

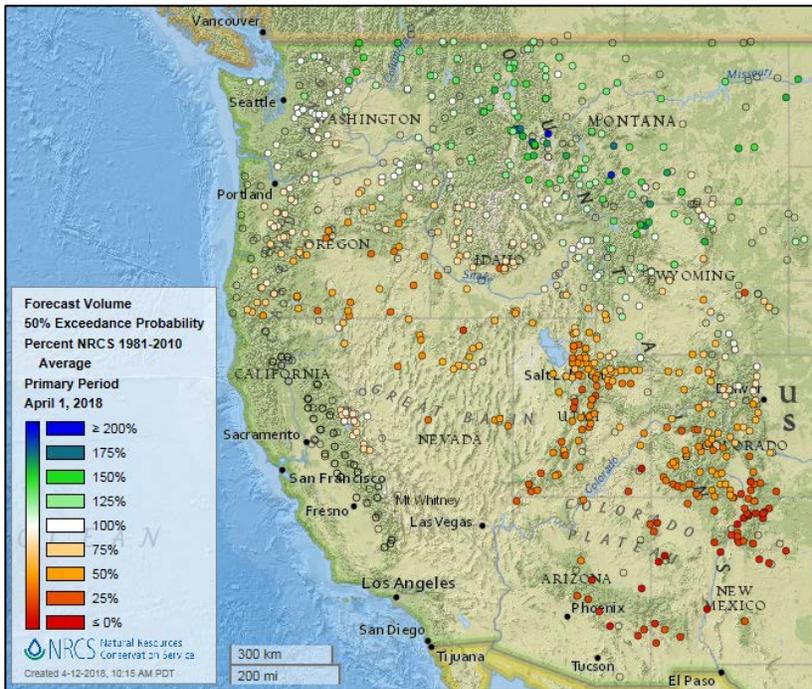
# Water and Climate Update

April 12, 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.

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## April 1 water supply forecasts show increases in the Sierra Nevada, remain unchanged elsewhere



Most of the West reported little change in the conditions which have persisted so far this winter. The one exception is “near-miracle” March snow and precipitation due to storms in the Sierras. This increased the snowpack and subsequent forecast streamflow from near record low to near average.

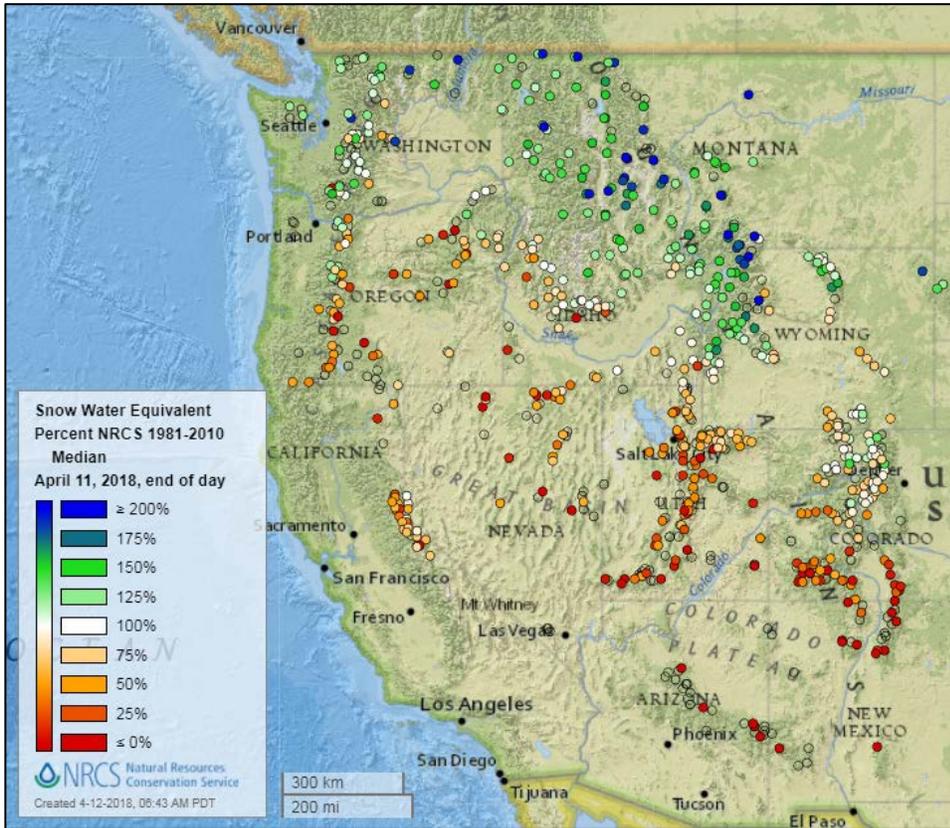
Forecasts remain exceptionally low in the Southwest and Great Basin regions and quite high in Montana and northwestern Wyoming. Lake Powell on the Colorado River is forecast to receive the sixth lowest inflow in the period of record. More detailed information is in the monthly [Western Snowpack and Water Supply Conditions](#) report.

**Related:**

- [After dry winter, Colorado River forecasters look for 6th-driest runoff year](#) - AZCentral.com, AZ
- [Dismal forecast for Lake Powell runoff heightens future CAP shortage risk](#) - Arizona Daily Star, AZ
- [Sierra Nevada snowpack improves to 93 percent of average in March 2018](#) – Tahoe Daily Tribune, CA
- [Atmospheric river dumps rain across Northern California, flooding the Merced and Truckee rivers](#) LA Times, CA
- [For Nevada's Snowpack and Water Supply, March Was 'Miracle-Ish'](#) – Sparks Tribune, NV
- [Late Sierra Nevada Snowstorms Rival 1991's 'Miracle March'](#) U.S. News & World Report
- [Snowpack levels still growing across Montana](#) - The Bozeman Daily Chronicle, MT

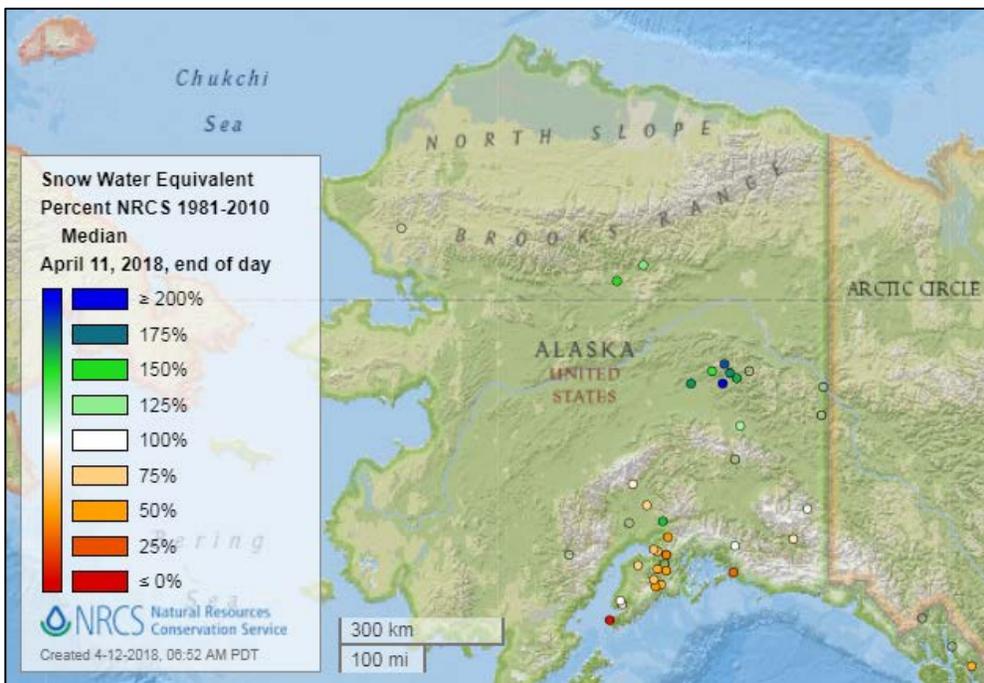
## Snow

### Current Snow Water Equivalent, NRCS SNOTEL Network



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

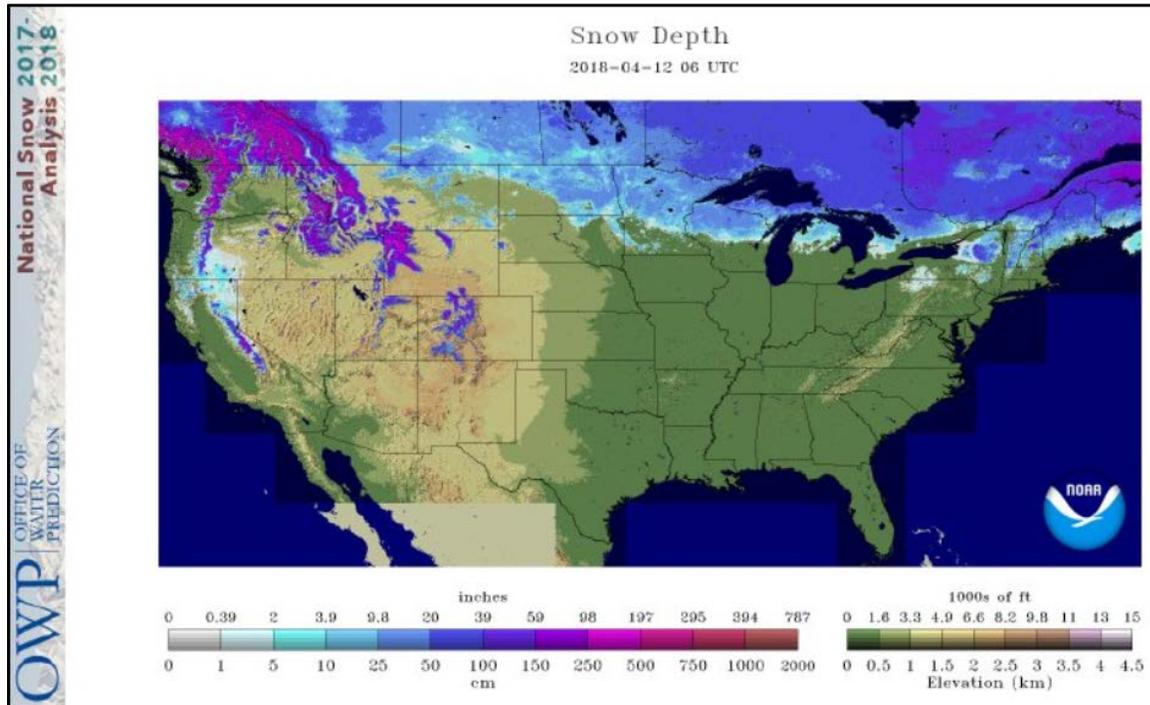
**See also:**  
[Snow water equivalent values \(inches\) map](#)



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

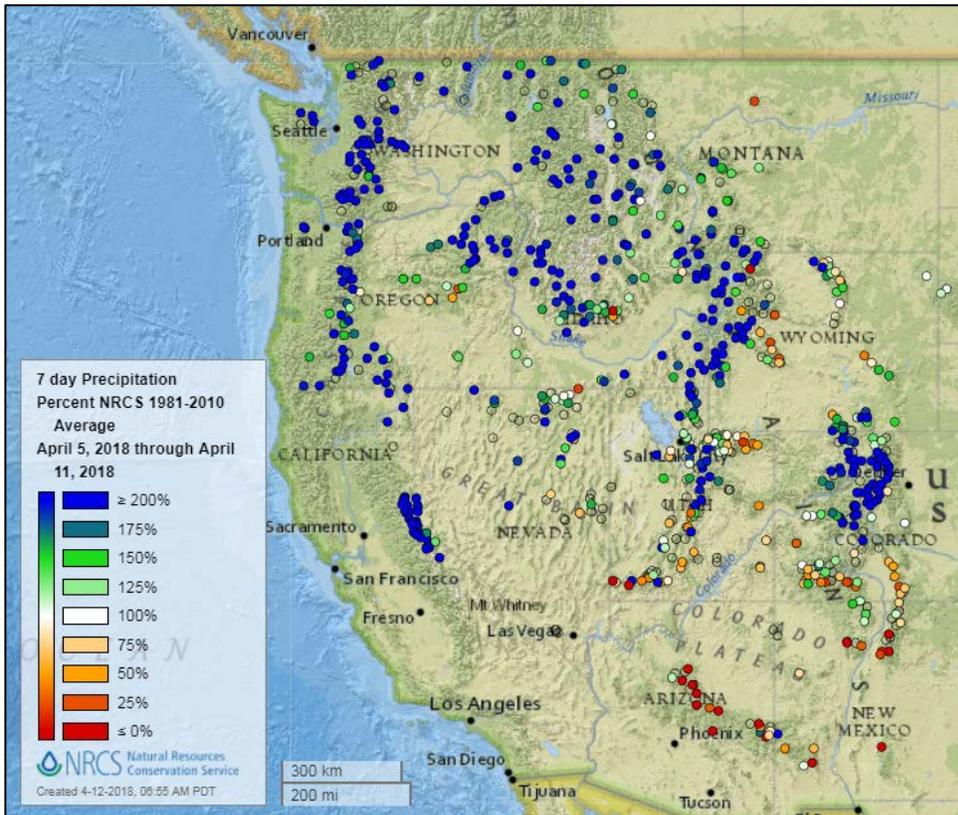
**See also:**  
[Alaska snow water equivalent values \(inches\) map](#)

Current Snow Depth, National Weather Service Snow Analysis



## Precipitation

### Last 7 Days, NRCS SNOTEL Network

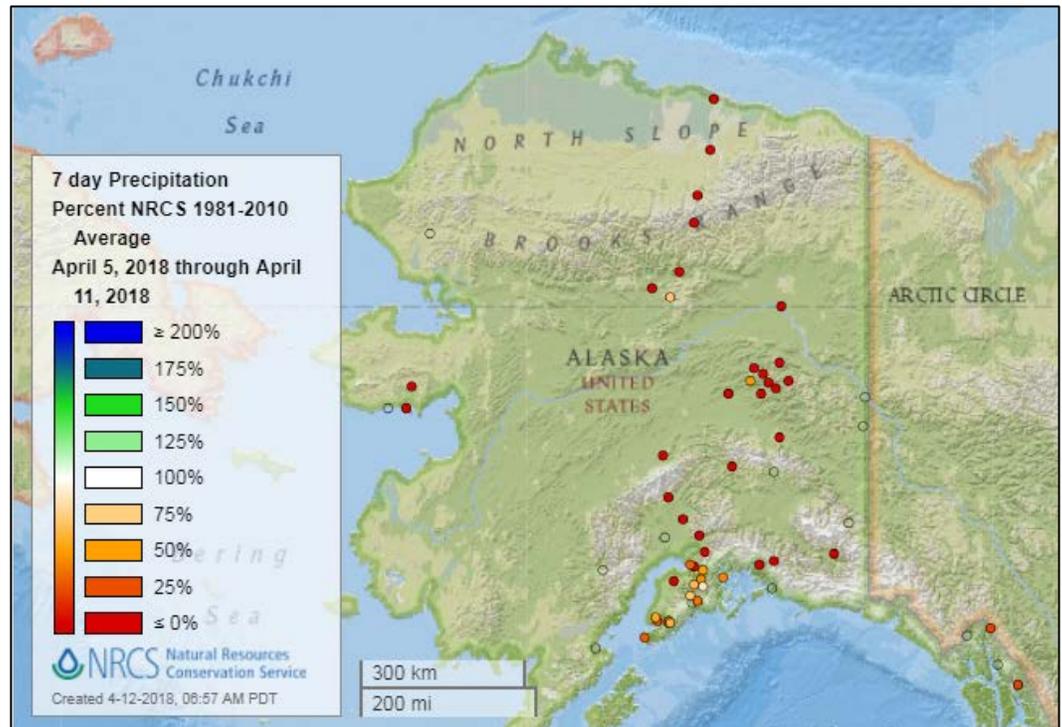


[7-day precipitation percent of average map](#)

**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](#)



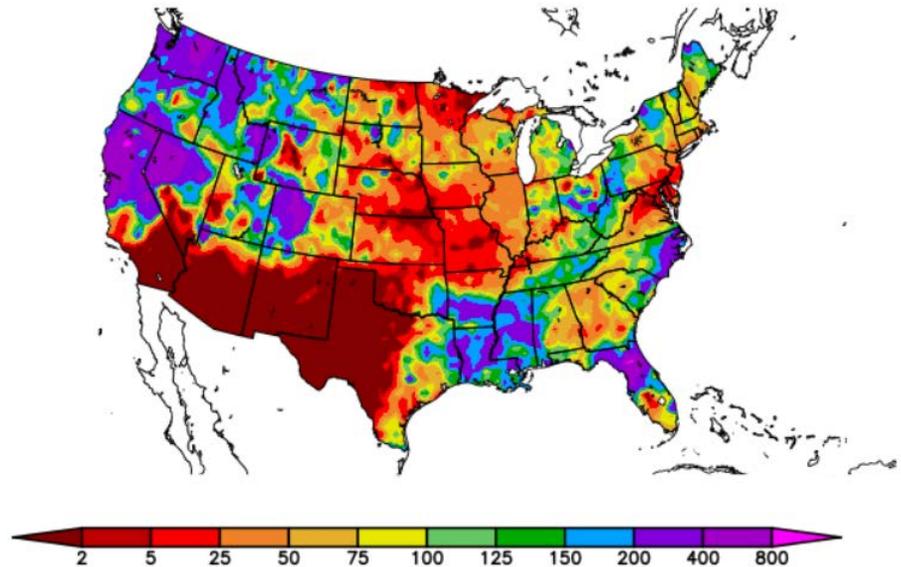
Last 7 Days, National Weather Service (NWS) Networks

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](#)

Percent of Normal Precipitation (%)  
4/4/2018 - 4/10/2018



Generated 4/11/2018 at HPRCC using provisional data.

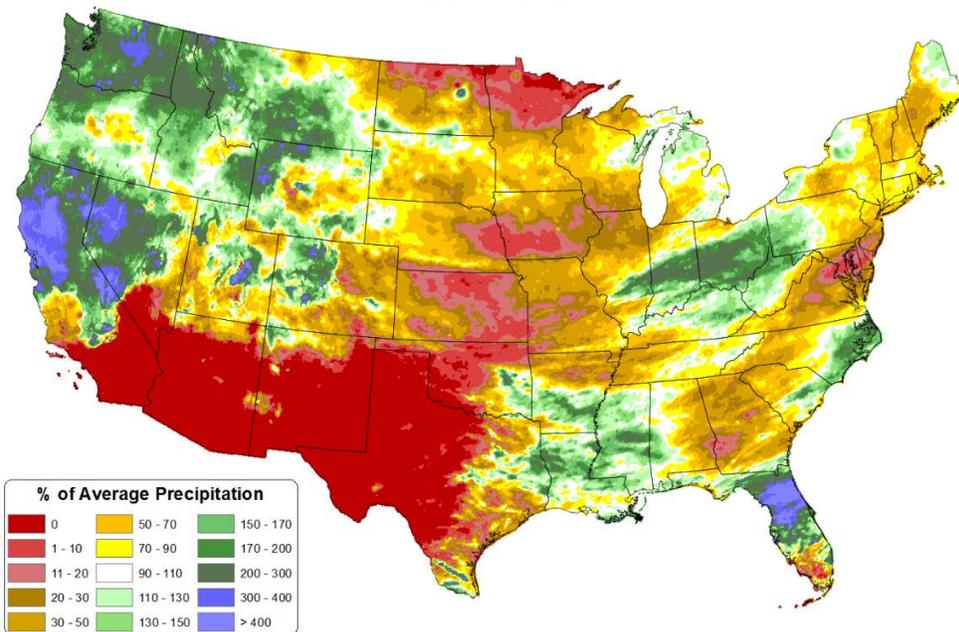
NOAA Regional Climate Centers

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

Source: PRISM

Total Precipitation Anomaly: 01 April 2018 - 11 April 2018  
Period ending 7 AM EST 11 Apr 2018  
Base period: 1981-2010  
(Map created 12 Apr 2018)

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



% of Average Precipitation		
0	50 - 70	150 - 170
1 - 10	70 - 90	170 - 200
11 - 20	90 - 110	200 - 300
20 - 30	110 - 130	300 - 400
30 - 50	130 - 150	> 400

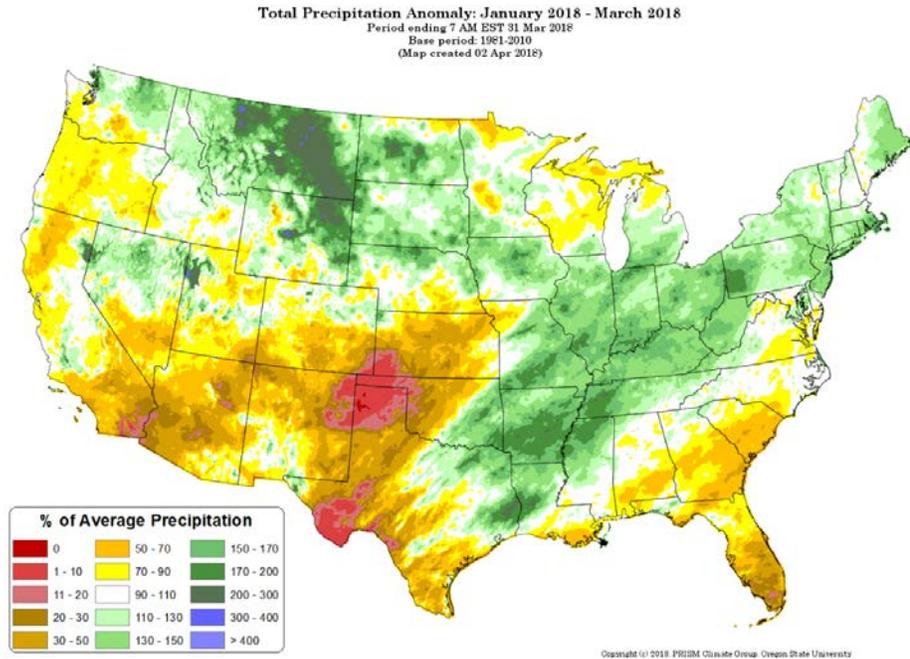
Downloaded on 04/11/18 09:08 AM from Climate Data Online - Climate Data Store

# Water and Climate Update

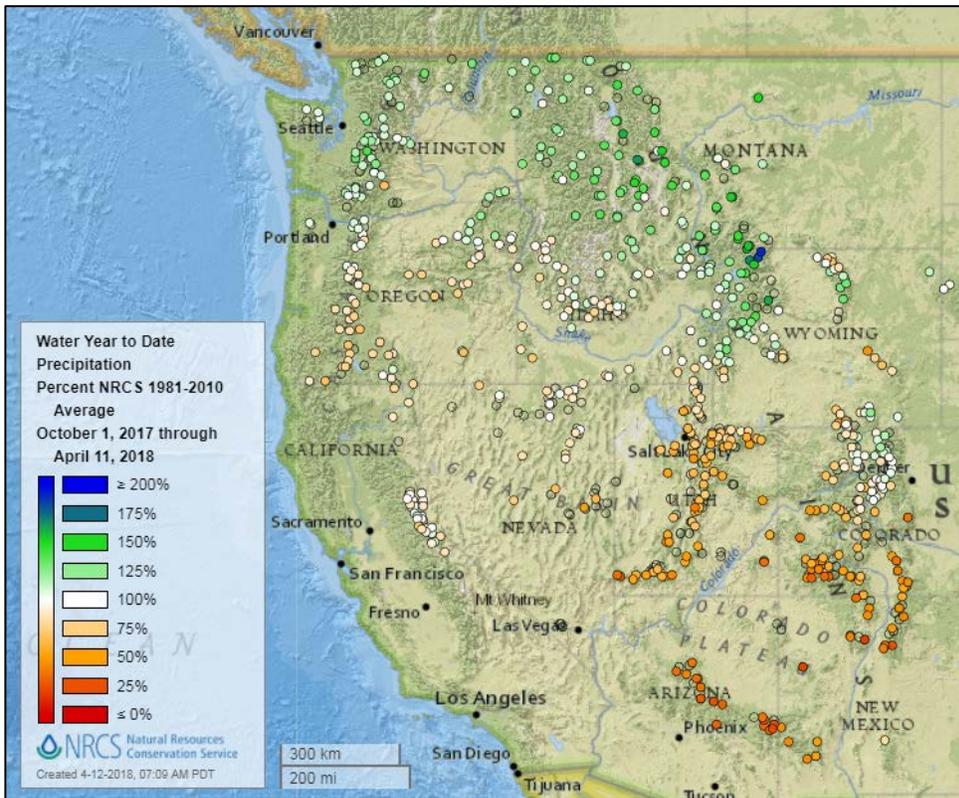
## Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

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



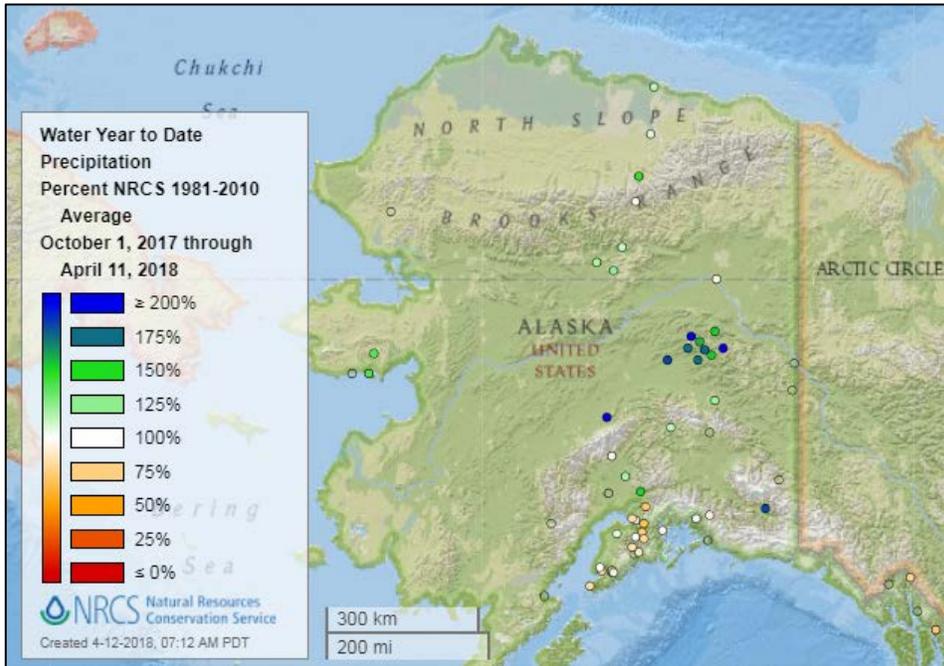
## Water Year-to-Date, NRCS SNOTEL Network



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

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

# Water and Climate Update



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

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

## Temperature

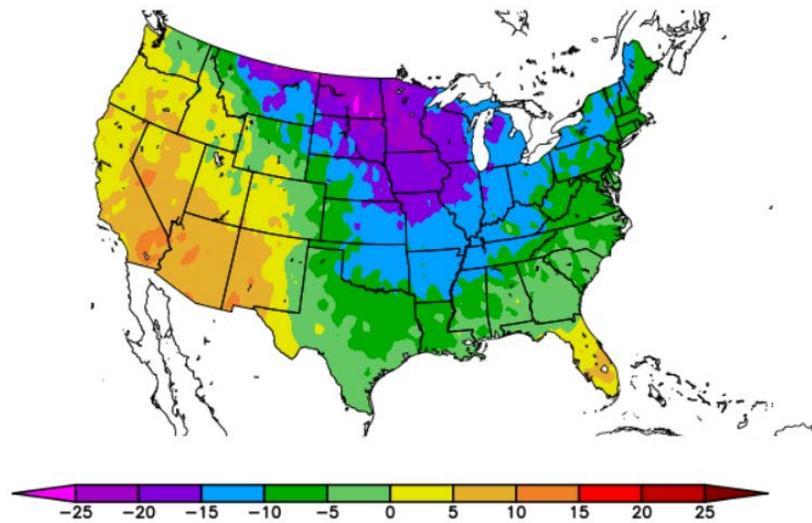
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)  
4/4/2018 – 4/10/2018



Generated 4/11/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

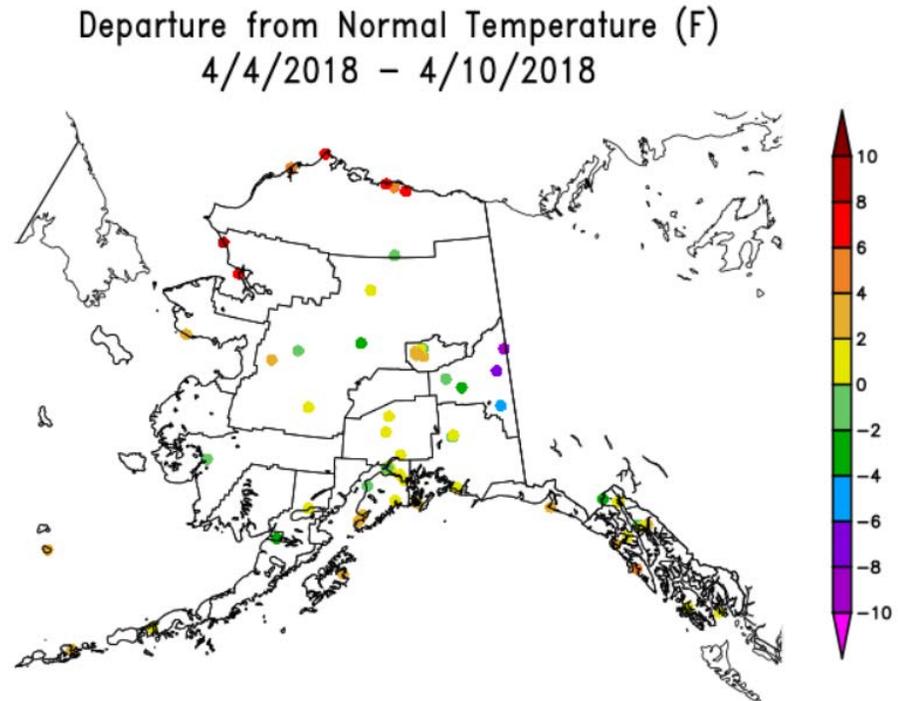
# Water and Climate Update

## Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

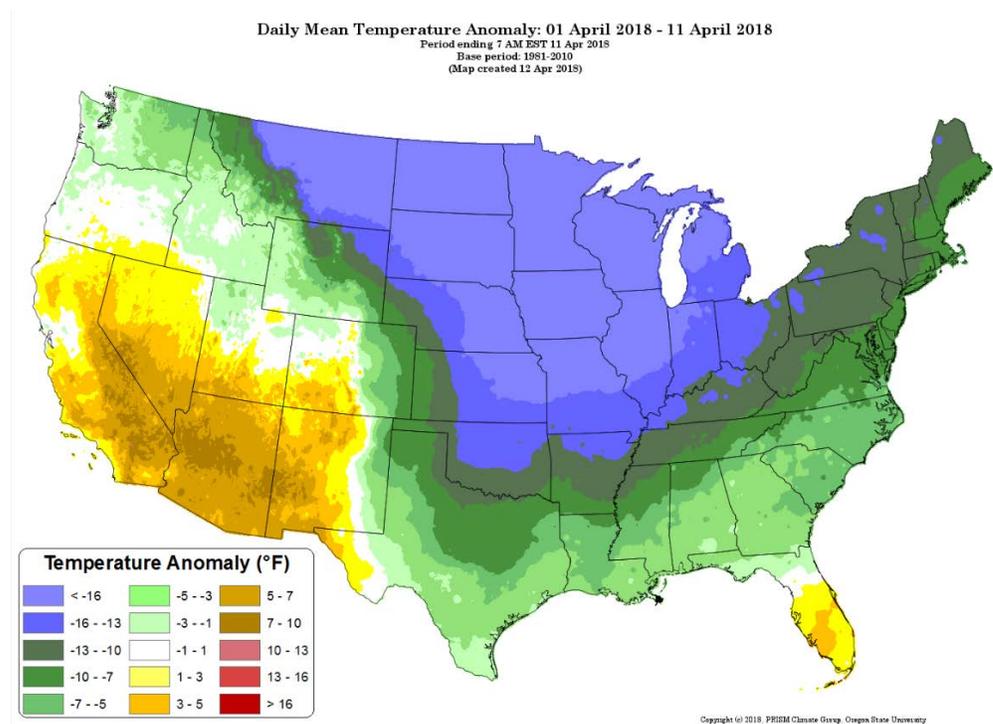
**See also:**  
[7-day temperature \(°F\) map](#)



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

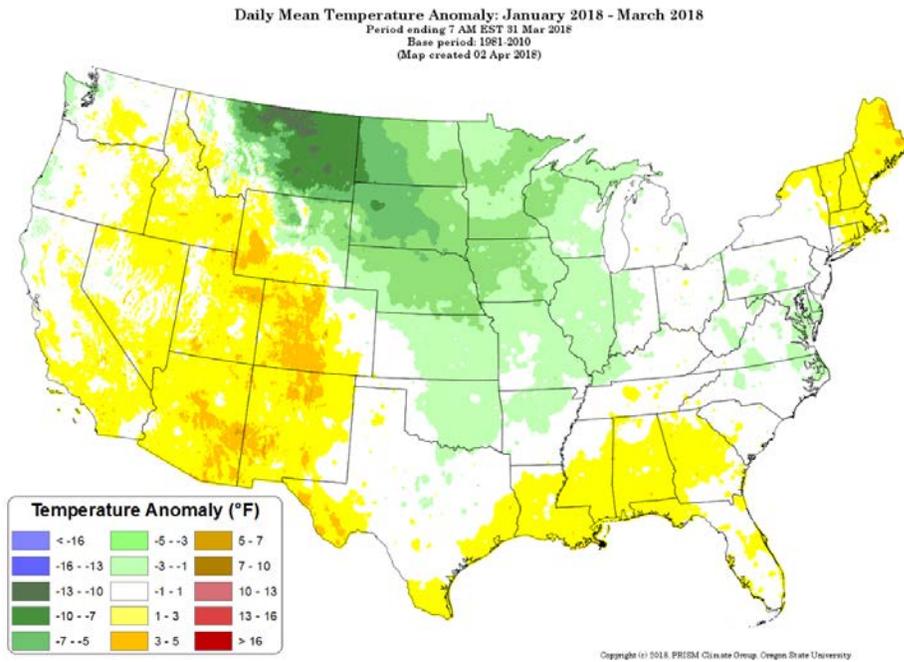
Source: PRISM

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



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

Source: PRISM

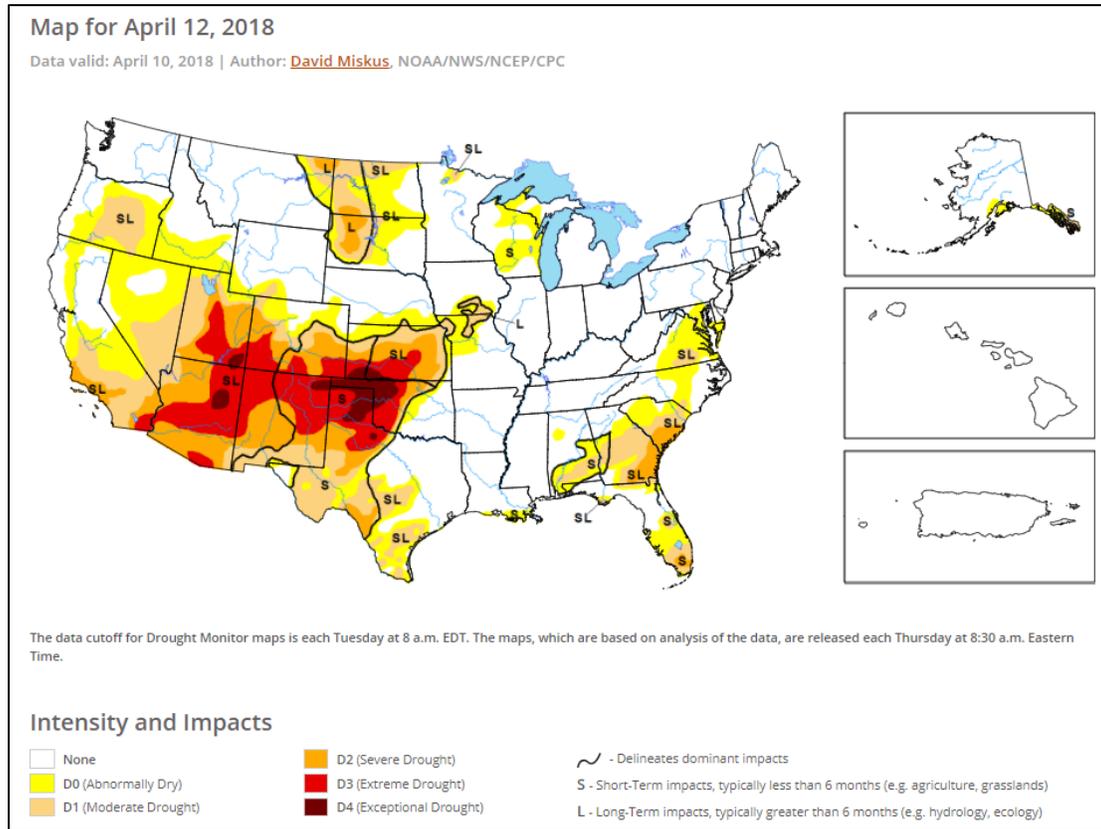


[January through March 2018 daily mean temperature anomaly map](#)

## Drought

[U.S. Drought Monitor](#) Select map below.

[U.S. Drought Portal](#) Comprehensive drought resource.



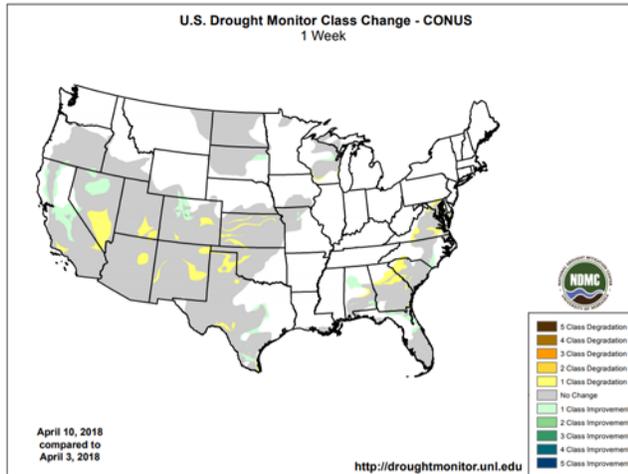
### Current [National Drought Summary](#), April 12, 2018

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

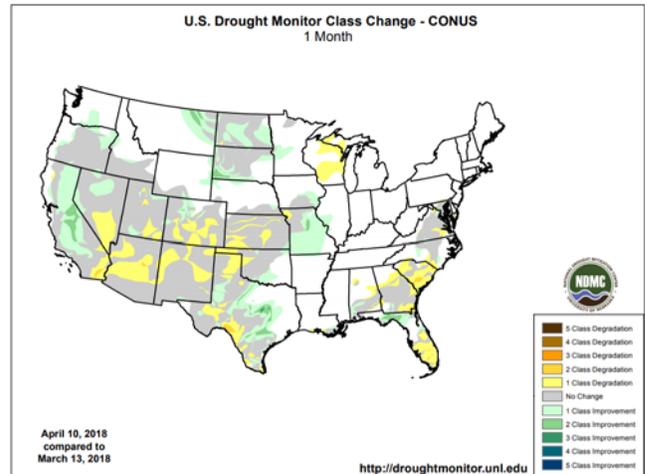
“A series of storms systems with varying amounts of precipitation swept across most of the lower 48 States this week, including the Far West which was mostly dry last week. After a very dry February, normally one of the wettest months of the year in California, repeated storms have brought welcome precipitation to most of the state, gradually increasing WYTD precipitation and Sierra snows closer to normal. Decent precipitation (2-6 inches, locally to 10 inches) also fell on western Oregon and Washington and in the Cascades. In the Southwest, however, storms have generally bypassed this region this winter (and this week), and after a disappointing 2017 summer monsoon, drought conditions expanded and worsened. To the east, light to moderate precipitation fell on the northern and central Rockies, north-central Plains, the western Corn Belt, and most locations in the eastern third of the Nation. The greatest amounts (1.5-4 inches) fell on the lower Mississippi and eastern Ohio Valleys, eastern Carolinas, and north-central Florida. Subnormal temperatures prevailed across much of the contiguous U.S. east of the Rockies (except Florida), and averaged above-normal in the Southwest. Showery weather continued across Hawaii and Puerto Rico (where no drought existed) while drier weather occurred across Alaska.”

## Changes in Drought Monitor Categories over Time

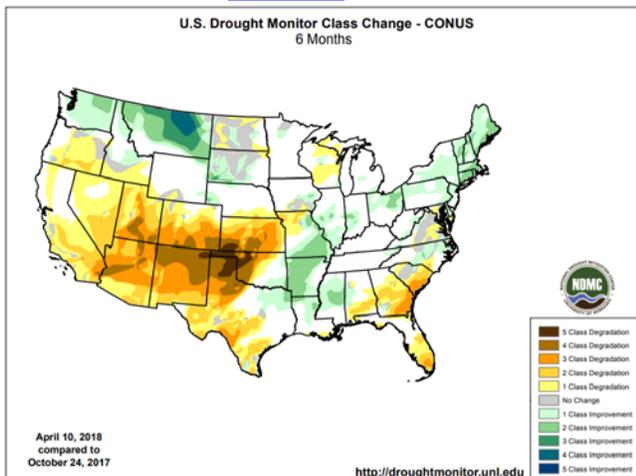
### 1 Week



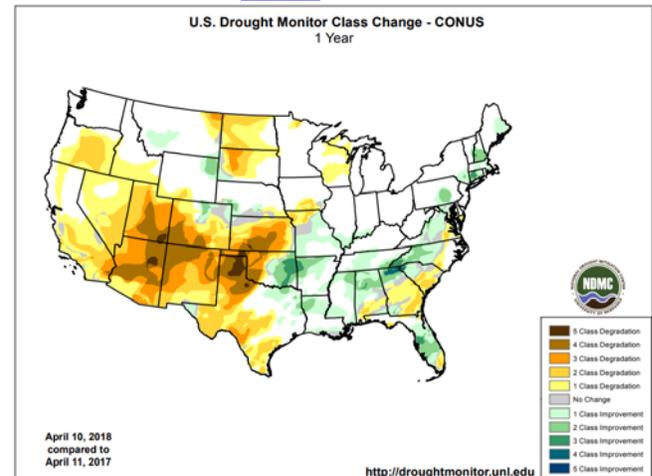
### 1 Month



### 6 Months



### 1 Year

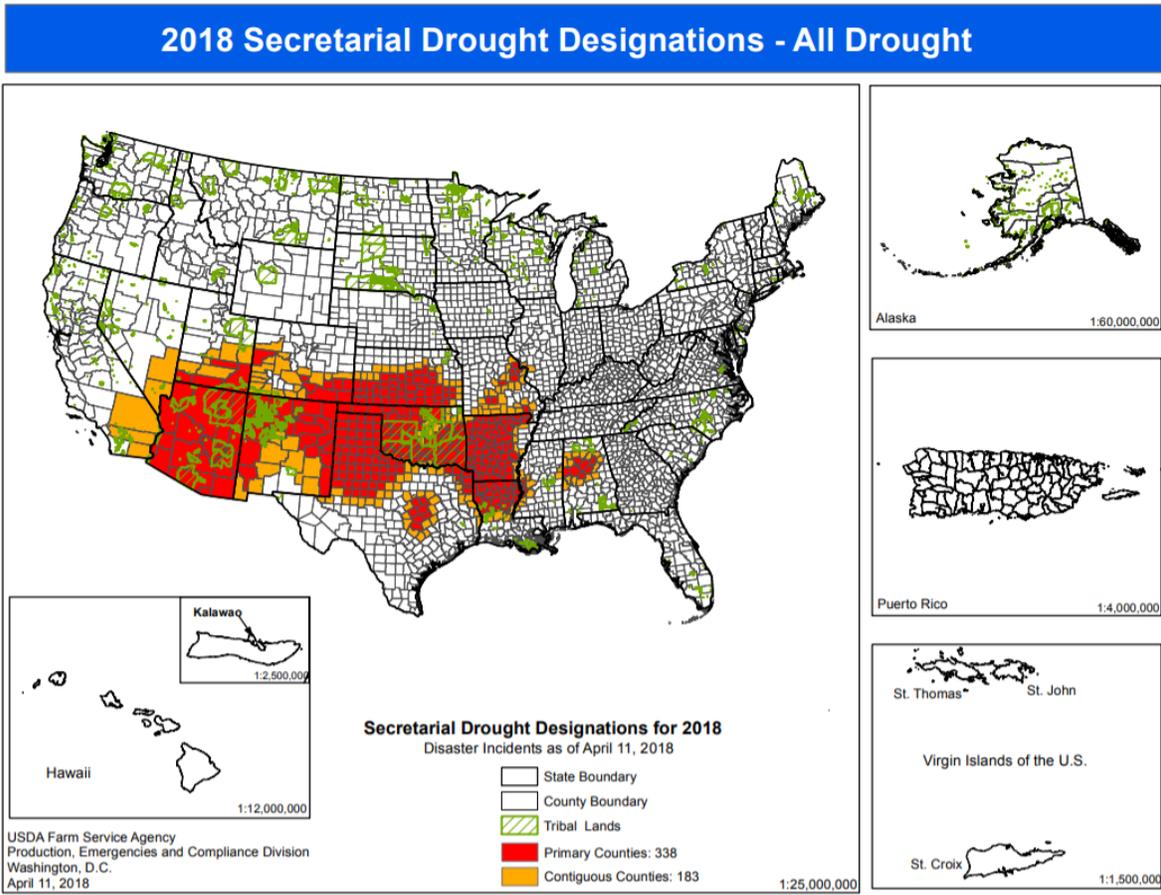


### Changes in drought conditions over the last 12 months

## 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](#)

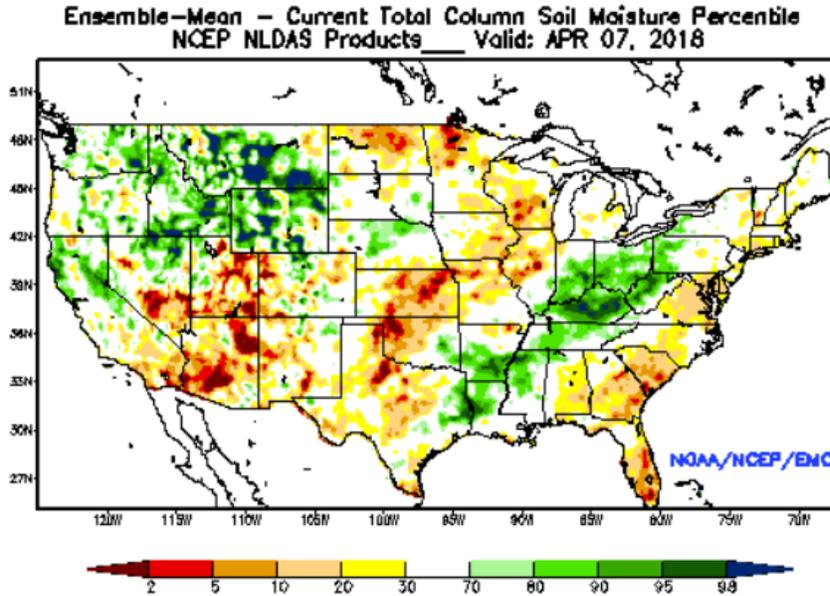
USDA 2018 Secretarial Drought Designations



## Other Climatic and Water Supply Indicators

### Soil Moisture

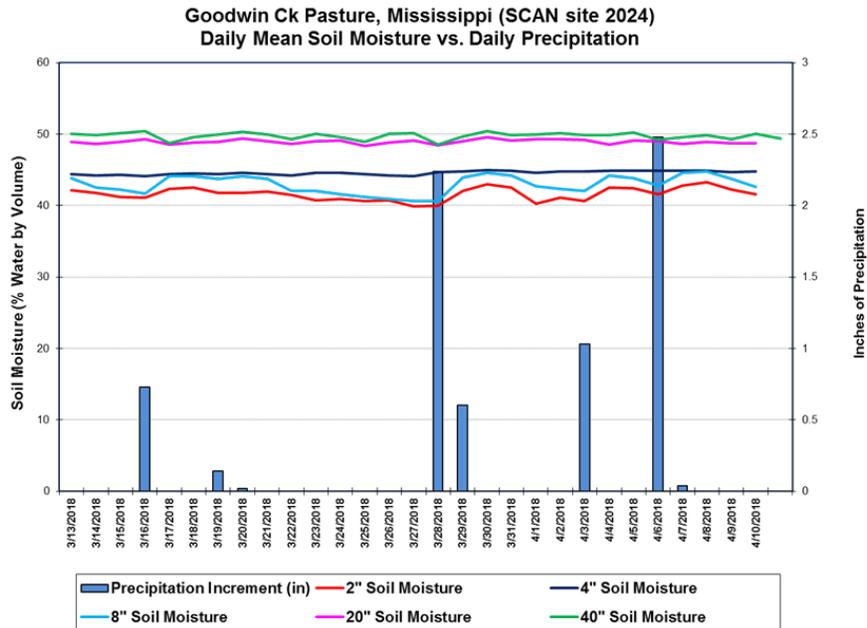
Source: NOAA National Centers for Environmental Prediction



[Modeled soil moisture percentiles](#) as of April 7, 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 [Goodwin Ck Pasture SCAN site 2024](#) in Mississippi. This station is located in an area that has experienced significant rain events in the last 30 days – three days with daily incremental precipitation over one inch. During the month, the 4- and 8-inch sensor depths showed slight increases in soil moisture percentage from the major precipitation events.

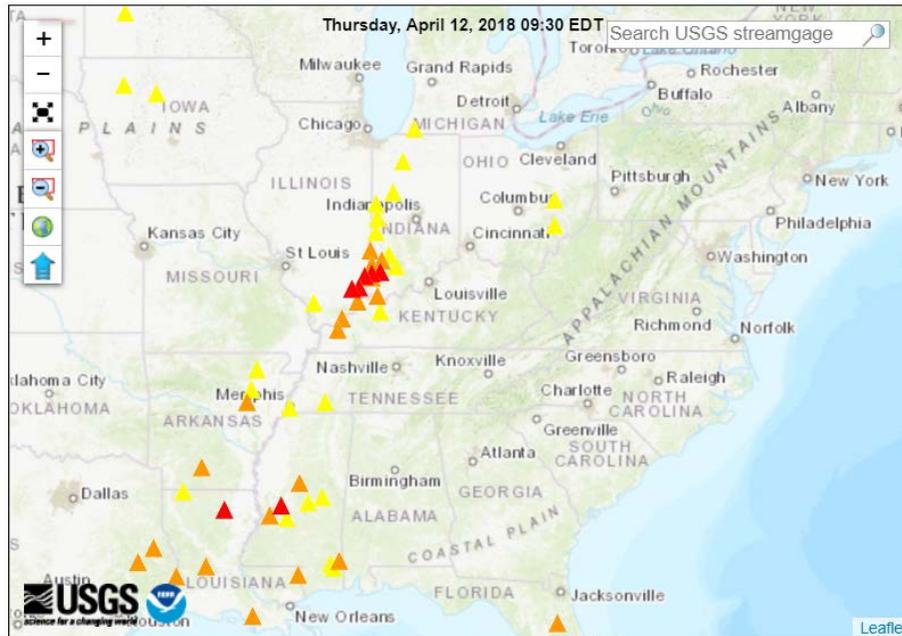
Soil Moisture Data Portals

- [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



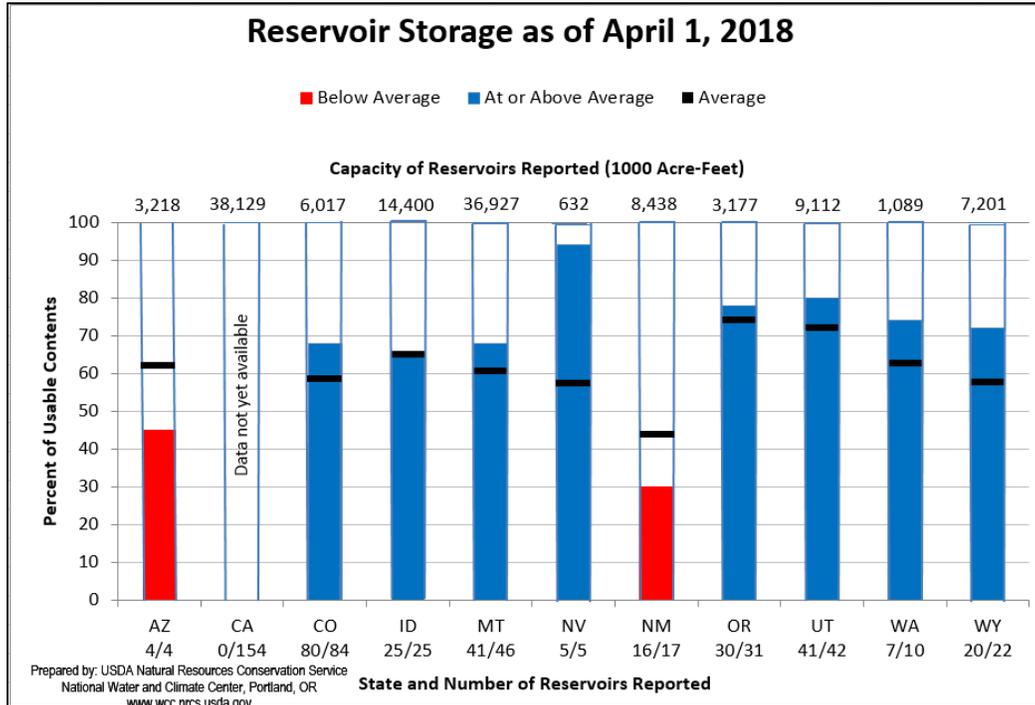
Explanation - Percentile classes						
<95	95-98	>= 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage
▲ Streamgage with flood stage    ○ Streamgage without flood stage						

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

## Reservoir Storage

### Western States Reservoir Storage

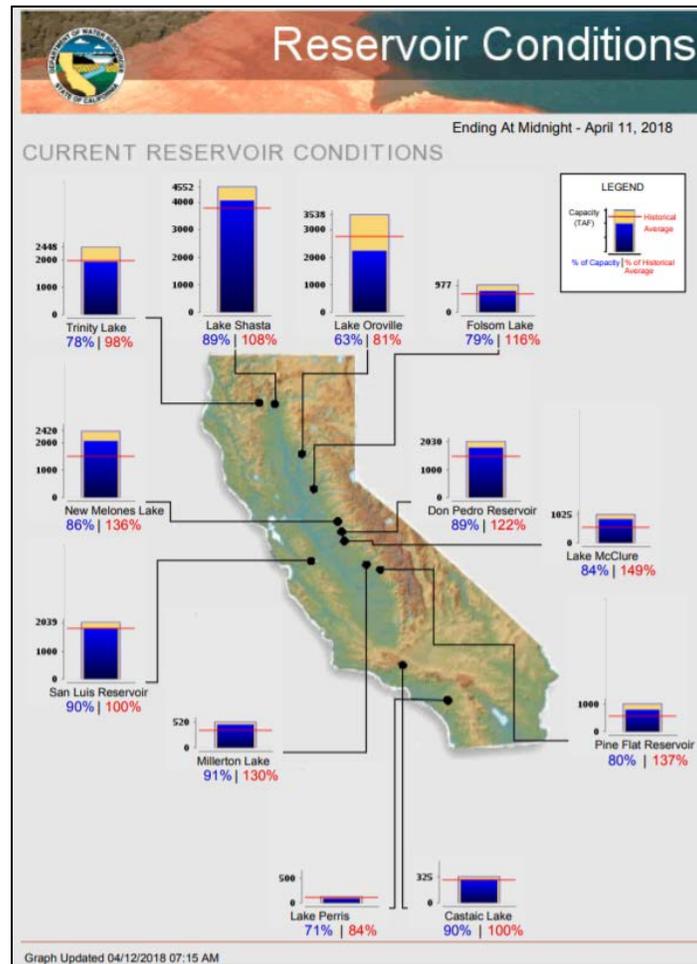
Source: NRCS National Water and Climate Center



April 1 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](#)

## Short- and Long-Range Outlooks

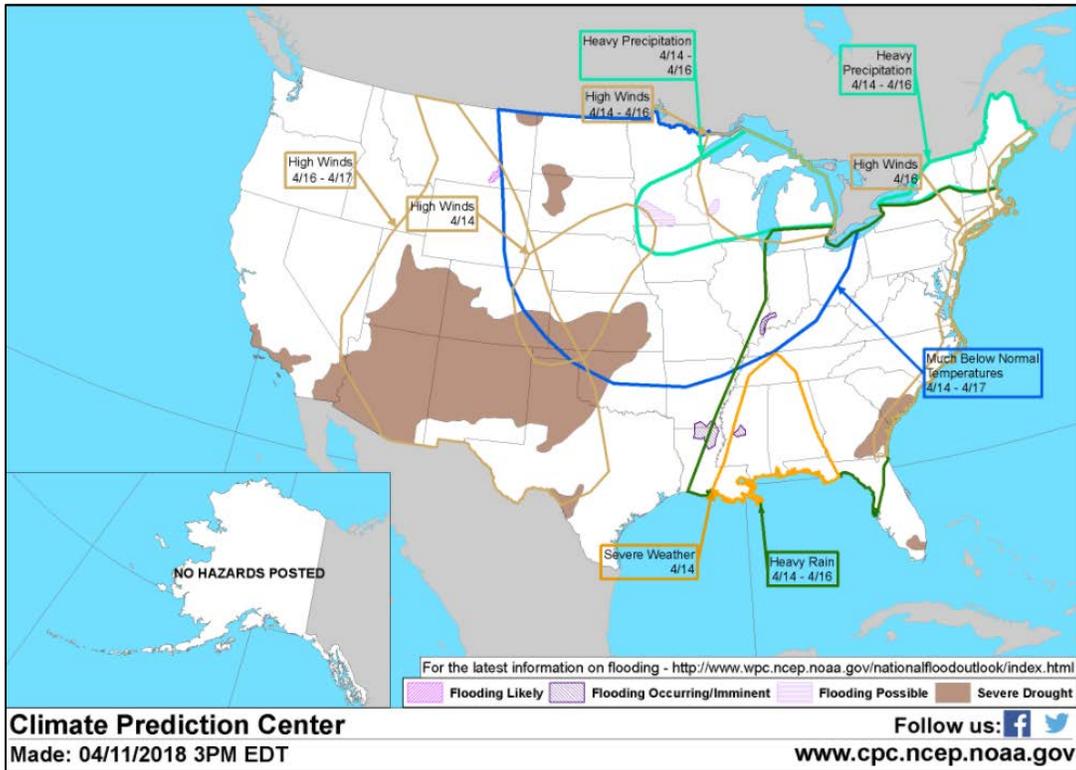
### Agricultural Weather Highlights

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

[National Outlook, Thursday, April 12](#): “A powerful, spring storm will emerge from the West today and cross the central Plains on Friday. The slow-moving system will reach the Northeast early next week, preceded by warm weather and trailed by below normal temperatures. Impacts from the storm will include significant livestock stress and travel disruptions from the northern Plains into the Great Lakes region, mainly due to wind-driven snow and possible blizzard conditions. On the southern Plains, windy, dry weather will contribute to an extreme wildfire threat that could linger into next week, despite falling temperatures in the storm’s wake. In fact, weekend freezes can be expected as far south as the southern Plains. Finally, the storm will produce heavy showers and locally severe thunderstorms from the east central and southeastern Plains into the Southeast, mainly from April 13-15. The NWS 6- to 10-day outlook for April 17 – 21 calls for the likelihood of below-normal temperatures across most of the country, while warmer-than normal weather will be limited to southern sections of the Rockies and High Plains. Meanwhile, below-normal precipitation in the Southeastern and Mid-Atlantic States, as well as portions of the southern Rockies and southern Plains, should contrast with wetter-than-normal conditions from the Pacific Coast to the Midwest and mid-South.”

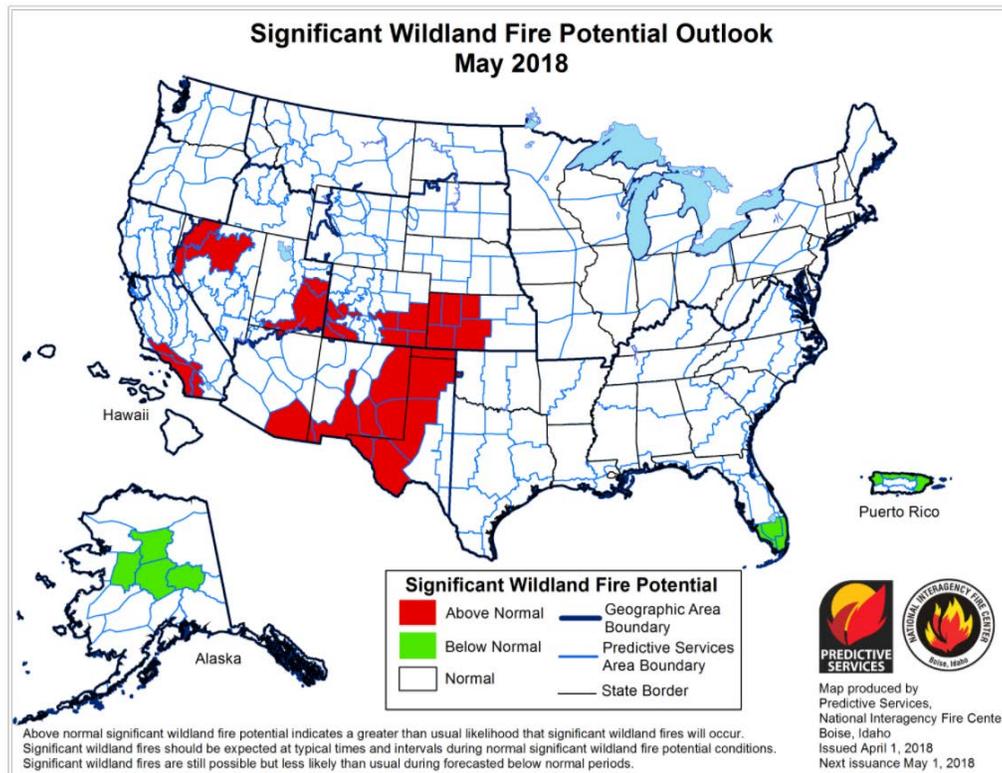
Weather Hazard Outlook [April 14 - April 18, 2018](#)

Source: Climate Prediction Center



Significant Wildland [Fire Potential Outlook](#)

Source: National Interagency Fire Center

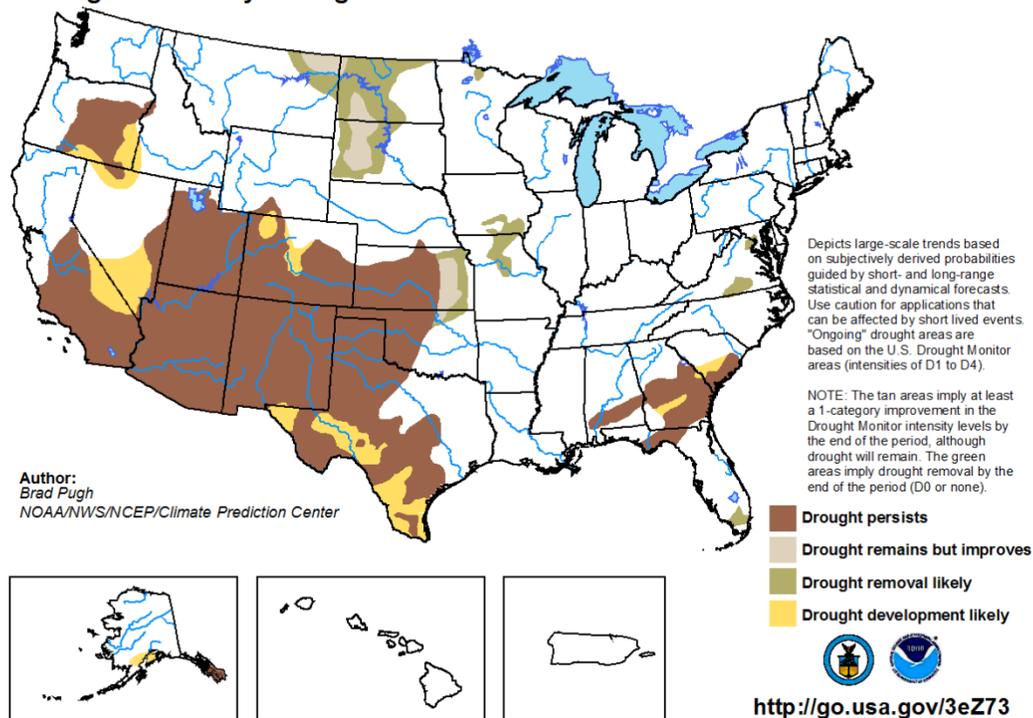


Seasonal Drought Outlook: [March 15 - June 30, 2018](#)

Source: National Weather Service

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

Valid for March 15 - June 30, 2018  
Released March 15, 2018

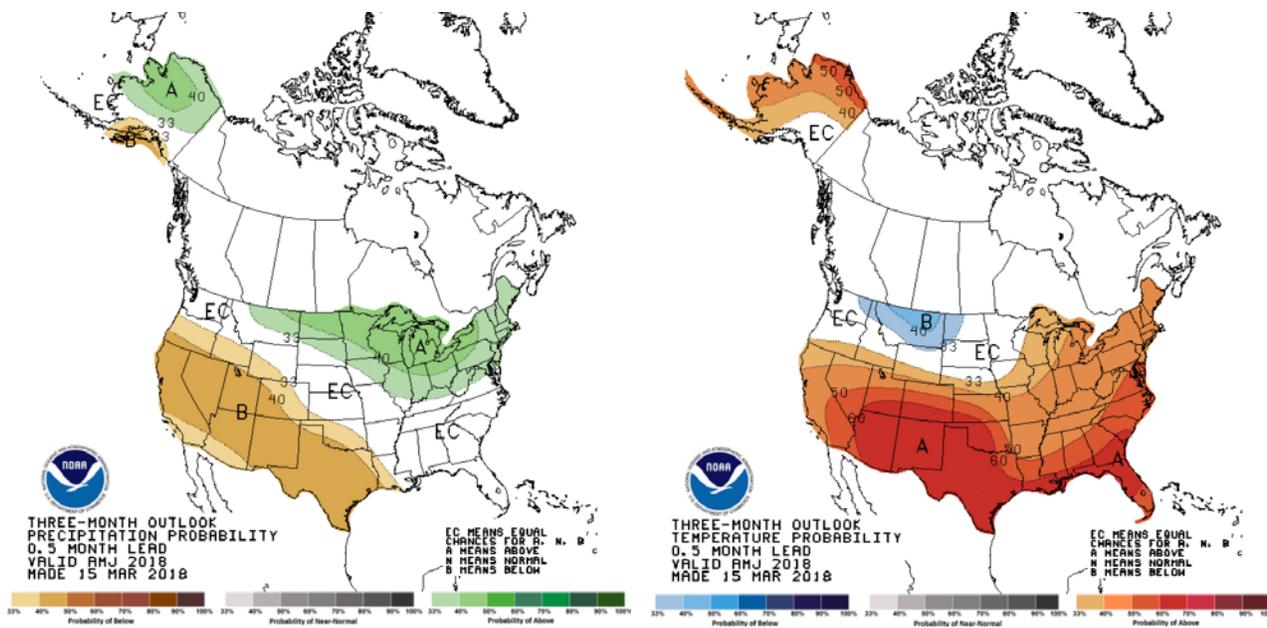


Climate Prediction Center 3-Month Outlook

Source: National Weather Service

[Precipitation](#)

[Temperature](#)



[Apr-May-June \(AMJ\) 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](#).