PRIVATE WATER SUPPLY WELLS

North Carolina rules, as of July 1, 2008, require that the local health department must permit all installation and repair of wells for private water supplies.

The local health department will have to make multiple visits to the site in order to determine placement options, inspect the installation and grouting of the well, and also collect water samples for testing as to ensure the quality of the drinking water.

ITEMS TO CONSIDER WHEN INSTALLING A PRIVATE WELL

- Contact the local health department for required permits
- Check the well contractor’s certification card and expiration date
- Be aware of separation requirements from wells such as (this is not a complete list):
  - Septic tank and drainfield: 100 ft
  - Building foundations: 25 ft
  - Surface waters such as ponds and lakes: 50 ft
  - Surface waters such as creeks and streams: 25 ft
  - Animal barns: 50 ft

*For more information on private wells and well contractors refer to: www.ncwelldriller.org

For more information, please contact your county Environmental Health office at the following telephone numbers Monday thru Friday between 8:00 am and 5:00 pm, except holidays:

Gates……………. (252) 357-1380
Bertie……………. (252) 794-5303
Chowan……………. (252) 482-1199
Perquimans……………. (252) 426-2100
Pasquotank……………. (252) 338-4490
Camden……………. (252) 338-4460
Currituck……………. (252) 232-6603

Services Offered:

- Site Evaluations
- Existing System Inspections
- Repair Permits
- Improvement Permits
- Operations Permits
- Private Well Permits

MISSION STATEMENT

“The mission of the Albemarle Regional Health Services Environmental Health Program is to protect the public from environmental hazards through service delivery and education to prevent the spread of communicable diseases, thus enhancing the safety, health, and well being of the communities.”
ON-SITE WASTEWATER

Ground absorption wastewater systems (commonly referred to as septic systems) are used for wastewater treatment and disposal on sites where municipal sewer is not practical. Wastewater is any sewage discharged from residences, businesses, or other places. Wastewater often contains disease-causing germs and harmful pollutants, and it must be treated so it will not adversely affect public health and the environment through contamination of land, or ground, and surface waters.

A conventional septic system consists of a septic tank (above), a distribution box, and nitrification lines all connected by pipes called conveyance lines. All of these components are designed to be resistant to corrosion. The wastewater first flows into the septic tank where heavy solids and lighter scum separate in a process known as primary treatment. Some of the scum and solids are eventually decomposed by anaerobic (absence of oxygen) bacteria.

The wastewater (now called effluent) then flows into the distribution box that evenly divides the flow of the effluent into the nitrification lines. The nitrification lines most often consist of perforated pipe in a gravel bed and allow the effluent to move slowly into the soil.

If the soil conditions are suitable, the effluent is purified as it flows through the soil by a process known as aerobic (presence of oxygen) treatment. Aerobic soil is where most of the germs and pollutants are removed, so the type of soil in which the septic system is located is important.

If the site is marginal, sometimes the site may be able to have a modified or an alternative septic system. These systems can overcome some unsuitable site characteristics, and they include Shallow Systems, Fill Systems, Low-Pressure Pipe (LPP) systems, and Sand-Backfill Trench (SBT) Systems, with or without artificial drainage. Approved pre-treatment devices may also be used to further purify the effluent.

To determine if a site is suitable or marginal, an authorized agent, most often an Environmental Health Specialist from the local Health Department, must perform a site evaluation. The site evaluation procedure is governed by state and local rules and ordinances. A septic system must be installed on a site before electrical service can be permanently connected.

*Refer to On-site Water Protection at: www.deh.enr.state.nc.us

In order for the site to be properly evaluated for the use of a septic system please do the following:

1. Apply at the local health department and pay the evaluation fee
2. Submit a plat or site plan of the site
3. Clearly mark the site boundaries
4. Remove excess vegetative growth and other obstacles so the Environmental Health Specialist will have adequate access to the site
5. Place a sign at the road front identifying the site

MAINTENANCE TIPS

- Know the location of the system
- Do NOT drive or build over the system
- Grade the site to remove excess rainwater away from the system
- Do NOT flush solid waste materials into the system (including disposable diapers, cigarette butts, sanitary napkins, tampons, paper towels, condoms, and other materials that do not easily decompose)
- Do NOT put grease into the system
- Do NOT pour oil, solvents, or poisons into the system
- Plant trees and shrubs away from the system
- Restrict the use of a garbage disposal
- Maintain a grass vegetative cover over the nitrification field
- Conserve water! Use low-flow (1.6 gallon) commodes and check for leaking fixtures
- Pump the septic tank by a permitted pumper to remove solids (use table below)

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