

The Driller's Digest

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This newsletter is published as a service to certified well contractors and others in the groundwater industry. Suggestions for articles for publication in the newsletter are welcome.

Rule Changes Update

by Joanne Rutkofske, WCC Staff

On May 29, 2014 Session Law 2014-2 took effect which reduced the continuing education requirement down to 2 CEU for the first three years of certification. Since then, staff has gone through the rulemaking process to update the Chap. 27 Well Contractor Certification Rules to comply with the change.

The revisions to Chap. 27 have been

moving along smoothly. No comments were received during the December 15, 2014—February 13, 2015 comment period. At the February 23, 2015 meeting of the Well Contractors Certification Commission (WCCC), the Commission formerly adopted the rule changes. After the June 18, 2015 Rules Review Commission meeting we anticipate the revised rules taking effect July 1, 2015.

The revised Chap. 27 rule language may be viewed online at www.wellcontractors.nc.gov on the "Rules" page.

What is a Drainfield and How Does it Work?

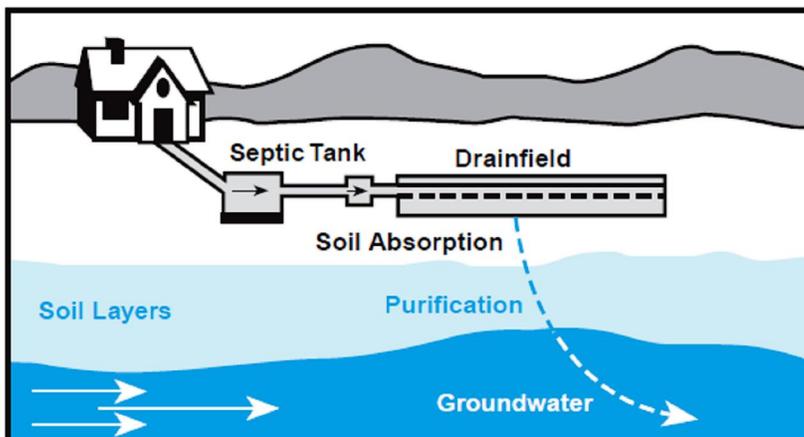
by Patricia Angoli, PE, On-Site Water Protection

What exactly is a septic system? And how does it work? We have discussed the type of permits required for a septic system and what a septic tank is and how it works. The focus of this article is drainfields, the second part of a conventional septic system after the tank.

In a septic system, the septic tank effluent flows by gravity from the septic tank to the drainfield. The drainfield can also be called the nitrification field,

soil absorption system, trenches, or a variety of other names. The name is not as important as what the drainfield is. The drainfield is an area of soil that has been identified as being able to accept the septic tank effluent, treat the effluent, and help the effluent move away from the drainfield location. Eventually, the clarified effluent will flow back into the groundwater, streams, lakes, or other bodies of water, replenishing our water supplies.

The local health department comprehensively evaluates the soil and the site to determine if a drainfield can be installed. The soil and site evaluation



includes documentation of soil type (sand, silt and clay), soil depth, soil wetness and restrictive horizons that may affect system performance. The site must have sufficient available space
(Continued on page 3)

Summary of Civil Penalty Assessments

Penalties for violations of NCGS Chapter 87, Article 7 & 7A vary depending upon the particular facts and circumstances present in each case. Note: only finalized uncontested cases, or cases not seeking remission and at the collection stage, are included in this list. Payment of fines and corrections of violations may already have occurred.

W. David Willis

Rockingham County, NC. Allegations of contracting without the benefit of certification, in violation of 15A NCAC 27. Assessed a civil penalty of one thousand dollars (\$1,000.00).

Effective Date 4/8/15 Case # WCC 001-15

WCCC Disciplinary Committee

W. Jeremy Brown-Effective 10/4/14

For violations of Subchapter 2C .0100 Well Construction Standards. The well contractor was given a letter of reprimand and a requirement for six hours of continuing education in reference to general practice, North Carolina Laws and Rules, local rules, grouting regulations and proper procedures.

Randy G. Millikan-Effective 3/31/15

For violations of 2C.0100, 2C.0300 and Guilford County Well Rules. The well contractor was given a letter of reprimand.

Funding Assistance for Homeowners

by John Crowder; Southeast RCAP

There are many individuals that just don't have the money to repair their wells. Some will call you and then you go out and give them an estimate. As well drillers, plumbing contractors and environmental health specialists, how many times you have given an estimate to a homeowner and the answer is "I'll get back to you"? You know and suspect the reason is they just don't have the money to do the repairs or to install a new well. **As you get these comments, you now have an answer: "Do you want to apply for a very low-interest (1%) loan?"**

Southeast Rural Assistance Projects, Inc. can help. We are a non-profit agency that receives most of our funding from USDA, RD, USEPA and OCS/HHS. We have been providing very low interest individual well loans

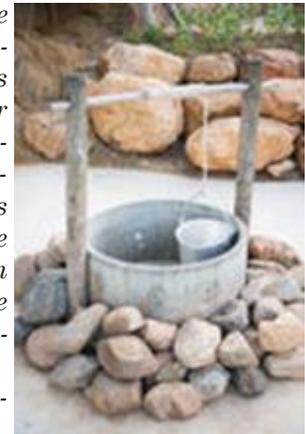
for some time and the process is not complicated.

As a well driller or contractor, this is a way that you can help the home owner get water, as well as an avenue for you to get their business and be paid.

Every day, we hear stories about families that are on fixed incomes and have a well that has dried up or just needs to be repaired. Families that have been without clean, safe drinking water for months just because they didn't know where to go to get help.

Eligible individuals are those who are a member of a household in which all members have a combined income [for the most recent 12 month period for which the information is available] that is not more than 100% of the median Non-metropolitan household income for the state or territory in which the individual lives.

The current household income limits are as follows:



Household Income

FL - \$57,000

DE - \$73,300

GA - \$59,800

MD - \$89,300

NC - \$57,800

SC - \$55,800

VA - \$76,900

Here are some highlights of the program:

- Loans available for purchase of new water well or repairs to an existing well
- Up to \$11,000
- 1% interest rate
- Terms from 5 to 10 years
- Upfront cost (send with application): Credit Report—\$25.00
- Loan recipient must own and occupy the home, or be occupying the home as the purchaser under a legally enforced land purchase contract which is not under default by the seller or the purchaser.
- The home must be located in a rural area.

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("Funding Assistance for Homeowners", Continued from page 2)

- The water well system may not be used to substitute water service available from collective water systems.
- The water well system may not be associated with the construction of a new dwelling.
- Loan recipient must not be suspended or debarred from participation in Federal programs.

For more information and the loan forms go to:

http://www.sercap.org/se_loan_fund.htm

Or call 540-345-1184

If you have more questions or need assistance please call NC Office at 919-228-2276

Cary office, 910 371-9921

Alternate # is 910-520-4767

John Crowder- NC State Manager

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("What is a Drainfield and How Does it Work?"; Continued from page 1)

for a system and a repair area.

People still refer to whether or not a lot "percs." The term "perc" relates to the soil percolation test traditionally used to evaluate soil for septic systems in the 1970s and 1980s. North Carolina used the percolation test until the early 1980s. Since then a comprehensive soil and site evaluation has been used to determine site suitability for a septic system. Percolation tests are also known as hydraulic conductivity. This test is sometimes used in addition to the soil and site evaluation. The rules and other guidance documents specify when a hydraulic conductivity test is required.

All sites with septic systems require space for both an initial system and a repair system in case the initial system fails. The improvement permit and construction authorization issued by the health department specify the location and type of system for the repair area.

The drainfield is a series of gravel-filled trenches. Perforated pipe is installed in the gravel and distrib-

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North Carolina Well Contractors Certification Commission

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- Jonathan Dills** Vice Chairman -Winston-Salem
- John Boyette, Jr.**, NCWC -Wilson
- David Brown**, NCWC -Hamptonville
- Daniel Ortiz**, REHS **Chairman** -Autryville
- Thomas Whitehead**, NCWC -Wilmington
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Certification Today

Total number certified.....	1123
Total number of applicants for certification.....	61
Certifications currently suspended.....	0

N.C. Division of Water Resources Water Quality Regional Operations Section

<http://portal.ncdenr.org/web/wq/aps>

Asheville_____	828-296-4500
Fayetteville_____	910-433-3300
Mooresville_____	704-663-1699
Raleigh_____	919-791-4200
Washington_____	252-946-6481
Wilmington_____	910-796-7215
Winston-Salem_____	336-771-5000

N.C. Department of Health and Human Services Division of Public Health Environmental Health Section



<http://www.deh.enr.state.nc.us>

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ADDRESS CORRECTION REQUESTED

Online at www.wellcontractors.nc.gov

("What is a Drainfield and How Does it Work?"; Continued from page 3)

utes the effluent to the trenches. Other products, such as plastic chambers and polystyrene aggregate bundles, can be used in place of gravel in the trenches.

The effluent flows by gravity from the septic tank to the drainfield and through the perforated pipe into the trenches. From the trenches the effluent will trickle into the soil surrounding the drainfield and slowly move away from the drainfield area.

The soil is one of the most important parts of the septic system. It acts as a giant filter to treat the wastewater. Septic tank effluent contains solids, bacteria, viruses, organic material, and other materials that have gone down the drain in the house and into the system. While the septic tank provides some treatment, it does not remove everything from the wastewater. The soil treats the effluent to a higher quality to prevent potential groundwater and surface water contamination.

Specific soil particles, such as clays, chemically attract and remove bacteria, viruses, and nutrients.

The air spaces in the soil structure help filter out the solids and organic material.

The drainfield is sized based on the long-term acceptance rate (LTAR) of the soil. The LTAR is the amount of wastewater that can be applied each day to a square foot of soil over an indefinite period of time. The LTAR is determined by the comprehensive soil and site evaluation for a specific lot. The soil characteristics, the drainfield location, and other siting factors are considered in assigning the LTAR.

Owners must be careful of what they dispose of down the drain. Some products, such as paints, paint thinners, pesticides, automotive oils, and other chemicals cannot be treated in the septic system and can cause significant harm to the system. The products can kill the bacteria in the system and damage the soil so that it cannot treat and move the effluent away from the site. Further, they may contaminate ground water and should thus be excluded.



Report Uncertified Well Contractors to the local health department or call (919) 707-5882