ROUGEMONT WATER SYSTEM

2019 Drinking Water Quality Report

DURHAM COUNTY
DCO NC
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ROUGEMONT WATER SYSTEM

2019 Water Quality Report

We are pleased to present to you this Annual Drinking Water Quality Report. This report is a snapshot of our drinking water quality in 2019. Included are details about your sources of water, 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 providing this information because informed customers are our best allies. **If you have any questions concerning this report or your drinking water, please contact Stephanie Brixey, Deputy Director of Engineering & Environmental Services at (919) 560-9034.**

What the 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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Durham County is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. 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. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the **Safe Drinking Water Hotline** or at http://www.epa.gov/safewater/lead.

Source Water Contaminants and Where They Come From

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 stormwater 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 stormwater 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 stormwater runoff, and septic systems.

- 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.

Source Water Assessment Program Results

The North Carolina Department of Environment Quality (DEQ), Public Water Supply (PWS) Section, Source Water Assessment Program (SWAP) conducts assessments for all drinking water sources across North Carolina. The purpose of the assessments are 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 Durham County Rougemont Water System 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 Rougemont's Water Sources to Potential Contaminant Sources		
Water Source	**Susceptibility Rating**	**SWAP Report Date**
Well # 1	Lower	April 18, 2017
Well # 2	Lower	April 18, 2017

The complete SWAP Assessment report for the Durham County Rougemont Water System may be viewed on the Web at: **www.ncwater.org/?page=600.**

Note that because SWAP results and reports are periodically updated by the PWS Section, the results available on this web site may differ from the results that were available at the time this CCR was prepared. For a printed copy, send a written request to: **Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh, NC 27699-1634, or email requests to swap@ncdenr.gov**.

Please indicate your water system name **(Rougemont)**, **Durham County's public water supply number (NC4032018)**, 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 at **(919) 707-9098**.

It is important to understand that a susceptibility rating **does not** imply poor water quality, only the system's potential to become contaminated by PCSs in the assessment area.

When You Turn on the Tap, Consider the Source

The Durham County Rougemont Water System is well water sourced by two wells located at 12407 N. Roxboro Road, Rougemont, North Carolina.

Help Protect Your Water Source

Protection of drinking water is ***everyone's*** responsibility. To protect our water source, we've implemented the following actions:

- Chemicals used at our well site are contained to prevent spills to the ground.

- The on-site generator is powered by liquid propane (LP). **No** containers of gasoline and/or diesel are kept on-site to eliminate potential for oil spills.

Rougemont Well House and Site
Water System Number
NC4032018

You can help protect your community's drinking water sources by:

- Limiting use and disposing of chemicals properly.
- Recycle used motor oil, old paint, etc. at your local recycling center.
- Volunteer, inform and involve others in your community to participate in group efforts to protect your water source.
- For more information concerning volunteer opportunities and how you can help protect and keep our local water sources clean, visit:

Clean Water for North Carolina at: http://cwfnc.org/

Conservation Trust for North Carolina at: http://www.ctnc.org/

NC Division of Environmental Quality at:
https://deq.nc.gov/about/divisions/water-resources

Durham County Government Engineering & Environmental Services Department at:
http://dconc.gov/government/departments-a-e/engineering-and-environmental-services

Water System Violations in 2019

No violations occurred during 2019 or during any compliance period that ended in 2019.

Substances Found in Rougemont's Drinking Water in 2019

We routinely monitor for over 150 contaminants in your drinking water according to Federal and State laws. The tables below list all the drinking water contaminants that we detected in the last round of sampling for each 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, 2019 through December 31, 2019.** The EPA and the State allow 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 regulations are warranted.

TABLES OF DETECTED CONTAMINANTS

Inorganic Contaminants							
Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range Low or High	MCLG	MCL	Likely Source of Contamination
Fluoride (ppm)	January 24, 2019	N	0.12	N/A	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Nitrate/Nitrite Contaminants							
Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range Low or High	MCLG	MCL	Likely Source of Contamination
Nitrate (ppm) (as Nitrogen)	January 24, 2019	N	0.78	N/A	10	10	Discharge from petroleum factories; discharge from chemical factories

Lead and Copper Contaminants						
Contaminant (units)	Sample Date	Your Water	Number of sites found above the AL	MCLG	AL	Likely Source of Contamination
Copper (ppm) (90th percentile)	April, June & November 2019	1.01	0	1.3	AL = 1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (90th percentile)	April, June & November 2019	< 3.0	0	0	AL = 15	Corrosion of household plumbing systems; erosion of natural deposits

Radiological Contaminants							
Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range Low or High	MCLG	MCL	Likely Source of Contamination
Alpha emitters (pCi/L)	January 24, April 18, July 15 & November 12, 2019	N	-0.097	-0.057 – 0.038	0	15	Erosion of natural deposits
Combined radium (pCi/L)	January 24, April 18, July 15 & November 12, 2019	N	0.542	0.137 – 1.02	0	5	Erosion of natural deposits
Uranium (pCi/L)	January 24, April 18, July 15 & November 12, 2019	N	0.108	0.059 – 0.181	0	20.1	Erosion of natural deposits

Disinfectant Residuals Summary							
Disinfectant Residuals (units)	Year Sampled	MRDL Violation Y/N	Your Water (Highest RAA)	Range Low or High	MRDLG	MRDL	Likely Source of Contamination
Chlorine (ppm)	2019	N	0.90	0.89 – 0.91	4	4.0	Water additive used to control microbes

Stage 2 Disinfection Byproduct Compliance – Based upon Locational Running Annual Average (LRAA)							
Disinfection Byproduct (units)	Year Sampled	MCL Violation Y/N	Your Water (highest LRAA)	Range Low or High	MCLG	MCL	Likely Source of Contamination
TTHM (ppb)	2019	N	8.2	N/A	N/A	80	Byproduct of drinking water disinfection
HAA5 (ppb)	2019	N	6.8	N/A	N/A	60	Byproduct of drinking water disinfection

The PWS Section requires monitoring for other misc. contaminants, some for which the EPA has set national secondary drinking water standards (SMCLs) because they may cause cosmetic effects or aesthetic effects (such as taste, odor, and/or color) in drinking water. The contaminants with SMCLs normally do not have any health effects and normally do not affect the safety of your water.

Other Miscellaneous Water Characteristics Contaminants				
Contaminant (units)	Sample Date	Your Water	Range Low or High	SMCL
Sodium (ppm)	January 24, 2019	10.9	N/A	N/A

As part of the North Carolina Per and Polyfluoroalkyl Substances Testing (PFAST) Network statewide sampling effort, raw water samples were collected to be analyzed for forty-seven (47) chemicals. US Environmental Protection Agency has a health advisory level of seventy parts per trillion (70 ppt) for the combined results of perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS).

Unregulated Contaminants				
Contaminant (units)	Sample Date	Your Water	Range Low or High	SMCL
Perfluorodecanoic acid (ppt)	July 11, 2019	1.6	N/A	N/A

IMPORTANT DRINKING WATER DEFINITIONS

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

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.

Parts per trillion (ppt) or Nanograms per liter (nanograms/L) – One part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.

Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.

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

Maximum Residual Disinfection Level (MRDL) – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfection Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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.