

# Water and Climate Update

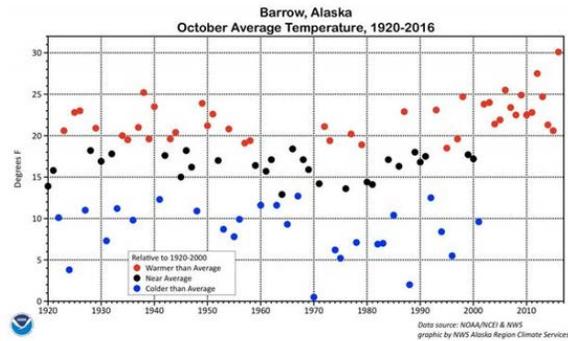
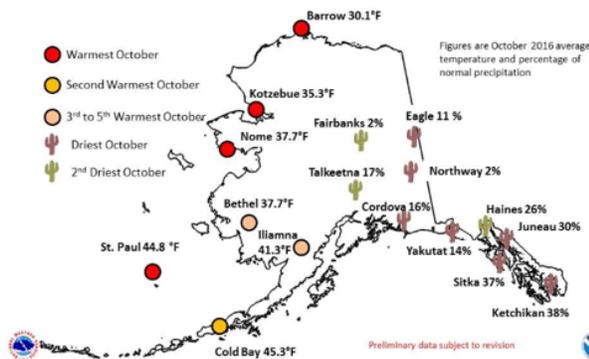
November 10, 2016

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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## Alaska experiences warmest and driest October on record

### October 2016 Climate Highlights



Graph from the U.S. Weather Service showing recent Barrow temperatures for October have been above average. In the past, temperatures were mixed — above, below and near the averages. (National Weather Service)

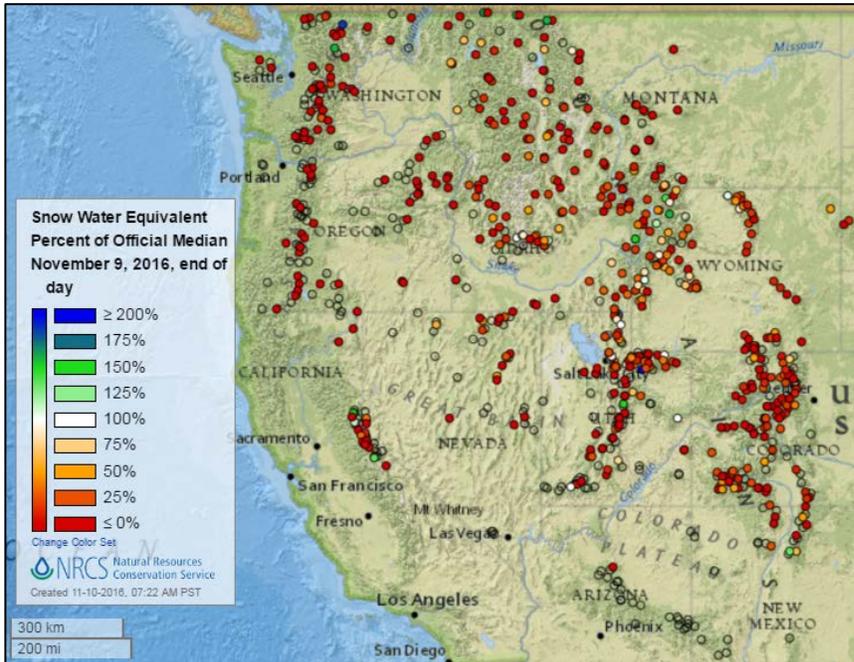
This year's winter weather is slow to start in Alaska. Warm and dry conditions dominated the region during October, setting records across the state. This warm, dry weather led to additional records being broken for low amounts of sea ice and one of the latest snowfalls in some locations. This is in stark contrast to the October storms in the Pacific Northwest, causing record wet conditions during this same time.

News:

- [Barrow's record-warm October continues pattern associated with low sea ice](#)
- [Finally, One of the Latest First Snows on Record in Fairbanks](#)
- [October is the driest ever in Southeast Alaska](#)

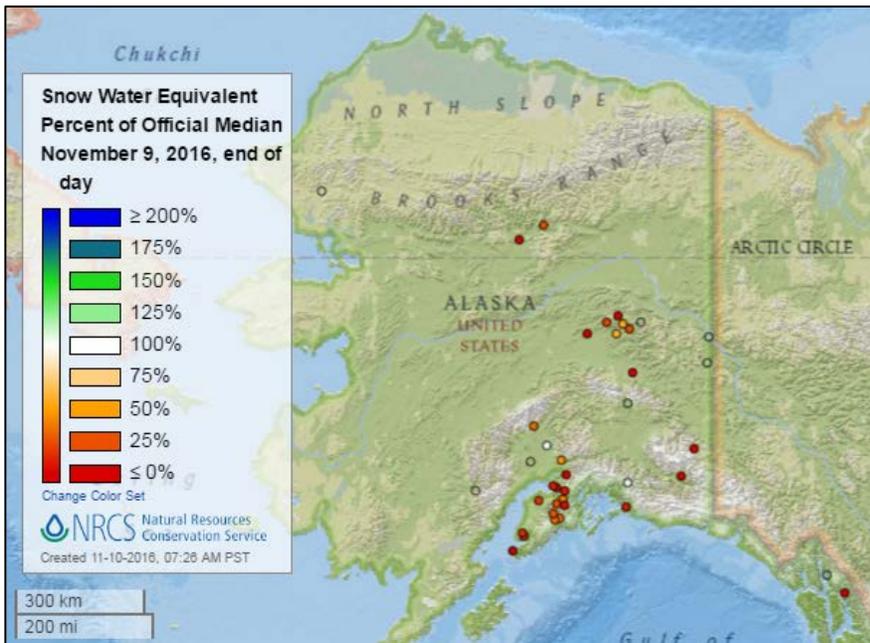
## Snow

### Current Snow Water Equivalent, NRCS SNOTEL Network



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

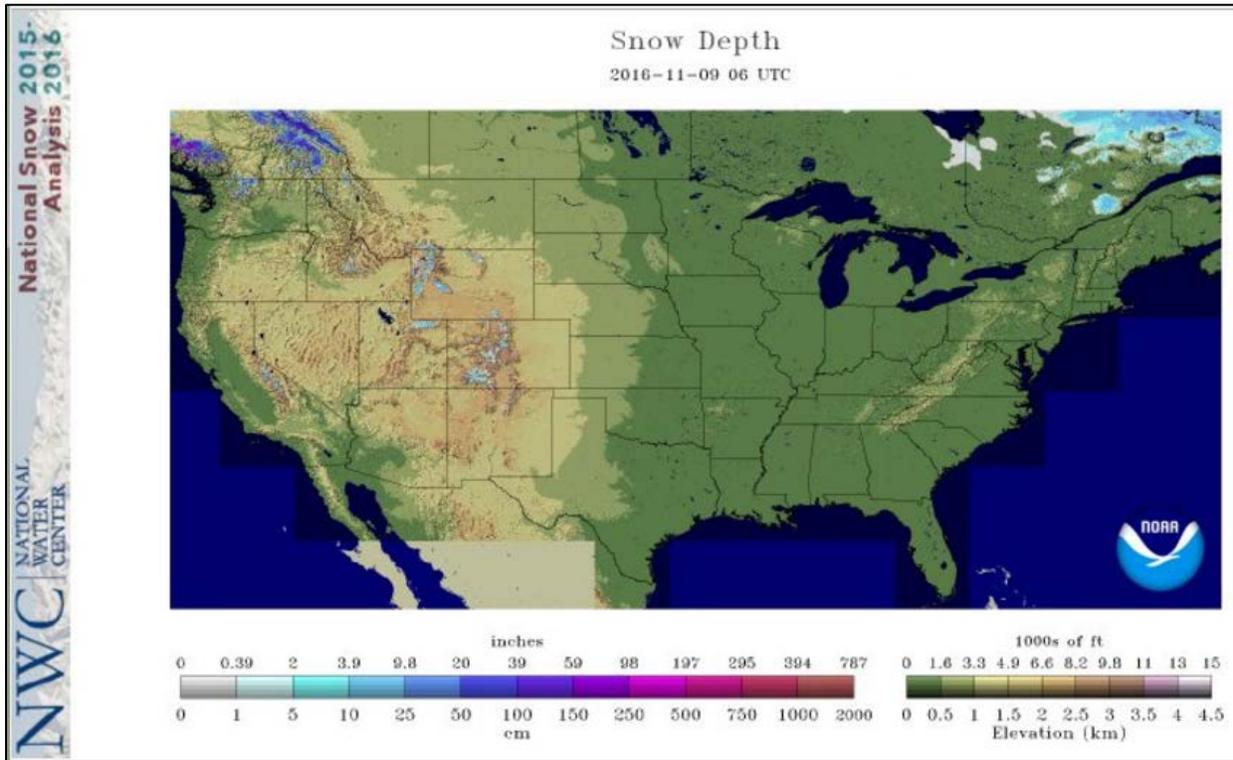
**See also:**  
[Snow water equivalent values \(inches\) map](#)



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

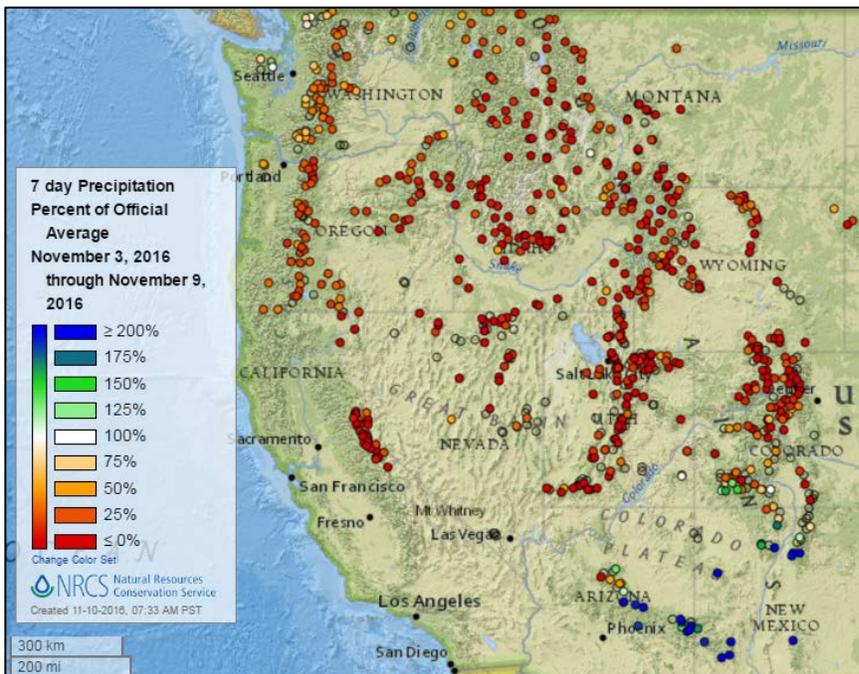
**See also:**  
[Alaska snow water equivalent values \(inches\) map](#)

[Current Snow Depth](#), National Weather Service (NWS) Networks



## Precipitation

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



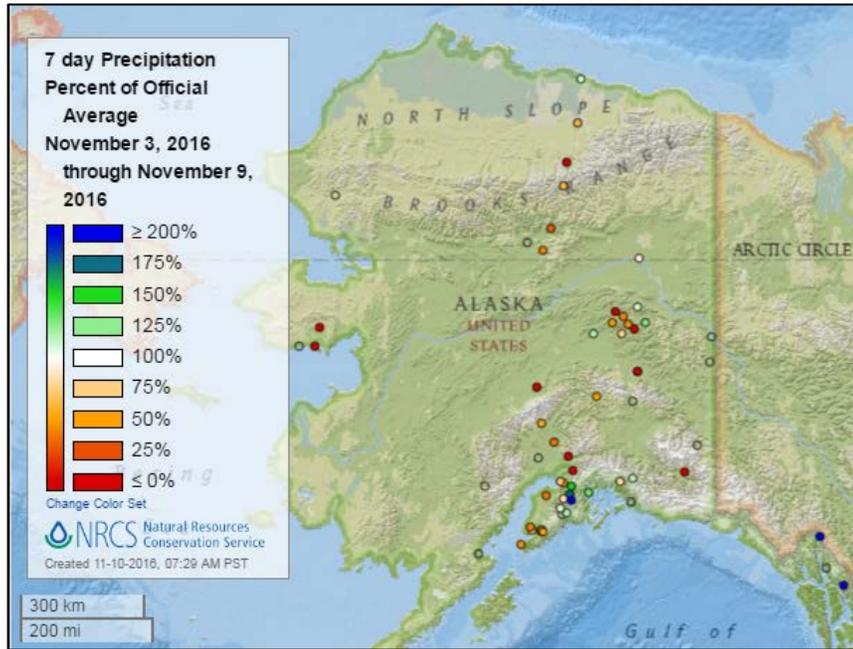
[7-day precipitation percent of average map](#)

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

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

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



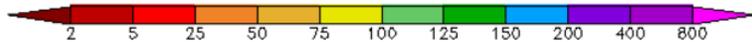
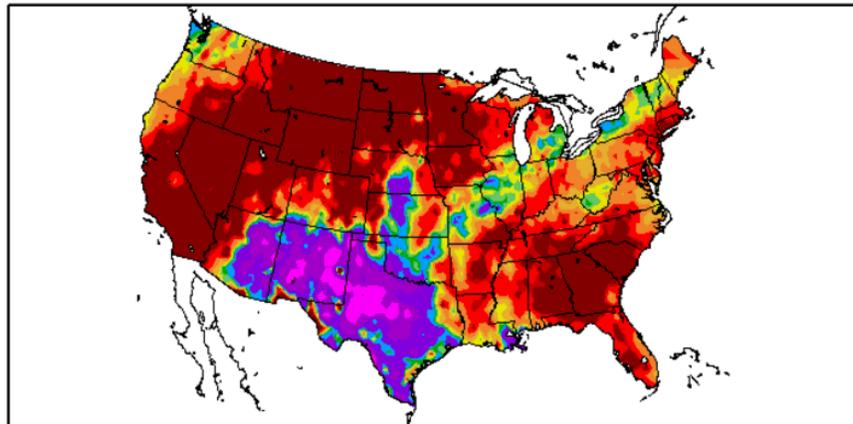
## Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day precipitation percent of normal map](#) for the continental U.S.

Percent of Normal Precipitation (%)  
11/3/2016 – 11/9/2016

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

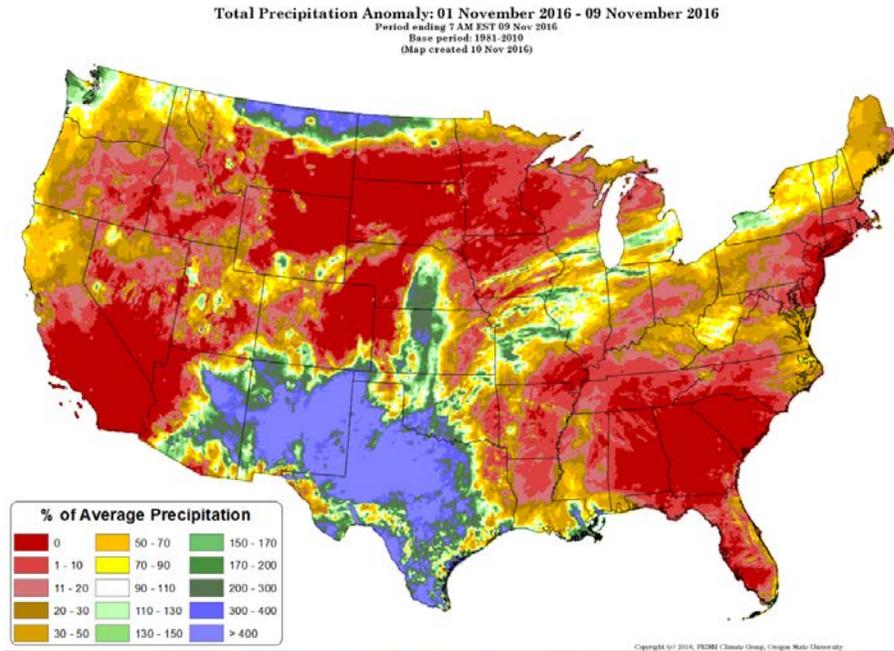


Generated 11/10/2016 at HPRCC using provisional data.

Regional Climate Centers

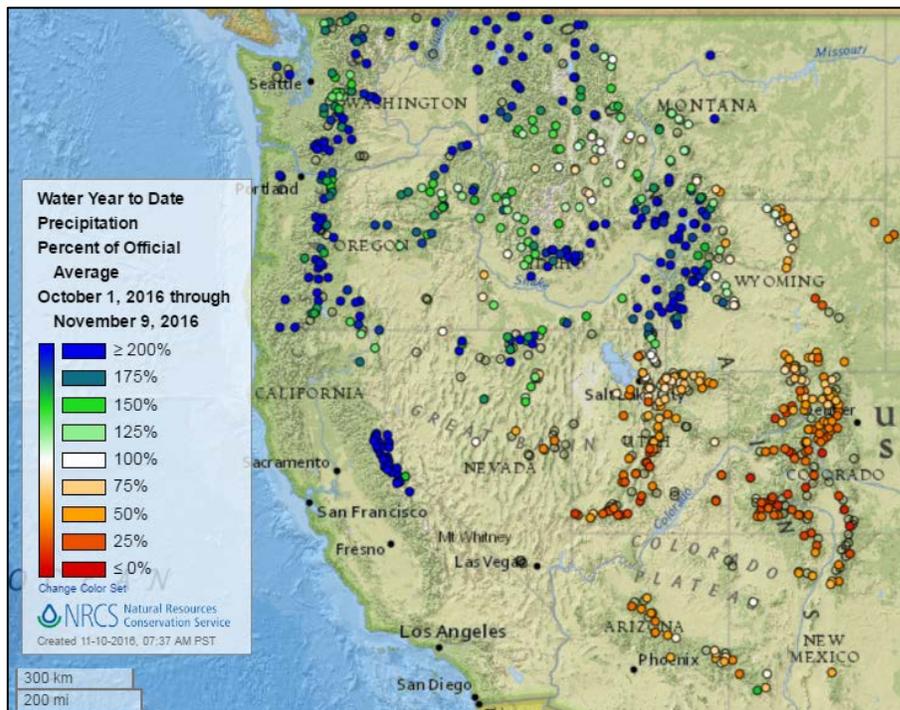
Month-to-Date, All Available Data Including SNOTEL and NWS Networks

Source: PRISM



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

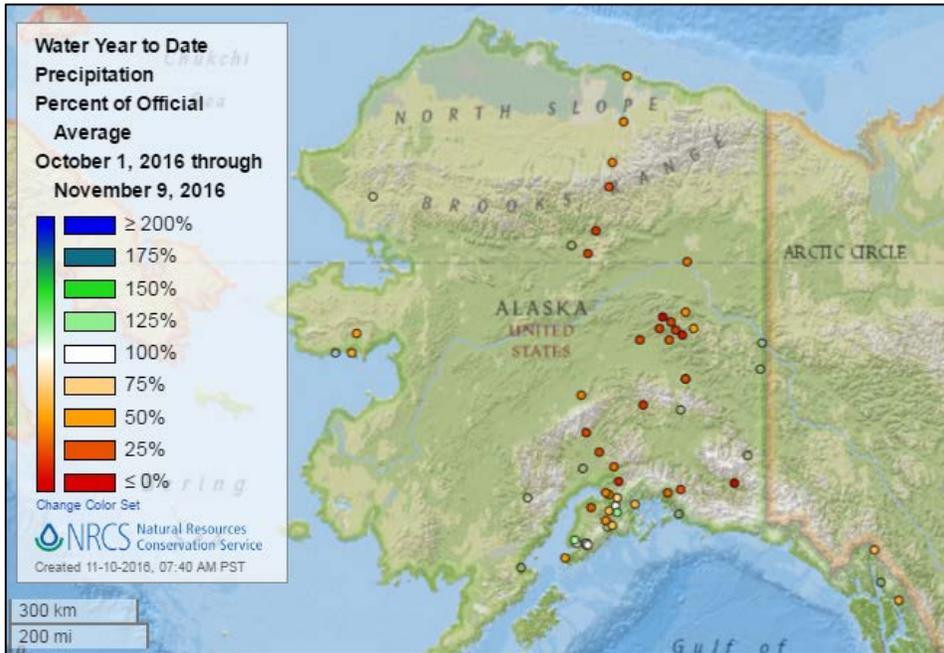
Water Year-to-Date, Western Mountain Sites (NRCS SNOTEL Network)



[2017 water year-to-date precipitation percent of average map](#)

[See also: 2017 water year-to-date precipitation values \(inches\)](#)

# Water and Climate Update



[Alaska 2017 water year-to-date precipitation percent of average map](#)

**See also:** [Alaska 2017 water year-to-date precipitation values \(inches\) map](#)

## Temperature

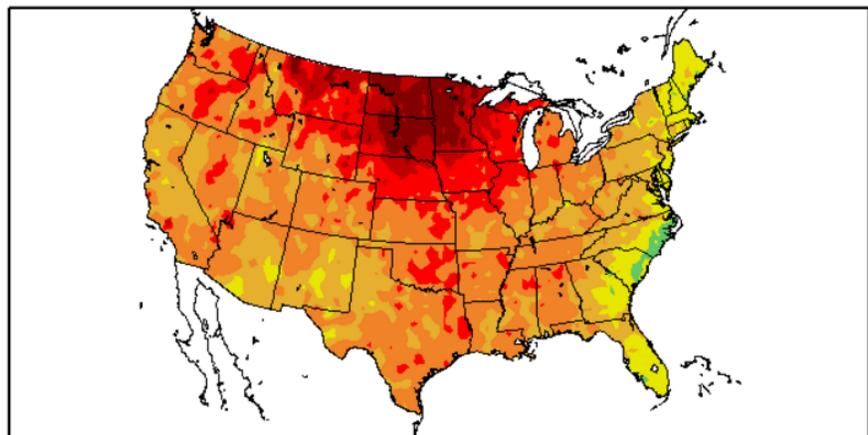
**Last 7 Days, National Weather Service (NWS) Networks**

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)  
11/3/2016 – 11/9/2016



Generated 11/10/2016 at HPRCC using provisional data.

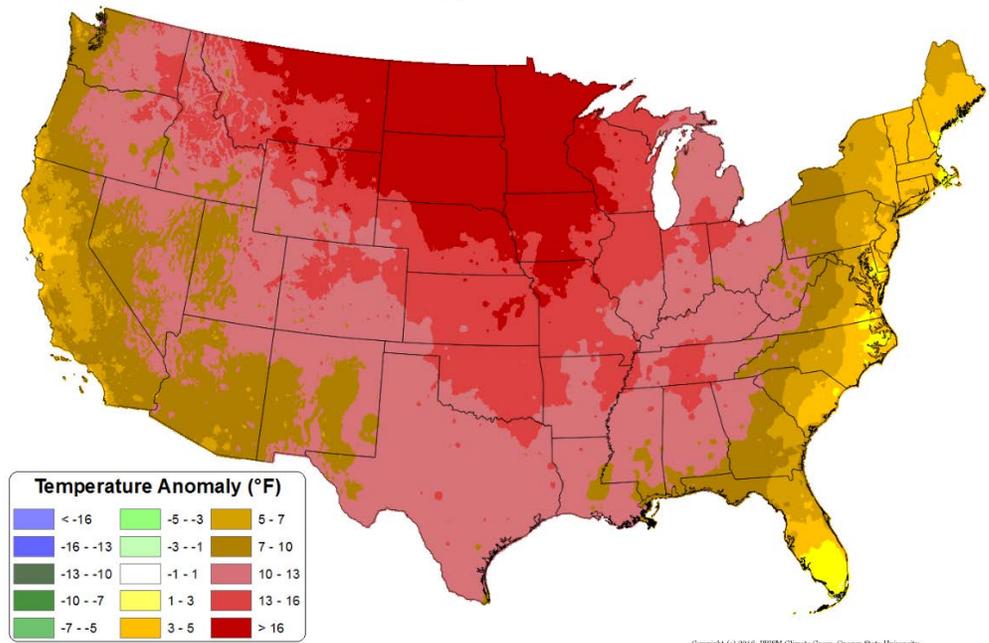
Regional Climate Centers

# Water and Climate Update

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

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

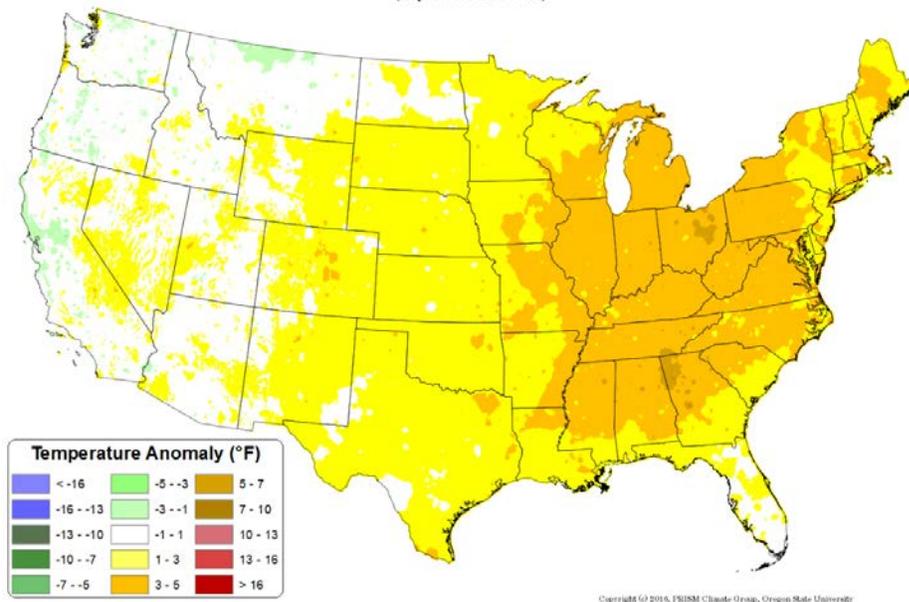
Daily Mean Temperature Anomaly: 01 November 2016 - 09 November 2016  
Period ending 7 AM EST 09 Nov 2016  
Base period: 1981-2010  
(Map created 10 Nov 2016)



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

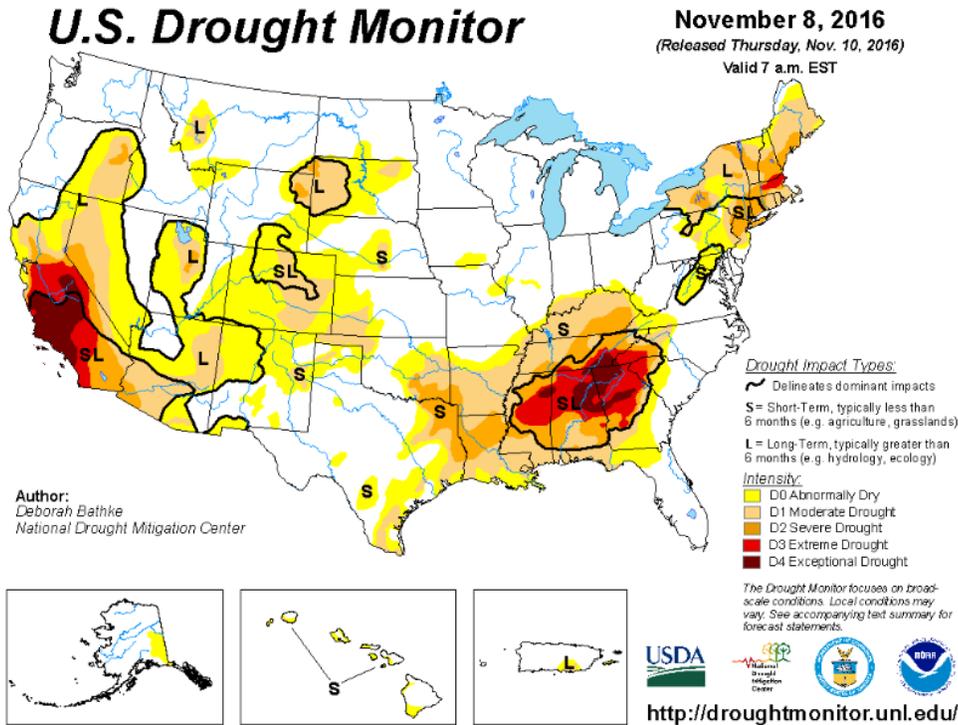
Daily Mean Temperature Anomaly: August 2016 - October 2016  
Period ending 7 AM EST 31 Oct 2016  
Base period: 1981-2010  
(Map created 02 Nov 2016)

[August through October daily mean temperature anomaly map](#)



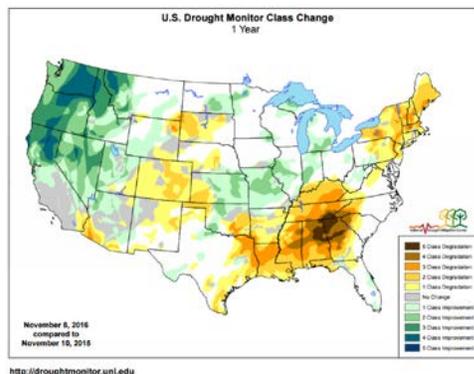
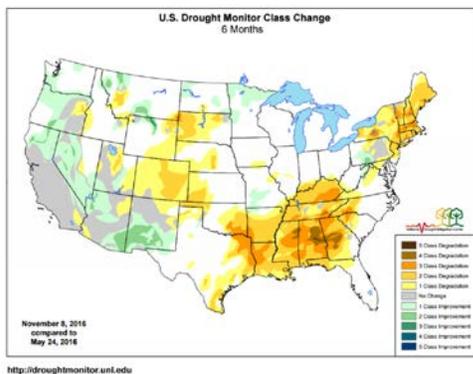
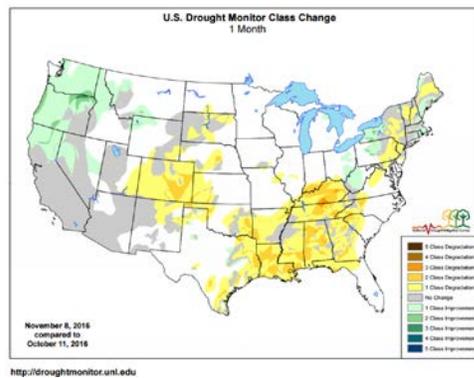
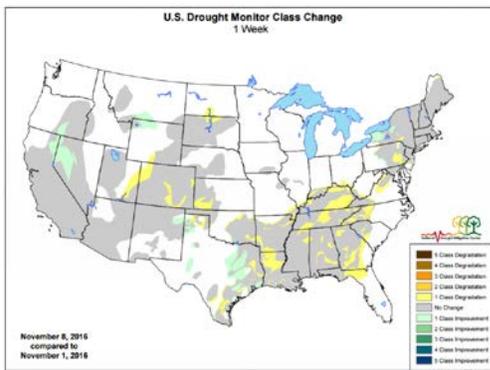
Drought

[U.S. Drought Monitor](#) See map below. [U.S. Drought Portal](#) Comprehensive drought resource.



Changes in Drought Monitor Categories over Time

Click any map to enlarge



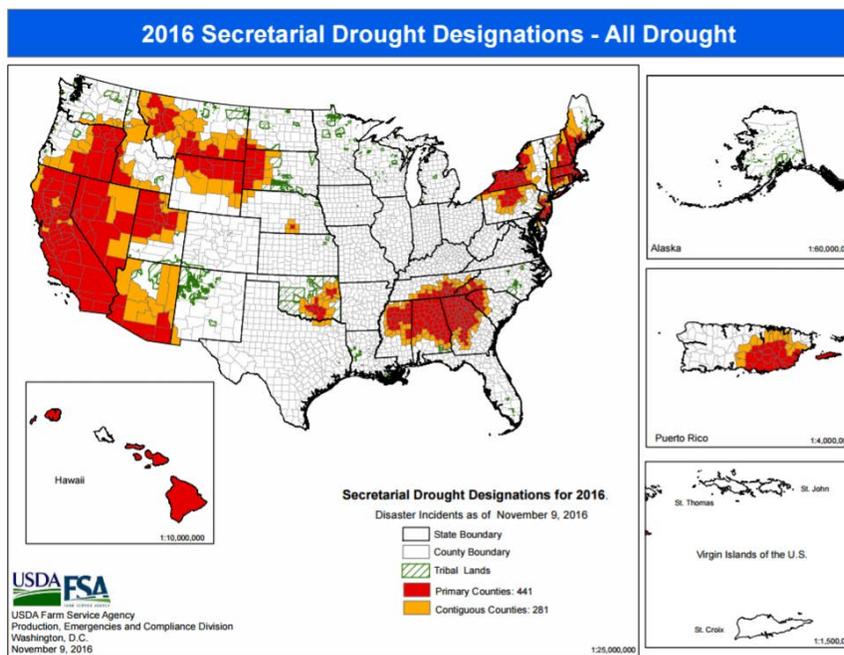
[Changes in drought conditions over the last 12 months](#)

## Current National [Drought Summary](#), November 8, 2016

Author: Deborah Bathke, National Drought Mitigation Center

"Mild weather once again dominated the majority of the U.S. this past week. Temperatures of at least 10 degrees warmer than normal dominated much of the Plains, Midwest, and Mid-South. Near to slightly below-normal temperatures were confined to New England and south Florida. The drought-stricken areas of the Southeast, southern California, the Intermountain West, and the northwestern Plains received little, if any, precipitation resulting in the persistence or deterioration of drought conditions in these areas. Meanwhile, the coastal Northwest, the south-central U.S., parts of the Midwest, and New England saw rainfall with the passage of a cold front through those areas."

## USDA 2016 Secretarial [Drought Designations](#)

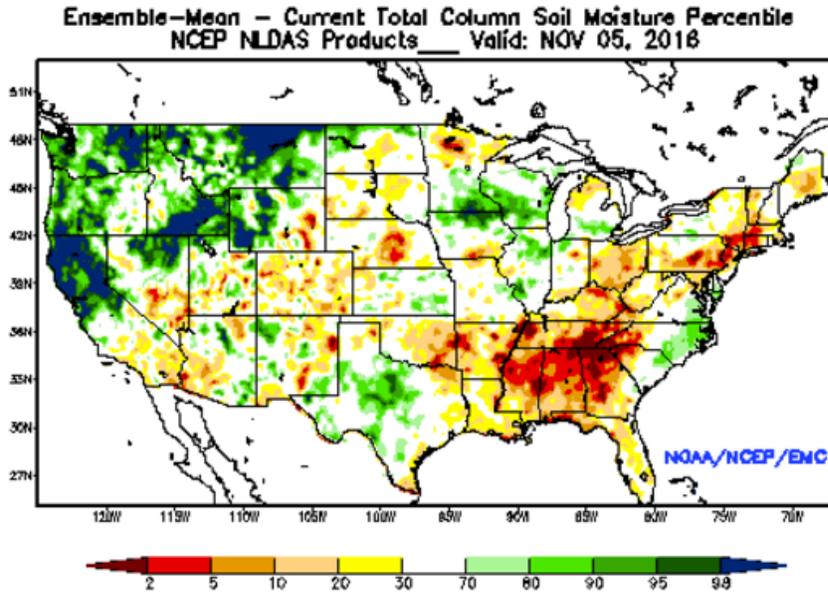


### Highlighted Drought Resources

- [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](#)

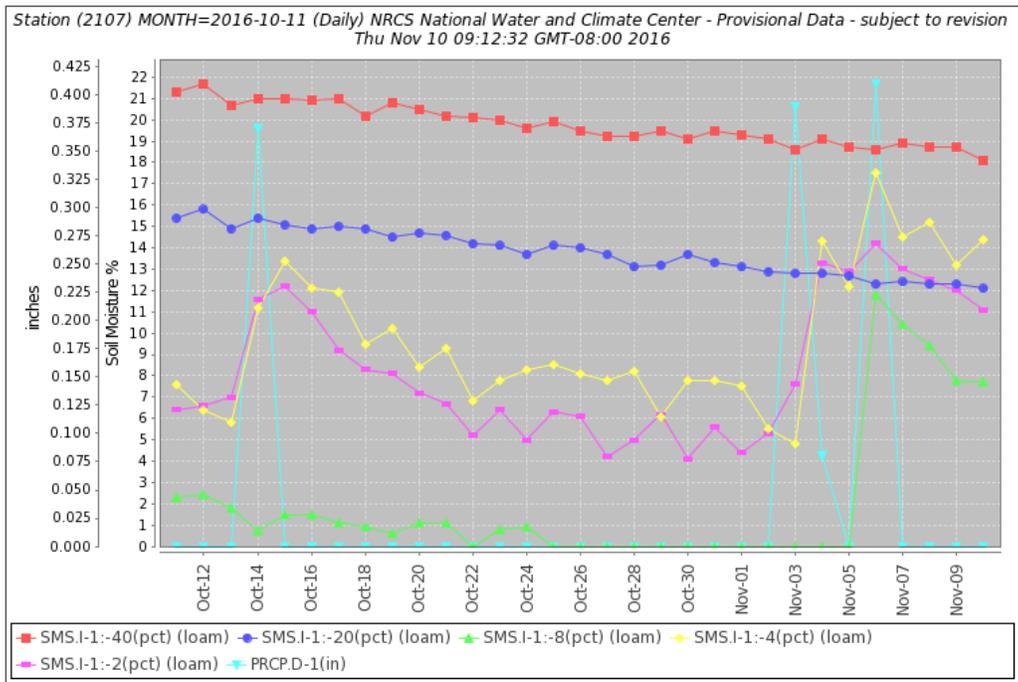
## Other Climatic and Water Supply Indicators

### Soil Moisture



[Modeled soil moisture percentiles](#) as of November 5, 2016.

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



Soil moisture (at 2-, 4-, 8-, 20-, and 40-inch depths) and precipitation for the past 30 days at the [Crossroads SCAN site 2107](#) in New Mexico. The precipitation on November 3, 4, and 6 resulted in increased soil moisture at the 2-, 4-, and 8-inch sensor levels. The 20- and 40-inch sensors reported little to no change in their drying trends.

## Soil Moisture Data Portals

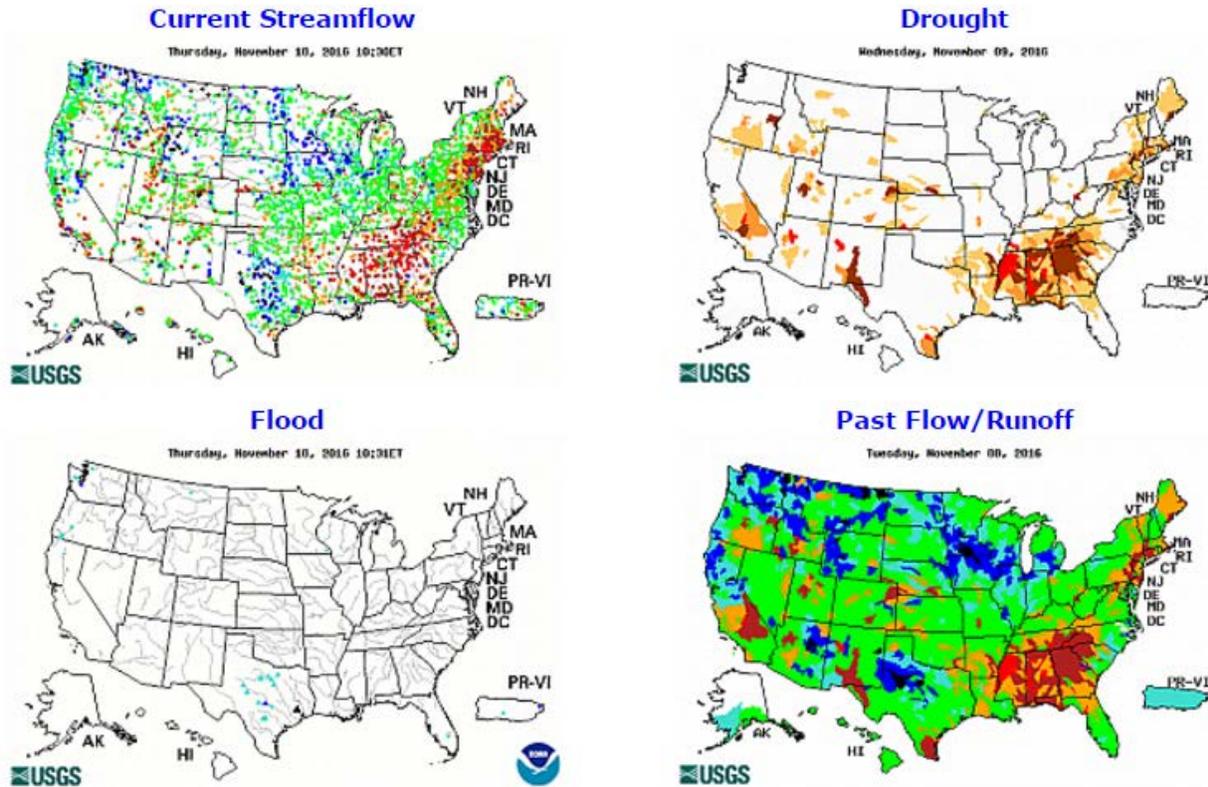
[CRN Soil Moisture](#)

[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

[Current streamflow maps](#)

## Current Reservoir Storage

[National Water and Climate Center Reservoir Data](#)

U.S. Bureau of Reclamation Hydromet Tea Cup Reservoir Depictions:

[Upper Colorado](#)

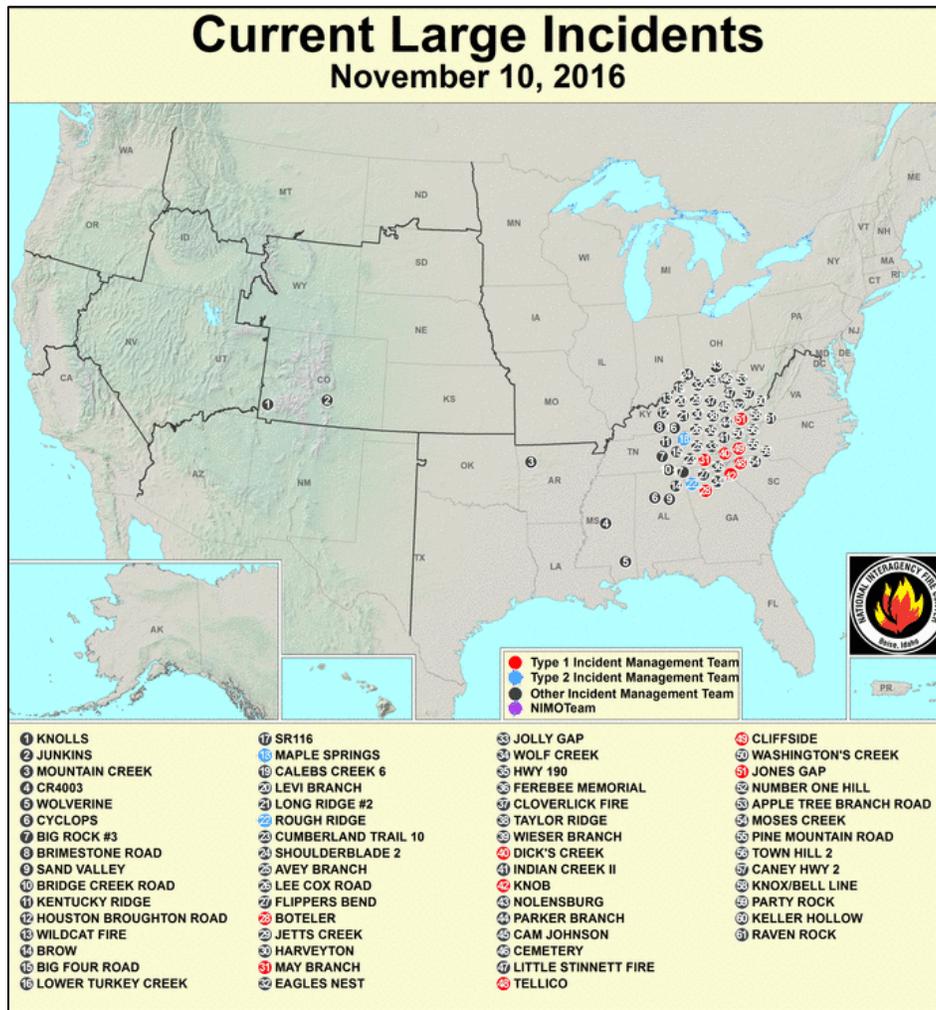
[Pacific Northwest/Snake/Columbia](#)

[Sevier River Water, Utah](#)

[Upper Missouri, Kansas, Oklahoma, Texas](#)

[California Reservoir Conditions](#)

Wildfires: [USDA Forest Service Active Fire Mapping](#)



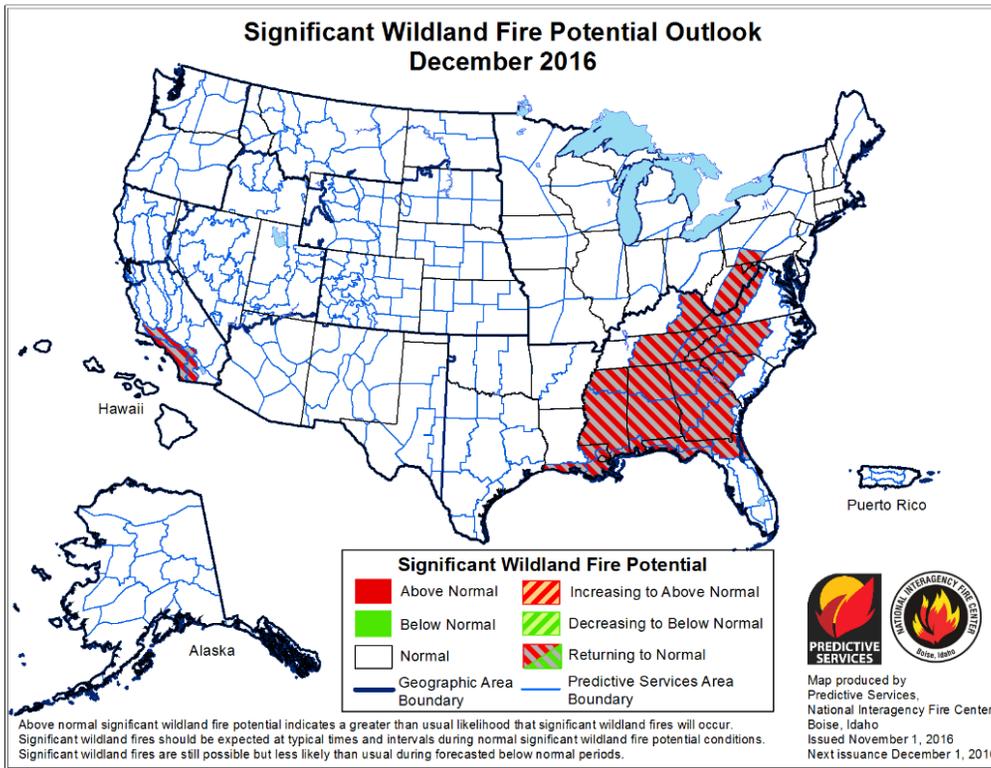
## Short- and Long-Range Outlooks

### Agricultural Weather Highlights

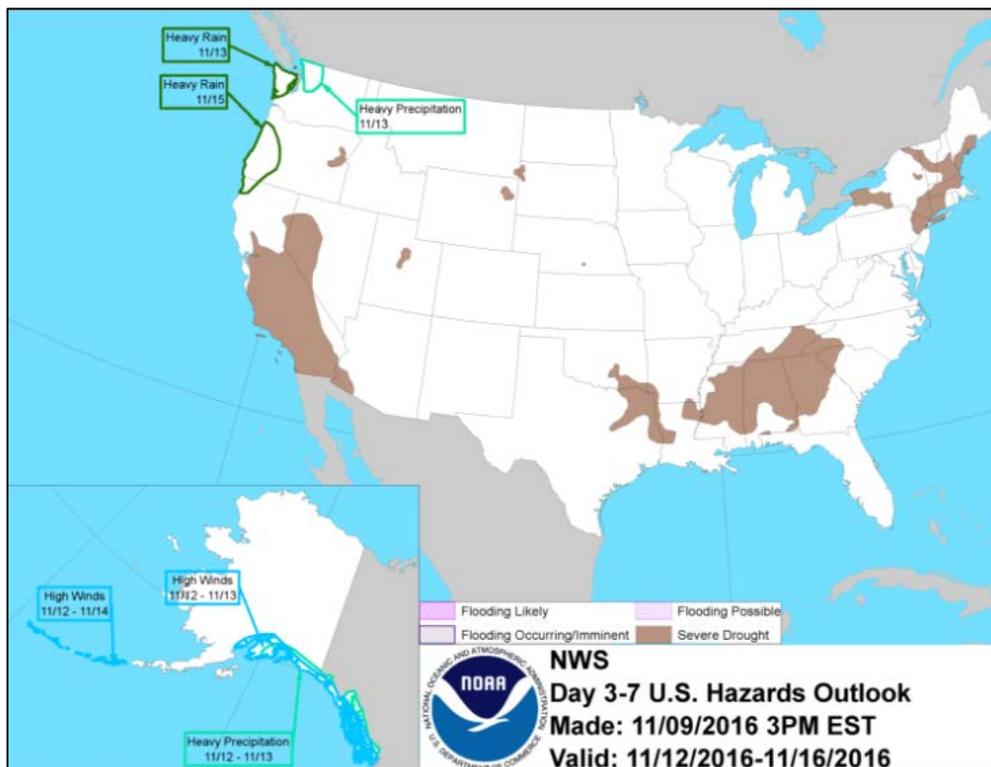
Author: Eric Luebehusen, Agricultural Meteorologist, USDA/OCE/WAOB

[National Outlook, November 10, 2016](#): "A broad ridge of high pressure will maintain mild, dry conditions across the majority of the country into next week. Exceptions should include the Northwest, where shower activity will gradually increase; southern and western Texas, where cloudiness and a few showers will linger into the weekend; and the southern Atlantic Coast, which could experience some rain early next week. In addition, slightly cooler weather will prevail across the southern and eastern U.S., as compared to the record-setting warmth in many other areas of the country. The NWS 6- to 10-day outlook for November 15 – 19 calls for warmer-than-normal weather nationwide, except for near- to below-normal temperatures along the southern Atlantic Coast. Meanwhile, wetter-than-normal conditions across the northern High Plains and the Northwest will contrast with near- to below-normal precipitation across the remainder of the U.S."

Fire Potential Outlook: [December 2016](#)



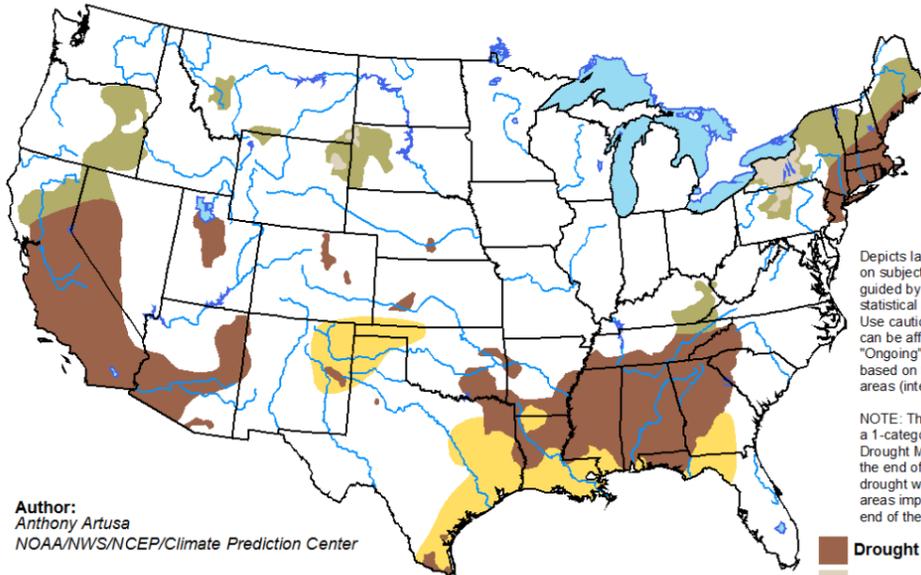
NWS Climate Prediction Center [Weather Hazard Outlook: November 12-16, 2016](#)



Seasonal Drought Outlook: [October 20, 2016 – January 31, 2017](#)

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

Valid for October 20 - January 31, 2017  
Released October 20, 2016

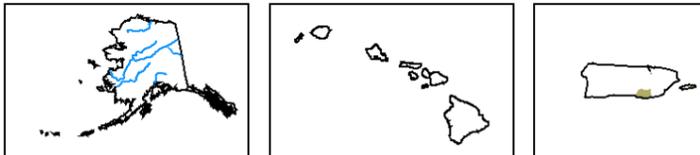


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to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

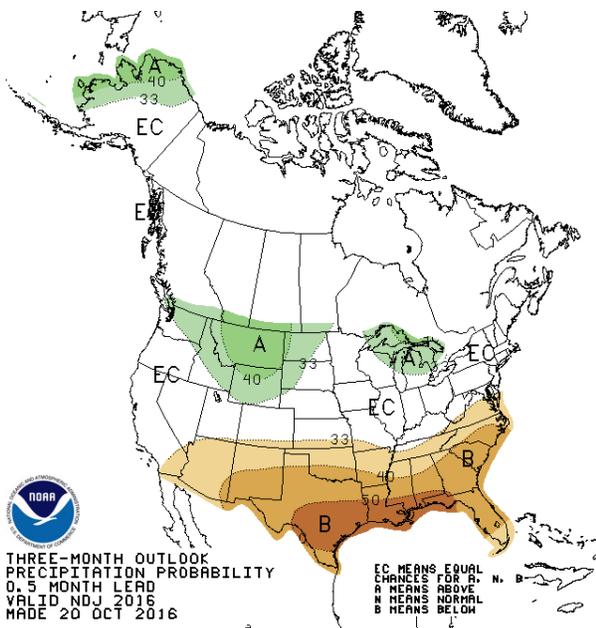


<http://go.usa.gov/3eZ73>

NWS Climate Prediction Center 3-Month Outlook

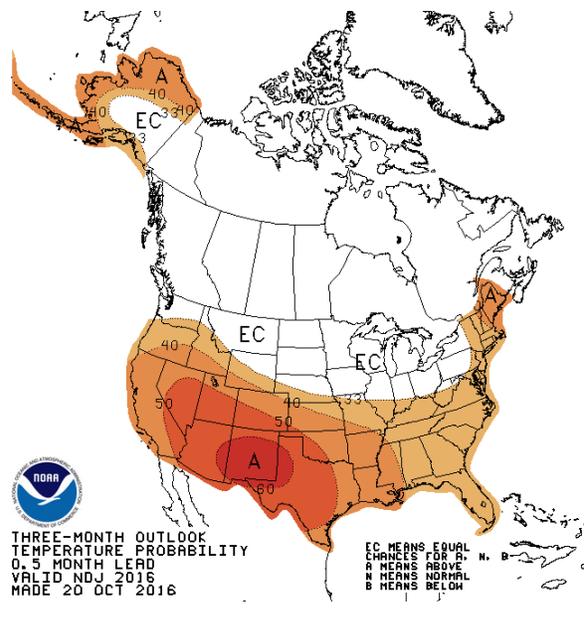
[Precipitation](#)

[Temperature](#)



THREE-MONTH OUTLOOK  
PRECIPITATION PROBABILITY  
0.5 MONTH LEAD  
VALID NDJ 2016  
MADE 20 OCT 2016

EC MEANS EQUAL  
CHANCES FOR A, N, B



THREE-MONTH OUTLOOK  
TEMPERATURE PROBABILITY  
0.5 MONTH LEAD  
VALID NDJ 2016  
MADE 20 OCT 2016

EC MEANS EQUAL  
CHANCES FOR A, N, B

[November-December-January \(NDJ\) 2016/2017 precipitation outlook summary](#)

[November-December-January \(NDJ\) 2016/2017 temperature outlook summary](#)

## 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](#).