

# Climate Overview

## Since July 2022

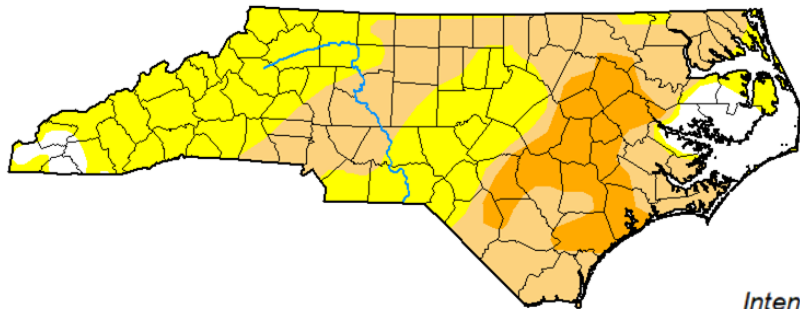
**Corey Davis**

Assistant State Climatologist  
State Climate Office

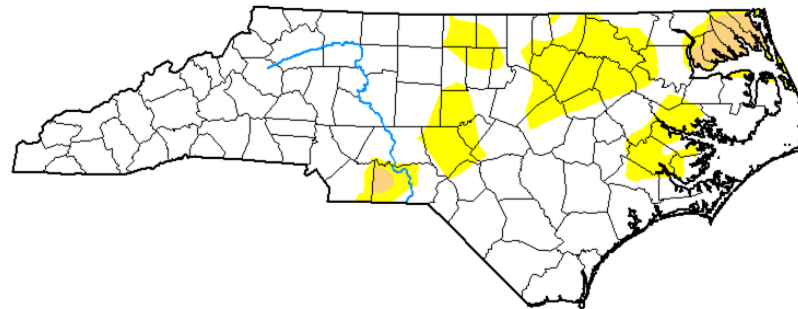


# Our Drought Status, Then and Now

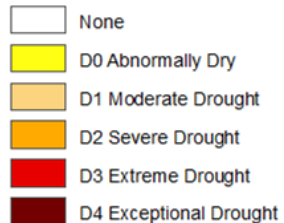
July 5, 2022



September 12, 2023



Intensity:



# Monthly Statewide Temperatures

Jul 2022	Aug	Sep	Oct	Nov	Dec	Jan 2023	Feb	Mar	Apr	May	Jun	Jul	Aug
<b>12<sup>th</sup></b> WARMES T	<b>47<sup>th</sup></b> WARMES T	<b>59<sup>th</sup></b> WARMES T	<b>21<sup>st</sup></b> COOLEST	<b>14<sup>th</sup></b> WARMES T	<b>62<sup>n</sup></b> d COOLEST	<b>8<sup>th</sup></b> WARMES T	<b>2<sup>nd</sup></b> WARMES T	<b>34<sup>th</sup></b> WARMES T	<b>26<sup>th</sup></b> WARMES T	<b>22<sup>n</sup></b> d COOLEST	<b>12<sup>th</sup></b> COOLEST	<b>24<sup>th</sup></b> WARMES T	<b>20<sup>th</sup></b> WARMES T



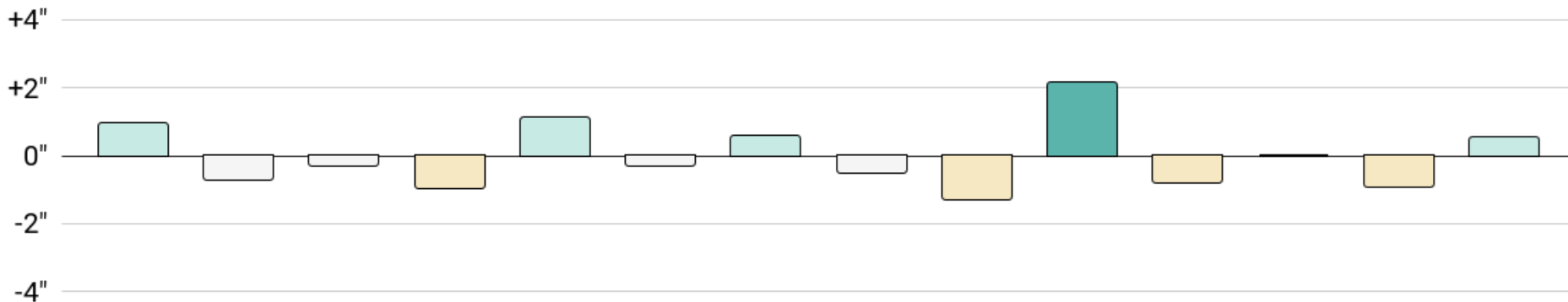
*Departures compared to 1901 to 2000*

*Rankings based on data since 1895*



# Monthly Statewide Precipitation

Jul 2022	Aug	Sep	Oct	Nov	Dec	Jan 2023	Feb	Mar	Apr	May	Jun	Jul	Aug
<b>33<sup>rd</sup></b> WETTEST	<b>54<sup>th</sup></b> DRIEST	<b>63<sup>rd</sup></b> DRIEST	<b>43<sup>rd</sup></b> DRIEST	<b>29<sup>th</sup></b> WETTEST	<b>58<sup>th</sup></b> DRIEST	<b>39<sup>th</sup></b> WETTEST	<b>47<sup>th</sup></b> DRIEST	<b>27<sup>th</sup></b> DRIEST	<b>8<sup>th</sup></b> WETTEST	<b>39<sup>th</sup></b> DRIEST	<b>58<sup>th</sup></b> WETTEST	<b>42<sup>nd</sup></b> DRIEST	<b>43<sup>rd</sup></b> WETTEST



*Departures compared to 1901 to 2000*

*Rankings based on data since 1895*



# Summer (JJA) 2022

13<sup>th</sup>  
WARMEST

35<sup>th</sup>  
DRIEST



# Summer Drought Improvement

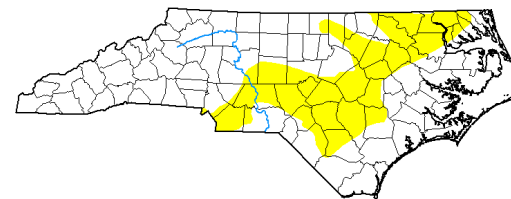
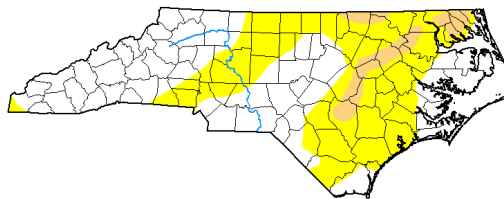
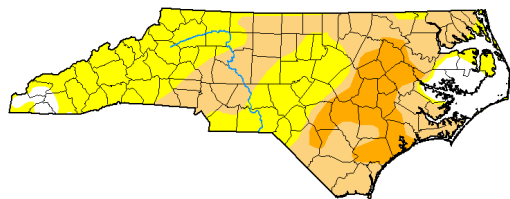
July 5



July 26



August 23



Abnormally Dry

Moderate Drought

Severe Drought

Extreme Drought

Exceptional Drought

U.S. Drought Monitor



# Fall (SON) 2022

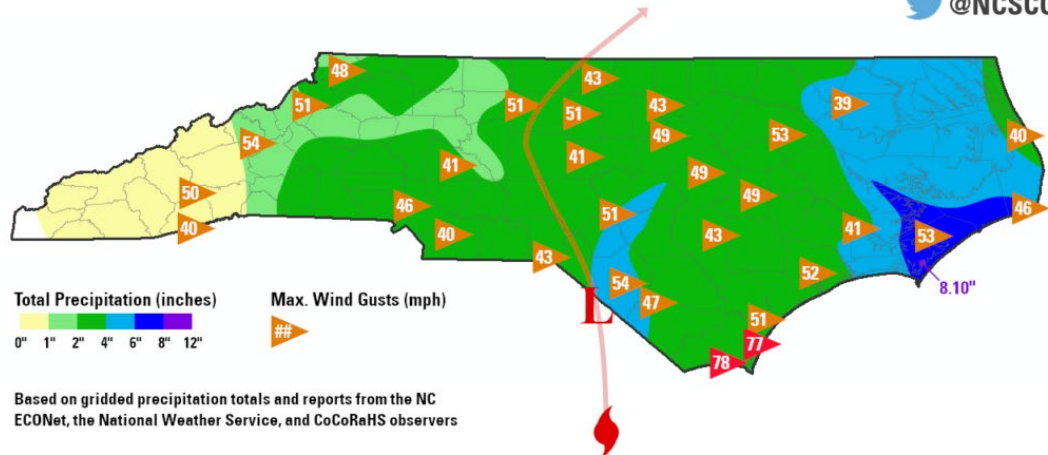
48<sup>th</sup>  
WARMEST

60<sup>th</sup>  
DRIEST



## Hurricane Ian

Sep. 29 to Oct. 1, 2022



# Fall (SON) 2022

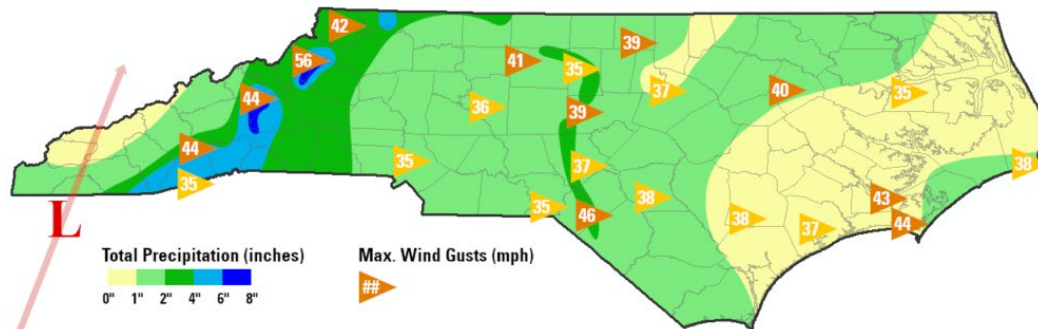
48<sup>th</sup>  
WARMEST

60<sup>th</sup>  
DRIEST



## Hurricane Nicole

Nov. 10 to 11, 2022



Based on gridded precipitation totals and reports from the NC ECONet, the National Weather Service, and CoCoRaHS observers





# Drought During the Fall

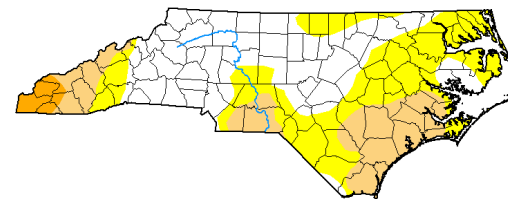
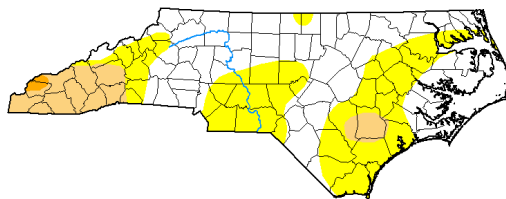
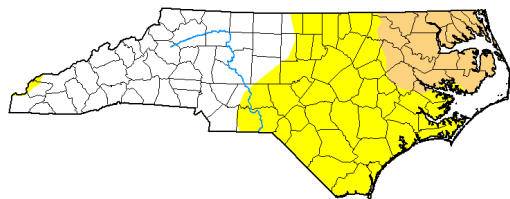
September 27



October 25



November 29



Abnormally Dry

Moderate Drought

Severe Drought

Extreme Drought

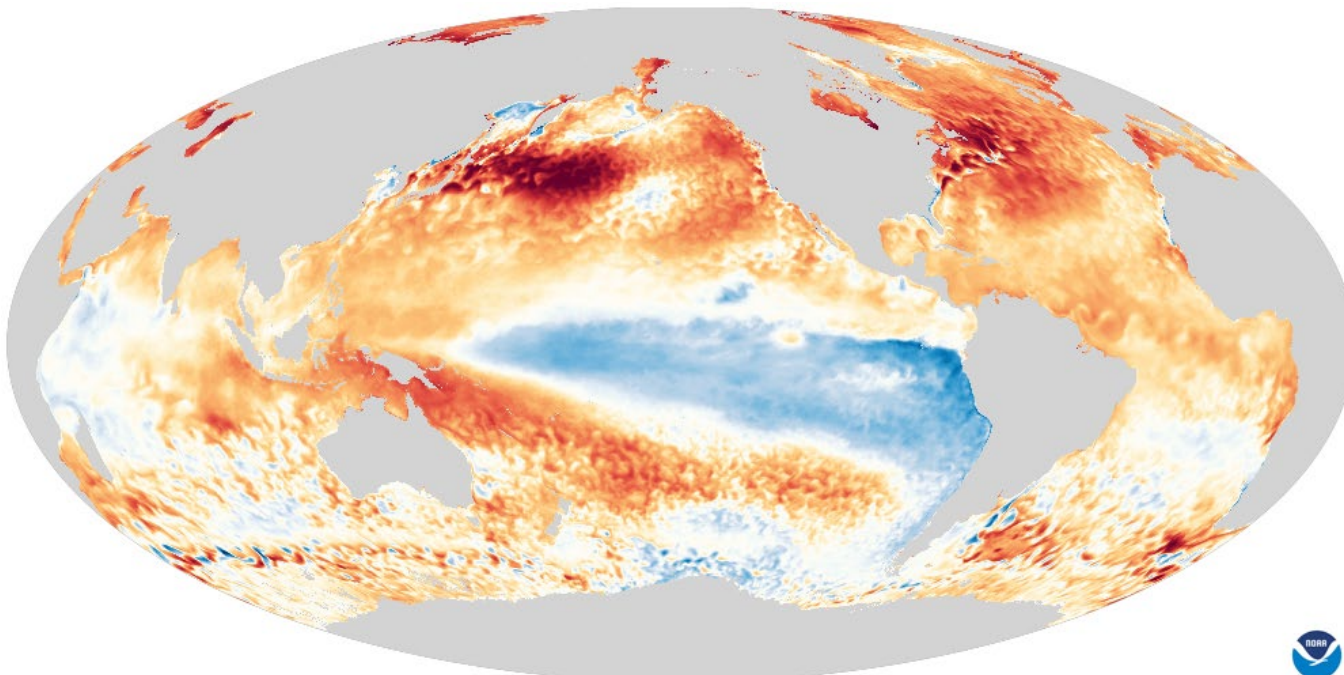
Exceptional Drought

U.S. Drought Monitor

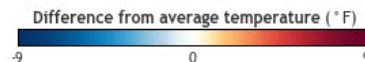
# Winter (DJF) 2022-23

5<sup>th</sup>  
WARMEST

63<sup>rd</sup>  
WETTEST



October 2022



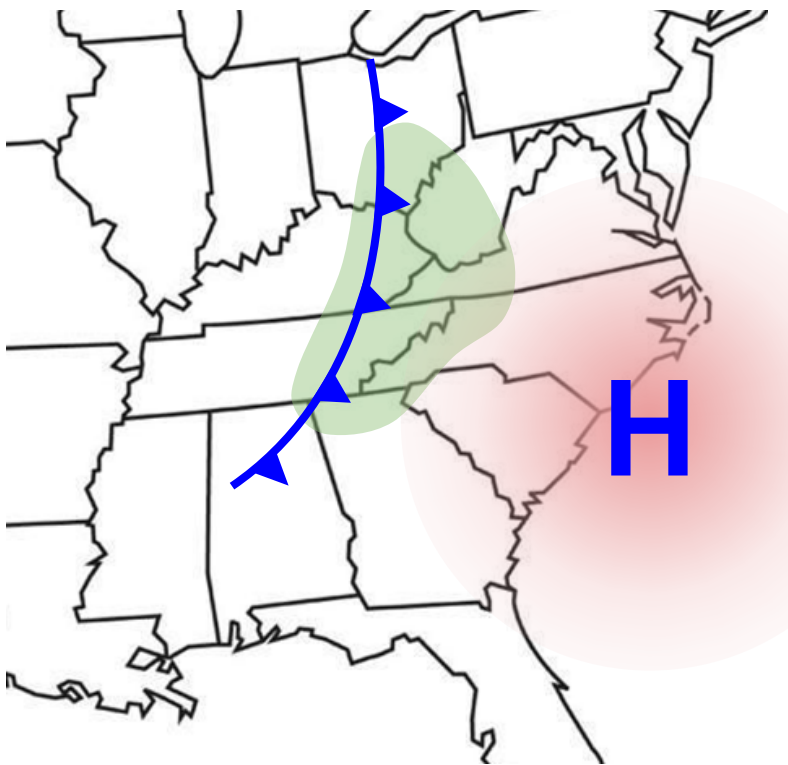
Climate.gov/NNVL  
Data: Coral Reef Watch



# Winter (DJF) 2022-23

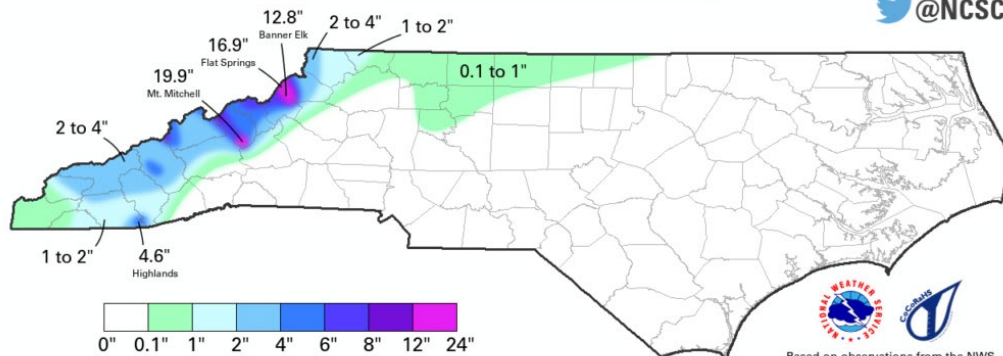
5<sup>th</sup>  
WARMEST

63<sup>rd</sup>  
WETTEST



## Total Snowfall

Nov. 2022 to Mar. 2023



Based on observations from the NWS Cooperative Observer network and CoCoRaHS



# Winter Drought Dormancy

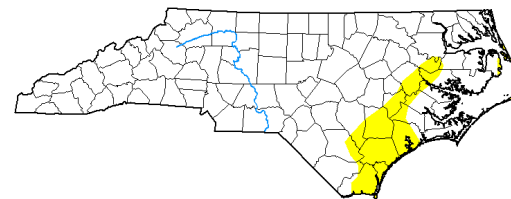
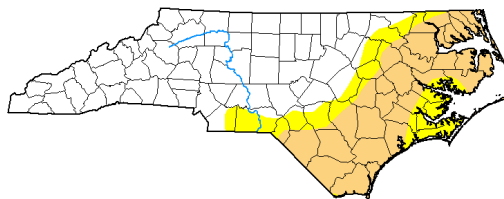
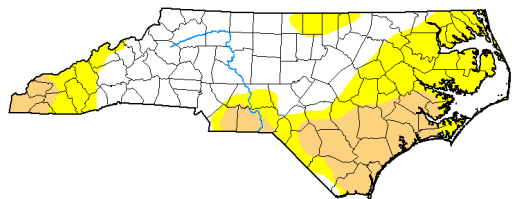
December 6



January 17



February 28



Abnormally  
Dry

Moderate  
Drought

Severe  
Drought

Extreme  
Drought

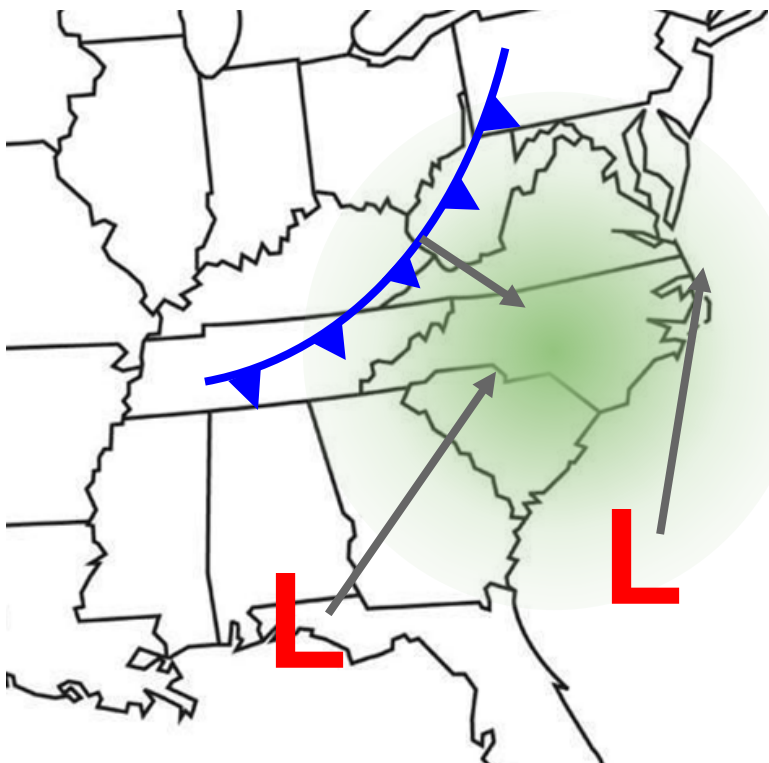
Exceptional  
Drought

U.S. Drought Monitor

# Spring (MAM) 2023

43<sup>rd</sup>  
WARMEST

60<sup>th</sup>  
WETTEST



## Weekend Precipitation Totals Jan. to Apr. 2023



Location	Jan. 7-8	Jan. 14-15	Jan. 21-22	Jan. 28-29	Feb. 4-5	Feb. 11-12	Feb. 18-19	Feb. 25-26	Mar. 4-5	Mar. 11-12	Mar. 18-19	Mar. 25-26	Apr. 1-2	Apr. 8-9	Apr. 15-16	Apr. 22-23	Apr. 29-30
Asheville	0.33	Trace	0.40	0.07	0	0.89	0	0.09	0	0.51	0	0.24	0.29	1.05	0.03	0.59	0.31
Charlotte	0.26	0	1.11	0.19	0	1.76	0	0.05	0	0.46	0.06	0.25	0.13	1.35	0.01	0.33	0.21
Greensboro	0.18	Trace	0.78	0.12	0	1.29	0	0.02	0	0.30	0.03	0.28	0.25	0.59	Trace	0.20	0.57
Raleigh	0.12	0.01	0.71	0.04	Trace	1.34	0.01	0.12	0	0.57	0.20	0.28	0.02	1.44	Trace	0.66	1.36
Wilmington	0	0	1.79	0.02	0.23	2.19	0	0.08	Trace	0.42	0.20	0.59	0	2.14	Trace	0.82	0.82
Hatteras	0.16	0.02	1.17	0	0.08	2.33	0.02	0.14	0	0.11	0.22	0.59	Trace	1.77	0.49	0.45	2.83

No Precipitation    Trace    0.01 to 0.25"    0.25 to 1.00"    1.00"+



# April Shower Improvements

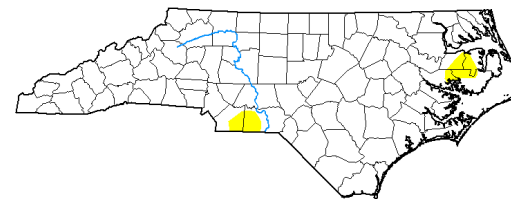
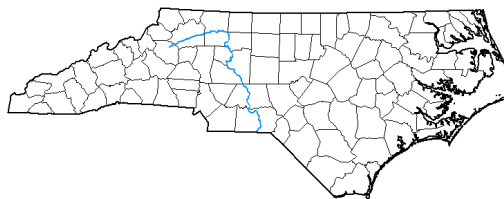
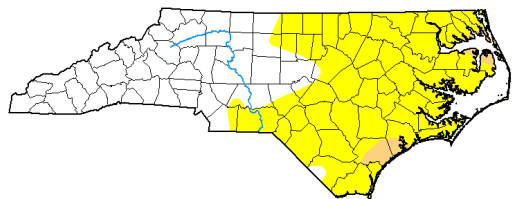
March 28



May 2



May 30



No  
Drought

Abnormally  
Dry

Moderate  
Drought

Severe  
Drought

Extreme  
Drought

Exceptional  
Drought

U.S. Drought Monitor

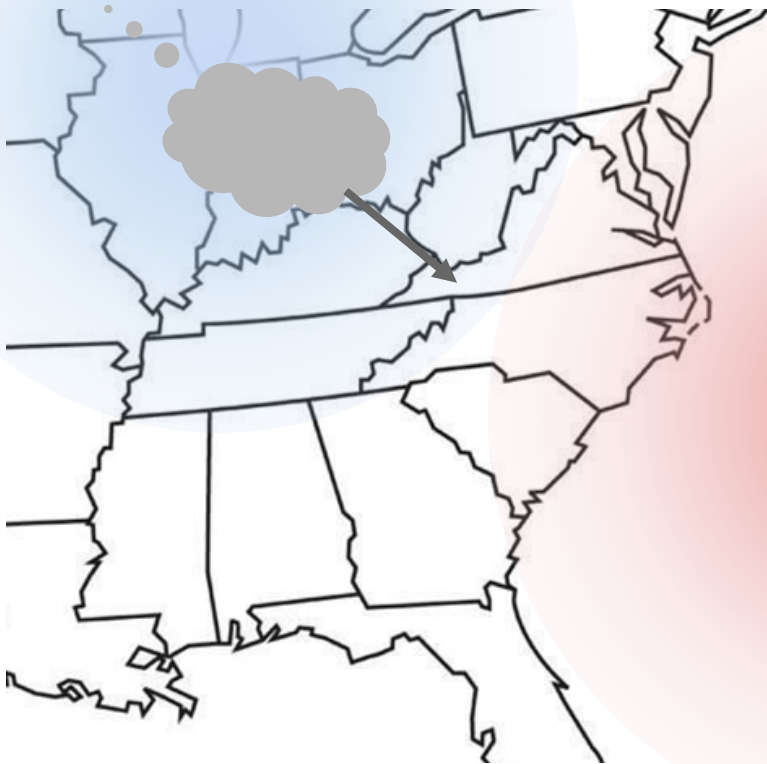




# Summer (JJA) 2023

61<sup>st</sup>  
COOLEST

59<sup>th</sup>  
DRIEST



***Nash/Edgecombe tornado, July 19***

# Spotty Summer Dryness

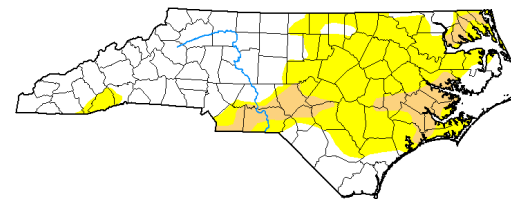
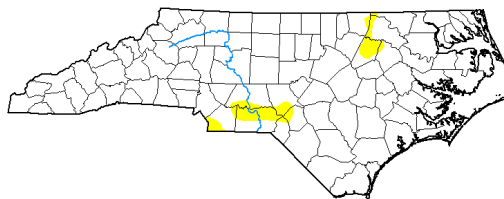
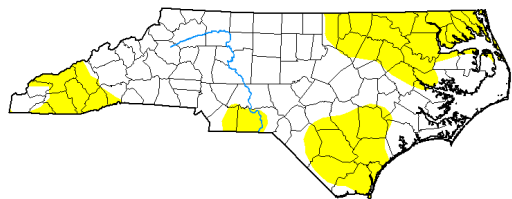
June 20



July 25



August 29



No  
Drought

Abnormally  
Dry

Moderate  
Drought

Severe  
Drought

Extreme  
Drought

Exceptional  
Drought

U.S. Drought Monitor





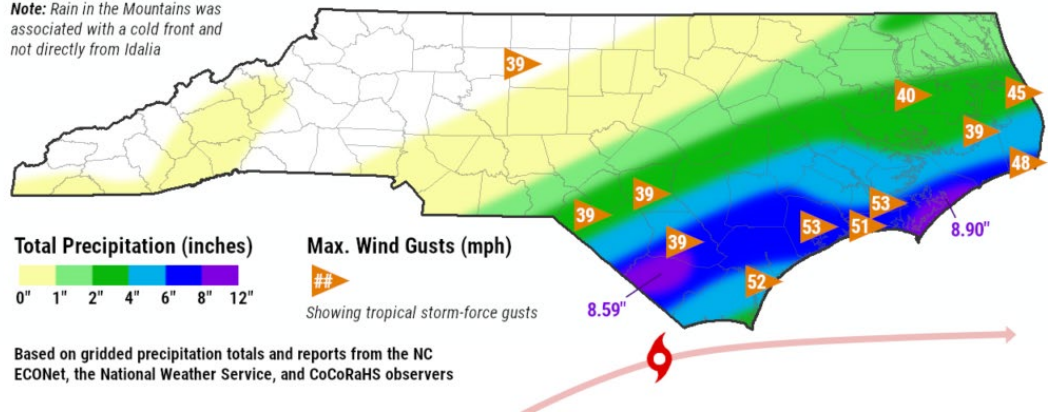
# Recent Improvements

## Tropical Storm Idalia

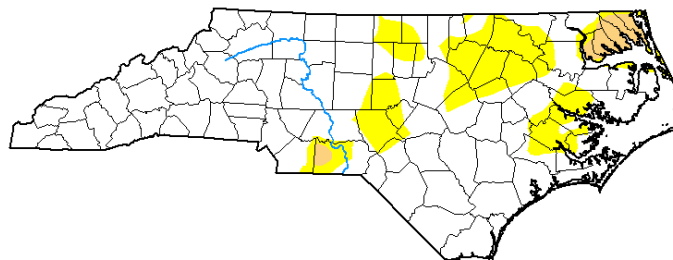
August 30-31, 2023



*Note: Rain in the Mountains was associated with a cold front and not directly from Idalia*



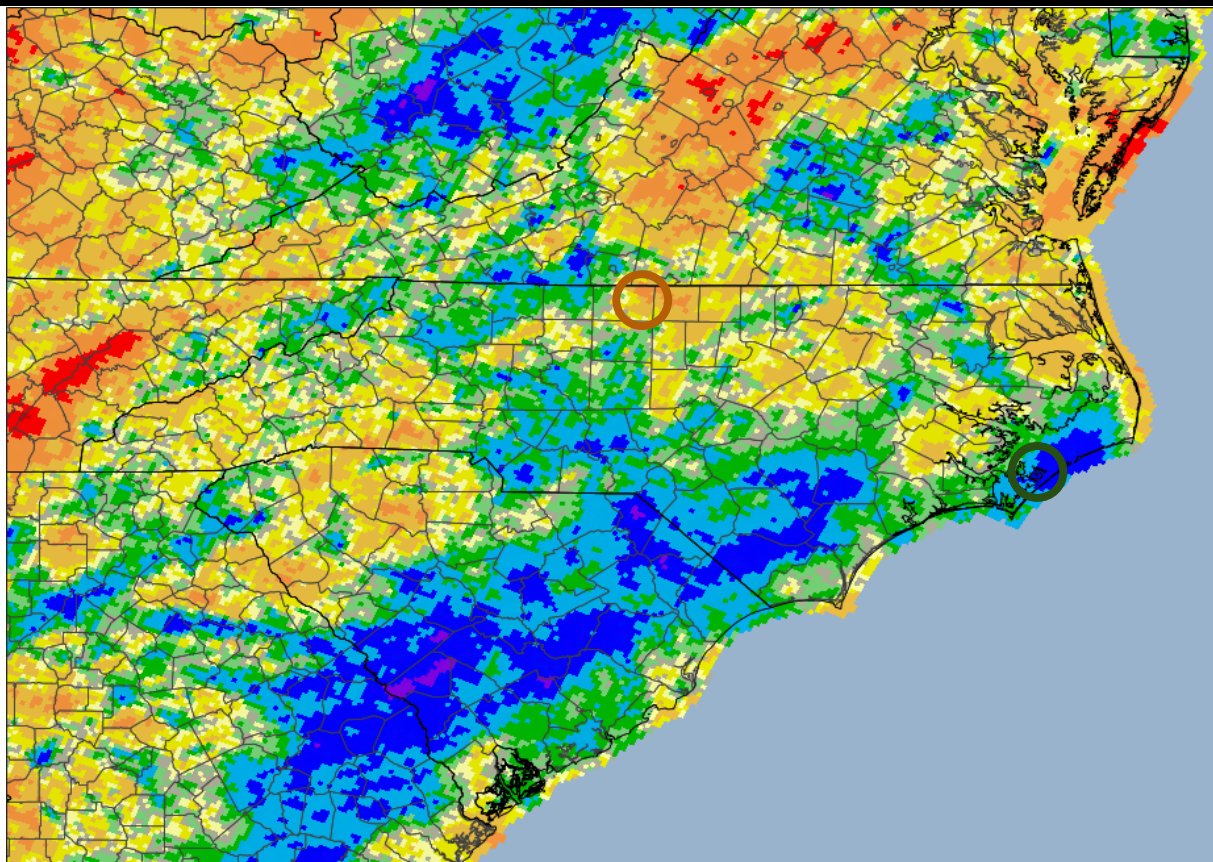
## September 12



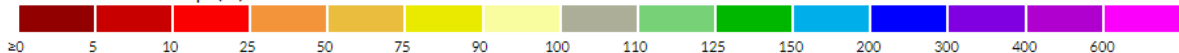
# Past 30 Days (Aug. 21 to Sep. 19)

**○ Wettest Spot:**  
**Cedar Island: 14.84"**  
 (217% of normal)

**○ Driest Spot:**  
**Reidsville: 1.96"**  
 (53% of normal)



Percent of Normal Precip. (%)



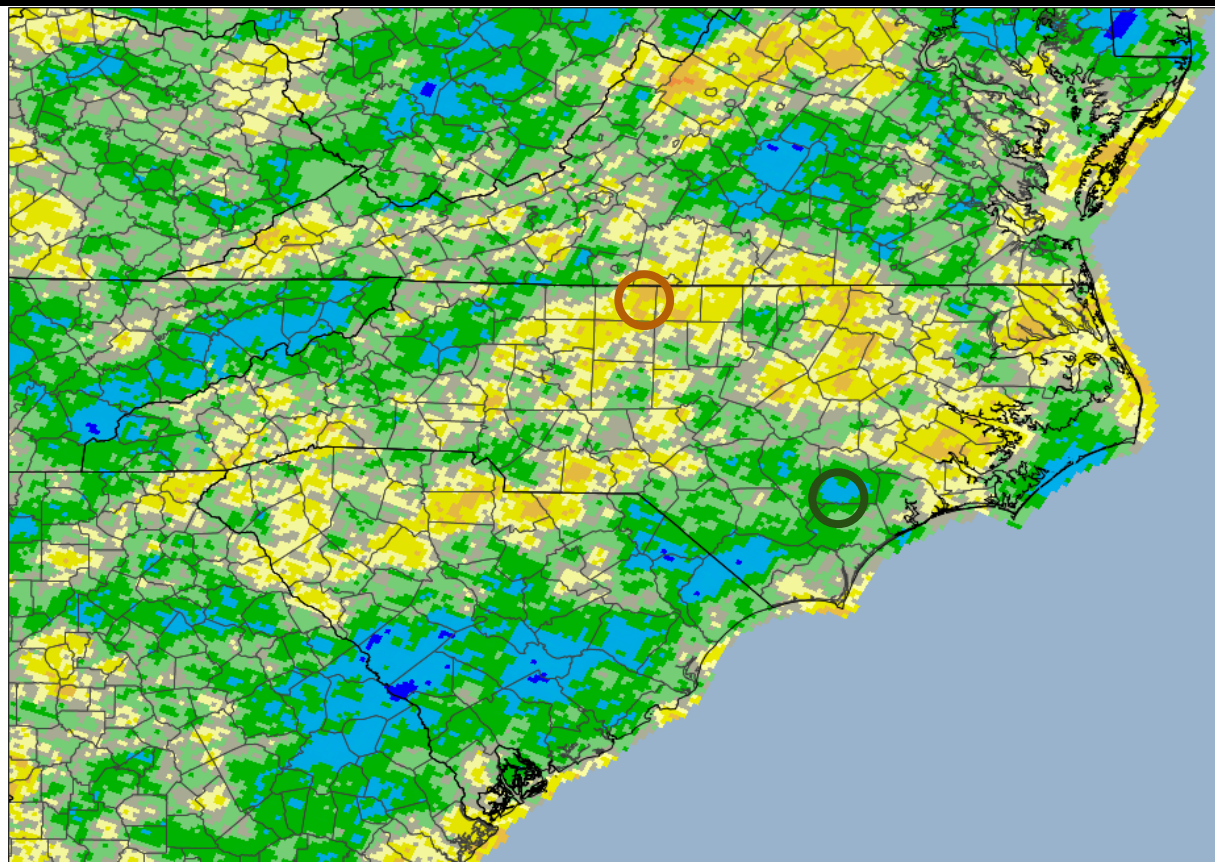
# Past 90 Days (Jun. 22 to Sep. 19)

## ○ Wettest Spot:

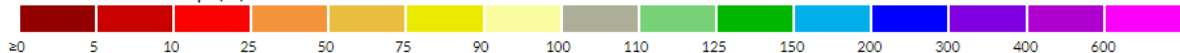
**Wallace:** 25.58"  
(145% of normal)

## ○ Driest Spot:

**Reidsville:** 7.71"  
(77% of normal)



Percent of Normal Precip. (%)





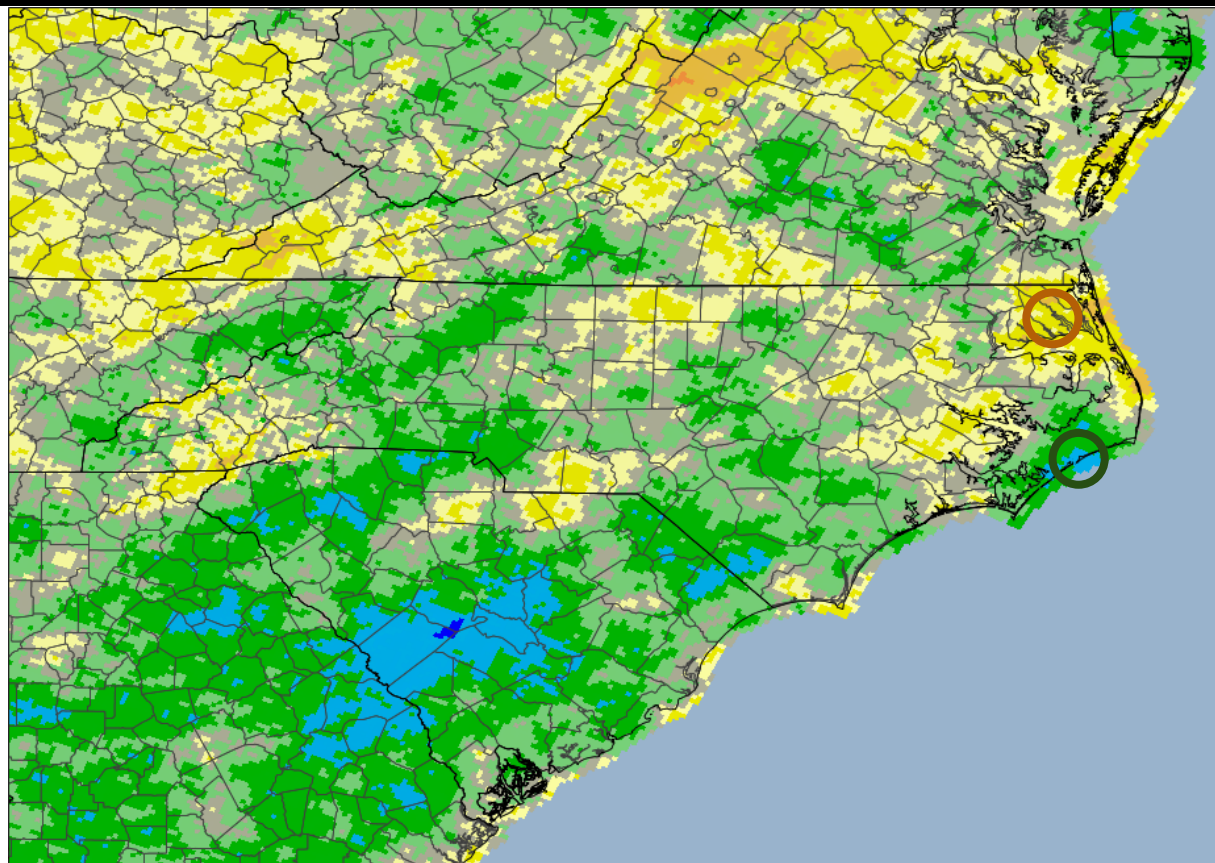
# Past 6 Months (Mar. 24 to Sep. 19)

## ○ Wettest Spot:

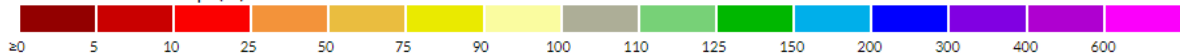
**Ocracoke: 43.97"**  
(151% of normal)

## ○ Driest Spot:

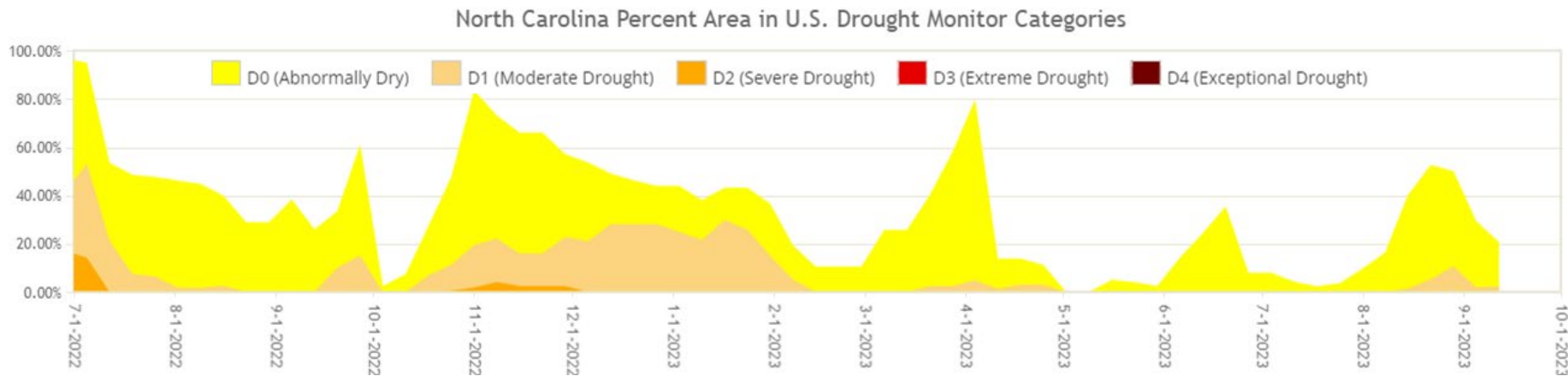
**Elizabeth City: 16.77"**  
(62% of normal)



Percent of Normal Precip. (%)



# In Summary



- Statewide, few prolonged wet or dry periods
- Timely rainfall (especially tropical systems) helped
- Limited drought even in La Niña winter and hot summer

# Weekly Drought Updates

## North Carolina Drought Update

For the assessment period ending September 12, 2023

### This Week's Drought Monitor of North Carolina Map

From the US Drought Monitor, authored by Brad Pugh (NOAA/NWS/NCEP/GPC) with input from the North Carolina Drought Management Advisory Council ([ncdrought.org](http://ncdrought.org))

More than 2 inches of rain fell just downstream of Falls and Jordan Lake last weekend, but both remain slightly below their target levels.

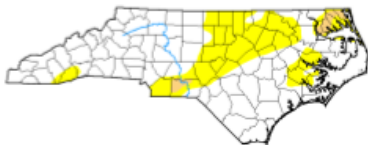


A lightning-caused wildfire burned 147 acres on a timber plantation in Chowan County and is 48% contained.

A Saturday night storm dropped 4.68 inches of rain over Monroe, which caused local flash flooding.



### Last Week's Drought Map



Crop progress is generally on pace with the five-year average, including for tobacco, of which 72% was rated in good condition on this week's USDA/NASS report.

This infographic was created by



## Statewide Condition Summary

**What's Changed?** Locally heavy rainfall improved some Abnormally Dry (D0) areas, including the Triangle, but Moderate Drought (D1) expanded in the northeast.

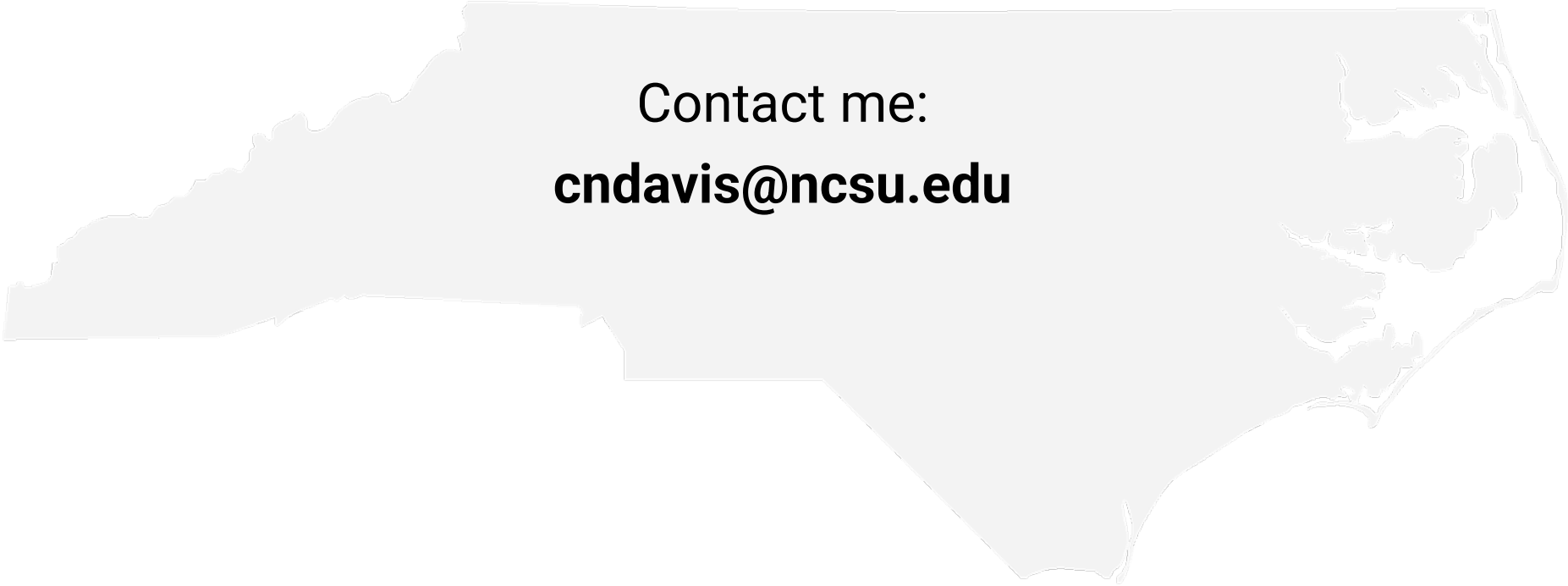
**What's New?** Last weekend's showers brought an inch of rain or more to many Piedmont and Mountain locations, with some areas seeing up to 5 inches. In the east, it was a drier week in the wake of Tropical Storm Idalia, which was good for farmers to get in the fields but not so great for the dry soils and groundwater wells in the northeast.

**What's Next?** High pressure to our north will bring cooler and less humid weather this weekend, but rainfall over the next week will be limited to light showers on Sunday.

### Statewide Coverage By Category

Category	Coverage This Week	Change Since Last Week
D0: Abnormally Dry	18.39%	-9.04%
D1: Moderate Drought	2.31%	+0.34%
D2: Severe Drought	0.00%	0.00%
D3: Extreme Drought	0.00%	0.00%
D4: Exceptional Drought	0.00%	0.00%

# Questions?



Contact me:  
**[cndavis@ncsu.edu](mailto:cndavis@ncsu.edu)**