



# CISA

A NOAA RISA TEAM

December 2017

## CISA & CoCoRaHS Condition Monitoring Newsletter

This month's newsletter includes:

- For Auld Lang Syne - A look at New Year's Eve climatologies in the Carolinas
- Yes! Decision Makers Do Use Your CoCoRaHS Condition Monitoring Reports.
- Rain Gauges in Winter
- Southeast Regional Climate Update

As always, do not hesitate to reach out to us at [cisa@sc.edu](mailto:cisa@sc.edu) if you have any other questions or comments.

**Happy Holidays** from The CISA Team - Amanda, Ellie, Kirsten, and Kerry

### For Auld Lang Syne



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Getting ready to celebrate the New Year? For auld lang syne,

here's a little holiday climatology!

Fun fact, "Auld Lang Syne" is essentially translated as "for (the sake of) old times" and so, as you ring in the new year, you can reflect on past years' weather!

Hoping for a nice warm New Year's Eve? In South Carolina, the warmest NYE on record was in Sumter in 1906 with a high of 80°F. In North Carolina, NYE in 1990 was celebrated with a high of 78°F in Hofmann Forest.

There have definitely been some very chilly New Year's Eves in the Carolinas. Mt. Mitchell, NC experienced a low of -4 degrees F in 2000 and in 1917, Landrum, SC enjoyed a low of -9 degrees F. If that happens this year, you won't need to keep the bubbly in the fridge!

Both Carolinas have endured rainy New Year's Eves as well. In 1950, the people of Bethera, SC broke out their dancing rain boots to party in 4.35 inches of rain. The citizens of Banner Elk, NC received 5.7 inches in 1997. That year, the classic New Year's Eve anthem should have changed from "Auld Lang Syne" to "Singing in the Rain."

From all of us here at CISA, we hope you have clear skies, beautiful weather, and a very safe New Year!

## **Yes! Decision Makers DO Use Your CoCoRaHS Condition Monitoring Reports**

For the last month, members of the CISA team have been conducting interviews with drought decision makers in an attempt to determine their use and perceptions of CoCoRaHS Condition Monitoring reports. One such decision maker is Phil Badgett, a National Weather Service (NWS) Senior Forecaster working out of the Raleigh, NC [NWS Weather Forecast Office](#). He is also a NC Regional CoCoRaHS Coordinator.

Phil had high praise for CoCoRaHS observers. He mentioned that his group uses the condition monitoring reports extensively. The monitoring reports give them an idea of local conditions and allow them to compare CoCoRaHS report information with other sources to make forecasting decisions.



Western NC Fire 2016, Photo by Brad Perkins Photography

Fire Weather decisions were one of the most prominent uses that Phil discussed with us. He told us that knowing when the first frost has occurred and plants are dying, where grasses are dry, and when leaves are falling are all important information in the fall that observers have been reporting. This gives him an indication of the amount of fire fuel in an area. He uses that information along with other data from the Forestry Service to make decisions such as implementing fire weather watches or red flag warnings. In the spring, fuel dryness is also important, and should be reported if plants aren't greening up like usual or there is a freeze/frost which can further dry fire fuels. Phil loves this type of information. The more reports, the better services the NWS can provide.

Phil gave another example of how he has used the reports in real time. After a snow event last January in the Raleigh area, temperatures remained low leaving snow on the ground. In the days following, there was some thawing as temperatures reached 35-38°F. One observer mentioned black ice forming right at sunset, because the ground was colder than the air due to the snow cover. That report gave the NWS a heads up to issue a winter weather advisory for black ice.



One last example of how the NWS has used the monitoring reports comes from the spring freeze this year. NWS offices in the Carolinas don't usually begin issuing spring frost/freeze watches and warnings until April. However, because observers were reporting that buds and leaves on trees and plants were emerging earlier than usual due to warm temperatures, the NWS knew it was critical to issue freeze watches and warnings to help save crops, if possible.

Phil stressed that reliable and detailed reports were extremely important in helping them make all of these decisions. So keep submitting those reports and mention anything out of the ordinary!

## Rain Gauges in Winter

As the weather turns cold in the Carolinas and some of you begin to see snow, that means it's time to take extra care of your rain gauge.



If temperatures will drop below freezing, please bring your gauge inside to keep it from cracking. This is also a wonderful time to give the gauge a good cleaning. Use a soft bottle brush and a mild detergent to hand wash your gauge.

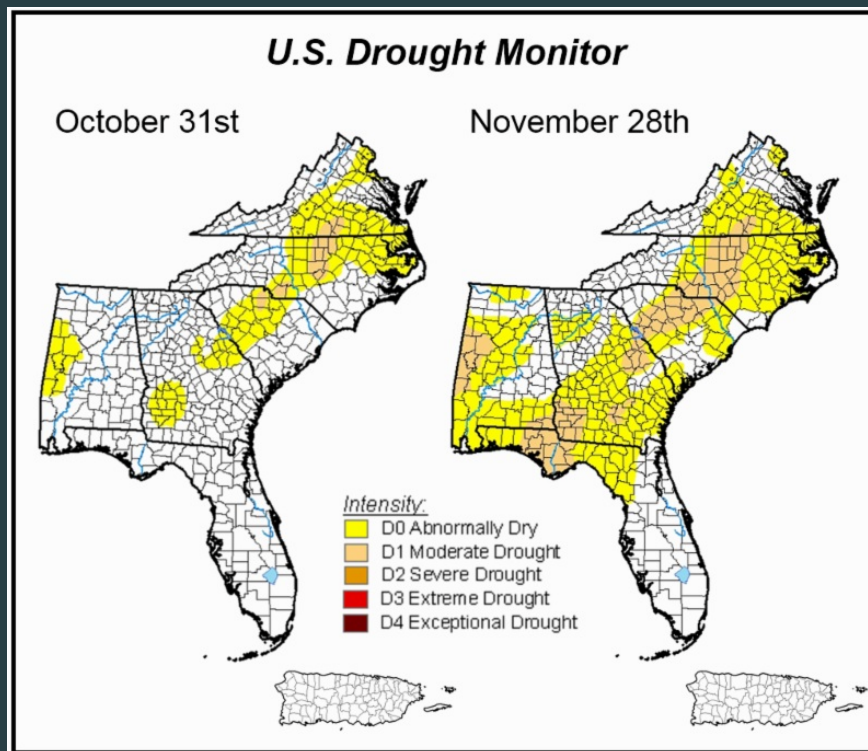
Remember, never allow water to freeze in the rain gauge because it will cause the plastic to crack and then we won't have all the useful data observers provide!



## Southeast Regional Climate Update

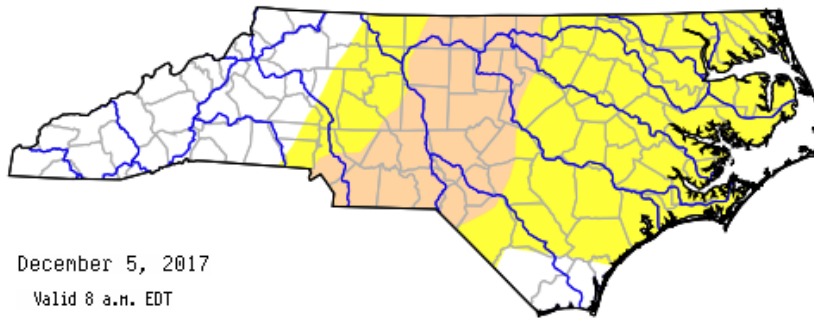
The [Southeast Regional Climate Center](#) has released its [November Climate Overview](#). Temperatures were near average to above average in Alabama, Georgia, Florida, and western North Carolina during November, while below-average temperatures were observed across central and eastern portions of the Carolinas and Virginia.

Precipitation was well below normal across much of the Southeast region during November, with monthly totals ranging from 50 to less than 5 percent of normal. At least 31 long-term stations, with two or more located in every state, observed November precipitation totals that were ranked within their five lowest values on record.



Abnormal dryness (D0) and moderate (D1) drought continued to expand in coverage across the Southeast during November. Indeed, the cumulative extent of abnormal dryness and moderate drought more than doubled within the region, increasing from 23 percent on October 31st to 58 percent on November 28th. At least 20 percent of the USGS gauges in Georgia, the Carolinas, and Virginia recorded well-below-normal (i.e., less than the 10th percentile) stream flows at the end of the month

# US Drought Monitor of NORTH CAROLINA



December 5, 2017

Valid 8 a.m. EDT

### Drought Classifications

- D0 - Abnormally Dry
- D1 - Moderate Drought
- D2 - Severe Drought
- D3 - Extreme Drought
- D4 - Exceptional Drought

County Boundaries

Major River Basins ([View Map](#))

**S** = Short-Term, typically <6 months (e.g. agriculture, grasslands)

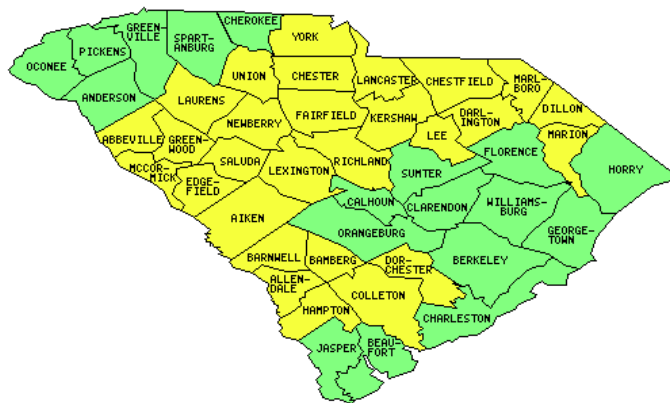
**L** = Long-Term, typically >6 months (e.g. hydrology, ecology)

[Hi-Resolution Image](#) | [Print Version](#) |

The [North Carolina Drought Management Advisory Council](#) updated their drought status as of December 5, 2017. There are currently 46 counties with abnormally dry (D0) conditions and 24 counties with Moderate Drought (D1) conditions.

## Drought Response Committee updates county statuses

South Carolina Drought Status by County  
November 27, 2017



- Normal
- Incipient
- Moderate
- Severe
- Extreme

S.C.  
State  
Climate  
Office

The [South Carolina Drought Response Committee](#) updated the drought status on November 27, 2017. There are currently 28 counties in the state with an incipient drought status while the rest of the state remains under normal conditions.

While wildfire occurrence has been low so far this month, fuels that grew over the growing season are rapidly curing. "If dry conditions continue, we expect to see a rise in the number of wildfires, especially on days when high winds coincide with low relative humidity," S.C. Forestry Commission Forest Protection Chief Darryl Jones added. "A developing drought could also result in poor seedling survival as we enter tree

planting season."

Feel free to contact us with any questions.

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