

# Climate Review for the month July 2018

Presented by:  
National Weather Service  
Newport/Morehead City

# July 2018 Summary

July 2018 was characterized by very wet conditions over the second half of the month with slightly below normal temperatures. Cape Hatteras recorded its second wettest overall month on record with 20.31 inches. The National Weather Service in Newport also recorded its wettest July with 12.95 inches of rain. Flooding from heavy rainfall was especially notable along the northern Outer Banks, where some of the heaviest rainfall fell. In addition to the heavy rainfall late in the month, Hurricane Chris moved well off the North Carolina coast July 10-11, 2018 producing very rough surf. Rip Currents associated with Hurricane Chris killed at least 3 people on eastern North Carolina beaches.

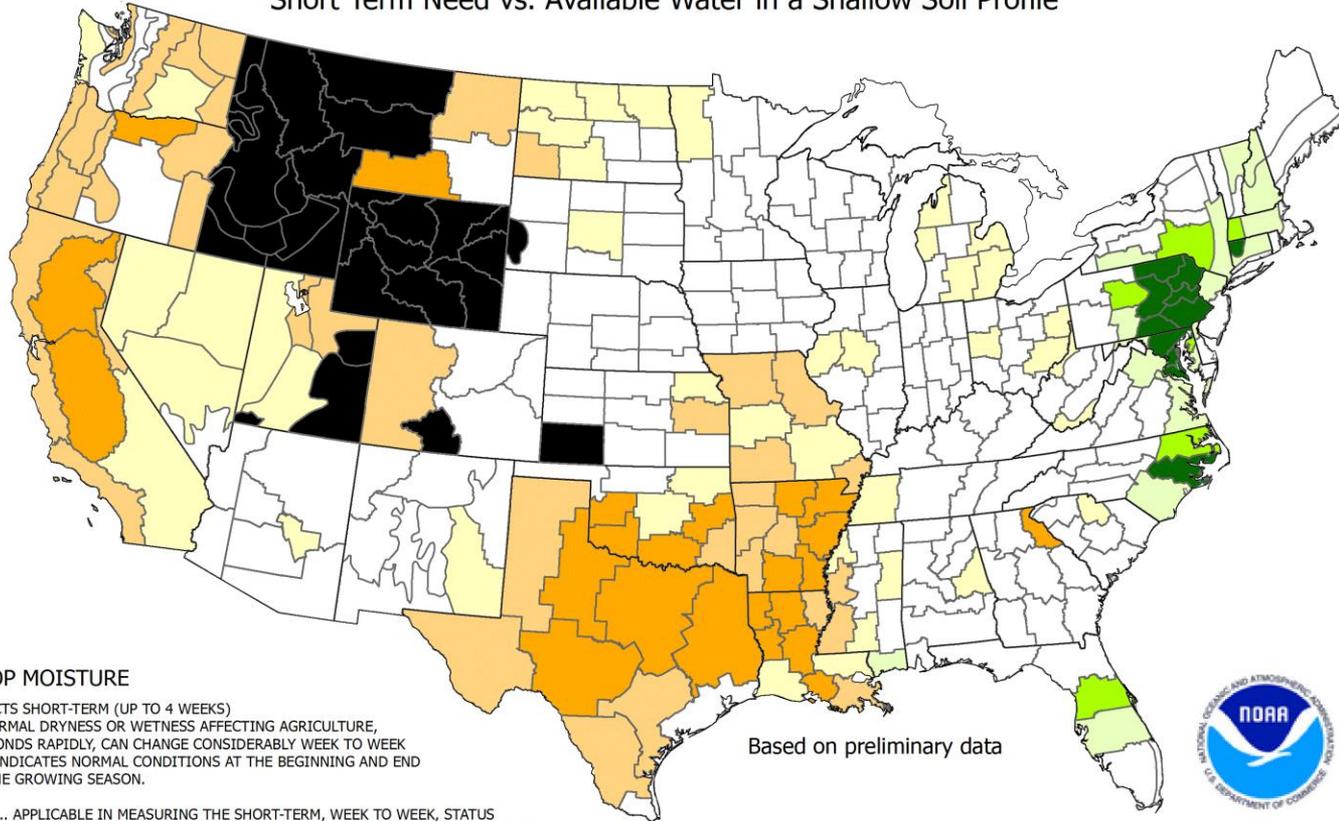


*Flooding from heavy rainfall in Kitty Hawk, July 29, 2018.*

*DISCLAIMER : The climate data provided are preliminary and have not undergone final quality control by NCDC. Therefore...this data is subject to revision.*

# Soil Moisture Surplus

Crop Moisture Index by Division  
Weekly Value for Period Ending Jul 28, 2018  
Short Term Need vs. Available Water in a Shallow Soil Profile



## CROP MOISTURE

DEPICTS SHORT-TERM (UP TO 4 WEEKS) ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE, RESPONDS RAPIDLY, CAN CHANGE CONSIDERABLY WEEK TO WEEK AND INDICATES NORMAL CONDITIONS AT THE BEGINNING AND END OF THE GROWING SEASON.

USES... APPLICABLE IN MEASURING THE SHORT-TERM, WEEK TO WEEK, STATUS OF DRYNESS OR WETNESS AFFECTING WARM SEASON CROPS AND FIELD OPERATIONS

LIMITATIONS... MAY NOT BE APPLICABLE TO GERMINATING AND SHALLOW ROOTED CROPS WHICH ARE UNABLE TO EXTRACT THE DEEP OR SUBSOIL MOISTURE FROM A SHALLOW SOIL PROFILE, OR FOR COOL SEASON CROPS GROWING WHEN TEMPERATURES ARE AVERAGING BELOW ABOUT 55°F. IT IS NOT GENERALLY INDICATIVE OF THE LONG-TERM (MONTHS, YEARS) DROUGHT OR WET SPELLS WHICH ARE DEPICTED BY THE DROUGHT SEVERITY INDEX.

Based on preliminary data



The Crop Moisture Index indicates excessively wet conditions over eastern North Carolina.

# Average Temperatures within our CWA in July 2018

	Avg Max	Avg_Max Normal	Avg_Min	Avg_Min Normal
<b>Beaufort</b>	84.8	85.8	73.5	74.2
<b>Cape Hatteras</b>	86.0	84.6	74.2	73.6
<b>New Bern</b>	86.3	89.5	70.0	71.6
<b>Greenville</b>	89.2	89.9	70.1	70.7
<b>Kinston</b>	89.3	91.0	69.8	71.0
<b>Williamston</b>	86.9	88.6	71.2	68.9
<b>Plymouth</b>	87.0	89.4	69.4	70
<b>Bayboro</b>	85.4	89.3	68.6	71.4

Temperatures in July 2018 were generally below normal due to above normal rainfall.

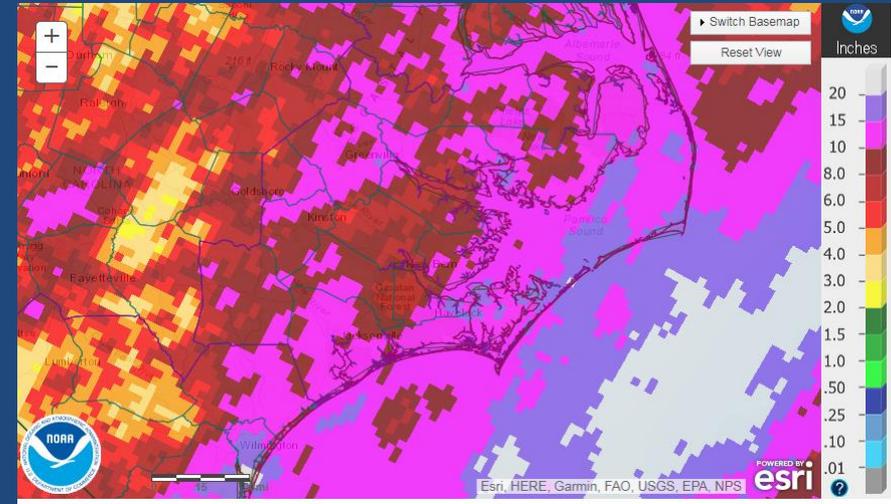
# Temperature Extremes within our CWA in July 2018.

	MAX	MIN
<b>Beaufort</b>	90	66
<b>Cape Hatteras</b>	92	68
<b>New Bern</b>	93	56
<b>Greenville</b>	98	58
<b>Kinston</b>	95	57
<b>Williamston</b>	93	59
<b>Plymouth</b>	96	55
<b>Bayboro</b>	93	58

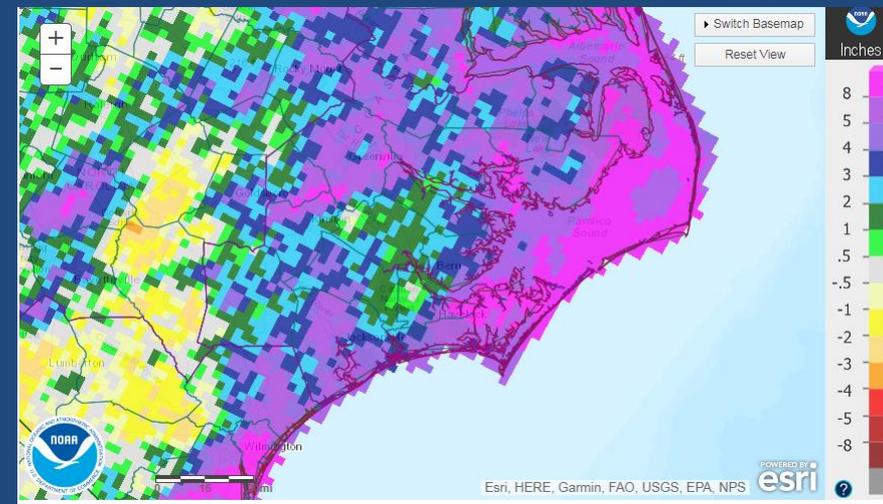
# July 2018 Precipitation Vs Climate Normal

	Precipitation (inches)	Normal	Difference
Beaufort	11.47	6.02	5.45
Cape Hatteras	20.31	4.99	15.32
New Bern	8.70	6.17	2.53
Greenville	8.42	5.39	3.03
Kinston	7.14	5.58	1.56
Williamston	8.00	5.29	2.71
Plymouth	10.48	5.34	5.14
Bayboro	9.56	6.27	3.29

Heavy rainfall was observed throughout eastern North Carolina in July 2018. Cape Hatteras, with over 20 inches of rain, recorded its second wettest month ever. All areas were well above their normal monthly rainfall for July, with some coastal areas up to 8 inches above normal.



Observed Rainfall

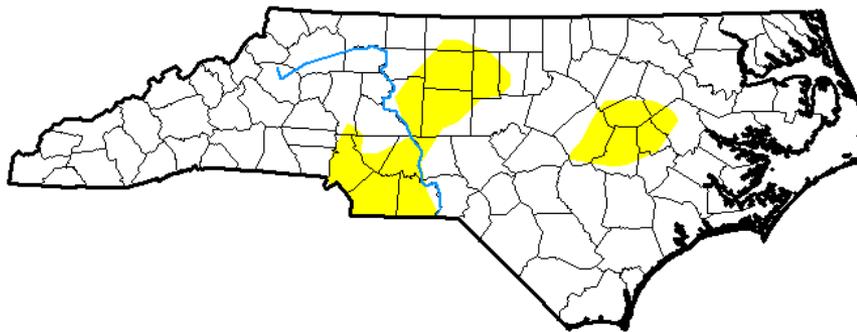


Departure from Normal

# Latest Drought Monitor for North Carolina

## U.S. Drought Monitor North Carolina

**July 24, 2018**  
(Released Thursday, Jul. 26, 2018)  
Valid 8 a.m. EDT



### Intensity:

-  D0 Abnormally Dry
-  D1 Moderate Drought
-  D2 Severe Drought
-  D3 Extreme Drought
-  D4 Exceptional Drought

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*

### Author:

Chris Fenimore  
NCEI/NESDIS/NOAA



<http://droughtmonitor.unl.edu/>

A few abnormally dry areas were noted across central and eastern North Carolina in late July.

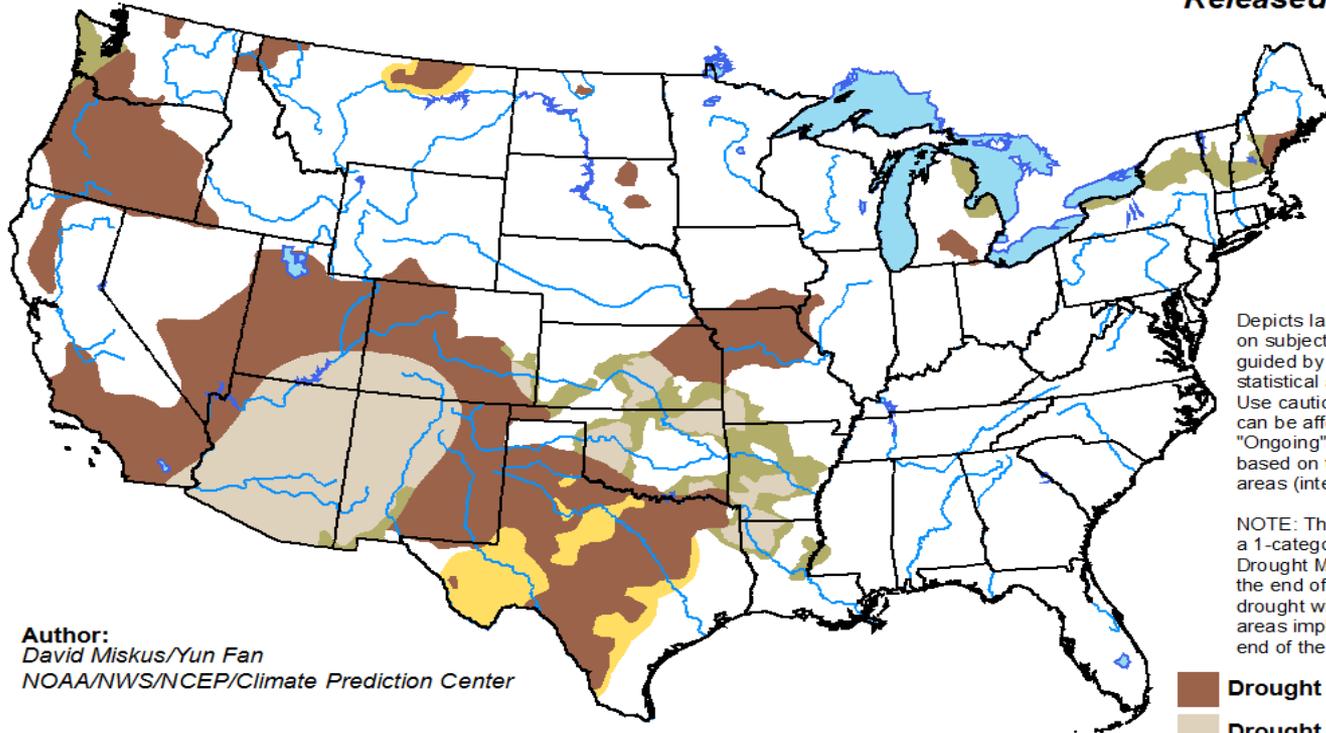
# Monthly Drought Outlook

## For August

### U.S. Monthly Drought Outlook

Drought Tendency During the Valid Period

Valid for August 2018  
Released July 31, 2018

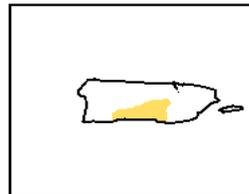
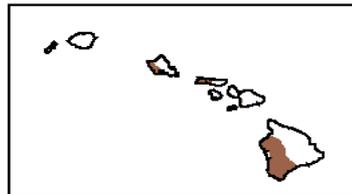
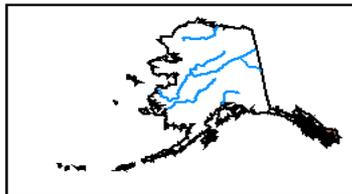


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

Author:  
David Miskus/Yun Fan  
NOAA/NWS/NCEP/Climate Prediction Center

-  Drought persists
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely



<http://go.usa.gov/3eZGd>