

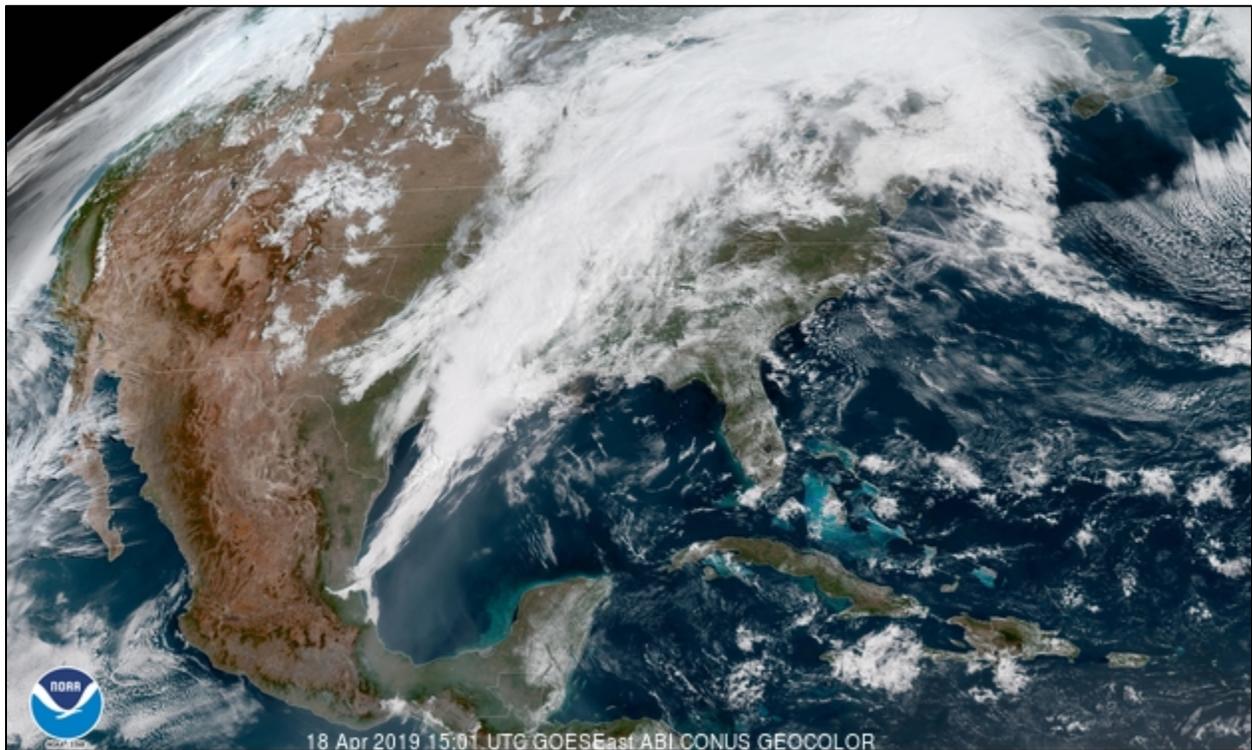
Water and Climate Update

April 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.

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Severe storms strike the South, Midwest, and East



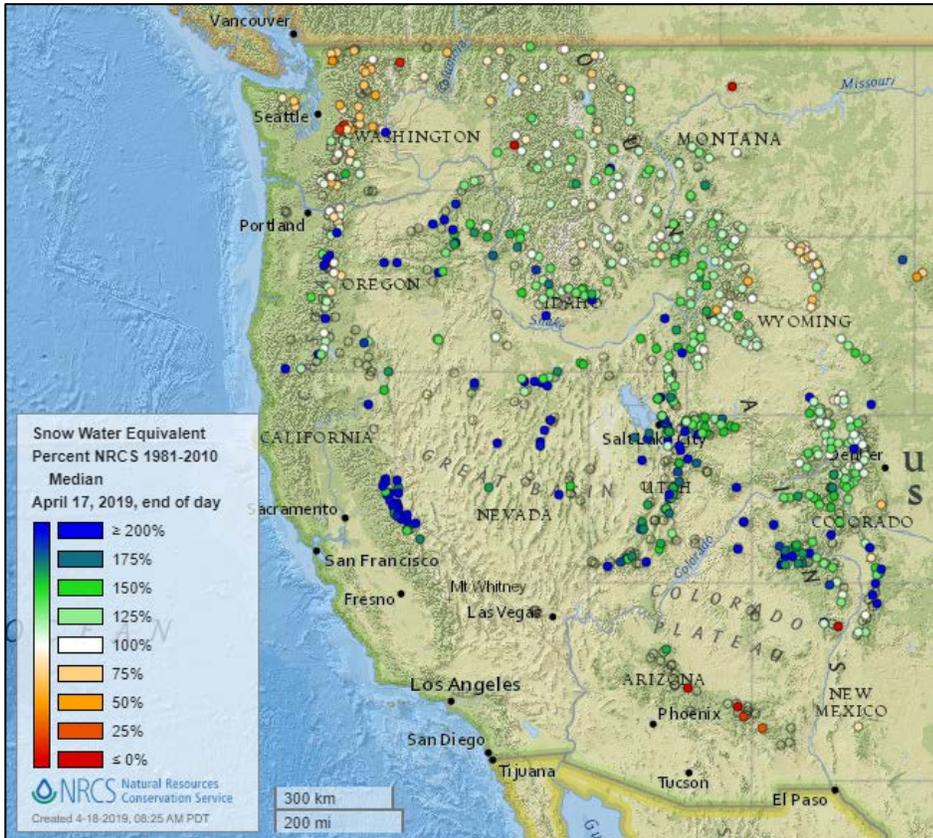
The National Weather Service has forecast a multi-day weather event with severe storms and heavy rainfall impacting an area from the Texas Panhandle to the central Great Lakes. This powerful storm will be the second in less than a week to strike the region. Storms capable of strong tornadoes, large hail, and wind damage are forecast across the Gulf Coast states, with flash flooding possible from the central Gulf Coast to the Ohio Valley. These threats will move toward the East Coast on Friday.

Related:

- [2nd multi-day severe weather, tornado outbreak in a week looms for US](#), AccuWeather
- [Severe weather threat moves into Deep South, threatens East Coast over holiday weekend](#), ABC News
- [Severe Storms Leave Damage in Texas and Oklahoma; Flooding in Arkansas](#), The Weather Channel
- [Severe storms could produce baseball-sized hail, tornadoes, torrential rain](#), CBS News

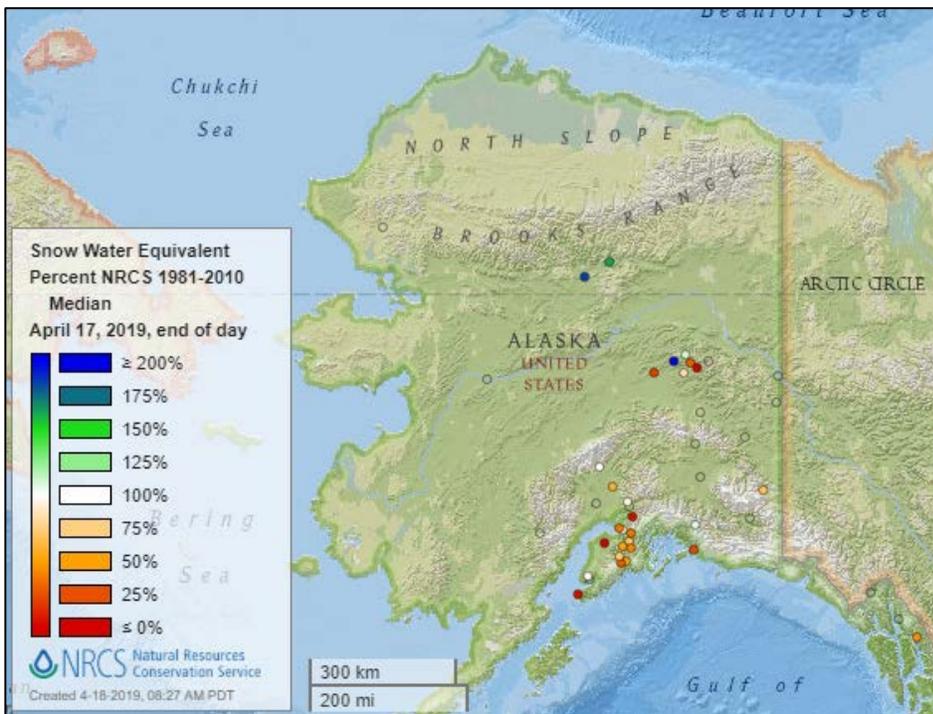
Snow

Current Snow Water Equivalent, NRCS SNOTEL Network



[Snow water equivalent percent of median map](#)

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

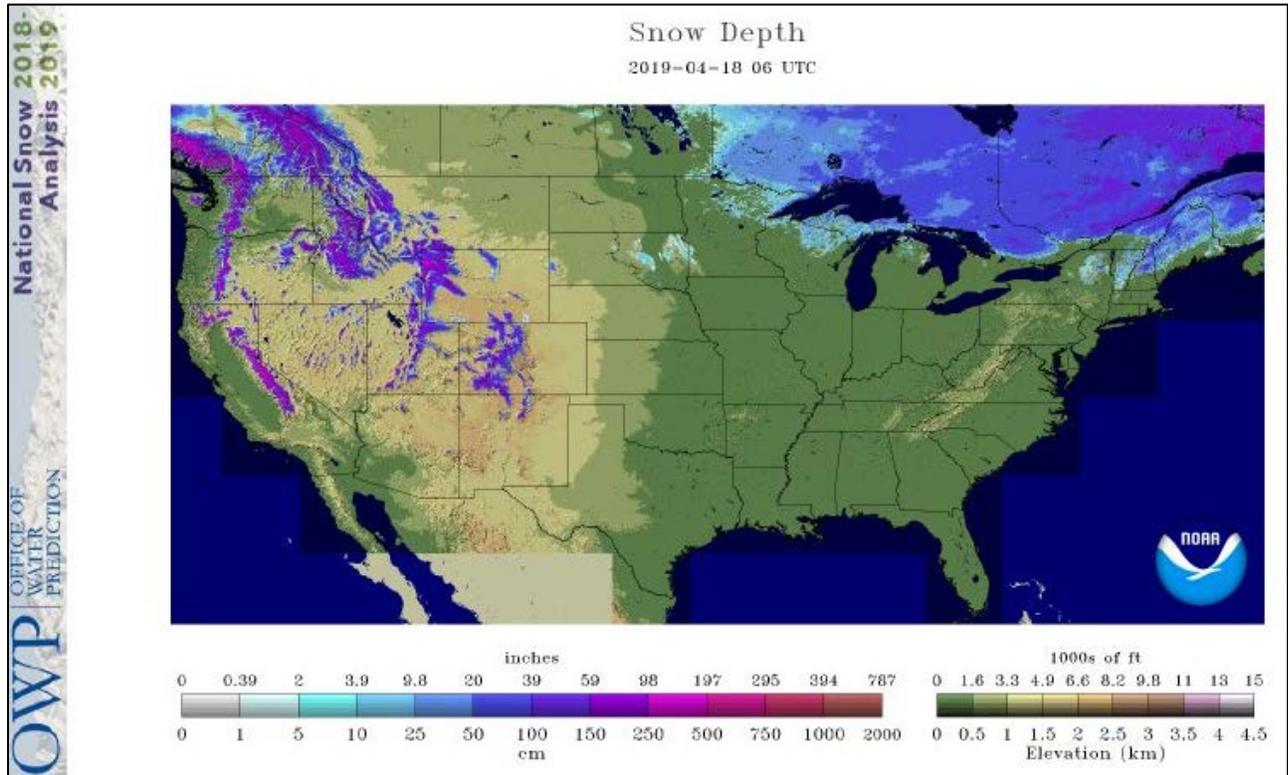


[Alaska snow water equivalent percent of median map](#)

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

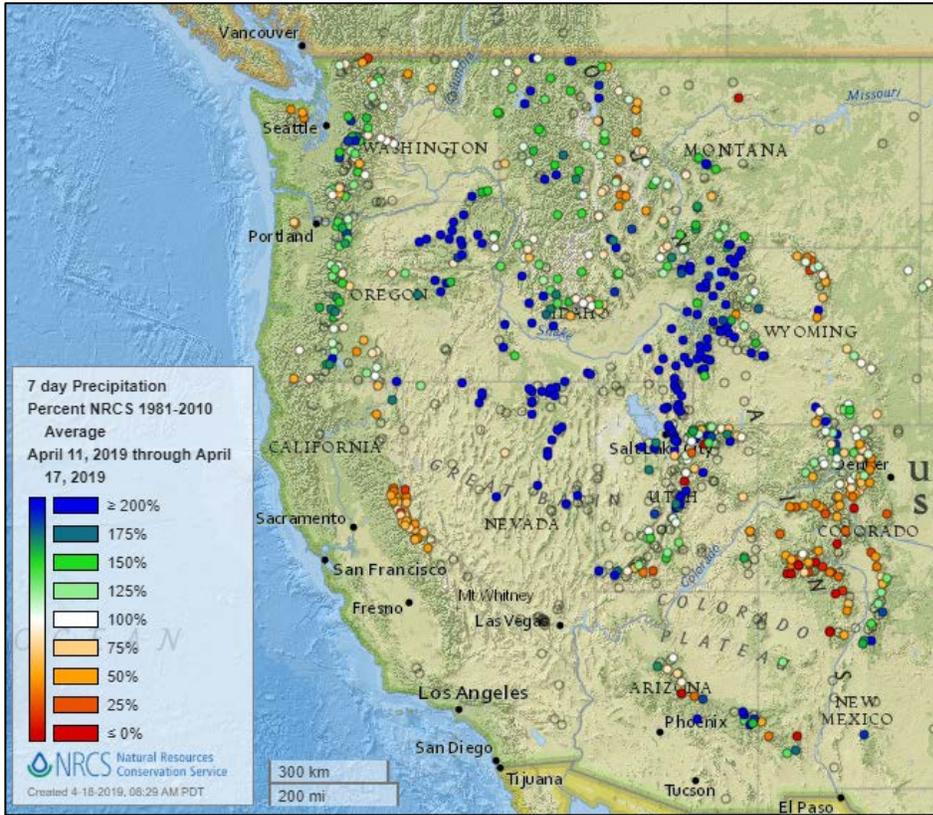
Current Snow Depth

Source: National Weather Service Snow Analysis



Precipitation

Last 7 Days, NRCS SNOTEL Network

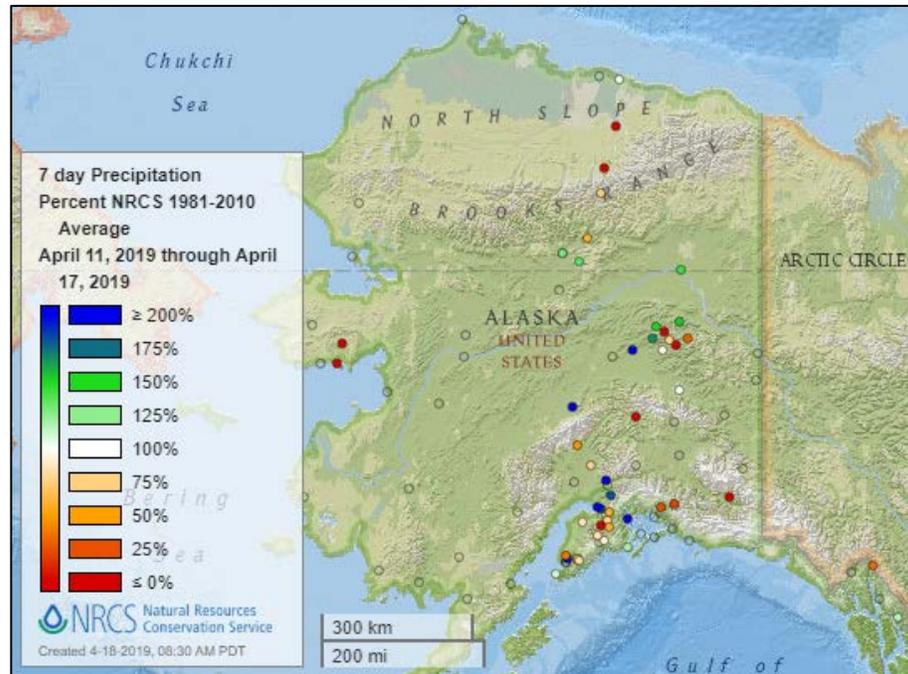


[7-day precipitation percent of average map](#)

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](#)



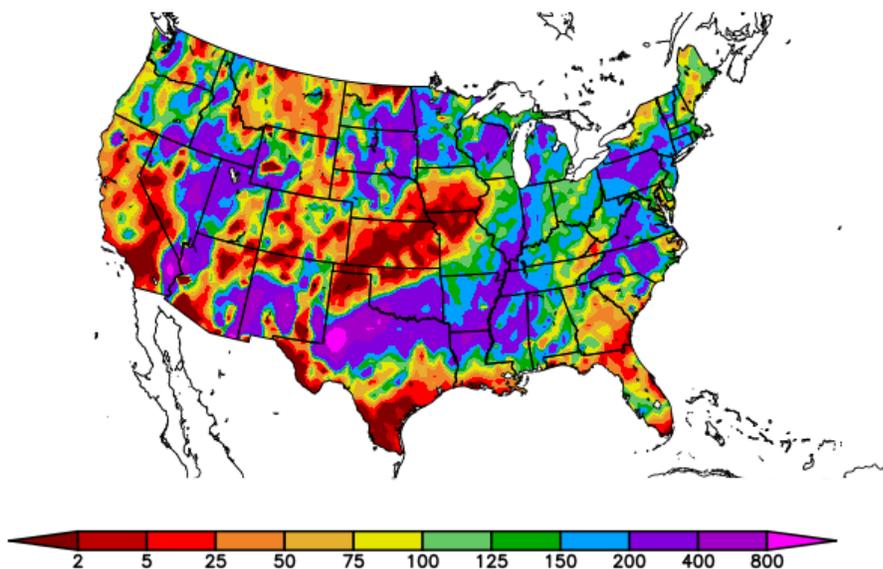
Last 7 Days, National Weather Service (NWS) Networks

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](#)

Percent of Normal Precipitation (%)
4/11/2019 – 4/17/2019



Generated 4/18/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

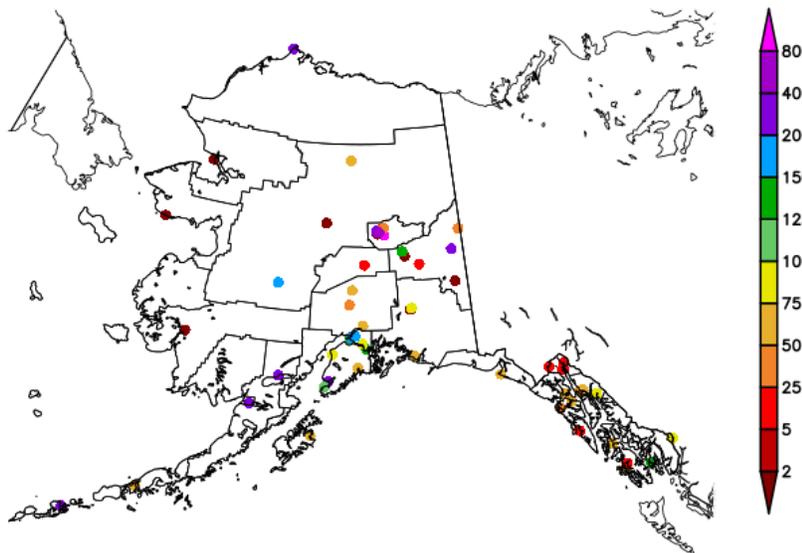
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Percent of Normal Precipitation (%)
4/11/2019 – 4/17/2019

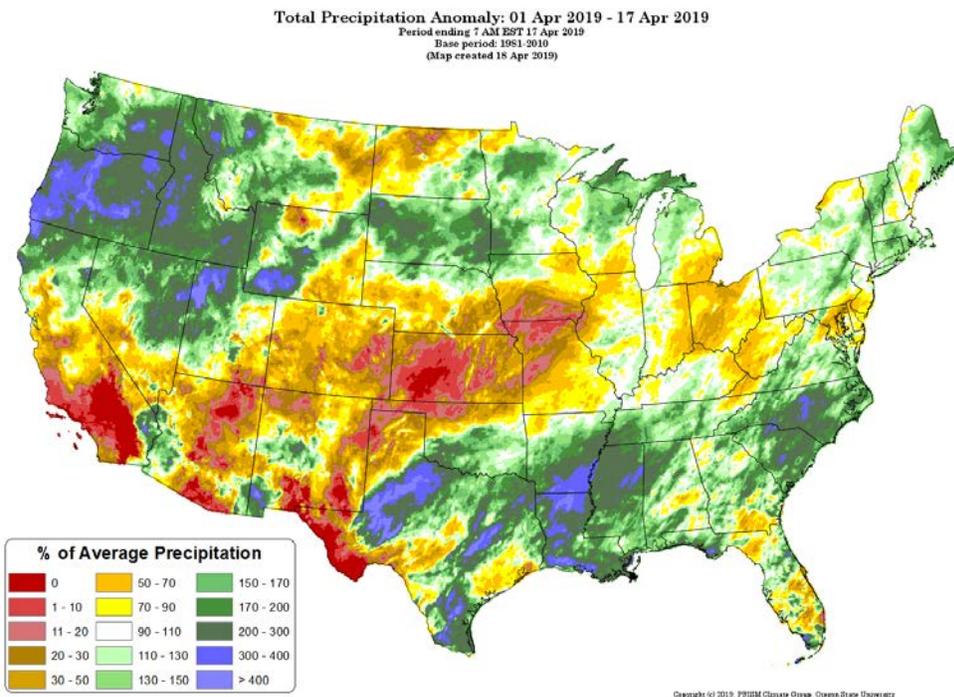


Generated 4/18/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

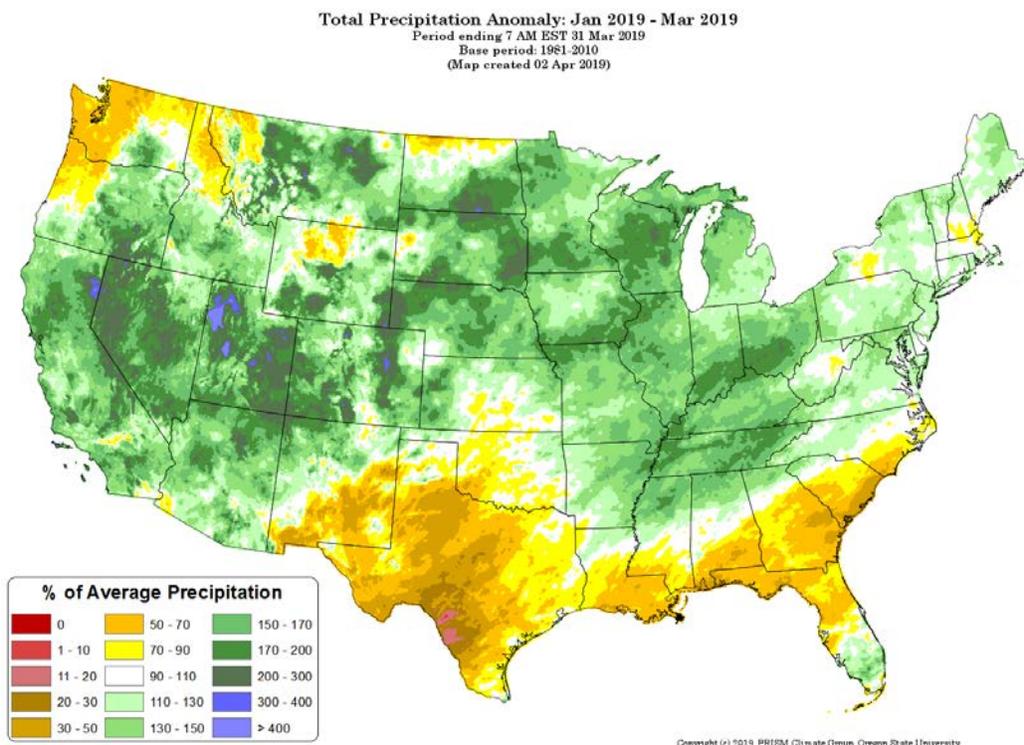


[Month-to-date national total precipitation percent of average map](#)

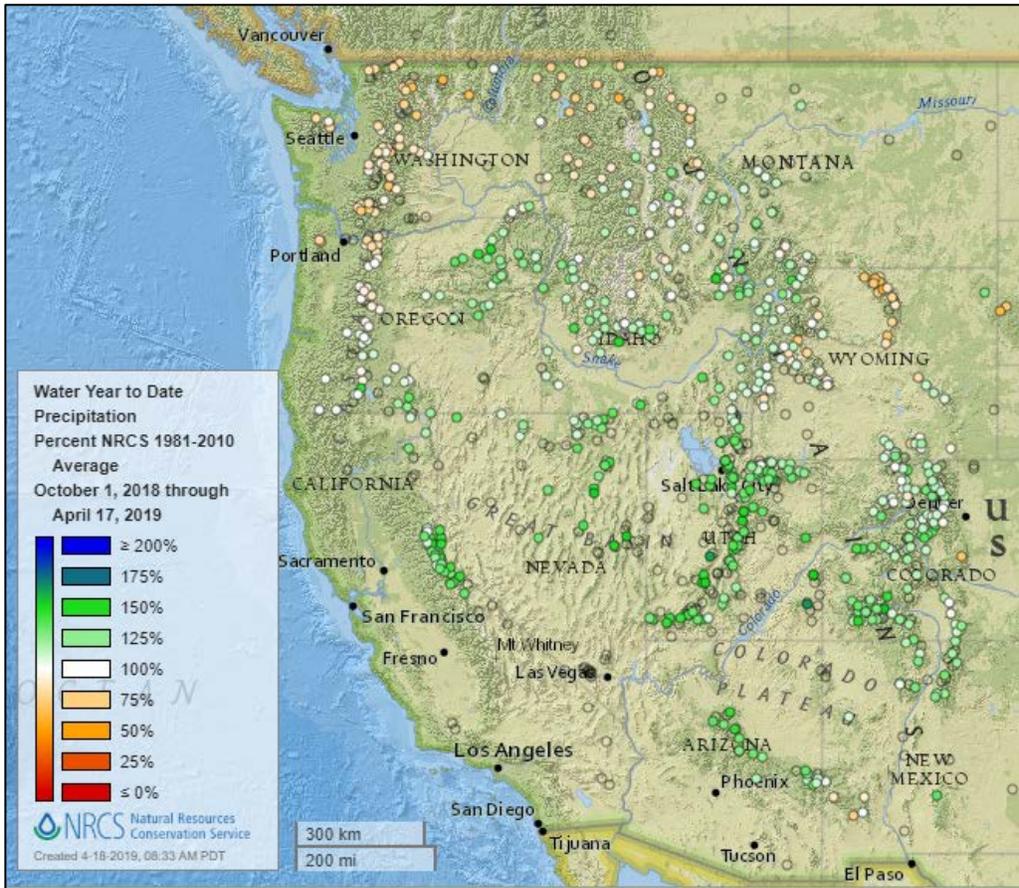
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

[January through March 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

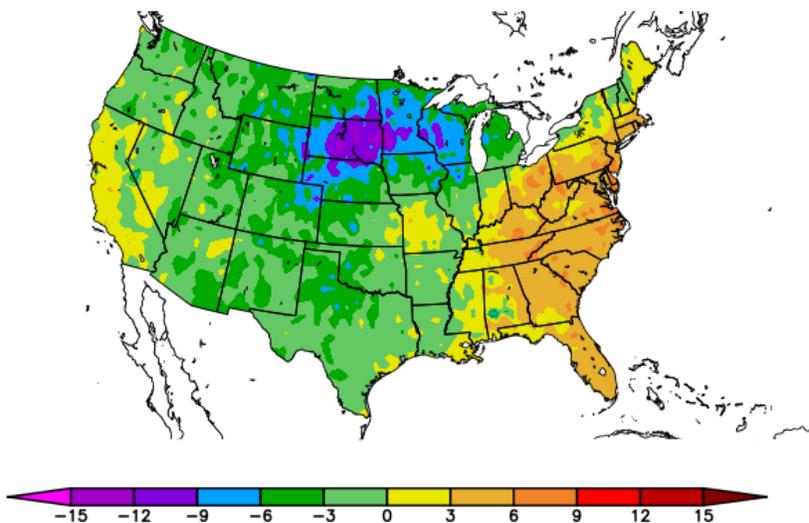
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
4/11/2019 – 4/17/2019



Generated 4/18/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

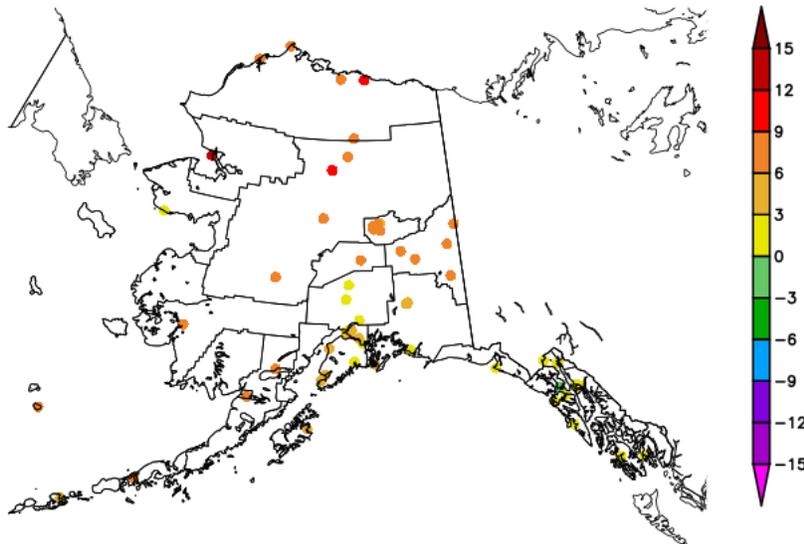
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
4/11/2019 – 4/17/2019



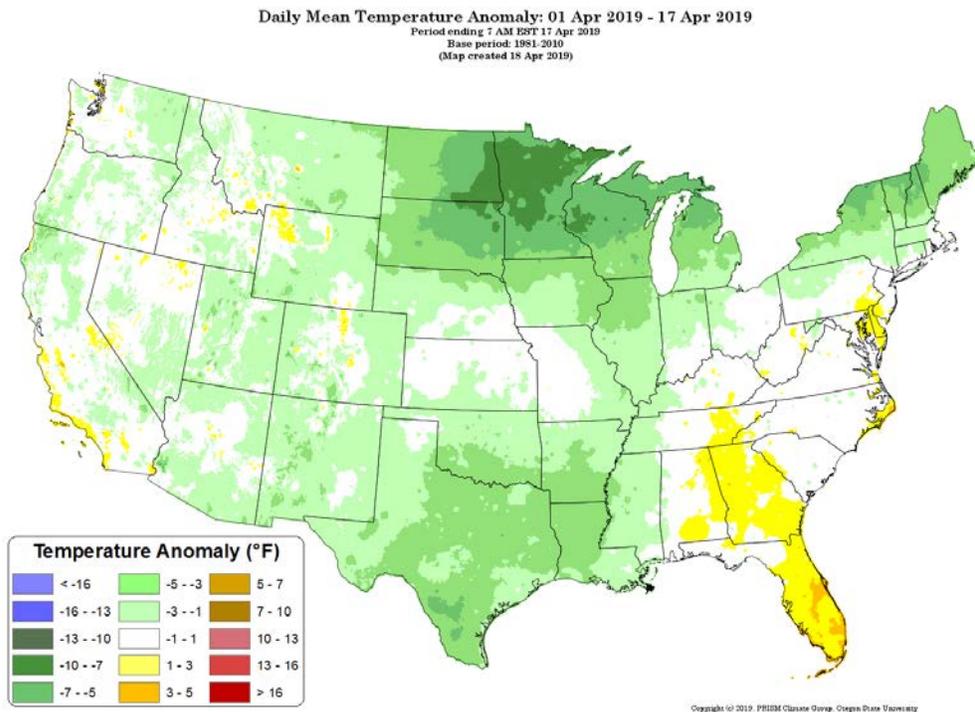
Generated 4/18/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Source: PRISM

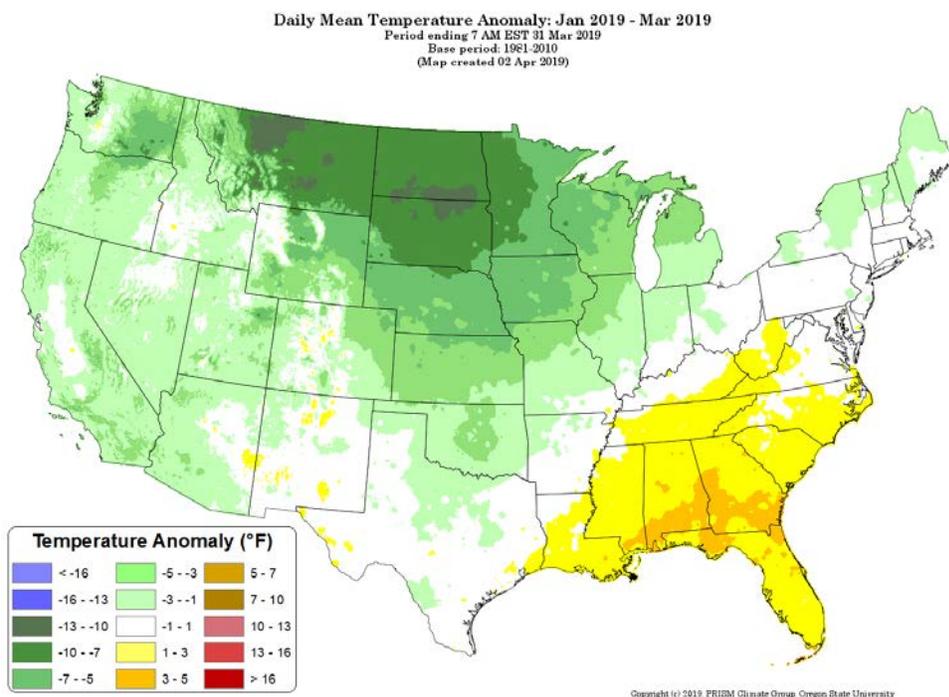
[Month-to-date national daily mean temperature anomaly map](#)



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

Source: PRISM

[January through March 2019 daily mean temperature anomaly map](#)



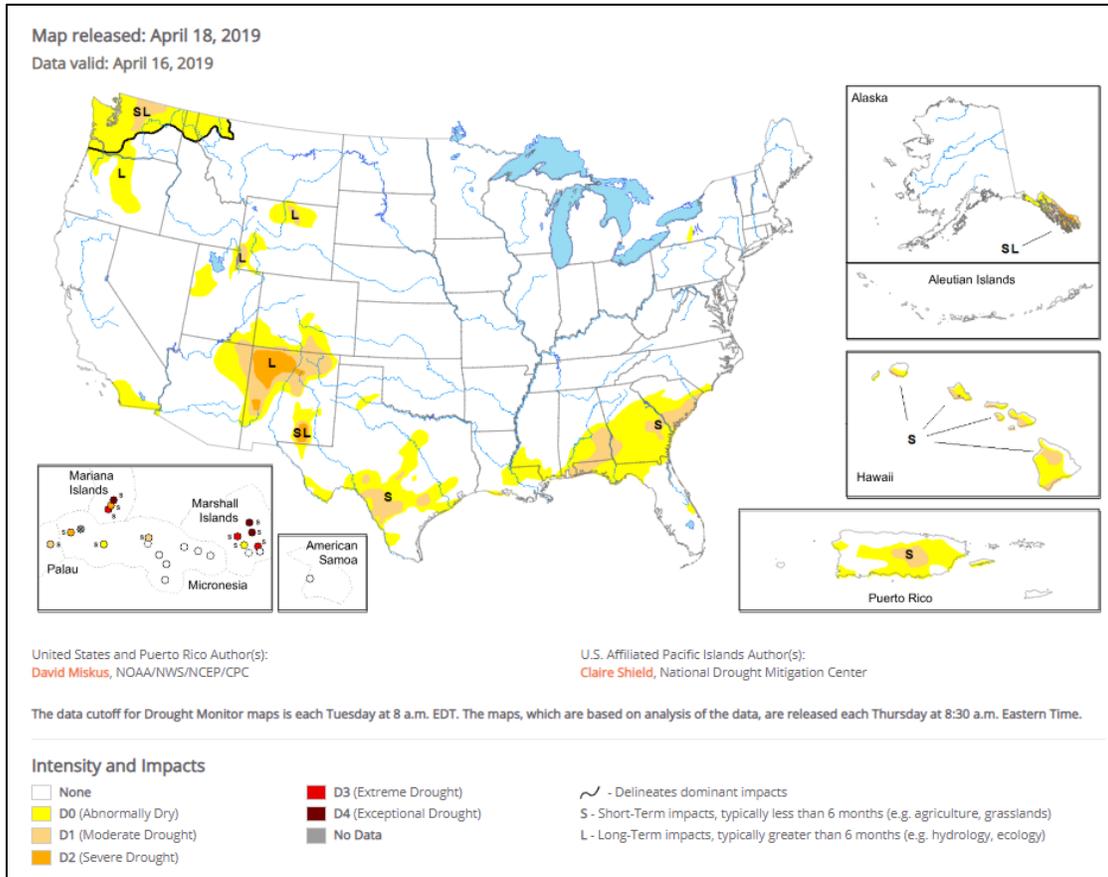
Drought

[U.S. Drought Monitor](#)

Source: National Drought Mitigation Center

[U.S. Drought Portal](#)

Source: NOAA



[Current National Drought Summary, April 18, 2019](#)

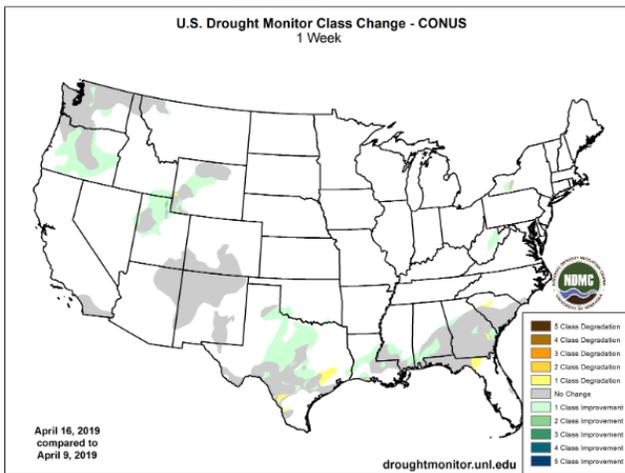
Source: National Drought Mitigation Center

“Two rapidly-moving strong storm systems, one ‘bombing out’ in the central Plains during mid-week while a second storm intensified over the middle Mississippi Valley during the weekend, brought severe weather and widespread precipitation to many areas of the lower 48 States, including heavy snows to parts of the north-central Rockies, north-central Plains, and western Great Lakes region. In the Northwest, moderate precipitation falling on an unseasonably late (and above-normal) mountain snow pack (due to a minimal melt from a cold spring) produced near- to record high stream flows in much of Oregon and southern Washington. Widespread precipitation, including mountain snows, fell across Idaho, Montana, northeastern Nevada, Utah, and Wyoming. In the Plains, moderate to heavy rains (1-3 inches) were measured in the south-central sections (Oklahoma and Texas), which then moved into the lower Mississippi and Tennessee Valleys (up to 6 inches in northern Louisiana). To the north in colder air, South Dakota was buried under heavy snow (locally over 2 feet). Moderate to heavy snows also blanketed Minnesota, Wisconsin, northern Michigan, and northern Illinois. Meanwhile, light to moderate precipitation was measured in the eastern third of the Nation, with a stripe of heavier rainfall (1.5-3 inches) falling from northern Georgia northeastward into southern New England. In contrast, most of the Southwest, extreme southern, central, and extreme northern Plains saw little or no precipitation. Temperatures generally averaged below-normal in the western two-thirds of the U.S., especially in the northern Plains and upper Midwest (6 to 12 degF), and above-normal in the eastern third of the Nation (6 to 9 degF in the Carolinas).”

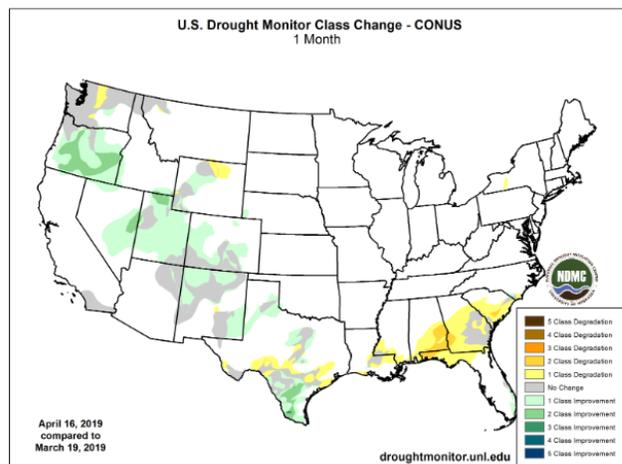
Changes in Drought Monitor Categories over Time

Source: National Drought Mitigation Center

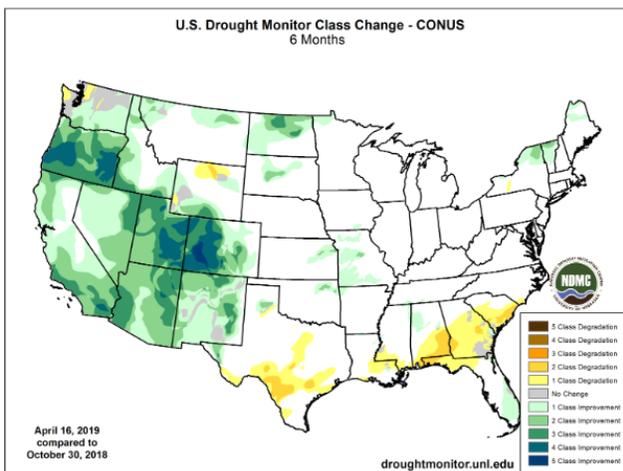
1 Week



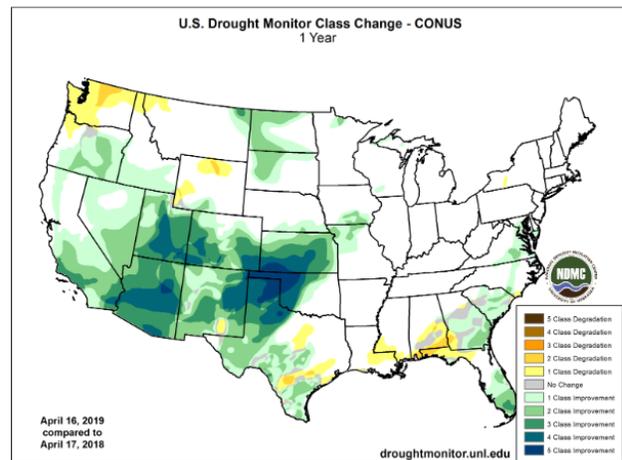
1 Month



6 Months



1 Year



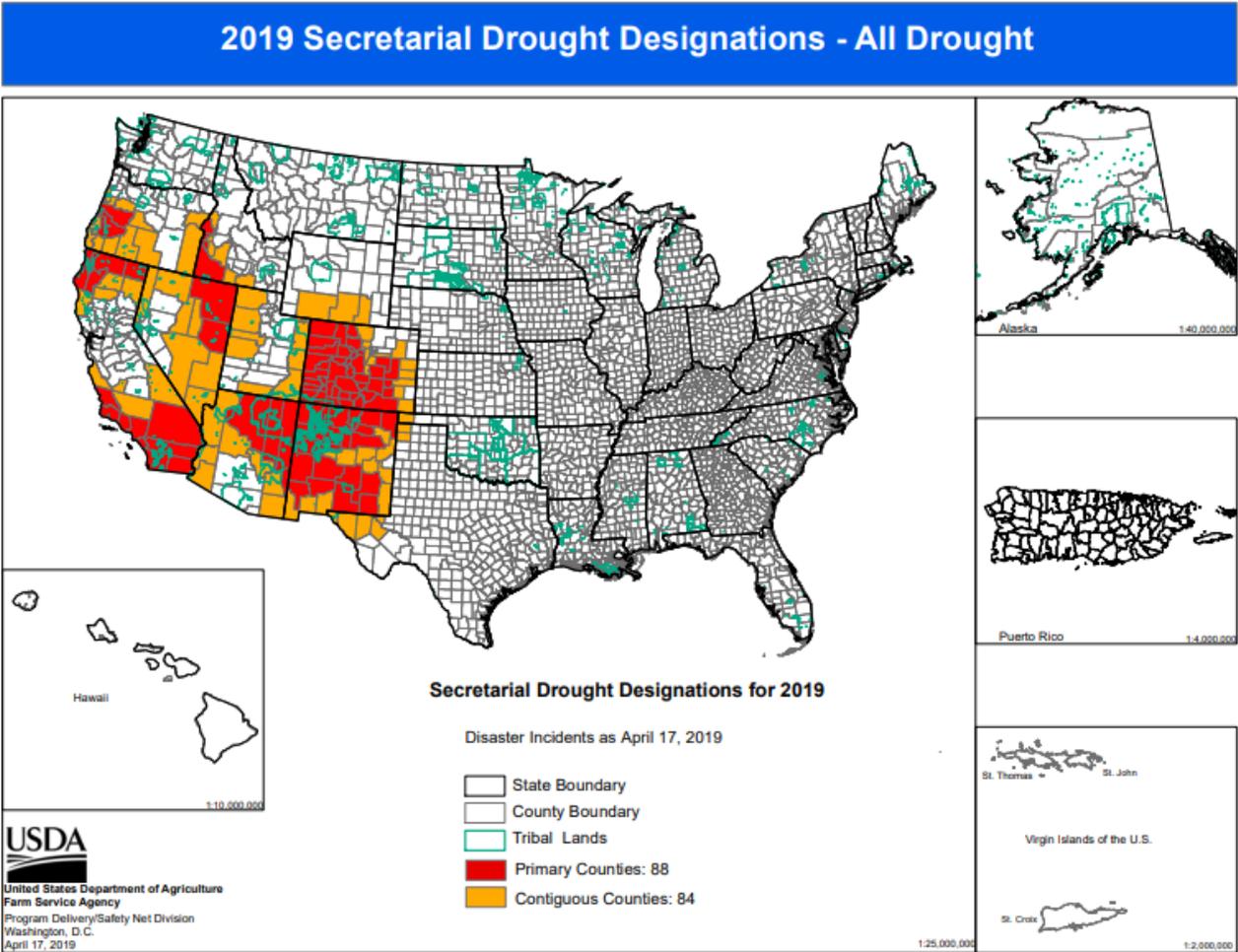
[Changes in drought conditions over the last 12 months for the contiguous U.S.](#)

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

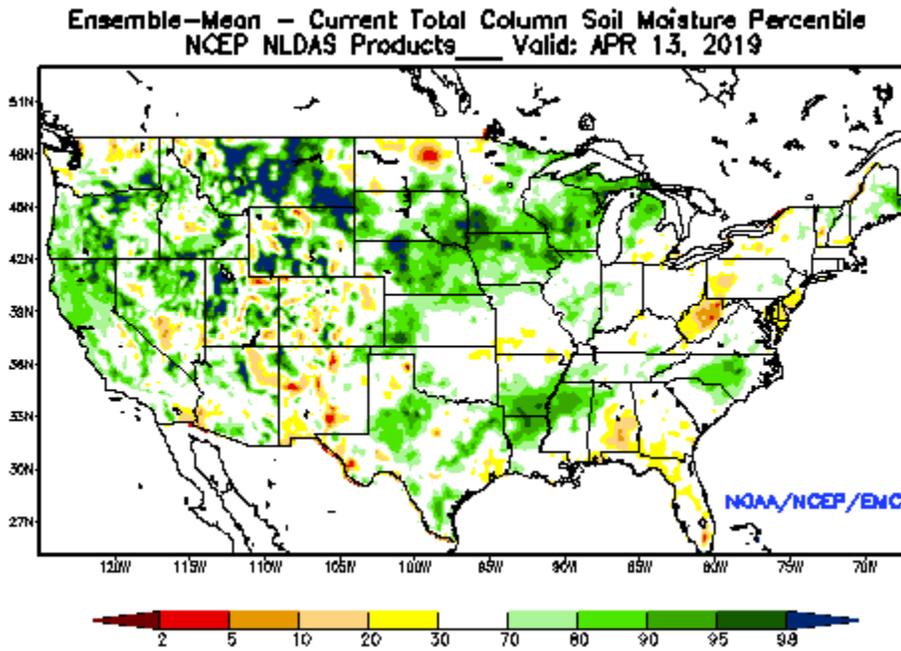
Source: USDA Farm Service Agency



Other Climatic and Water Supply Indicators

Soil Moisture

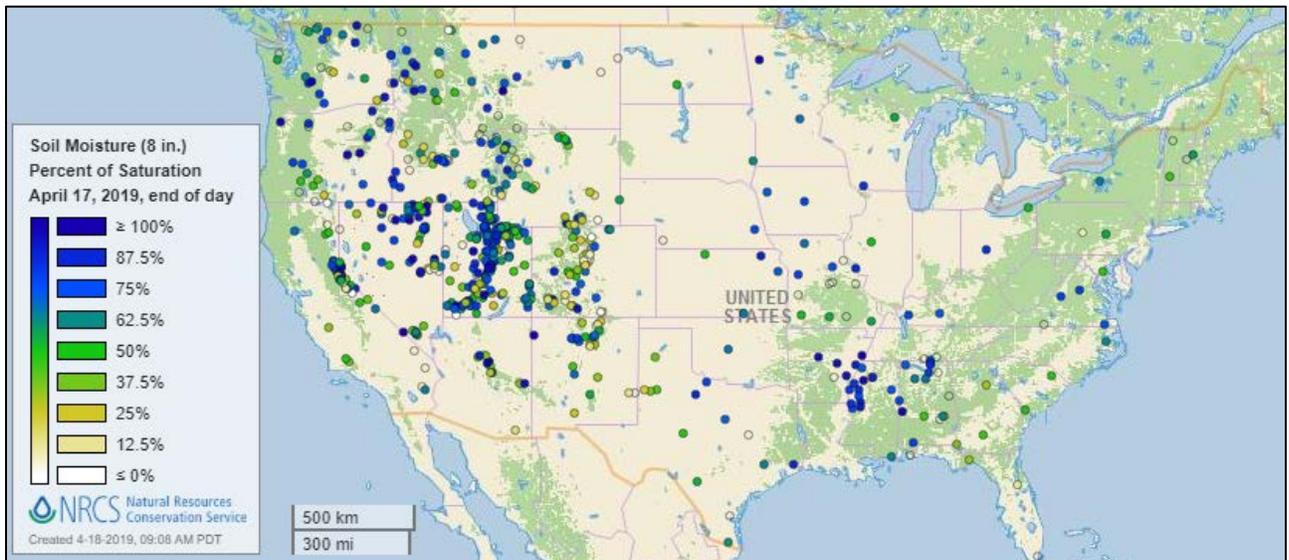
Source: NOAA National Centers for Environmental Prediction



[Modeled soil moisture percentiles](#) as of April 13, 2019

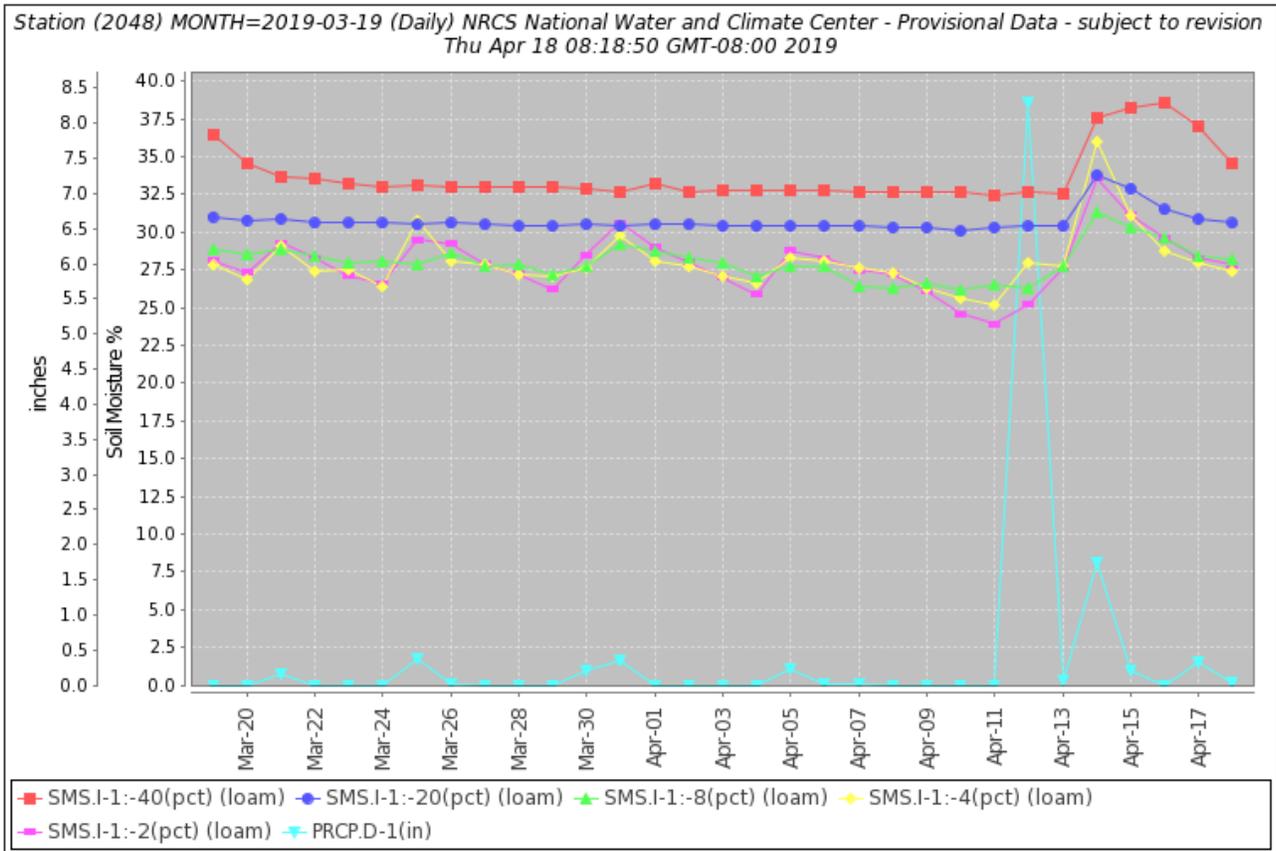
Soil Moisture Percent of Saturation

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



Soil Moisture Data

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



This graph shows the precipitation and soil moisture for the last 30 days at the [Dexter SCAN site](#) in Missouri. A large storm on April 11 produced 8.3 inches of precipitation, followed by an overall increase in soil moisture at all sensor levels.

Soil Moisture Data Portals

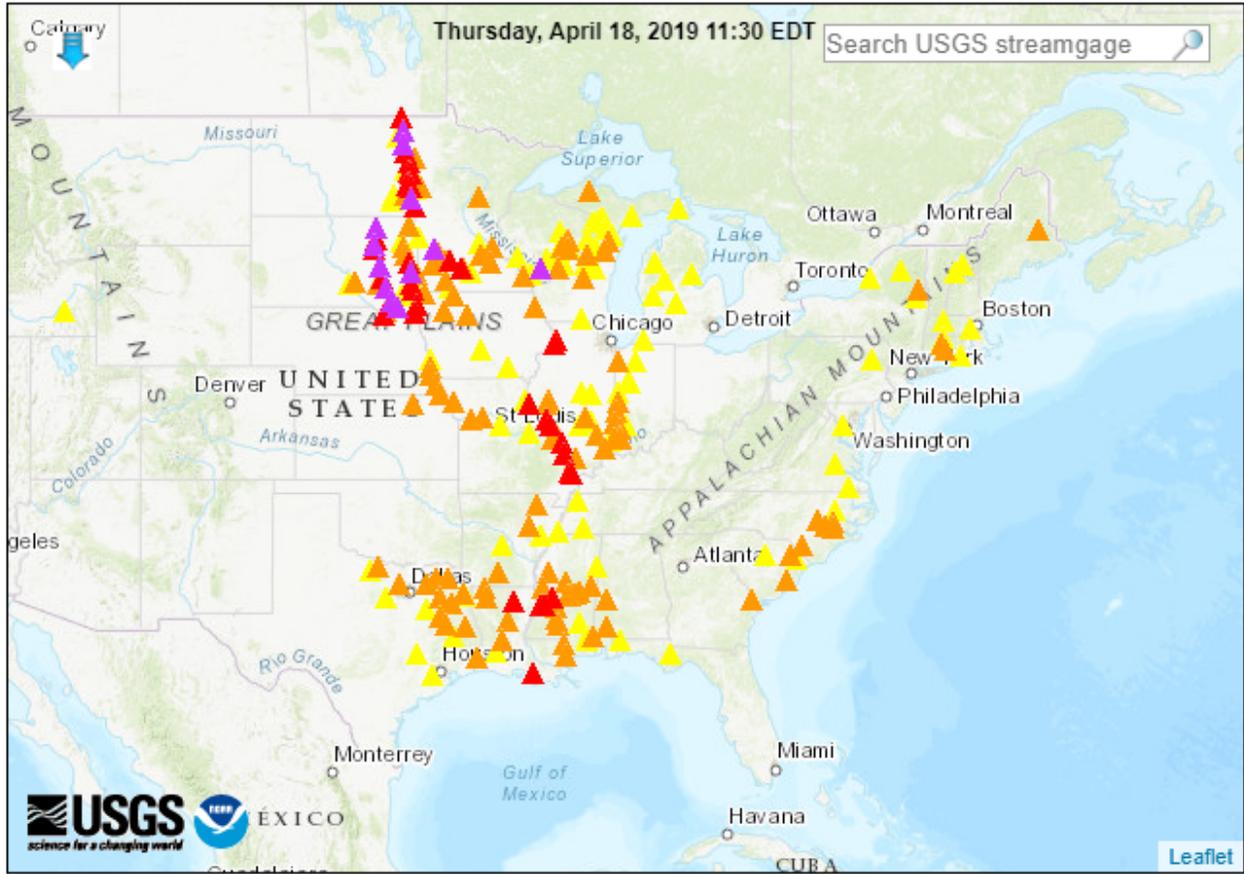
- [CRN Soil Moisture](#)
- [Texas A&M University North American Soil Moisture Database](#)
- [University of Washington Experimental Modeled Soil Moisture](#)

Streamflow, Drought, Flood, and Runoff

Source: U.S. Geological Survey

Map of flood and high flow conditions

(12 in major flood, 34 in moderate flood, 108 in minor flood, 98 in near flood)



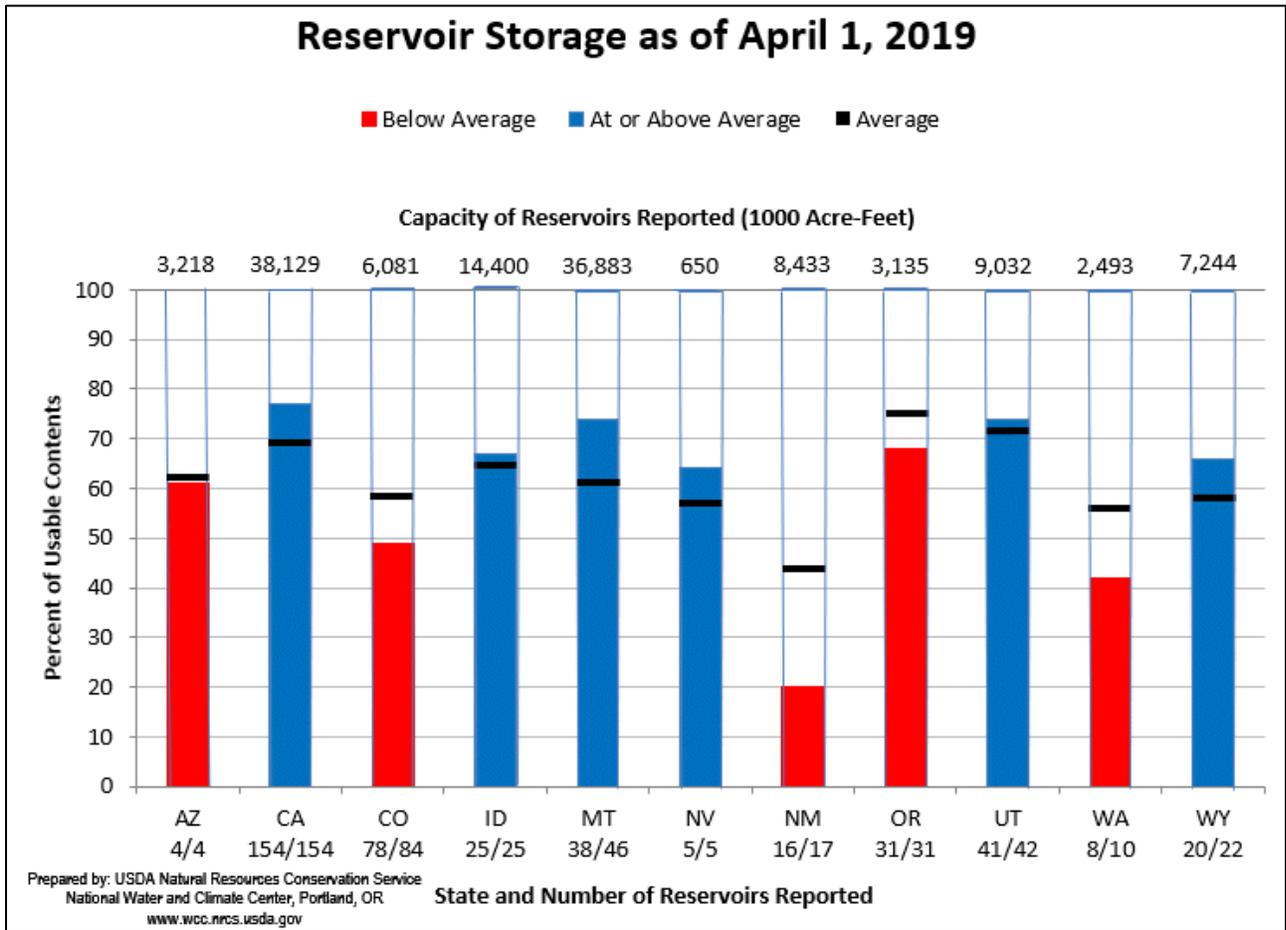
Explanation - Percentile classes						
<95	95-98	>= 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage
△ Streamgage with flood stage			○ Streamgage without flood stage			

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

Reservoir Storage

Western States Reservoir Storage

Source: NRCS National Water and Climate Center



April 1, 2019 Reservoir Storage: [Chart](#) | [Dataset](#)

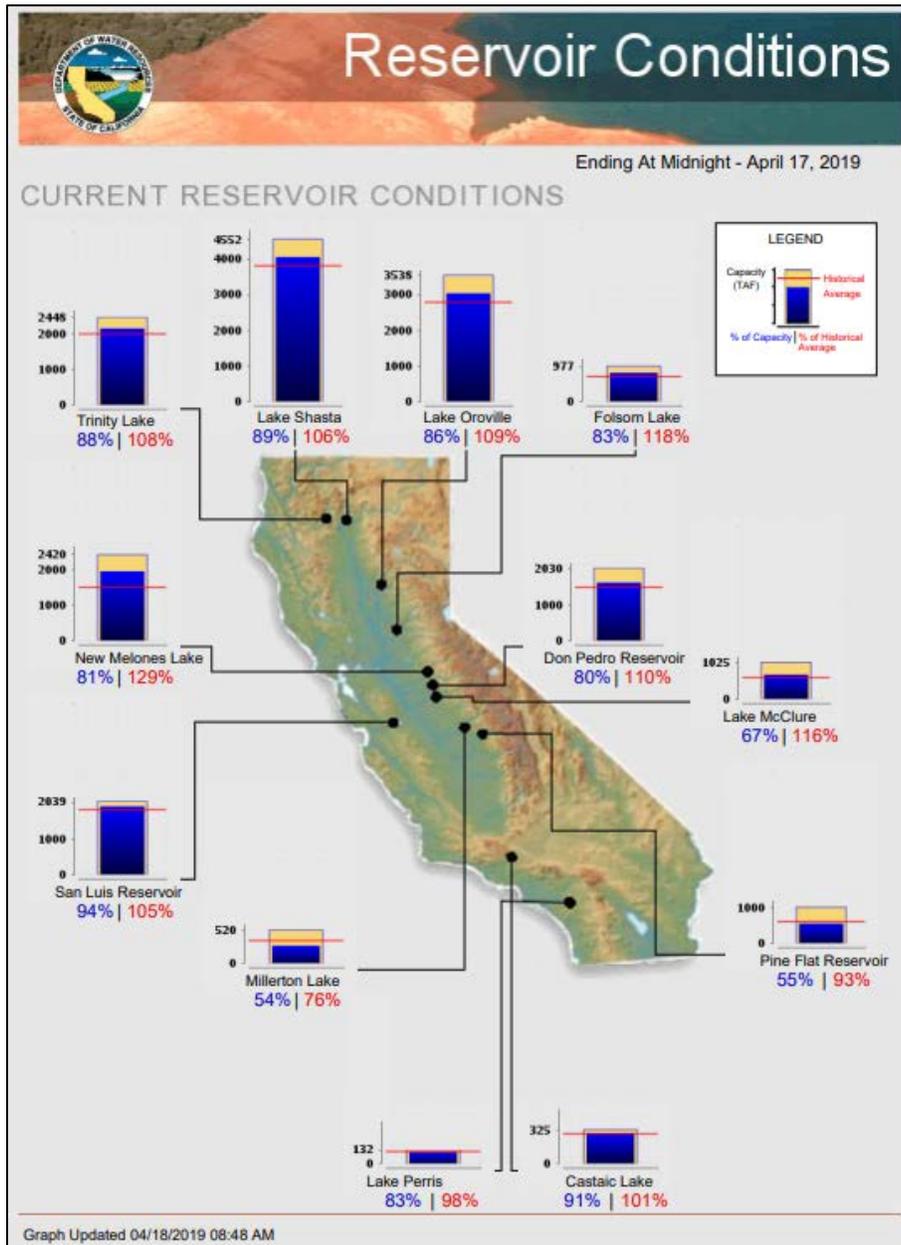
Hydromet Tea Cup Reservoir Depictions

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

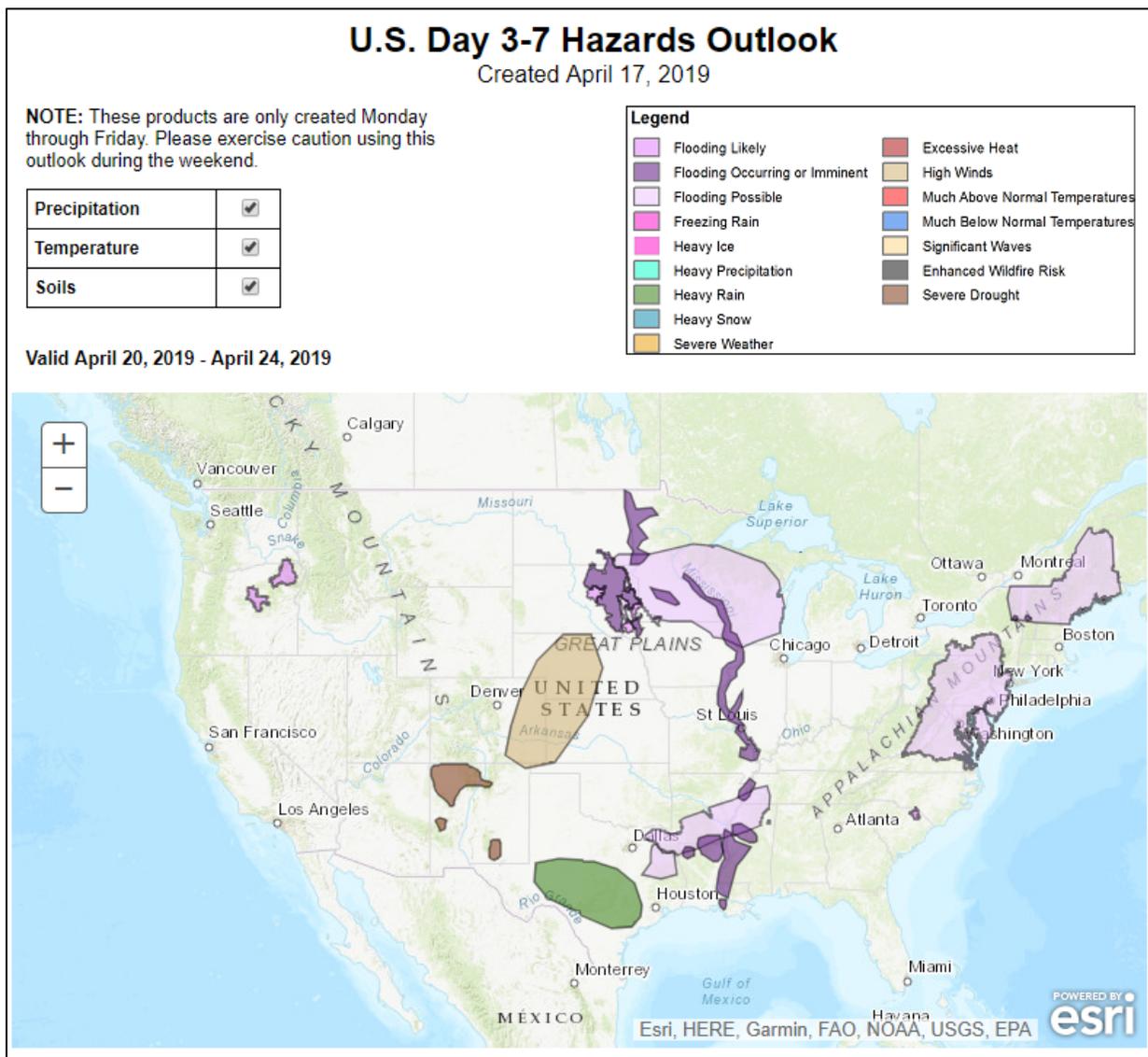
Agricultural Weather Highlights

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

National Outlook, Thursday, April 18, 2019: “A developing storm over the south-central U.S. will track slowly northeastward, dragging an attendant cold front across the eastern third of the nation today into Friday. Along and near the path of the primary low pressure system, a wide swath of 2 to 4 inches of rain (locally more) is expected from eastern Texas to the central Great Lakes. Meanwhile, showers and thunderstorms associated with the cold front will likely produce totals in excess of an inch or more across the Atlantic Coast States. Out west, increasingly unsettled weather will push south, with Northwestern rain and snow showers shifting to the central Pacific Coast, Great Basin, and central and southern Rockies over the weekend. The NWS 6- to 10-day outlook for April 23 – 27 calls for warmer- and wetter-than-normal weather across most of the country. Below-normal temperatures will be limited to northern-most portions of Washington State, while below-normal precipitation should be confined to the central Pacific Coast.”

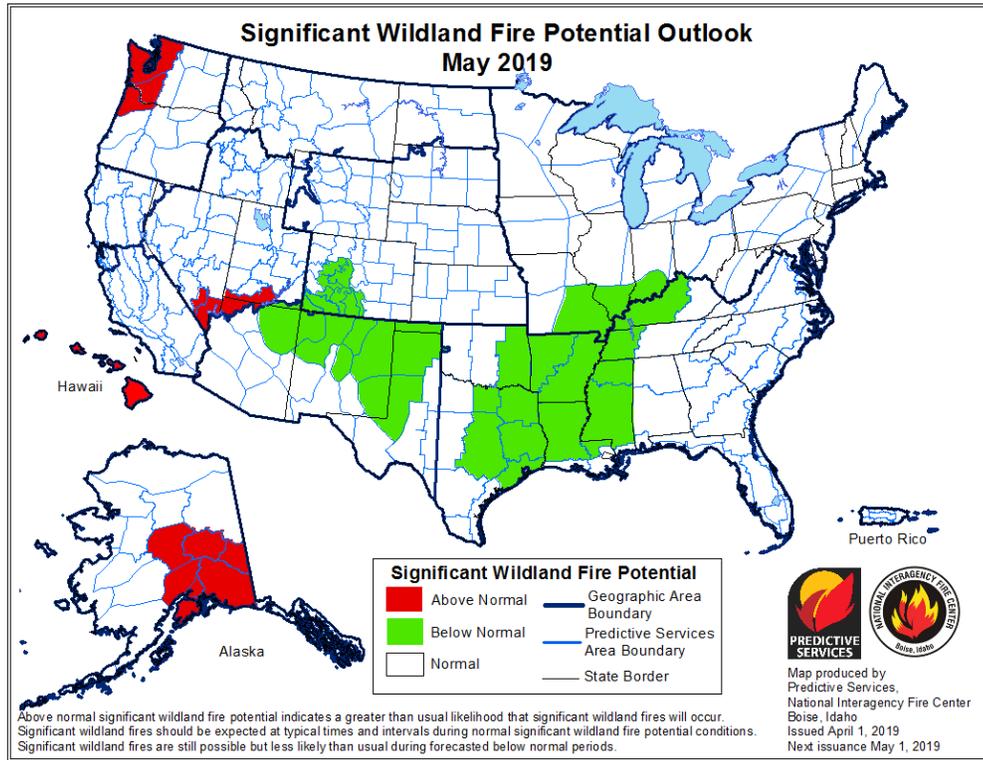
Weather Hazards Outlook: [April 20 – April 24, 2019](#)

Source: NOAA Climate Prediction Center



Significant Wildland Fire Potential Outlook

Source: National Interagency Fire Center

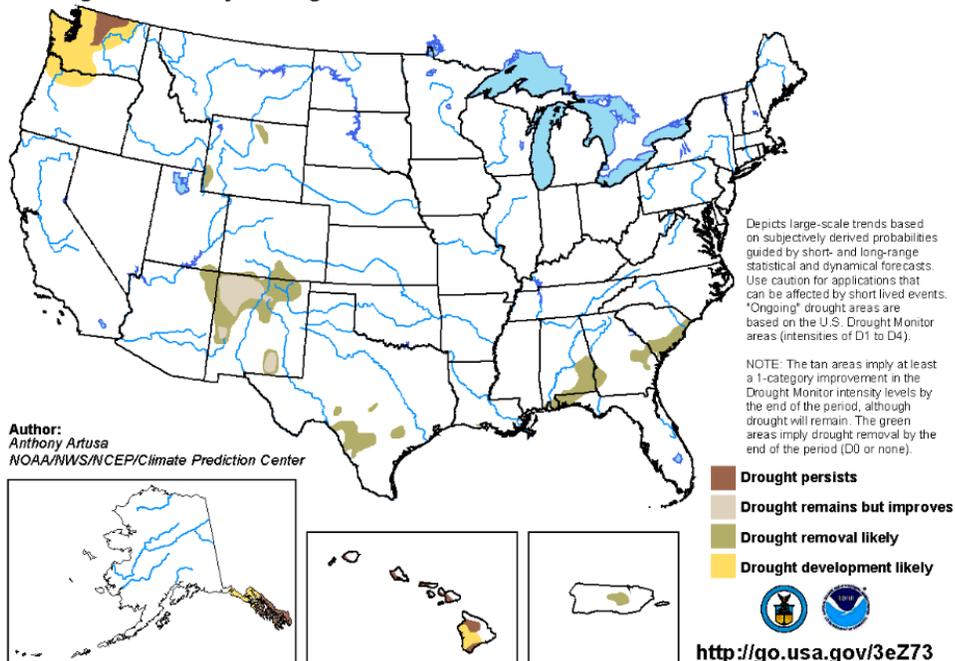


Seasonal Drought Outlook: April 18 – July 31, 2019

Source: National Weather Service

U.S. Seasonal Drought Outlook
Drought Tendency During the Valid Period

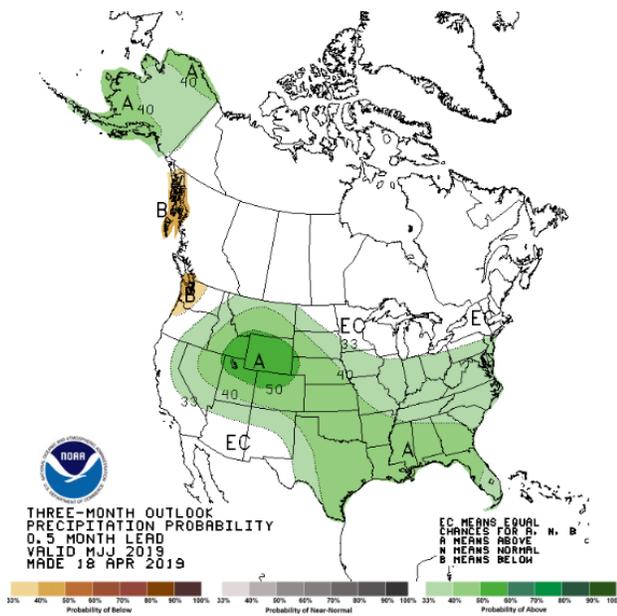
Valid for April 18 - July 31, 2019
Released April 18



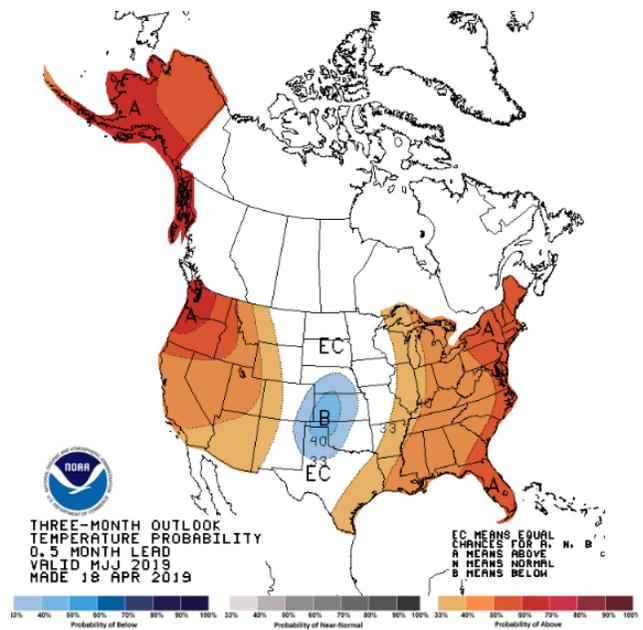
Climate Prediction Center 3-Month Outlook

Source: National Weather Service

Precipitation



Temperature



[May-June-July \(MJJ\) 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](#).