



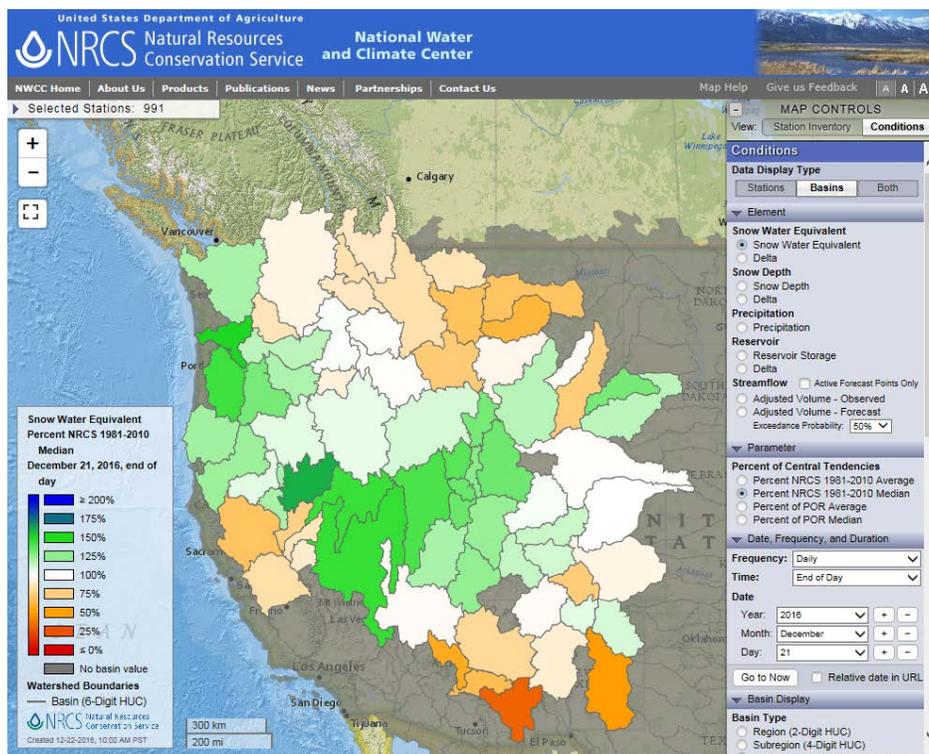
# Water and Climate Update

December 22, 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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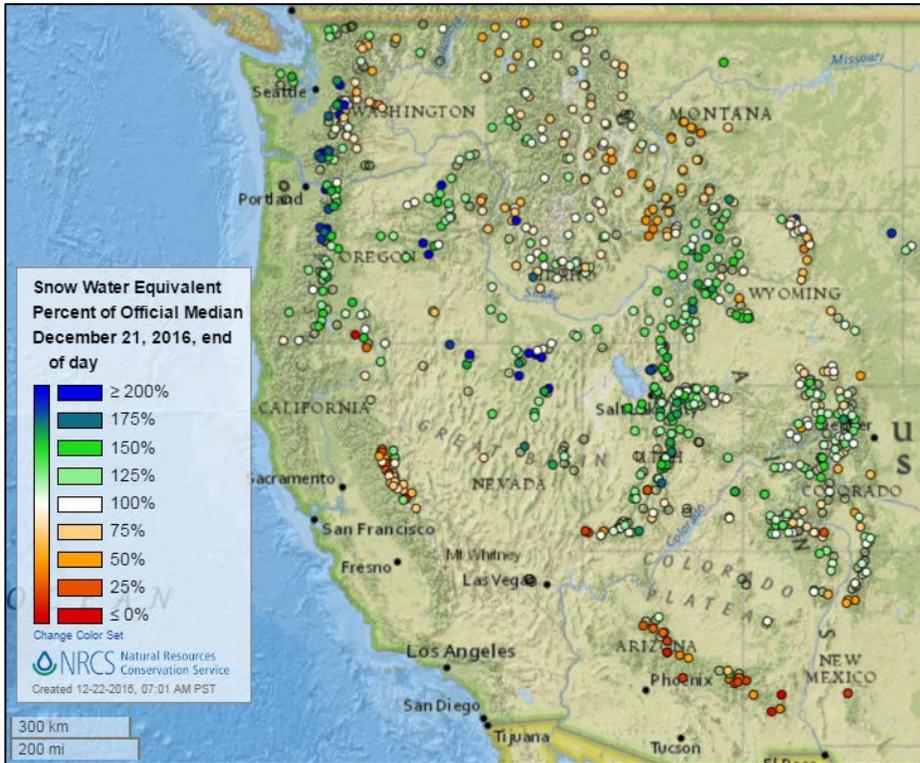
## New NWCC Interactive Map features basin summaries



The National Water and Climate Center (NWCC) has a new Beta release of our [Interactive Map](#). This release has many new features including more detailed and in-depth analysis of seasonal peak snowpack; more user-configurable options for features such as reference periods, scales, and colors; and dynamically-generated basin-filled maps based on Hydrologic Unit Code (HUC) boundaries. The example shows current snow water equivalent as a percent of median for the mountainous basins of the West.

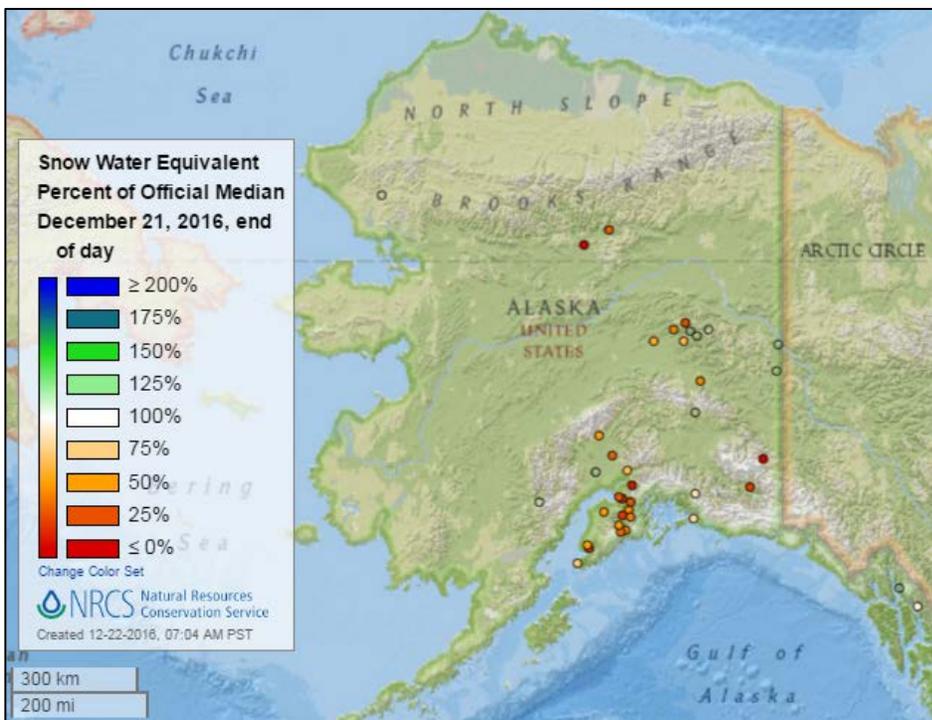
## Snow

### Current Snow Water Equivalent, NRCS SNOTEL Network



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

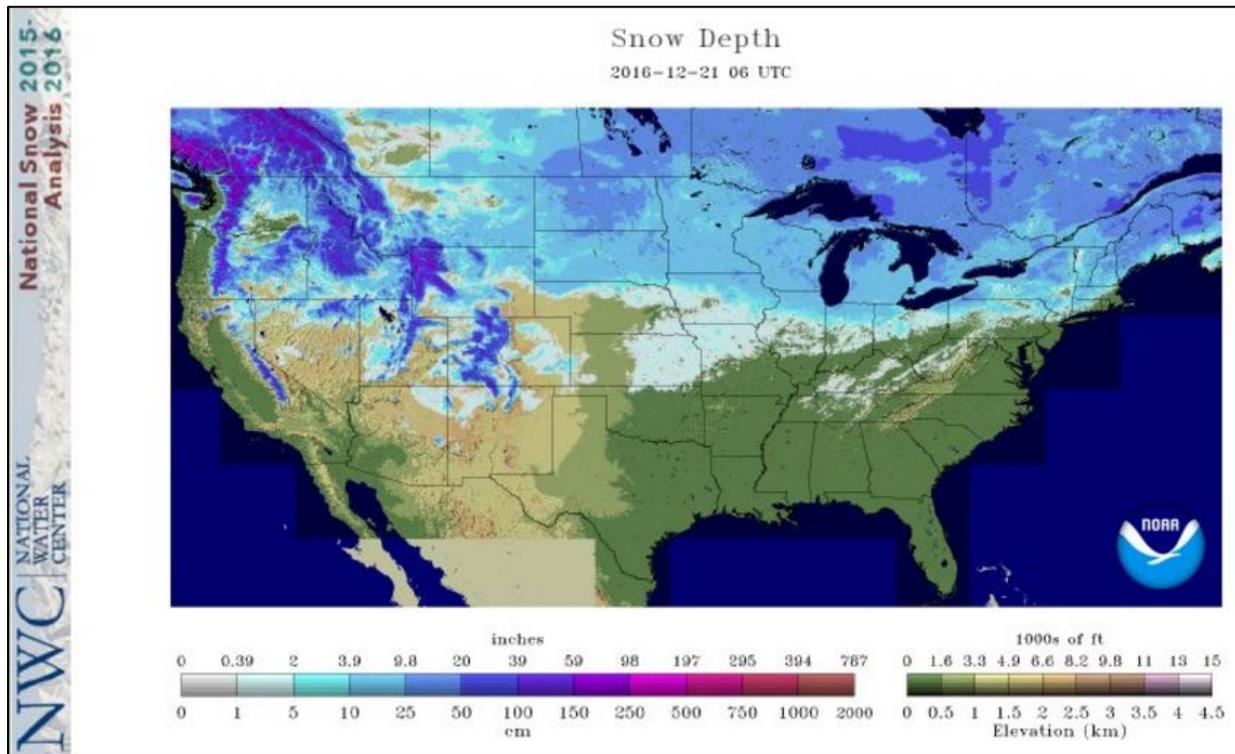
**See also:**  
[Snow water equivalent values \(inches\) map](#)



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

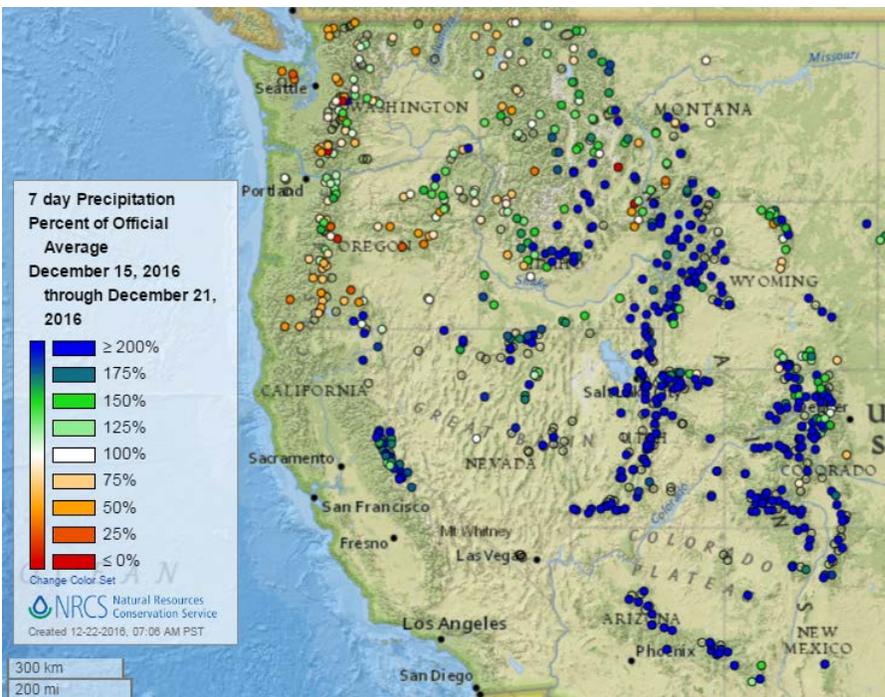
**See also:**  
[Alaska snow water equivalent values \(inches\) map](#)

Current Snow Depth, National Weather Service (NWS) Networks



## Precipitation

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



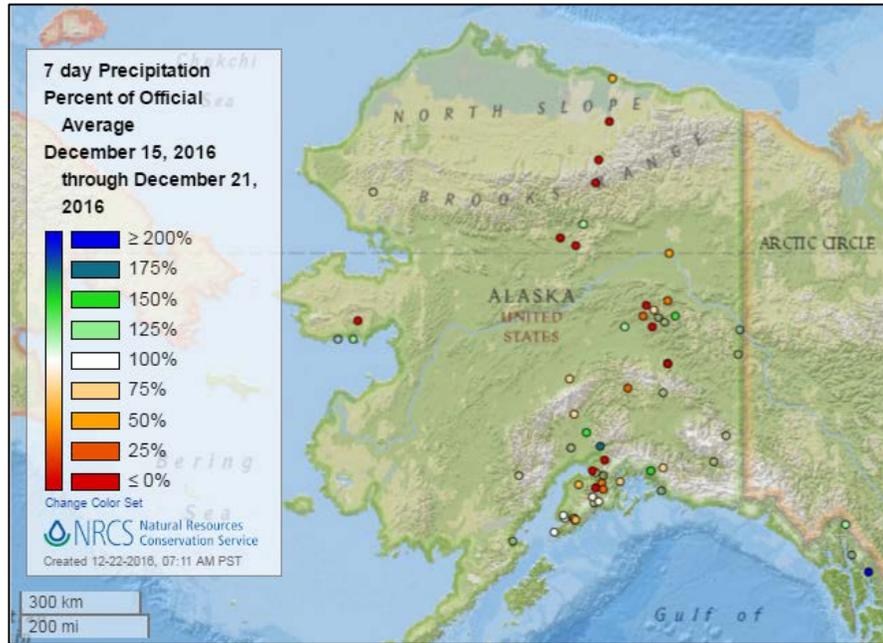
[7-day precipitation percent of average map](#)

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

# Water and Climate Update

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

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



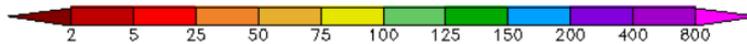
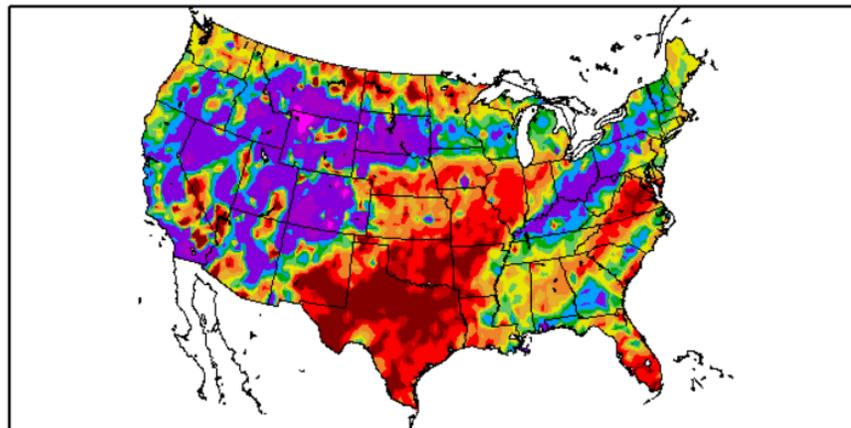
## Last 7 Days, National Weather Service (NWS) Networks

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 (%)  
12/15/2016 – 12/21/2016

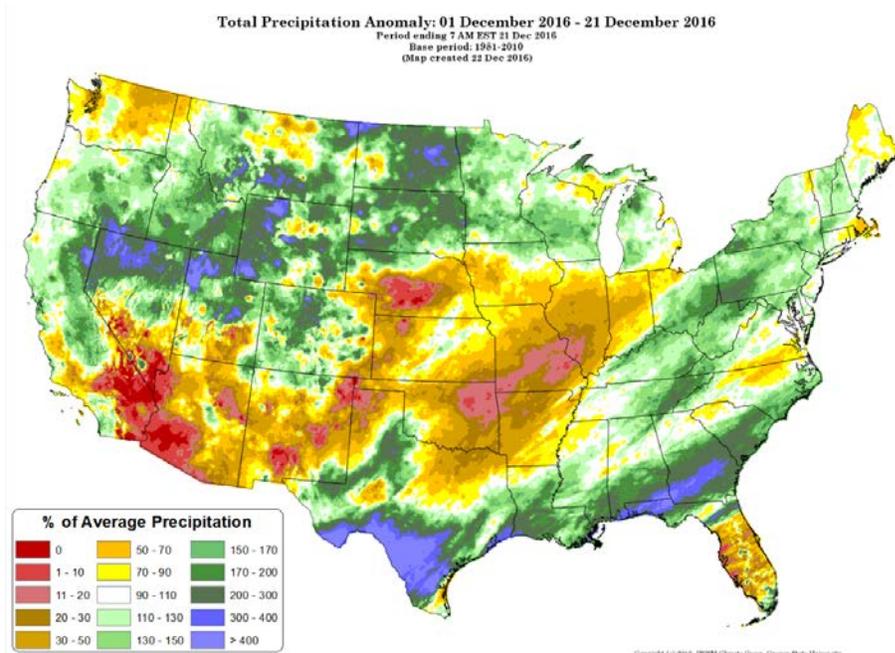


Generated 12/22/2016 at HPRCC using provisional data.

Regional Climate Centers

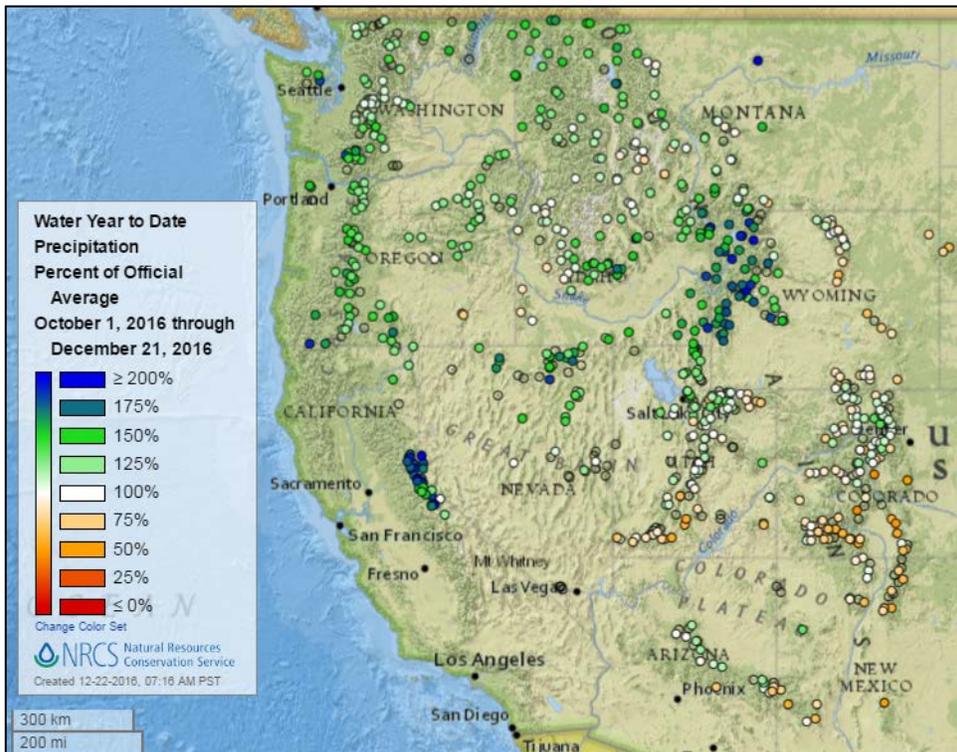
Month-to-Date, All Available Data Including SNOTEL and NWS Networks

Source: PRISM



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

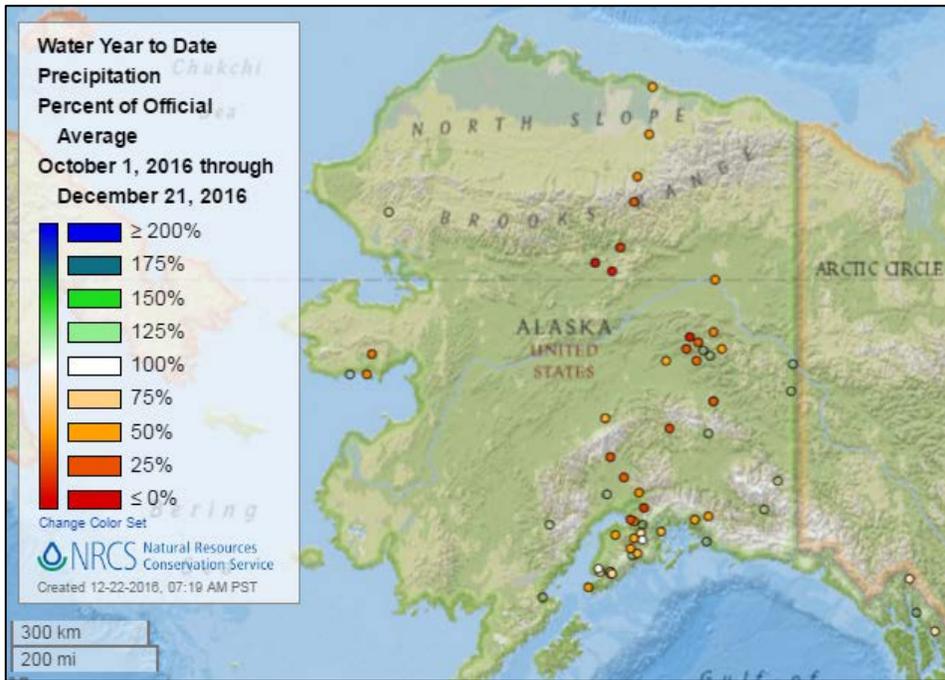
Water Year-to-Date, Western Mountain Sites (NRCS SNOTEL Network)



[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

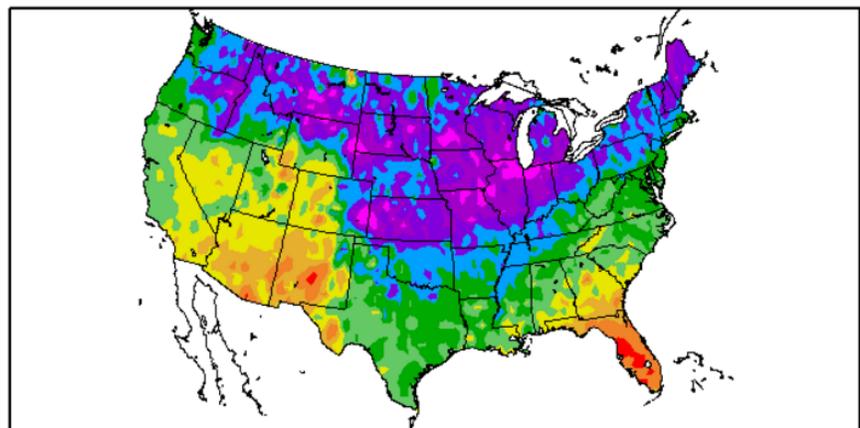
Last 7 Days, National Weather Service (NWS) Networks

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)  
12/15/2016 – 12/21/2016



Generated 12/22/2016 at HPRCC using provisional data.

Regional Climate Centers

# Water and Climate Update

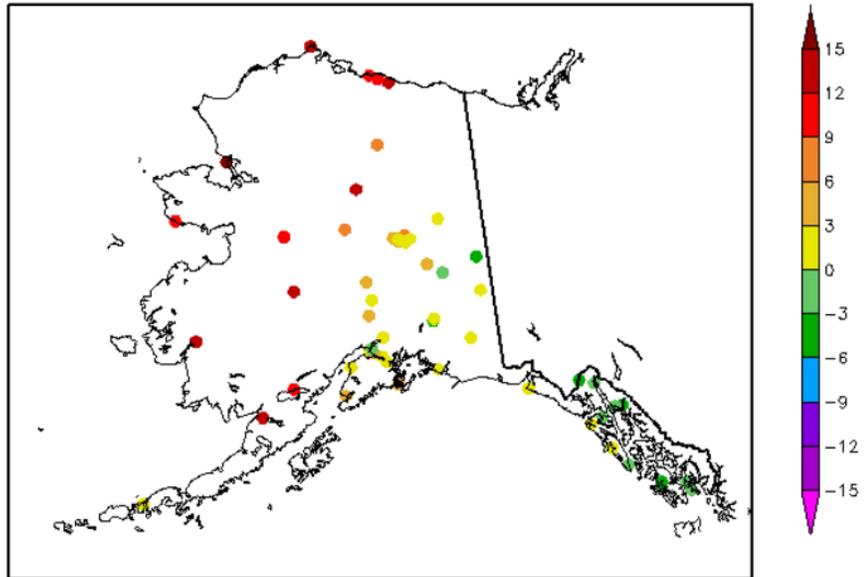
## Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

### Departure from Normal Temperature (F) 12/15/2016 - 12/21/2016

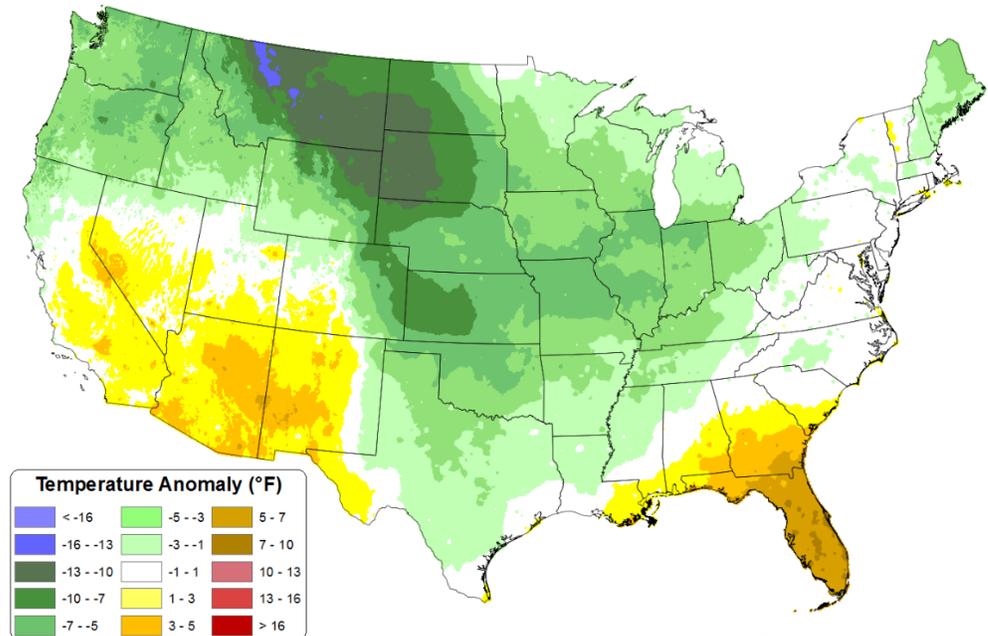


## Month-to-Date, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

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

### Daily Mean Temperature Anomaly: 01 December 2016 - 21 December 2016 Period ending 7 AM EST 21 Dec 2016 Base period: 1981-2010 (Map created 22 Dec 2016)

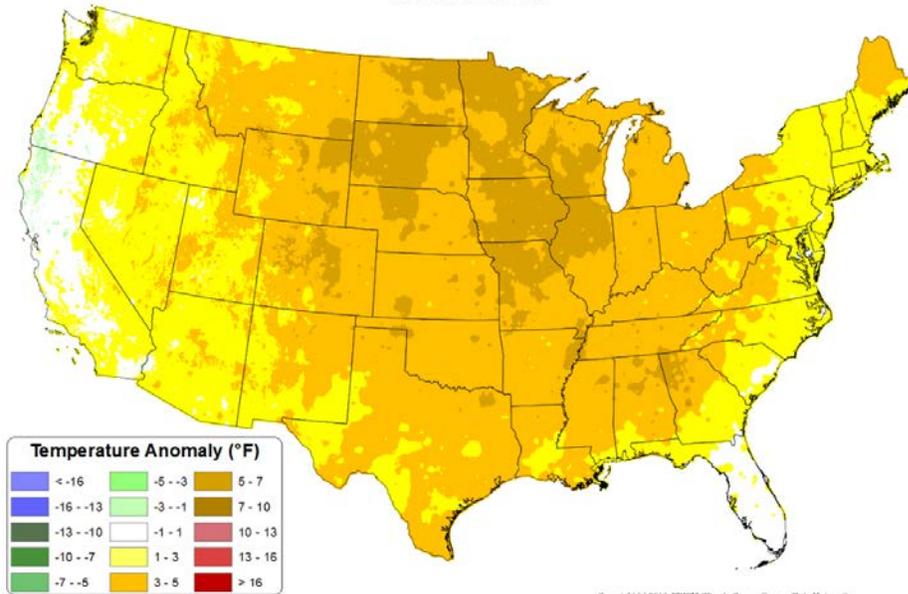


Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

Daily Mean Temperature Anomaly: September 2016 - November 2016  
Period ending 7 AM EST 30 Nov 2016  
Base period: 1981-2010  
(Map created 02 Dec 2016)

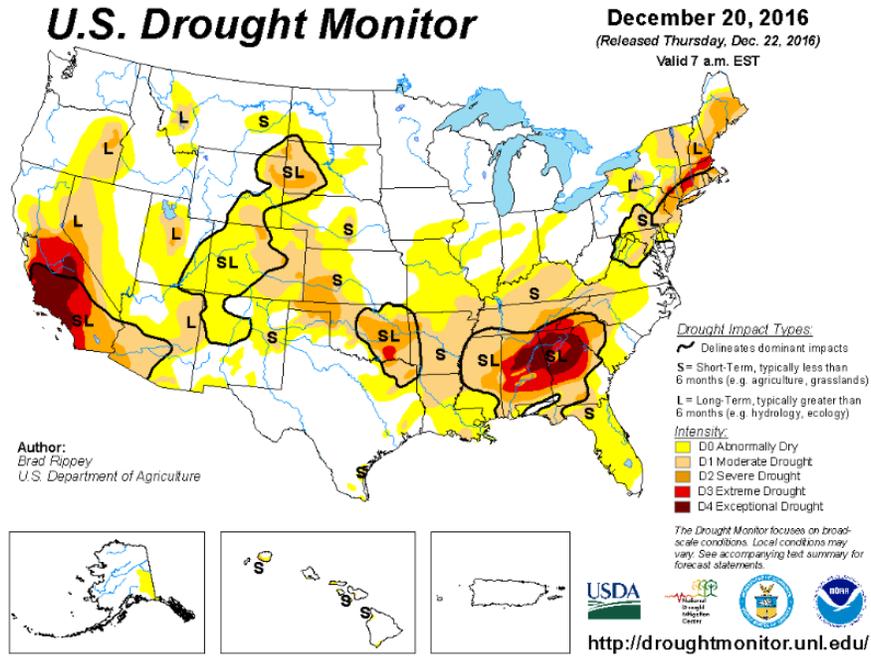
[September through November daily mean temperature anomaly map](#)



# Drought

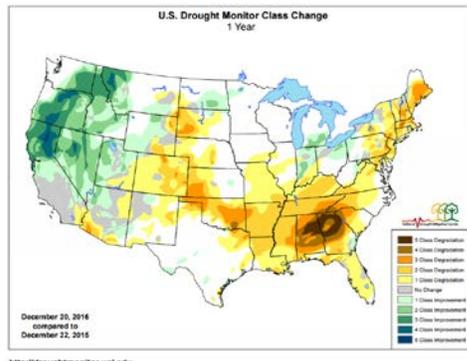
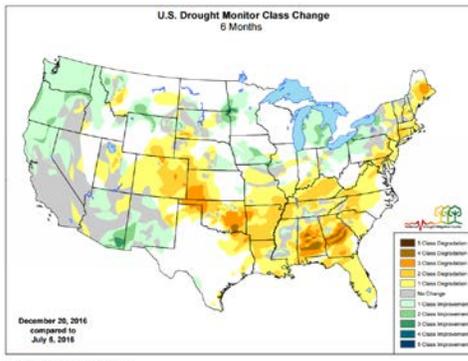
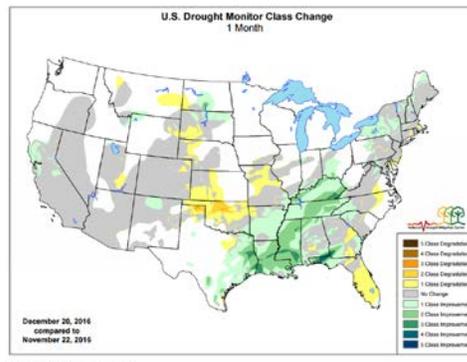
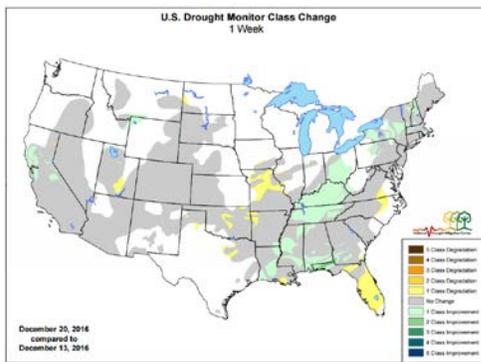
[U.S. Drought Monitor](#) See map below.

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



## Changes in Drought Monitor Categories over Time

Click any map to enlarge



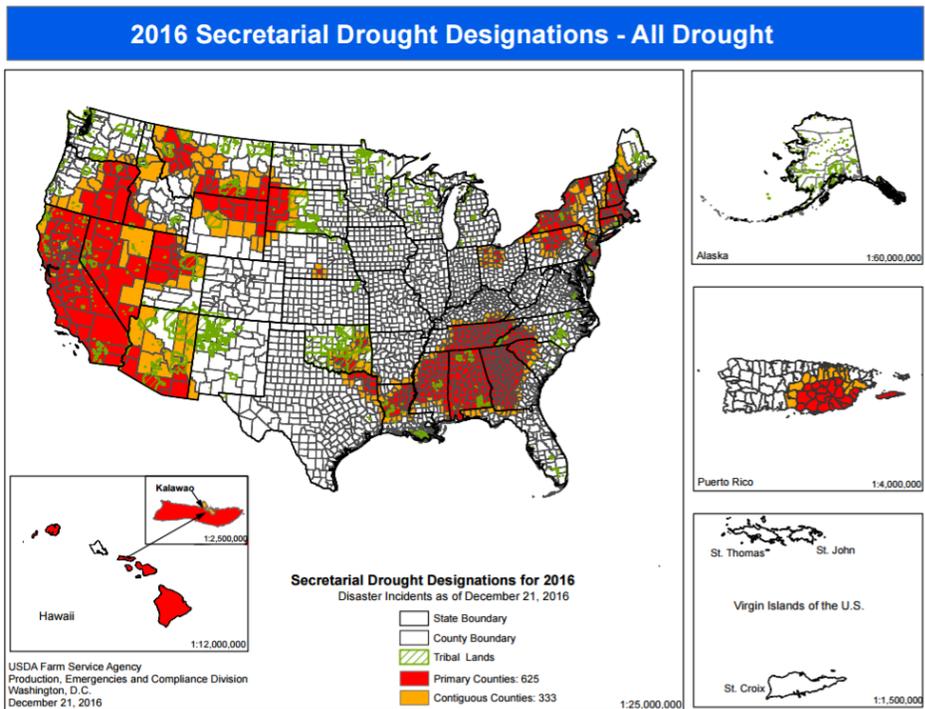
[Changes in drought conditions over the last 12 months](#)

## Current National [Drought Summary](#), December 20, 2016

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

“Streaks of heavy precipitation fell from the Ohio Valley into the Northeast and across the lower Southeast. Stormy weather also prevailed in the West, particularly in California and southwestern Oregon—but also extending inland to the Rockies. Amid the active weather pattern, an Arctic outbreak peaked on December 17-18, sending temperatures as low as -40°F across northern portions of the Plains and Intermountain West and below 0°F as far south as the panhandles of Oklahoma and Texas.”

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

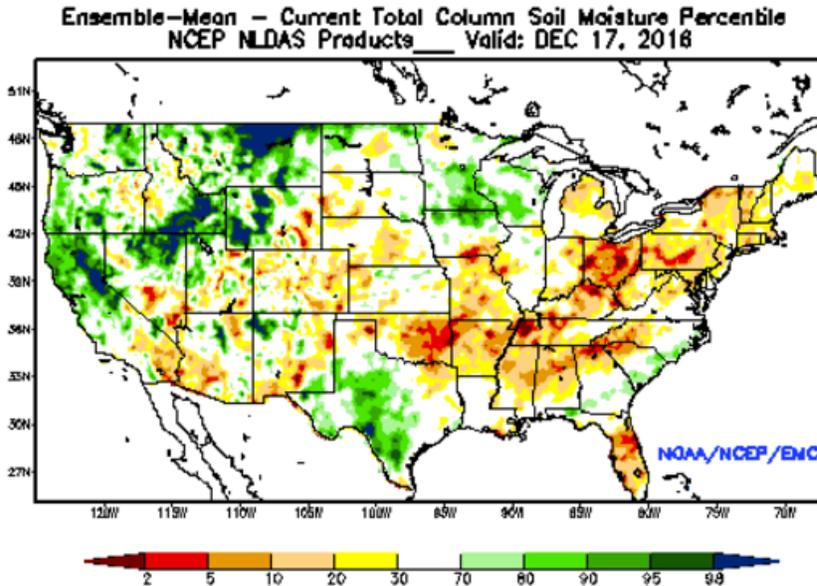


### Highlighted Drought Resources

- [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](#)

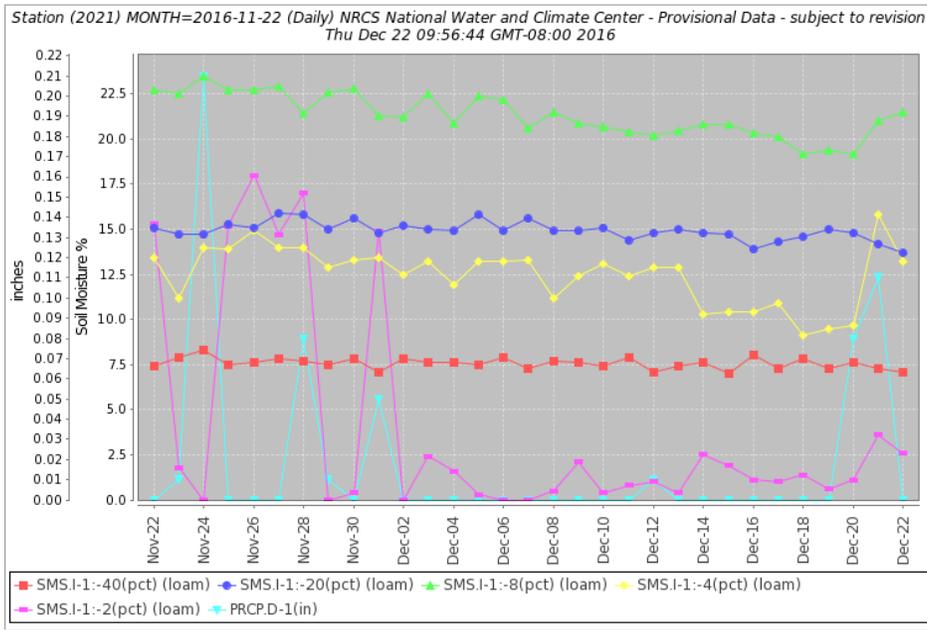
## Other Climatic and Water Supply Indicators

### Soil Moisture



[Modeled soil moisture percentiles](#) as of December 17, 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 last 30 days at the [Lind #1 SCAN station 2021](#) in Washington. The small amount of precipitation at several instances in the last 30 days resulted in an increase in soil moisture at the 2-, 4-, and 8- inch depth sensors. The 20- and 40-inch sensors showed little change, with a slight drying trend.

## Soil Moisture Data Portals

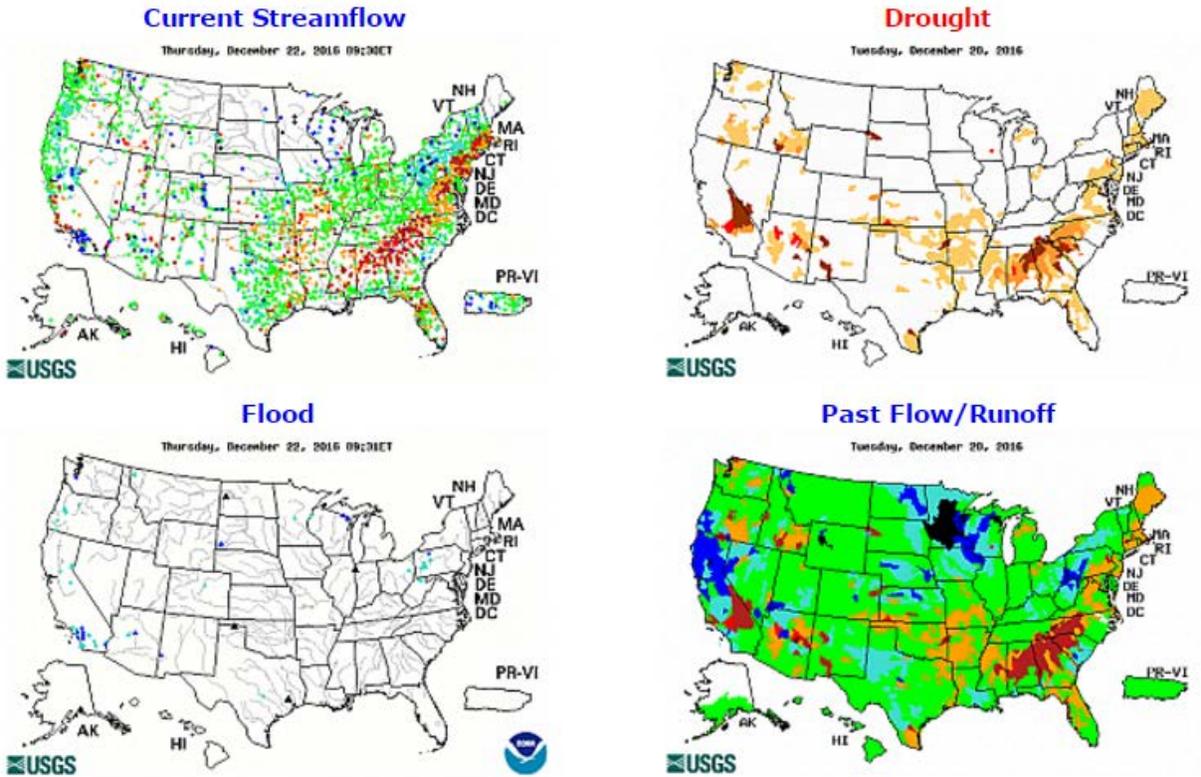
[CRN Soil Moisture](#)

[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](#)

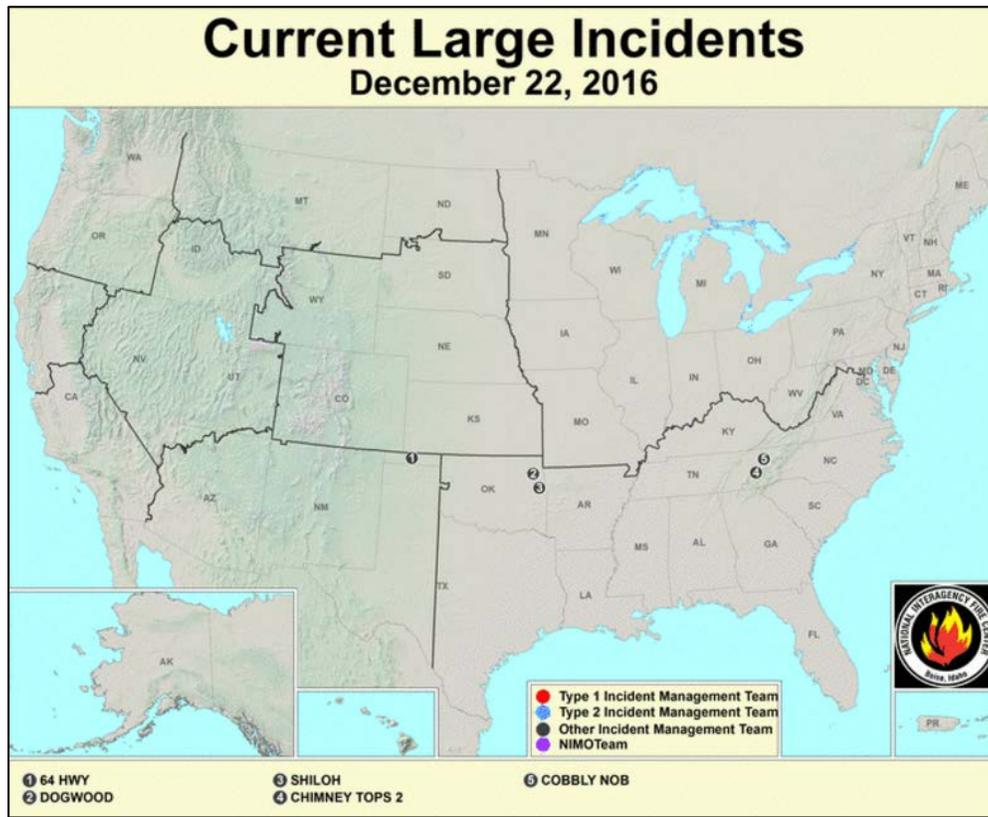
[Pacific Northwest/Snake/Columbia](#)

[Sevier River Water, Utah](#)

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

[California Reservoir Conditions](#)

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



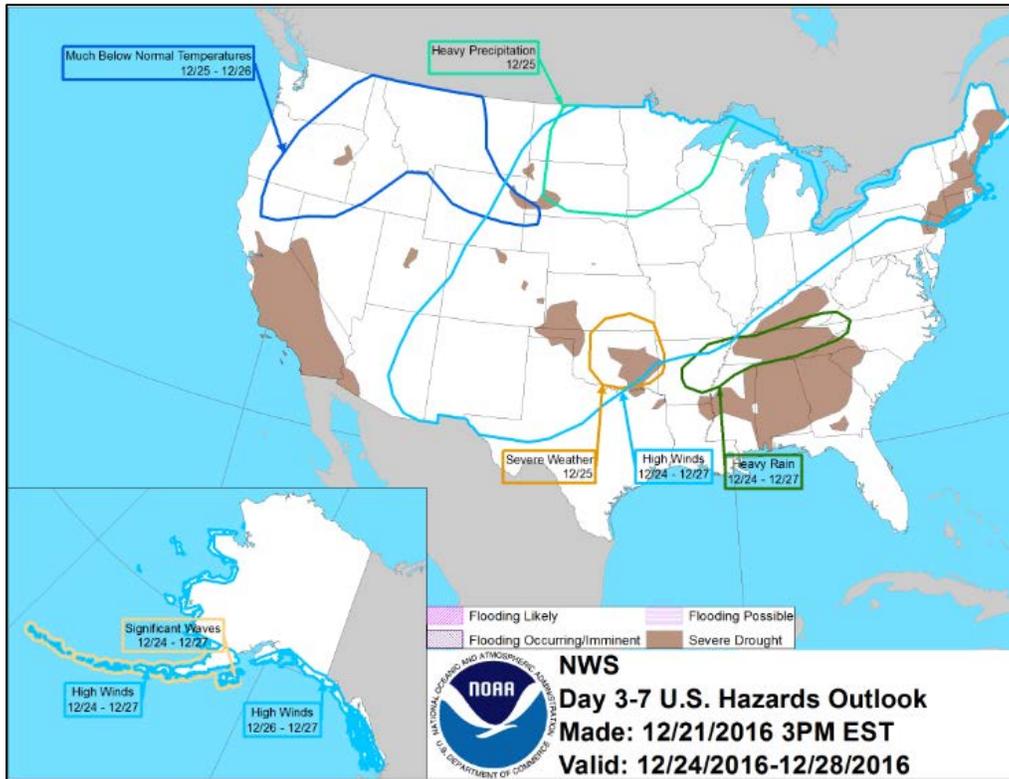
## Short- and Long-Range Outlooks

### Agricultural Weather Highlights

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

[National Outlook, December 22, 2016](#): “For the remainder of today, light snow will spread across the Northeast, while a mix of rain and snow will fall in the Southwest. The Southwestern storm will drift eastward, producing late-week showers across the central and southern Plains and the Mississippi Valley. On Christmas Eve, precipitation will spread into the eastern U.S., with locally heavy rain possible across the interior Southeast. Meanwhile, a potent winter storm will arrive in northern California and the Northwest on Friday before reaching the central High Plains on Christmas Day and the upper Great Lakes region by December 26. Five-day precipitation totals could reach 1 to 4 inches in parts of California and the Southwest, while substantial late-week snow will accumulate from the Sierra Nevada and the southern Cascades to the Intermountain West. On December 25-26, deteriorating travel conditions across the north-central U.S. will include wind-driven snow and falling temperatures. At the same time, showers and thunderstorms could develop from the eastern Plains into the Mississippi Valley. The NWS 6- to 10-day outlook for December 27 – 31 calls for the likelihood of below-normal temperatures in the western U.S., while warmer-than normal weather can be expected across the South, East, and lower Midwest. Meanwhile, near- to above-normal precipitation in most of the country will contrast with drier-than-normal conditions across the lower Southeast and portions of the Rockies and High Plains.”

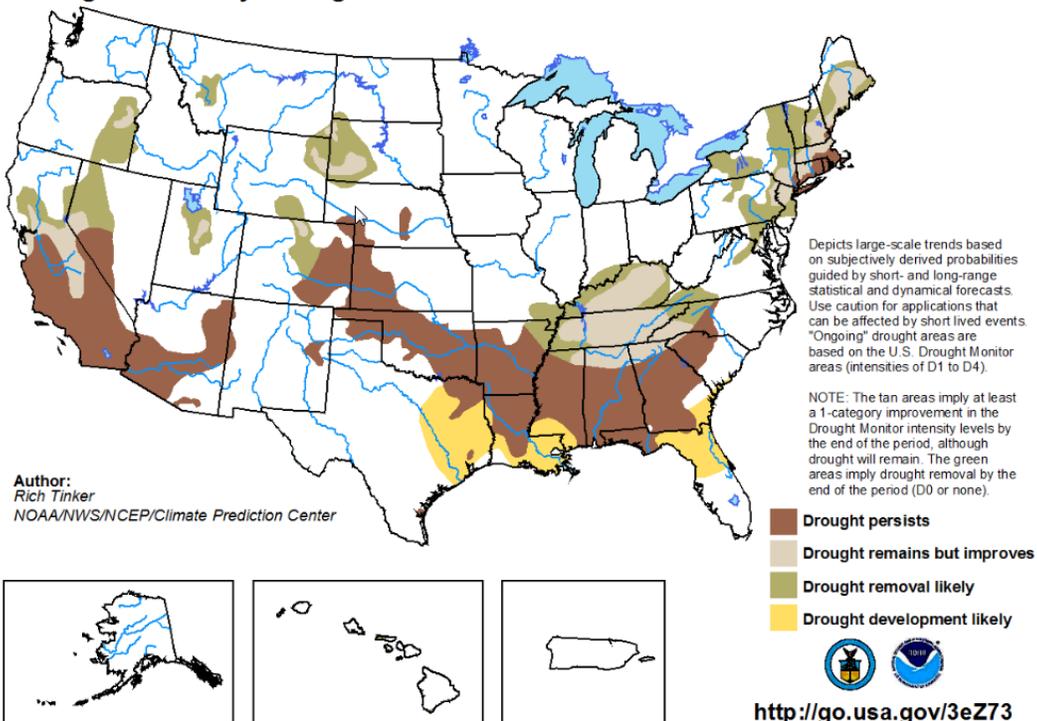
NWS Climate Prediction Center [Weather Hazard Outlook: December 24-28, 2016](#)



Seasonal Drought Outlook: [December 15, 2016 – March 31, 2017](#)

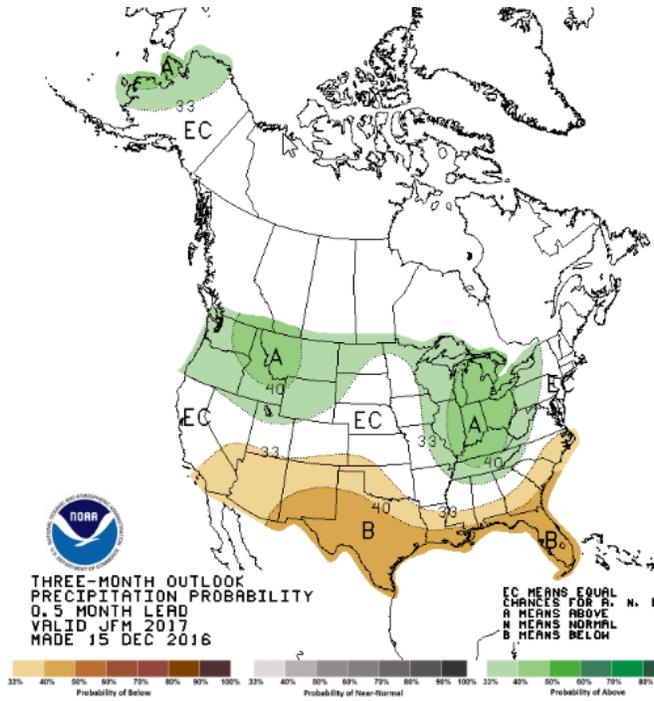
**U.S. Seasonal Drought Outlook**  
**Drought Tendency During the Valid Period**

*Valid for December 15 - March 31, 2017*  
*Released December 15, 2016*



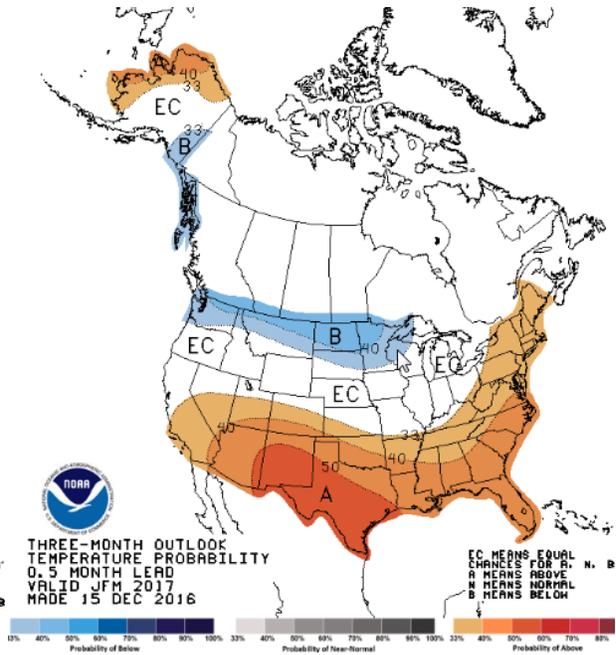
NWS Climate Prediction Center 3-Month Outlook

[Precipitation](#)



[January-February-March \(JFM\) 2017 precipitation outlook summary](#)

[Temperature](#)



[January-February-March \(JFM\) 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](#).