Ground Water Report

Drought Management Advisory Council

Raleigh, NC

April 6, 2017

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Ground Water Management Branch

Water Planning Section

DWR
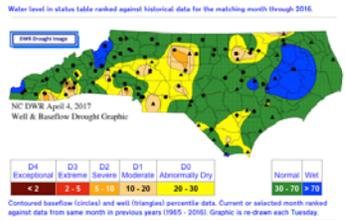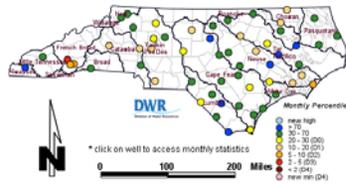Division of Water Resources

NC

Drought Indicator Wells

- 57 wells with a 35 year average record
- 16 wells monitored by USGS
  - Automatic recorders, hourly data
  - satellite telemetry
- 41 wells monitored by DWR
  - Automatic recorders, hourly data, downloaded quarterly (Feb, May, Aug & Nov)
  - Cell phone telemetry on 16 wells
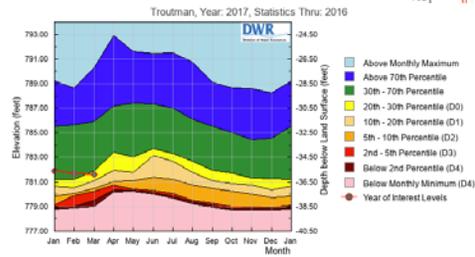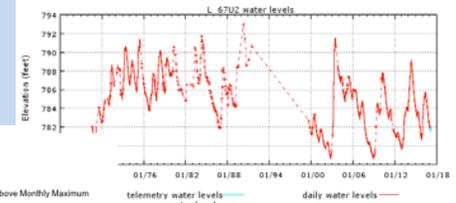- **25 wells updated quarterly**

NC

Drought Indicator Wells

* click on well to access monthly statistics

DWR

0   100   200
Miles

Water level in status table ranked against historical data for the matching month through 2016.

NC DWR April 4, 2017
Well & Baseflow Drought Graphic

Contoured baseflow (circles) and well (triangles) percentile data. Current or selected month ranked against data from same month in previous years (1965 - 2016). Graphic is re-drawn each Tuesday.

D4 Exceptional	D3 Extreme	D2 Severe	D1 Moderate	D0 Abnormally Dry		Normal	Wet
< 2	2 - 5	5 - 10	10 - 20	20 - 30		30 - 70	> 70

Current conditions tab on www.ncdrought.org
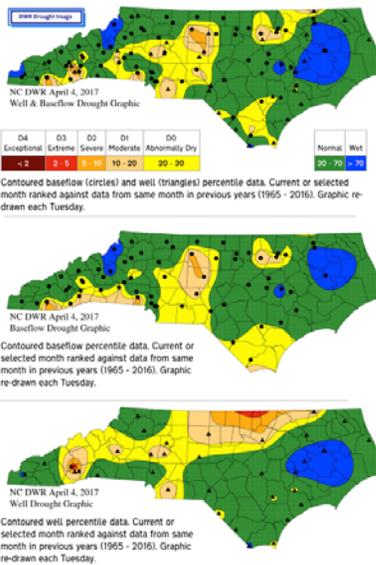

Example DIW

* Water levels collected over time at various times of year can be seen in the time-series plot.
* Collapse that plot into a year's time and represent the distribution of historical data as colored percentile ranges.

Now it's much easier to see how the latest water level compares to its history of water levels.
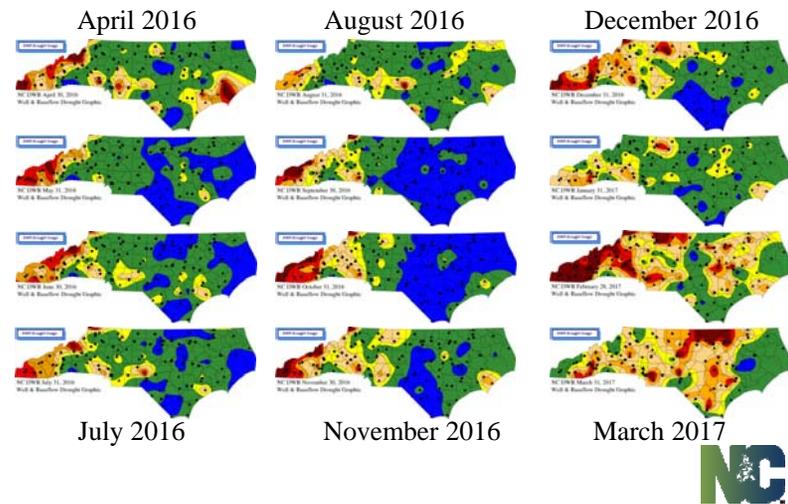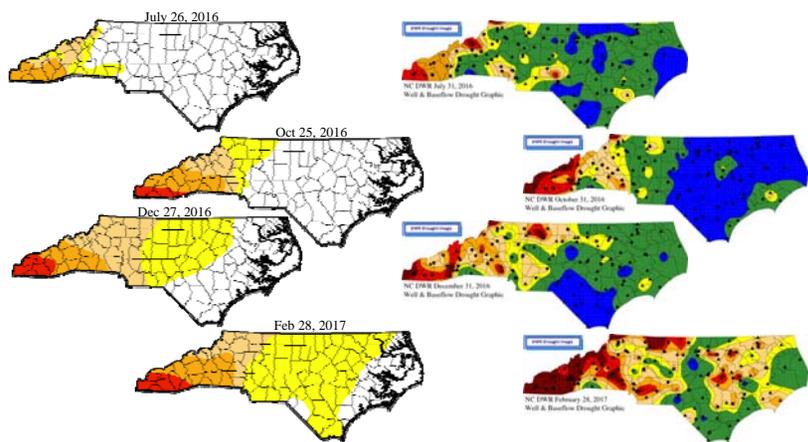
DWR Drought Image

NC DWR April 4, 2017
Well & Baseflow Drought Graphic

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Contoured baseflow (circles) and well (triangles) percentile data. Current or selected month ranked against data from same month in previous years (1965 - 2016). Graphic re-drawn each Tuesday.

NC DWR April 4, 2017
Baseflow Drought Graphic

Contoured baseflow percentile data. Current or selected month ranked against data from same month in previous years (1965 - 2016). Graphic re-drawn each Tuesday.

NC DWR April 4, 2017
Well Drought Graphic

Contoured well percentile data. Current or selected month ranked against data from same month in previous years (1965 - 2016). Graphic re-drawn each Tuesday.

- 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)

Year in Review

April 2016	August 2016	December 2016

July 2016	November 2016	March 2017

July 26, 2016

Oct 25, 2016

Dec 27, 2016

Feb 28, 2017

How do DDI and USDM Compare?