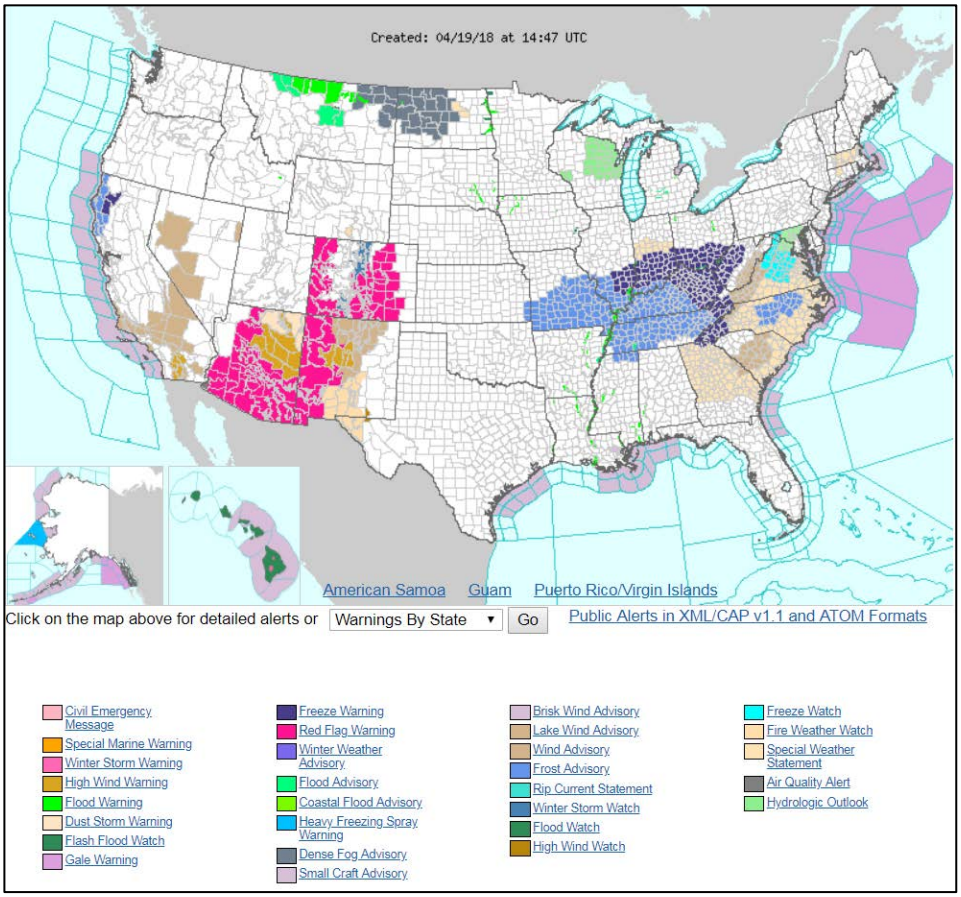
United States Department of Agriculture

Water and Climate Update

April 19, 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.

Snowstorms continue in the Midwest; Wildfire potential increases in the Southwest



This past week has seen severe weather affecting large areas of the country, and these conditions are continuing.

Winter storm Xanto deposited record snowfalls in the Midwest and Great Lakes. Tornados touched down in Arkansas and North Carolina. And a large wildfire is burning in Oklahoma.

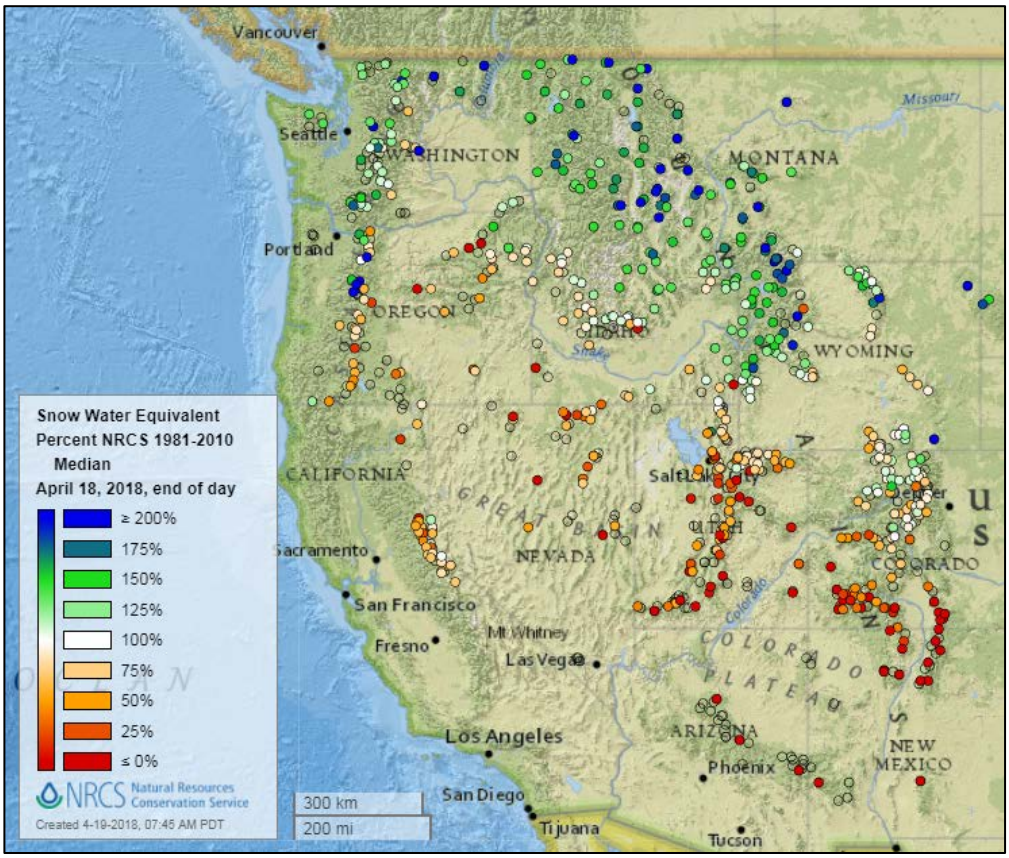
According to the National Weather Service, the outlook for the coming week includes more snow in the Midwest and continued fire danger in the southern Plains and into the Southwest.

Related:

NOAA Storm Prediction Center Fire Weather Outlook
National Weather Service Short Range Forecast Discussion
Gusty winds spread wildfires in Plains as storm moves east - ABC News

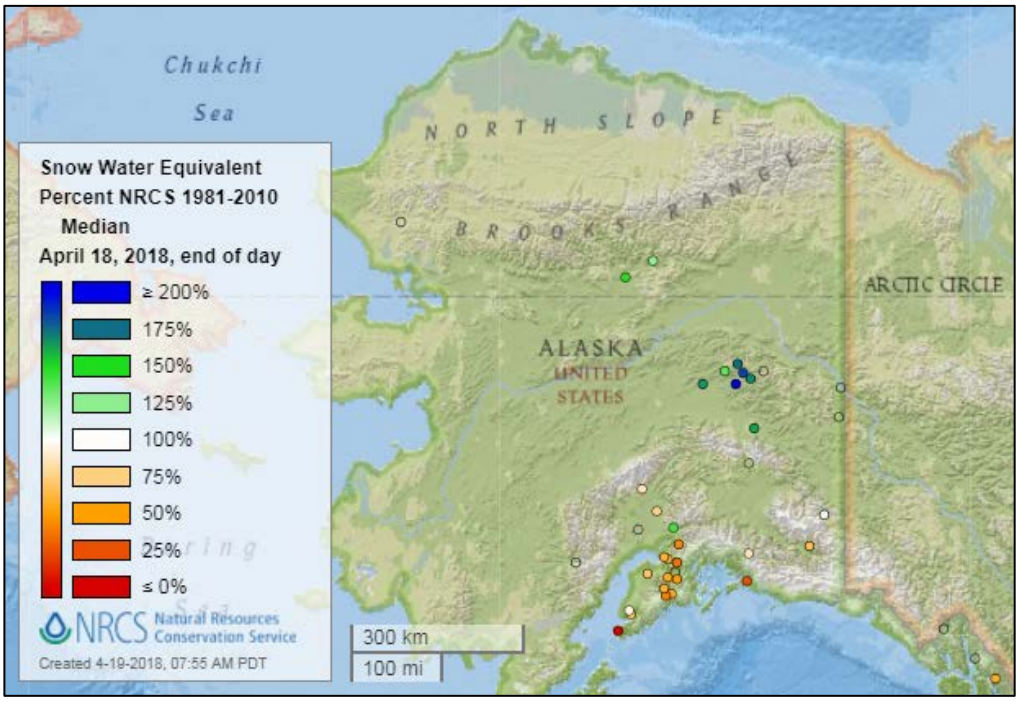
Snow

Current Snow Water Equivalent, NRCS SNOTEL Network



[Snow water equivalent percent of median map]

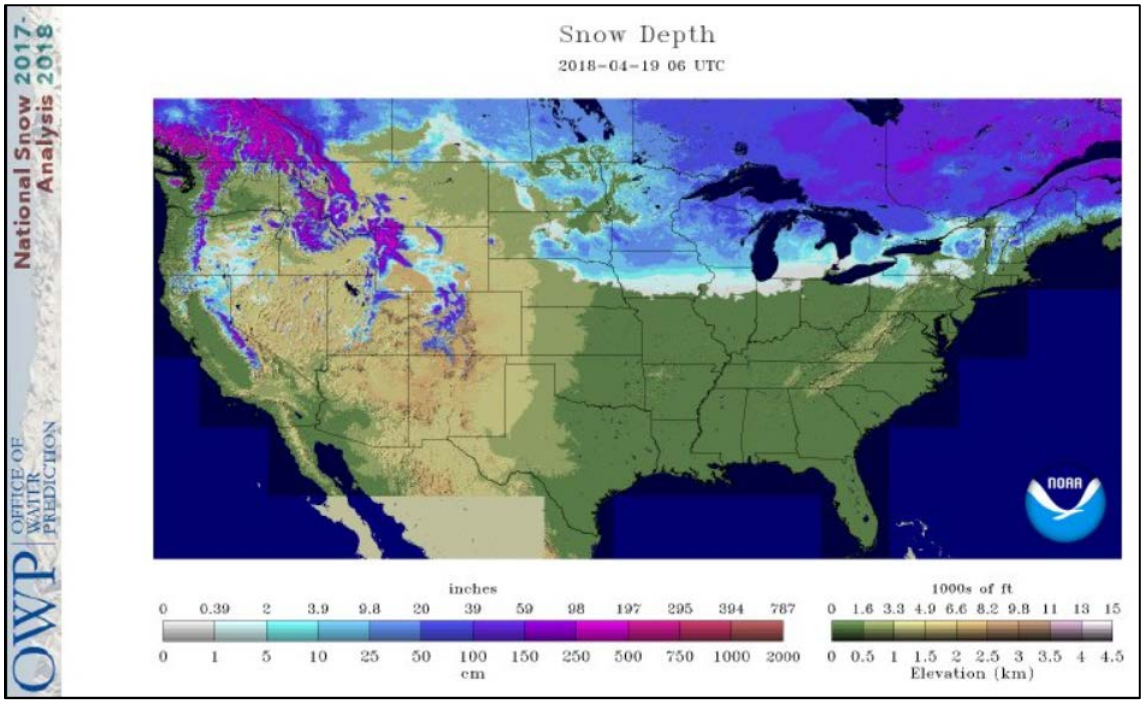
See also:
[Snow water equivalent values (inches) map]



[Alaska snow water equivalent percent of median map]

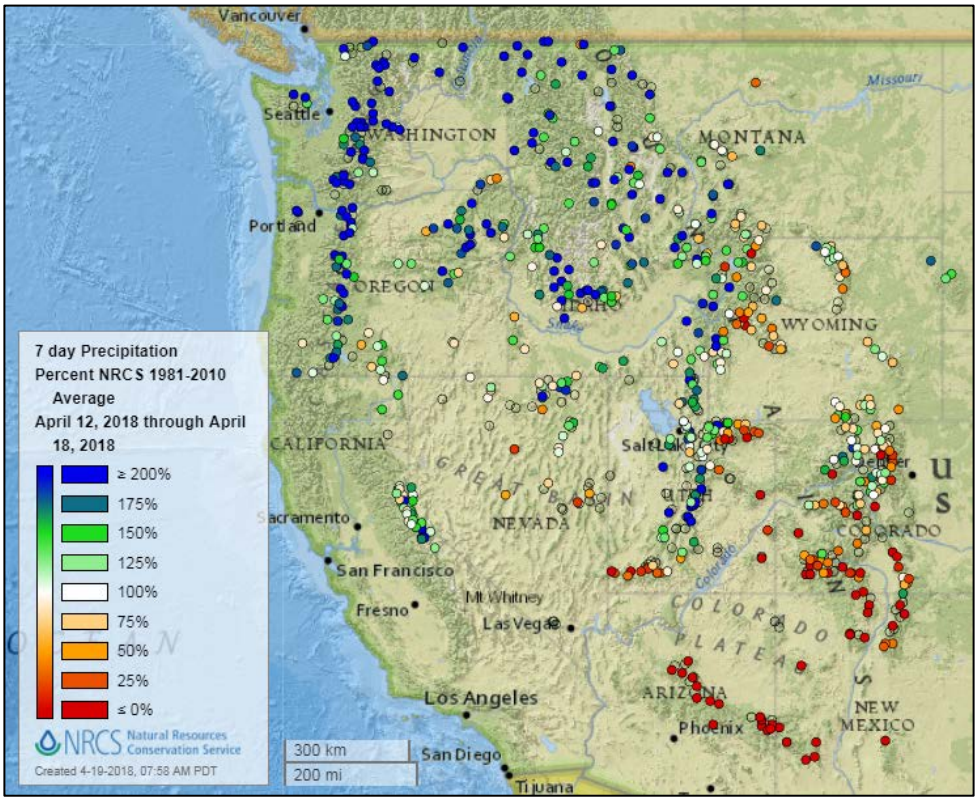
See also:
[Alaska snow water equivalent values (inches) map]

Current Snow Depth, National Weather Service Snow Analysis



Precipitation

Last 7 Days, NRCS SNOTEL Network

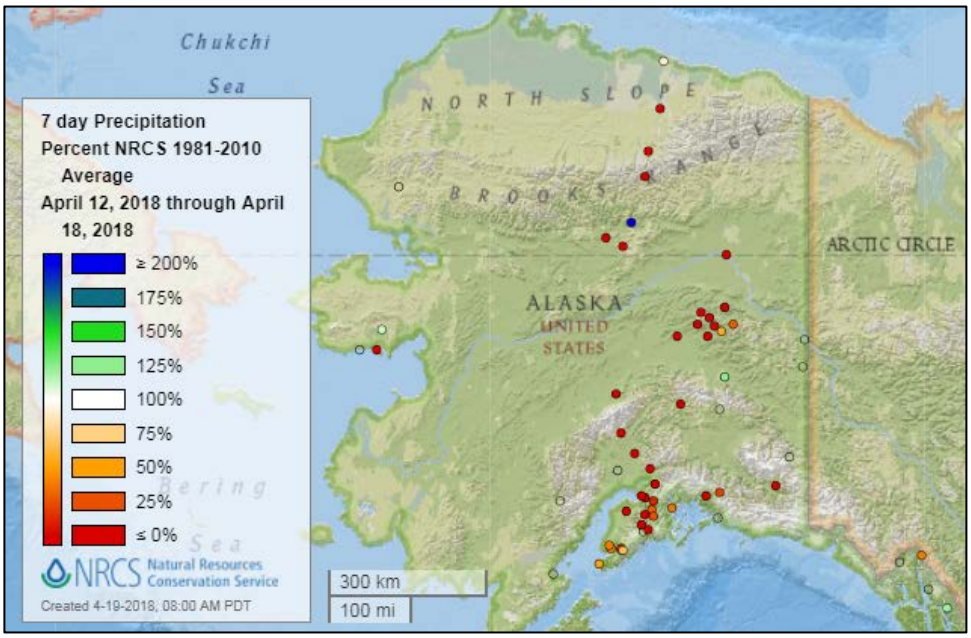


7-day precipitation percent of average map

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

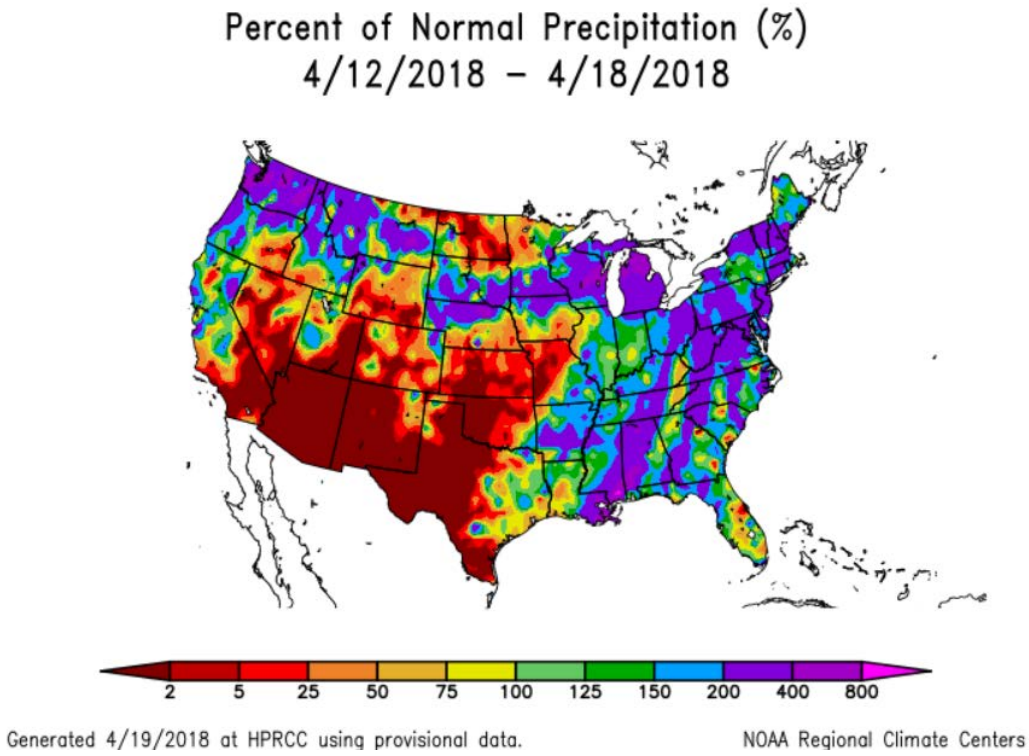


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

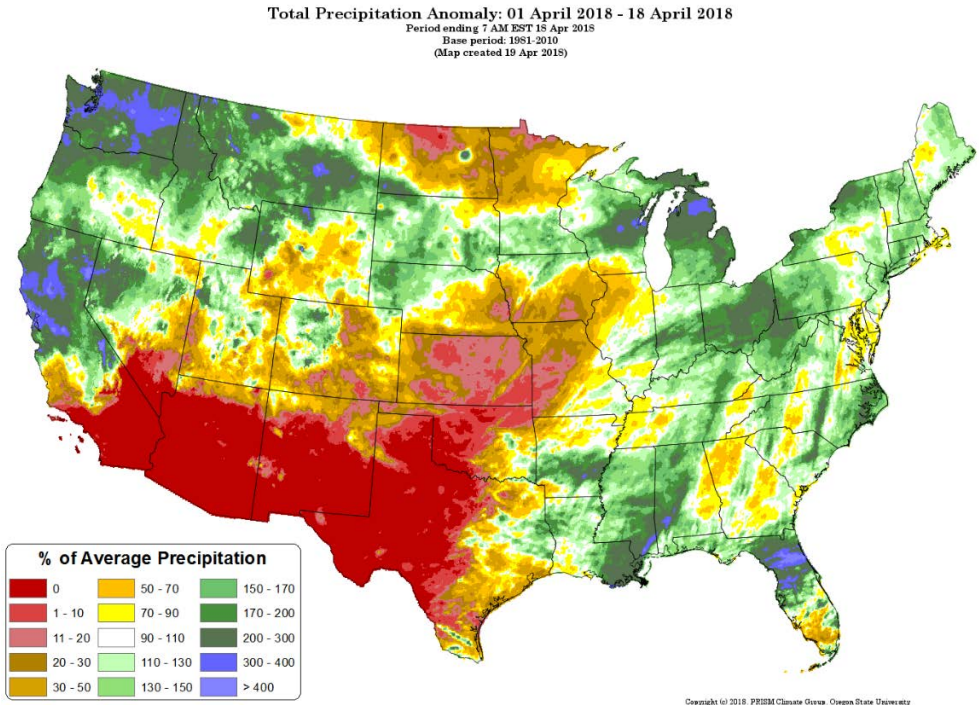
7-day precipitation percent of normal map for the continental U.S.

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



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

Source: PRISM

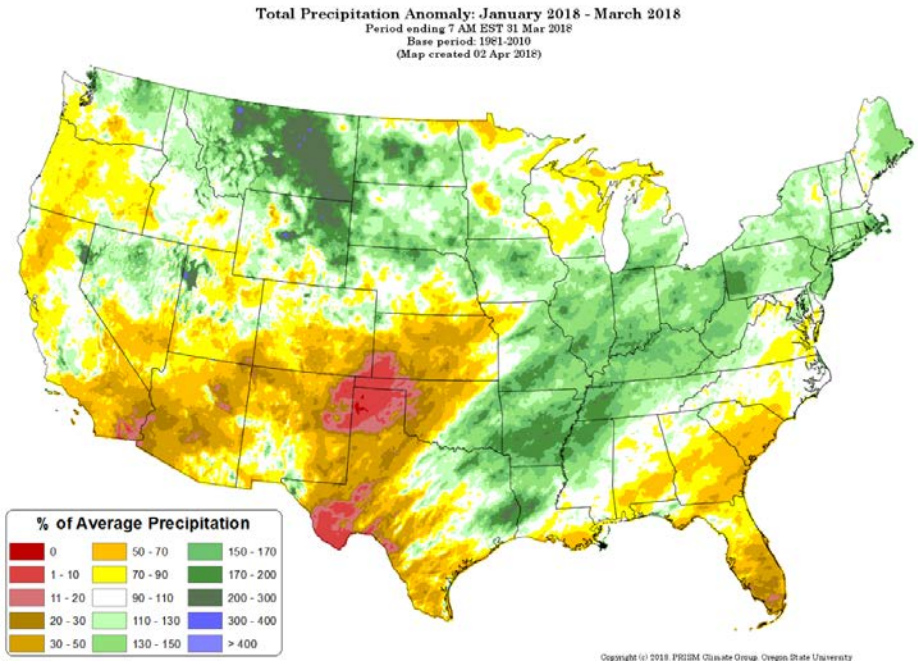


[Month-to-date national total precipitation percent of average map]

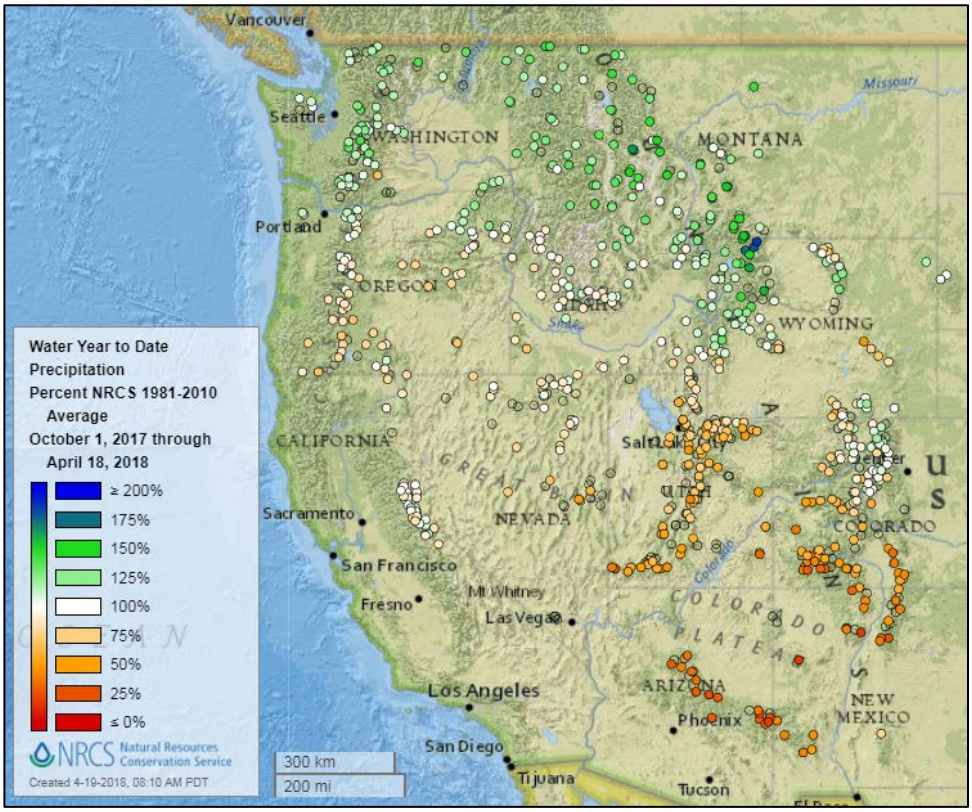
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

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

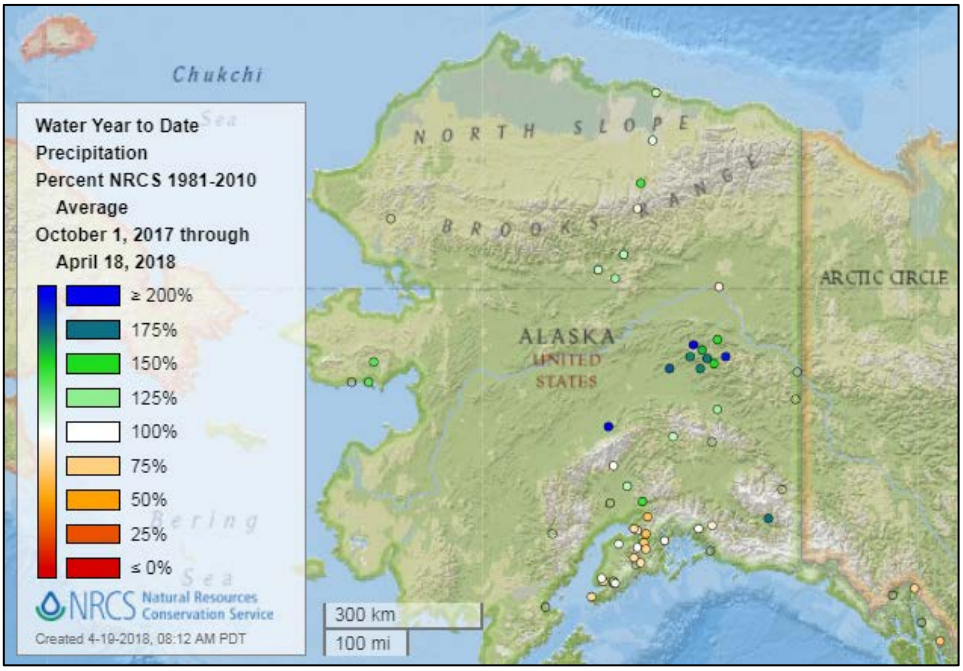


Water Year-to-Date, NRCS SNOTEL Network



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

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



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

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

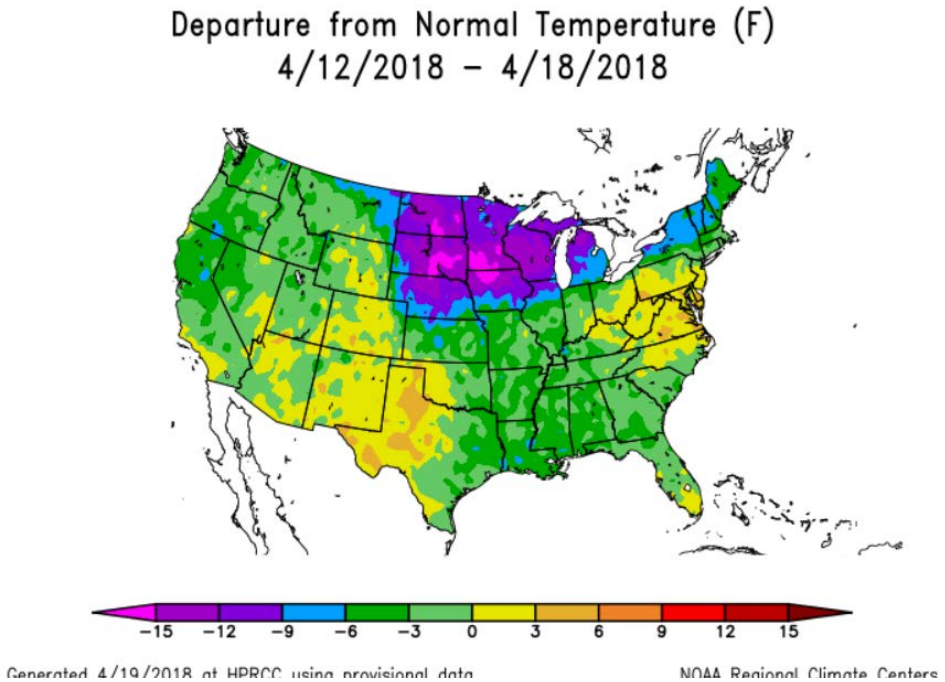
Temperature

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]

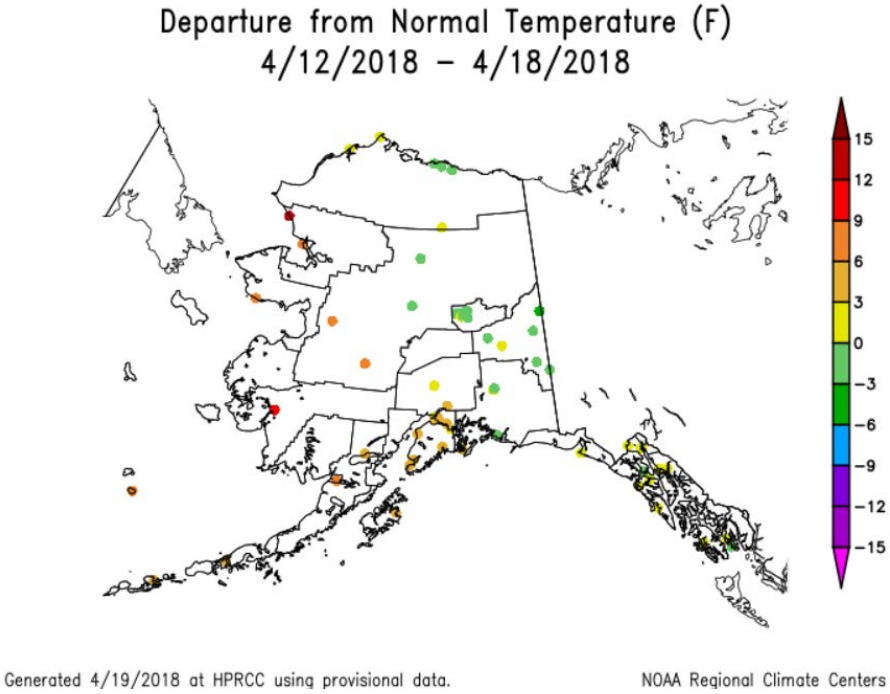


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day temperature anomaly map] for Alaska.

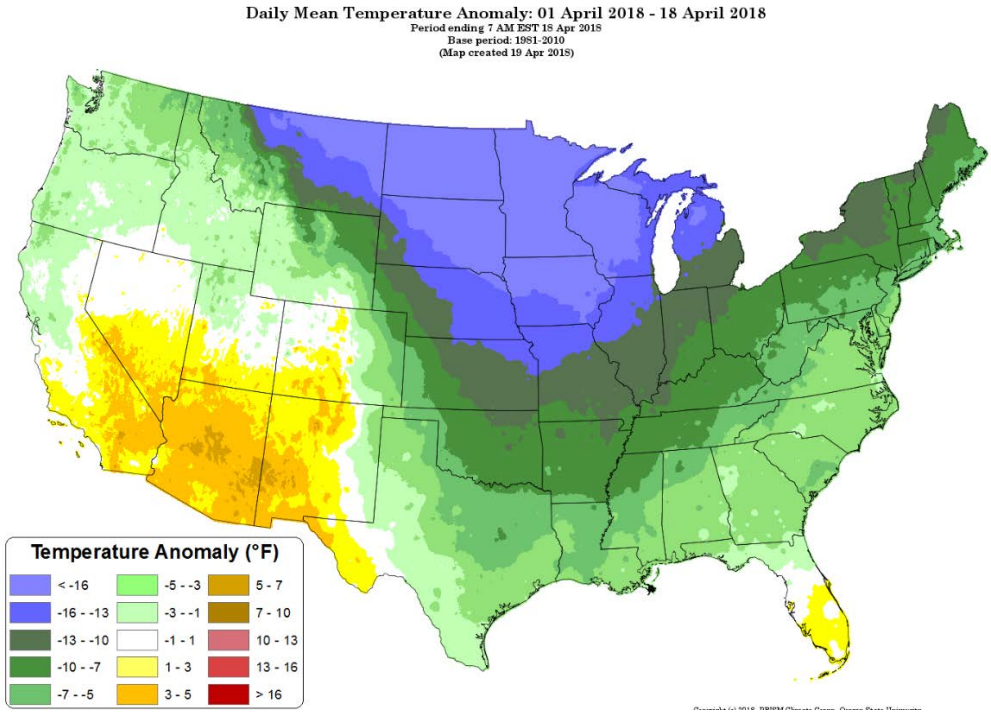
See also:
[7-day temperature (° F) map]



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

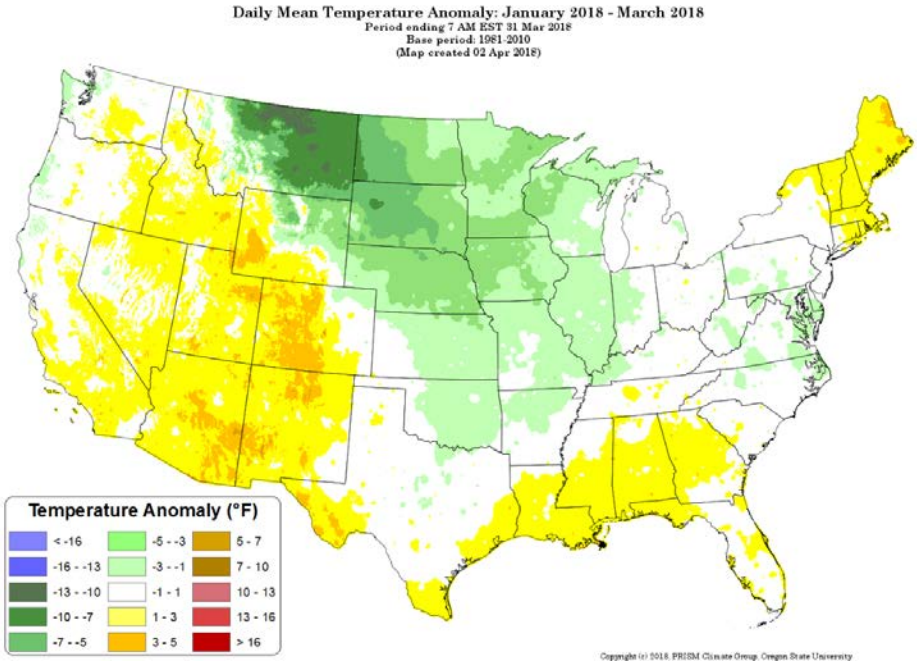
Source: PRISM

Month-to-date national daily mean temperature anomaly map



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

Source: PRISM

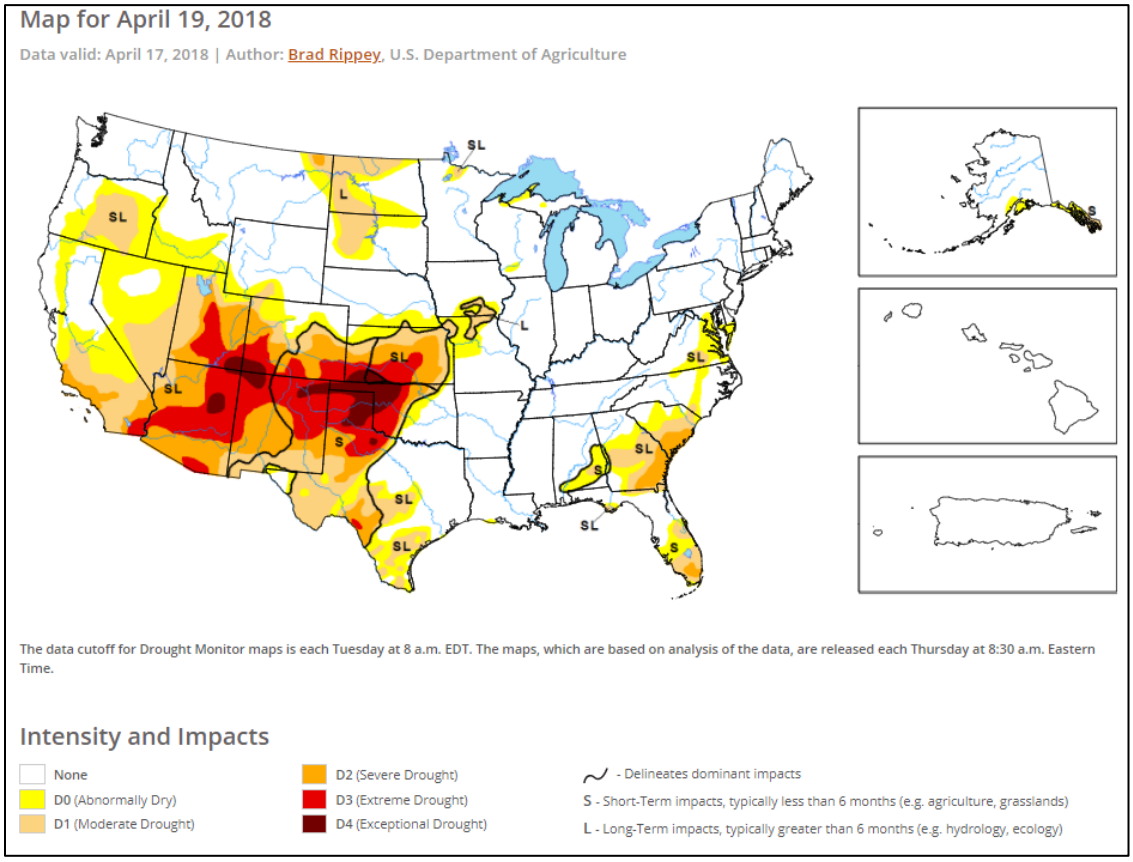


January through March 2018 daily mean temperature anomaly map

Drought

U.S. Drought Monitor Select map below.

U.S. Drought Portal Comprehensive drought resource.



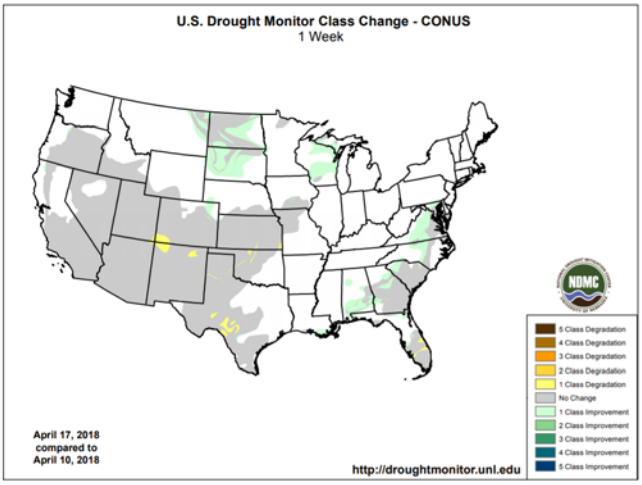
Current National Drought Summary, April 19, 2018

Author: Brad Rippey, U.S. Department of Agriculture

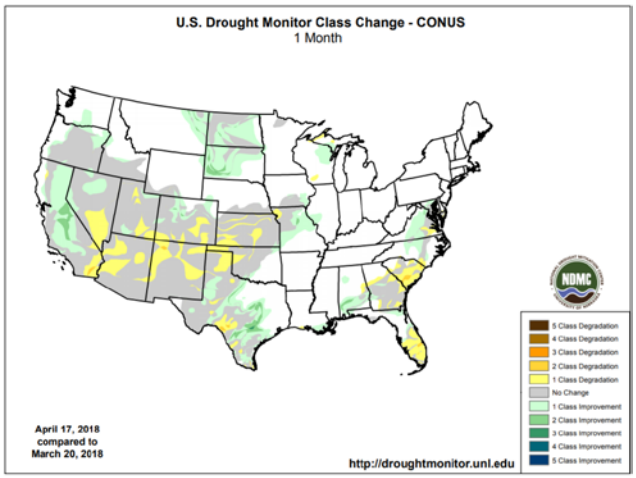
“A powerful spring storm emerged from the West and brought extreme conditions to several regions. For example, historic, late-season snow blanketed portions of the northern Plains, upper Midwest, and Great Lakes region, snarling traffic and severely stressing livestock. Meanwhile, dry, windy weather contributed to a major wildfire outbreak, starting on April 12, and led to blowing dust and further reductions in rangeland, pasture, and crop conditions. Farther east, heavy showers and locally severe thunderstorms swept across portions of the southern and eastern U.S. Elsewhere, unsettled, showery weather lingered in the Northwest, extending as far south as northern California.”

Changes in Drought Monitor Categories over Time

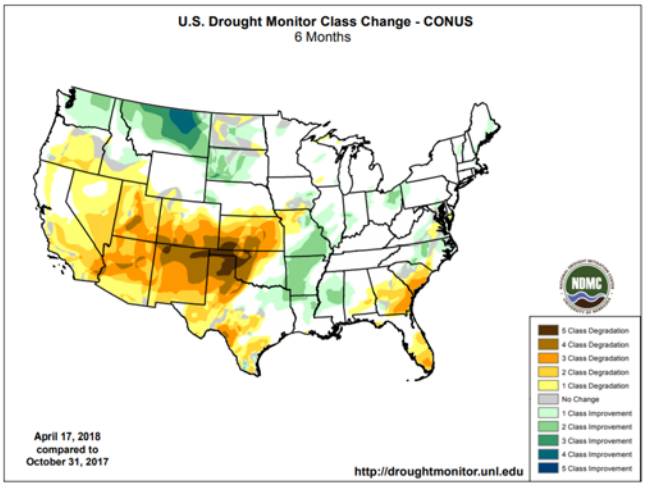
1 Week



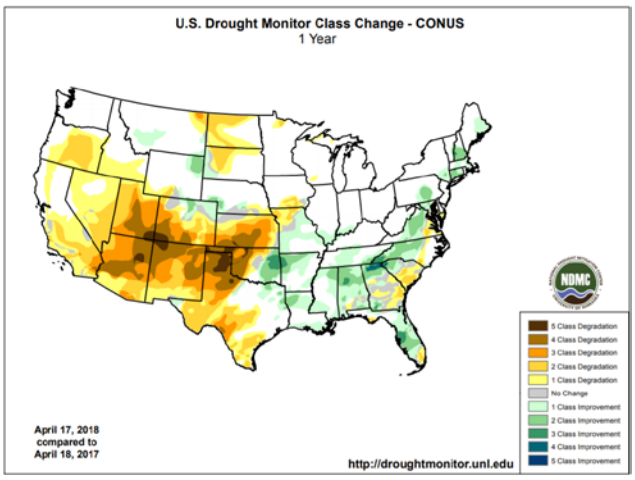
1 Month



6 Months



1 Year

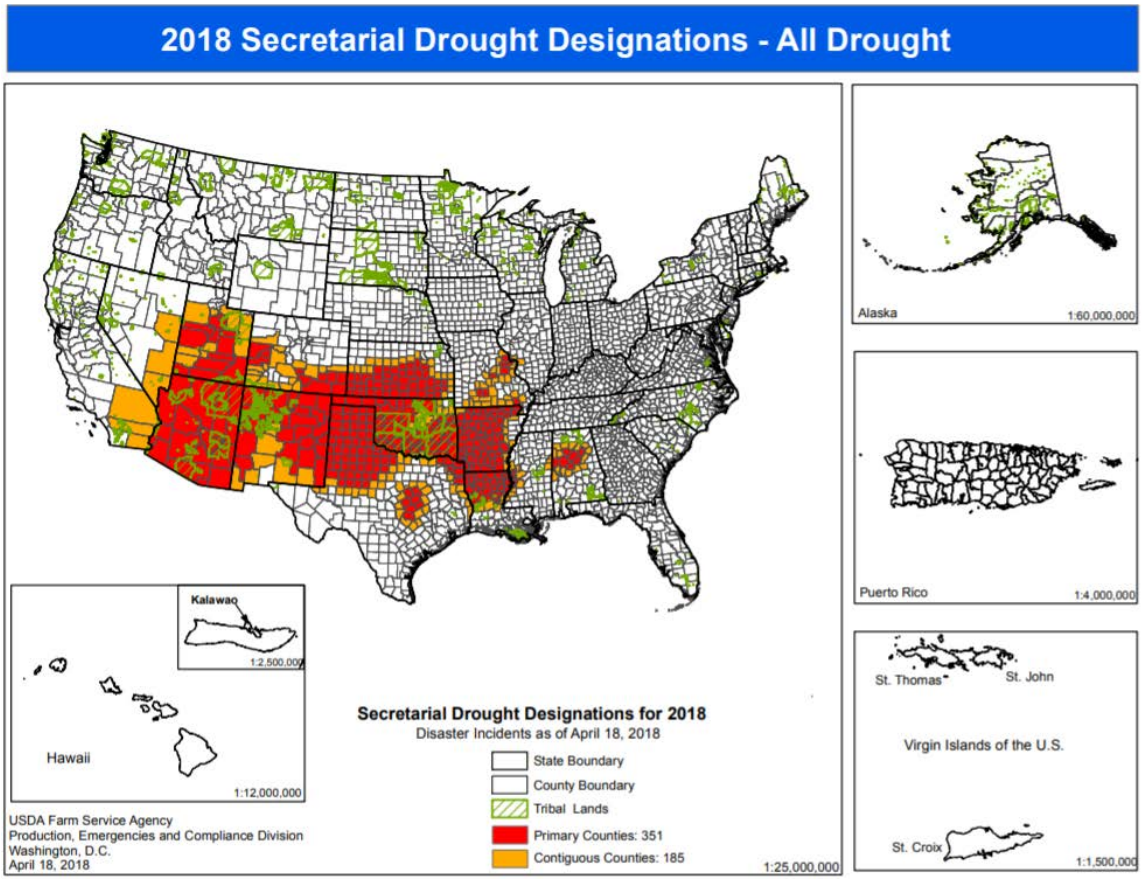


Changes in drought conditions over the last 12 months

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

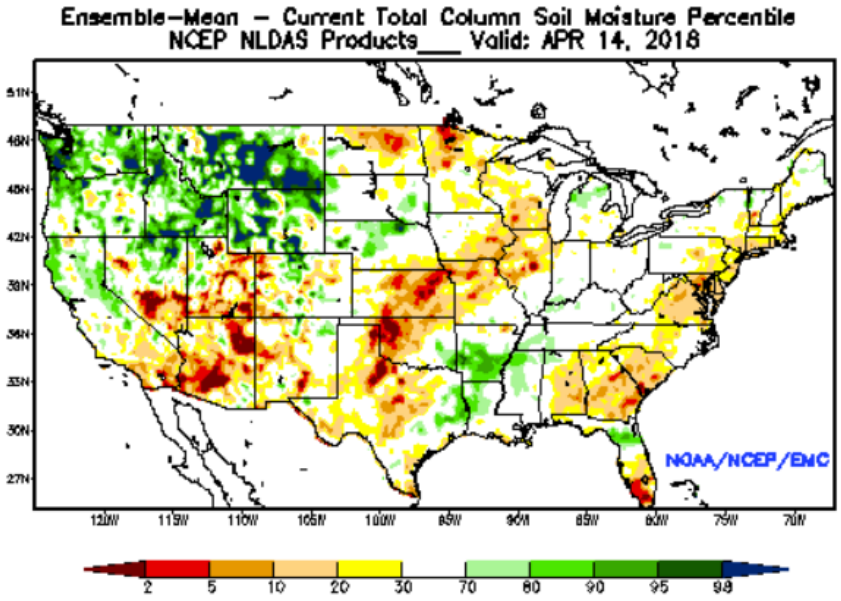
USDA 2018 Secretarial Drought Designations



Other Climatic and Water Supply Indicators

Soil Moisture

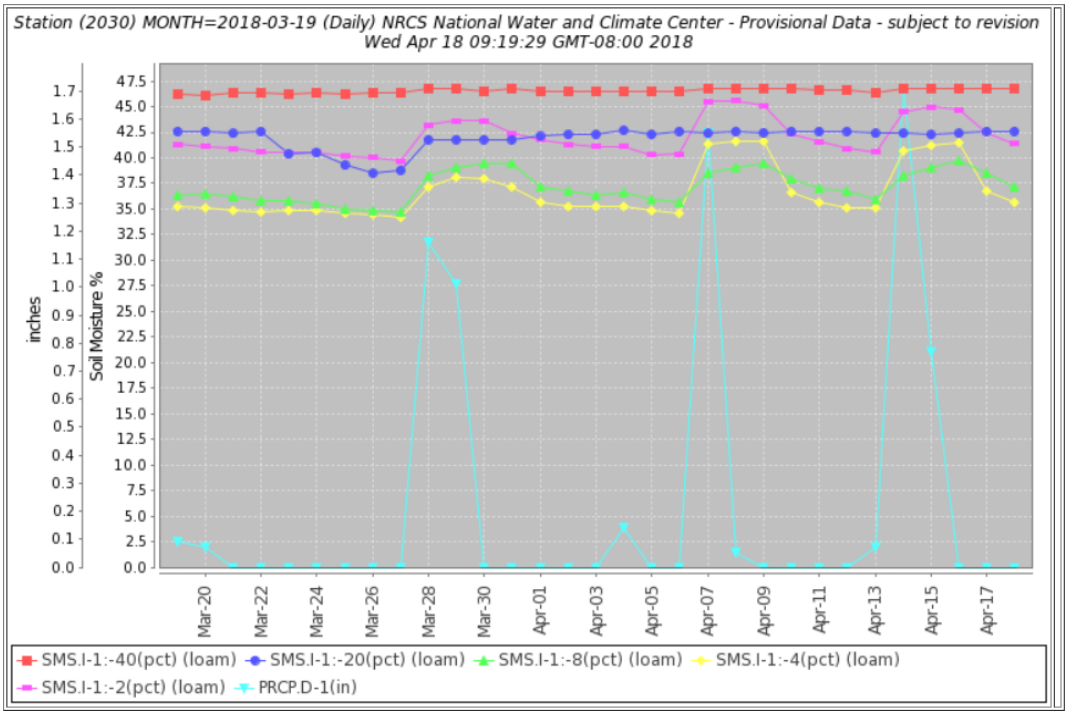
Source: NOAA National Centers for Environmental Prediction



Modeled soil moisture percentiles as of April 14, 2018.

Soil Moisture Data

Source: NRCS Soil Climate Analysis Network (SCAN)



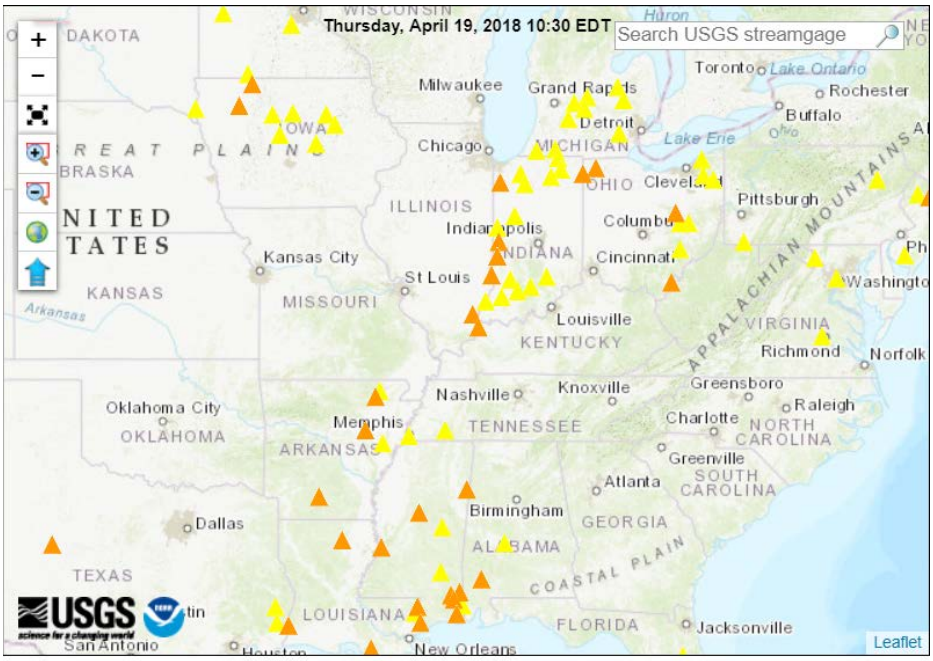
The chart shows precipitation and soil moisture for the last 30 days at the Uapb-Lonoke Farm SCAN site 2030 in Arkansas. The three major precipitation events this month increased soil moisture at the 2-, 4-, and 8-inch sensors. The 20-inch sensor responded only to the first precipitation event. The 40-inch sensor was unchanged.

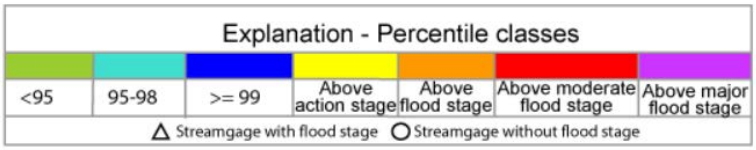
Soil Moisture Data Portals

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

Streamflow

Source: USGS



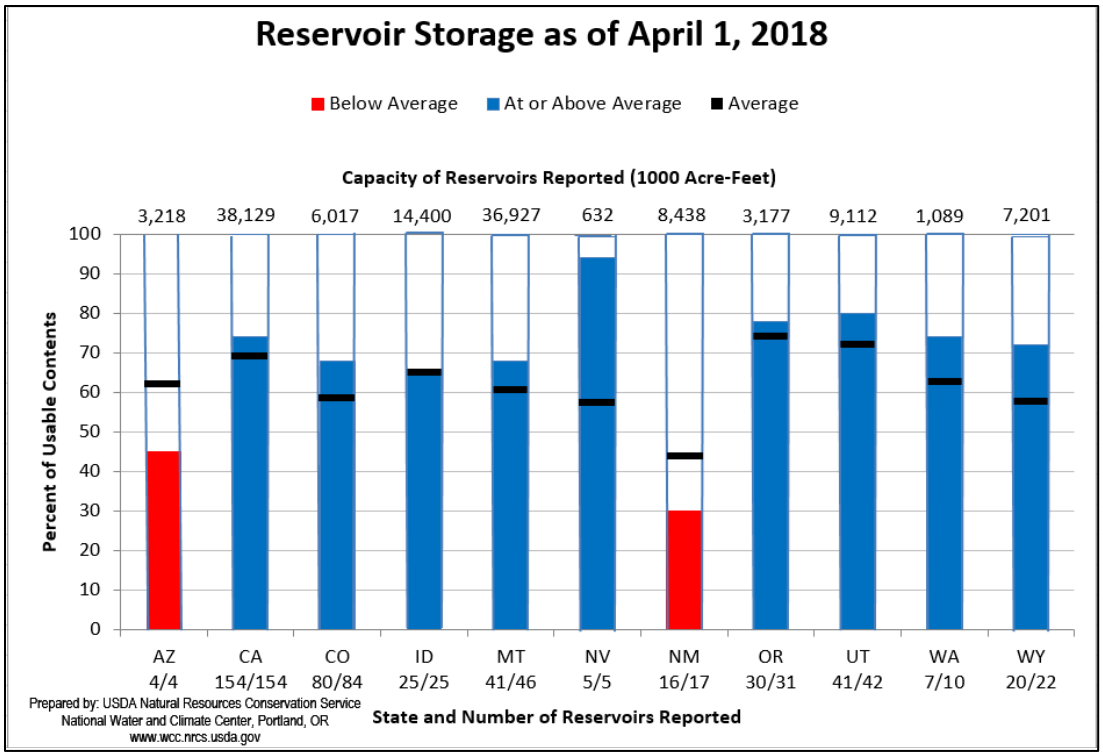


WaterWatch: Streamflow, drought, flood, and runoff conditions

Reservoir Storage

Western States Reservoir Storage

Source: NRCS National Water and Climate Center

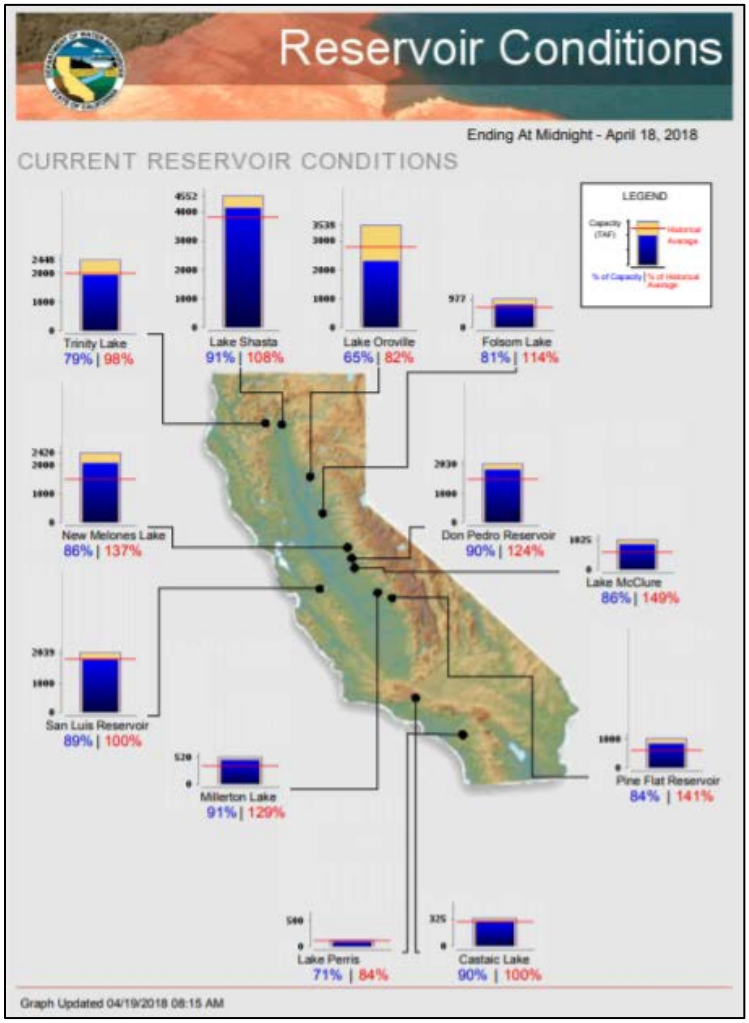


April 1 Reservoir Storage: Chart | Dataset

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

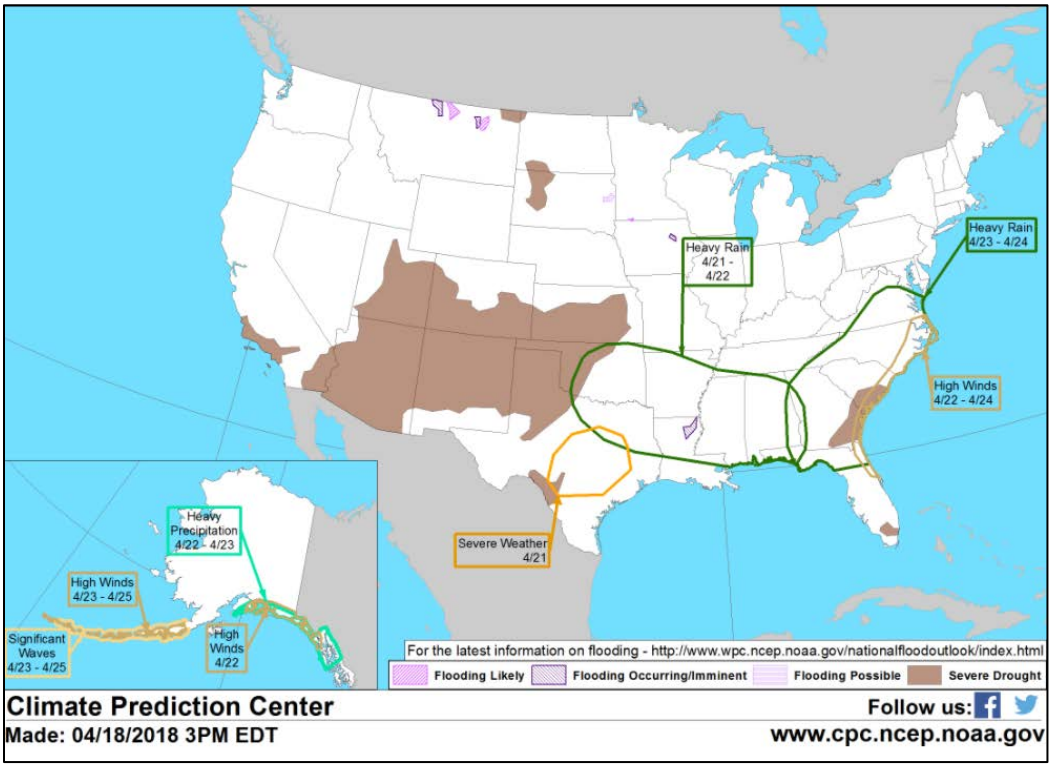
Agricultural Weather Highlights

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

National Outlook, Thursday, April 19: "A storm system centered over the southern Great Basin will cross the southern Plains during the weekend and reach the Southeast early next week. The storm will produce heavy snow in the central Rockies on Friday, and could result in 0.5- to 1.5-inch weekend rainfall totals across portions of the southern Plains. In the Southeast, heavy showers and locally severe thunderstorms can be expected early next week, with some areas receiving 2 to 4 inches of rain. Meanwhile in the West, warmer, mostly dry weather will trail the departing storm system. Elsewhere, favorably dry weather should prevail during the next 5 days across the Midwest, accompanied by slowly moderating temperatures. The NWS 6- to 10-day outlook for April 24 – 28 calls for the likelihood of near- to below-normal temperatures across the eastern half of the U.S., except in northern New England, while warmer-than-normal weather will prevail in the West. Meanwhile, near- to below-normal precipitation across the majority of the country should contrast with wetter-than-normal conditions in a few areas, including the Atlantic Coast States and central and southern sections of the Rockies and High Plains."

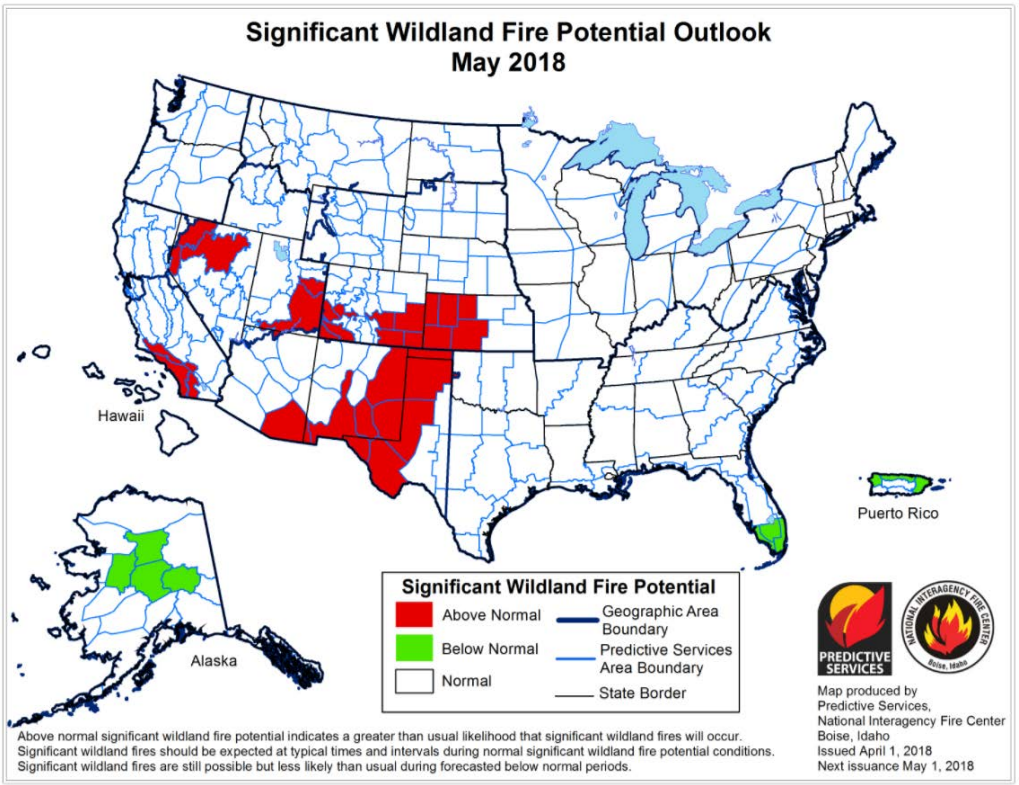
Weather Hazard Outlook [April 21 - April 25, 2018]

Source: Climate Prediction Center



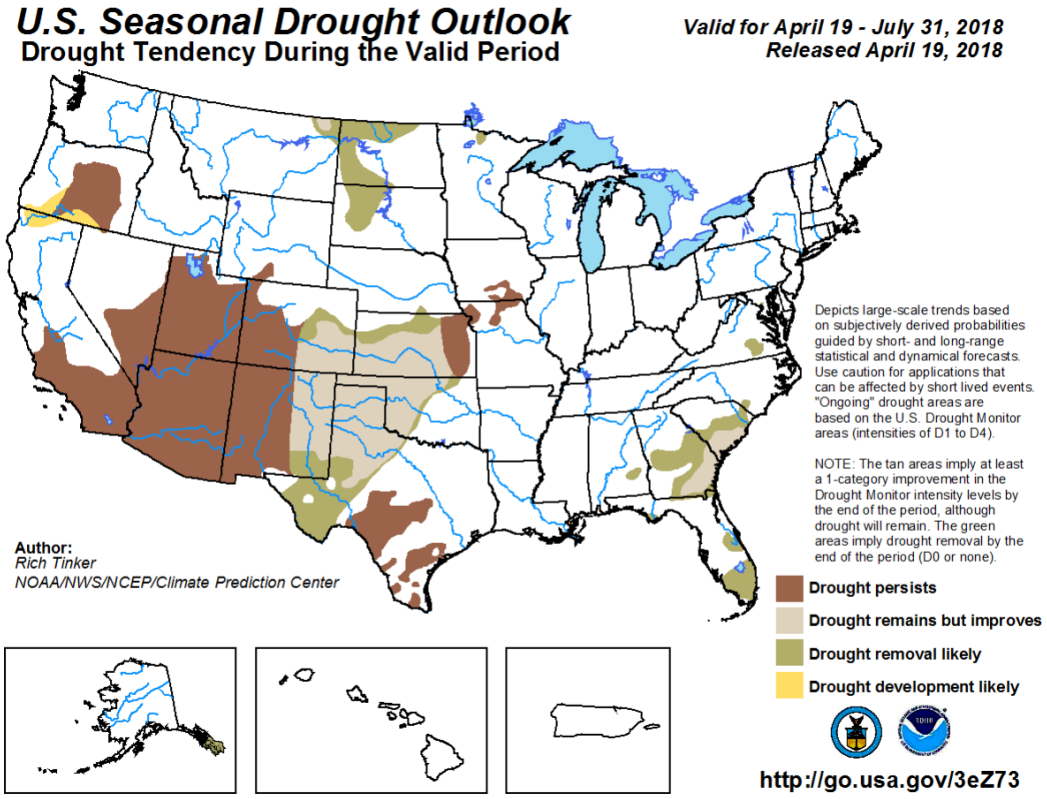
Significant Wildland [Fire Potential Outlook]

Source: National Interagency Fire Center



Seasonal Drought Outlook: April 19 - July 31, 2018

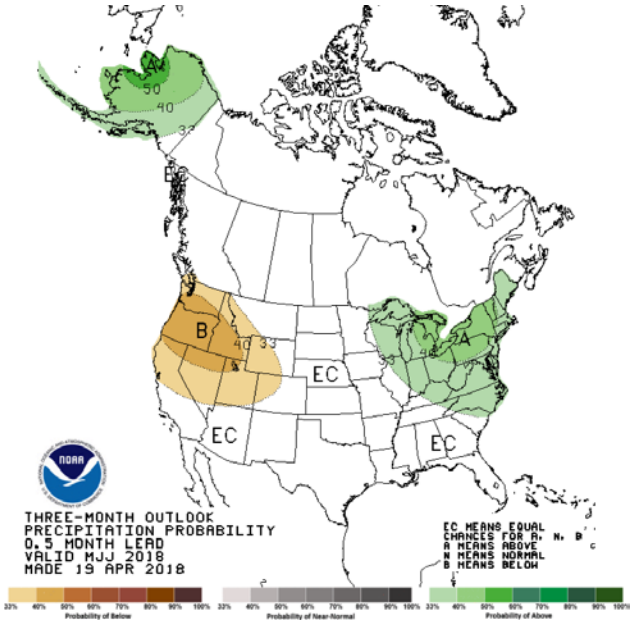
Source: National Weather Service



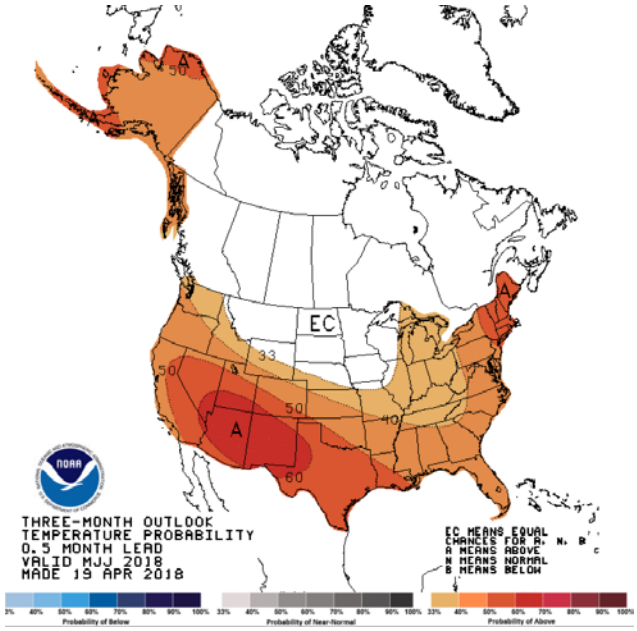
Climate Prediction Center 3-Month Outlook

Source: National Weather Service

Precipitation



Temperature



May-June-July (MJJ) 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.