Ground Water Report

Drought Management Advisory Council
Raleigh, NC
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Ground Water Management Branch
Water Planning Section
Drought Indicator Wells

• 54 wells with a 36 year average record
• 14 wells monitored by USGS
  • Automatic recorders, hourly data, satellite telemetry
• 40 wells monitored by DWR
  • Automatic recorders, hourly data, downloaded quarterly (Feb, May, Aug & Nov) & cell phone telemetry on 12 wells
• A couple of wells are in flux due to land owner or well construction issues
Current conditions tab on www.ncdrought.org
Surface water gage data is filtered using the Lyne and Hollick algorithm to create daily baseflow data.

Latest values are ranked against historical baseflow data.

The resulting percentiles are contoured.

Similarly, latest levels are ranked against historical ground water level data and the resulting percentiles are contoured.

The combined set of percentiles are contoured in the DWR Drought Image (top map).
DWR Drought Image

April 2015

April 2016
Network News & Guidance

We’ve installed cell phone telemetry on 12 wells. All are working steadily now. Four additional wells will be equipped with telemetry this summer and fall.

Full or near full ground water storage now translates to fewer drought related water supply impacts later this year. But, we’re showing signs of drying already…

Hornets Nest Park Station, Mecklenburg County
Year in Review

April 2015

August 2015

December 2015

July 2015

November 2015

March 2016
Annual baseflow percentage averages were calculated (1965 to present) for each gage. Linear regressions yielded increasing, decreasing, or no change in the baseflow percentage.

- Negative trending slopes are expected if impermeable surfaces increase or number of rainfall events decrease.
- Positive trending slopes are expected if impermeable surfaces decrease or number of rainfall events increase.