

“2011” Annual Drinking Water Quality Report Rocky Point/Topsail Water & Sewer District Scotts Hill Water & Sewer District

PWS ID# 70-71-011

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and to providing you with this information, because informed customers are our best allies.

What EPA Wants You to Know

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The Environmental Protection Agency (EPA) and Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; and radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

When You Turn on Your Tap, Consider the Source

The water that is used by this system is ground water from the Pee Dee and Black Creek Aquifers purchased from the Town of Wallace.

Source Water Assessment Program (SWAP) Results

The North Carolina Department of Environment and Natural Resources (DENR), Public Water Supply (PWSS) Section, Source Water Assessment Program (SWAP) conducted assessments for all drinking water sources across North Carolina. The purpose of the assessments was to determine the susceptibility of each drinking water source (well or surface water intake) to Potential Contaminant Sources (PCSs). The results of the assessment are available in SWAP Assessment Reports that include maps, background information and a relative susceptibility rating of Higher, Moderate or Lower.

The relative susceptibility rating of each source for the Town of Wallace was determined by combining the contaminant rating (number and location of PCSs within the assessment area) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the well or watershed and its delineated assessment area.). The assessment findings are summarized in the table below:

Susceptibility of Sources to Potential Contaminant Sources (PCSs)

| Source Name | Susceptibility Rating | SWAP Report Date |
|-------------|-----------------------|------------------|
| Well # 1 | Moderate | October 29, 2003 |
| Well #2 | Moderate | October 29, 2003 |
| Well #14 | Moderate | October 29, 2003 |
| Well #5 | Moderate | October 29, 2003 |
| Well #6 | Moderate | October 29, 2003 |
| Well #7 | Lower | October 29, 2003 |
| Well #8 | Moderate | October 29, 2003 |
| Well #9 | Lower | October 29, 2003 |
| Well #4 | Lower | October 29, 2003 |
| Well #11 | Lower | October 29, 2003 |

The complete SWAP Assessment report for the Town of Wallace may be viewed on the Web at: <http://swap.deh.enr.state.nc.us/swap> Please note that because SWAP results and reports are periodically updated by the PWSS Section, the results available on this web site may differ from the results that were available at the time this CCR was prepared. If you are unable to access the SWAP report on the web, you may mail a written request for a printed copy to: Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh NC 27699-1634, or email request to swap@ncmail.net. Please indicate your system name, PWSID (which is Rocky Point/Topsail Water & Sewer District, 70-71-011), and provide your name, mailing address and phone number. If you have any questions about the SWAP report please contact the Source Water Assessment staff by phone at 919-7707-9098.

It is important to understand that a susceptibility rating of “higher” does not imply poor water quality, only the systems’ potential to become contaminated by PCS’s in the assessment area.

What If I Have Any Questions Or Would Like to Become More Involved?

If you have any questions regarding this report or concerning your water, please contact Pender County Utilities Office; Water Superintendent, Robert M. Forand; or Utilities Director, Michael G. Mack at 910.259.1570. We want our valued customers to be informed about their water utility.

Water Quality Data Table of Detected Contaminants

We routinely monitor for over 150 contaminants in your drinking water according to Federal and State laws. The table below lists all the drinking water contaminants that we detected in the last round of sampling for the particular contaminant group. The presence of contaminants does not necessarily indicate that water poses a health risk. **Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2011.** The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Important Drinking Water Definitions:

Not-Applicable (N/A) – Information not applicable/not required for that particular water system or for that particular rule.

Non-Detects (ND) - Laboratory analysis indicates that the contaminant is not present at the level of detection set for the particular methodology used.

Parts per million (ppm) or Milligrams per liter (mg/L) - One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (ug/L) - One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Action Level (AL) - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Extra Note: MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Microbiological Contaminants: Rocky Point/Topsail Water & Sewer District

| Contaminant (units) | MCL Violation Y/N | Your Water | MCLG | MCL | Likely Source of Contamination |
|---|-------------------|------------|------|---|--------------------------------------|
| Total Coliform Bacteria (presence or absence) | N | ND | 0 | Determined by one positive monthly sample | Naturally present in the environment |
| Fecal Coliform or E. coli (presence or absence) | N | ND | 0 | 0 (Note: The MCL is exceeded if a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive) | Human and animal fecal waste |

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

If present, elevated levels of lead can cause serious health problems if ingested over many years, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with private service lines and home plumbing and not the distribution mains or water supply. The Rocky Point/Topsail Water & Sewer District is responsible for providing high quality drinking water, but cannot control the variety of materials uses in plumbing components. Most sources of drinking water have no lead or very low levels of lead. Most lead gets into drinking water after the water leaves the local water well or treatment plant and comes into contact with plumbing materials containing lead with a home or business. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. Do not boil water to remove lead and identify if your plumbing fixtures contain lead. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at the office of Pender County Utilities or from the Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

If more than 10% of tap water samples exceed the lead "action level", Pender County Utilities is required to inform the site authorizing the sample about their water quality results, provide public education on lead to those sampling sites that participate in our lead tap monitoring program, continue monitoring for lead and copper; and document our efforts to the North Carolina Department of Environment and Natural Resources Division of Environmental Health.

Lead and Copper Contaminates: Town of Wallace

| Contaminant (units) | Sample Date | Your Water | # of sites found above the AL | MCLG | MCL | Likely Source of Contamination |
|--|-------------|------------|-------------------------------|------|--------|--|
| Copper (ppm) (90 th percentile) | 4/31/10 | 1.04 | 0 | 1.3 | AL=1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Lead (ppb) (90 th percentile) | 4/31/10 | 0.042 | 0 | 0 | AL=15 | Corrosion of household plumbing systems, erosion of natural deposits |

Lead and Copper Contaminates: Rocky Point/Topsail W&SD

| Contaminant (units) | Sample Date | Your Water | # of sites found above the AL | MCLG | MCL | Likely Source of Contamination |
|---|-------------|------------|-------------------------------|------|----------|--|
| Copper (ppm) (90 th percentile) | 5/24/11 | 1.24 | 1 | 1.3 | AL=1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Copper (ppm) (90 th percentile) | 12/06/11 | 0.96 | 1 | 1.3 | AL=1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Lead (ppb) (90 th percentile) | 5/24/11 | 0.004 | 0 | 0 | AL=0.015 | Corrosion of household plumbing systems, erosion of natural deposits |
| Lead (ppb) (90 th percentile) | 12/06/11 | 0.003 | 0 | 0 | AL=0.015 | Corrosion of household plumbing systems, erosion of natural deposits |

Disinfectants and Disinfection Byproducts Contaminants: Town of Wallace

| Contaminant (units) | MCL/MRDL Violation Y/N | Your Water (AVG) | Range Low High | MCLG | MCL | Likely Source of Contamination |
|--|------------------------|------------------|----------------|------|-----|---|
| TTHM (ppb) [Total Trihalomethanes] | N | 45 | 19 – 73 | N/A | 80 | By-product of drinking water chlorination |
| HAA5 (ppb) [Total Haloacetic Acids] | N | 28 | 3-51 | N/A | 60 | By-product of drinking water disinfection |

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Disinfectants and Disinfection Byproducts Contaminants: Rocky Point/Topsail W&SD

| Contaminant (units) | Sample Dates (Quarterly) | MCL/MRDL Violation Y/N | Your Water (AVG) | Range Low High | MCLG | MCL | Likely Source of Contamination |
|--|---|------------------------|------------------|----------------|------|-----|---|
| TTHM (ppb) [Total Trihalomethanes] | 3/22/11 5/27/11 9/15/11 11/28/11 | N | 53.25 | 39 – 73 | N/A | 80 | By-product of drinking water chlorination |
| HAA5 (ppb) [Total Haloacetic Acids] | | N | 38 | 28 – 57 | N/A | 60 | By-product of drinking water disinfection |
| Chlorine (ppm) | Daily | N | 1.74 | 0.21-2.20 | 4 | 4 | Water additive used to control microbes |

Radioactive Contaminants: Town of Wallace

| Contaminant (units) | Sample Date | MCL/MRDL Violation Y/N | Your Water (AVG) | MCLG | MCL | Likely Source of Contamination |
|----------------------|-------------|------------------------|------------------|------|----------|--------------------------------|
| Beta/photon emitters | 10/11 | N | 4.3 | 0 | 10 pCi/l | Erosion of natural deposits |

Unregulated Contaminants and Water Characteristics: Town of Wallace

| Contaminant (units) | Sample Date | Your Water (AVG) | Range Low High | Secondary MCL |
|---------------------|-------------|------------------|----------------|---------------|
| Iron (ppm) | 1/11 | 0.197 | N/A | 0.3 |
| Manganese (ppm) | 1/11 | 0.030 | N/A | 0.05 |
| Sodium (ppm) | 1/11 | 24.0 | N/A | N/A |
| pH | 1/11 | 7.8 | N/A | 6.5 – 8.5 |