Ground Water Assessment Report

Drought Management Advisory Council

Raleigh, NC, April 18, 2013

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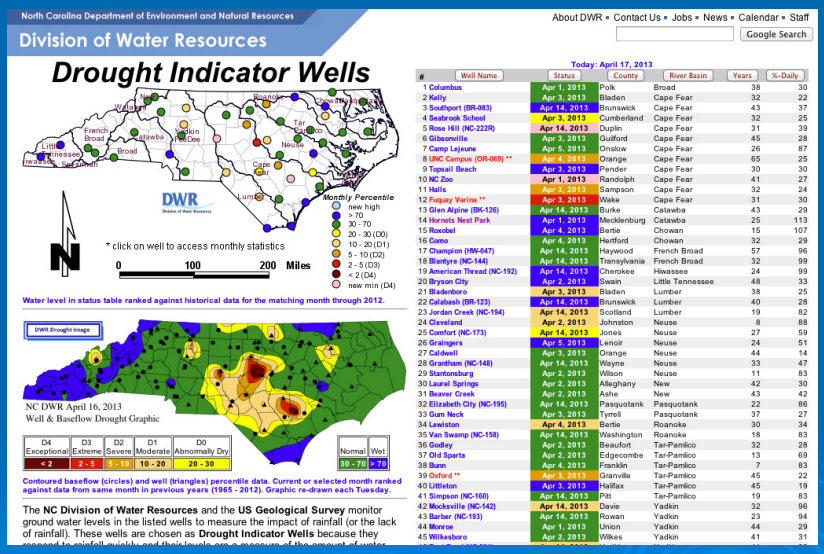
Ground Water Management Branch
Water Resources Management Section

DWR
Division of Water Resources

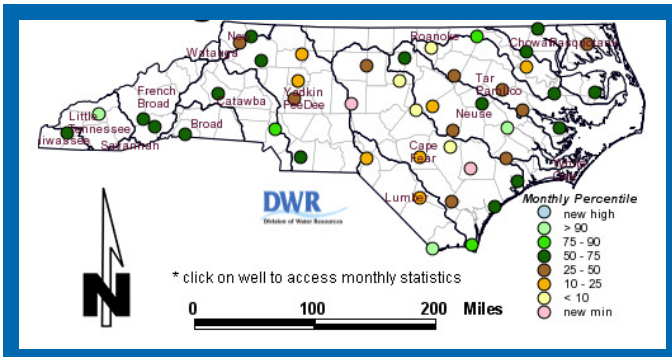
Drought Indicator Wells

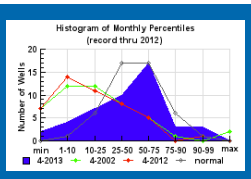
- Ground water levels are a measure of the amount of water stored in the subsurface that is available to discharge to surface water features.
- 46 wells with a 32 year average record
- 16 wells monitored by USGS
  - Automatic recorders, hourly data, satellite ”real-time” access to measurements.
- 30 wells monitored by DWR
  - Automatic recorders, hourly data, downloaded quarterly (Feb, May, Aug & Nov)



#	Well Name	Status	County	River Basin	Years	%-Daily
1	Columbus	Apr 1, 2013	Polk	Broad	38	30
2	Kelly	Apr 3, 2013	Bladen	Cape Fear	32	22
3	Southport (BR-083)	Apr 14, 2013	Brunswick	Cape Fear	43	37
4	Seabrook School	Apr 3, 2013	Cumberland	Cape Fear	32	25
5	Rose Hill (NC-222R)	Apr 14, 2013	Duplin	Cape Fear	31	39
6	Gibsonville	Apr 3, 2013	Guilford	Cape Fear	45	28
7	Camp Lejeune	Apr 3, 2013	Onslow	Cape Fear	26	87
8	UNC Campus (OR-069) **	Apr 4, 2013	Orange	Cape Fear	65	25
9	Topsail Beach	Apr 3, 2013	Pender	Cape Fear	30	30
10	NC Zoo	Apr 1, 2013	Randolph	Cape Fear	41	27
11	Halls	Apr 2, 2013	Sampson	Cape Fear	32	24
12	Fuquay Varina **	Apr 3, 2013	Wake	Cape Fear	31	30
13	Glen Alpine (BK-126)	Apr 14, 2013	Burke	Catawba	43	29
14	Hornets Nest Park	Apr 1, 2013	Mecklenburg	Catawba	25	113
15	Rocobel	Apr 4, 2013	Bertie	Chowan	15	107
16	Como	Apr 4, 2013	Hertford	Chowan	32	29
17	Champion (HW-047)	Apr 14, 2013	Haywood	French Broad	57	96
18	Blantyre (NC-144)	Apr 14, 2013	Transylvania	French Broad	32	99
19	American Thread (NC-192)	Apr 14, 2013	Cherokee	Hiwassee	24	99
20	Bryson City	Apr 2, 2013	Swain	Little Tennessee	48	33
21	Bladenboro	Apr 3, 2013	Bladen	Lumber	38	25
22	Calabash (BR-123)	Apr 14, 2013	Brunswick	Lumber	40	28
23	Jordan Creek (NC-194)	Apr 14, 2013	Scotland	Lumber	19	82
24	Cleveland	Apr 2, 2013	Johnston	Neuse	8	88
25	Comfort (NC-173)	Apr 14, 2013	Jones	Neuse	27	59
26	Grainger's	Apr 5, 2013	Lenoir	Neuse	24	51
27	Caldwell	Apr 3, 2013	Orange	Neuse	44	14
28	Grantham (NC-148)	Apr 14, 2013	Wayne	Neuse	33	47
29	Stantonsburg	Apr 2, 2013	Wilson	Neuse	11	83
30	Laurel Springs	Apr 2, 2013	Alleghany	New	42	30
31	Beaver Creek	Apr 2, 2013	Ashe	New	43	42
32	Elizabeth City (NC-195)	Apr 14, 2013	Pasquotank	Pasquotank	22	86
33	Gum Neck	Apr 3, 2013	Tyrrell	Pasquotank	37	27
34	Lewiston	Apr 4, 2013	Bertie	Roanoke	30	34
35	Van Swamp (NC-158)	Apr 14, 2013	Washington	Roanoke	18	83
36	Godley	Apr 2, 2013	Beaufort	Tar-Pamlico	32	28
37	Old Sparta	Apr 2, 2013	Edgecombe	Tar-Pamlico	13	69
38	Bunn	Apr 4, 2013	Franklin	Tar-Pamlico	7	83
39	Oxford **	Apr 3, 2013	Granville	Tar-Pamlico	45	22
40	Littleton	Apr 3, 2013	Halifax	Tar-Pamlico	45	19
41	Simpson (NC-160)	Apr 14, 2013	Pitt	Tar-Pamlico	19	83
42	Mocksville (NC-142)	Apr 14, 2013	Davie	Yadkin	32	96
43	Barber (NC-193)	Apr 14, 2013	Rowan	Yadkin	23	94
44	Monroe	Apr 1, 2013	Union	Yadkin	44	29
45	Wilkesboro	Apr 2, 2013	Wilkes	Yadkin	41	31

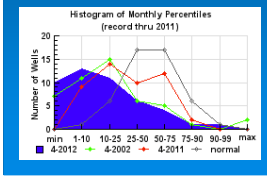
Drought Indicator Wells
Current conditions tab on www.ncdrought.org

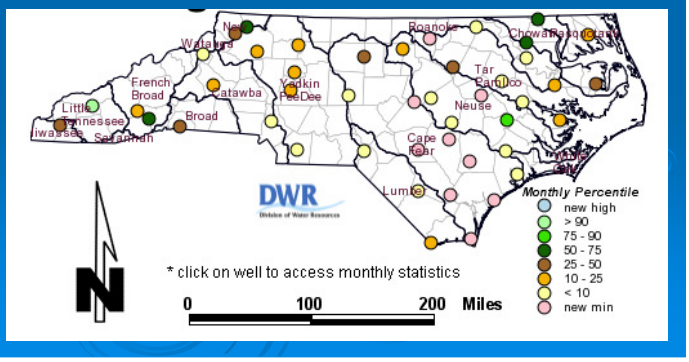




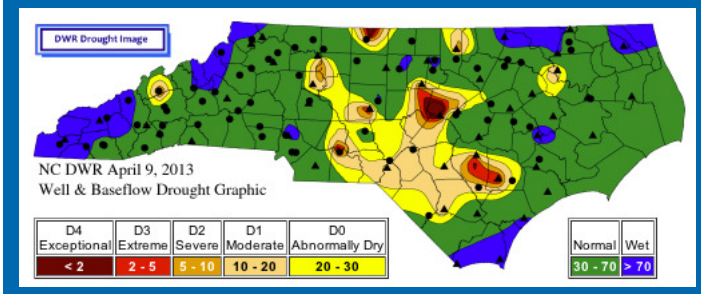
April 2013

April 2012



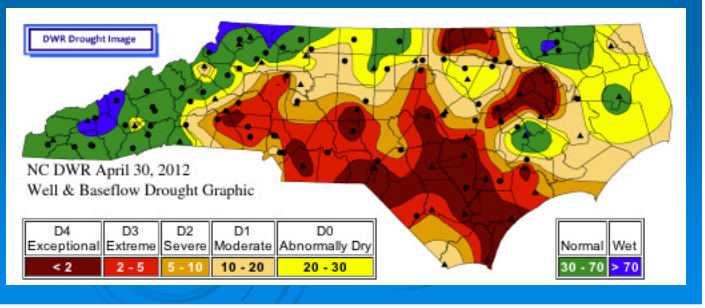


DWR Drought Image

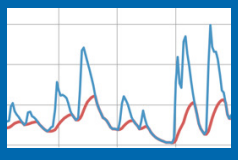


April 2013

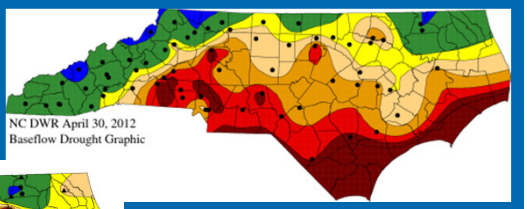
April 2012

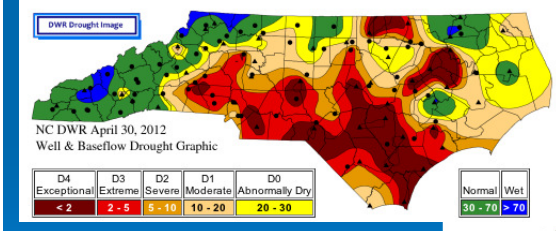


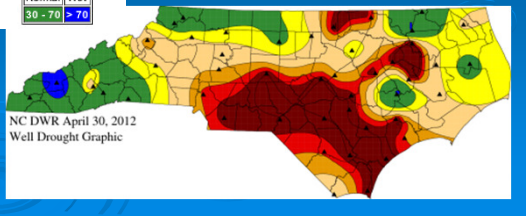
DDI Combines DIW and Baseflow Percentiles



Lyne and Hollick algorithm







Network News

- Eight “new” wells are currently being monitored and will fill some of the geographic gaps in the current network.
- Wells need > 5 years of record to be helpful.
- DWR will add two telemetry stations this May – remote access to water levels