

Ground Water Report

Drought Management Advisory Council
Raleigh, NC
April 6, 2017

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Ground Water Management Branch
Water Planning Section

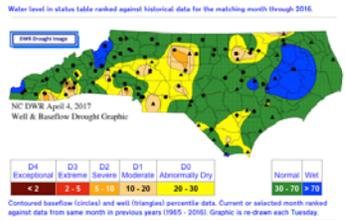
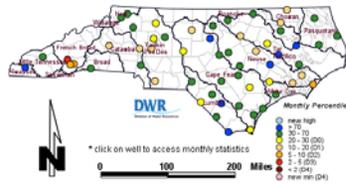


Drought Indicator Wells

- 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



Drought Indicator Wells



Today: April 4, 2017

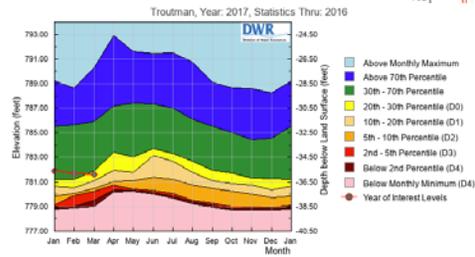
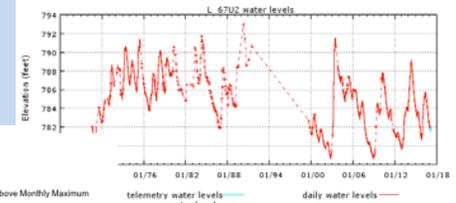
#	WELL NAME	DATE	COUNTY	WELL DEPTH	FEET	FEET
1	Columbia	Apr 4, 2017	Pike	Broad	42	37
2	Kelly	Jan 31, 2017	Bladen	Cape Fear	36	31
3	Southport (BR-083)	Apr 3, 2017	Burke	Cape Fear	47	43
4	Southport School	Apr 3, 2017	Cumberland	Cape Fear	35	33
5	Rose Hill (NC-2228)	Apr 3, 2017	Duplin	Cape Fear	35	48
6	Shirleyville	Apr 4, 2017	Gulford	Cape Fear	49	33
7	MI Correctional Institute **	Feb 2, 2017	New Hanover	Cape Fear	4	94
8	Came Letskute	Mar 8, 2017	Onslow	Cape Fear	20	89
9	UNC-Garrett	Apr 10, 2017	Orange	Catawba	65	27
10	Townall Beach	Apr 4, 2017	Pender	Cape Fear	33	35
11	NC Zoo	Apr 4, 2017	Randolph	Cape Fear	47	32
12	Watts	Apr 26, 2017	Campbell	Cape Fear	36	32
13	Fairway Marina	Jan 30, 2017	Wake	Cape Fear	35	38
14	Old Alpine (BR-128)	Apr 3, 2017	Surfer	Catawba	47	35
15	Trouman	Apr 4, 2017	Iredell	Catawba	48	51
16	Hornets Nest Park	Apr 4, 2017	Mocklerburg	Catawba	25	100
17	Goodall	Feb 8, 2017	Bertie	Chowan	18	100
18	Sunbury **	Jun 18, 2016	Gates	Chowan	48	20
19	Combs	Apr 4, 2017	Hartford	Chowan	36	37
20	Champion (HW-047)	Apr 3, 2017	Haywood	French Broad	61	87
21	Blanters (NC-148)	Apr 3, 2017	Transylvania	French Broad	36	89
22	Pisgah Forest (NC-147)	Apr 3, 2017	Transylvania	French Broad	32	88
23	American Thread (NC-192)	Apr 3, 2017	Cherokee	Hiwassee	28	100
24	Bryson City	Apr 3, 2017	Swain	Little Tennessee	52	37
25	Bladesboro	Feb 21, 2017	Bladen	Lumber	42	32
26	Calabash (BR-3811) **	Apr 3, 2017	Brunswick	Lumber	3	100
27	Clarendon	Apr 4, 2017	Columbia	Lumber	41	19
28	Magnolia School	Feb 5, 2017	Robeson	Lumber	39	31
29	Rowland	Apr 4, 2017	Robeson	Lumber	46	11
30	Jordan Creek (NC-184)	Apr 3, 2017	Scotland	Lumber	23	86
31	Cherry Point	Feb 13, 2017	Craven	Neuse	27	45
32	Cloverleaf	Feb 10, 2017	Johnston	Neuse	12	90
33	Confort (NC-173)	Apr 3, 2017	Jones	Neuse	31	85
34	Grainagers	Mar 16, 2017	Lenoir	Neuse	24	66
35	Calwell	Jan 30, 2017	Orange	Neuse	48	21
36	Whitonsville	Jan 31, 2017	Pamlico	Neuse	39	22
37	Grantham (NC-148)	Apr 3, 2017	Wayne	Neuse	37	52
38	Stantonsburg	Feb 8, 2017	Wilson	Neuse	15	82
39	Laurel Springs	Apr 4, 2017	Albemarle	New	46	36
40	Beaver Creek	Jan 31, 2017	Ashe	New	47	45

Current conditions tab on www.ncdrought.org



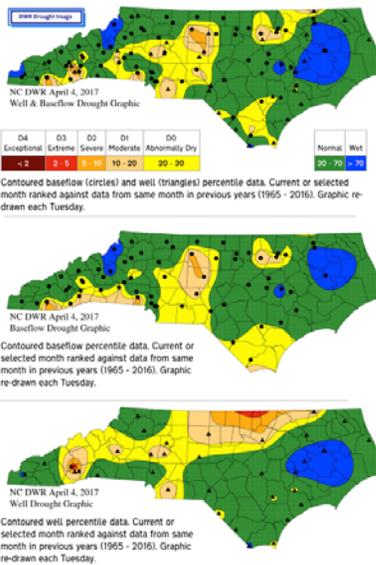
Example DIW

- 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.

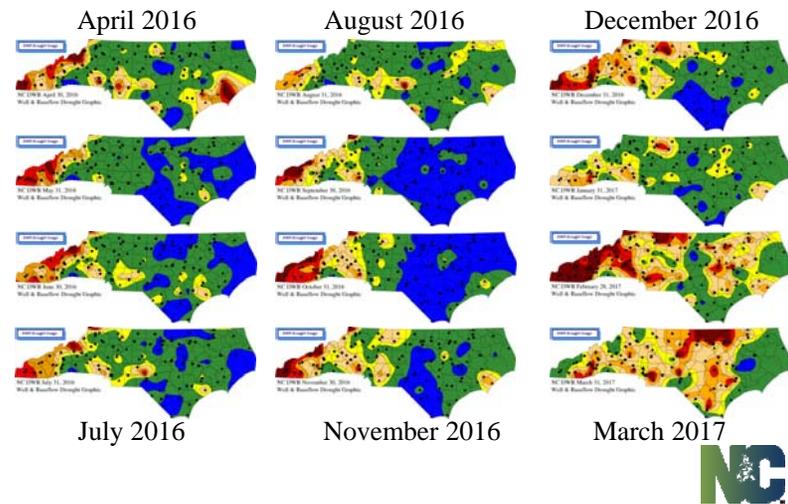


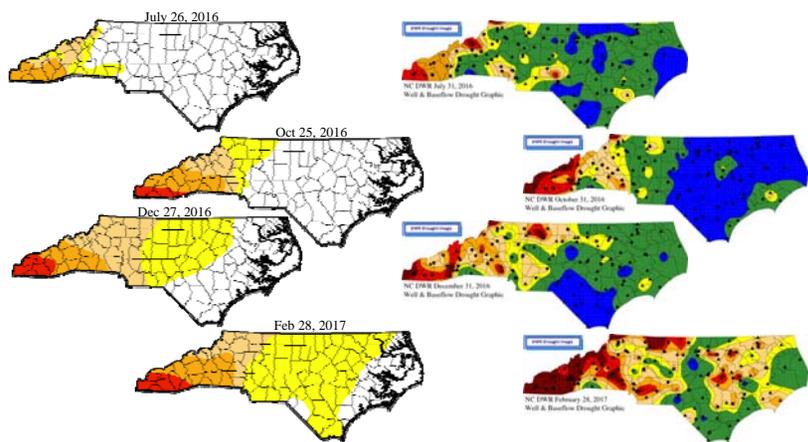


DWR Drought Image

- 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





How do DDI and USDM Compare?

