

# 2016 Water Quality Report

Board Members

E. J. St Clair, Chairman  
J. R. Barber, Secretary  
S.H. Holliday, Member

Water Treatment Plant 537-3319  
Wastewater Treatment Plant 536-4884  
Distribution & Collection 537-9747

Administrative Office 537-9137



Administration

Dan Brown, P.E., CEO  
Thomas Wrenn, Finance Director

J.B. Bennett, Jr., Chief Operator  
A.G. Camp, Chief Operator  
G.L. Wilson, Supervisor

Website: [www.rrsd.org](http://www.rrsd.org)

**The mission of the Roanoke Rapids Sanitary District is to affordably provide the highest quality water services; then safely collect wastewater and return clean water to the environment while promoting public trust and partnerships to the benefit of our associates and the satisfaction of our customers.**

The Roanoke Rapids Sanitary District, a municipal corporation, was created by the North Carolina State Board of Health on April 21, 1931; under and by virtue of an act of the General Assembly, ratified on March 4, 1927, providing for the creation, government and operation of Sanitary Districts. The Roanoke Rapids Sanitary District is governed by a 3-member board; which is elected, at large, to two year terms. Should you have any questions concerning this Report, please call our Administrative Office at **(252) 537-9137**.

The Roanoke Rapids Sanitary District welcomes public participation in decisions concerning your water, wastewater, or distribution/collection systems. The District Board holds a public meeting the second Tuesday of every month beginning at 5:00 P.M. at the Administrative Office, 1000 Jackson Street, Roanoke Rapids.

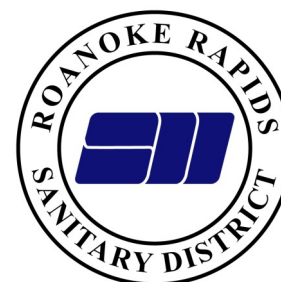
**Water Treatment Plant  
Public Water Supply ID # 04-42-010  
Lab Certification ID # 37649**



**An easier way to pay your bill.**

**Avoid unnecessary penalties!  
Save the cost of a printed check!  
No more forgetting to pay your bill!  
Save postage! Save gas and time!  
NO DEPOSIT!!\* Call us TODAY!!**

- **HYDRO-PAY - 537-9137**
- **ONLINE BILL PAY - [www.rrsd.org](http://www.rrsd.org)**
- **AUTOMATED PHONE PAY - (888) 626-9056**



# 2016 Water Quality Report



The Roanoke Rapids Sanitary District's number one priority is to provide all our customers with a safe and reliable supply of water that can be used with confidence. Every day, our employees are working to ensure that the water you drink meets all regulatory requirements and your expectations for safety, reliability, and quality.

To do this we conduct over 35,000 tests yearly on the water you drink. These tests start in the raw (untreated) water from the Roanoke Rapids Lake. (We also have an intake in the Roanoke River to draw water from in an emergency) We also run hundreds of tests on the water at different phases of the treatment process. The final tests are done on water from randomly selected homes and businesses. All of these test results are reported in accordance with the Water Quality Standards established by the United States Environmental Protection Agency (EPA) and the North Carolina Department of Environmental Health. We are proud to report that the water provided by the Roanoke Rapids Sanitary District exceeds all established water quality standards.

This 2016 **WATER QUALITY REPORT** is a summary of many of these tests and explanations of terms used in water quality reporting. If you have any further questions, please contact the **WATER TREATMENT PLANT** between 8AM and 4PM at **(252) 537-3319**.

## Lead & Copper Rule Testing

The 1994 Federal Lead & Copper Rule mandates a household testing program for these substances. According to the rule, 90% of the samples from high risk homes must have levels less than 0.015 mg/L of lead and 1.3 mg/L of copper. In 2016 Lead levels in the District averaged .005 mg/L and copper levels averaged .173 mg/L, well below the Federal levels. Our next lead and copper testing will be conducted in April and September of 2017. 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. The Roanoke Rapids Sanitary District 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>.

### EN ESPANOL

El informe contiene informacion importante sobre la calidad del agua en su comunidad. Traduzcalo o hable con alguien que lo entienda bien.

### Special Concerns

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791)

**Maximum Residual Disinfection Level Goal** – The “Level” (MRDLG) 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 Residual Disinfection Level- The “Highest Level” (MRDL)** of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Contaminant Level (MCL)**- An enforceable level of a contaminant as close to the goal as is practical to achieve in light of available treatment technology and cost/benefit considerations.

**Maximum Contaminant Level Goal (MCLG)**- A level of a contaminant, not necessarily achievable, safely below the level of human health concerns.

**Action Level (AL)**- The level of a contaminant at which a water treatment plant must take some type of action to reduce or contain the contaminant.

**Treatment Technique (TT)**- A required process intended to reduce the level of a contaminant in drinking water.

**Parts Per Million (PPM)**- Equivalent to milligrams per liter(mg/L). One part per million is comparable to one minute in two years.

**Parts Per Billion (PPB)**- Equivalent to micrograms per liter. One part per billion is comparable to one minute in two thousand years.

**Nephelometric Turbidity Units (NTU)**- Turbidity is a measure of cloudiness in water.

## TURBIDITY

Turbidity is usually thought of as cloudiness of the water, and is caused by suspended matter. Organic and inorganic material, silt, algae or other tiny organisms can contribute to the turbidity of the water.

The degree of turbidity is measured at the Water Treatment Plant laboratory by shining a beam of light through water and measuring the angle at which the light is scattered by suspended matter. The reading gives the turbidity of the water measured in Nephelometric Turbidity Units (NTU'S).

Regulations passed in 1989 recognize reducing turbidity as one way to measure the removal or inactivation of certain targeted microorganisms. Currently, Giardia is one of those microorganisms and future regulations may include Cryptosporidium.

The EPA has established a Maximum Contaminant Level (MCL) for treated water turbidity of 0.3 NTU. The rule requires us to meet this standard 95% of the time during the month. In 2016, we met the standard 99.9% of the time with our highest reading at 0.337 NTU. For the year, we averaged 0.046 NTU.

## Treated Water Quality Roundup 2016

Constituent	Highest Level Allowed (EPA'S MCL)	Ideal Goals (EPA'S MCLG)	Normal Range	Frequency Of Sample	Sanitary District Annual Average	Sources of Constituents
Fluoride	4mg/L	4mg/L	.65mg/L- .75mg/L	Every 4 Hours	.63mg/L	Naturally occurring, Water additive
Nitrate	10mg/L	10mg/L	1mg/L- 10mg/L	Yearly	Less than 1mg/L	Wildlife & septic systems
Sodium	Not Regulated	20mg/L	15mg/L-25mg/L	Yearly	16.8mg/L	Naturally occurring
Sulfate	Not Regulated	500mg/L	None	Yearly	Less than 15.0 mg/L	Soil runoff
Turbidity	.3NTU'S	Treatment Technique	.1NTU-.5NTU	Every 4 Hours	.046NTU'S	Soil runoff
Total Coliforms (Bacteria)	Less than 5% positive	0	Less than 5% positive	Daily	0	Naturally occurring
Iron	.3mg/L	.3mg/L	Less than .3mg/L	Weekly	.08mg/L	Naturally occurring
Manganese	.05mg/L (Action Level)	.05mg/L (Action Level)	Less than .05mg/L	Weekly	.07 mg/L	Naturally occurring
pH (Standard Units)	N/A	N/A	6.5-8.0	Hourly	7.56	N/A
Alkalinity ,mg/L	N/A	N/A	Less than 35 mg/L	Daily	30.73 mg/L	N/A
Hardness, mg/L	N/A	N/A	20mg/L-100mg/L	Daily	38.62 mg/L	N/A

### Disinfection By-Product Precursors Contaminants

Contaminant (units)	Sample Date	MCL/TT Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
Total Organic Carbon (ppm) (TOCs)-RAW	Monthly	N	3.60	2.52	4.49	N/A	TT	Naturally present in the environment
Total Organic Carbon (ppm) (TOCs)-TREATED	Monthly	N	1.40	1.33	2.07	N/A	TT	Naturally present in the environment

Note: Depending on the TOC in our source water the system MUST have a certain % removal of TOC or must achieve alternative compliance

Contaminant (units)	MCL/MRDL Violation Y/N	Your Water (AVG)	Range		MCLG	MCL	Likely Source of Contamination
			Low	High			
TTHM (ppb) [Total Trihalomethanes]	N	43.0	26	69	N/A	80	By-product of drinking water chlorination
HAA5 (ppb) [Total Haloacetic Acids]	N	30.0	16	40	N/A	60	By-product of drinking water disinfection
Chlorine (ppm)	N	1.44	1.12	1.95	MRDLG = 4	MRDL = 4	Water additive used to control microbes



# Roanoke Rapids Sanitary District

P.O. Box 308  
1000 Jackson Street  
Roanoke Rapids, NC 27870  
(252) 537-9137  
Fax: (252) 537-3064  
[www.rrsd.org](http://www.rrsd.org)

## NOTICE TO THE PUBLIC – Reporting Violation

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

#### ROANOKE RAPIDS SANITARY DIST. HAS NOT MET REPORTING REQUIREMENTS

We are required to report the results of monitoring of your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the monthly compliance period beginning January 1, 2017, we did not report the results of monitoring for Total Coliform (routine sample).

Our system failed to notify the state drinking water program as required by February 10, 2017. Although public health was not impacted, as our customers, you have a right to know what happened and what we did to correct the situation.

**What should I do?** There is nothing you need to do at this time. You do not need to boil your water or take other action.

**What is being done?** While we did not notify the state as quickly as we should have, we have since notified the state on February 14, 2017 and we are informing you, our customers, about our reporting violation at this time. We are no longer in violation.

*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.*

For more information, please contact:

Responsible Person Dan Brown	System Name Roanoke Rapids Sanitary District	System Address (Street) 1000 Jackson St.
Phone Number (252) 537-9137	System Number NC0442010	System Address (City/State/Zip) Roanoke Rapids, NC 27870

**Violation Awareness Date:** February 28, 2017

**Date Notice Distributed:** March 20, April 1, April 10 **Method of Distribution:** direct mail delivery and [www.rrsd.org](http://www.rrsd.org)

#### Public Notification Certification:

The public water system named above hereby affirms that public notification has been provided to its consumers in accordance with all delivery, content, format, and deadline requirements specified in 15A NCAC 18C .1523.

Owner/Operator: *R. Danieley Brown* (Signature) R. Danieley Brown (Print Name) 3/14/17 (Date)

## Instructions for RTCR Failure to Report Monitoring Events to the State that are Not Related to *E. coli*-positive Sample Results - Tier 3 Violation

### Description of Violation or Situation

Beginning April 1, 2016, failure to notify the state of RTCR events that are not related to *E. coli*-positive sample results are reporting violations that require Tier 3 public notification. The reporting violations addressed by this Tier 3 template require similar public notification content and include:

- Failure to provide total coliform-positive or total coliform-negative sample results to the state in a timely manner.
- Failure to notify the state that an RTCR monitoring violation occurred with 10 days of when the violation occurred.
- Failure to notify the state within 24 hours of a Treatment Technique (TT) violation resulting from failure to perform assessments or corrective actions.
- Failure to submit the completed assessment form or monitoring report within 30 days of triggering the assessment.
- Failure to notify the state when each scheduled corrective action is completed based on the state-approved timeframe.

You must provide Tier 3 public notice to persons served as soon as possible, but no longer than one year after you learn of the reporting violation [40 CFR 141.204(b)].

Community water systems (CWSs) must use all of the following methods to deliver the notice to consumers [40 CFR 141.204(c)]:

- Mail or hand delivery (public notice delivery may be provided by CCR if the one year requirement is met), and
- Another method as needed to reach consumers not likely to receive a notice from methods noted above and approved in writing by the state. Such methods could include newspapers, e-mail, or delivery to community organizations.

The notice on the reverse is appropriate for insertion in an annual notice or the Consumer Confidence Report (CCR) (CWSs only), as long as public notification content, timing, and delivery requirements are met [40 CFR 141.204(d)].

Non-community water systems (NCWSs) must use all of the following methods to deliver the notice to consumers [40 CFR 141.204(c)]:

- Posting in a conspicuous place throughout the system, or by hand delivery or mail, and
- Another method as needed to reach consumers not likely to receive a notice from methods noted above and approved in writing by the state. Such methods could include newspapers, e-mail, or delivery to community organizations.

If you:

- Post the notice, it must remain posted until the violation is resolved.
- Post the notice and the violation has already been resolved, you must still post the notice for at least seven days [40 CFR 141.204(b)].
- Mail, post, or hand deliver, EPA recommends printing your notice on your system's letterhead, if available.
- Modify the notice, you must still include all required public notice elements from 40 CFR 141.205(a) and leave the mandatory language unchanged (see below).

Repeat notice(s) are required annually if the violation or situation persists, unless otherwise directed by the State.

You must also perform the following:

- Notify new billing customers or units prior to or at the time their service begins.
- Provide multi-lingual notifications if 30% of the residents served are non-English speaking.
- Comply with any additional public notification requirements (including any repeat notices or direction on the duration of the posted notices) that are established as a result of the consultation with the State.

### Mandatory Language

You must also include standard language to encourage the distribution of the public notice to all persons served, where applicable [40 CFR 141.205(d)]. This language is presented in this notice in ***bold italics***.

### Corrective Actions

In your notice, you must describe corrective actions you took, or are taking [40 CFR 141.205(a)(7)] including when your water system expects to return to compliance or resolve the violation [40 CFR 141.205(a)(8)]. You can use the following language, if appropriate, or develop your own:

- We have provided the missing reports to the state and have revised our procedures to ensure we comply with reporting requirements in the future. We are no longer in violation.

### After Issuing the Notice [40 CFR 141.31(d)]

Within **10 days** after completing the initial public notification, the Public Water Supply Section **MUST** receive a copy of the original notice (and any repeat notices) you distributed to your customers with your signature and date on the Public Notification Certification (located at the bottom of the notice) indicating that you have fully complied with all the public notice requirements. Email your notice/certification to [PWSS.PN@ncdenr.gov](mailto:PWSS.PN@ncdenr.gov) or mail your notice/certification to the Public Water Supply Section, Compliance Services Branch, ATTN: Public Notification Rule Manager, 1634 Mail Service Center, Raleigh, NC 27699-1634. Retain a copy of these documents for your files.

## Source Water Assessment

The North Carolina Department of Environment and Natural Resources (DENR), Public Water Supply (PWS) 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 Roanoke Rapids Sanitary District 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
Roanoke Rapids Lake	Moderate
Roanoke River	Moderate

The complete SWAP Assessment report for RRSd may be viewed on the Web at: [http://www.ncwater.org/files/swap/SWAP\\_Reports/0442010\\_7\\_8\\_2015\\_17\\_22.pdf](http://www.ncwater.org/files/swap/SWAP_Reports/0442010_7_8_2015_17_22.pdf) To obtain a printed copy of this report, please mail a written request to: Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh NC 27699-1634, or email request to [swap@ncmail.net](mailto:swap@ncmail.net). Please indicate our system name: Roanoke Rapids Sanitary District, PWSID: 04-42-010, 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) 707-9098 or e-mail the program at [swap@ncdenr.gov](mailto:swap@ncdenr.gov).

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.



## Straight Talk On Water Conservation

*As a society, we have become more and more environmentally conscious and better informed about the effect our lifestyles can have on the world around us. Yet, the demand for our most valuable natural resource – drinking water – continues to grow while local supplies can be threatened by drought conditions and the cost of service increases. Only one percent of the earth’s water is available for human consumption and yet, according to the latest U.S. Geological Survey, the United States uses 408 billion gallons a day. On the industrial level, numerous water-saving technologies have been employed to help conserve water. And while strong progress has been made, there are several simple steps that consumers can take to help preserve our water supply for future generations while controlling their monthly bill.*

### What can you do?

- Water your lawn early in the morning to reduce loss from evaporation. Do not over water your lawn. Place a tuna can on the lawn; when full, lawn watering requirements have been satisfied. Use lawn chemicals only when necessary.
- Fully load the dishwasher and clothes washer before running.
- When washing dishes by hand, or when brushing your teeth, do not leave the water running.
- Repair dripping faucets and leaky toilets. Dripping faucets can waste up to 2,000 gallons of water each year in the average home. Leaky toilets can waste as much as 200 gallons per day.
- If you have a swimming pool, use a cover. By so doing, you can cut the loss of water by evaporation by 90 percent.
- Use a broom, rather than a hose, to clean sidewalks or driveways.
- Defrost frozen food in the refrigerator or in a microwave instead of running hot water over the food.
- Raise the lawn mower blade to at least 3 inches. A lawn cut higher encourages grass roots to grow deeper, shades the root system and holds soil moisture better than a closely clipped lawn.

*Together, we share in the benefits of some of the safest drinking water in the world, and it is incumbent upon us all to protect this valuable natural resource for future generations. By making simple changes in our daily routines, we can feel confident that we are doing our part at the lowest possible cost.*



Roanoke Rapids Sanitary District

[www.rrsd.org](http://www.rrsd.org)

a proud member of

 American Water Works Association

The Authoritative Resource for Safe Drinking Water®

[www.awwa.org](http://www.awwa.org)