

NC COCORAHs

From the mountains to the coast...
Every Drop Counts!



Do you know your State Coordinators?

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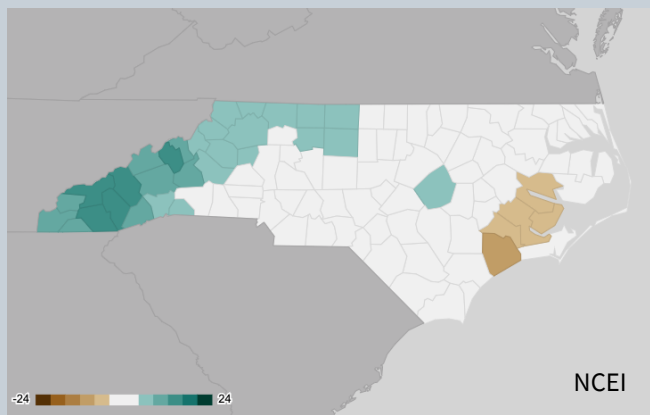
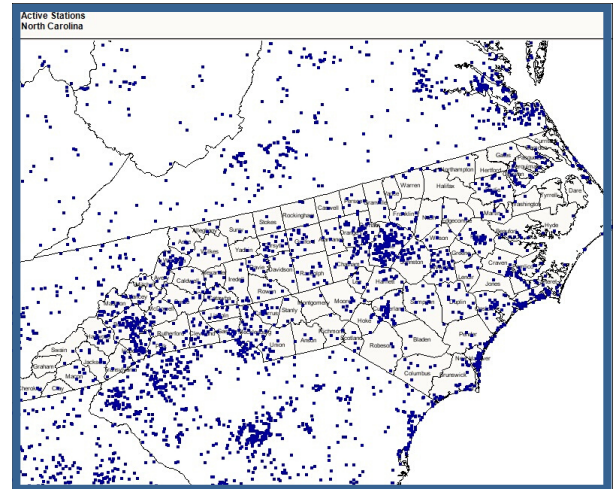
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A GLANCE AT 2019

North Carolina joined CoCoRaHS in September of 2007 and has more than doubled the number of **active** stations (those making at least 1 report in the most recent year) since the first full year of observations began in 2008. In 2019, we gained **218 new observers** and nearly **229,000 reports** were submitted. The network has grown to include over **1,000 active observers** in NC. The highest month of single-day reporting was October, although these reports were relatively consistent throughout 2019.

**218 NEW OBSERVERS
& 228,876
PRECIPITATION
REPORTS**



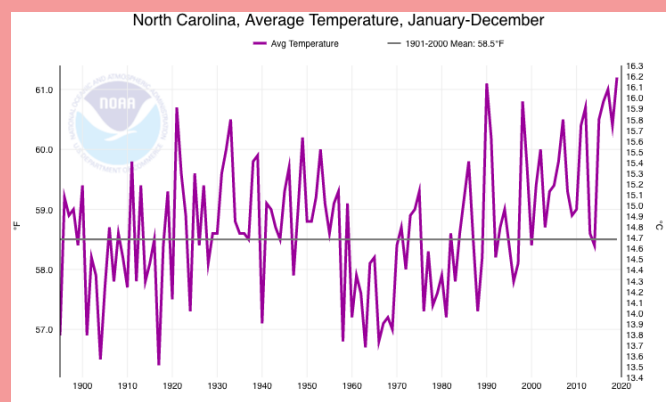
TOTAL PRECIPITATION ANOMALIES IN 2019

PRECIPITATION

The statewide average precipitation in 2019 was **53.03"**, which was **1.7" above the 1901-2000 average**. Most above average precipitation occurred in the mountains. An observer in Transylvania County, typically averaging ~81" per year, recorded over 100". Some counties in the Coastal Plain fell below normal this year, even with Hurricane Dorian's drenching rains in southeastern NC.

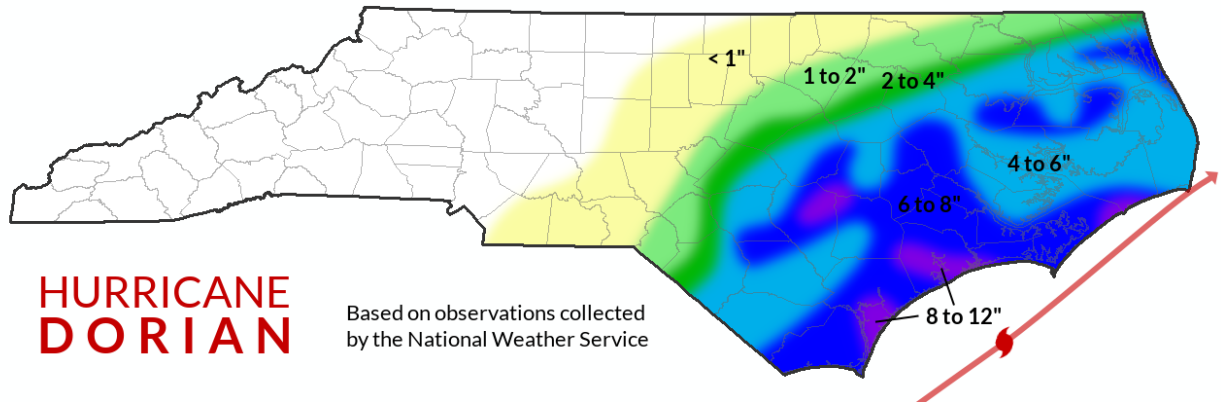
TEMPERATURE

2019 was the **warmest year on record** (since 1895) in NC with a statewide average temperature of **61.2F**. This was confirmed by NCEI in January of 2020. The previous record of 61.1F occurred in 1990.



Total Precipitation (in.)

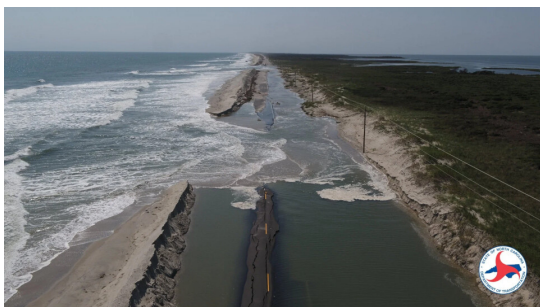
Sep. 4-6, 2019



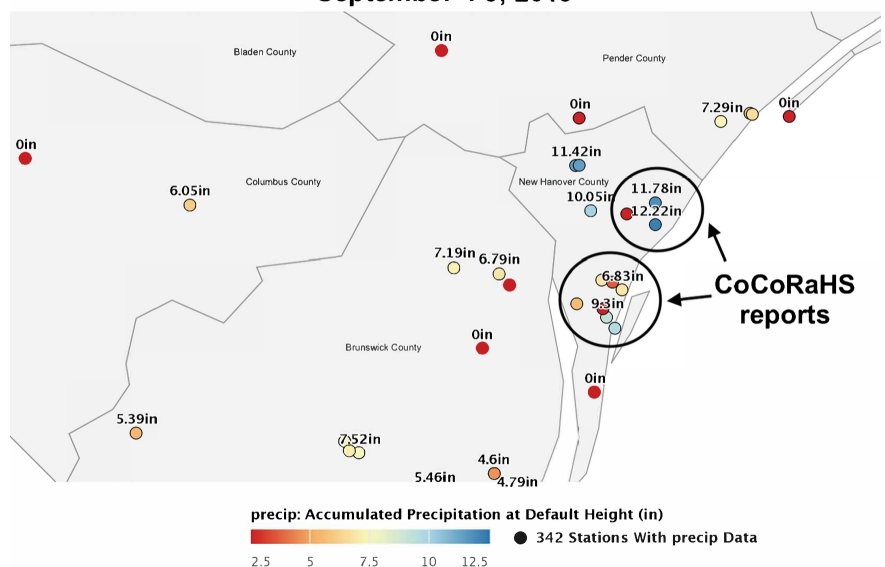
After devastating the Bahamas as a Category 5 hurricane, Hurricane Dorian weakened to **Category 1** and brought drenching rain, tornadoes and strong winds, and damaging storm surge to North Carolina's Coastal Plain in September 2019. CoCoRaHS observers helped to **fill the gaps** in precipitation data during this event and capture on-the-ground impacts.

In many affected counties, the **highest rainfall measurements were recorded by CoCoRaHS observers**. For example, in the southeast corner of the state, the top 2 precipitation reports of **11.78"** and **12.22"** for Dorian were measured by our citizen scientists in New Hanover County. In Craven County, a CoCoRaHS observer measured 7.36" of rain. Without this observation, the highest rainfall report in the county was 5.09" from another automated station. CoCoRaHS observers completed the picture of Dorian and provided invaluable data during the event.

Throughout the Coastal Plain, over 340 sites recorded rainfall during Dorian, and 270 of these were CoCoRaHS observers.



OCRACOKE AFTER HURRICANE DORIAN

Accumulated Precipitation (in) for All Networks
September 4-9, 2019

2019 FLASH DROUGHT AND CONDITION MONITORING

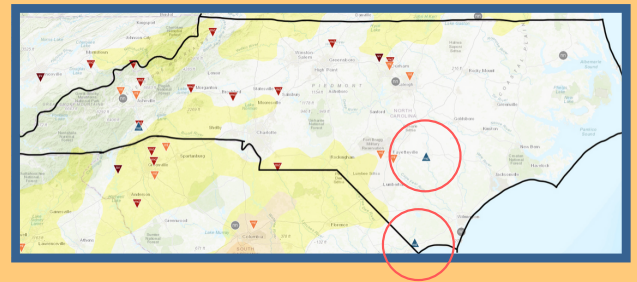
North Carolina is no stranger to drought, and we saw our fair share this year as flash drought emerged after Hurricane Dorian. While rainfall from Dorian kept drought conditions at bay in the Coastal Plain, the rest of the state quickly dried out in September and October, with portions reaching Severe Drought intensity on the US Drought Monitor (USDM) scale. On-the-ground conditions from CoCoRaHS Condition Monitoring reports were crucial in determining the drought classification each week.

Southern Coastal Plain

NC-SM-1: "Still some sporadic flooding from Dorian. Some small creeks at flood stage."

NC-BR-1: "The heavy rains have brought the area back to a surplus for the year and wet conditions."

SEP. 10

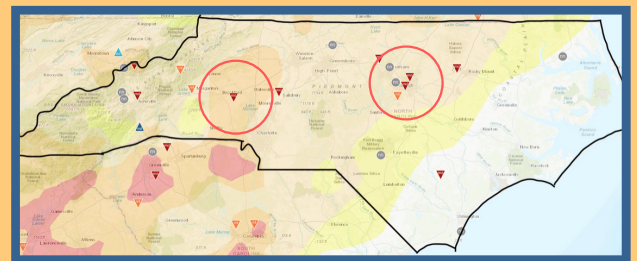


Piedmont

NC-CT-39: "Large cracks in the ground can be seen in many places."

NC-DH-6: "Another week of no rain and low humidity. Creeks etc. getting low."

OCT. 8



***1,308
Reports in
2019***

***270 Reports
during the
flash drought
of Sep-Oct
2019***

The worst and most widespread drought conditions occurred in October. Relief arrived late October through December in the form of soaking rains. For a few weeks beginning on December 3, NC was free of drought; however, the northeastern Coastal Plain became "Abnormally Dry" on the USDM scale shortly before the New Year as precipitation was below normal. As conditions inevitably change in 2020, we will continue to actively use CoCoRaHS Condition Monitoring reports to keep an eye on local impacts while we monitor both improvements and degradation of drought across the state.