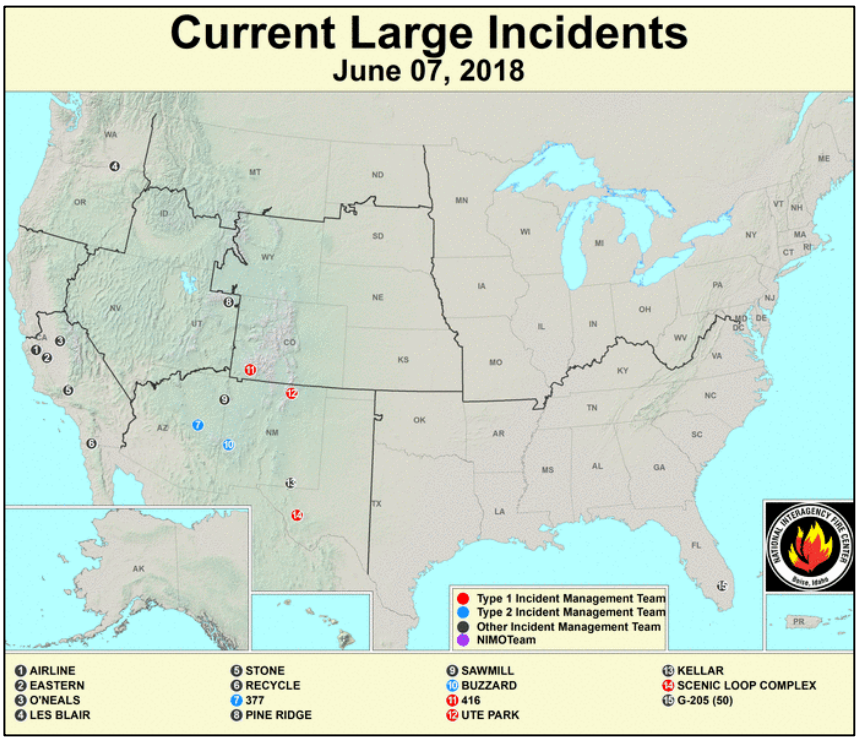
Highlighted Drought Resources

- 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]



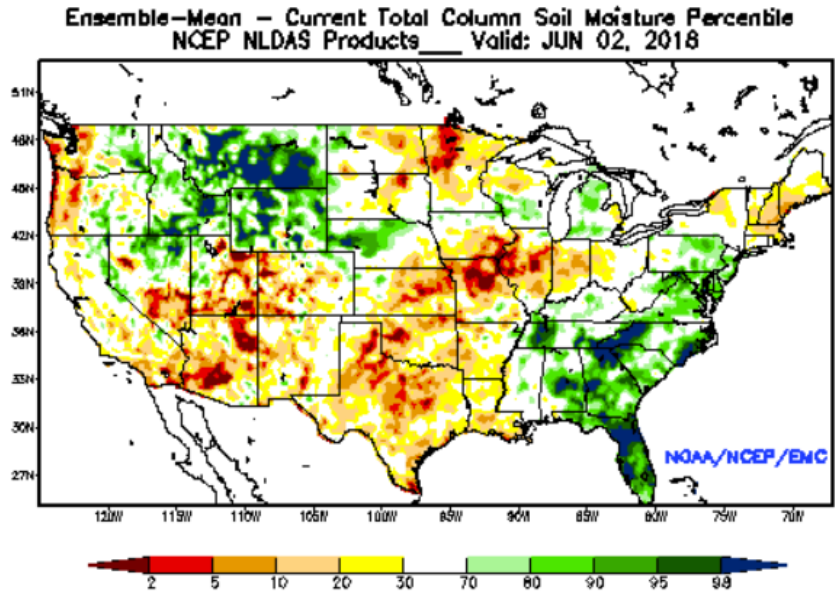
Highlighted Wildfire Resources

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

Other Climatic and Water Supply Indicators

Soil Moisture

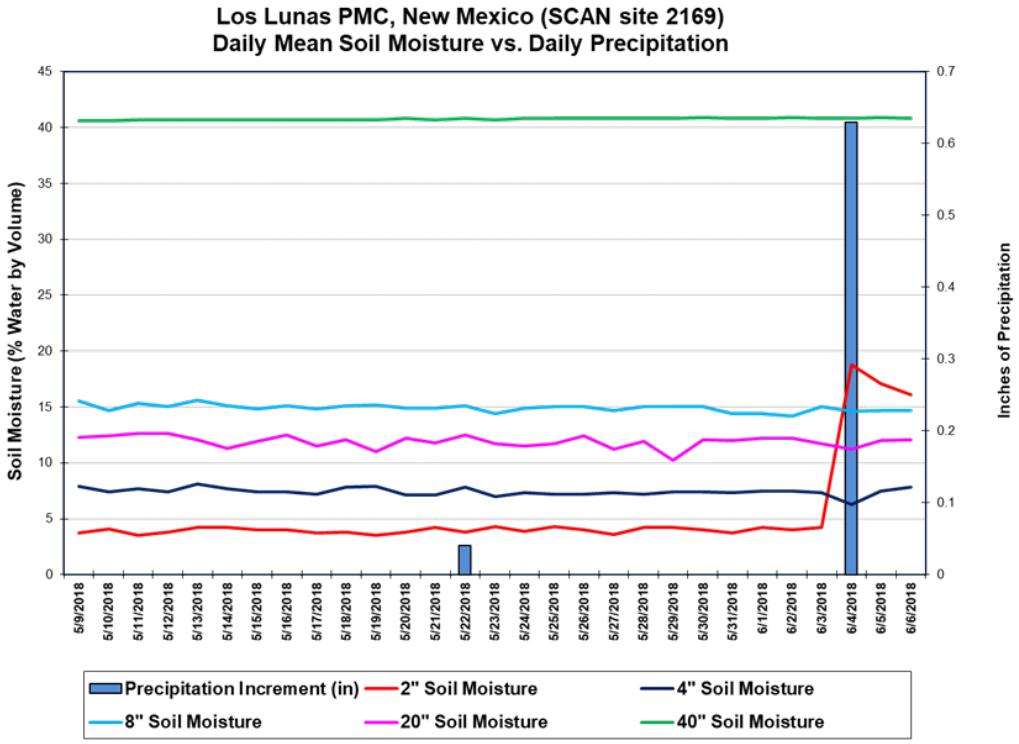
Source: NOAA National Centers for Environmental Prediction



Modeled soil moisture percentiles as of June 2, 2018.

Soil Moisture Data

Source: NRCS Soil Climate Analysis Network (SCAN)



This graph illustrates precipitation events during the last 30 days at the Los Lunas PMC SCAN site 2169 in New Mexico. On 6/4/18, incremental precipitation totaled 0.63 inches. Following this event, the 2" sensor showed a significant increase in soil moisture levels from 4.2% to 18.8%.

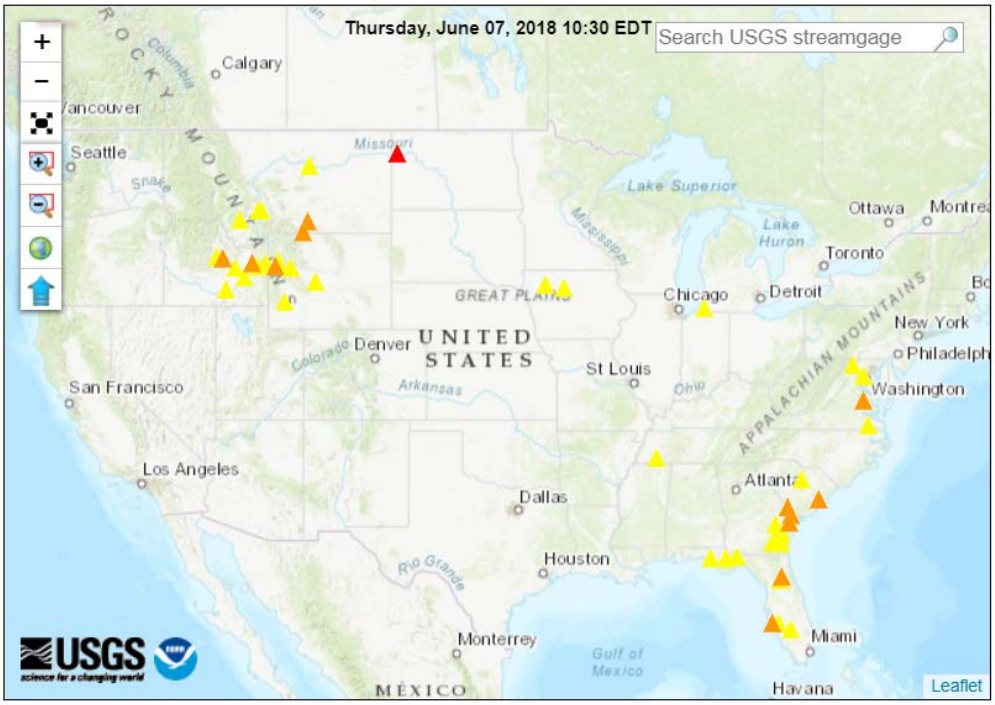
Soil Moisture Data Portals

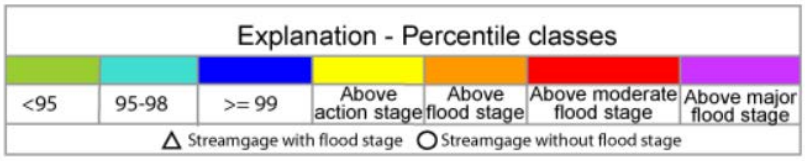
- CRN Soil Moisture
- Texas A&M University North American Soil Moisture Database
- University of Washington Experimental Modeled Soil Moisture

Streamflow

Source: USGS

Map of flood and high flow conditions



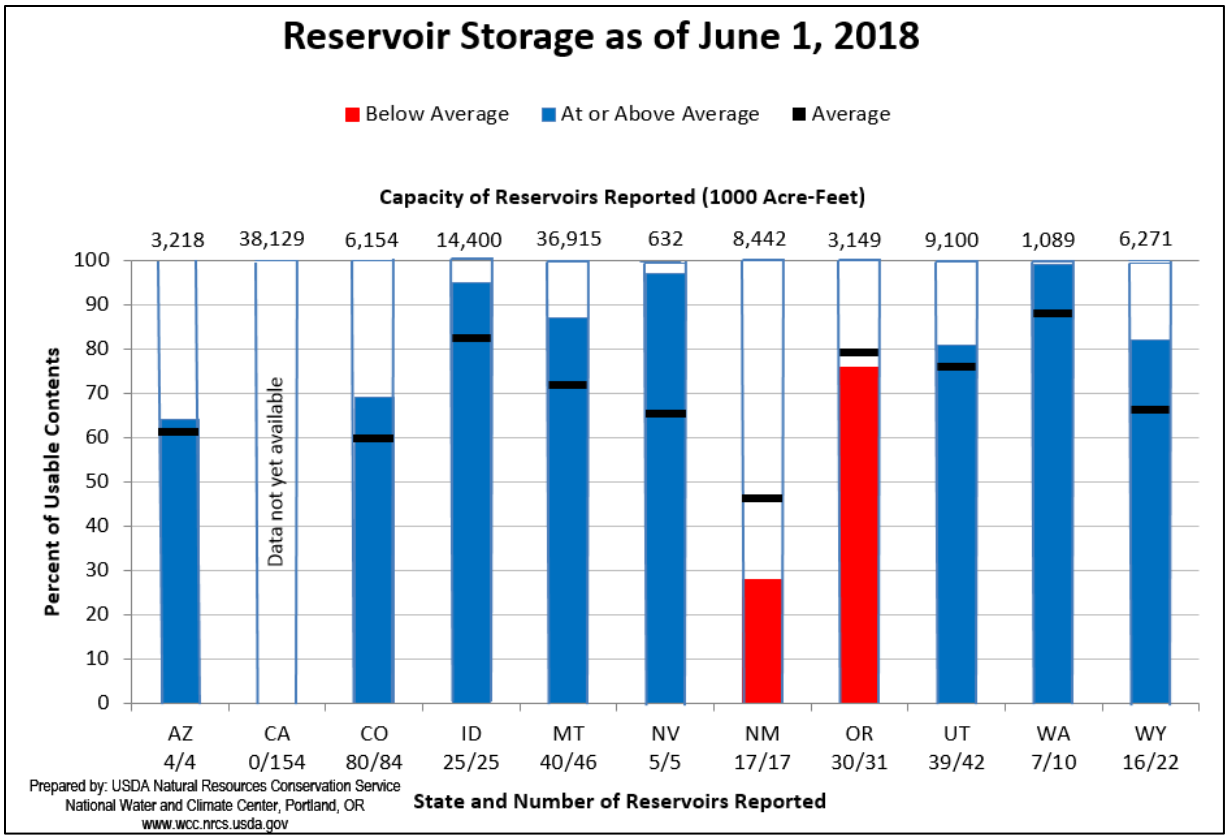


WaterWatch: Streamflow, drought, flood, and runoff conditions

Reservoir Storage

Western States Reservoir Storage

Source: NRCS National Water and Climate Center

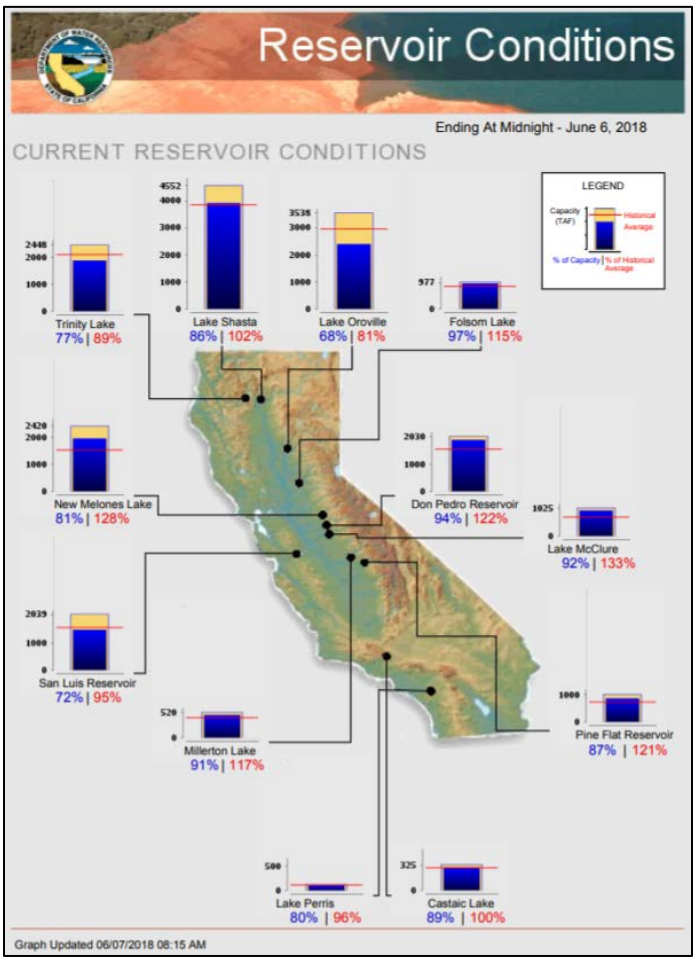


June 1 Reservoir Storage: Chart | Dataset

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

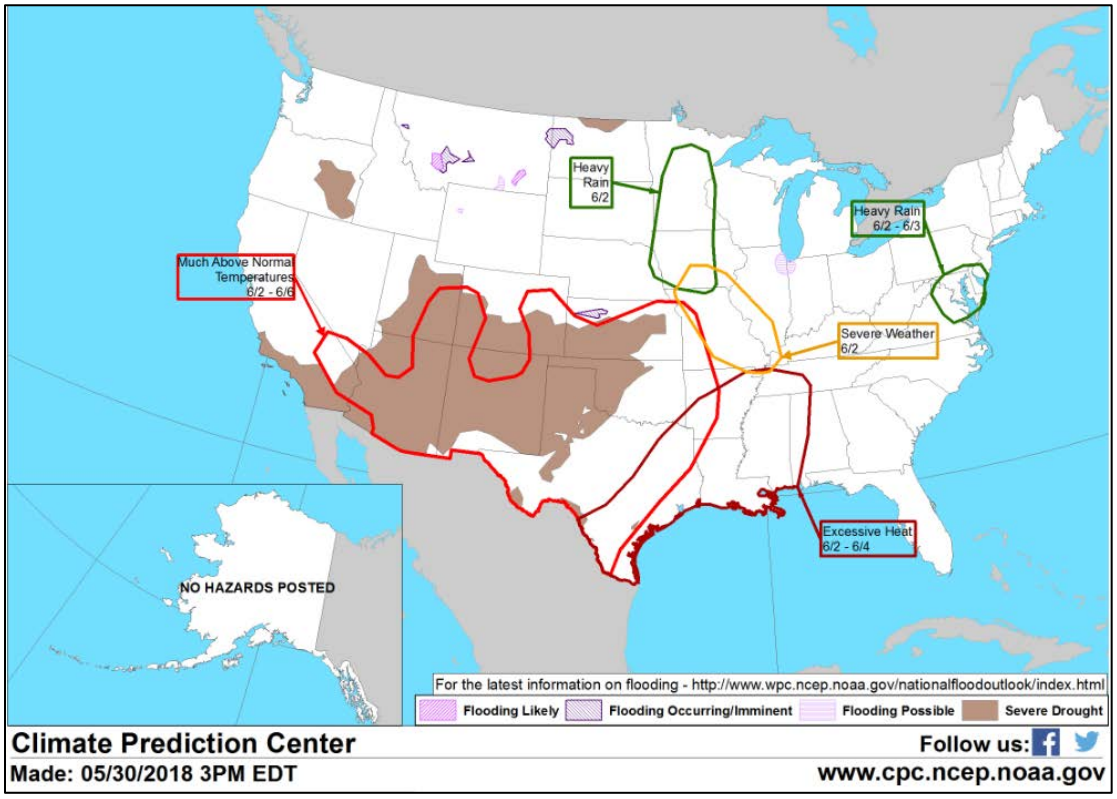
Agricultural Weather Highlights

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

National Outlook, Thursday, June 7: "The majority of the country will experience above-normal temperatures for the remainder of the week. Temperatures will continue to reach or exceed 100°F during the next several days as far north as the central Plains. During the weekend and early next week, however, markedly cooler air will overspread the northern Plains and the Northwest. Meanwhile, the Midwest should receive some of the heaviest rain (locally 1 to 3 inches or more) during the next 5 days. Other areas experiencing periodic showers will include the middle and southern Atlantic States, as well as the nation's northern tier from the Pacific Northwest to the northern Plains. In contrast, the Southwest will remain mostly dry. The NWS 6- to 10-day outlook for June 12 – 16 calls for the likelihood of near- to above normal temperatures nationwide, except for cooler-than-normal conditions across northern sections of the Rockies and High Plains. Meanwhile, near- to below-normal rainfall across most of the northern U.S. should contrast with wetter-than-normal weather in the South."

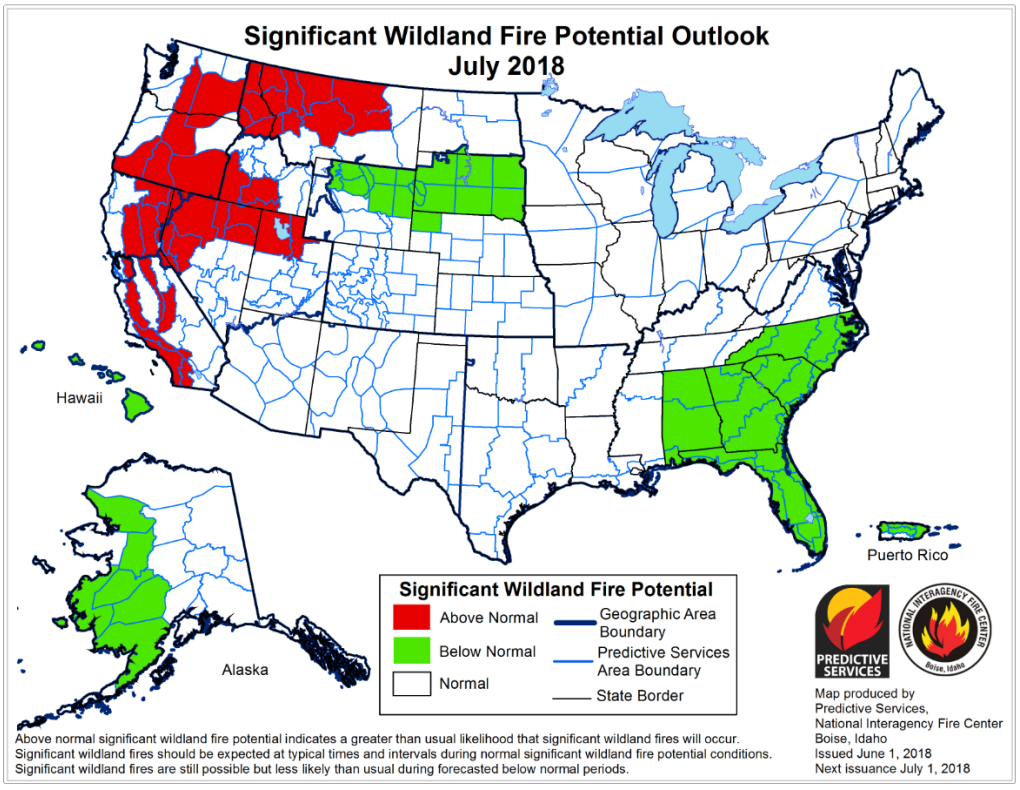
Weather Hazard Outlook June 9 – 13, 2018

Source: Climate Prediction Center



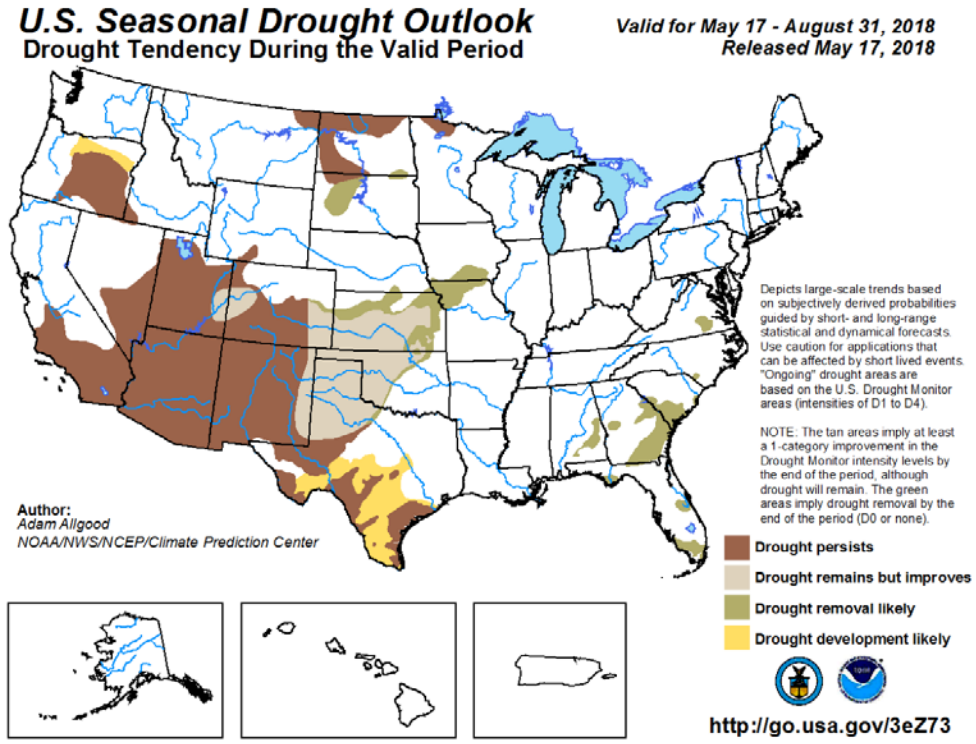
Significant Wildland Fire Potential Outlook

Source: National Interagency Fire Center



Seasonal Drought Outlook: May 17 – August 31, 2018

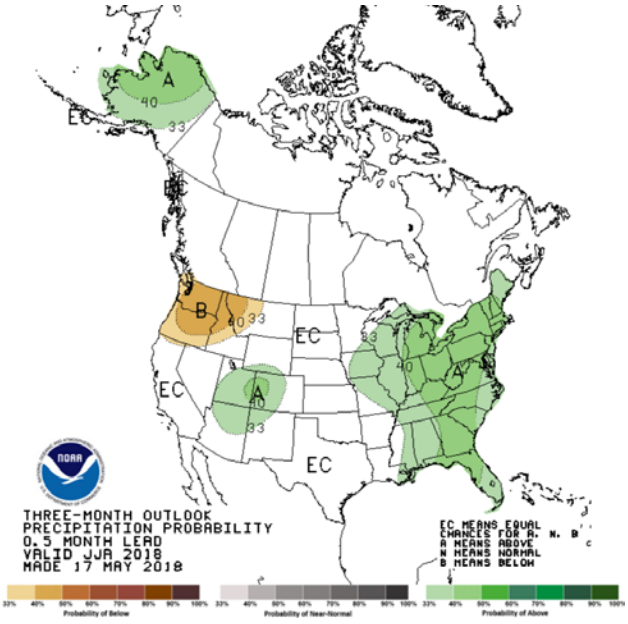
Source: National Weather Service



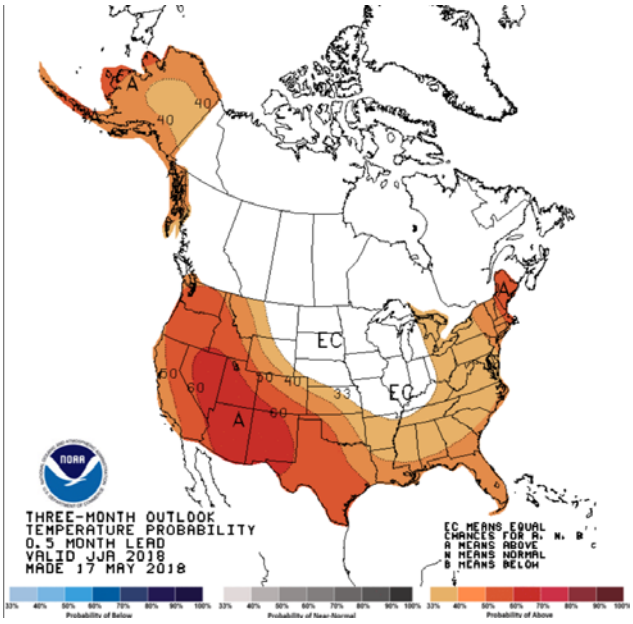
Climate Prediction Center 3-Month Outlook

Source: National Weather Service

Precipitation



Temperature



June-July-August (JJA) 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.