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EASTERN NORTH CAROLINA MONTHLY CLIMATE REPORT

NOVEMBER 2024

WEATHER FORECAST OFFICE
NEWPORT/MOREHEAD CITY, NC

National Weather Service

NEWPORT/MOREHEAD CITY, NC

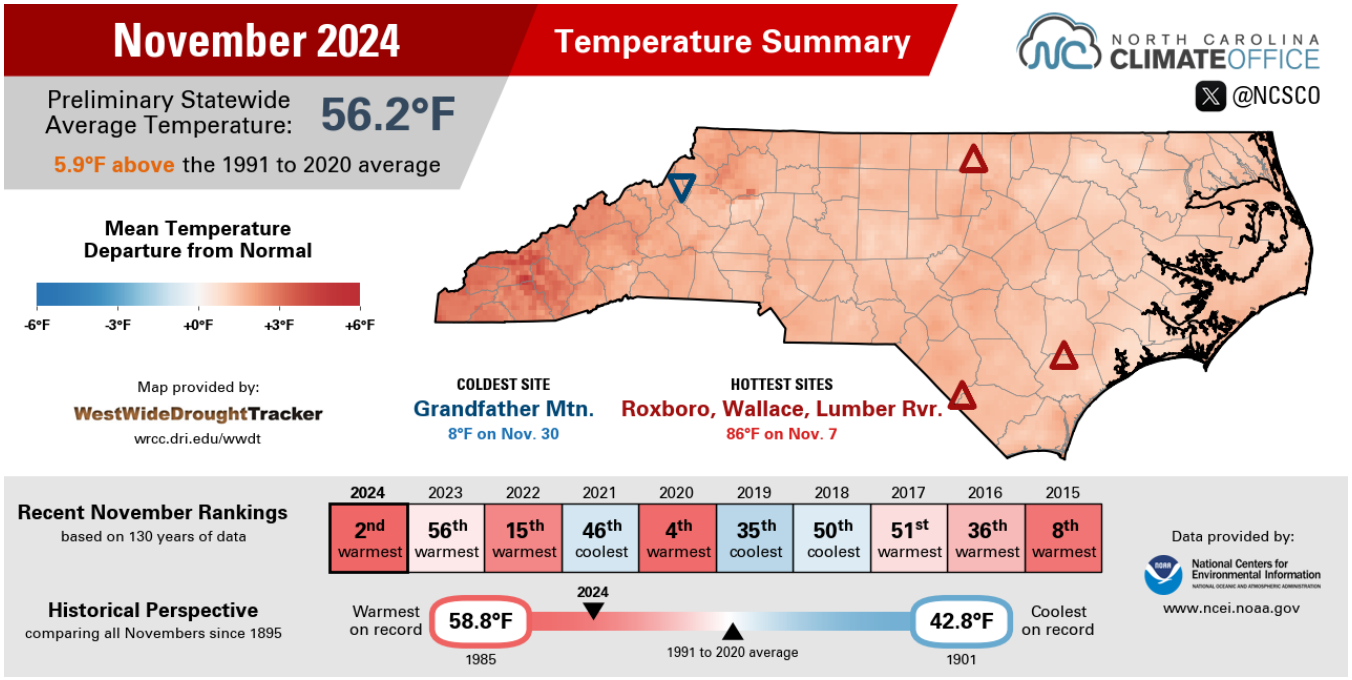
MONTHLY SUMMARY

Abnormally dry weather persisted for a second month across eastern North Carolina as warm and clear conditions held court for weeks. There was only one notable rainfall event in the month, a passing and deepening wave of low pressure that dumped 1-2 inches of rain across much of the state and broke daily rainfall records at Cape Hatteras. On average, our region saw around 1.68" of rain, ranging from 25-75% of normal. The long dry stretches promoted rapid drought expansion, and by the beginning of December, all of eastern NC was in Moderate (D1) drought per the U.S. Drought Monitor.

Temperatures rose above average in November as North Carolina experienced its second warmest November statewide. Strong upper ridging dominated much of the eastern United States for the first half of the month, contributing to temperatures over 5 degrees above average. Only after a few passing cold fronts around Thanksgiving did cooler air (briefly) return. The average temperature across the region was 58.1°F, about 5 degrees above the 20th-century average.

TEMPERATURES

Temperatures in North Carolina were well above average in November. The average temperature for the month was 56.2°F, or 5.9°F above the 1991-2020 average. This was the 2nd warmest November since records began in 1895, with 130 years of data.



November 2024 Temperature Summary | Source: NC State Climate Office

Across Eastern North Carolina, temperatures were close to the statewide average and 5.5°F above the 20th-century average. Since their respective records began, November 2024 was the 9th warmest at New Bern and the 11th warmest at Cape Hatteras. Additional observations can be found in Appendix A. *Due to equipment issues, the Hatteras record for November is incomplete, with 1 day of missing data.*

MHX Select Site Temperature Statistics: November 2024

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
Beaufort (KMRH)	69.6	54.3	62.0	56.5	*5.5*
Hatteras (KHSE)	67.0	55.9	61.5	58.7	*2.8*

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
New Bern (KEWN)	68.8	47.8	58.3	54.2	*4.1*

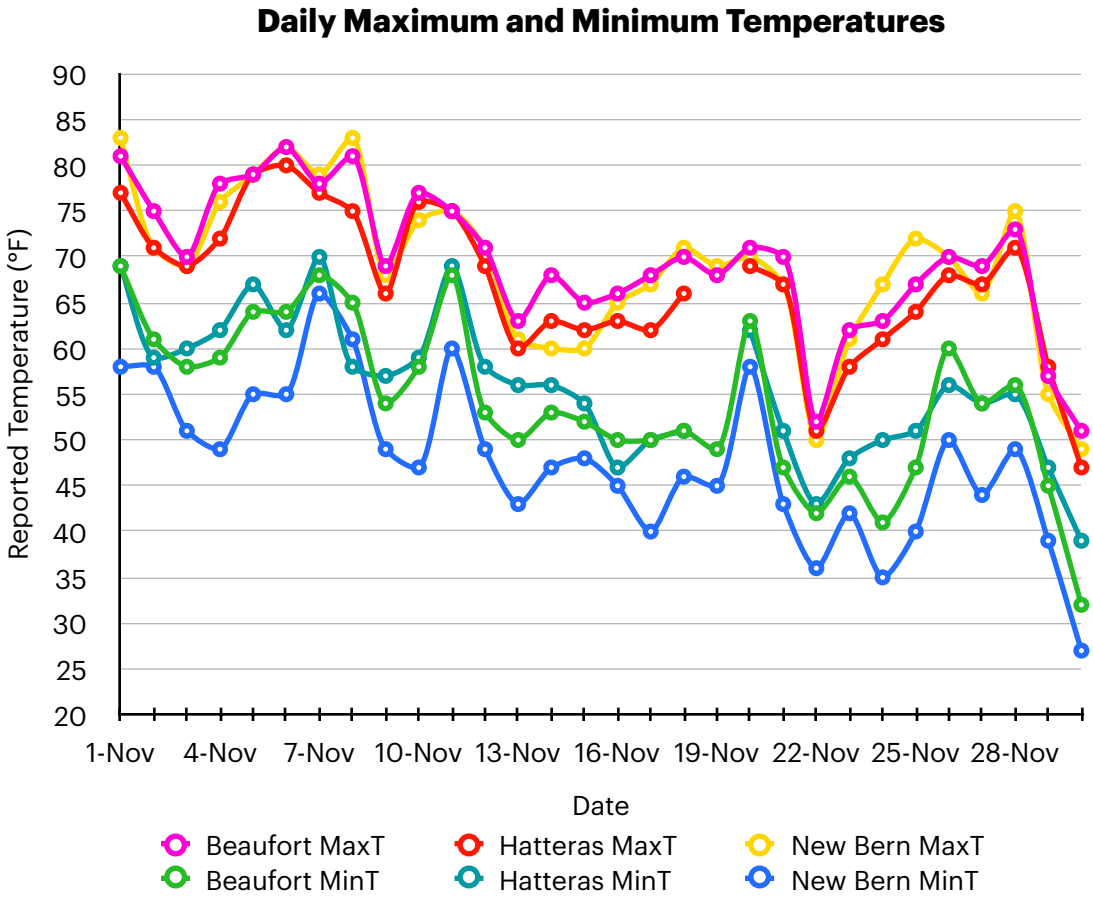
Normals are based on a period from 1990-2020.

County-averaged statistics are presented in the following table. Note that mean temperature and anomaly calculations are based on a period of 1901-2000, rather than 1990-2020. Data courtesy of the National Centers for Environmental Information (NCEI).

County	Avg. Temperature (°F)	Mean (°F)	Departure (°F)	Rank
Beaufort	58.3	52.4	**5.9**	4 W
Carteret	59.9	54.6	**5.3**	6 W
Craven	58.1	52.8	**5.3**	6 W
Dare	59.5	53.7	**5.8**	3 W
Duplin	56.4	52.2	**4.2**	15 W
Greene	56.4	51.4	**5.0**	9 W
Hyde	59.6	53.7	**5.9**	4 W
Jones	57.4	52.4	**5.0**	7 W
Lenoir	56.4	51.8	**4.6**	12 W
Martin	57.1	50.8	**6.3**	4 W
Onslow	58.1	53.2	**4.9**	11 W
Pamlico	59.4	53.8	**5.6**	5 W
Pitt	57.0	51.4	**5.6**	4 W
Tyrrell	59.0	52.5	**6.5**	2 W
Washington	58.2	51.5	**6.7**	3 W
Area Average	**58.1**	**52.5**	**5.5**	

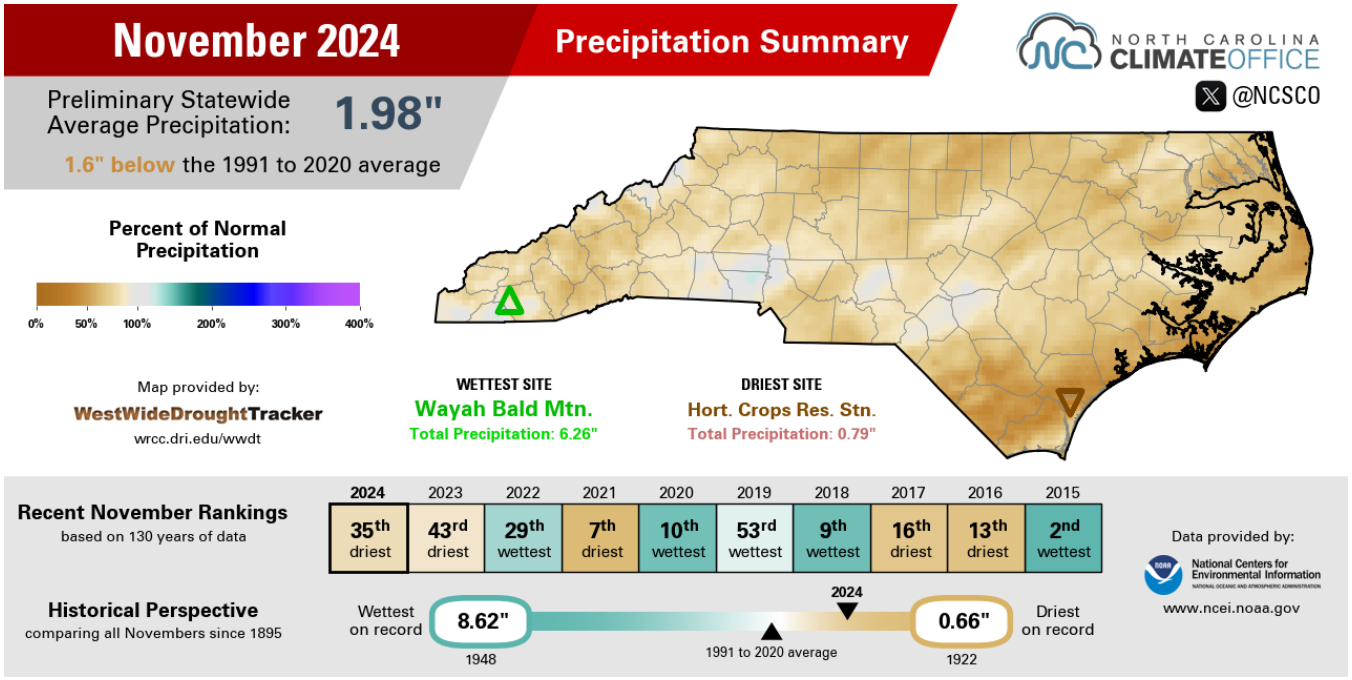
Means are based on a period from 1901-2000. For rankings, “C” designates coldest and “W” designates warmest.

The most significant factor in monthly temperatures was highly anomalous and persistent ridging that remained locked over the eastern United States from the start of the month until the week before Thanksgiving. Much of the Carolinas ran 6-9 degrees above normal per analysis from NCEI. By the end of the month, troughing returned, aiding in a return to near- to slightly below-normal temperatures. **New Bern** tied a daily high record on Nov. 6th set in 2015, reaching 82°F. **Cape Hatteras** also tied a record that day set in 1959, reaching 80°F. Overall, average temperatures in October were 3-6 degrees above normal.



PRECIPITATION

November continued the streak of below-average precipitation across North Carolina. Statewide, precipitation averaged 1.98", or 1.60" below the 30-year average. This was the 35th driest observed October for the state since records began in 1895.



November 2024 Precipitation Summary | Source: NC State Climate Office

Eastern North Carolina was generally drier than the rest of the state. New Bern recorded its 19th driest November, while Cape Hatteras recorded its 53rd driest. Average accumulation across the MHX forecast area was 1.68", or roughly 1.3" inches below the 20th-century average.

MHX Select Site Precipitation Statistics: November 2024

Site	Total Precipitation (in.)	Normal (in.)	Departure (in.)
Beaufort (KMRH)	1.02	3.99	*-2.97*
Hatteras (KHSE)	2.99	4.76	*-1.77*
New Bern (KEWN)	1.46	3.33	*-1.87*

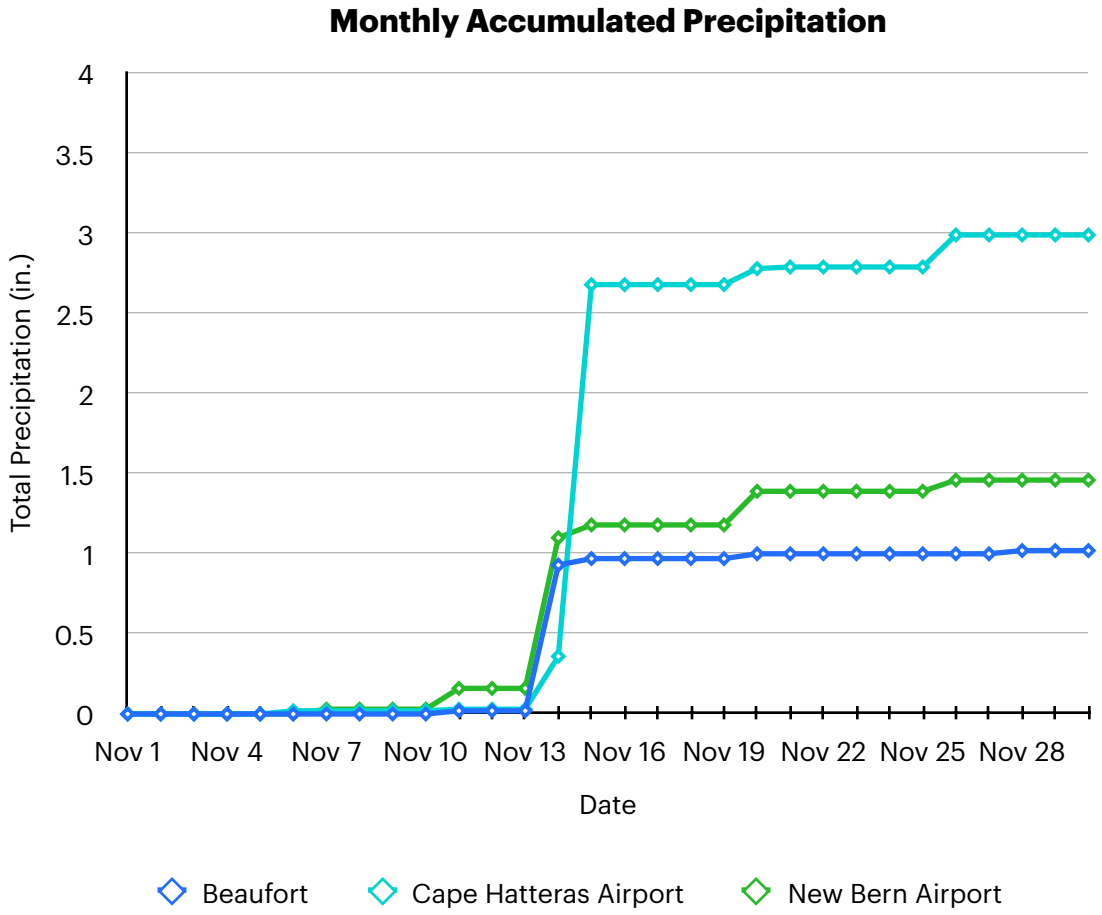
County-averaged statistics are presented in the following table. Like temperatures, mean and anomaly precipitation calculations are based on a period 1901-2000. Data courtesy of the National Centers for Environmental Information (NCEI).

County	Avg. Accum. (in.)	Mean (in.)	Departure (in.)	Rank
Beaufort	1.69	2.98	**-1.29**	34 D
Carteret	1.58	3.40	**-1.82**	26 D
Craven	1.57	3.00	**-1.43**	30 D
Dare	1.90	3.40	**-1.50**	33 D
Duplin	1.77	2.73	**-0.96**	39 D
Greene	1.79	2.82	**-1.03**	39 D
Hyde	1.82	3.32	**-1.5**	31 D
Jones	1.59	2.88	**-1.29**	32 D
Lenoir	1.80	2.79	**-0.99**	40 D
Martin	1.66	2.82	**-1.16**	35 D
Onslow	1.50	2.95	**-1.45**	28 D
Pamlico	1.56	3.19	**-1.63**	28 D
Pitt	1.74	2.78	**-1.04**	41 D
Tyrrell	1.65	3.15	**-1.5**	30 D
Washington	1.64	3.00	**-1.36**	33 D
Area Average	**1.68**	**3.01**	**-1.33**	

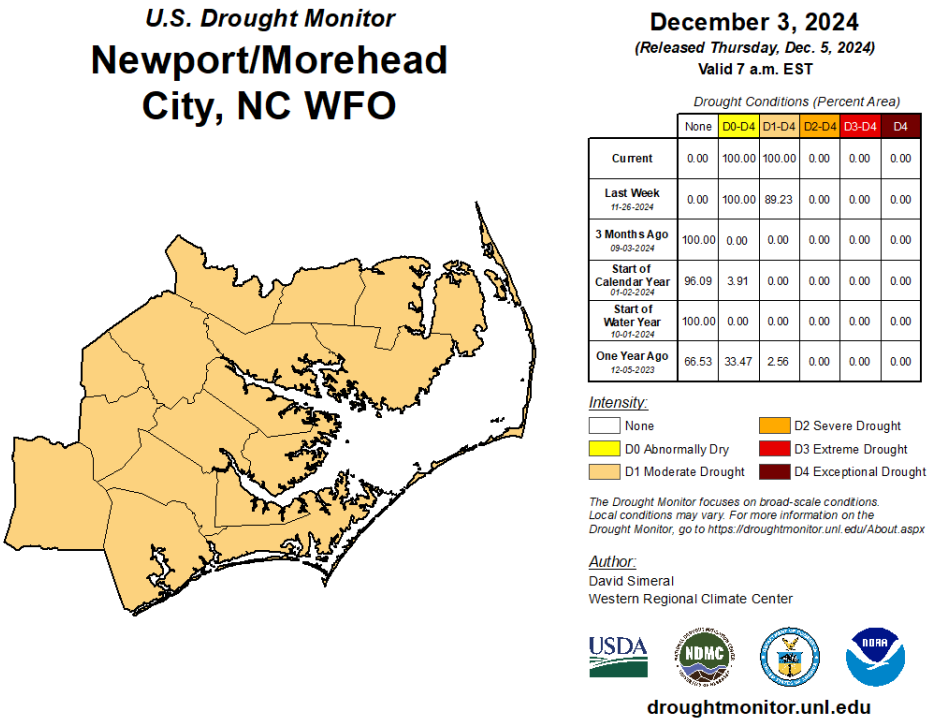
Means are based on a period from 1901-2000. For rankings, “W” designates wettest and “D” designates driest.

The persistent ridging in place over the first two weeks of the month did not allow for much appreciable precipitation, and during this period, our region remained dry. The only major precipitation contribution was around mid-month as weak low pressure lifted into the Atlantic and deepened, spreading much-needed rainfall across the area. **Cape Hatteras** set a daily rainfall record on the 15th, picking up 2.32” (old record was 2.3” in

1927). The respite was short-lived, and apart from a few moisture-starved fronts November ended as dry as it started.



November's long, dry streaks allowed drought conditions to expand considerably. All of our forecast areas were in Moderate (D1) drought by the beginning of December.



ADDITIONAL CLIMATE RESOURCES

For a look at climate on the national scale, as well as statistics from a CONUS-wide to county and city level, please visit the **National Centers for Environmental Information** at https://www.ncei.noaa.gov/. Additional maps and data, as well as teaching materials and a climate resiliency toolkit, can be found at **NOAA's** https://www.climate.gov.

For additional drought information, including a wealth of maps of data focused on topics such as agriculture, fire, and water supply, please visit **NOAA's National Integrated Drought Information System (NIDIS)** at https://www.drought.gov.

For climate statistics and real-time observations across the state of North Carolina, please visit the **North Carolina State Climate Office** at https://climate.ncsu.edu/.

For climate forecasts and outlooks, visit the **Climate Prediction Center** at https://www.cpc.ncep.noaa.gov/.

For community-based precipitation observations from across the United States, visit **CoCoRaHS** at https://www.cocorahs.org/.

For climate statistics relevant to various regions of North Carolina, please visit the following climate pages:

Eastern (WFO Morehead City): https://www.weather.gov/wrh/climate?wfo=mhx

Southeastern (WFO Wilmington): https://www.weather.gov/wrh/climate?wfo=ilm

Northeastern (WFO Wakefield, VA): https://www.weather.gov/wrh/climate?wfo=akq

Central (WFO Raleigh): https://www.weather.gov/wrh/climate?wfo=rah

Northwestern (WFO Blacksburg, VA): https://www.weather.gov/wrh/climate?wfo=rnk

Southwestern (WFO Greer, SC): https://www.weather.gov/wrh/climate?wfo=gsp

Cherokee and Clay Co. (WFO Knoxville, TN): https://www.weather.gov/wrh/climate?wfo=mrx

APPENDIX A: ADDITIONAL TEMPERATURE DATA

Cooperative Observation Site Temperature Statistics: November 2024

Site	Avg. High (°F)	Avg. Low (°F)	Avg. Temp (°F)	Normal (°F)	Departure (°F)
Greenville	67.2	46.7	57.0	52.7	*4.3*
Kinston	68.6	45.9	57.3	55.2	*2.1*
Williamston	68.2	45.7	57.0	52.7	*4.3*
Plymouth	68.0	47.9	58.0	53.3	*4.7*
Bayboro	71.2	46.8	59.0	53.3	*5.7*
Manteo	66.0	55.2	60.6	54.5	*6.1*

Normals are based on a period from 1990-2020. Sites in red have missing data.

Maximum and Minimum Monthly Temperatures: November 2024

Site	Max High (°F)	Date Observed	Min Low (°F)	Date Observed
Beaufort (KMRH)	82	Nov 6	32	Nov 30
Hatteras (KHSE)	80	Nov 6	39	Nov 30
New Bern (KEWN)	83	Nov 1,8	27	Nov 30
Greenville	83	Nov 1,6	28	Nov 30
Kinston	83	Nov 2	27	Nov 30
Williamston	82	Nov 2,7	28	Nov 30
Plymouth	81	Nov 1-3,6	31	Nov 30
Bayboro	85	Nov 2	33	Nov 30
Manteo	80	Nov 2,7	41	Nov 23

APPENDIX B: ADDITIONAL PRECIPITATION DATA

Cooperative Observation Site Precipitation Statistics: November 2024

Site	Total Precipitation (in.)	Normal (in.)	Departure (in.)
Greenville	1.89	3.42	*-1.53*
Kinston	1.92	3.46	*-1.54*
Williamston	1.67	3.39	*-1.72*
Plymouth	1.97	3.57	*-1.6*
Bayboro	1.57	3.93	*-2.36*

Sites in red have missing data in their record.

CoCoRaHS Monthly Accumulated Precipitation: November 2024

Site	County	Amount (in.)
Aurora 4.8 NE	Beaufort	2.24
Swansboro 3.7 NNE	Carteret	2.21
Swansboro 2.7 NE	Carteret	2.04
Newport 1.0 N	Carteret	1.92
Newport 0.2 SW	Carteret	1.81
Newport 1.7 SSE	Carteret	1.76
Newport 2.3 SE	Carteret	1.71
Morehead City 6.0 WNW	Carteret	1.65
Newport 2.5 W	Carteret	1.57
Newport 7.1 ENE	Carteret	1.55
Cedar Island 0.3 SSE	Carteret	1.52

Site	County	Amount (in.)
Cape Carteret 1.5 NE	Carteret	1.51
Morehead City 2.9 WNW	Carteret	1.50
Ocean 0.5 S	Carteret	1.41
Beaufort 12.1 N	Carteret	1.21
Beaufort 5.3 N	Carteret	1.19
Pine Knoll Shores 0.3 NE	Carteret	1.19
Cape Carteret 0.8 NE	Carteret	1.16
Cedar Point 0.7 NNE	Carteret	1.08
Morehead City 0.6 NW	Carteret	1.04
Cedar Point 0.4 WSW	Carteret	1.03
Cedar Point 0.9 WSW	Carteret	1.01
Emerald Isle 2.3 WSW	Carteret	0.97
Beaufort 0.5 W	Carteret	0.92
Indian Beach 0.0 W	Carteret	0.91
New Bern 1.3 NNE	Craven	1.74
New Bern 7.3 ESE	Craven	1.65
New Bern 5.3 SW	Craven	1.61
Trent Woods 1.2 ENE	Craven	1.58
Trent Woods 1.3 SSE	Craven	1.58
Havelock 1.9 SSE	Craven	1.46
New Bern 3.8 S	Craven	1.46
Bridgeton 0.3 SSE	Craven	1.43
Manteo 2.8 NW	Dare	1.78

Site	County	Amount (in.)
Southern Shores 0.5 NNE	Dare	1.51
Rodanthe 1.0 SSE	Dare	1.39
Mount Olive 2.4 SW	Duplin	1.86
Rose Hill 0.1 NNW	Duplin	1.71
Wallace 14.8 E	Duplin	1.60
Ocracoke 0.6 SW	Hyde	2.54
Ocracoe 0.2 ESE	Hyde	2.39
SQ Tower	Hyde	2.06
Engelhard 0.8 NW	Hyde	1.87
Kinston 5.1 WNW	Lenoir	1.89
Kinston 4.6 ESE	Lenoir	1.87
Kinston 4.4 WNW	Lenoir	1.81
Pink Hill 2.5 NE	Lenoir	1.73
Williamston 8.9 SSE	Martin	1.16
Swansboro 2.8 WSW	Onslow	1.73
Jacksonville 2.4 NNE	Onslow	1.72
Hubert 4.9 SE	Onslow	1.64
Jacksonville 5.4 WSW	Onslow	1.43
Holly Ridge 5.0 E	Onslow	1.12
Sneads Ferry 3.3 SW	Onslow	1.06
Sneads Ferry 1.2 SSW	Onslow	1.06
Holly Ridge 3.7 E	Onslow	1.02
Lowland 0.2 SE	Pamlico	2.64

Site	County	Amount (in.)
Oriental 1.7 WNW	Pamlico	1.70
Oriental 4.3 NNW	Pamlico	1.55
Greenville 7.1 SSE	Pitt	2.17
Greenville 5.0 SE	Pitt	1.98
Greenville 4.6 W	Pitt	1.97
Winterville 3.5 W	Pitt	1.96
Fountain 0.1 NE	Pitt	1.79
Farmville 0.8 ESE	Pitt	1.75
Greenville 5.7 NW	Pitt	1.65
Columbia 0.8 NNE	Tyrrell	2.06
Roper 2.4 NE	Washington	2.00

CoCoRaHS inclusion in this table is based on a complete 30-day liquid precipitation record. Thank you to all observers!