Michael F. Easley, Governor
William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural Resources

Alan W. Klimek, P.E. Director
Division of Water Quality

AQUIFER PROTECTION SECTION
September 18, 2006

B&K Well Drilling
132 Mount Mourne Loop
Mooresville, North Carolina 28117
Attention: April Miller

RE: Variance Request to Well Construction Rules NCAC 2C.0107.
Greg Thompson Residence
2604 Brawley School Road
Mooresville, Iredell County, North Carolina.

Dear Mrs. Miller,

Staff from the Mooresville Regional Office conducted a site visit June 7, 2006, and found the need for a variance to Rule 15A NCAC 2C.0107(a)(2)(N). This rule requires a 50-foot separation distance between a well and a surface water body such as a lake. The variance request is for the construction of a water supply well for Greg Thompson residence at 2604 Brawley School Road Mooresville, Iredell County, North Carolina.

From the site visit the only suitable location for the well is 35 feet from the lake. Based upon the information that has been reviewed, a variance to the above cited rule is granted. The variance will be effective from the date issued until March 30, 2007. Since the well will not meet the regulatory requirements, the following minimum additional construction requirements will be necessary to mitigate any potential problems that could affect public health and/or the well's effective operation:

1. Galvanized steel casing with drive shoe shall be used, or PVC casing may be used if fitted with appropriate galvanized steel shoe.

2. The casing shall extend into consolidated bedrock in accordance with the following table:

Depth to Consolidated Bedrock	Minimum Depth of Casing
Less than 50 feet	15 feet into bedrock
50 to 100 feet	10 feet into bedrock
More than 100 feet	5 feet into bedrock

3. The entire length of the casing shall be grouted. A drill bit that is at least 1/3 greater than the outside diameter of the casing shall be used to drill the cased portion of the well. Grout should be installed using the pressure method. The installation of grout using a tremmie pipe is acceptable if the annular space to be grouted is free of obstructions, if not, then a well liner with packer must be installed 10 feet below the casing and fully grouted.

4. The well shall be located in the area indicated on your map (attached).

5. The well driller shall be certified by the North Carolina Well Contractor Certification Commission as required by General Statutes 87-98.4, Title 15A NCAC 27.0101 and .0110.

6. Notification shall be given to Kevin Bubak at the letterhead address or by phone at 704/235-2184 at least 24 hours prior to the start of well construction.

7. A water sample shall be collected and tested for total and fecal coliform bacteria after the well is completed. The results shall be submitted to the Mooresville Regional Office, Aquifer Protection Section within 30 days of well completion.

It is my finding that the factors specified above are sufficient to satisfy the conditions for approval of a variance as defined in 15A NCAC 2C.0118. A copy of this variance should be attached to the required Well Construction Record (GW-1).

The granting of this variance is for the location of the well only, and in no way relieves the owner or agent from other requirements of the North Carolina Well Construction Standards, or any other applicable law, rule or regulation that may be regulated by other agencies. If you are dissatisfied with this decision, you may commence a contested case by filing a petition under G.S. 150-23 within sixty (60) days after receipt of the decision.

If you have any questions regarding this variance, please contact Kevin Bubak at 704/235-2184.

Sincerely,

Andrew H. Pitner, P.G.
Regional Supervisor
Mooresville Regional Office

Cc: Greg Thompson – 19501 Mary Ardrey Court, Cornelius, North Carolina 28031
Gary Mcneely – Mooresville Iredell Co. Environmental Health

Permit No. 2447

Date Issued 12/6/75

MONTGOMERY COUNTY HEALTH DEPARTMENT

DIVISION OF ENVIRONMENTAL HEALTH SERVICES

INSTALLATION, CONSTRUCTION, ALTERATION, AND/OR REPAIR PERMIT

Individual Sewage Disposal System with Subsurface Soil Absorption Effluent Discharge

2447

12 Mo - 75

C.C

11' C gal
Precast Concrete

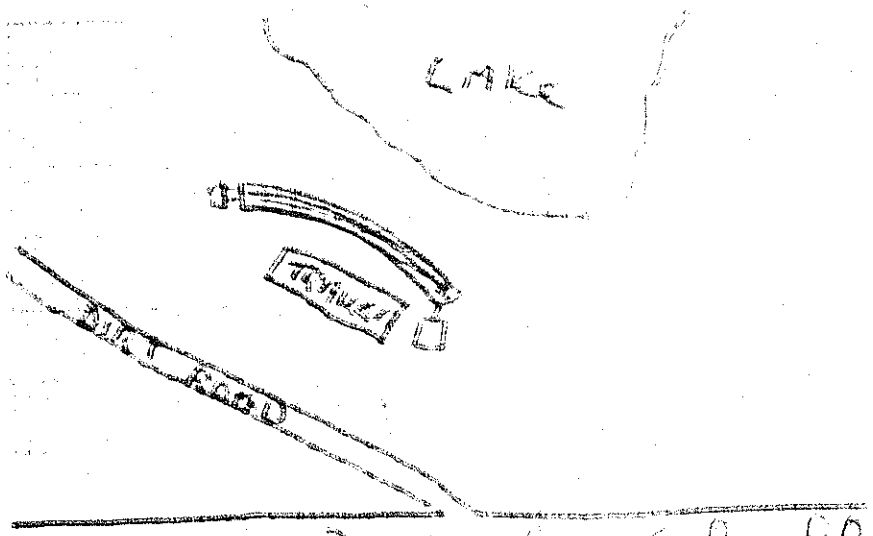
2000 gal

(A) 10' x 75'

10

10'

100'



Brawley School Rd

Wood, Norman R.
Brawley School Road

Location: location put 2½ + 17 x 4' south

Karen Mathianson
Lot 2 Brawley School Road
Cresent Land and Timber, Section 6, Lot 431

Number of Proposed Bedrooms: **4/480gals**
Proposed LTAR: **.3gal/day/ft2 (Initial & Repair)**
Water source: **Private well**
Building Footprint: **60'x70'**
Building Setback: **35'x15' (90' Rear building Setback/ Lakeside)**
Proposed System: **LP Panel**
Distribution: **Pump to Central Valve Box**
Pressure Head: **2'**
Flow per Orifice: **0.59gpm**
Hole size: **3/16"**
Number of Panels: **62**
System Flow: **36.58gpm**
Dosing Volume:**224**
Elevation Head: **7.9**

Line	Length	Elevation
W1	87'	6.7
O2	**90'**	**5.9**
W3	**90'+**	**4.5**
O4	**90'+**	**3.9**
W5	90+	3.5
O6	75'+	3.2
W7	66'	2.8

House Corner: 8.2
Pump Tank: 6.8
Bench Mark/Nail in Big Oak: 4.4
Initial System: O2-O4 (3x90', 270' of LP Panel)
Repair: W1, W5-W7, 318' of LP Panel
Comments: This lot possesses an existing septic system, it appears that it is an old bed system that was in use for an existing double wide, that is on site. I am also submitting a copy of what we believe to be the original septic permit from Mecklenburg County. It is also my reccomendation that the Soil Scientist is on site for the Fast Tracks review. Also system was designed on mostly 9-10' centers and the bench mark is the big oak at the start of line W1.
*No foundation drains.