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 22, 2004

Kenneth Beater Homes
PO. Box 3398
Mooresville, North Carolina 28117
Attention: Dan Okoniewski

RE: Variance Request to Well Construction Rules NCAC 2C.0107.
Septic Permit # 21773
Lot 26 Gibbs Cove Subdivision
Mooresville, Iredell County, North Carolina

Dear Mr. Okoniewski

Staff from the Mooresville Regional Office conducted a site visit September 22, 2004, 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 your residence at Lot 26 Gibbs Cove Subdivision, Septic Permit # 21773 Mooresville, Iredell County, North Carolina.

From the site visit the only suitable location for the well is 45 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 February 22, 2005. 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 a well liner with packer must be installed and fully grouted.