

# BRUNSWICK REGIONAL WATER & SEWER H2GO WATER QUALITY REPORT-2017

## Did You 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](tel: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](tel:800-426-4791)).

## No Violations

Over the past year, we conducted more than 200 tests for drinking water contaminants and are pleased to report that for the 2016 year Brunswick Regional Water & Sewer H2GO did not receive any violations. This newsletter is a representation of the quality of the water that we provided last year. Listed are the details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. H2GO is dedicated to providing you with information because informed customers are our best partners. Should you have questions regarding your water, please call ([910\) 371-9949 Ext. 111](tel:910-371-9949).

## Sources of Drinking Water

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.

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## Distribution System

The Brunswick Regional Water and Sewer H2GO team would like to let you know that we are here to serve you with any of your water needs 24 hours a day. If you plan to dig and are not sure who to call, we can help. We have all the numbers you will need to contact other utilities for locates. If you have water quality issues or feel that your meter is not working, please contact our office at ([910\) 371-9949](tel:910-371-9949) we will be happy to assist in solving any water issues. If you have questions about your backflow device or need it inspected, we can help- please call our office.

# NC 811– Call Before You Dig

## Homeowners and Contractors

Today, more and more of the utility companies that supply your home with power, heat, water, telephone, sewer, gas and cable television service are delivering those services underground. It is also possible that these buried service lines are close to the surface, making digging a dangerous endeavor. Fortunately, you can find out where utility owned lines are buried on your property by dialing [811](#). When you make that call, we will notify our member utility companies of your excavation needs and they will locate their buried utility lines, free of charge.

During your call to 811, you will be asked a series of questions designed to help pinpoint the location of your project.

## Please Have the Following Ready When You Call 811:

- Phone number
- Address (including the county)
- Is it inside or outside city limits?
- Is it in a subdivision?
- A cross-street name (nearest intersecting street & is it within a 1/4 mile)
- Where exactly is the area you wish to have located? (are you marking the area with white paint or flags)
- Work date, time, how long will the work take, what type of work is it and who is it for

[FOR A FULL LISTING OF REQUIRED LOCATE REQUEST INFORMATION CLICK HERE](#)

At the conclusion of your call, you will be given a ticket number and a verbal list of utility companies that are notified by North Carolina 811. This does not mean each member listed owns buried utilities on your property. You will want to write down the names of the utility companies for easy reference. Every utility company is not a member with North Carolina 811.

## Wait the Required Time

North Carolina law requires a three working day notice be given to the utility owners before your digging begins. Member facilities have three full working days, beginning the first working day after the notice is given, to mark the locate area requested for their underground utilities or notify the excavator of no conflict in that area.

Once all underground facilities have been marked, you may begin your excavation activities. It may be quite surprising, but damage to buried utility lines can occur when doing typical home improvement projects such as putting up a fence, mailbox post, building a deck, planting trees or shrubbery. If you are beginning a

home improvement project that requires digging or adjusting the grade of your property, please contact North Carolina 811.

Members are not responsible for marking private lines. Water, sewer and storm drain lines are marked within the right of way or to the meter, and not on private property. Lines from the right of way or meter to the residence or business are private lines and you will need to contact a private line locator to have these lines located. You must contact any non-member facility owners not listed on your location request directly to request their facilities to be located and marked.

SUN	MON	TUE	WED	THU	FRI	SAT
	Locate called in	Day 1	Day 2	Day 3	Good to excavate	
		Locate called in	Day 1	Day 2	Day 3	Good to excavate
			Locate called in	Day 1	Day 2	Weekends & holidays are excluded
Weekends & holidays are excluded	Day 3	Good to excavate				

**Call Before You Dig**

**It's Fast & It's Free**

**North Carolina 811**  
www.nc811.org

# The NC Source Water Assessment Program (SWAP)

The North Carolina Department of Environmental Quality (DEQ), 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 Brunswick County 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 as of June 2015 are summarized in the table below

## Susceptibility of Sources to Potential Contaminant Source (PCS's)

Source Name	Susceptibility Rating
Cape Fear River	Moderate

The complete SWAP Assessment Report for the Brunswick County Water System may be viewed on the Web by typing the following address into your browser: [https://www.ncwater.org/files/swap/SWAP\\_Reports/0410045\\_9\\_8\\_2017\\_17\\_22.pdf](https://www.ncwater.org/files/swap/SWAP_Reports/0410045_9_8_2017_17_22.pdf). To obtain a printed copy of this report please contact the Source Water Assessment Staff by phone at (919) 707- 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 PCSs in the assessment area.

### Contact Us...

<b>Emergencies during business hours:</b>	<a href="tel:(910)371-9949">(910)371-9949</a>
<b>BILLING OFFICE:</b>	<a href="tel:(910)371-9949">(910)371-9949</a>
<b>Before and After Hours Emergencies:</b>	<a href="tel:(910)367-1537">(910)367-1537</a>

### Terms & abbreviations used in this report:

**N/A:** not applicable

**Nd:** not detectable at testing limit

**ppb:** parts per billion or micrograms per liter

**ppm:** parts per million or milligrams per liter

**pCi/l:** Pico-curies per liter ( a measure of radiation)

**Maximum Contaminant Level:** the “Maximum Allowed” (**MCL**) is 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 – (MCGL):** the level of a contaminant in drinking water below which there is no known or expected risk to health. MCGLs allow for a margin of safety.

**Action Level (AL):** the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

## Water Quality Results For 2017

Listed below are the results of water quality sampling performed from January 1, 2017, to December 31, 2017.

Questions and Comments: Contact Glenn Walker, Water Treatment Plant Superintendent, [910-371-3490](tel:910-371-3490) or [glenn.walker@brunswickcountync.gov](mailto:glenn.walker@brunswickcountync.gov)

### Northwest Water Treatment Plant Analysis

REGULATED ORGANIC CHEMICALS	EPA's MCL	EPA's MCL G	Brunswick County Amount Detected	Range Low High	Violation Y/N	Source of Contaminant
Turbidity	Treatment Technique Limit of 1.0 ntu	N/A	Average 0.039 ntu	% of samples ≤ 0.3 ntu	N	Soil Runoff
			Maximum 0.267 ntu	100%		
Raw Water TOC	Treatment Technique ≥45% Removal Efficiency	N/A	Average 6.482 ppm	4.9 14.2	N	Naturally Present in the Environment
Finish Water TOC		N/A	Average 2.718 ppm	2.6 4.0		
Total Organic Carbon (TOC)		N/A	Removal Efficiency Average 55.1%	3% 65%	N	
pH	6.8 - 8.5	N/A	7.03	6.9 7.1	N	By-Product of Caustic Addition
<b>REGULATED INORGANIC CHEMICALS</b>						
Chlorite	1.0 ppm	0.8 ppm	Average 0.59 ppm	0.40 0.80	N	By-Product of Disinfection
Chlorine Dioxide	0.8 ppm	0.8 ppm	Average 0.13 ppm	0.05 0.28	N	Water Additive Used to Control Microbes
Fluoride	4 ppm	4 ppm	Average 0.77 ppm	0.0 0.93	N	Water Additive which Promotes Strong Teeth
Orthophosphate	17 ppm	N/A	Average 1.73 ppm	1.62 1.99	N	Water Additive Used to Control Corrosion
Total Chlorine	4 ppm	4 ppm	Average Minimum 2.59 ppm	1.1 3.0	N	Water Additive Used to Control Microbes
Monochloramine Disinfectant Residual	4 ppm	4 ppm	2.57 ppm	1.02 2.86	N	Water Additive Used to Control Microbes
<b>UNREGULATED SUBSTANCES</b>						
1,4 Dioxane	Non Regulated	N/A	2.4 ppb	<0.028 2.4	N	By-Product of Chemical Manufacturer
Hardness	Non Regulated	N/A	29.7 ppm	27 32	N	Part of the Treatment Process, Erosion of Natural Deposits
Iron	Non Regulated	N/A	0.048 ppm	0.02 0.10	N	Part of the Treatment Process, Erosion of Natural Deposits
Manganese	Non Regulated	N/A	0.04 ppm	0.01 0.13	N	Part of the Treatment Process, Erosion of Natural Deposits
Free Ammonia	Non Regulated	N/A	0.063 ppm	0.02 0.08	N	Water Additive Used to Control Microbes
Sodium	Non Regulated	N/A	26 ppm	N/A	N	Part of the Treatment Process, Erosion of Natural Deposits
<b>CRYPTOSPORIDIUM - Cape Fear River 2017</b>		N/A	0.0 oocyst	0.0 0.0	N	Naturally Present in the Environment

Northwest WTP monitored for Cryptosporidium monthly and detected oocysts in two samples out of twelve in our raw water supply. Cryptosporidium is a microbial parasite which is found in surface water throughout the U.S. Although Cryptosporidium can be removed by filtration, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring of the source water indicates the presence of these organisms. Current test methods do not enable us to determine if the organisms are dead or if they are capable of causing disease. The Northwest WTP takes precautions to kill and remove Cryptosporidium oocyst by using Chlorine Dioxide as a pre-oxidant disinfectant in our raw water supply line and then again applying Chlorine Dioxide just prior to filtration. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals are able to overcome the disease within a few weeks. However, immunocompromised people have more difficulty and are at greater risk of developing severe, life-threatening illness. Immunocompromised individuals are encouraged to consult their doctor regarding appropriate precautions to take to prevent infection. Cryptosporidium must be ingested for it to cause disease, and it may be spread through means other than drinking water.

## ***HWY 211 Groundwater Treatment Plant Analysis***

Questions and Comments: Contact Jeremy Sexton, Water Treatment Plant Superintendent, [910-454-0512](tel:910-454-0512) or [jeremy.sexton@brunswickcountync.gov](mailto:jeremy.sexton@brunswickcountync.gov)

	EPA's MCL	EPA's MCL G	Brunswick County Amount Detected	Range Low High	Violation Y/N	Source of Contaminant
<b>UNREGULATED SUBSTANCES</b>						
Turbidity	Non Regulated	N/A	Average 0.90 ntu	0.04 2.9	N	Part of the Treatment Process, Erosion of Natural Deposits
pH	Non Regulated	N/A	-----	6.5 8.4	N	Part of the Treatment Process
CO2	Non Regulated	N/A	7.4 ppm	4 14	N	Part of the Treatment Process
Alkalinity	Non Regulated	N/A	35 ppm	16 195	N	Part of the Treatment Process, Erosion of Natural Deposits
Hardness	Non Regulated	N/A	121 ppm	71 236	N	Part of the Treatment Process, Erosion of Natural Deposits
Iron	Non Regulated	N/A	0.09 ppm	0 0.8	N	Part of the Treatment Process, Erosion of Natural Deposits
Chloride	Non Regulated	N/A	21 ppm	2 24	N	Part of the Treatment Process, Erosion of Natural Deposits
Free Ammonia	Non Regulated	N/A	0 ppm	0 0.14	N	Water Additive Used to Control Microbes
1,4 Dioxane	Non Regulated	N/A	1.3 ppb	<0.028 1.3	N	By-Product of Chemical Manufacturer

### **REGULATED INORGANIC CHEMICALS**

Fluoride	4 ppm	4 ppm	0.68 ppm	0.1 1.0	N	Water Additive Used to Promote Strong Teeth
Orthophosphate	17 ppm	N/A	1.4 ppm	0.1 2.9	N	Water Additive Used to Control Corrosion
Total Chlorine	4 ppm	4 ppm	2.54 ppm	1.2 3.8	N	Water Additive Used to Control Microbes
Monochloramine	4 ppm	4 ppm	2.49 ppm	1.0 3.7	N	Water Additive Used to Control Microbes

Northwest WTP monitored for Cryptosporidium monthly and did not detect any oocysts in 12 samples from our raw water supply. Cryptosporidium is a microbial parasite which is found in surface water throughout the U.S. Although Cryptosporidium can be removed by filtration, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring of the source water indicates the presence of these organisms. Current test methods do not enable us to determine if the organisms are dead or if they are capable of causing disease. The Northwest WTP takes precautions to kill and remove Cryptosporidium oocyst by using Chlorine Dioxide as a pre-oxidant disinfectant in our raw water supply line and then again applying Chlorine Dioxide just prior to filtration. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals are able to overcome the disease within a few weeks. However, immunocompromised people have more difficulty and are at greater risk of developing severe, life-threatening illness. Immunocompromised individuals are encouraged to consult their doctor regarding appropriate precautions to take to prevent infection. Cryptosporidium must be ingested for it to cause disease, and it may be spread through means other than drinking water.

There is one (1) Tier III public notices that will have to be distributed with or as part of your CCR. The required elements are listed below.

### **NOTICE TO THE PUBLIC**

**1** We are required to monitor 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. In April 2017, we did not complete all monitoring for TOC (Total Organic Carbon) and therefore cannot be sure of the quality of our drinking water during that time.

We are required to submit monthly samples for Total Organic Carbon (TOC) to a certified laboratory. Total Organic Carbon was being monitored; however, a sample was not submitted to a certified laboratory as required for the month of August. All samples are now being analyzed by a certified laboratory approved by the NC Department of Environmental Quality. There is nothing that you need to do at this time. All sample results before and after the missed sample were reported to be in compliance with state treatment technique standards.

The water system returned to compliance on September 1, 2017, and we have no reason to believe the water quality was ever out of compliance. New staff and calendar reviews should help reduce sampling irregularities.

(TOC) - Total Organic Carbon - includes testing for Alkalinity, Dissolved Organic Carbon (DOC), Total Organic Carbon (TOC), and Ultraviolet Absorption 254 (UV254). Source water samples must be tested for both TOC and Alkalinity. Treated water samples must be tested for TOC. Source water samples and treated water samples must be collected on the same day.

## Brunswick Regional Water & Sewer, H2GO

### 2017 Distribution System Analysis

Questions and Comments: Contact Russ Lane, Distribution System ORC [910-371-9949](tel:910-371-9949) or [rlane@h2goonline.com](mailto:rlane@h2goonline.com)

	Action Level (AL)	MCLG	BRWS Amount Detected	# of Samples above the AL	Exceedance of the Action Level?	
Copper 90th percentile 6/1/16-9/30/16	1.3ppm	1.3ppm	0.109ppm	0	N	Corrosion of Household Plumbing
Lead 90th percentile 6/1/16-9/30/16	0.015ppm	0.015ppm	<0.003ppm	0	N	Corrosion of Household Plumbing
ORGANIC CHEMICALS	EPA's MCL		BRWS Amount Detected	Range Low	Violation Y/N	
Monochloramine Disinfectant Residual	4ppm	4ppm	Average Minimum 1.23ppm	0.41 3.34	N	Water Additive Used to Control Microbes
Total Trihalomethanes	80ppb	N/A	Average 25ppb	10 35	N	By-product of Disinfection
Total Haloacetic Acids	60ppb	N/A	Average 19ppb	13 25	N	By-product of Disinfection

- \* 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. H2GO 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>.
- \* Remove and flush faucet aerators regularly. This helps to keep debris such as pipe solder and sediment from clogging aerator screens, as well as provide the best quality water possible.

## 6 Ways To Lower Your Water Bill

1. Wash only full loads of laundry.
2. Take a shower instead of a bath. A 5 to 10 minute shower will save up to 45 gallons of water over taking a bath!
3. Turn off the faucet when brushing your teeth. Turning it off can save 8 gallons a day per person!
4. When replacing toilets, faucets, and shower heads, choose high-efficiency models. High efficiency toilets can save as much as 5 gallons of water per flush!
5. When purchasing appliances look for the Water Sense seal of approval. This is the Environmental Protection Agency's (EPA) drinking water conservation program to help ensure our water supply is available for future generations. For more information on this and other programs offered by the EPA please visit their website: <http://www.epa.gov/owm/water-efficiency/>
6. Purchase a rain sensor for your irrigation system so you don't water your landscaping during rain events. These little devices easily attach to most programmable sprinkler systems and can be purchased at most local home improvement stores.

# Cooking Oil Recycling Effort (C.O.R.E)

- My sewer is stopped up! I don't understand why it's not working right!
- My toilet won't flush; what's wrong?

Fats, Oils, and Grease create major problems in our community sewer systems. **Save our sewers!** Used cooking oil and grease should always be disposed of properly. Never pour any type of oil down a drain or toilet! Even if the oil is poured slowly into a drain followed with hot water, this will eventually cause problems with your home's plumbing and the sewer system as a whole. **Join the C.O.R.E.** Any used cooking oil or grease including vegetable oil, fish oil, bacon grease, chicken fat, and pork fat can be recycled. And, all recycled cooking oil will be used to **create Biofuel**. Cooking oil recycling reduces sanitary sewer problems and is good for the environment.



PLEASE HELP KEEP COST DOWN BY FOLLOWING THESE SIMPLE GUIDELINES

**DON'T** pour grease, fats or oils from cooking down the drain.

**DON'T** put anything down the drain that doesn't belong there, paper towels, personal hygiene products, food scraps (unless you have a disposer), disposable diapers, or any other foreign objects.

**DO** recycle your grease, fats and oils at the following collection sites:

H2GO Main Office	516 Village Road
North Brunswick Shopping Center	113 Village Road NE
Waterford Commercial Center	2013 Olde Regent Way
Backyard Feeds	1173 Lanvale Road

In addition to blockages, INFLOW AND INFILTRATION sometimes causes SSO's during heavy rains. Missing and broken cleanout caps, broken or improperly set manhole lids, contribute to this problem. Be observant when you drive and travel around H2GO and let us know if you see anything that doesn't look right. A single broken cleanout can allow up to 4600 gallons of water to enter the wastewater system each hour all this adds to higher treatment cost.



Sign up for Operation Round Up today! Your bill gets rounded up to the next dollar and the difference between your actual bill and the next highest dollar is the amount of your donation that goes towards supporting two excellent charities: The Brunswick Community College Foundation and Manna Ministries.

**For example:**

**If your monthly water/sewer bill is: \$46.55**

**Your bill will be round up to: \$47.00**

**Your Operation Round Up donation: 45 cents**

You can also select Round Up PLUS and add an extra \$1, \$5 or \$10 to the Round Up donation. 100% of the contributions will go to assist those in need, with no administrative fees attached to this program.

To learn more or sign up, visit: <http://www.h2goonline.com/operation-round-up>

# Stay Connected With H2GO!

## Helpful H2GO Contacts:

### *Director:*

Bob Walker                      [Ext.106](tel:Ext.106)                      [bwalker@h2goonline.com](mailto:bwalker@h2goonline.com)

### *Assistant Director:*

Russ Lane                      [Ext. 111](tel:Ext.111)                      [rlane@h2goonline.com](mailto:rlane@h2goonline.com)

### *Finance Officer:*

Scott Hook                      [Ext. 109](tel:Ext.109)                      [shook@h2goonline.com](mailto:shook@h2goonline.com)

### *Public Information Officer:*

Tyler Wittkofsky              [Ext. 108](tel:Ext.108)                      [twittkofsky@h2goonline.com](mailto:twittkofsky@h2goonline.com)

### *Clerk to Board:*

Teresa Long                      [Ext. 107](tel:Ext.107)                      [tlong@h2goonline.com](mailto:tlong@h2goonline.com)

### *Backflow Compliance:*

Deana Greiner                      [Ext. 112](tel:Ext.112)                      [dgreiner@h2goonline.com](mailto:dgreiner@h2goonline.com)

### *Engineering: and Compliance:*

Scott Lewis                      [Ext. 103](tel:Ext.103)                      [slewis@h2goonline.com](mailto:slewis@h2goonline.com)

### *Customer Service Manager:*

Brenda Thurman                      [Ext. 105](tel:Ext.105)                      [bthurman@h2goonline.com](mailto:bthurman@h2goonline.com)

## Useful H2GO Links:

Customer Contact Form:      [www.h2goonline.com/contact](http://www.h2goonline.com/contact)

H2GO Newsletter:              [www.h2goonline.com/newsletter](http://www.h2goonline.com/newsletter)

H2GO Blog:                      [www.h2goonline.com/blog-archives/](http://www.h2goonline.com/blog-archives/)

H2GO Calendar:                [www.h2goonline.com/news/](http://www.h2goonline.com/news/)

FAQ:                                [www.h2goonline.com/faq](http://www.h2goonline.com/faq)

