

Climate Review for the month of July 2011

Presented by:
BelMel Publishing

Summary

July was a HOT month with temperatures continuously above 90 degrees and several days reaching into the triple digits. Several of our COOP stations and LCD sites had record breaking maximum temperatures. ENSO was still neutral, but the atmosphere had La Nina characteristics that resulted in hot and dry conditions for the month of July.

High pressure was the dominated air mass for July, but had a few weak cold fronts moved through the area and created a few thunderstorms, especially during maximum daytime heating. Some of these storms produced a good amount of rainfall, particularly in the northern parts of our CWA while other sections had only an inch or two of rain. Overall, rainfall amounts were not enough to significantly reduce year to date moisture deficits. Drought conditions improved somewhat in the northwestern extreme to a D1, but overall our CWA remained under a D2 or D3 drought designation.

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

Average Temperatures within our CWA

| | Avg_Max | Avg_Max Normal | Avg_Min | Avg_Min Normal |
|---------------|---------|----------------|---------|----------------|
| Beaufort | 89.1 | na | 77.8 | na |
| Cape Hatteras | 87.5 | 85.4 | 76.9 | 72.9 |
| New Bern | 92.8 | 88.3 | 72.6 | 71.1 |
| Greenville | 93.8 | 89.1 | 72.0 | 70.2 |
| Kinston AG | 93.9 | 91.7 | 73.0 | 70 |
| Williamston | 91.8 | 88.4 | 70.7 | 69.1 |
| Plymouth | 92.6 | 90.1 | 71.6 | 69.6 |
| Aurora | 93.1 | 89.1 | 75.1 | 69.5 |
| Bayboro | 91.3 | 89.3 | 70.9 | 69.8 |

Overall, the average temperatures were 2 to 5 degrees above normal for the month of July.

Max and Min Temperature within our CWA

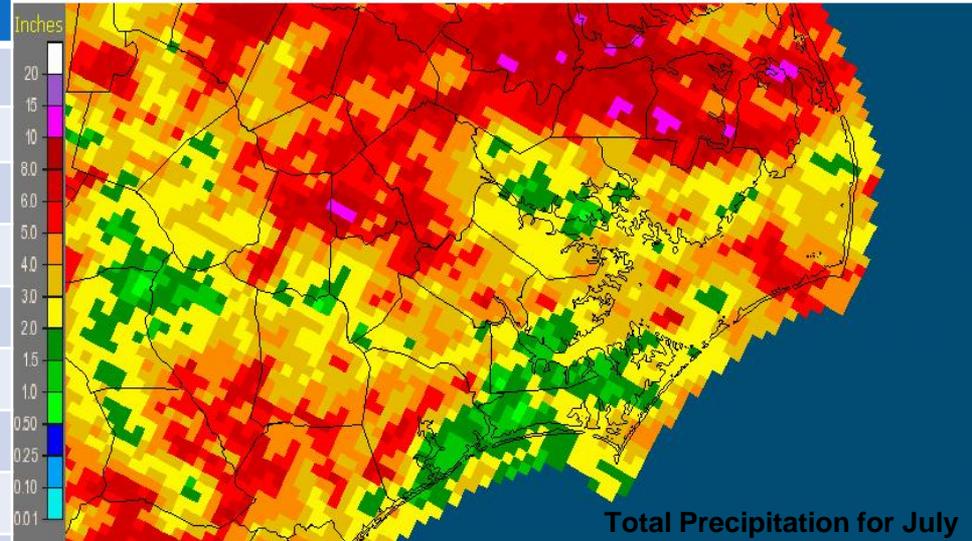
| | MAX | MIN | # of Days \geq 90° F |
|---------------|-----|-----|---------------------------|
| Beaufort | 98 | 68 | 8 |
| Cape Hatteras | 94 | 68 | 3 |
| New Bern | 102 | 63 | 21 |
| Greenville | 102 | 60 | 24 |
| Kinston AG | 101 | 61 | 25 |
| Williamston | 101 | 60 | 20 |
| Plymouth | 102 | 62 | 21 |
| Aurora | 102 | 69 | 22 |
| Bayboro | 99 | 60 | 20 |

90 degrees was a very common temperature throughout Eastern North Carolina. There were a few cool nights that occurred ~ July 16 caused by a backdoor cold front.

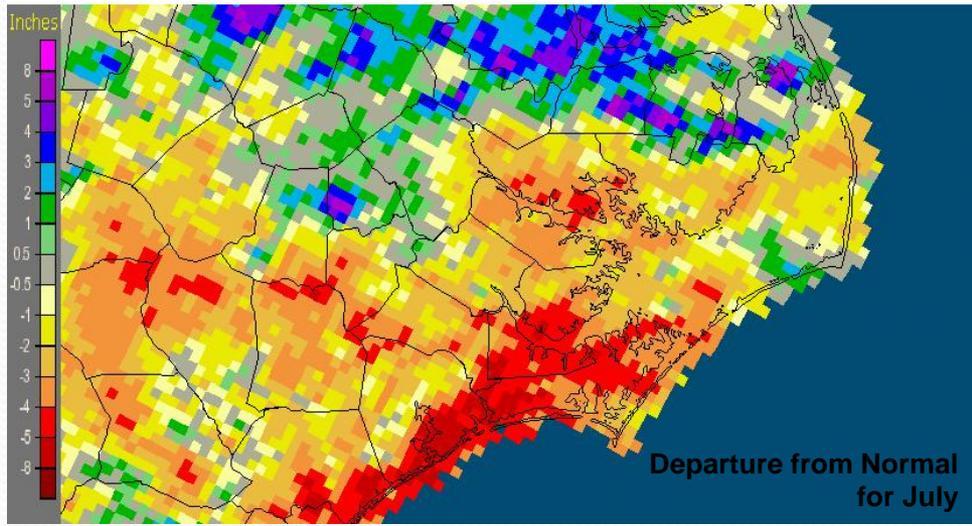
July's Rain versus Normal

| | Precipitation (inches) | Normal | Differences |
|---------------|------------------------|--------|-------------|
| Beaufort | 2.46 | na | na |
| Cape Hatteras | 6.19 | 4.95 | 1.24 |
| New Bern | 3.04 | 6.48 | -3.44 |
| Greenville | 4.48 | 5.2 | -0.72 |
| Kinston AG | 4.9 | 5.28 | -0.38 |
| Williamston | 4.05 | 5.17 | -1.12 |
| Plymouth | 5.8 | 5.31 | 0.49 |
| Aurora | 1.12 | 5.87 | -4.75 |
| Bayboro | 4.28 | 6.29 | -2.01 |

Newport/Morehead City, NC (MHX): July, 2011 Monthly Observed Precipitation
Valid at 8/1/2011 1200 UTC- Created 8/3/11 21:38 UTC



Newport/Morehead City, NC (MHX): July, 2011 Monthly Departure from Normal Precipitation
Valid at 8/1/2011 1200 UTC- Created 8/3/11 21:41 UTC



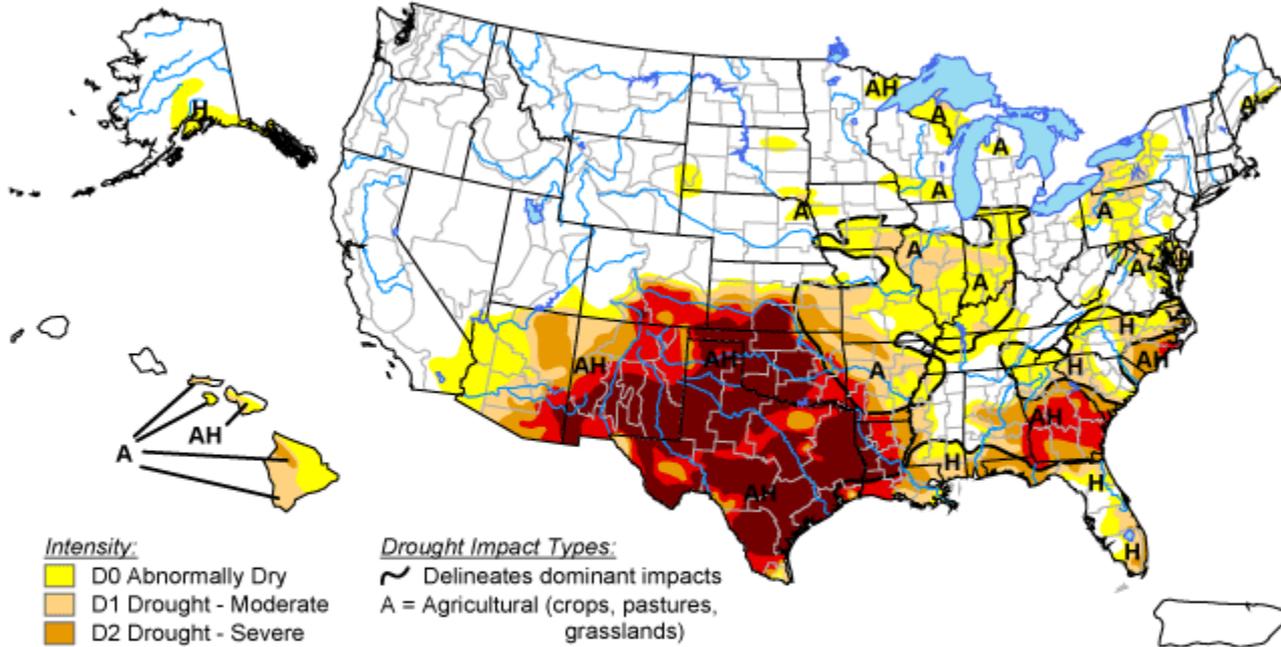
Most of the rainfall occurred in the northern parts of our CWA. Rainfall amounts had a wide range from 8-10 inches north to 1-2 inches around the Crystal Coast.

For the month of July there was a surplus to in the northern coastal plains while the southern coastal plains remained in a deficit. Monthly precipitation deficits were generally in the ~0.50 to 5 inch.

U.S. Drought Monitor

August 16, 2011

Valid 8 a.m. EDT



Intensity:

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

Drought Impact Types:

- ~ Delineates dominant impacts
- A = Agricultural (crops, pastures, grasslands)
- H = Hydrological (water)

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



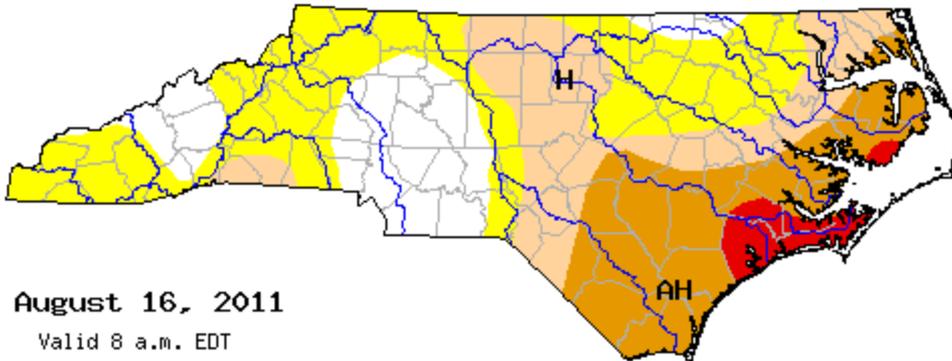
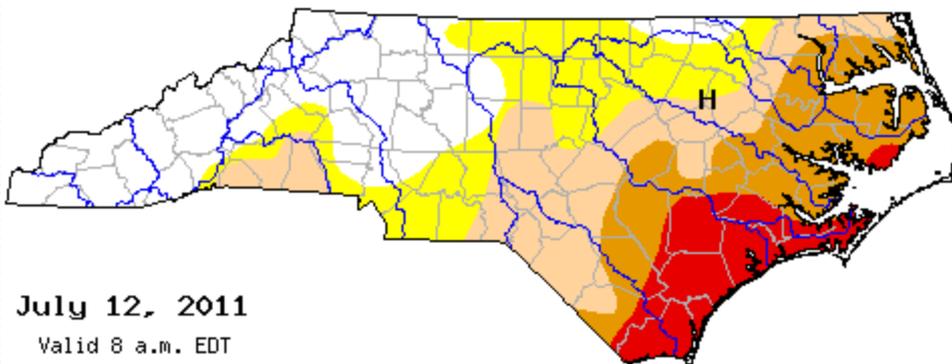
Released Thursday, August 18, 2011

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<http://drought.unl.edu/dm>

Before

Now



July 12, 2011

Valid 8 a.m. EDT

August 16, 2011

Valid 8 a.m. EDT

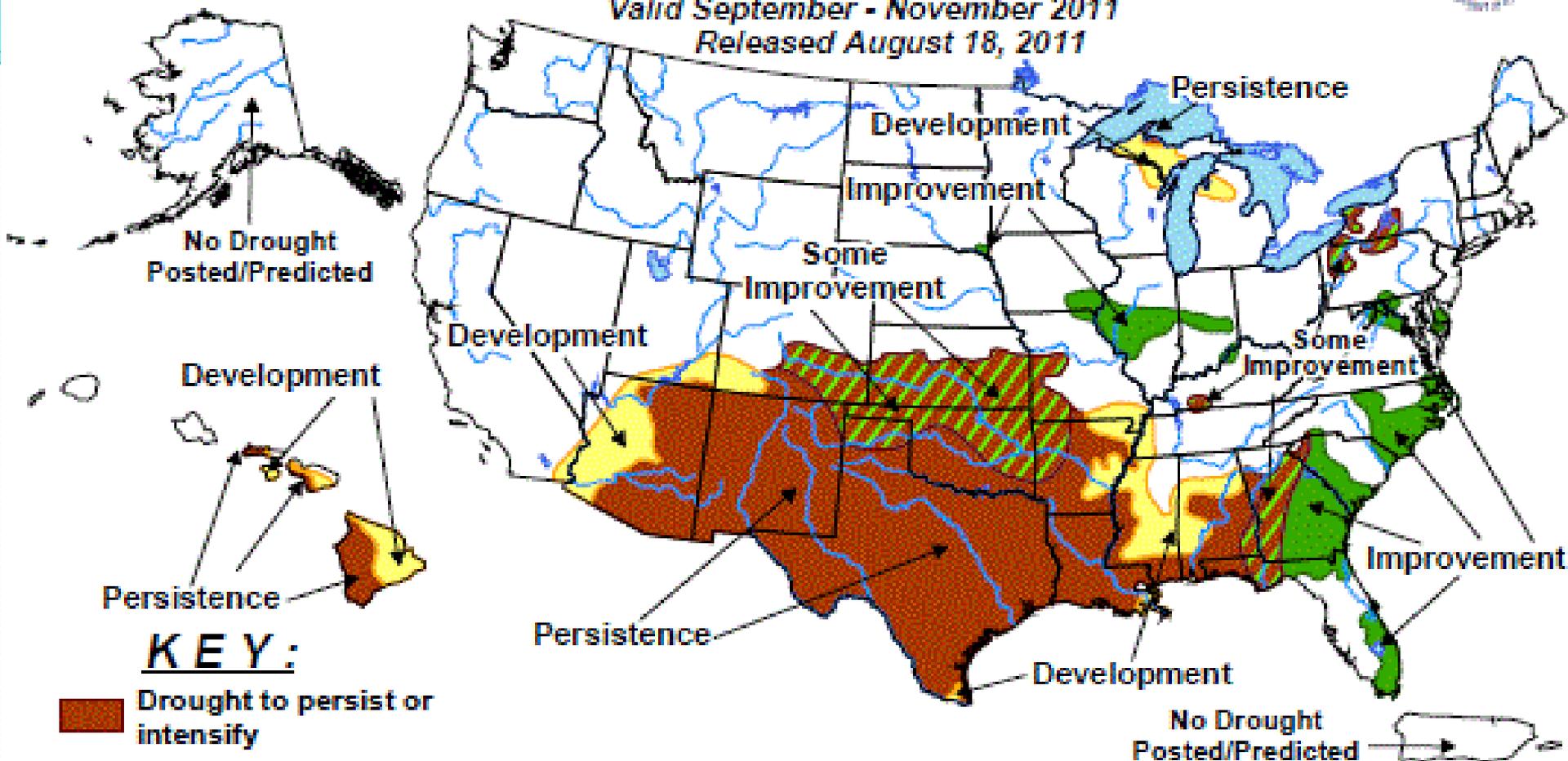


U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period



Valid September - November 2011
Released August 18, 2011



KEY:

-  Drought to persist or intensify
-  Drought ongoing, some improvement
-  Drought likely to improve, impacts ease
-  Drought development likely

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events – such as individual storms – cannot be accurately forecast more than a few days in advance. Use caution for applications – such as crops – that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 Intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green Improvement areas imply at least a 1-category improvement in the Drought Monitor Intensity levels, but do not necessarily imply drought elimination.