

# Ground Water Assessment Report

Drought Management Advisory Council

Raleigh, NC, April 26, 2012

Nat Wilson (919-707-9032 or [nat.wilson@ncdenr.gov](mailto:nat.wilson@ncdenr.gov))

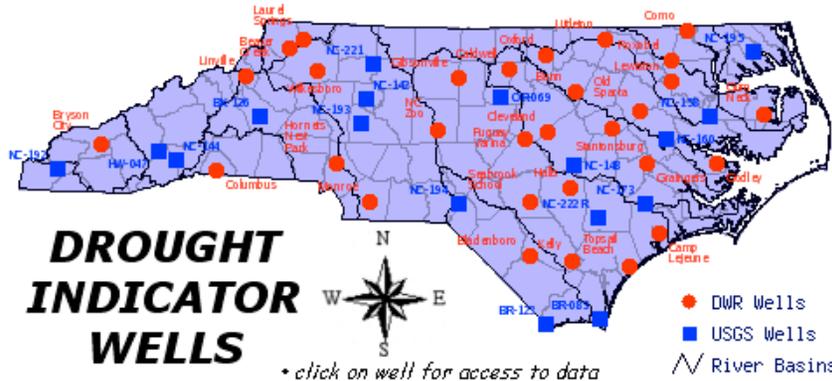
Ground Water Management Branch  
Water Resources Management Section



# 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.
- 47 wells with a 32 year average record, records range from 6 to 64 years long
- 17 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)

# Division of Water Resources

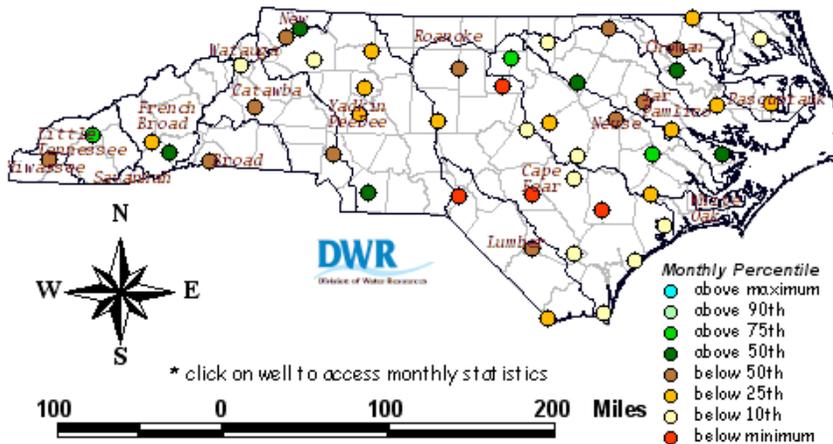
 


The NC Division of Water Resources and the US Geological Survey monitor ground water levels in the following wells to measure the impact of rainfall (or the lack of rainfall). These wells are chosen as **Drought Indicator Wells** because they respond to rainfall quickly and their levels are a measure of the amount of water stored in the subsurface that is available to discharge to surface water features. The "status" column is a quick check to see which wells are above or below average monthly water levels. It is a comparison between the current month represented by the date and the average or ranking of all levels recorded in that month in previous years. Links on the maps to the left give the user access to the entire water level record or monthly percentile plots for a well.

Today: April 25, 2012

#	Well Name	Status	County	River Basin	Years	%-Daily
1	Columbus	Feb 6, 2012	Polk	Broad	37	28
2	Kelly	Jan 31, 2012	Bladen	Cape Fear	31	20
3	Southport (BR-083)	Apr 20, 2012	Brunswick	Cape Fear	42	36
4	Seabrook School	Apr 3, 2012	Cumberland	Cape Fear	31	22
5	Rose Hill (NC-222R)	Feb 29, 2012	Duplin	Cape Fear	30	36
6	Gibsonville	Jan 30, 2012	Guilford	Cape Fear	44	26
7	Camp Lejeune	Feb 27, 2012	Onslow	Cape Fear	25	86
8	UNC Campus (OR-069)	Apr 20, 2012	Orange	Cape Fear	64	25
9	Topsail Beach	Feb 8, 2012	Pender	Cape Fear	28	27
10	NC Zoo	Feb 1, 2012	Randolph	Cape Fear	40	25
11	Halls	Jan 30, 2012	Sampson	Cape Fear	31	21
12	Fuquay Varina	Feb 10, 2012	Wake	Cape Fear	30	28
13	Linville	Mar 6, 2012	Avery	Catawba	40	30
14	Glen Alpine (BK-126)	Apr 20, 2012	Burke	Catawba	42	28
15	Hornets Nest Park	Feb 1, 2012	Mecklenburg	Catawba	25	108
16	Roxobel	Feb 8, 2012	Bertie	Chowan	15	99
17	Como	Feb 8, 2012	Hertford	Chowan	31	27
18	Champion (HW-047)	Apr 20, 2012	Haywood	French Broad	56	96
19	Blantyre (NC-144)	Apr 20, 2012	Transylvania	French Broad	31	99
20	American Thread (NC-192)	Apr 20, 2012	Cherokee	Hiwassee	23	99
21	Bryson City	Feb 6, 2012	Swain	Little Tennessee	47	31
22	Bladenboro	Jan 30, 2012	Bladen	Lumber	36	22
23	Calabash (BR-123)	Apr 20, 2012	Brunswick	Lumber	39	26
24	Jordan Creek (NC-194)	Apr 20, 2012	Scotland	Lumber	18	82
25	Cleveland	Jan 30, 2012	Johnston	Neuse	7	88
26	Comfort (NC-173)	Apr 20, 2012	Jones	Neuse	26	57
27	Graingers	Feb 7, 2012	Lenoir	Neuse	24	46
28	Caldwell	Feb 21, 2012	Orange	Neuse	43	12
29	Grantham (NC-148)	Apr 20, 2012	Wayne	Neuse	32	45
30	Stantonsburg	Feb 15, 2012	Wilson	Neuse	10	81
31	Laurel Springs	Mar 7, 2012	Alleghany	New	41	28

## Ground Water Level Ranking

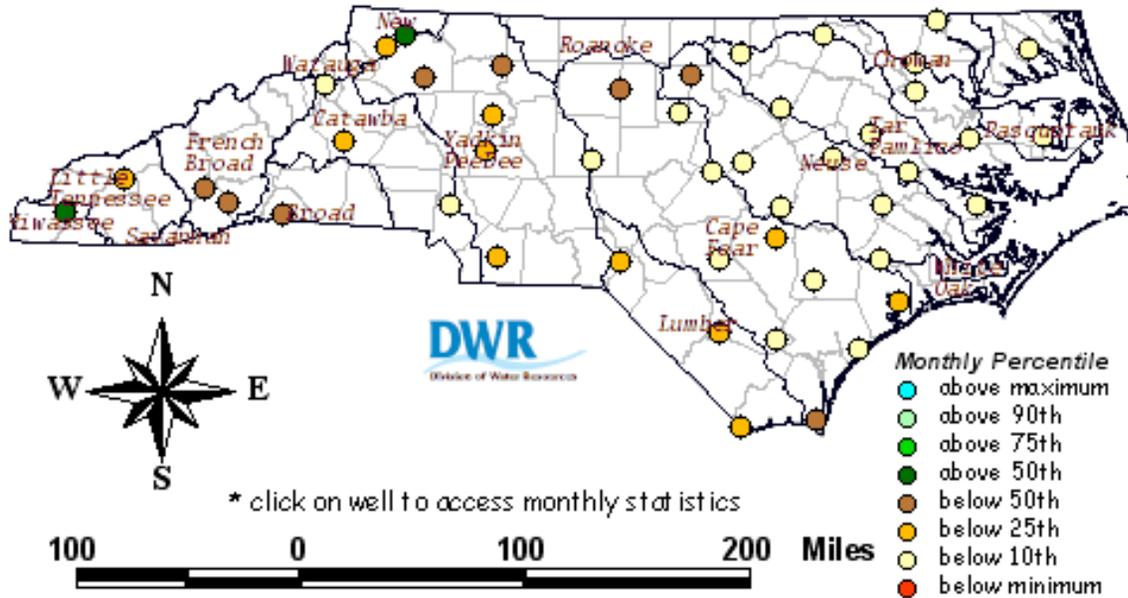


Water level in status table ranked against historical data for the matching month through 2011.

# Drought Indicator Wells

## Current conditions tab on [www.ncdrought.org](http://www.ncdrought.org)

# Ground Water Level Ranking



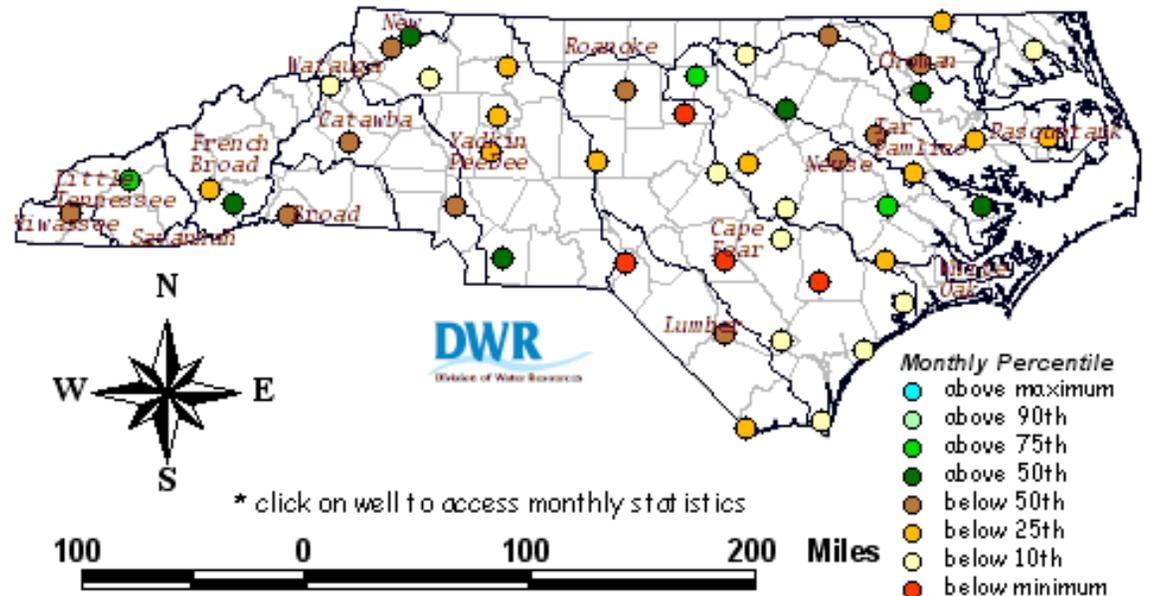
July  
2011



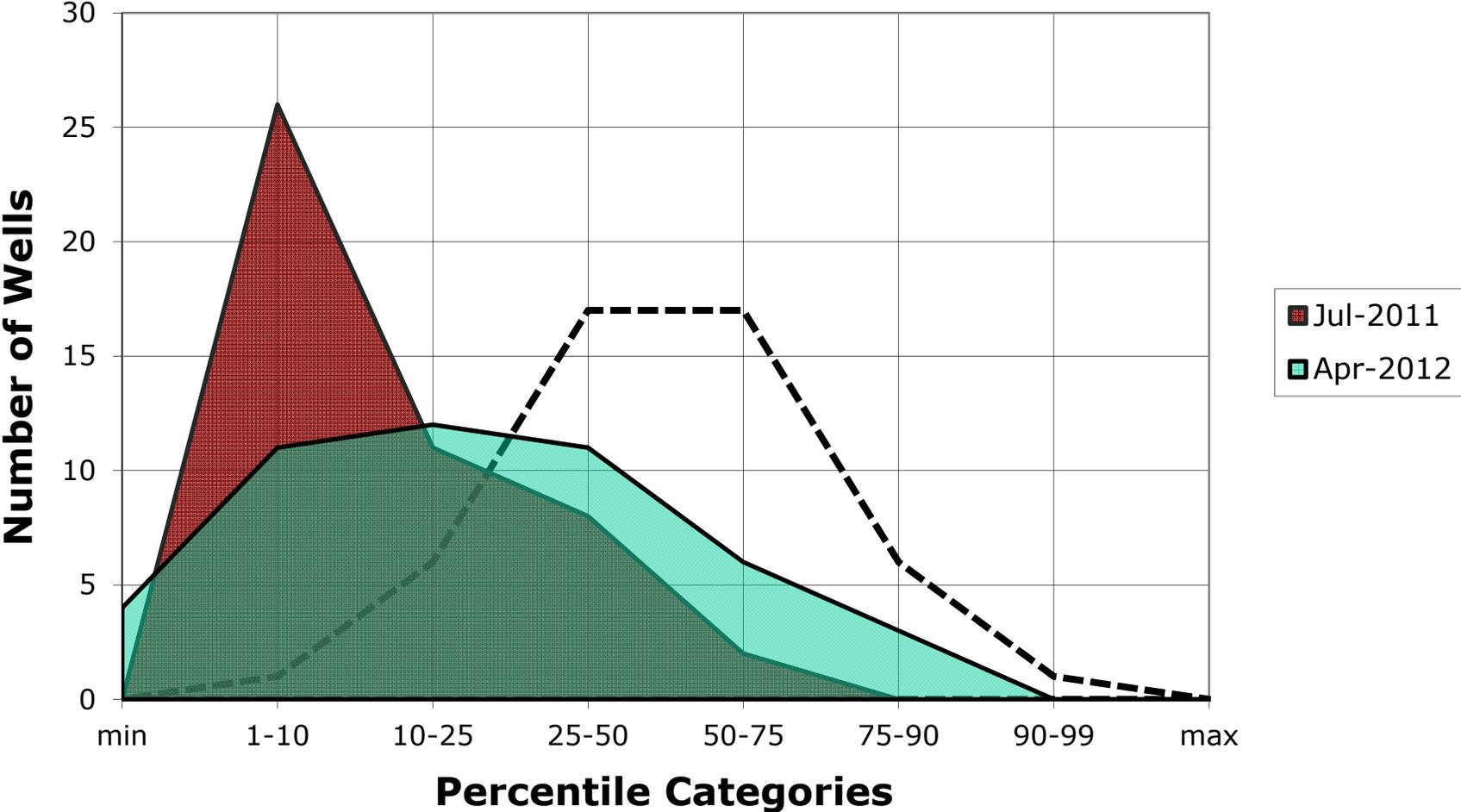
April  
2012



# Ground Water Level Ranking



# Distribution of Drought Indicator Well Percentiles



# Network News

- Several “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 be adding remote access next FY.
- Unfortunately, we’ve lost a well or two.
  - Wilmington Airport
  - UNC Chapel Hill
  - Rose Hill, Duplin Co.

