



# Water and Climate Update

May 5, 2016

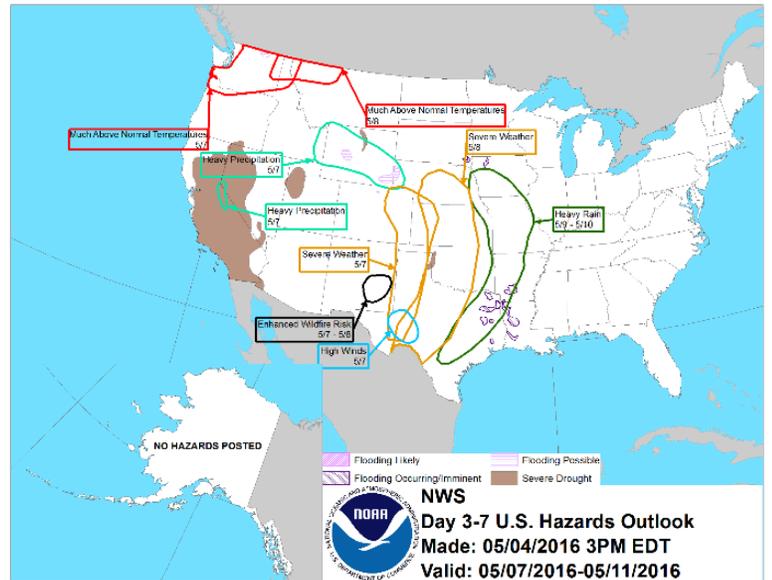
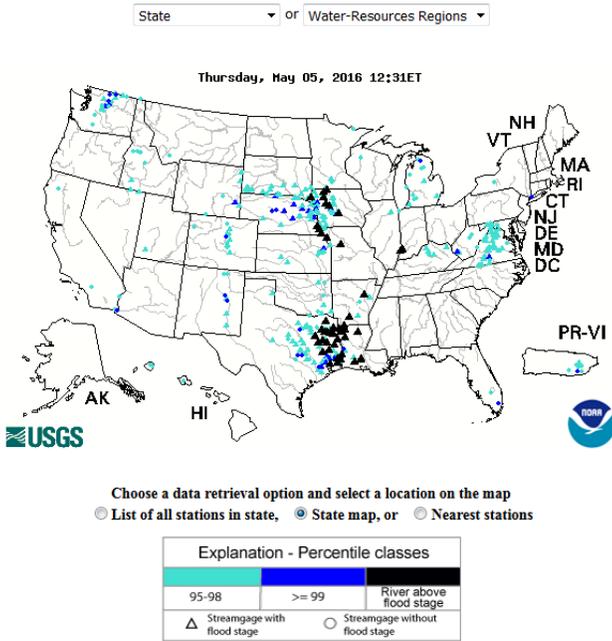
The Natural Resources Conservation Service produces this weekly report using data and products from the [National Water and Climate Center](#) and other agencies. The report focuses on seasonal snowpack, precipitation, temperature, and drought conditions in the U.S.

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## Extensive flooding continues in many parts of Texas and Louisiana

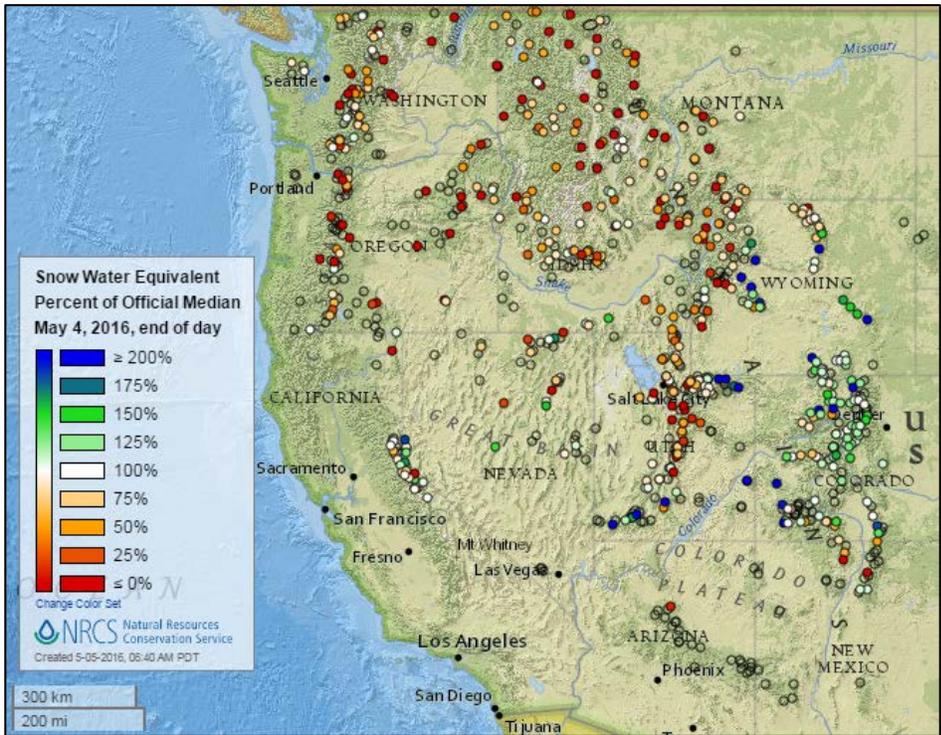
Map of flood and high flow condition (United States)



The current [flood and high flow conditions](#) map shows stations continue to report above flood stage conditions at locations in the lower Missouri River Basin, and much of east Texas and Louisiana. Many gages in the central U.S. are reporting above normal streamflow at this time. In addition, the [national hazards map](#) shows heavy rain is forecast for the areas in flood conditions.

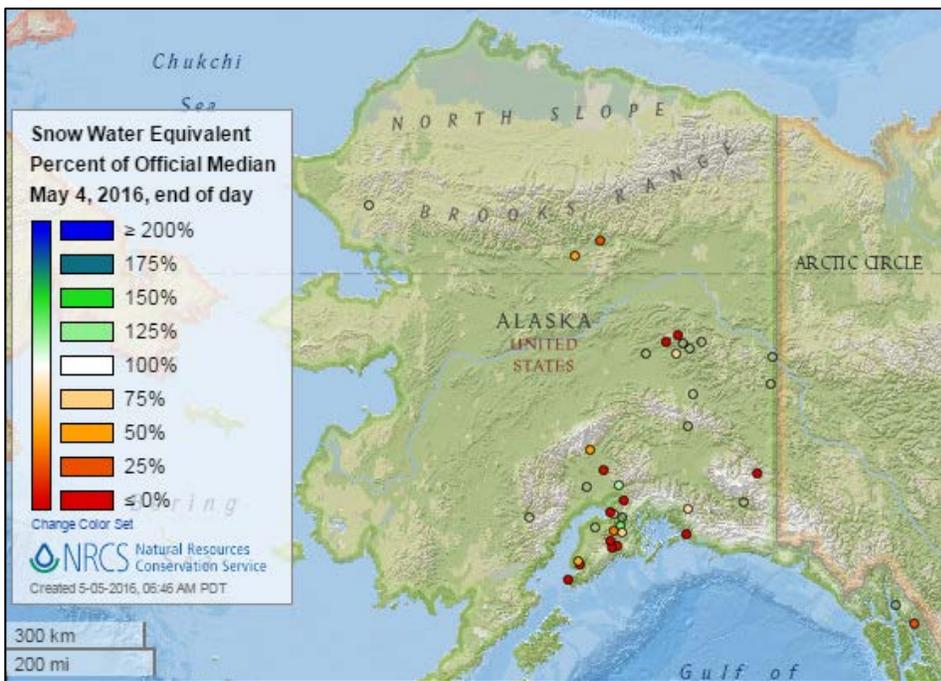
Snow

Current Snow Water Equivalent, NRCS SNOTEL Network



The current [snow water equivalent percent of median](#) map shows that, overall, much of the West is near or below median. Much of the northwest and northern Rockies reported increased snowmelt this week. Many stations in Colorado, as well as some in northern and southern Utah and parts of Wyoming, have above to well above median snow water equivalent due to recent storms. Much of Arizona and New Mexico have already melted out.

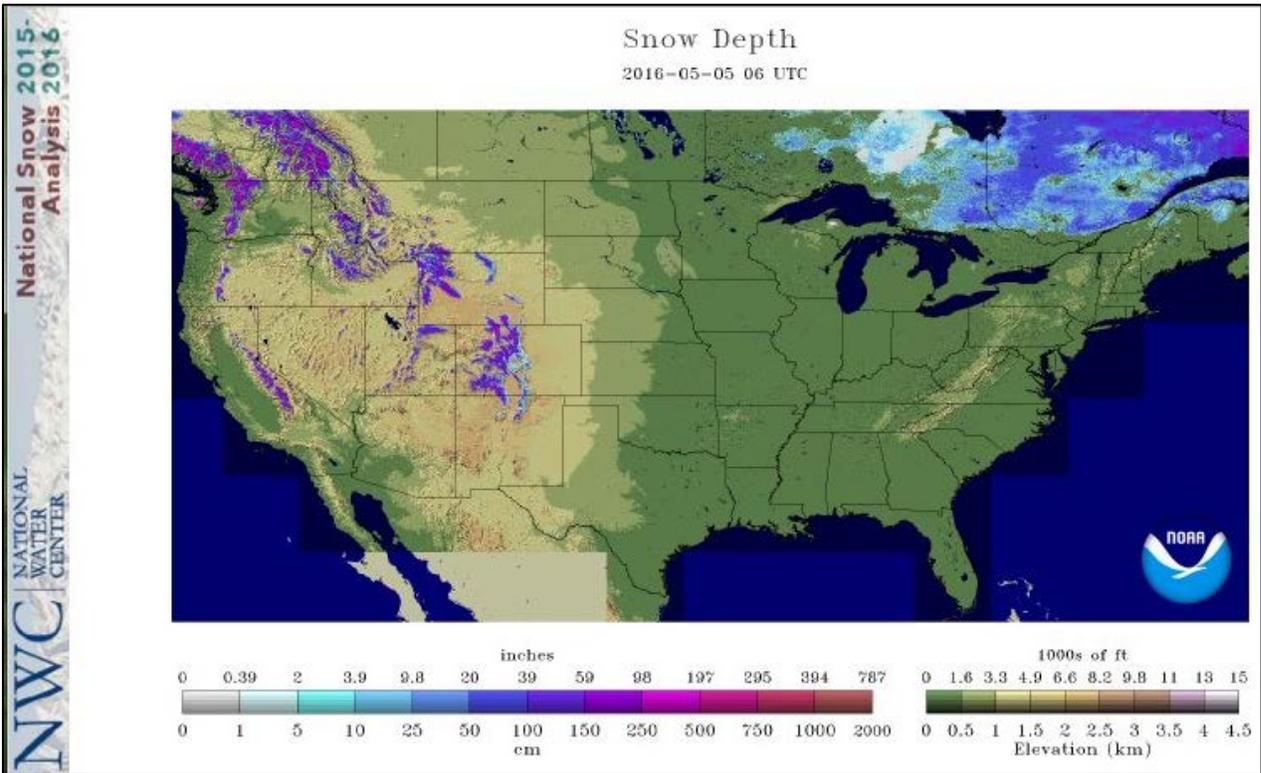
**See also:** Current [snow water equivalent values \(inches\)](#) map.



The Alaska current [snow water equivalent percent of median](#) map shows little change from a week ago. Many stations in the central and southern part of the state have little to no snow at this time.

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

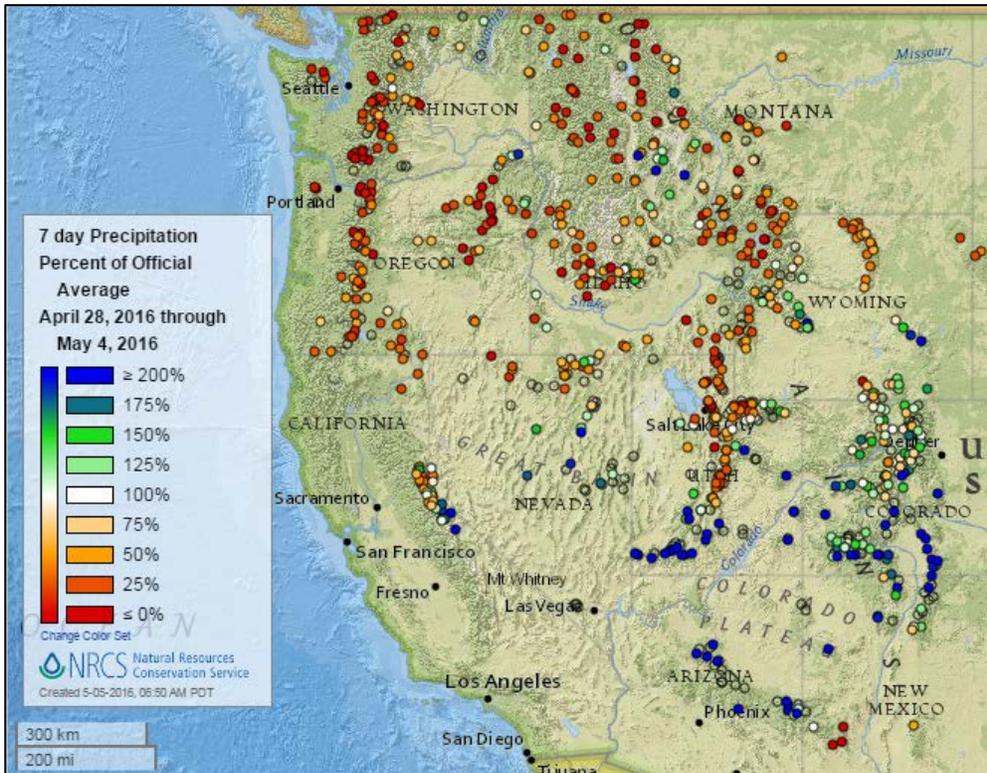
Current Snow Depth, National Weather Service (NWS) Networks



The NOAA National Operational Hydrologic Remote Sensing Center's current [snow depth](#) map shows generally no snow in the central and eastern U.S. except for a small area of northern Maine. Much of the mountains in the West report snow at mid and high elevations. Spring snowmelt in the West is continuing at most of the SNOTEL stations. The extensive snow in the northern Plains and Rockies from a week ago has melted.

## Precipitation

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

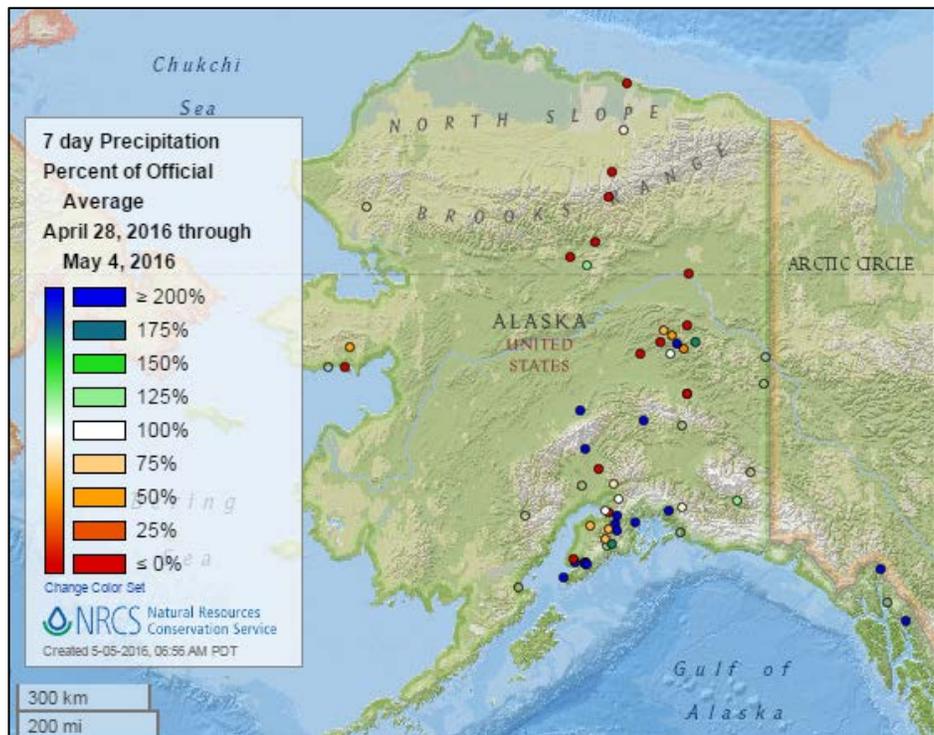


The 7-day [precipitation percent of average](#) map shows many stations in the Sierra Nevada east to the southern Rockies and much of the Southwest had much above average precipitation this week. Much of the northern half of the West received less than average precipitation for the week.

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

The Alaska 7-day [precipitation percent of average](#) map shows most of interior Alaska had a drier than average week, similar to a week ago. Most stations in the southern and southeast part of Alaska are above average at this time.

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

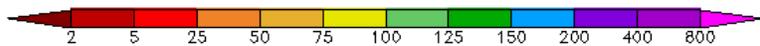
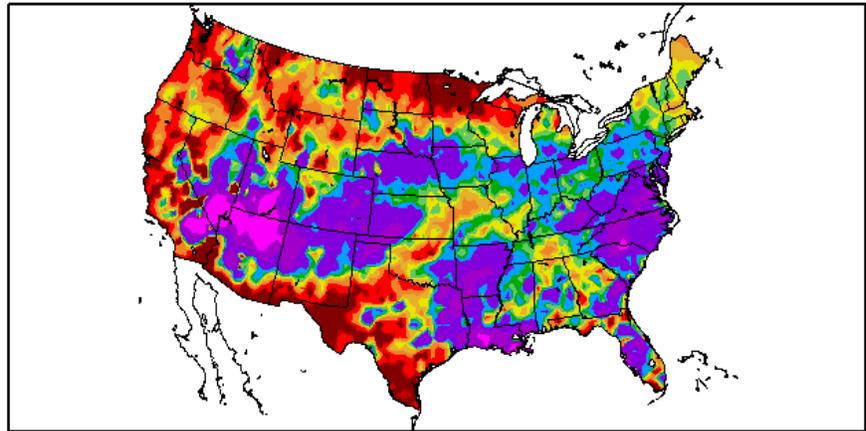


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

The 7-day [precipitation percent of normal](#) map for the continental U.S. shows mainly dry conditions along the northern tier states. Much above normal precipitation was reported across the Southwest from southern California and into the southern Rockies. The southern Mississippi River Valley, Mid-Atlantic, and many parts of the East reported above normal precipitation for the week.

Percent of Normal Precipitation (%)  
4/28/2016 – 5/4/2016



Generated 5/5/2016 at HPRCC using provisional data.

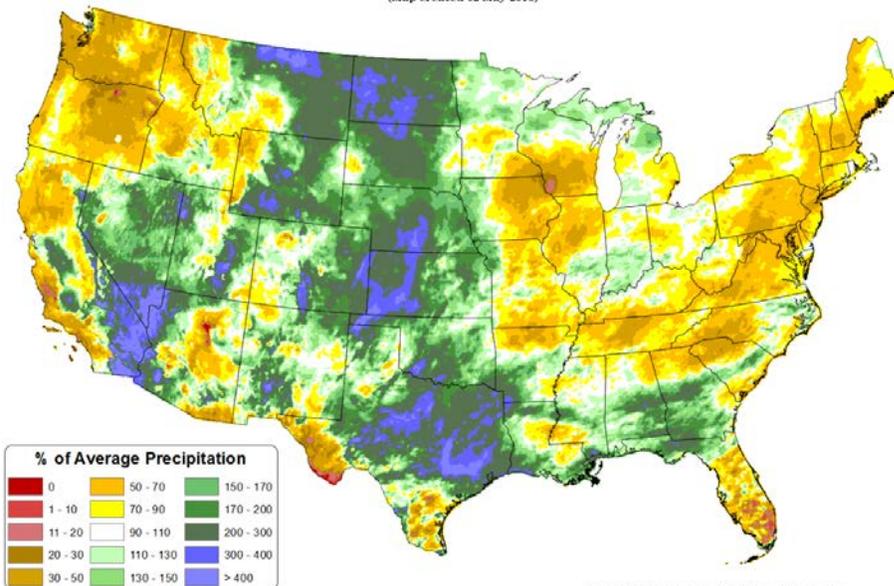
Regional Climate Centers

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

Previous Month, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

Total Precipitation Anomaly: April 2016  
Period ending 30 Apr 2016  
Base period: 1981-2010  
(Map created 02 May 2016)



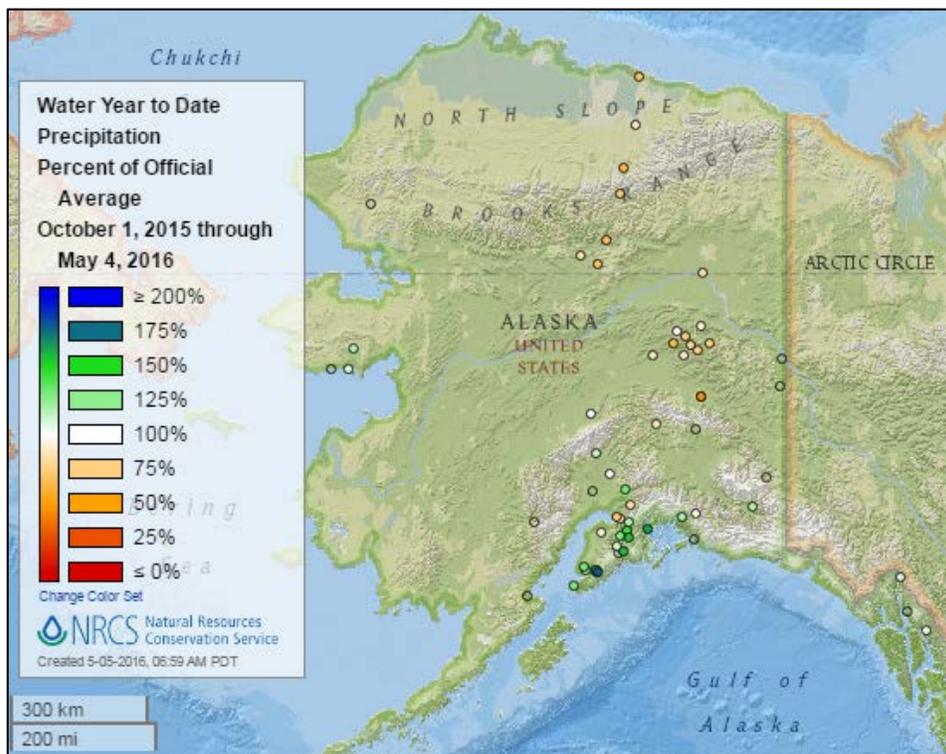
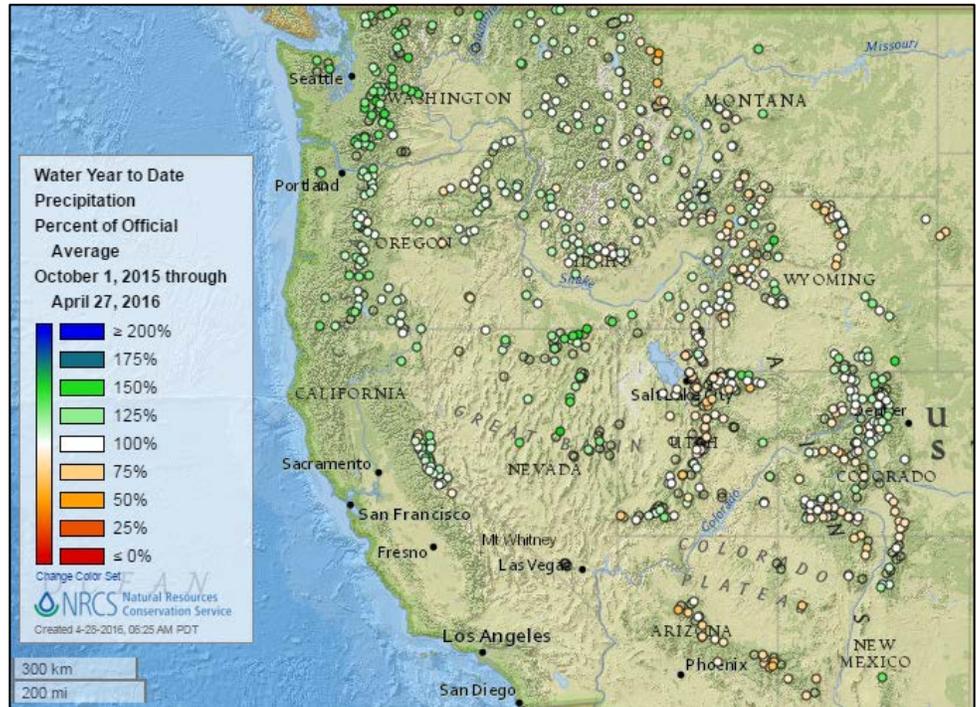
The April national [precipitation percent of average](#) map shows generally dry conditions for the Northwest, Midwest, Northeast, and Florida. The central U.S., from Montana and North Dakota south into Texas, had well above normal precipitation. Also well above normal precipitation is reported in southern California and southern Nevada.

See also: April total [precipitation values \(inches\)](#) map.

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

The 2016 water year-to-date [precipitation percent of average](#) map shows average to above average precipitation at most stations in the West. Areas of below average precipitation occurred in the Southwest, eastern Rockies, central Utah, and the Big Horn Mountains of Wyoming.

**See also:** 2016 water year-to-date total [precipitation values \(inches\)](#) map.



The Alaska 2016 water year-to-date [precipitation percent of average](#) map shows much of the Interior reported below average to average precipitation. The southern part of the state reported near average or above average precipitation, especially in the Kenai Peninsula.

**See also:** Alaska 2016 water year-to-date [precipitation values \(inches\)](#) map.

## Temperature

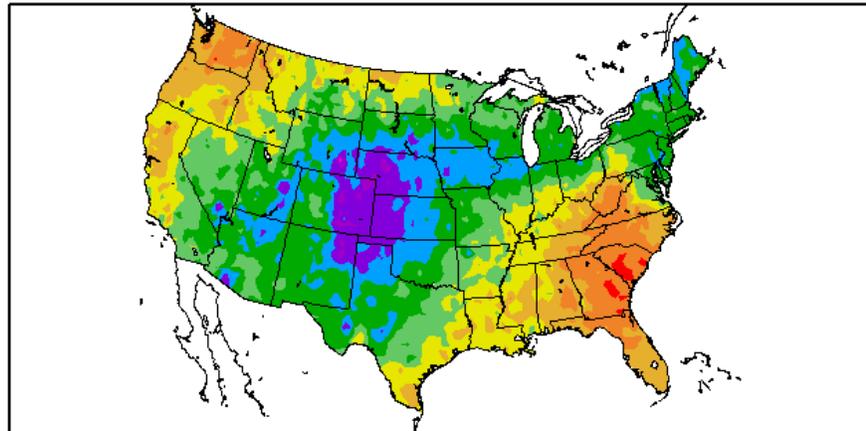
### Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

The 7-day [temperature anomaly](#) map shows the Southeast and Northwest parts of the country were warmer than normal this past week. Cooler than normal temperatures were reported from the Southwest through the central Plains to the Northeast. An exceptionally cold area was centered in eastern Colorado and western Kansas and Nebraska.

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

Departure from Normal Temperature (F)  
4/28/2016 – 5/4/2016



Generated 5/5/2016 at HPRCC using provisional data.

Regional Climate Centers

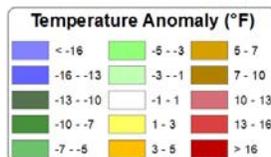
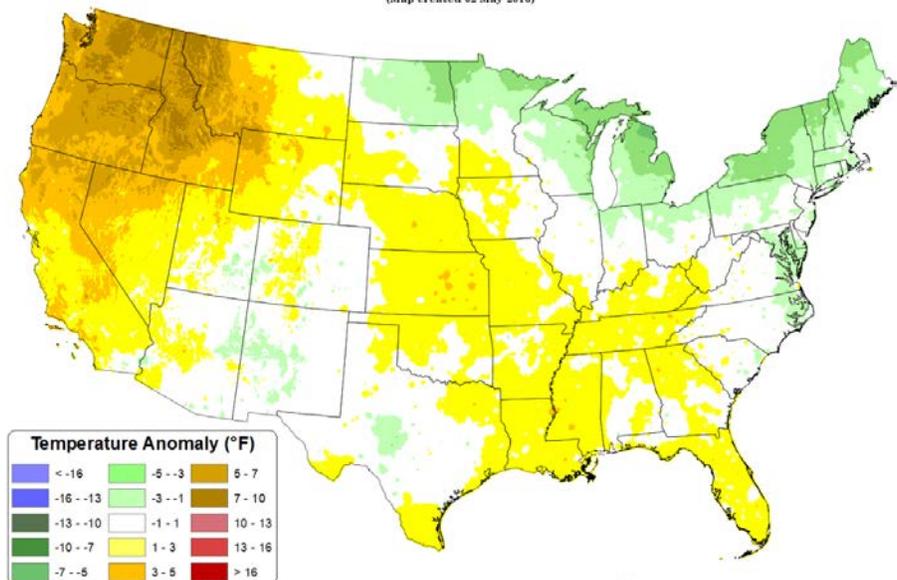
### Previous Month, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

The April [daily mean temperature anomaly](#) map shows above normal temperatures in the Northwest. Most of the rest of the U.S. reported normal to slightly above normal temperatures except for the northern boundary states and the Mid-Atlantic, where temperatures were cooler than normal.

See also: April [daily mean temperature \(° F\)](#) map.

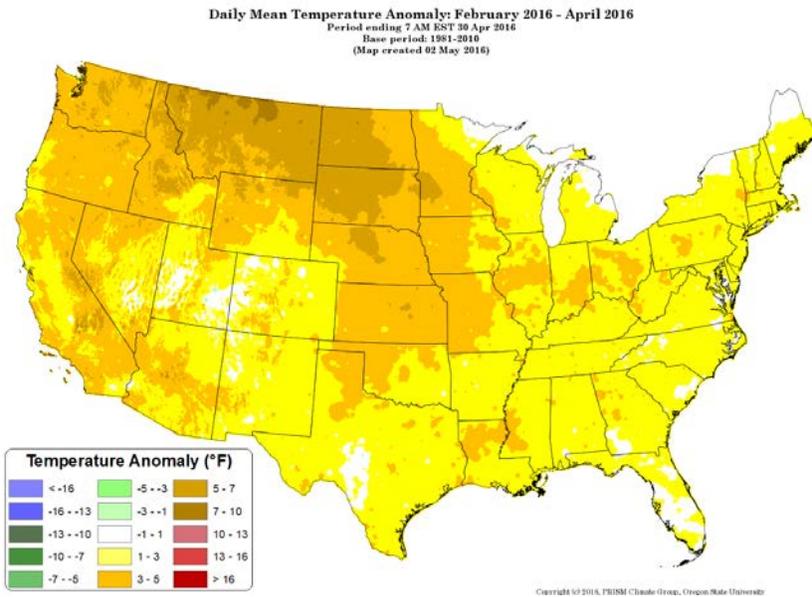
Daily Mean Temperature Anomaly: April 2016  
Period ending 7 AM EST 30 Apr 2016  
Base period: 1981-2010  
(Map created 02 May 2016)



Copyright © 2016, PRISM Climate Group, Oregon State University

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

Source: PRISM

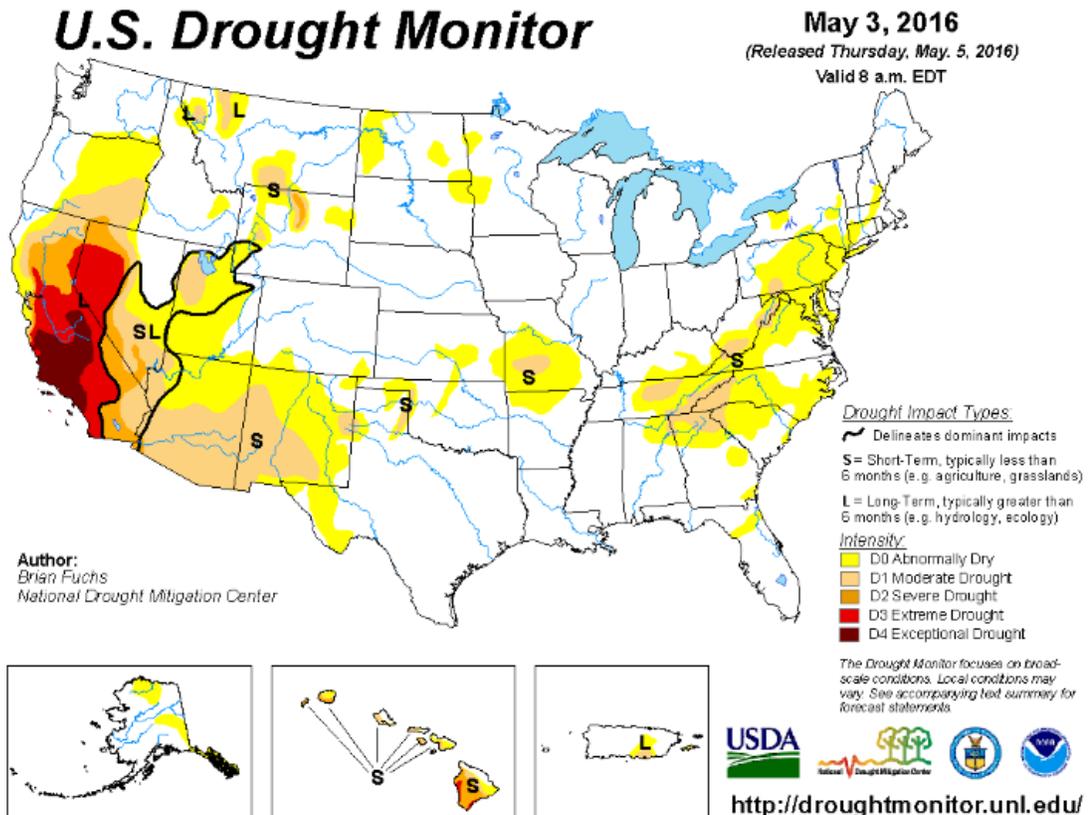


The February through April national **daily mean temperature anomaly** map shows that most of the country was warmer than normal. The warmest departures from normal were across the northern Rockies and northern Plains. The East, South, and much of the central Rockies, were near or slightly warmer than normal.

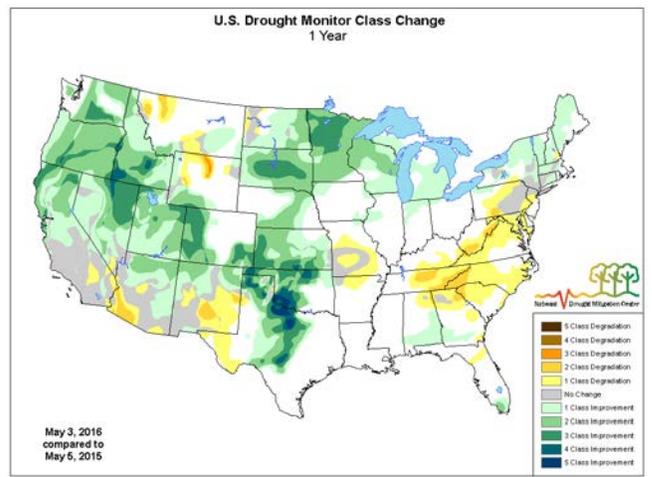
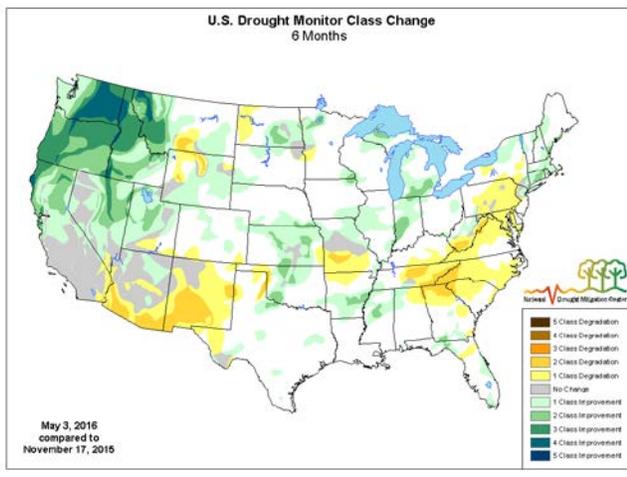
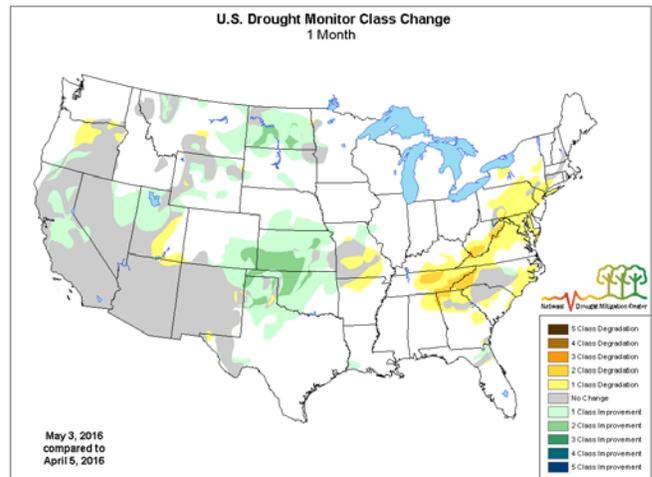
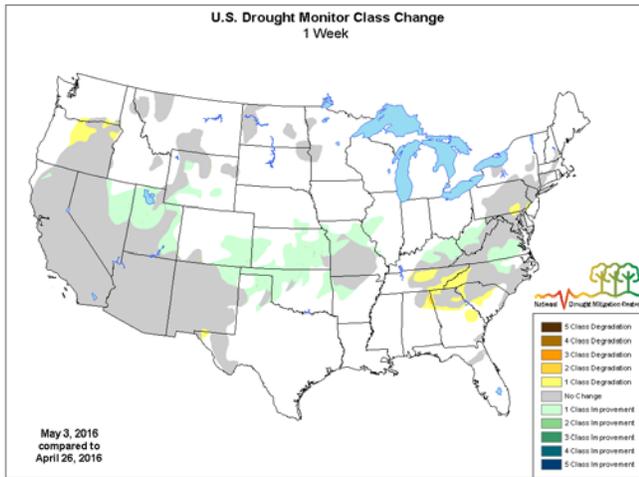
## Drought

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

[U.S. Drought Monitor](#) See map below. Drought conditions continue in the western states, including the exceptional drought in California.



## Changes in Drought Monitor Categories over Time



Click any map to enlarge it.

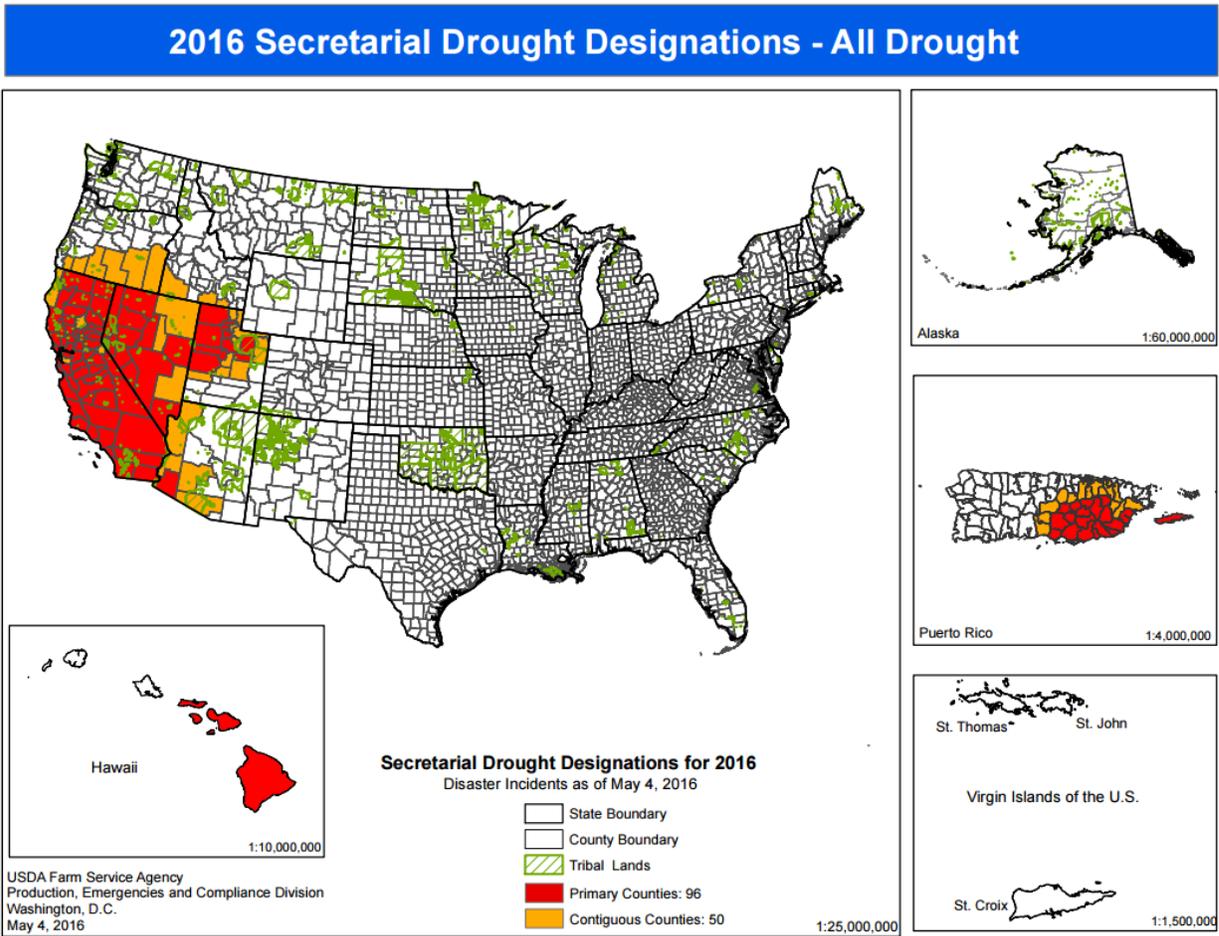
**Drought conditions** continue to improve over much of the country. Over the past 6-12 months, conditions have improved in the south-central U.S., Mississippi River Valley, Great Plains, and much of the Pacific Northwest. Dry conditions are increasing in the East. The remainder of the West has shown improvement, but long-term drought persists in the Southwest.

### Current National [Drought Summary](#), May 3, 2016

Author: Brian Fuchs, National Drought Mitigation Center

“A strong upper-level low pressure system moved through the central and eastern United States during the week. In the Rocky Mountains, wet snow was recorded; on the Plains and eastward, many areas had rain. The greatest amounts were over east Texas, eastern Oklahoma, Arkansas and into the Ohio River Valley, where up to 5 inches of rain was measured at several locations. As the system tracked east, areas of the Mid-Atlantic to southern New England recorded 2-3 inches of rain, with locally greater amounts. During this time, much of the West, the northern Plains, much of the Southeast, the upper Midwest, and northern New England remained dry. Those areas that received the precipitation were also cooler than normal for the week, with departures of up to 12 degrees below normal over the High Plains and Rocky Mountains. Warmer than normal temperatures were recorded over much of the Pacific Northwest and the Southeast.”

USDA 2016 Secretarial [Drought Designations](#)

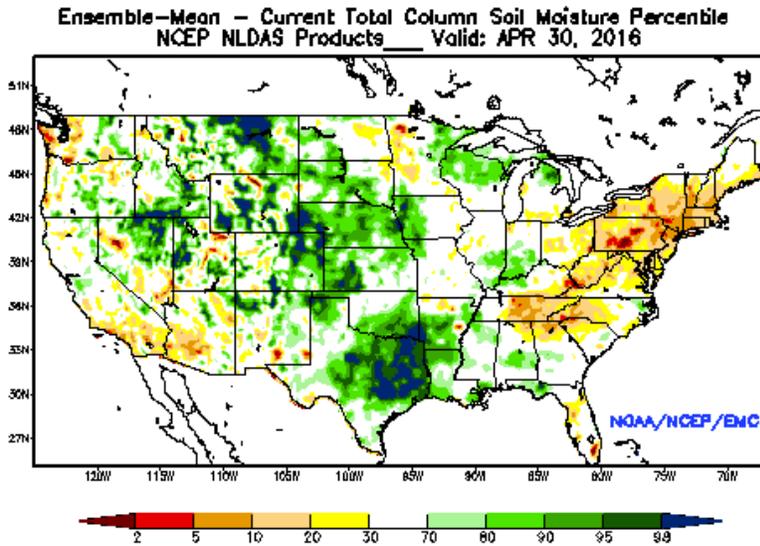


**Highlighted Drought Resources**

- [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](#)

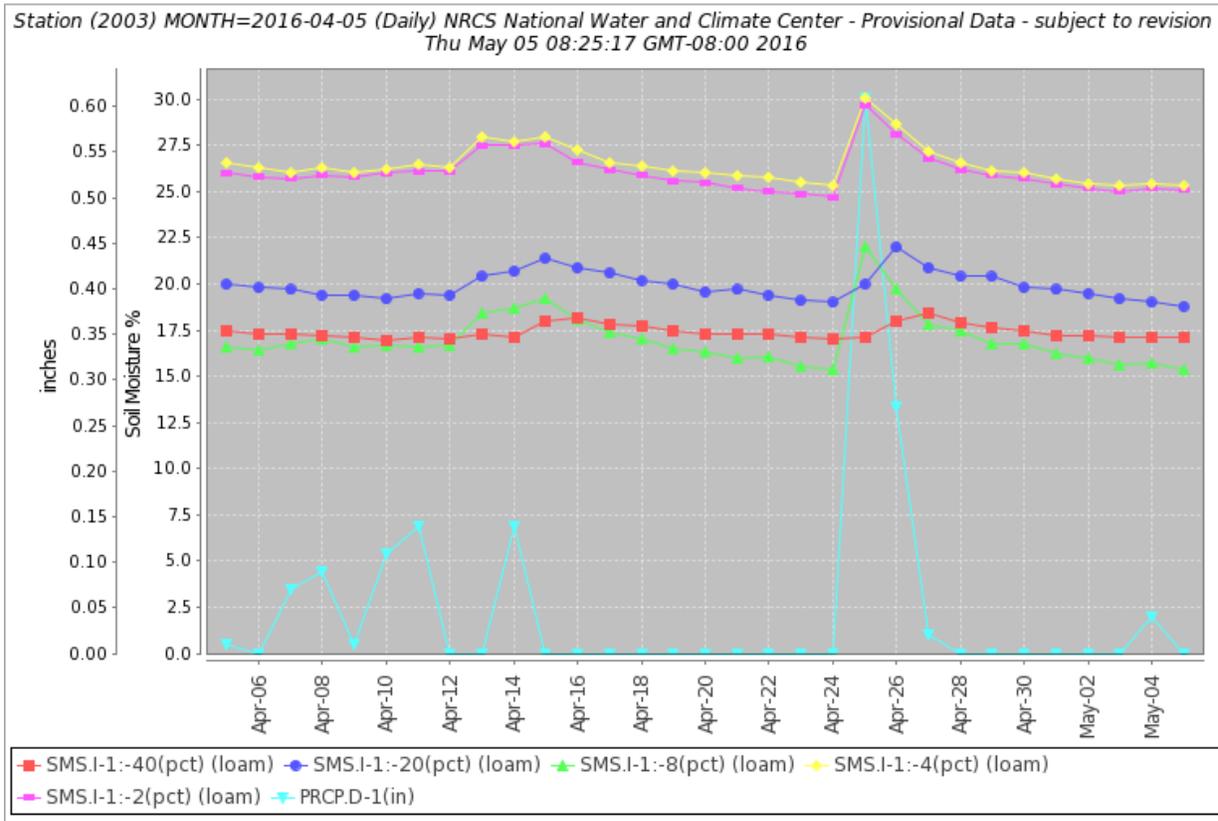
## Other Climatic and Water Supply Indicators

### Soil Moisture



The modeled [soil moisture percentiles](#) as of April 30, 2016 show the Great Plains, western mountains, and south-central U.S. have large areas of wet soil conditions, with much of Texas showing large soil moisture percentages due to recent storms and flooding. The largest areas of dryness are in the eastern U.S. Some areas of dryness continue in the Northwest and Southwest.

### Soil Moisture Data: NRCS [Soil Climate Analysis Network \(SCAN\)](#)



This graph shows soil moisture (at 2-, 4-, 8-, 20-, and 40- inch depths) and precipitation for the past 30 days at the [Wabeno #1 SCAN site 2003](#) in Wisconsin. All sensor depths show soil moisture increase from the precipitation on April 25, while storms in early April show a delayed cumulative effect from several events. The small event in early May shows limited effect on the soil moisture, with a slight delay in soil drying.

## Soil Moisture Data Portals

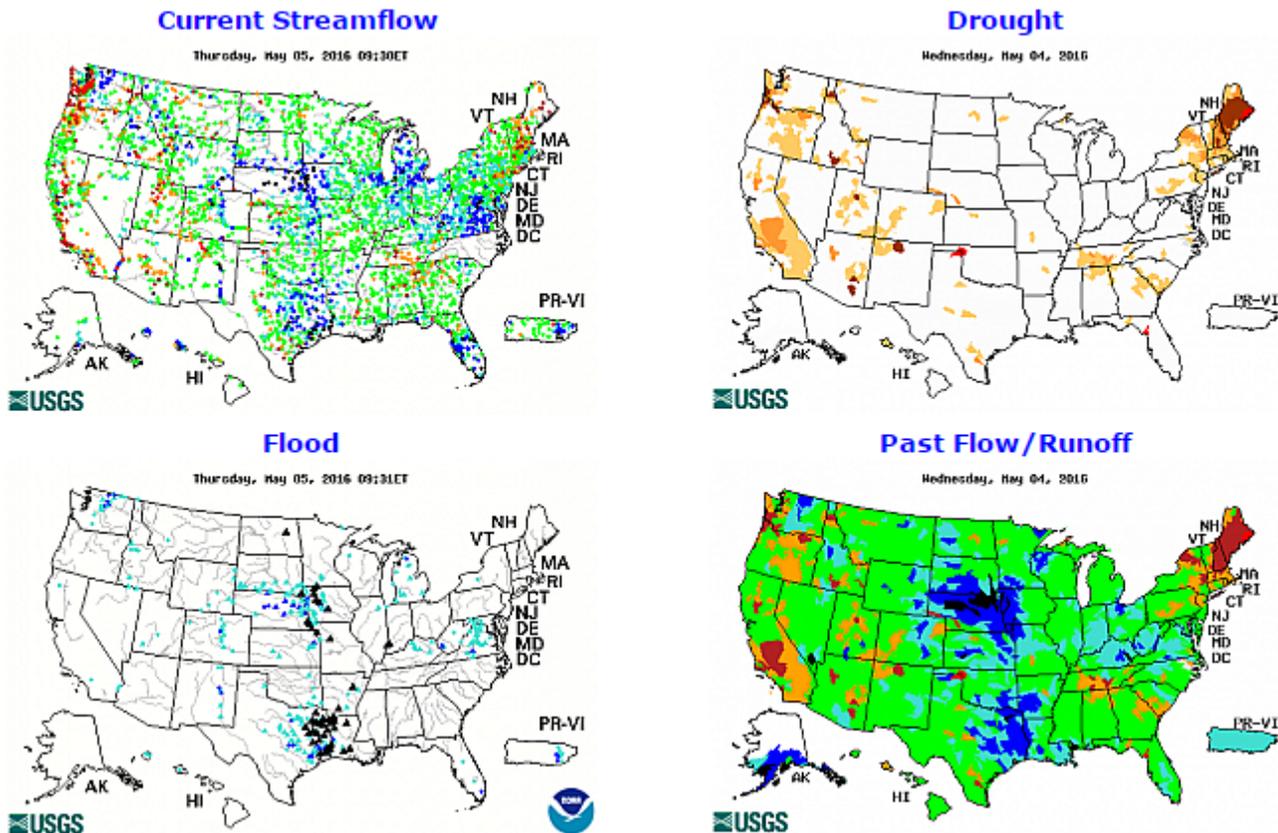
[CRN Soil Moisture](#)

[Texas A&M University North American Soil Moisture Database](#)

[University of Washington Experimental Modeled Soil Moisture](#)

## Streamflow

Source: USGS



Click to enlarge and display legends

The [current streamflow](#) map shows stations continue to report above flood stage conditions at locations in the lower Missouri River basin, and much of East Texas and Louisiana. Many gages in the central U.S. are reporting above normal streamflow at this time.

## Current 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 Reservoir Conditions](#)

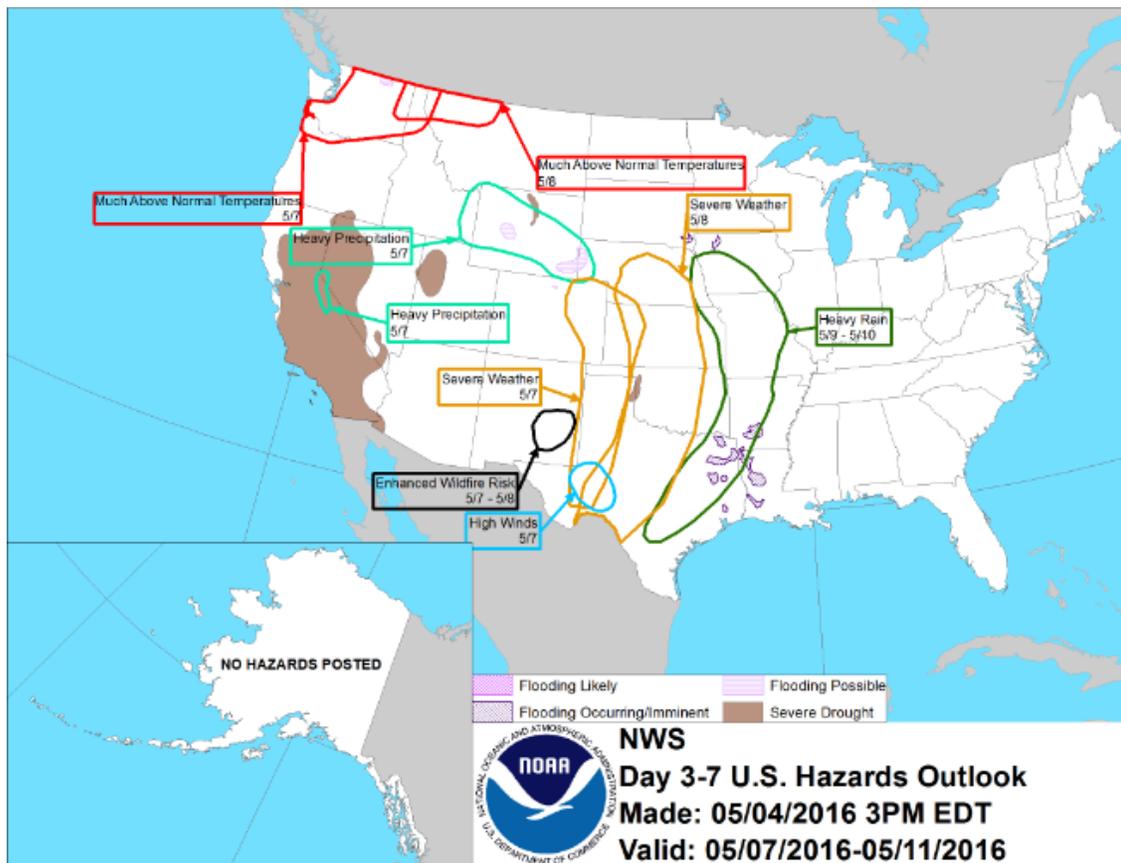
## Short- and Long-Range Outlooks

### Agricultural Weather Highlights

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

**National Outlook, May 5, 2016:** “During the next few days, an atmospheric blocking pattern over North America will favor cool, showery conditions in parts of the eastern and western U.S., while warm, dry weather will prevail across the nation’s midsection. In the middle and northern Atlantic States, additional rainfall should total 1 to 2 inches. Meanwhile, Western totals could reach 1 to 3 inches in the Sierra Nevada and 2 to 4 inches or more across the northern Intermountain West. However, most (or all) of the precipitation will bypass the lower Southeast and the southern Rockies. During the weekend and early next week, dry weather will gradually return to the Northeast, while rain (locally 1 to 2 inches or more) will overspread portions of the Plains, mid-South, and western Corn Belt. The NWS 6- to 10-day outlook for May 10 – 14 calls for the likelihood of near- to below-normal temperatures across the Plains and Mississippi Valley, while warmer-than-normal weather can be expected in the eastern and western U.S. Meanwhile, near- to above-normal rainfall across the majority of the nation will contrast with drier-than-normal conditions in the Pacific Northwest and parts of the north-central U.S.”

### National Weather Hazard Outlook



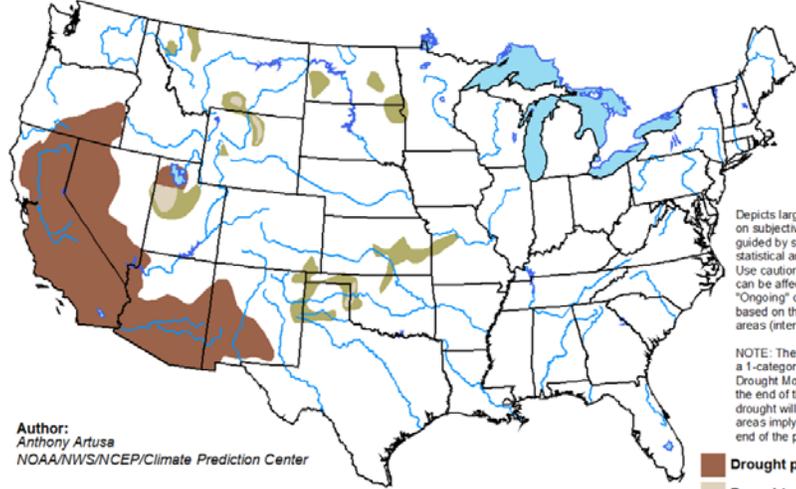
The NWS Climate Prediction Center’s outlook for [weather hazards](#) shows heavy rain is expected from central Iowa south through central Texas, over much of the area experiencing flooding. Severe weather is expected from eastern Colorado and central Nebraska to the Mexico border. High winds are expected in southwest Texas. An enhanced wildfire risk is located in southeast New Mexico. Heavy precipitation is expected in Wyoming and in the central Sierra Nevada. Much above normal temperatures are again expected in the Pacific Northwest. Flooding is occurring at several places in the central Plains and southern U.S., including a large area of eastern Texas. Flooding is possible in two areas of Wyoming and in north-central Washington. The severe drought continues in parts of the West.

**Seasonal Drought Outlook**

During the next three months, **drought** will persist on the Big Island in Hawaii, California, western Nevada, northern Utah, Arizona, and New Mexico. Elsewhere, most drought designations are expected to improve or be removed.

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

Valid for April 21 - July 31, 2016  
Released April 21, 2016



Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

Author:  
Anthony Artusa  
NOAA/NWS/NCEP/Climate Prediction Center

- Drought persists
- Drought remains but improves
- Drought removal likely
- Drought development likely

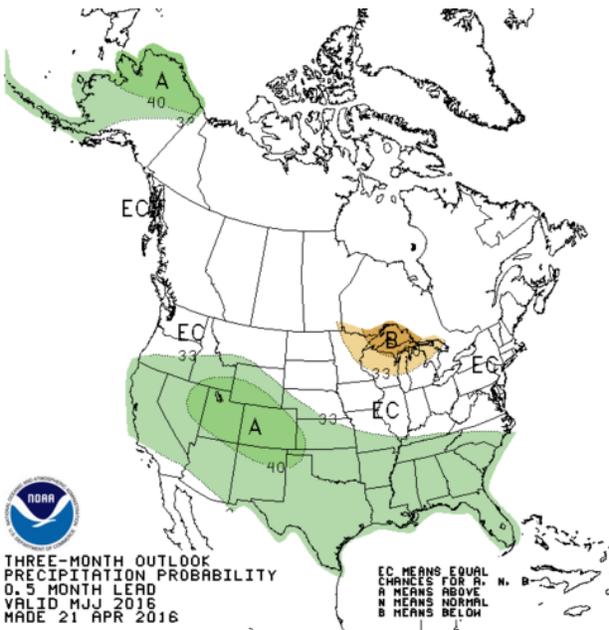


<http://go.usa.gov/3eZ73>

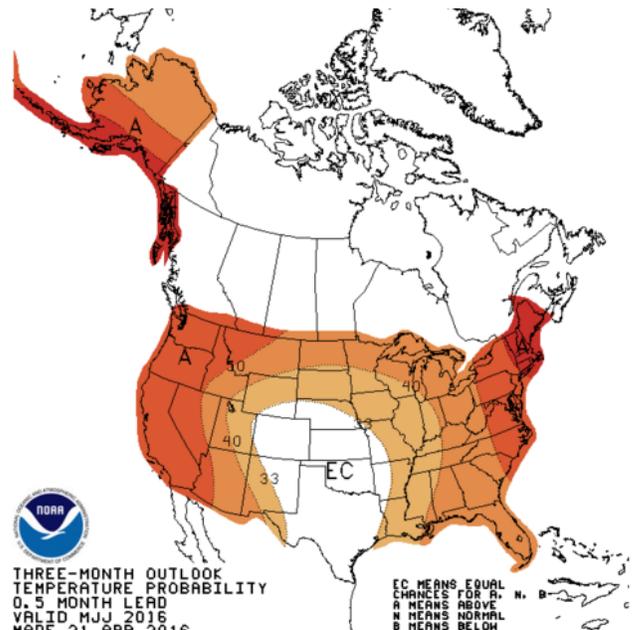


**NWS Climate Prediction Center 3-Month Outlook:**

Precipitation



Temperature



### Outlook Summary

NWS Climate Prediction Center:

[The May-June-July \(MJJ\) 2016 precipitation outlook](#): “The MJJ 2016 precipitation outlook favors above-median precipitation for a region stretching from northern California eastward to include much of the Interior West, parts of the Southwest, southern Plains, and Southeast. Residual El Niño impacts support the highlighted area across much of the West and southern Plains while dynamical and statistical model guidance favor areas in the Southeast. It is important to note that these probabilities are quite modest and represent only a slight tilt to the above-median category, especially across the Southeast CONUS. Below-median precipitation is most likely for northern regions of the Pacific Northwest and the western Great Lakes consistent with any remaining El Niño influence and dynamical model guidance. An increased chance of above-median precipitation is also forecast for western and northern Alaska through JJA 2016 by dynamical models, resulting from anomalously open sea ice and warm open-ocean temperatures.”

[The May-June-July \(MJJ\) 2016 temperature outlook](#): “The suite of temperature outlooks this month are similar to those released last month as the general thinking over the outlook period remains generally unchanged, although potential La Niña impacts were considered earlier than in previous sets of outlooks.

Overall for temperature, changes were primarily minor adjustments for the first several leads where probabilities are modified somewhat in some areas based on the latest calibrated dynamical model guidance and current soil moisture conditions. For MJJ 2016, calibrated model guidance and in some areas positive departures in soil moisture support a slightly adjusted region of equal chances (EC) and a slight decrease in probabilities for above normal temperatures for some locations in the northern Plains, upper Mississippi Valley, and Great Lakes. Probabilities for above normal temperatures were increased for parts of the far West and Southwest CONUS based on dynamical model guidance, long term trends, and below average winter and early spring precipitation.”

### 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](#).