

South Carolina CoCoRaHS Rain Gauge Gazette

2

Observer
Corner and
Coordinator
Info

3

Winter 2020 –
2021 Rainfall
Data

4

Rainfall
Reports from
Tropical Storm
Elsa (July)

5

Rainfall
Reports from
Tropical Storm
Fred (August)

6

Fall 2021
Dry
Conditions

7- 8

Winter
Weather

Welcome to the second edition of the 'South Carolina CoCoRaHS Rain Gauge Gazette.'

This newsletter will discuss some of the top precipitation-related stories during 2021 and highlight the impact of your observations. Whether you have been with us for ten years or ten days, know that your data has been instrumental in monitoring drought and flooding across the Palmetto State.

South Carolina CoCoRaHS is always looking for new observers to help understand where it did or did not rain. If you know someone that enjoys the weather, encourage them to sign up to participate in this worthwhile citizen science project.

Sincerely,
Melissa Griffin
South Carolina CoCoRaHS State
Coordinator

If you have any questions, please feel free to contact me at GriffinM@dnr.sc.gov.

Observer Corner

2021 Highlights

- Citizen Weather Observer Week (March 2021)
- 3rd Place in the March Recruitment Campaign (119 new sign-ups)
- Years of Service
 - 21 Active observers started in 2011 (10 years)
 - 31 Active observers started in 2016 (5 years)

We want to thank the [Harry Hampton Wildlife Fund](#) for supporting the South Carolina CoCoRaHS program over the last few years. We have provided rain gauges to schools, educational centers, and other observers across the state through their generous donations.



Here's some refresher information on observing to all observers, old and new!

•**Double-check your report before you hit submit.** Occasionally, someone at CoCoRaHS HQ may contact you, a regional coordinator, or myself about a flagged rainfall value. Two of the most common mistakes are entering the observation time as the rainfall total and misplacing the decimal.

•**Report your zeroes.** Even on days when there is nothing in your rain gauge, that 0.00" value is extremely important to many individuals and agencies.

•**Check out the Wx Talk Webinars offered by CoCoRaHS.** Each webinar features a weather-related topic and allows our observers to interact with the speaker.

Your South Carolina CoCoRaHS Team

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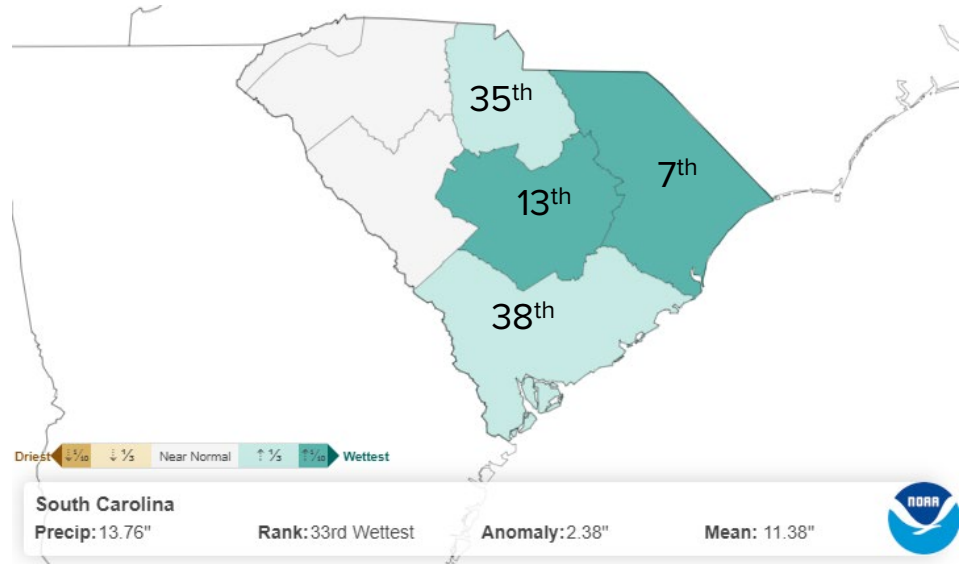
Tim Armstrong (timthoy.armstrong@noaa.gov)



Winter 2020 – 2021 Rainfall

Statewide, it was the 33rd wettest winter (December, January, and February) on record since 1895, with an average statewide total of 13.76". Multiple stations across the state measured more than 150 percent of their average winter rainfall. February 2021 was the 8th wettest February on record. Despite the above-normal rain and increased streamflow values across the Pee Dee and lower Santee river basins, low-lying areas did not report the same level of flooding that impacted the region during February 2020.

Divisional Precipitation Rank (of 127 years)
December 2020 – February 2021

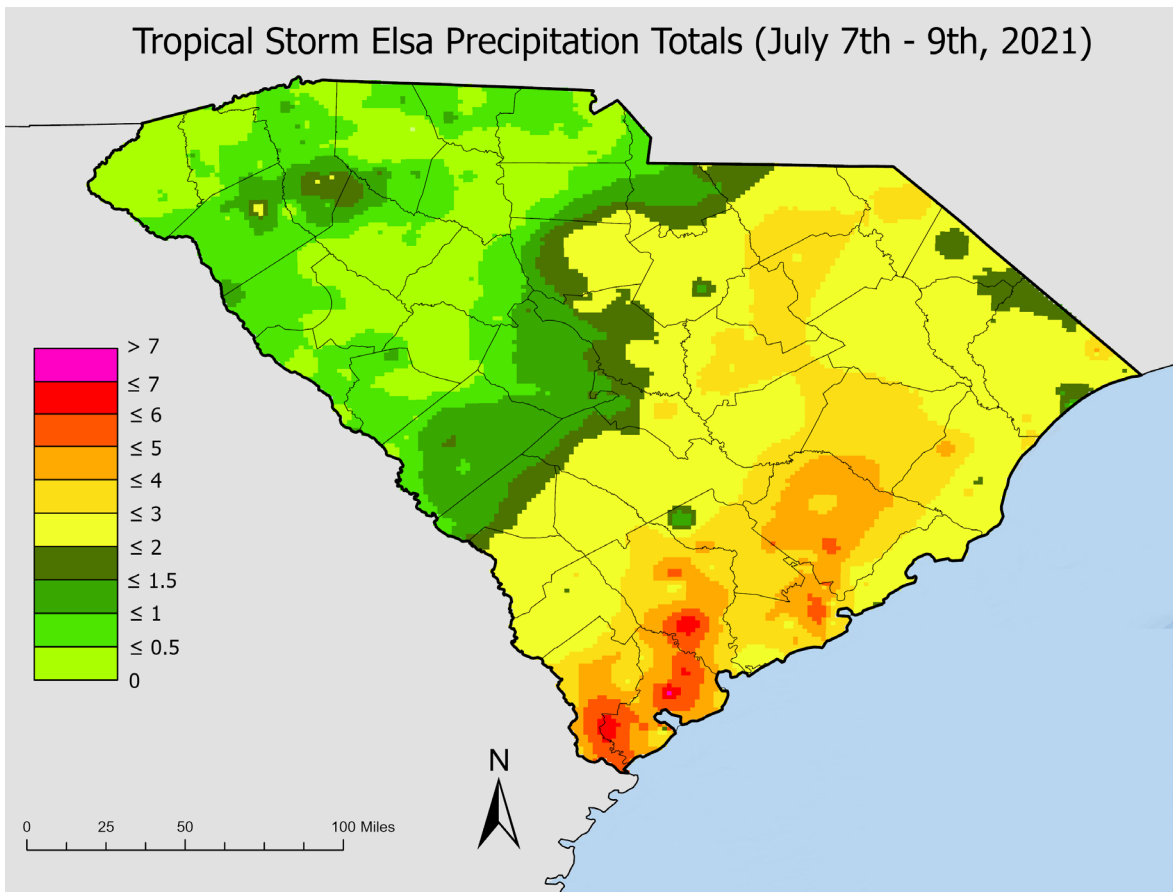


Station	Station Type	Winter (DJF) Rainfall (in)	Feb 2021 Rainfall (in)
Bamberg	NWS	21.29	11.21
Cades 4 W	NWS	19.87	10.25
Swansea 3.5 NE	NWS	19.67	10.33
Myrtle Beach 5.2 SW	CoCoRaHS	19.41	10.19
Cheraw 1.2 ESE	CoCoRaHS	19.38	8.07
Jocassee 8 WNW	NWS	19.12	7.03
Aiken 8.6 SE	CoCoRaHS	18.80	10.20
Murrells Inlet 1.9 NNE	CoCoRaHS	18.44	9.62
Florence 5.1 W	CoCoRaHS	18.10	8.69

Tropical Storm Elsa

Tropical Storm Elsa made landfall near Steinhatchee, Florida, on July 7 and drifted slowly northeastward through northern Florida and southern Georgia. Elsa began to affect South Carolina late on July 7 as it accelerated northeastward. The storm's center entered South Carolina during the early morning of July 8. The most significant impact from Elsa on South Carolina was heavy rainfall. The Lowcountry saw the heaviest rainfall, with parts of Beaufort, Charleston, and Colleton Counties receiving more than six inches of rain.

Station	Station Type	Rainfall Total (in)
Beaufort 1.6 SSW	CoCoRaHS	7.15
Green Pond 1.3 S	CoCoRaHS	6.76
Charleston 2.5 NNW	CoCoRaHS	6.18
Moncks Corner 8.9 S	CoCoRaHS	5.82
Reevesville 1.0 SSE	CoCoRaHS	5.75
Bluffton 7.2 NW	CoCoRaHS	5.31
Georgetown 13.3 NW	CoCoRaHS	4.30

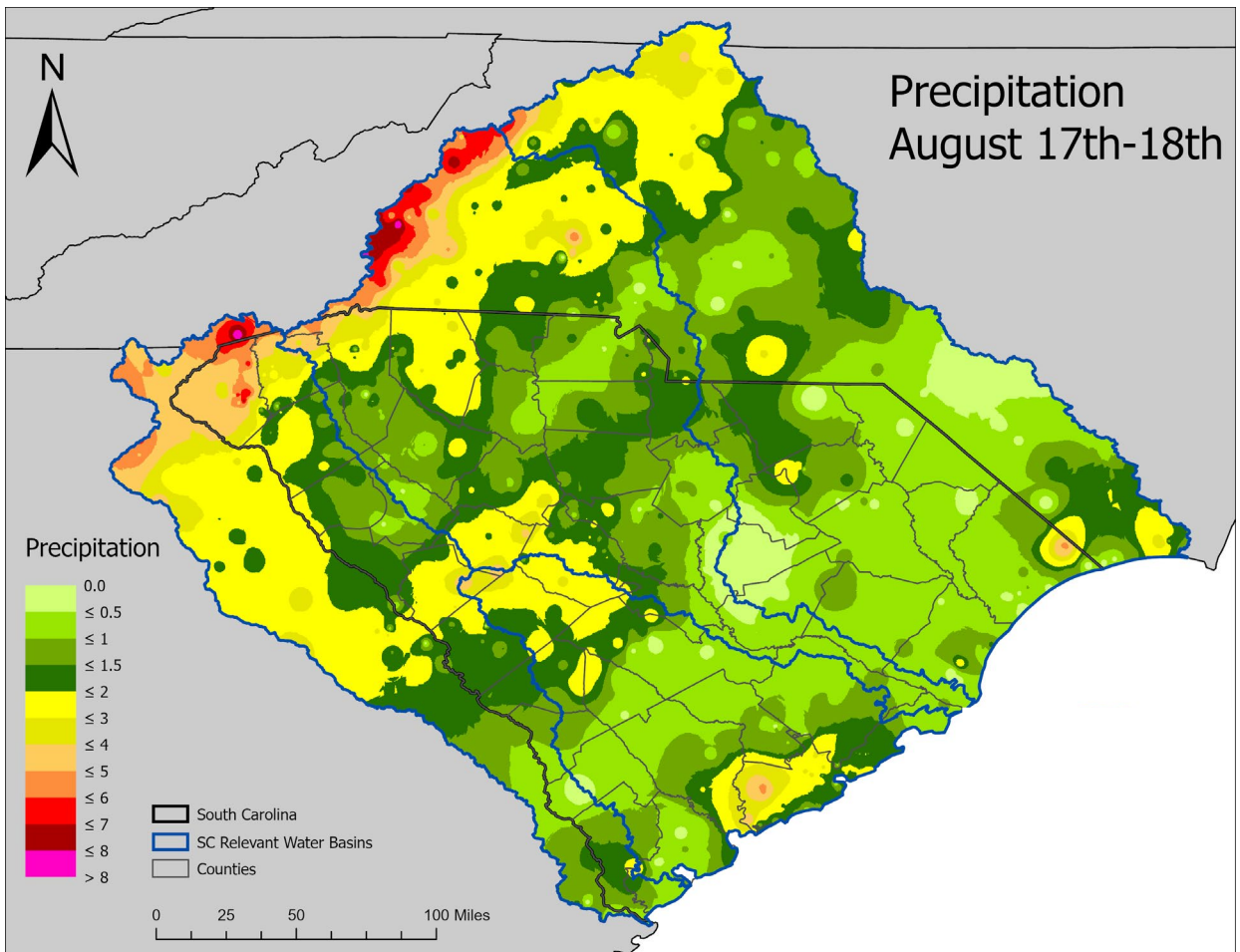


Tropical Storm Fred

On Monday, August 16, Tropical Storm Fred made landfall near Apalachicola, Florida, and passed by just to the west of South Carolina the following day on a north-northeastward track. The direct impacts on South Carolina from Fred were heavy rainfall and tornadoes. The rainfall impacts in the Upstate were exacerbated by heavy rain in the days leading up to Fred's passage through the southeastern United States.

Here are some of the totals recorded by the National Weather Service stations and CoCoRaHS observers in the areas that received the most rainfall from the storm.

Station	Station Type	Rainfall Total (in)
Seneca 2.8 NNW	CoCoRaHS	7.50
Jocassee 8 WNW	NWS	6.29
Caesars Head	NWS	5.77
Longs 2.6 NNW	CoCoRaHS	5.56
Hollywood 5.8 WSW	CoCoRaHS	5.37
Ridge Springs 0.4 SSW	CoCoRaHS	4.68
Little Mountain	NWS	4.01



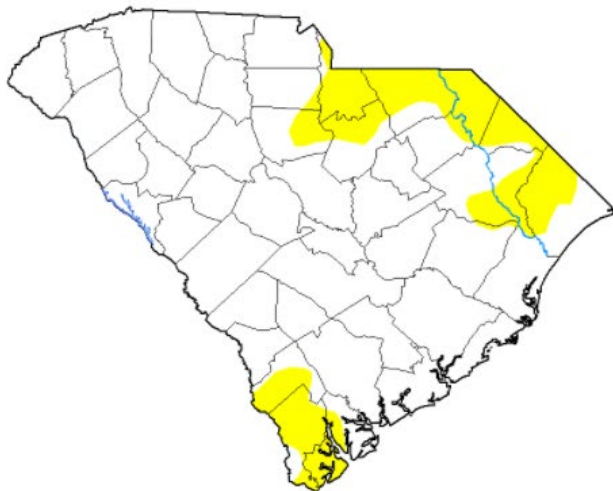
Dry Conditions – November 2021

The statewide average precipitation for November 2021 was 0.88 inches, which is 1.85 inches below the long-term average for the month (1895-2020) of 2.73 inches, and became the eighth driest November on record. During the month, only the coastal portions of Beaufort and Colleton counties reported slightly above-normal precipitation, with precipitation totals between three and four inches. A CoCoRaHS observer near Bluffton recorded a monthly total of 4.61 inches. Elsewhere, it was one of the driest Novembers on record. Parts of the Central Savannah River Area, Midlands, and Pee Dee measured less than 25% of their normal monthly rainfall. The National Weather Service (NWS) station at the Columbia Metropolitan Airport reported its third driest November on record with a total of 0.28 inches. The NWS station at the Florence Regional Airport measured 0.45 inches for the month, making it the fourth driest November since 1948 and the second driest Fall (September to November) with a seasonal total of 3.66 inches.

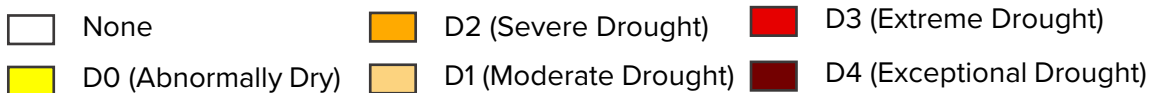
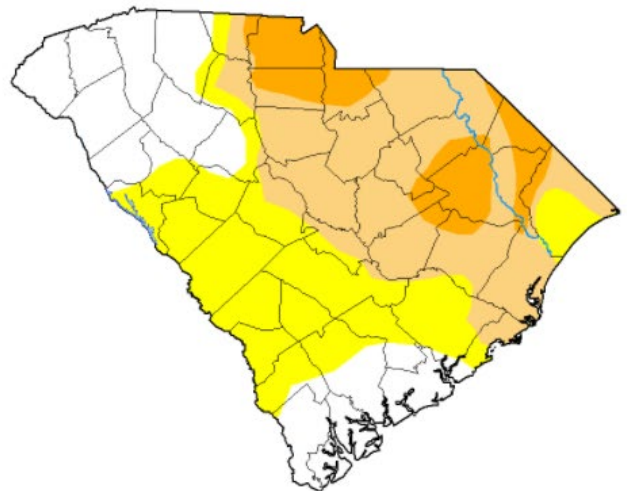
With the lack of rainfall during the Fall, dry conditions worsened across the state, and by the end of November, portions of the Pee Dee region were experiencing severe drought conditions. The measured streamflow values were well below normal in parts of the Catawba and Pee Dee river basins, and soil moisture was short in the top and subsoil.

United States Drought Monitor

September 7, 2021



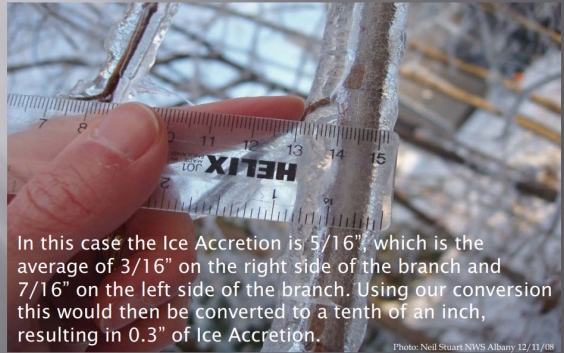
November 30, 2021



Winter Weather Observing and Reporting

As we head into the heart of Winter, take a few moments to read the [training slideshows](#) or watch the [instructional videos](#) on snow measuring, measuring snow water equivalent (SWE), and ice accretion. While I know that winter weather is somewhat rare in the state, everyone remembers a few storms.

ICE ACCRETION EXAMPLES



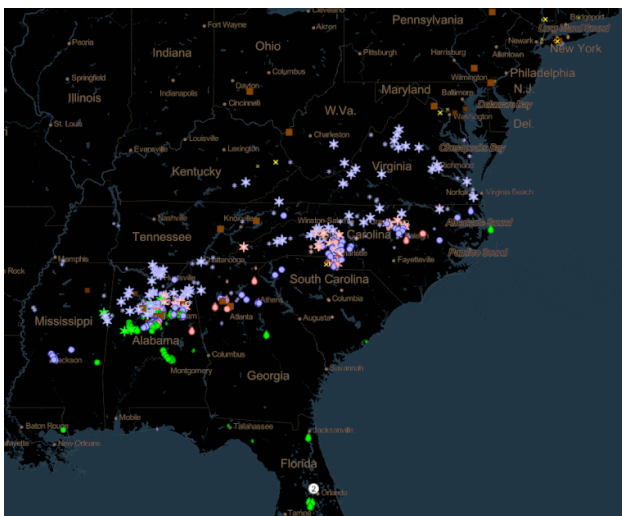
Did You See Snow, Sleet or Ice?

As you share your pictures of wintry precipitation via social media, make sure to include the following information:

- Precipitation Type (rain, snow, sleet, or ice)
- Location
- Time and Duration
- Amount
- Impacts

Tag your local the National Weather Service Office. These reports provide valuable data to meteorologists and emergency managers during winter weather events.

Twitter: [@NWSGSP](#) [@NWSColumbia](#) [@NWSCharlestonSC](#) [@NWSWilmingtonNC](#)



In addition to noting if you see rain, sleet, or snow in the comments box with your observation, I highly recommend downloading the mPING App on your phone. This easy-to-use tool provides vital information on the type of precipitation falling at your location.

For more information:

<https://mping.nssl.noaa.gov/>

South Carolina Winter Weather Facts

It is difficult to say which winter storm should be considered the state's most significant. The table highlights the largest snow reports from events lasting up to three days from across the state. The snowstorm of February 1973 is undoubtedly a top contender. It produced the state record 24-hour snowfall of 24" at Rimini and stranded over 30,000 tourists traveling along I-95.

Most of the state averages two inches or less of snowfall each year, though totals up to seven inches occur in the highest elevations. However, there can be a considerable variation from year to year. During the winter of 1968-1969, Caesars Head observed a total of 60" of snow.

Location	Snow (Inches)	Ending Date
Caesars Head	28.9	February 18, 1969
Rimini	24.0	February 11, 1973
Bamberg	22.0	February 11, 1973
Manning	21.0	February 11, 1973
Branchville 6 SW	19.0	February 11, 1973
Chesnee 7 WSW	18.1	March 4, 1942
Lake City 2 SE	17.5	February 11, 1973
Rock Hill (Winthrop)	17.3	February 27, 2004
Florence Airport	17.0	February 11, 1973
Blackville 3 W	17.0	February 11, 1973
Caesars Head	16.5	January 8, 1988
Cheraw	16.0	February 27, 1914
Columbia Metro Airport	16.0	February 11, 1973

