

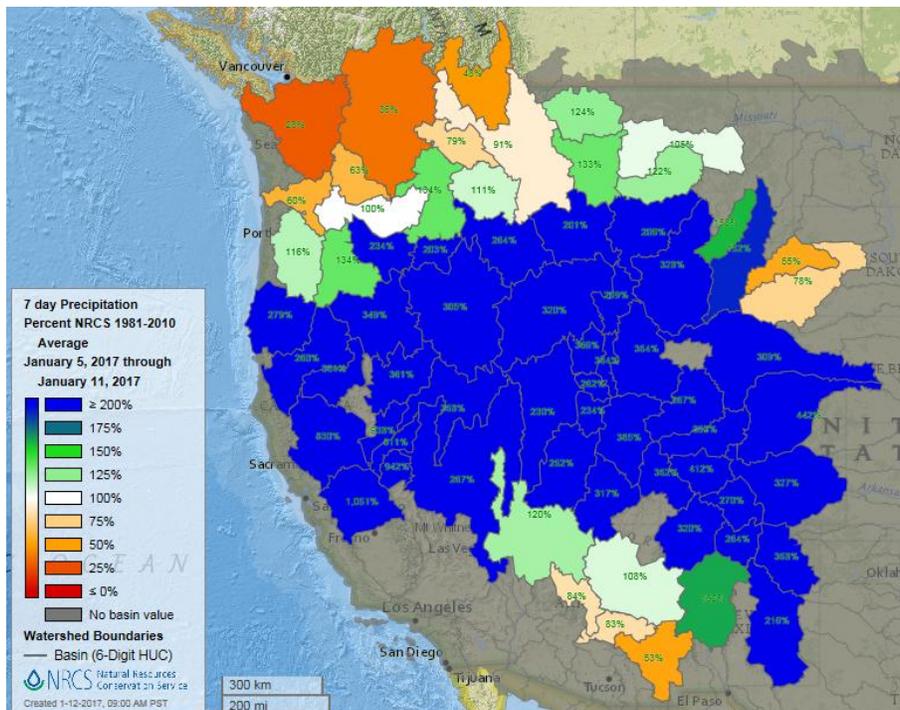
Water and Climate Update

January 12, 2017

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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Series of damaging storms move across the West



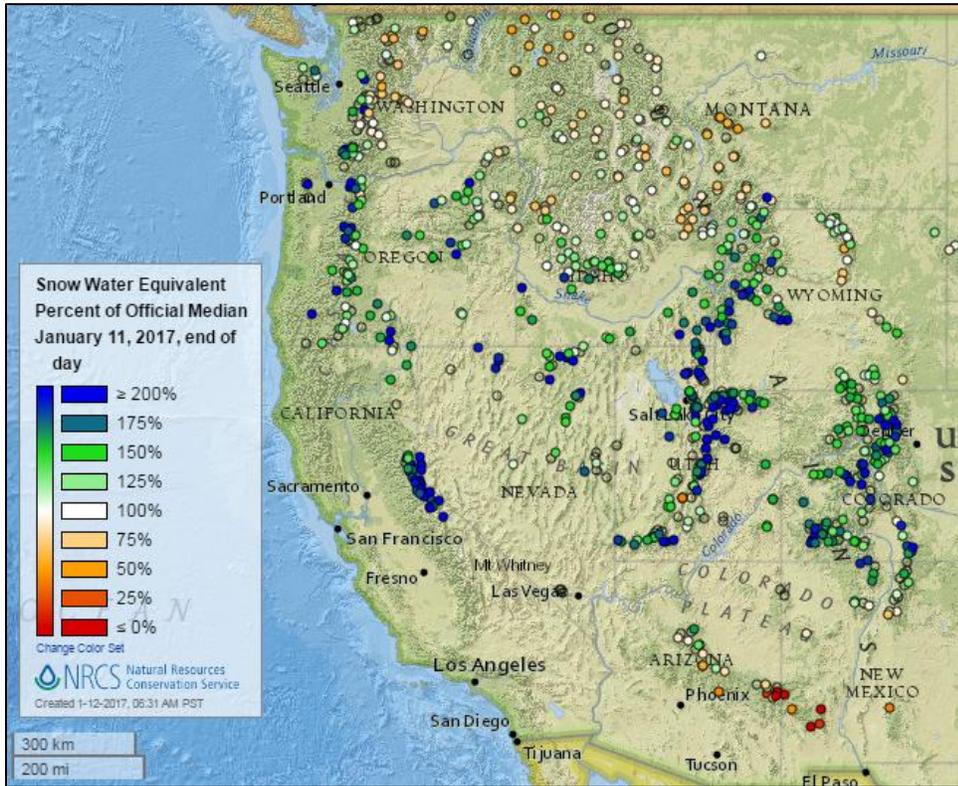
Heavy snow followed by an atmospheric river of moisture slammed into California causing widespread flooding in the past week. Mountain precipitation in the central Sierra Nevada has topped 800 percent of normal for the period. Across the West, severe winter storms disrupted cities, closed roads, and contributed to avalanches. Some state and local governments have declared a state of emergency.

In the news:

- [Flooded California residents rescued as major storms recede](#)
- [Too much snow closes ski resorts in California, Nevada](#)
- ['Atmospheric Rivers' Weather Phenomenon Soaks California](#)
- [Dozens of avalanches in Colorado high country amid high winds ...](#)
- [Gov. Kate Brown declares state of emergency in Oregon due to snow](#)
- [Winter weather causes problems across all of Idaho](#)

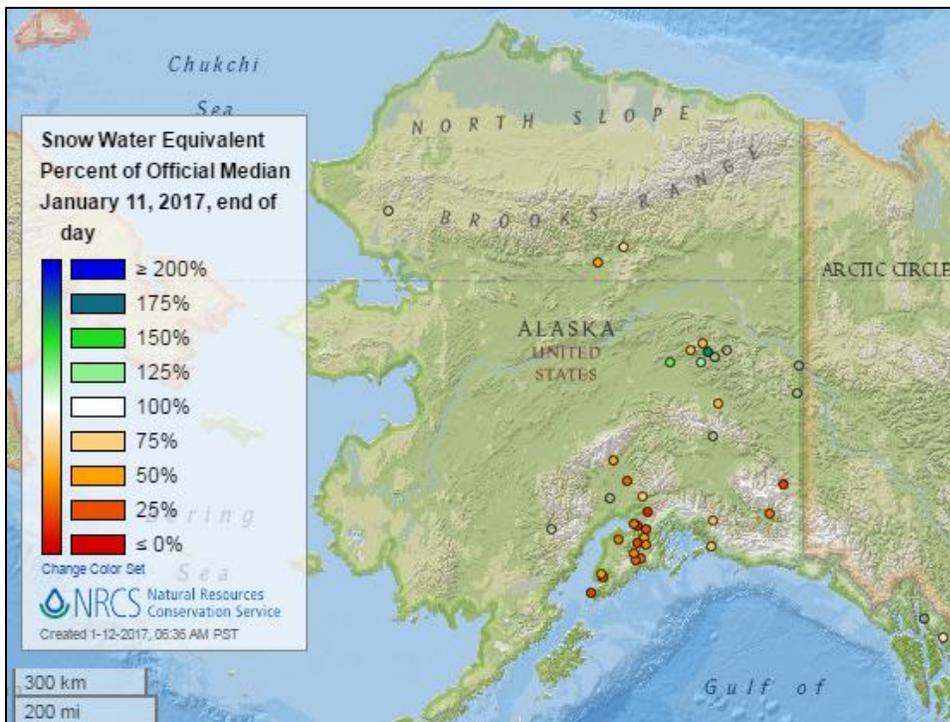
Snow

Current Snow Water Equivalent, NRCS SNOTEL Network



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

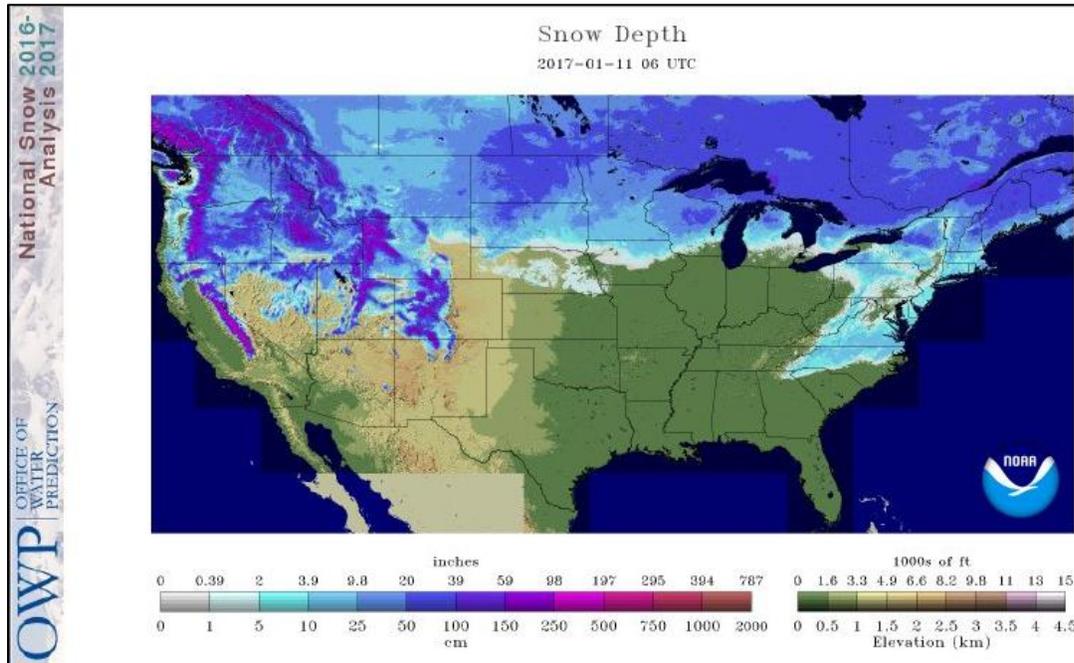
See also:
[Snow water equivalent values \(inches\) map](#)



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

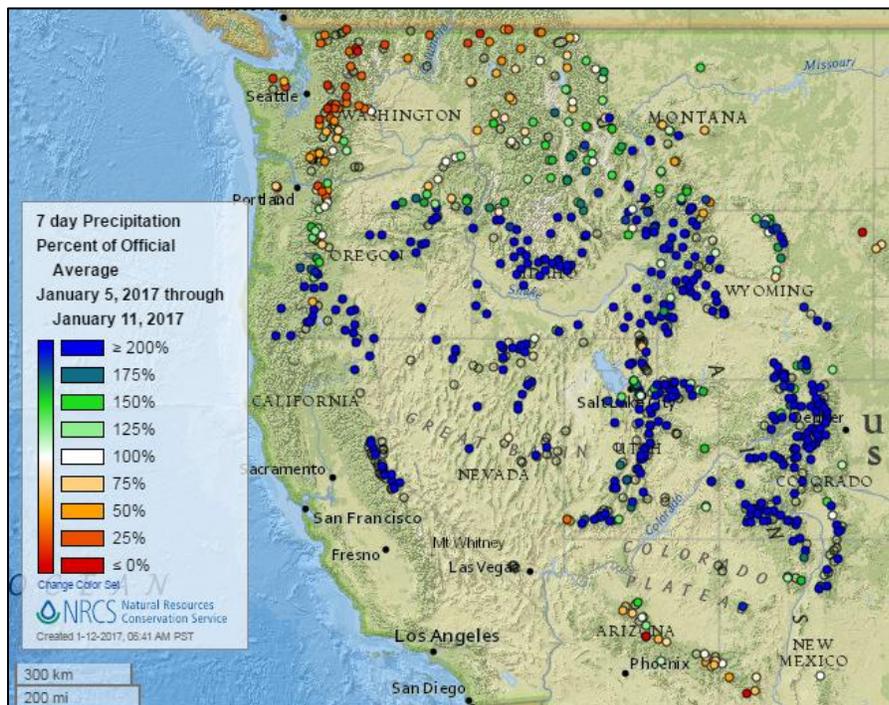
See also:
[Alaska snow water equivalent values \(inches\) map](#)

Current Snow Depth, National Weather Service (NWS) Networks



Precipitation

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



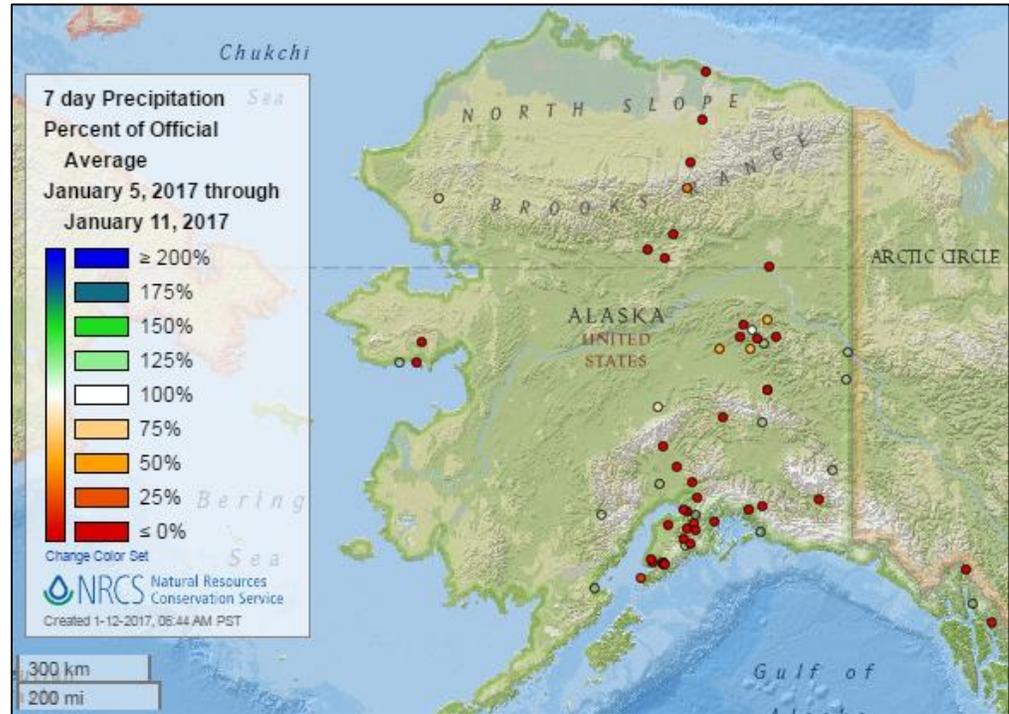
[7-day precipitation percent of average map](#)

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](#)



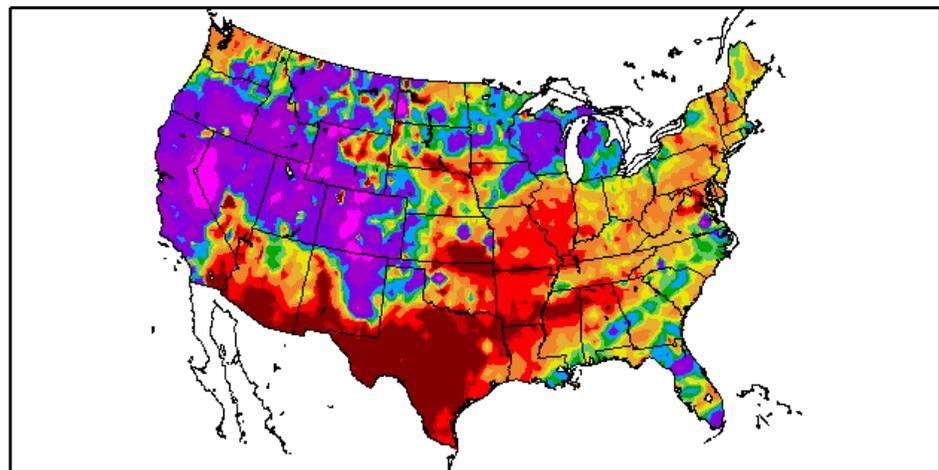
Last 7 Days, National Weather Service (NWS) Networks

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 (%)
1/5/2017 – 1/11/2017



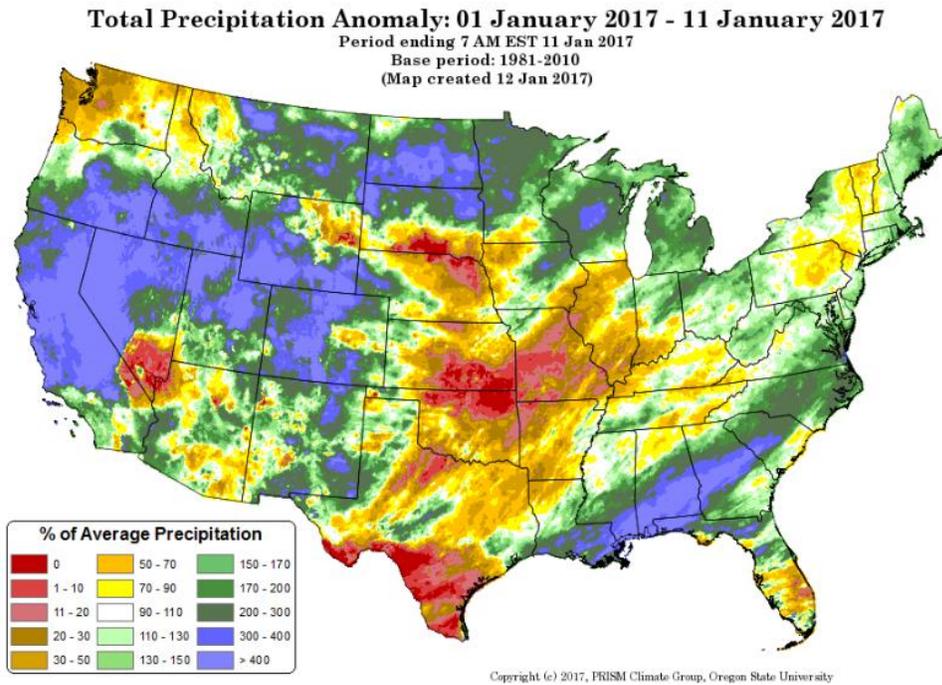
Generated 1/12/2017 at HPRCC using provisional data.

Regional Climate Centers

Water and Climate Update

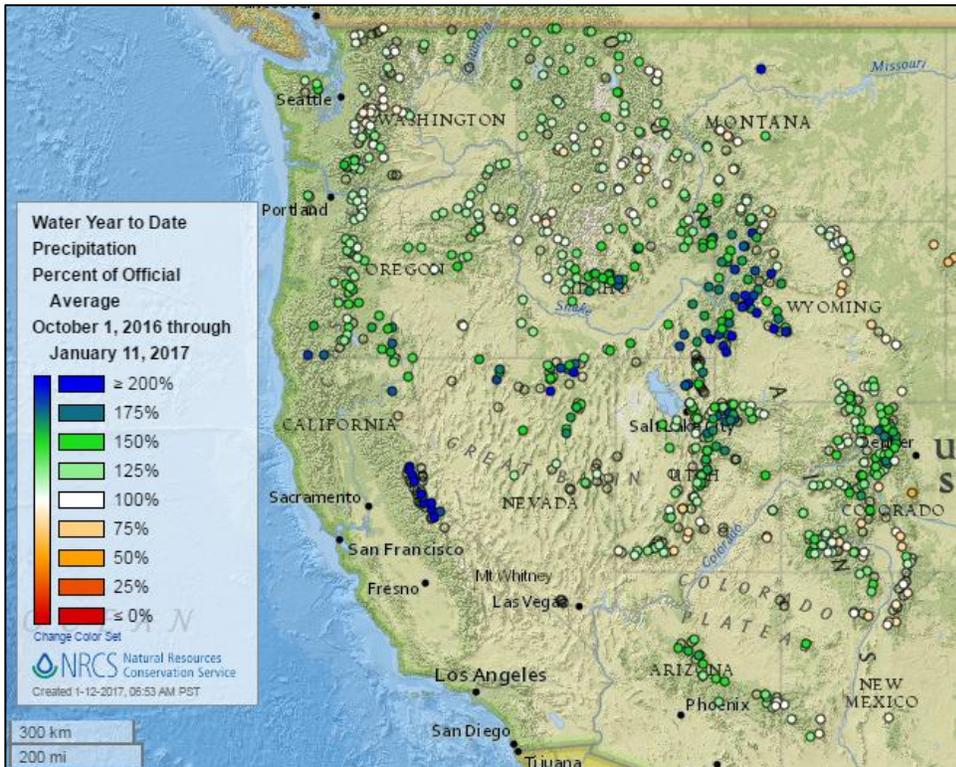
Month-to-Date, All Available Data Including SNOTEL and NWS Networks

Source: PRISM



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

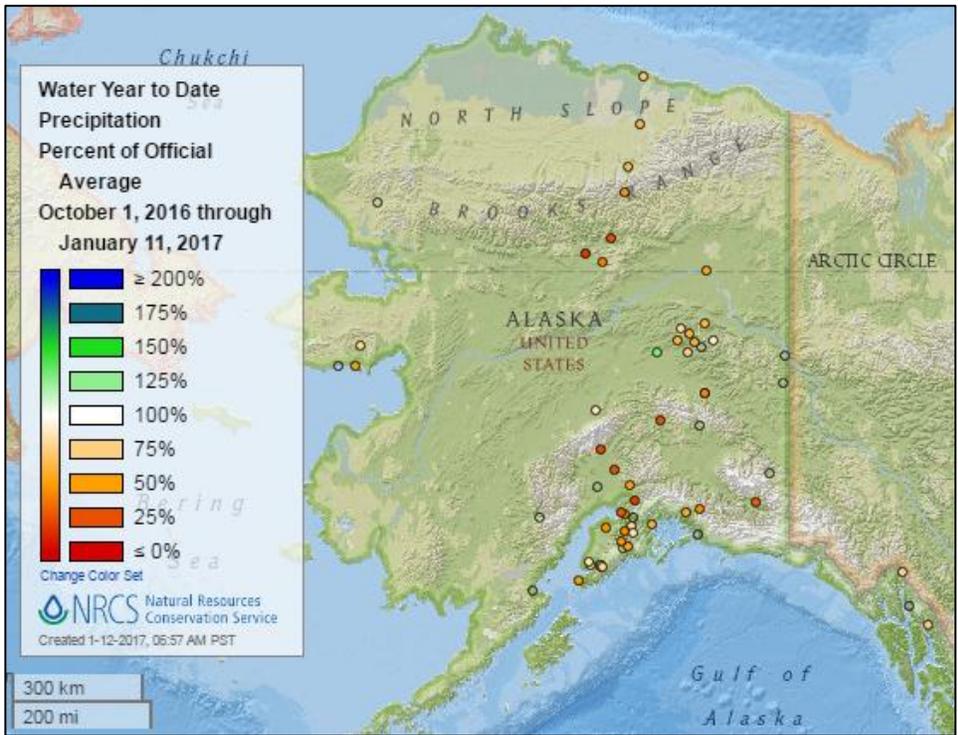
Water Year-to-Date, Western Mountain Sites (NRCS SNOTEL Network)



[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

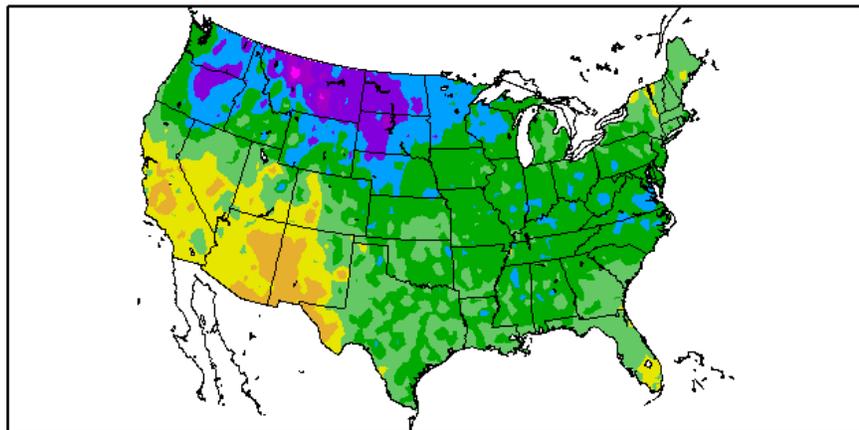
Last 7 Days, National Weather Service (NWS) Networks

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)
1/5/2017 – 1/11/2017



Generated 1/12/2017 at HPRCC using provisional data.

Regional Climate Centers

Water and Climate Update

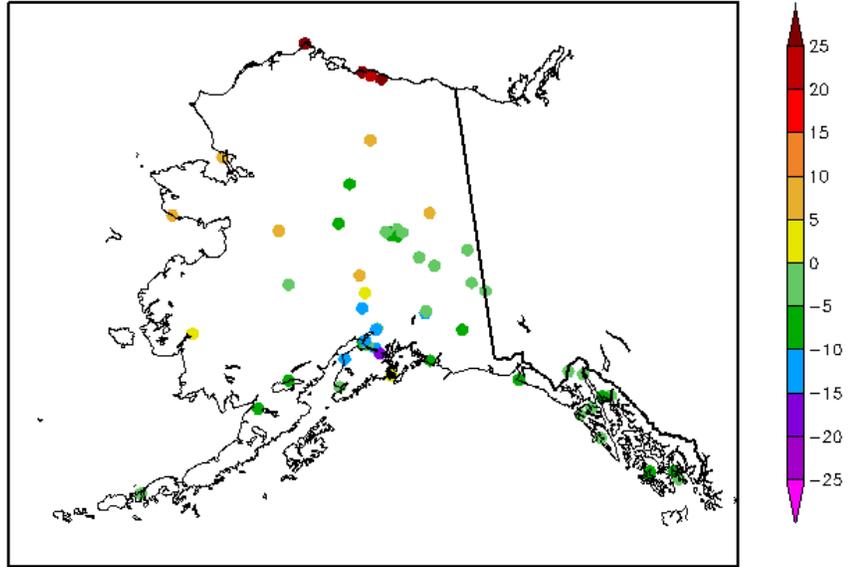
Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

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

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

Departure from Normal Temperature (F)
1/5/2017 - 1/11/2017



Generated 1/12/2017 at HPRCC using provisional data.

Regional Climate Centers

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

Source: PRISM

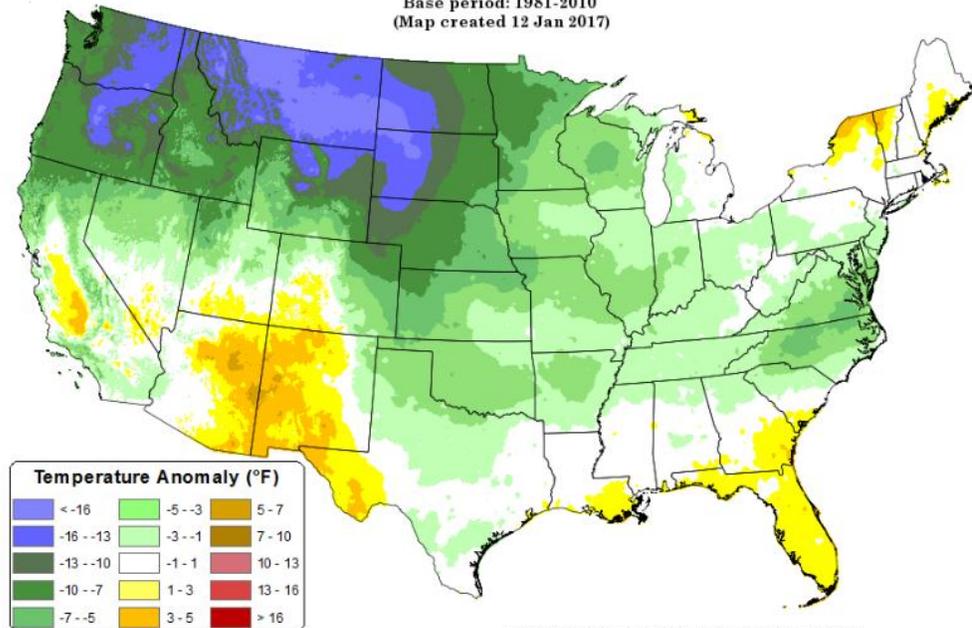
[Month-to-date national daily mean temperature anomaly map](#)

Daily Mean Temperature Anomaly: 01 January 2017 - 11 January 2017

Period ending 7 AM EST 11 Jan 2017

Base period: 1981-2010

(Map created 12 Jan 2017)



Copyright (c) 2017, PRISM Climate Group, Oregon State University

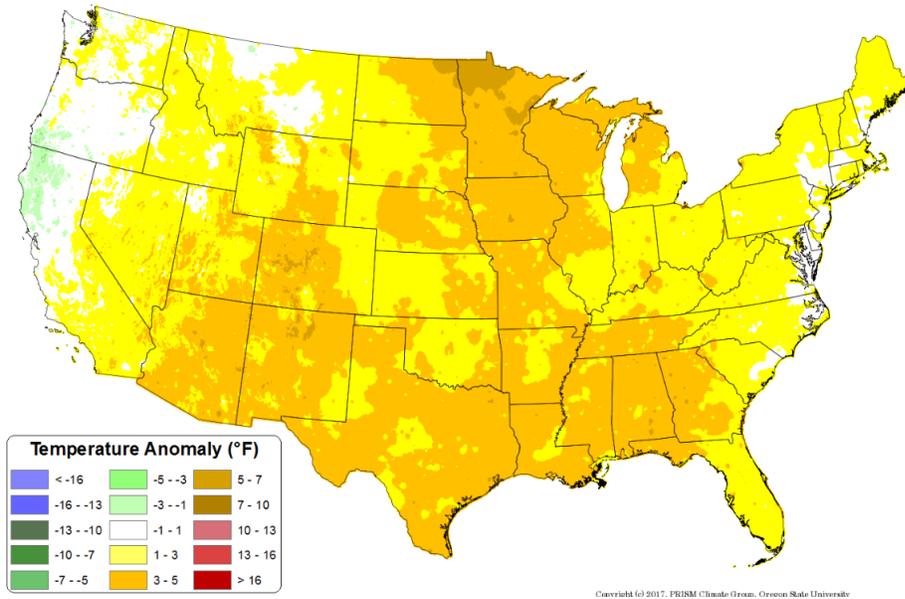
Water and Climate Update

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

Source: PRISM

Daily Mean Temperature Anomaly: October 2016 - December 2016
Period ending 7 AM EST 31 Dec 2016
Base period: 1981-2010
(Map created 02 Jan 2017)

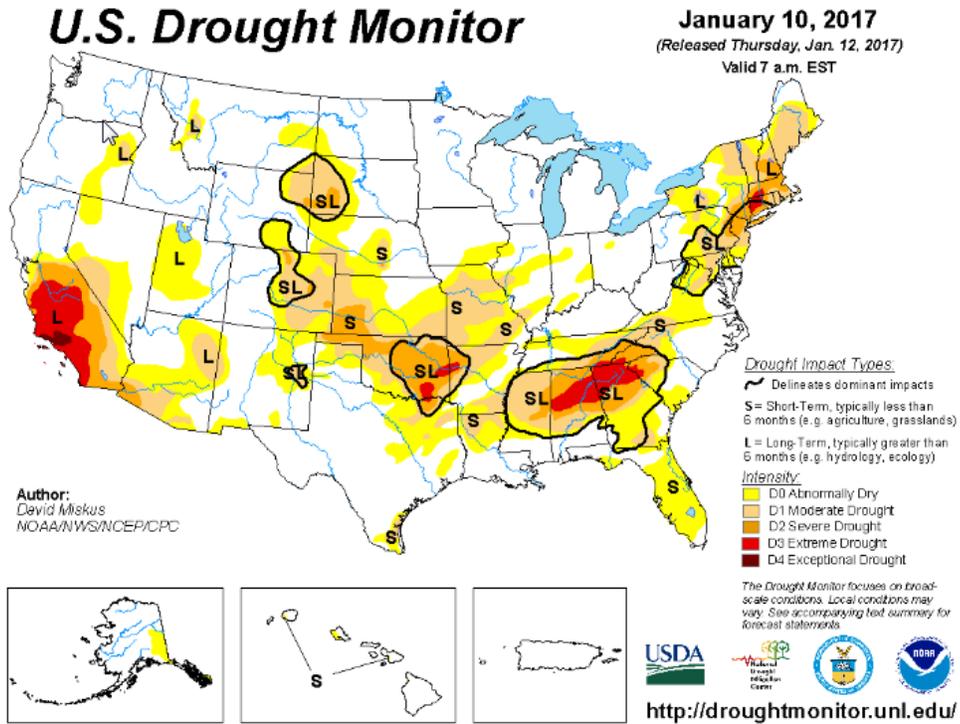
[October through December daily mean temperature anomaly map](#)



Drought

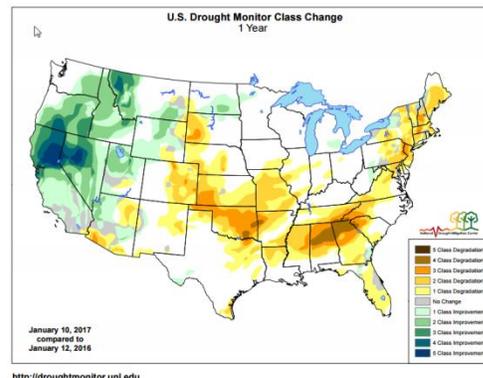
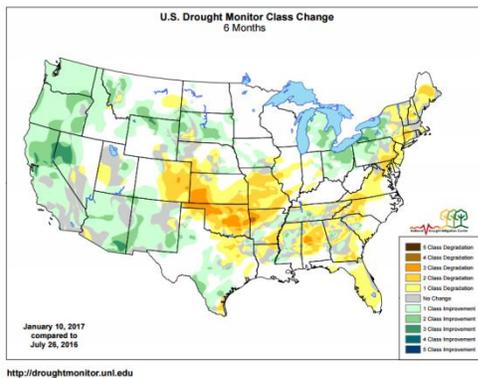
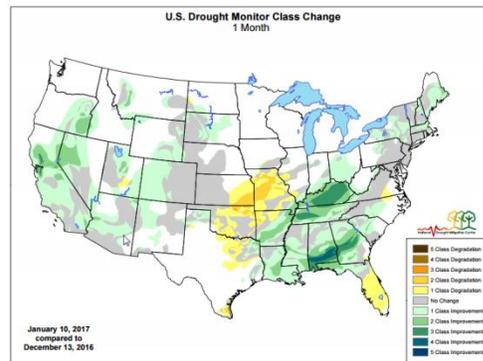
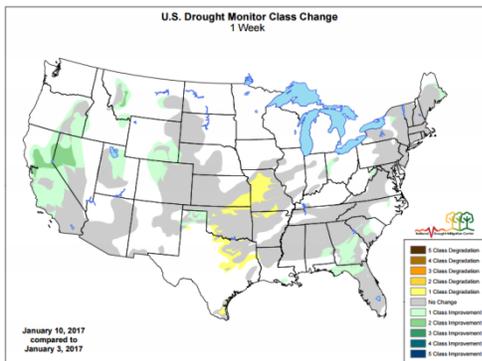
[U.S. Drought Monitor](#) See map below.

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



Changes in Drought Monitor Categories over Time

Click any map to enlarge



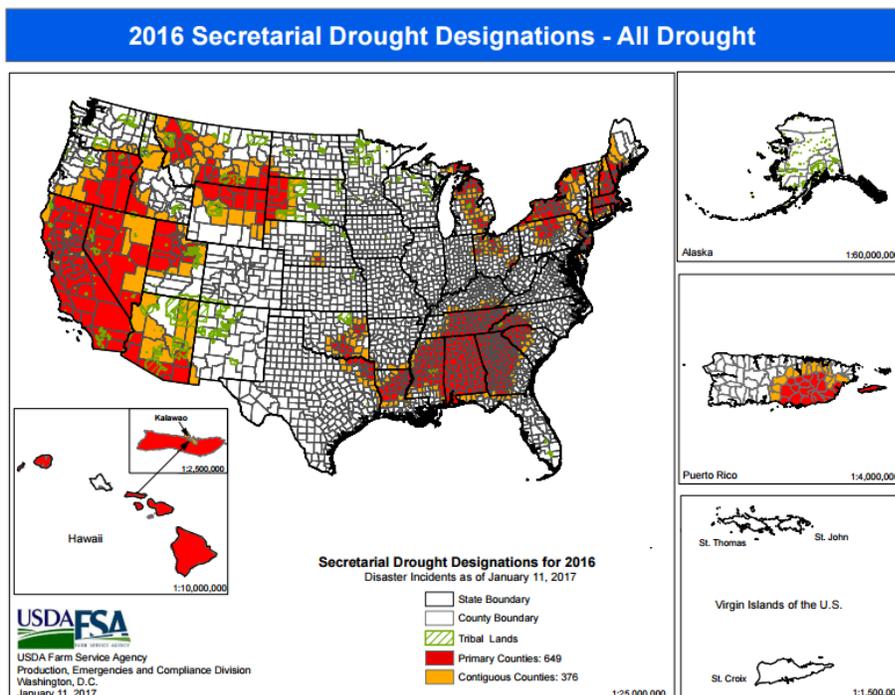
[Changes in drought conditions over the last 12 months](#)

Current National [Drought Summary](#), January 10, 2017

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

“A plethora of Pacific storms and moisture slammed into California and most of the West, dumping copious amounts of precipitation on the northern two-thirds of the state and Sierra Nevada. This very wet week maintained the great start to the Water Year (since Oct. 1) across the West where NRCS SNOTEL basin average precipitation was above or much above normal at nearly every major basin while basin average snow water content was at or above normal in most Western basins. With more than a foot of precipitation falling on the Sierra Nevada (locally 20.7 inches at Strawberry Valley, CA), most major reservoirs were at or above its Jan. 10 historical average, USGS monitored streams were at near or record high flows, Jan. 10 state snow water content was at 135%, and the Northern Sierra 8-station, San Joaquin 5-station, and Tulare Basin 6-station precipitation indices topped their wettest previous year as of Jan. 10. Accordingly, major drought improvements were made not only to California but at many areas of the West, including parts of Nevada, Utah, Oregon, Idaho, Montana, Wyoming, and Colorado. There were a few areas in southern California, however, that have yet to receive a bountiful Water Year and see any hydrologic improvements, so no changes were made there. Elsewhere, by the time the storms reached the Nation’s mid-section little moisture was available, so most locations observed little or no precipitation during the week. Farther east, an influx of Gulf and Atlantic moisture into the storm systems produced light to moderate precipitation across the eastern third of the U.S., resulting in a few improvements but mainly keeping conditions unchanged. The precipitation included a Jan.6-7 snow storm from Tennessee and northern Georgia northeastward across western North Carolina and eastern Virginia and along the mid-Atlantic and New England Coasts. Much colder air enveloped the lower 48 States as temperatures averaged below normal across most areas. Weekly anomalies of -10 to -25 degF were found across the Northwest and northern High Plains and -5 to -15 degF in the Great Plains and Midwest while seasonable readings were found in the Southwest, Florida, and parts of New England. Improvements were made on the leeward sides of the Hawaiian Islands (except Oahu) thanks to a wet December.”

USDA 2016 Secretarial [Drought Designations](#)

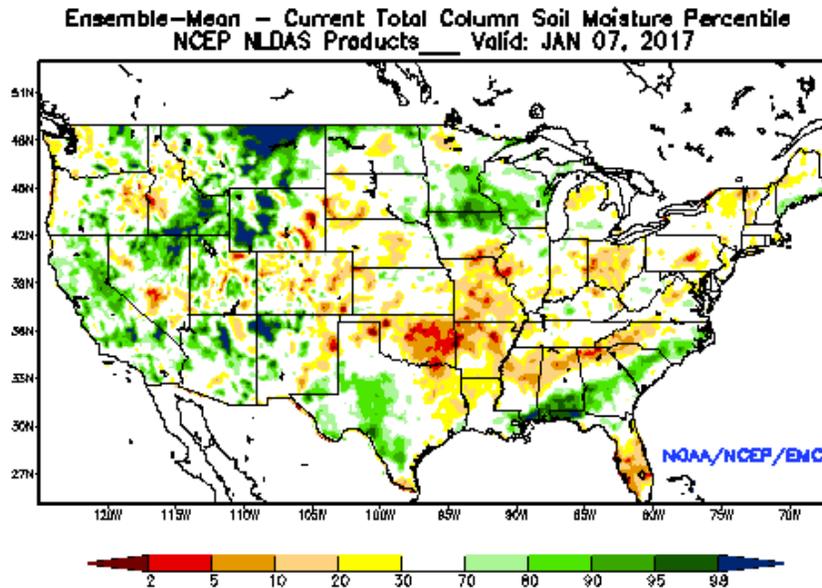


Highlighted Drought Resources

- [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](#)

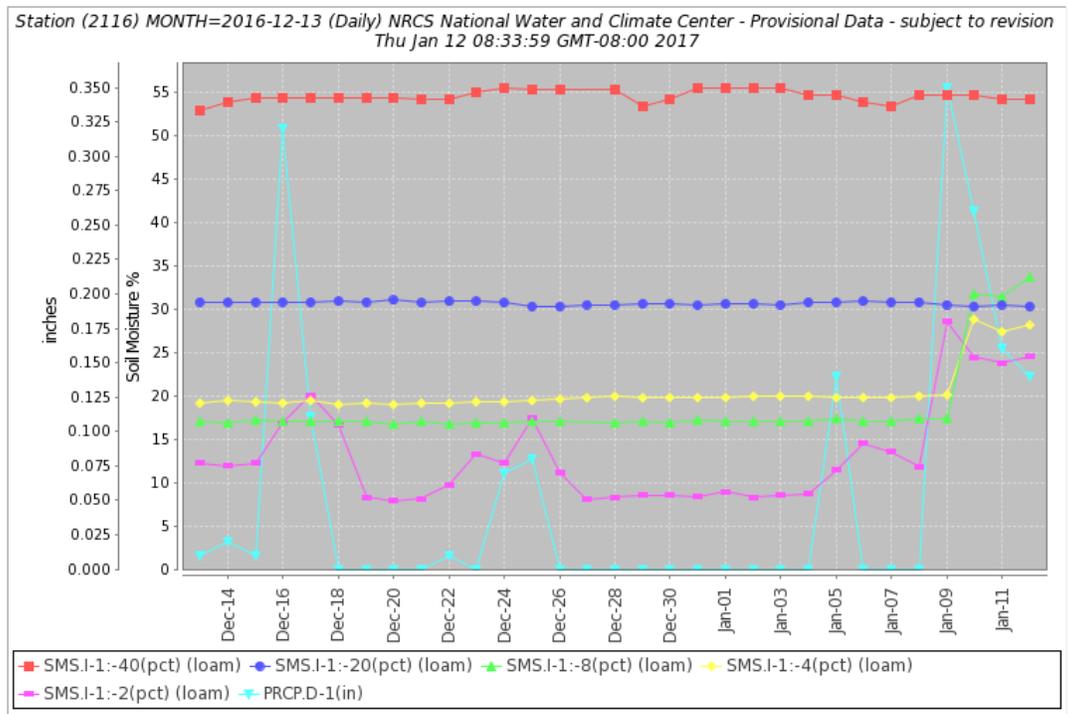
Other Climatic and Water Supply Indicators

Soil Moisture



[Modeled soil moisture percentiles](#) as of January 7, 2017.

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 [Lovelock NNR SCAN site 2116](#) in Nevada. Precipitation events resulted in an increase in soil moisture at the 2-, 4-, and 8-inch depth sensors.

Soil Moisture Data Portals

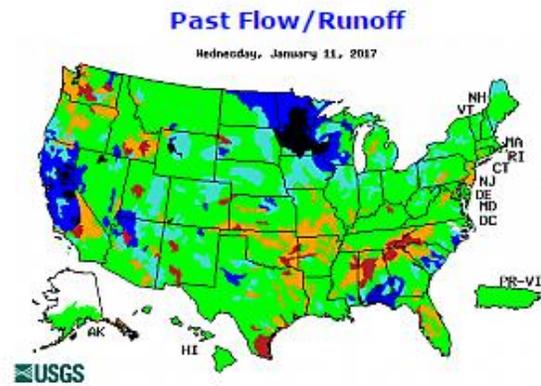
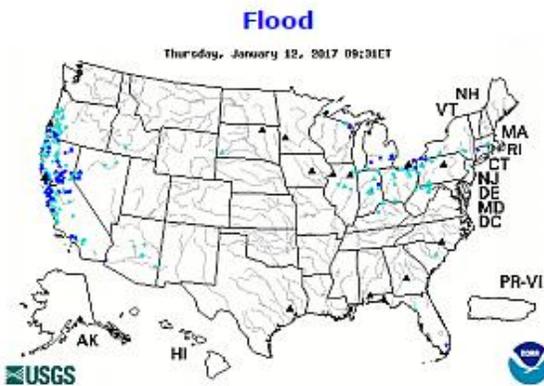
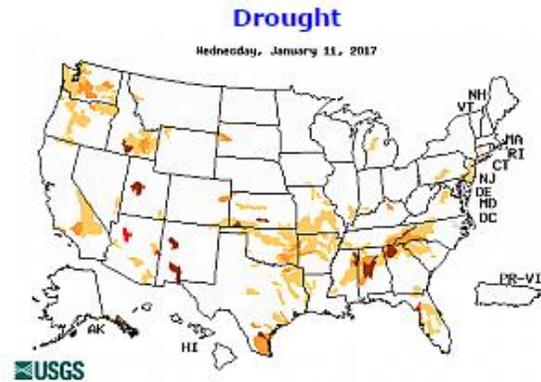
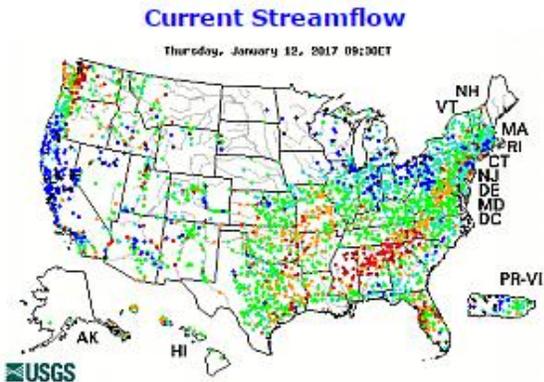
[CRN Soil Moisture](#)

[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](#)

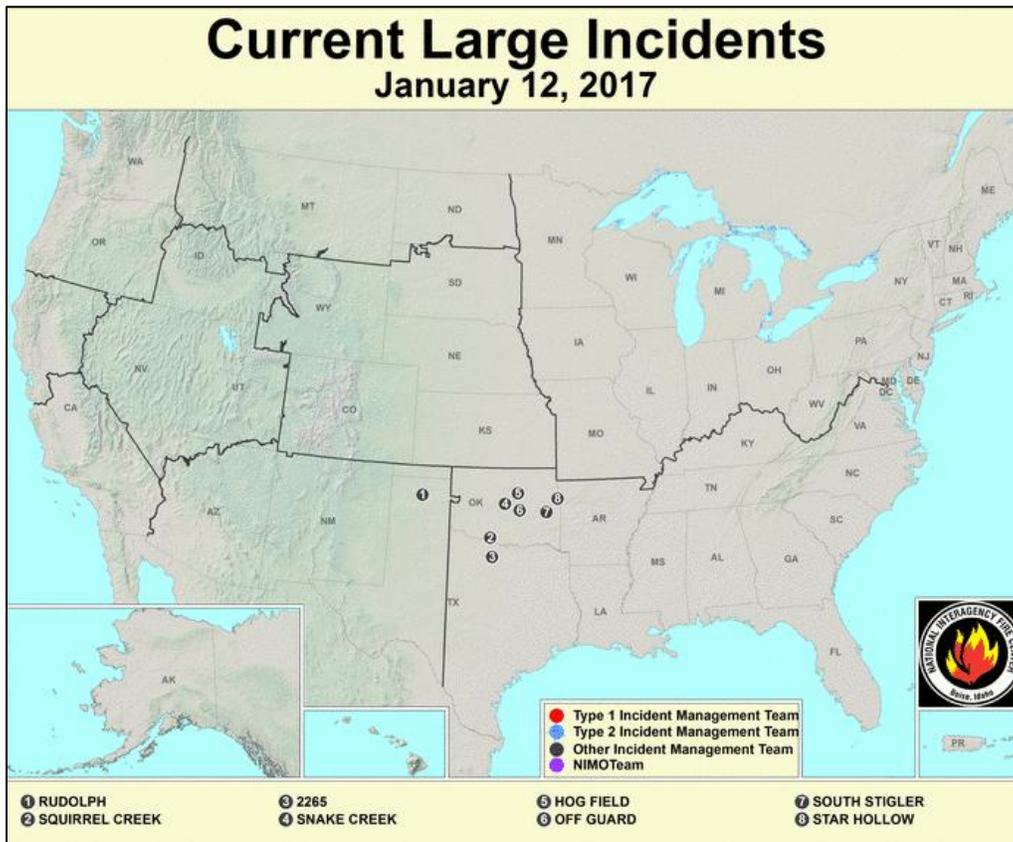
[Pacific Northwest/Snake/Columbia](#)

[Sevier River Water, Utah](#)

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

[California Reservoir Conditions](#)

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



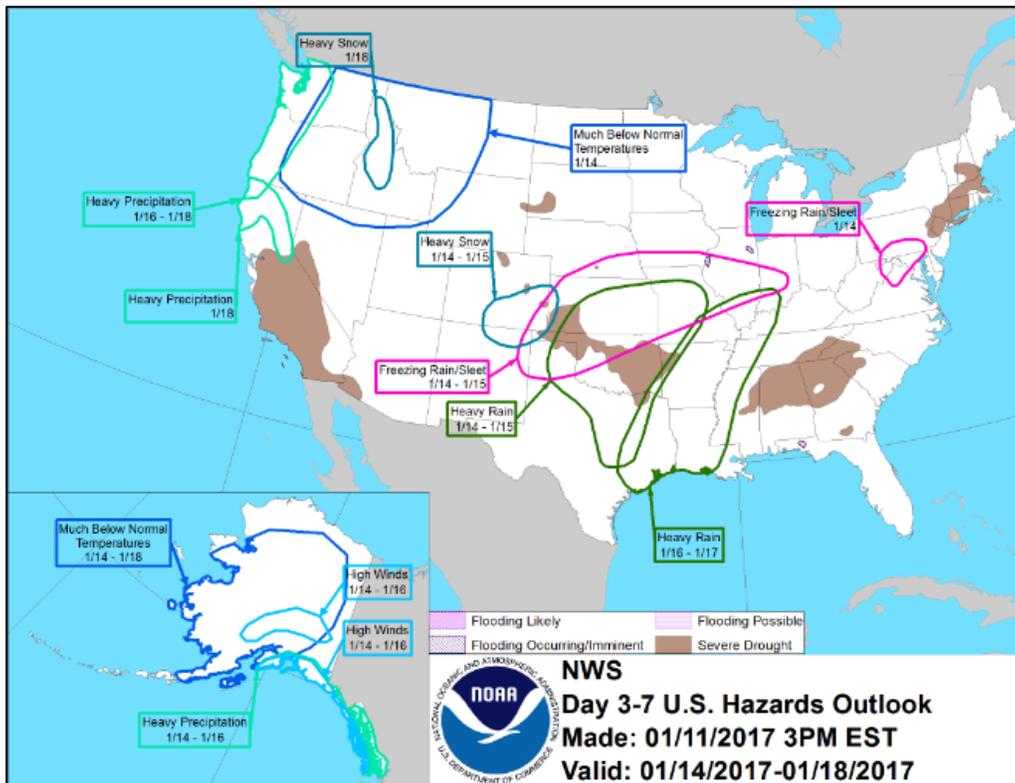
Short- and Long-Range Outlooks

Agricultural Weather Highlights

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

[National Outlook, January 12, 2017](#): “The last in a series of Pacific storms will cross California today. This system will produce less rain and snow in California than other recent storms, but additional flooding and travel disruptions could occur. Meanwhile, a new surge of cold air will continue to engulf the Plains, Midwest, and much of the West. On the southern Plains, cold air being overrun by increasing amounts of moisture could lead to significant accumulations of freezing rain, starting on Friday. During the weekend, wintry precipitation (snow, sleet, and freezing rain) will spread eastward into the Mid-Atlantic States. Winter storm impacts across the southern Plains, where precipitation will become heavy, will closely depend on temperatures when the rain or freezing rain is occurring. Although ice accumulations could cause major travel and electrical disruptions, moisture will provide drought relief for rangeland, pastures, and winter wheat. The NWS 6- to 10-day outlook for January 17 – 21 calls for near-to above-normal temperatures and precipitation across most of the nation. The greatest likelihood of warmth will stretch from the Mississippi Valley to the East Coast, while drier-than-normal conditions will be confined to portions of the southern Plains.”

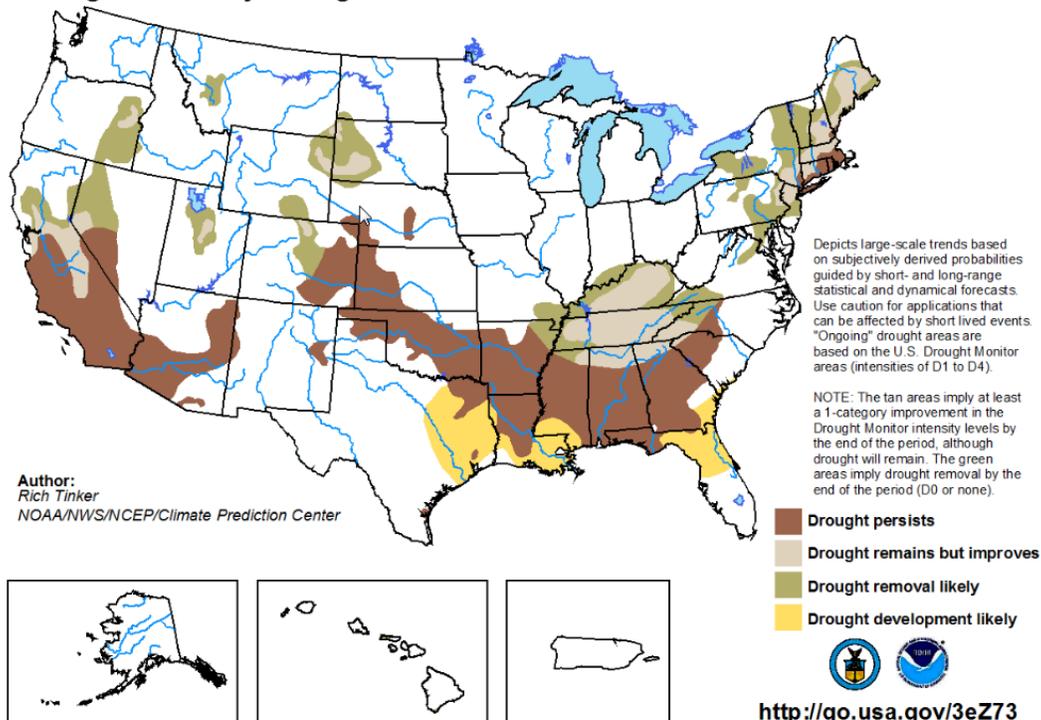
NWS Climate Prediction Center [Weather Hazard Outlook: 1/14-1/18/2017](#)



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

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

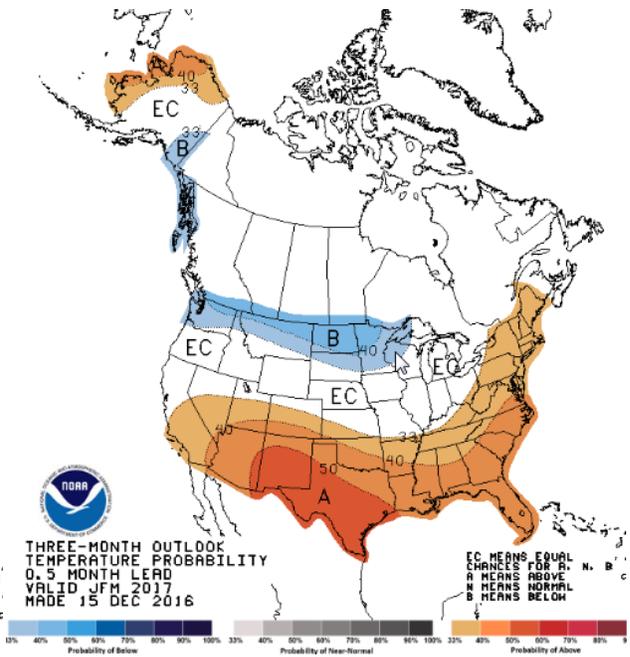
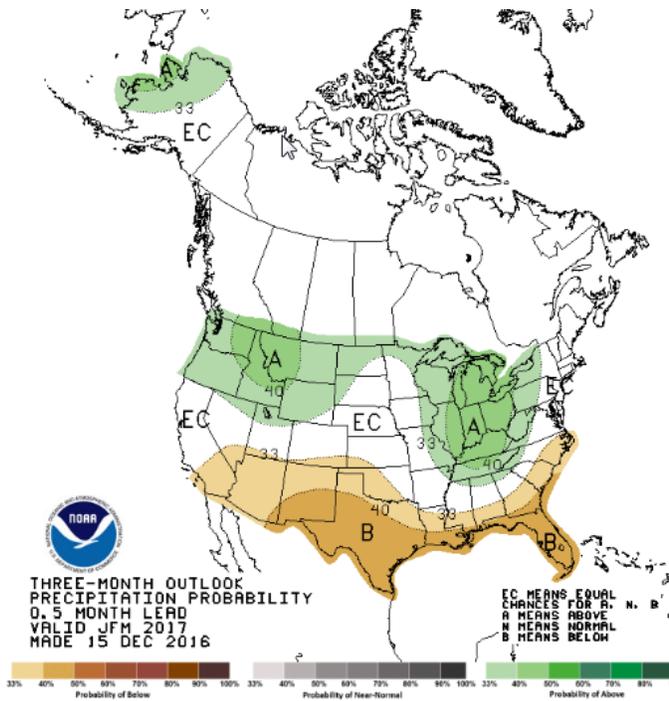
Valid for December 15 - March 31, 2017
Released December 15, 2016



NWS Climate Prediction Center 3-Month Outlook

[Precipitation](#)

[Temperature](#)



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

[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](#).