South Carolina CoCoRaHS Rain Gauge Gazette

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

This newsletter will discuss some of the top precipitation-related stories during 2025 and highlight the impact of your observations. Whether you have been with us for ten years or ten days, please know that your data was instrumental in monitoring drought and flooding across the Palmetto State – because every drop counts!

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

Sincerely,
Melissa Griffin, State Coordinator
South Carolina CoCoRaHS

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

2025 CoCoRaHS Highlights

We want to thank the Harry Hampton Wildlife Fund for its continued support of 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.

2025 South Carolina Program Highlights

- Citizen Weather Observer Week (March 2025)
- 53 New and Active observers in 2025
- Years of Service Awards
  - 16 Active observers started in 2010 (15 years)
  - 27 Active observers started in 2015 (10 years)
  - 45 Active observers started in 2020 (5 years)

Quality Control Queries

A stated goal of the Community Collaborative Rain, Hail and Snow Network (CoCoRaHS) is to provide the highest quality data for natural resources, education, and research applications. CoCoRaHS observers are less prone to errors and generally know how to handle unusual or unexpected situations as they happen. However, even the most well-trained and experienced observers make mistakes… including yours truly.

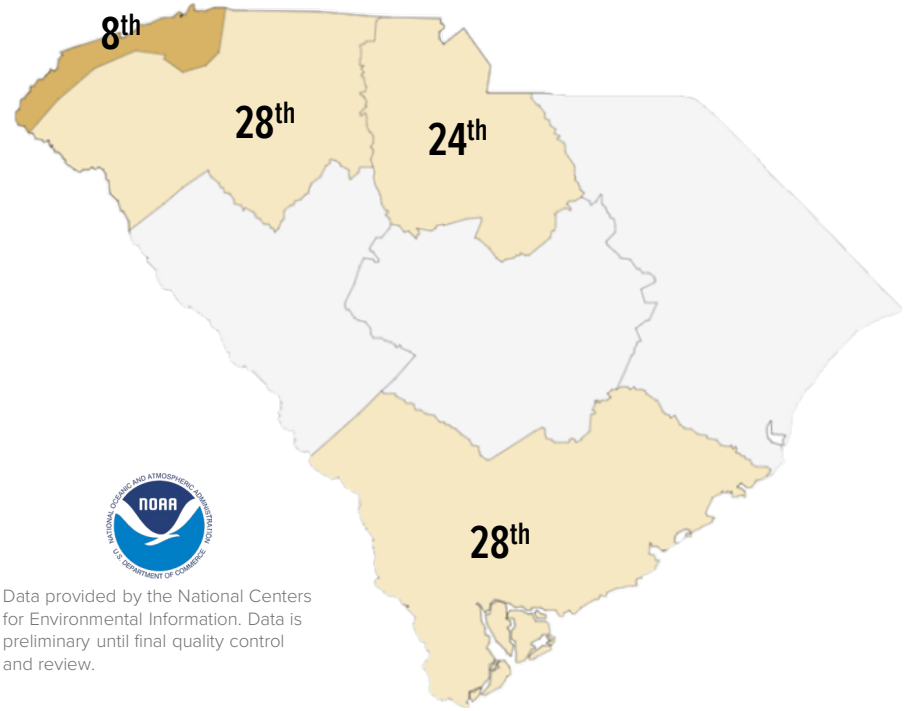
Since daily CoCoRaHS observations are entered into the National Centers for Environmental Information (NCEI) Global Historical Climate Network-Daily (GHCN-D), we work to ensure high data quality through our quality-control procedures. When we spot a questionable value, we examine it and compare it to nearby observations, radar imagery, and Multi-sensor Precipitation Estimates. If the value remains questionable, it will be marked as 'NA'.

When this happens, someone at CoCoRaHS HQ may contact you, a regional coordinator, or me about a flagged rainfall value so it can be corrected. Please double-check your report before submitting it. If you have any questions about your observation, feel free to reach out to me or one of your regional coordinators (contact information is on the last page) for assistance.

Here are some of the most common types of errors reported in 2025:

- **Typo/Decimal**: Observer mistypes the amount into the precipitation field or misplaces the decimal point.
- **False Zero**: Observer entered zero, but evidence suggests the value should be > 0.00."
- Time of Observation: Observer entered the time they took the observation into the precipitation field.
- **Wrong Date of Observation**: This error could be an observer entering the wrong date for an observation, or a multi-day report entered as a 24-hour observation.

2025 South Carolina Precipitation Summary



Data provided by the National Centers for Environmental Information. Data is preliminary until final quality control and review.

The statewide precipitation total for 2025 was 43.09 inches, 4.80 inches below the long-term average of 47.89 inches (1895–2024), making it the 28th–driest year on record; however, precipitation totals varied across the state. The average annual precipitation totals for three of the seven state's climate divisions ranked among the forty driest years on record, and one climate division ranked in the top ten driest years. Three months out of the year reported statewide averages that were wetter than normal, and four months were drier than normal, including the second driest November on record.

2025 Statewide Precipitation Totals, Departures and Rankings

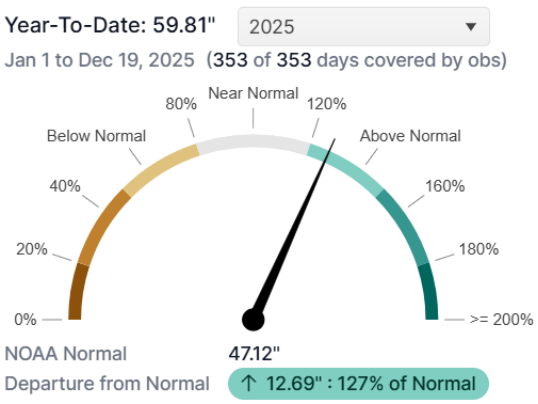
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total	1.86”	2.25”	3.02”	2.75”	7.01”	4.73”	4.64”	7.54”	1.65”	4.63”	0.55”	2.46”
Depart	-1.97”	-1.65”	-1.26”	-0.59”	3.43”	0.05”	-0.90”	2.26”	-2.59”	1.64”	-2.06”	-1.15”
Rank	18th	29th	37th	--	3rd	--	--	20th	11th	26th	2nd	29th

Record Driest | Top 10 Driest | Top 40 Driest | Normal | Top 40 Wettest | Top 10 Wettest | Record Wettest

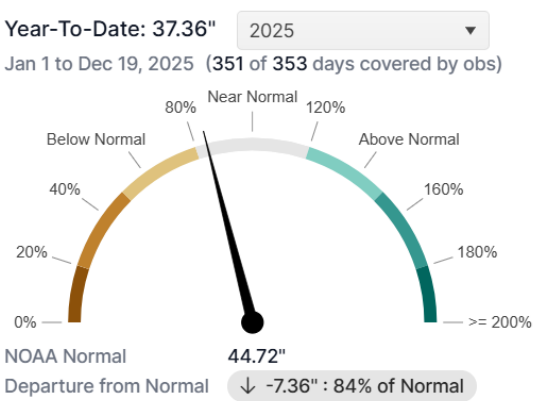
Drier than Normal | Wetter than Normal

Here are some examples of the 2025 precipitation totals and a climatological perspective from the CoCoRaHS DEX Tool for two CoCoRaHS stations in South Carolina.

SC-JS-3: Ridgeland 5.8 ESE



SC-AK-112: North Augusta 3.6 N



2024 – 2025 Seasonal Snowfall Totals

January 2025 saw the first measurable snow in the state since 2022. There were three wintry precipitation events during the season.

On January 10, a wintry mix brought snow, sleet, and freezing rain statewide. The Upstate and Central Savannah River Area saw snow and sleet, while the Coastal Plain reported sleet. Overnight, snow totals reached up to 3.5 inches, with a quarter inch of ice in some areas.

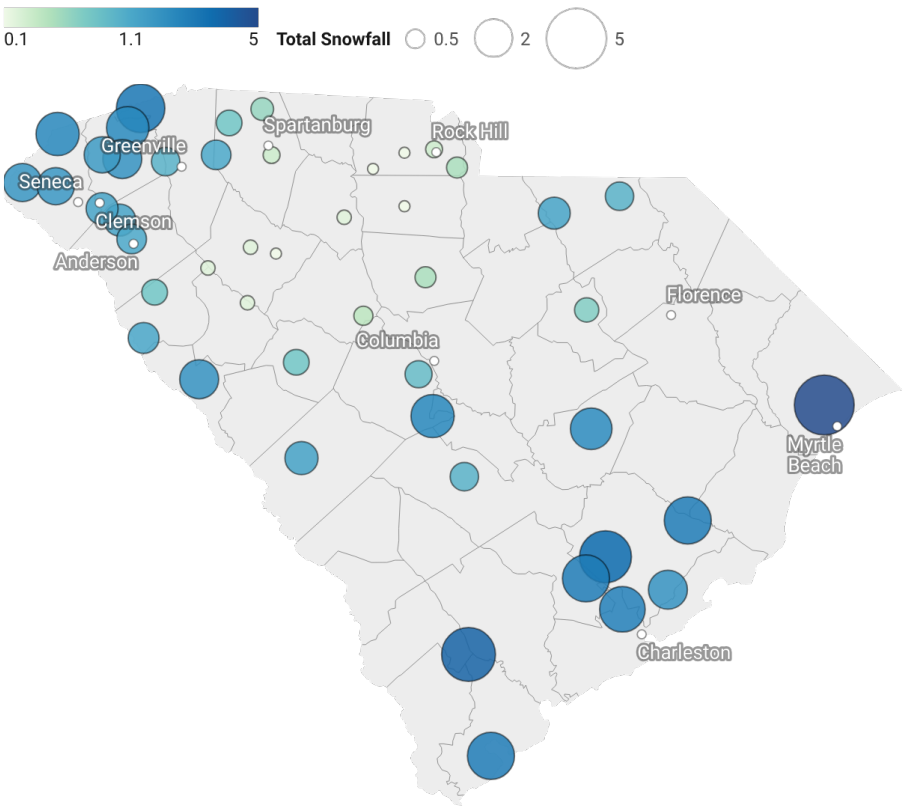
On January 20–21, temperatures were well below normal, with highs in the 30s and Charleston reaching just 38 degrees. Arctic air and a low-pressure system brought more wintry weather. Most areas saw snow, with the Lowcountry receiving two to four inches and the Pee Dee up to five inches.

On February 19, freezing rain and sleet affected Chesterfield and Lancaster counties, while the Upstate had light flurries and 0.3 inches of snow at Greenville-Spartanburg International Airport.

CoCoRaHS and NWS COOP Stations	County	Total Snowfall (inches)
Mrytle Beach 7.4 N	Horry	5.0
Yemassee 1 N	Hampton	4.0
Summerville 9.3 NNE	Berkeley	3.7
Caesars Head	Greenville	3.2
Summerville 4W	Dorchester	3.0
Jamestown	Berkeley	3.0
Hilton Head Island 4.0 N	Beaufort	3.0
Charleston Int'l AP	Charleston	2.8
Jocassee 8 WNW	Oconee	2.5
Swansea 3.5 NE	Calhoun	2.5
Table Rock	Pickens	2.4
Manning	Clarendon	2.3

CoCoRaHS and NWS COOP Snowfall Totals

(Nov. 1, 2024 - Mar. 31, 2025)



Created with Datawrapper

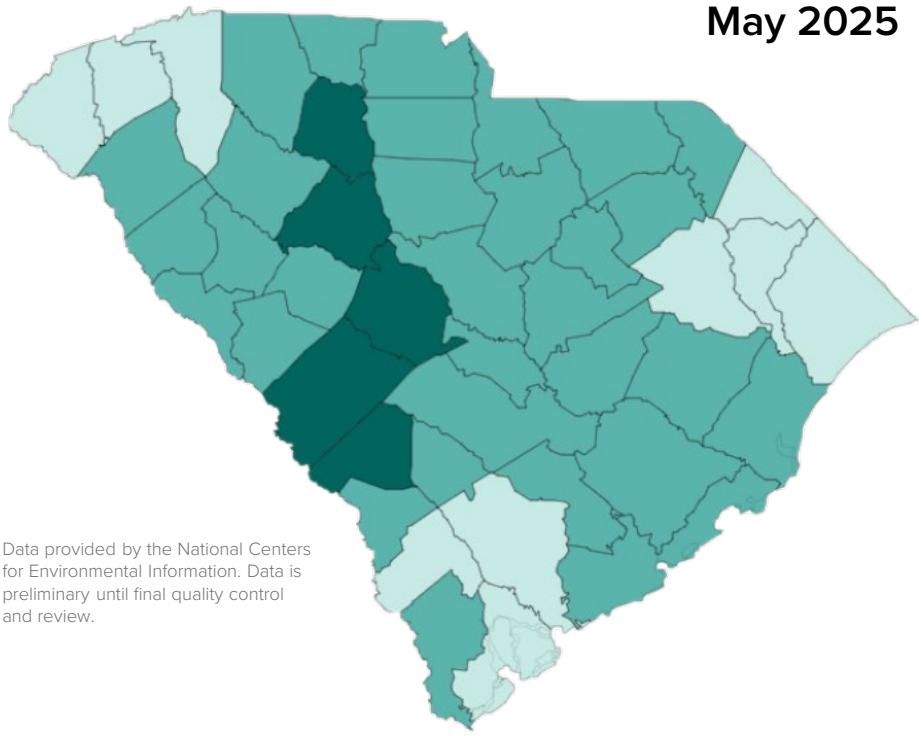
Above Normal Rainfall – May 2025

Statewide, May 2025 was the 3rd-wettest May since 1895. However, some counties in the Central Savannah River Area and the Midlands recorded their wettest May on record.

A cold front stalled across southern Georgia, and a low-pressure system developed along the Gulf Coast, creating heavy rains in mid-May. Flooded roads were reported near Port Royal in Beaufort County, and a three-foot-wide and six-foot-deep sinkhole was reported on McPhersonville Road in Beaufort County. Several roads in downtown Charleston were also flooded.

CoCoRaHS Station	County	May 2025 Total Rainfall (inches)
Chapin 6.0 SSW	Lexington	16.00
Williston 4.3 NNW	Aiken	14.99
Columbia 2.1 NNW	Richland	12.57
Bluffton 6.3 WNW	Beaufort	12.15
Pelion 0.7 SSW	Lexington	11.78
North 5.2 E	Orangeburg	11.65
Rock Hill 4.8 SSW	York	11.54
Denmark 4.7 NNE	Bamberg	11.54
Allendale 1.7 SE	Allendale	11.39
Barnwell 1.2 WSW	Barnwell	10.99

South Carolina County Precipitation Rankings May 2025



Data provided by the National Centers for Environmental Information. Data is preliminary until final quality control and review.

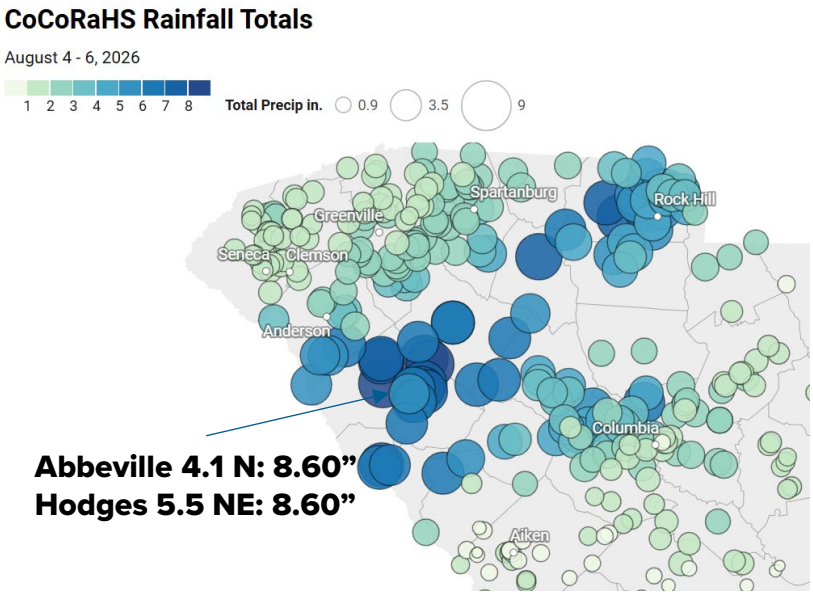
Record Driest | Top 10 Driest | Top 40 Driest | Normal | Top 40 Wettest | Top 10 Wettest | Record Wettest

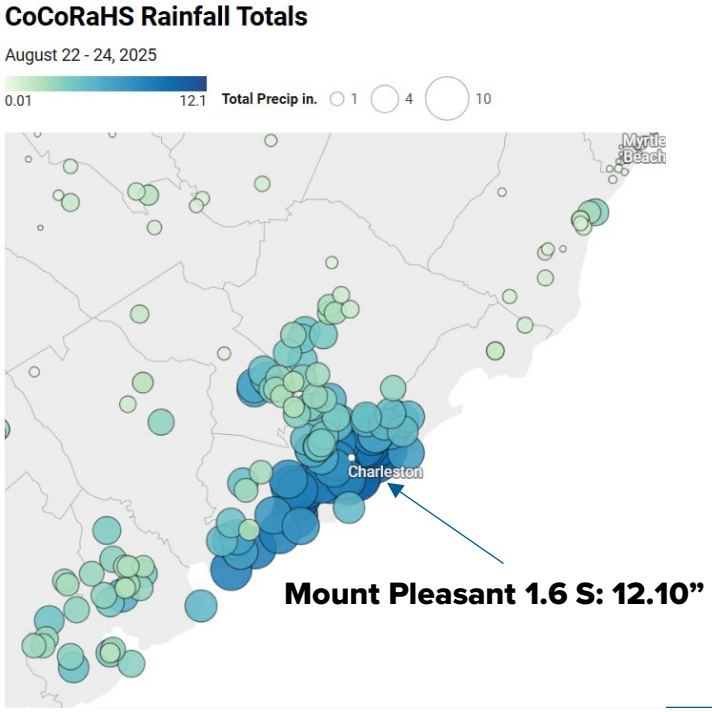
Drier than Normal

Wetter than Normal

August 2025 Heavy Rain Events

Heavy rain fell across the Upstate and near the Fall Line on August 4 - 5. In McCormick County, heavy rain caused Stevens Creek to overflow its banks, closing nearby roads on the morning of the 4th. By the next morning, another round of heavy rain produced widespread 24-hour totals over three inches across the Upstate. Rain continued to fall across the Upstate and into the Charlotte Metropolitan Area, with 24-hour totals ending the morning of August 6 reported over five inches in York County.

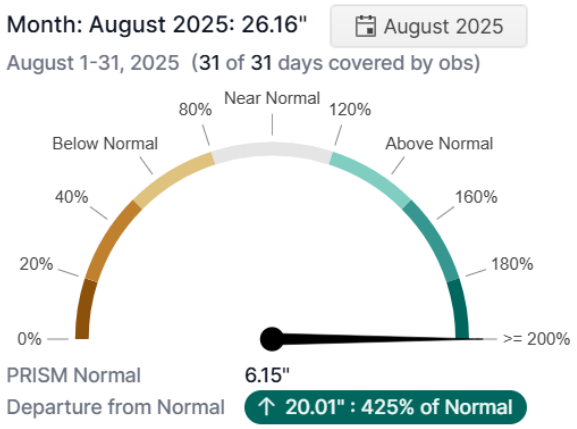




Heavy rain fell on August 22 – 23 across portions of the Lowcountry due to a stalled cold front over the region. The heavy rain caused widespread flash flooding, exacerbated by saturated soils from earlier in the month and the high-tide cycle. Several roads in downtown Charleston were also flooded.

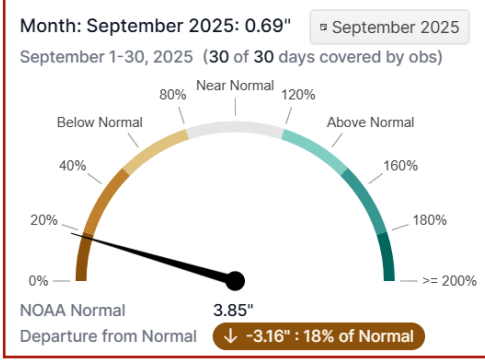
The National Weather Service station at the Charleston International Airport set a new daily rainfall record for August 22 with a 24-hour total of 4.16 inches. Additionally, the Charleston downtown station set new daily rainfall records on August 22 (4.10 inches) and August 23 (3.95 inches).

At the end of August, Edisto Beach 0.7 NE (SC-CL-39) had reported 26.16 inches of rain, setting a new record for the highest rain amount recorded in August in the state. The previous monthly record for August was 24.42 inches in 1898 in Gillisonville (Hampton County).

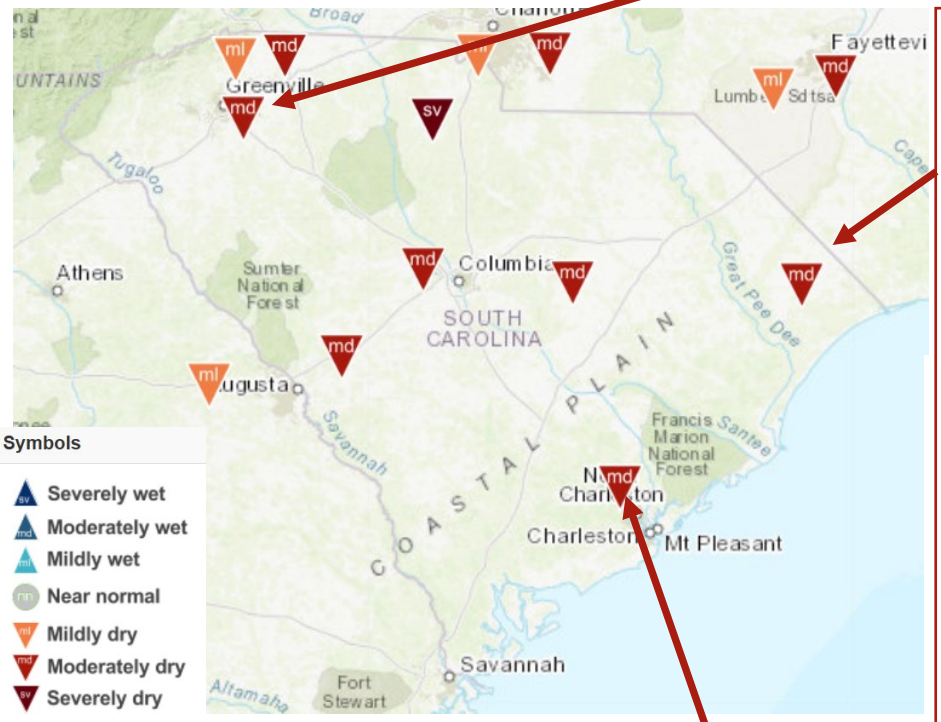


Below Normal Rainfall – September 2025

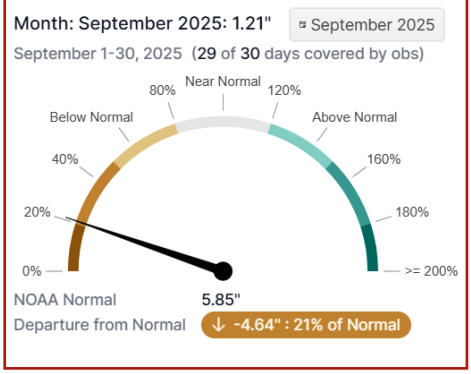
September was extremely dry across portions of the Southeast, particularly in South Carolina, where monthly rainfall totals were three to five inches below normal. September 2025 was the sixth-driest on record at the NWS stations at Charleston International Airport and the seventh-driest at Greenville-Spartanburg International Airport. The NWS Charleston station received 0.98 inches of rain, which is only 17 percent of its normal September rainfall.

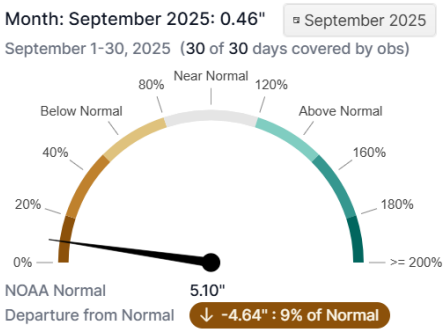


SC-GV-94 (Sep 30) We have had about 27 days with no appreciable rainfall. Clay soil is tan, firm, and cracking, especially near the sidewalks and house foundations. Retention pond is normal, tributaries are trickling. Dry leaves are falling from the trees, and some trees are starting to turn color.



SC-HR-172 (Sep 20) Some patches of grass are crunchy. Still watering the vegetable garden every day, but getting a nice crop of beans. Nearby soybean fields are uneven and still visited by geese.



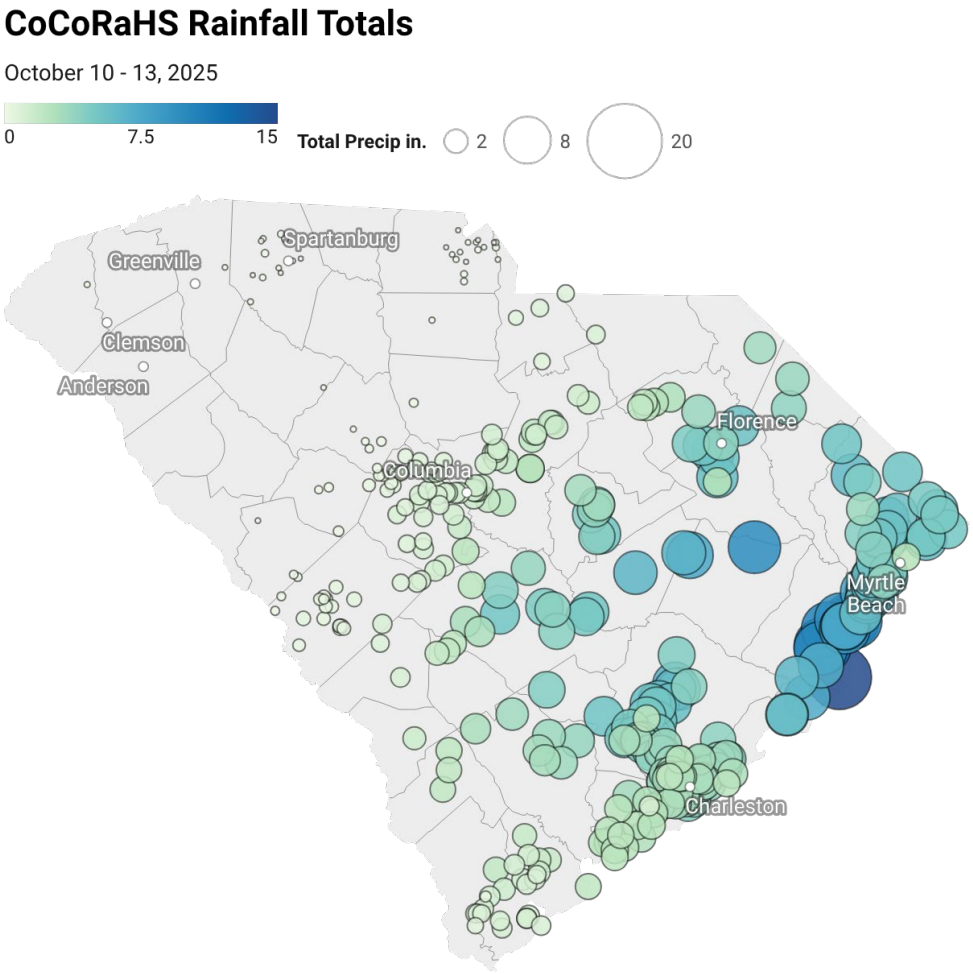


SC-DC-55 (Sep21) The water level in the retention pond is down by two feet. In the past four weeks, the precipitation was only 0.82 inches. Ground is hard. Grass and plants need water every other day. Leaves are beginning to fall from some trees.

October 2025 Coastal Storm Event

A slow-moving coastal storm impacted the Southeast US in mid-October, during a period of 'King Tides.' Tidal levels were unusually high due to strong, persistent onshore winds. On October 10, the Charleston Harbor tidal gauge crested at 8.46 ft MLLW, and at Springmaid Pier in Myrtle Beach, SC, the measured water level reached 8.38 feet MLLW.

Flooding observed at Botany Bay Heritage Preserve on October 10.



Widespread flooding was reported across the region. Significant erosion was observed along many South Carolina beaches. Emergency managers in Beaufort, Charleston, and Colleton counties reported flooding in parts of St. Helena Sound, Port Royal, Edisto Beach, McClellanville Landing, and Folly Beach. There were reports of flooding in the Georgetown Marketplaces after nearly ten inches of rain fell in less than 24 hours. Numerous streets were closed due to flooding, and several motorists were rescued from stranded vehicles. Some roads in Myrtle Beach had six to twelve inches of water on them, including portions of Kings Highway. Gusty winds prompted a gale warning for coastal waters, small craft advisories for near-shore areas, and lake wind advisories. There was a high risk of dangerous rip currents and hazardous surf conditions related to the storm

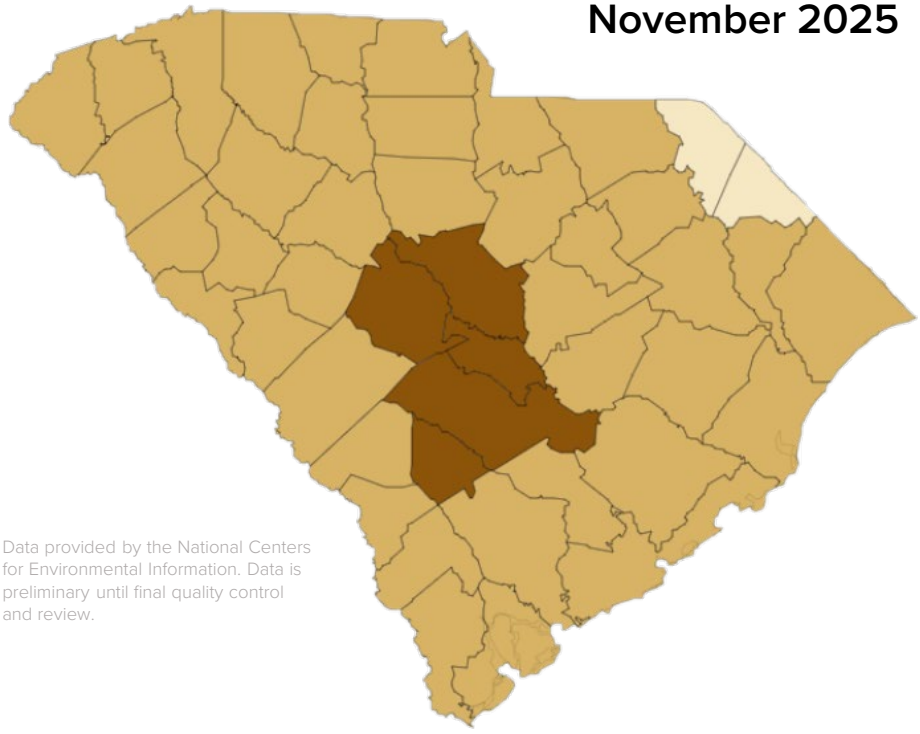
Below Normal Rainfall – November 2025

Statewide, November 2025 was the second driest November on record since 1895, with a statewide average precipitation of 0.54 inches, 2.07 inches below normal.

The NWS stations at Charleston International Airport (0.68 inches), Columbia Metropolitan Airport (0.16 inches), and Florence Regional Airport (0.52 inches) recorded values among the top 10 driest November totals on record for those locations.

CoCoRaHS Station	County	November 2025 Total Rainfall (inches)	Departure from NOAA Normals (inches)
Denmark 2.8 WNW	Bamberg	0.00	-2.75
Orangeburg 3.2 NW	Orangeburg	0.01	-2.89
Summerton 7.6 SW	Clarendon	0.01	-2.80
Bluffton 7.4 W	Beaufort	0.02	-2.36
Oak Grove 1.4 N	Lexington	0.04	-2.88
Columbia 6.2 NNW	Richland	0.05	-2.90
Lugoff 8.7 SSW	Kershaw	0.07	-2.81
Elloree 4.5 W	Calhoun	0.08	-2.71
Salley 4.9 NNE	Aiken	0.09	-2.95
Prosperity 8.1 SSE	Newberry	0.09	-3.10

South Carolina County Precipitation Rankings November 2025



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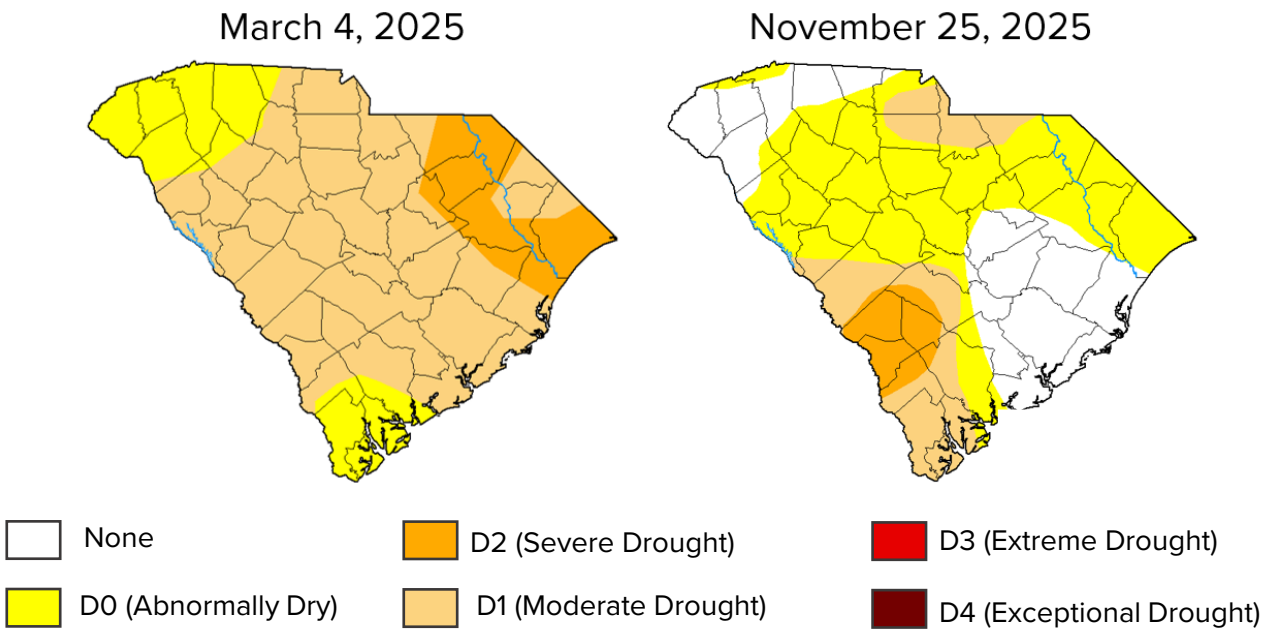
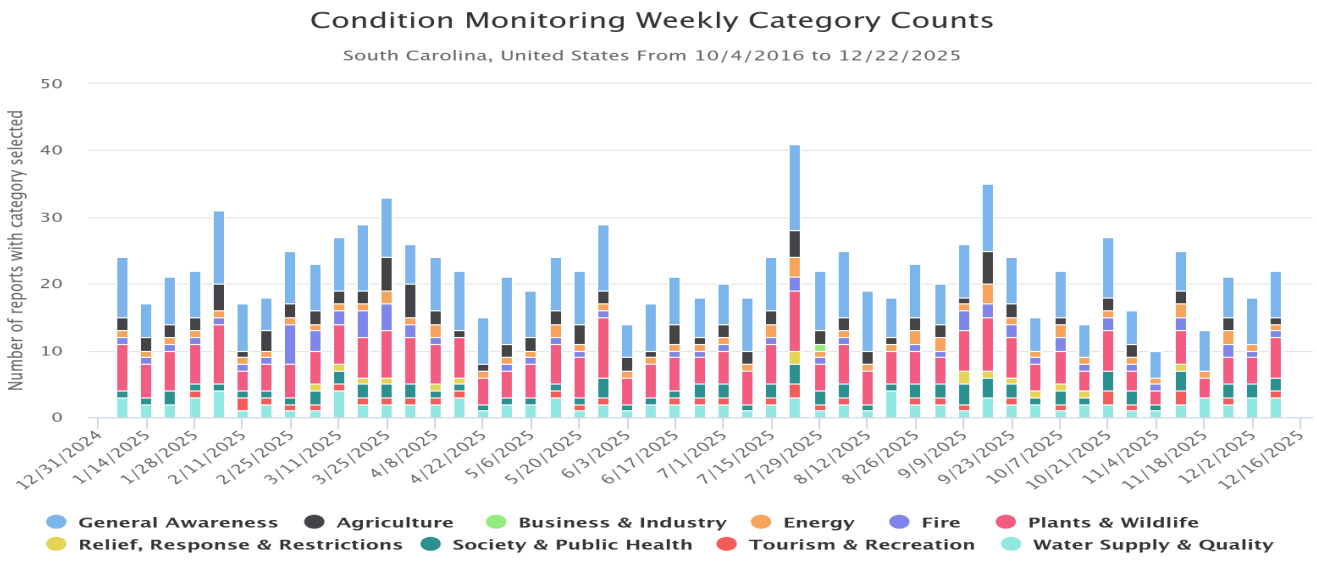
Statewide Drought Conditions in 2025

The dry conditions peaked on the United States Drought Monitor (USDM) at the beginning of March, with 67% of the state in at least moderate drought (D1) and 14% in at least severe drought (D2). There were more than 390 wildfires in March, burning more than 23,500 acres. Drought conditions in the fall reduced row crop yields, and producers used winter hay reserves to feed livestock. There was a secondary peak in drought conditions, with 16% of the state classified as D1 and 6% as D2.



Thank you to our observers who submitted Condition Monitoring Reports, which helped local, state, and federal agencies track emerging and worsening drought conditions in 2025. If you want to learn how to submit a condition monitoring report, you can look at the training PDF or watch the training video.

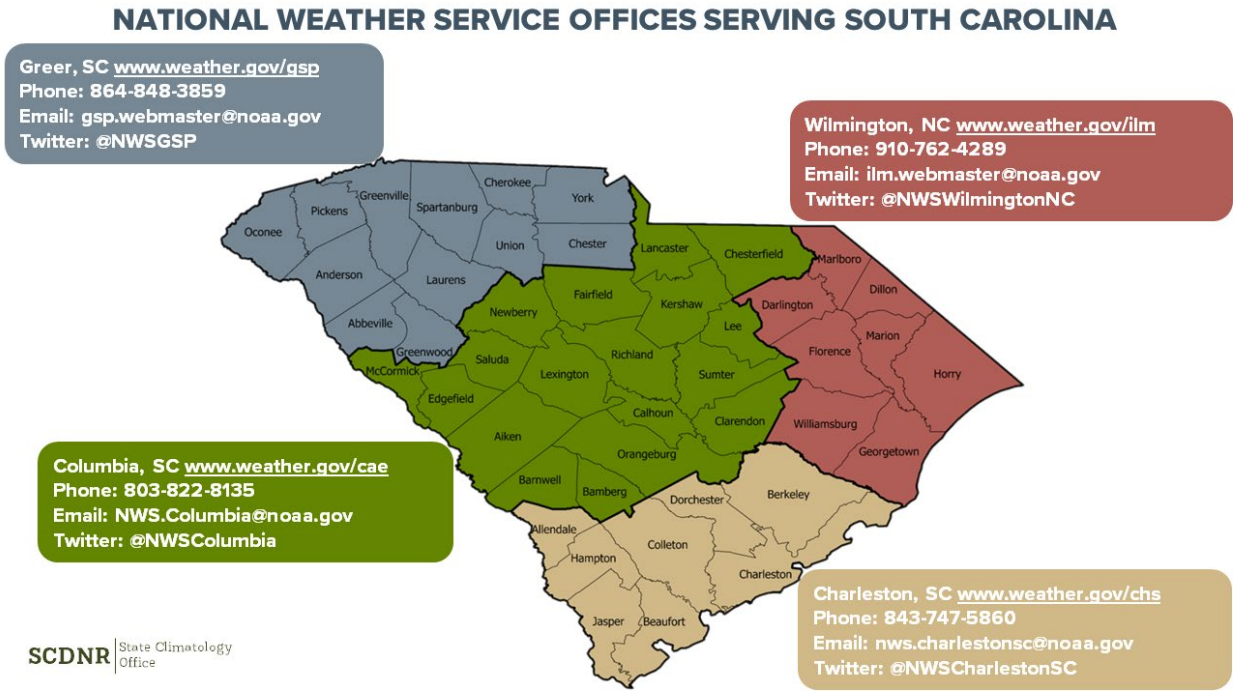


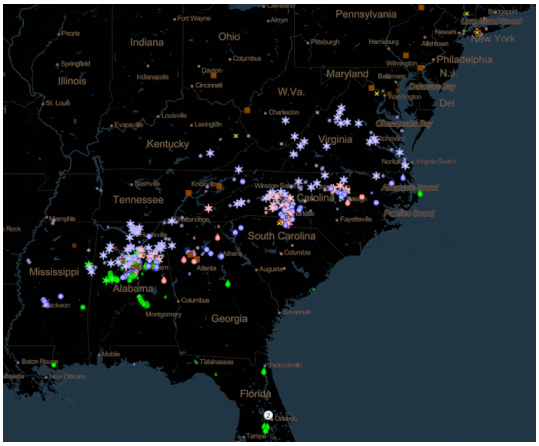
Severe Weather Reporting

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

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

Tag your local National Weather Service Office and consider using the #scwx tag in your post. These reports provide valuable data to meteorologists and emergency managers during these events.





In addition to noting whether you see rain, sleet, or snow in the comments box, 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/

Observer Corner

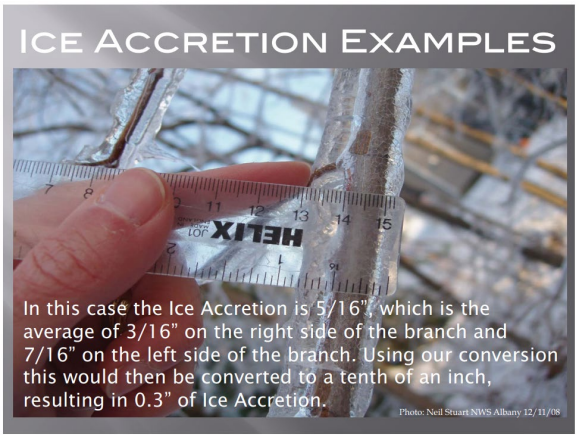
Here are some closing comments and thoughts for all observers, old and new, as we start the new year:

Be a Hero! Report your zeroes. Even when there is nothing in your rain gauge, that 0.00" value is extremely important to many individuals and agencies who are tracking abnormally dry and drought conditions across the state.

The CoCoRaHS Data Explorer (DEX Tool) was released in Fall 2023 and is designed for observers to interrogate the data from their stations. DEX also allows observers to look at data from all stations in the network are included, and there are options to plot graphs, calendars, distributions, comparisons to climatology (from both NOAA and PRISM normals), and more.

Do not report dew or fog. Moisture from dew or frost does not count as precipitation, so if you suspect that amount came from dew, make the total 0.00", and include notes in the comments field of your report.

There is potential for winter precipitation, so take a few moments to review the training slideshows or watch the instructional videos on snow measurement, snow water equivalent (SWE) measurement, and ice accretion. While I know winter weather is rare in the state, it does happen!



Your South Carolina CoCoRaHS Team

Southeast Region (NWS Charleston)	Emily McGraw (emily.mcgraw@noaa.gov)
Midlands Region (NWS Columbia)	Matt Gropp (matthew.gropp@noaa.gov)
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