

Brunswick Regional



Water and Sewer

CONSUMER CONFIDENCE 2023 **REPORT**



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www.H2GOonline.com



2023 Annual Drinking Water Quality Report
Brunswick Regional Water and Sewer H2GO
Water System Number: 04-10-070

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 your source(s) 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 to providing you with this information because informed customers are our best allies. [If you have any questions about this report or concerning your water, please contact Stephanie Blair, Communications Director at 910-547-7757 or Brian Griffith, Water Resources Manager at 910-232-3187.](#) We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings, these dates are posted to our website www.H2GOonline.com.

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. 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 (800-426-4791)**.

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. Brunswick Regional Water and Sewer 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>**.

Sources of Drinking Water Contamination

The sources of drinking water (both tap water and bottled water) include 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; and **radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

Groundwater Pollution can occur when waste from landfills and septic systems leaches into the ground, also from fertilizers and pesticides applied to farmland, or transported as runoff during rainfall.

Surface Water Pollution can occur naturally (fertilizers, pesticides, debris), accidentally (oil spills and agricultural runoff), and intentionally (industries dumping waste directly into waterways).

Suspended Matter Pollution such as plastics, rubber, and other man-made materials disposed of improperly can pollute water. As suspended materials break down into smaller particulate matter, toxic chemicals are released into the water.

Microbiological Pollution is a type of naturally occurring water pollution from microorganisms such as bacteria, viruses, and protozoa that can cause waterborne diseases such as cholera.

Chemical Water Pollution is the most common type of water pollution. As many industries use chemicals that can end up in our water systems. Chemicals such as metals and solvents, fertilizers and pesticides, and chemicals used in pest control.

Oxygen-Depletion Pollution a side effect of nutrient water pollution. Life that relies on oxygen dies off and anaerobic organisms survive, producing ammonia and other harmful toxins.

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.

To learn more about EPA limits for contaminants, see the [EPA's National Primary Drinking Water Regulations website](#).

When You Turn on Your Tap, Consider the Source

From January 1st until May 31st Brunswick Regional Water and Sewer H2GO was a purchased water system, with all of its water being treated by Brunswick County Public Utilities and being sold wholesale to H2GO's customers.

As of June 1st, Brunswick Regional Water and Sewer H2GO started providing its customers with water from their own [Aquifer Sourced Reverse Osmosis Water Treatment Plant \(ROWTP\)](#). The water that is used by this system is sourced from two (2) confined aquifers. H2GO has developed five (5) well sites as sources of raw water to supply the ROWTP. Each well site has a nested pair of wells in the Lower Peedee and Black Creek aquifers for a total of ten (10) wells. The Lower Peedee wells are approximately 320'-400' deep, and the Black Creek wells are approximately 500'-600' deep. The combined 12-hour raw-water capacity from the well field is over 5.8 million gallons per day (MGD).

Note: Brunswick Regional Water and Sewer H2GO had two (2) different sources of water in 2023. The data provided herein includes data from **Brunswick County Public Utility's Water Quality Reports (Purchased Water Systems)** for the Northwest Treatment Plant, and the Highway 211 Groundwater Treatment Plant, as well as the **Brunswick Regional Water and Sewer H2GO Aquifer Sourced Water Treatment Plant Water Report (H2GO's Water System)**.



Source Water Assessment Program (SWAP) Results

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 Regional Water and Sewer H2GO 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
Cape Fear River (Jan-May)	Moderate
Aquifer Sourced RO WTP (June-Dec)	N/A (not available online currently)

The complete SWAP Assessment report for Brunswick Regional Water and Sewer H2GO may be viewed on the Web at: <https://www.ncwater.org/?page=600>. Note that because SWAP results and reports are periodically updated by the PWS Section, the results available on this website may differ from the results that were available at the time this CCR was prepared. If you are unable to access your 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 requests to swap@deq.nc.gov. Please indicate your system name, number, 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.

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

Help Protect Your Source Water

Protection of drinking water is everyone’s responsibility. You can help protect your community’s drinking water source(s) in several ways. Some examples include disposing of chemicals properly, such as taking used motor oil to a recycling center, or volunteering in your community to participate in group efforts to protect your water source, etc.

Violations that Your Water System Received for the Report Year

During 2023, or during any compliance period that ended in 2023, we did not receive any violations, over the time period of June 1st-December 31st.



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.
 - **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.
 - **Action Level (AL)** - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
 - **Treatment Technique (TT)** - A required process intended to reduce the level of a contaminant in drinking water.
 - **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.
 - **Running Annual Average (RAA)** – The average of sample analytical results for samples taken during the previous four calendar quarters.
 - **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.
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Water Quality Data Tables of Detected Contaminants

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.

Please see below for **Purchased Water System** results provided by **Brunswick County Public Utilities** from January 1, through December 31, 2023. *H2GO's customers received this purchased water from January 1, 2023 – May 30, 2023.*

Brunswick County Public Utilities CCR

Northwest Water Treatment Plant Analysis							
Listed below are the results of water quality sampling performed from January 1, 2023, to December 31, 2023.							
Questions and Comments: Contact Thaddeus Hill Water Resources Superintendent , 910-371-3490 or Thad.Hill@brunswickcountync.gov							
REGULATED ORGANIC CHEMICALS	EPA's MCL	EPA's MCLG	Brunswick County Amount Detected	Range Low High		Violation Y/N	Source of Contaminant
Turbidity	Treatment Technique Limit of 1.0 ntu	N/A	% of samples ≤ 0.3 ntu	100%		N	Soil Runoff
			sample range	0.05	.22		
Raw Water TOC	Treatment Technique Removal Ratio ≥1 (Step 1)	N/A	TOC Removal Ratio Avg = 1.098	0.864	1.308	N	Naturally Present in the Environment
Finish Water TOC		N/A					
Total Organic Carbon (TOC)		N/A					
pH	6.8 - 8.5	N/A	7.6	7.6 - 7.8		N	By-Product of Caustic Addition
REGULATED INORGANIC CHEMICALS	EPA's MCL	EPA's MCLG	Brunswick County Samples (Avg)	Range Low High		Violation Y/N	Source of Contaminant
Chlorite	1.0 ppm	0.8 ppm	0.61 ppm	0.52	0.66	N	By-Product of Disinfection
Chlorine Dioxide	0.8 ppm	0.8 ppm	0.54 ppm	.49	0.61	N	Water Additive Used to Control Microbes Water Additive which Promotes Strong Teeth
Fluoride	4 ppm	4 ppm	0.71 ppm	0.0	0.84	N	
Orthophosphate	17 ppm	N/A	1.54 ppm	1.42	2.10	N	Water Additive Used to Control Corrosion
Total Chlorine	4 ppm	4 ppm	3.08 ppm	2.87	3.4	N	Water Additive Used to Control Microbes
Monochloramine Disinfectant Residual	4 ppm	4 ppm	2.87 ppm	0.0	3.09	N	Water Additive Used to Control Microbes
UNREGULATED SUBSTANCES	EPA's MCL	EPA's MCLG	Brunswick County Samples (Avg)	Range Low High		Violation Y/N	Source of Contaminant
1, 4 Dioxane	Non Regulated	N/A	1.009 ppb	.22	3.1	N	Purifying Agent in Pharmaceuticals and By-Product of PET Plastic Production
Hardness	Non Regulated	N/A	30.6 ppm	26.7	44	N	Part of the Treatment Process, Erosion of Natural Deposits
Iron	Non Regulated	N/A	0.01 ppm	0.0	0.06	N	Part of the Treatment Process, Erosion of Natural Deposits
Manganese	Non Regulated	N/A	0.01 ppm	0.01	0.08	N	Part of the Treatment Process, Erosion of Natural Deposits
Free Ammonia	Non Regulated	N/A	0.094 ppm	0.0	0.141	N	Water Additive Used to Control Microbes
Sodium	Non Regulated	N/A	20.4 mg/l	N/A		N	Part of the Treatment Process, Erosion of Natural Deposits
CRYPTOSPORIDIUM - Cape Fear River 2017		N/A	0.0 oocyst	0		N	Naturally Present in the Environment



PFAS SUBSTANCES UNREGULATED*	EPA's MCL	EPA's MCLG	Brunswick County Samples (Avg)	Range		Violation Y/N	Source of Contaminant
				Low	High		
PFBA	Non Regulated	N/A	4.903	1.910	11.3	N	By-Product of Chemical Manufacturer
PFPeA	Non Regulated	N/A	7.782	2.490	17.6	N	By-Product of Chemical Manufacturer
PFHxA	Non Regulated	N/A	7.133	2.180	13.1	N	By-Product of Chemical Manufacturer
PFHpA	Non Regulated	N/A	3.128	1.350	5.43	N	By-Product of Chemical Manufacturer
PFOA	Non Regulated	N/A	5.670	2.260	10.2	N	By-Product of Chemical Manufacturer
PFNA	Non Regulated	N/A	0.662	0.461	0.987	N	By-Product of Chemical Manufacturer
PFDA	Non Regulated	N/A	0.320	0.112	0.505	N	By-Product of Chemical Manufacturer
PFUnDA	Non Regulated	N/A	0.064	0.015	0.144	N	By-Product of Chemical Manufacturer
PFDoDA	Non Regulated	N/A	0.021	0.021	0.021	N	By-Product of Chemical Manufacturer
PFTTrDA	Non Regulated	N/A	0			N	By-Product of Chemical Manufacturer
PFTeDA	Non Regulated	N/A	0			N	By-Product of Chemical Manufacturer
PFHxDA	Non Regulated	N/A	0.112	0.050	0.206	N	By-Product of Chemical Manufacturer
PFBS	Non Regulated	N/A	4.690	1.408	9.140	N	By-Product of Chemical Manufacturer
PFPeS	Non Regulated	N/A	0.657	0.328	1.010	N	By-Product of Chemical Manufacturer
PFHxS	Non Regulated	N/A	4.180	0.974	7.690	N	By-Product of Chemical Manufacturer
PFHpS	Non Regulated	N/A	0.184	0.041	0.310	N	By-Product of Chemical Manufacturer
PFOS	Non Regulated	N/A	10.16	5.030	14.30	N	By-Product of Chemical Manufacturer
PFNS	Non Regulated	N/A	0			N	By-Product of Chemical Manufacturer
PFDS	Non Regulated	N/A	0			N	By-Product of Chemical Manufacturer
4:2 FTS	Non Regulated	N/A	0			N	By-Product of Chemical Manufacturer
6:2FTS	Non Regulated	N/A	0.300	0.006	2.300	N	By-Product of Chemical Manufacturer
8:2 FTS	Non Regulated	N/A	0.005	0.004	0.324	N	By-Product of Chemical Manufacturer
10:2 FTS	Non Regulated	N/A	0			N	By-Product of Chemical Manufacturer
FBSA	Non Regulated	N/A	0.400	0.057	1.050	N	By-Product of Chemical Manufacturer
N-EtFOSA	Non Regulated	N/A	0.371	0.249	0.548	N	By-Product of Chemical Manufacturer
N-EtFOSAA	Non Regulated	N/A	0.706	0.001	1.440	N	By-Product of Chemical Manufacturer
N-EtFOSE	Non Regulated	N/A	0			N	By-Product of Chemical Manufacturer
N-MeFOSA	Non Regulated	N/A	0.014	0.014	0.014	N	By-Product of Chemical Manufacturer
N-MeFOSAA	Non Regulated	N/A	0.021	0.004	0.041	N	By-Product of Chemical Manufacturer
N-MeFOSE	Non Regulated	N/A	0			N	By-Product of Chemical Manufacturer
PFOSA	Non Regulated	N/A	0.076	0.007	0.526	N	By-Product of Chemical Manufacturer
Nafion Byproduct 1	Non Regulated	N/A	0			N	By-Product of Chemical Manufacturer
Nafion Byproduct 2	Non Regulated	N/A	0.316	0.055	1.040	N	By-Product of Chemical Manufacturer
ADONA	Non Regulated	N/A	0			N	By-Product of Chemical Manufacturer
EVE Acid	Non Regulated	N/A	0.273	0	0.717	N	By-Product of Chemical Manufacturer
HFPO-DA	Non Regulated	N/A	3.695	0.644	15.30	N	By-Product of Chemical Manufacturer
Hydro-EVE Acid	Non Regulated	N/A	0.407	0.006	3.680	N	By-Product of Chemical Manufacturer
NFDHA	Non Regulated	N/A	0.011	0.009	0.013	N	By-Product of Chemical Manufacturer
PEPA	Non Regulated	N/A	1.879	0.444	4.510	N	By-Product of Chemical Manufacturer
PFECA-G	Non Regulated	N/A	0			N	By-Product of Chemical Manufacturer



PFMOAA	Non Regulated	N/A	17.11	2.390	37.20	N	By-Product of Chemical Manufacturer
PFMOBA	Non Regulated	N/A	0			N	By-Product of Chemical Manufacturer
PFMOPrA	Non Regulated	N/A	0.137	0.005	0.341	N	By-Product of Chemical Manufacturer
PFO2HxA	Non Regulated	N/A	4.287	0.736	9.640	N	By-Product of Chemical Manufacturer
PFO3OA	Non Regulated	N/A	1.287	0.383	3.040	N	By-Product of Chemical Manufacturer
PFO4DA	Non Regulated	N/A	0.367	0.073	0.504	N	By-Product of Chemical Manufacturer
PFO5DA	Non Regulated	N/A	0.069	0.040	0.100	N	By-Product of Chemical Manufacturer
PMPA	Non Regulated	N/A	5.970	1.380	13.40	N	By-Product of Chemical Manufacturer
R-EVE Acid	Non Regulated	N/A	5.155	1.050	14.00	N	By-Product of Chemical Manufacturer
11CI-PF3OUdS	Non Regulated	N/A	0			N	By-Product of Chemical Manufacturer
9CI-PF3ONS	Non Regulated	N/A	0			N	By-Product of Chemical Manufacturer
Hydrolyzed PSDA	Non Regulated	N/A	3.064	0.267	15.10	N	By-Product of Chemical Manufacturer
NVHOS	Non Regulated	N/A	1.153	0.265	2.040	N	By-Product of Chemical Manufacturer
PFEESA	Non Regulated	N/A	0			N	By-Product of Chemical Manufacturer
R-PSDA	Non Regulated	N/A	3.330	1.020	7.790	N	By-Product of Chemical Manufacturer
R-PSDCA	Non Regulated	N/A	0			N	By-Product of Chemical Manufacturer

HWY 211 Groundwater Treatment Plant Analysis

Questions and Comments: Contact Jeremy Sexton, Water Treatment Plant Superintendent, 910-253-2488 or jeremy.sexton@brunswickcountync.gov

UNREGULATED SUBSTANCES	EPA's MCL	EPA's MCLG	Brunswick County Samples (Avg)	Range Low	Range High	Violation Y/N	Source of Contaminant
Turbidity	Non Regulated	N/A	Average 0.48 ntu	0.04	8.9	N	Part of the Treatment Process, Erosion of Natural Deposits
pH	Non Regulated	N/A	-----	7.2	9.1	N	Part of the Treatment Process
CO2	Non Regulated	N/A	7.0 ppm	3.0	17	N	Part of the Treatment Process
Alkalinity	Non Regulated	N/A	45 ppm	27	187	N	Part of the Treatment Process, Erosion of Natural Deposits
Hardness	Non Regulated	N/A	126 ppm	40	233	N	Part of the Treatment Process, Erosion of Natural Deposits
Iron	Non Regulated	N/A	0.03 ppm	0	.53	N	Part of the Treatment Process, Erosion of Natural Deposits
Chloride	Non Regulated	N/A	22 ppm	19	27	N	Part of the Treatment Process, Erosion of Natural Deposits
Free Ammonia	Non Regulated	N/A	0.04 ppm	0	0.20	N	Water Additive Used to Control Microbes
REGULATED INORGANIC CHEMICALS	EPA's MCL	EPA's MCLG	Brunswick County Samples (Avg)	Range Low	Range High	Violation Y/N	Source of Contaminant
Fluoride	4ppm	4ppm	0.82 ppm	0.14	1.8	N	Water Additive Used to Promote Strong Teeth
Orthophosphate	17ppm	N/A	1.03 ppm	0.36	2.8	N	Water Additive Used to Control Corrosion
Total Chlorine	4ppm	4ppm	2.4 ppm	1.1	3.7	N	Water Additive Used to Control Microbes
Monochloroime	4ppm	4ppm	2.73 ppm	1.4	3.5	N	Water Additive Used to Control Microbes
UNREGULATED CONTAMINANT MONITORING RULE (UCMR) 4			These Unregulated Contaminants were selected by the EPA to attain their prevalence in Community Water Systems				
Germanium (tested in 2019)	Non Regulated	N/A	0.33 ppb	NA	NA	N	Naturally-occurring element; commercially available in combination with other elements and minerals
PFAS SUBSTANCES UNREGULATED*	EPA's MCL	EPA's MCLG	Brunswick County Samples (Avg)	Range RAW	Range Finished	Violation Y/N	Source of Contaminant
PFMOAA	Non Regulated	N/A		1.99	1.93	N	By-Product of Chemical Manufacturer



The data presented in this table is from the Aquifer Sourced Reverse Osmosis Water Treatment Plant, testing done June 1, through December 31, 2023.

H2GO's customers received this water from June 1, 2023 – December 31, 2023.

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.

Inorganic Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
Antimony (ppb)	8/4/2023	N	<3	N/A		6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	8/4/2023	N	<5	N/A		0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	8/4/2023	N	<0.4	N/A		2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium (ppb)	8/4/2023	N	<2	N/A		4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium (ppb)	8/4/2023	N	<1	N/A		5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium (ppb)	8/4/2023	N	<20	N/A		100	100	Discharge from steel and pulp mills; erosion of natural deposits
Cyanide (ppb)	8/4/2023	N	<50	N/A		200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride (ppm)	8/4/2023	N	<0.1	N/A		4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Mercury (inorganic) (ppb)	8/4/2023	N	<0.4	N/A		2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Selenium (ppb)	8/4/2023	N	<10	N/A		50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Thallium (ppb)	8/4/2023	N	<1	N/A		0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

Nitrate/Nitrite Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
Nitrate (as Nitrogen) (ppm)	8/4/2023	N	<1.0	N/A		10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	8/4/2023	N	<0.1	N/A		1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits



Synthetic Organic Chemical (SOC) Contaminants Including Pesticides and Herbicides

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
2,4-D (ppb)	8/4/2023 10/13/23	N	<0.1	N/A		70	70	Runoff from herbicide used on row crops
2,4,5-TP (Silvex) (ppb)	8/4/2023 10/13/23	N	<0.2	N/A		50	50	Residue of banned herbicide
Alachlor (ppb)	8/4/2023 10/13/23	N	<0.3	N/A		0	2	Runoff from herbicide used on row crops
Atrazine (ppb)	8/4/2023 10/13/23	N	<0.1	N/A		3	3	Runoff from herbicide used on row crops
Benzo(a)pyrene (PAH) (ppt)	8/4/2023 10/13/23	N	<20	N/A		0	200	Leaching from linings of water storage tanks and distribution lines
Carbofuran (ppb)	8/4/2023 10/13/23	N	<0.9	N/A		40	40	Leaching of soil fumigant used on rice and alfalfa
Chlordane (ppb)	8/4/2023 10/13/23	N	<0.2	N/A		0	2	Residue of banned termiticide
Dalapon (ppb)	8/4/2023 10/13/23	N	<10	N/A		200	200	Runoff from herbicide used on rights of way
Di(2-ethylhexyl) adipate (ppb)	8/4/2023 10/13/23	N	<0.6	N/A		400	400	Discharge from chemical factories
Di(2-ethylhexyl) phthalate (ppb)	8/4/2023 10/13/23	N	<1.32	N/A		0	6	Discharge from rubber and chemical factories
DBCP [Dibromochloropropane] (ppt)	8/4/2023 10/13/23	N	<20	N/A		0	200	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Dinoseb (ppb)	8/4/2023 10/13/23	N	<0.2	N/A		7	7	Runoff from herbicide used on soybeans and vegetables
Endrin (ppb)	8/4/2023 10/13/23	N	<0.01	N/A		2	2	Residue of banned insecticide
EDB [Ethylene dibromide] (ppt)	8/4/2023 10/13/23	N	<10	N/A		0	50	Discharge from petroleum refineries
Heptachlor (ppt)	8/4/2023 10/13/23	N	<40	N/A		0	400	Residue of banned pesticide
Heptachlor epoxide (ppt)	8/4/2023 10/13/23	N	<20	N/A		0	200	Breakdown of heptachlor
Hexachlorobenzene (ppb)	8/4/2023 10/13/23	N	<0.1	N/A		0	1	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclopentadiene (ppb)	8/4/2023 10/13/23	N	<0.1	N/A		50	50	Discharge from chemical factories
Lindane (ppt)	8/4/2023 10/13/23	N	<20	N/A		200	200	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor (ppb)	8/4/2023 10/13/23	N	<0.1	N/A		40	40	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Oxamyl [Vydate] (ppb)	8/4/2023 10/13/23	N	<2	N/A		200	200	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
PCBs [Polychlorinated biphenyls] (ppt)	8/4/2023 10/13/23	N	<100	N/A		0	500	Runoff from landfills; discharge of waste chemicals
Pentachlorophenol (ppb)	8/4/2023 10/13/23	N	<0.04	N/A		0	1	Discharge from wood preserving factories
Picloram (ppb)	8/4/2023 10/13/23	N	<0.1	N/A		500	500	Herbicide runoff
Simazine (ppb)	8/4/2023 10/13/23	N	<0.07	N/A		4	4	Herbicide runoff
Toxaphene (ppb)	8/4/2023 10/13/23	N	<1	N/A		0	3	Runoff/leaching from insecticide used on cotton and cattle



Volatile Organic Chemical (VOC) Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range		MCL G	MCL	Likely Source of Contamination
				Low	High			
Benzene (ppb)	9/21/23 10/13/23	N	<0.5	N/A		0	5	Discharge from factories; leaching from gas storage tanks and landfills
Carbon tetrachloride (ppb)	9/21/23 10/13/23	N	<0.5	N/A		0	5	Discharge from chemical plants and other industrial activities
Chlorobenzene (ppb)	9/21/23 10/13/23	N	<0.5	N/A		100	100	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene (ppb)	9/21/23 10/13/23	N	<0.5	N/A		600	600	Discharge from industrial chemical factories
p-Dichlorobenzene (ppb)	9/21/23 10/13/23	N	<0.5	N/A		75	75	Discharge from industrial chemical factories
1,2 – Dichloroethane (ppb)	9/21/23 10/13/23	N	<0.5	N/A		0	5	Discharge from industrial chemical factories
1,1 – Dichloroethylene (ppb)	9/21/23 10/13/23	N	<0.5	N/A		7	7	Discharge from industrial chemical factories
cis-1,2-Dichloroethylene (ppb)	9/21/23 10/13/23	N	<0.5	N/A		70	70	Discharge from industrial chemical factories
trans-1,2-Dichloroethylene (ppb)	9/21/23 10/13/23	N	<0.5	N/A		100	100	Discharge from industrial chemical factories
Dichloromethane (ppb)	9/21/23 10/13/23	N	<0.5	N/A		0	5	Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane (ppb)	9/21/23 10/13/23	N	<0.5	N/A		0	5	Discharge from industrial chemical factories
Ethylbenzene (ppb)	9/21/23 10/13/23	N	<0.5	N/A		700	700	Discharge from petroleum refineries
Styrene (ppb)	9/21/23 10/13/23	N	<0.5	N/A		100	100	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene (ppb)	9/21/23 10/13/23	N	<0.5	N/A		0	5	Discharge from factories and dry cleaners
1,2,4 –Trichlorobenzene (ppb)	9/21/23 10/13/23	N	<0.5	N/A		70	70	Discharge from textile-finishing factories
1,1,1 – Trichloroethane (ppb)	9/21/23 10/13/23	N	<0.5	N/A		200	200	Discharge from metal degreasing sites and other factories
1,1,2 –Trichloroethane (ppb)	9/21/23 10/13/23	N	<0.5	N/A		3	5	Discharge from industrial chemical factories
Trichloroethylene (ppb)	9/21/23 10/13/23	N	<0.5	N/A		0	5	Discharge from metal degreasing sites and other factories
Toluene (ppm)	9/21/23 10/13/23	N	<0.5	N/A		1	1	Discharge from petroleum factories
Vinyl Chloride (ppb)	9/21/23 10/13/23	N	<0.5	N/A		0	2	Leaching from PVC piping; discharge from plastics factories
Xylenes (Total) (ppm)	9/21/23 10/13/23	N	<0.5	N/A		10	10	Discharge from petroleum factories; discharge from chemical factories

Radiological Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water (RAA)	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
Alpha emitters (pCi/L) (Gross Alpha Excluding Radon and Uranium)	8/4/2023 10/13/2023	N	3.05	ND-6.1		0	15	Erosion of natural deposits
Combined radium (pCi/L)	8/4/2023 10/13/2023	N	<1	<1.0-1.1		0	5	Erosion of natural deposits
Uranium (pCi/L)	8/4/2023 10/13/2023	N	ND	ND-ND		0	20.1	Erosion of natural deposits

* Note: The MCL for beta/photon emitters is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles.



Distribution System Analysis

Lead and Copper Contaminants (Purchased Water System Jan.-May)

Contaminant (units)	Sample Date	Your Water (90 th Percentile)	Number of sites found above the AL	MCLG	AL	Likely Source of Contamination
Copper (ppm) (90 th percentile)	6/1/2022-9/30/2022	.106 mg/l	0	1.3	AL=1.3 mg/l	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (90 th percentile)	6/1/2022-9/30/2022	0 ppb	0	0	AL=15 ppb	Corrosion of household plumbing systems; erosion of natural deposits

Lead and Copper Contaminants (Aquifer Sourced ROWTP June-December)

Contaminant (units)	Sample Date	Your Water (90 th Percentile)	Number of sites found above the AL	MCLG	AL	Likely Source of Contamination
Copper (ppm) (90 th percentile)	7/01/2023-12/31/2023	.173 mg/l	0	1.3	AL=1.3 mg/l	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (90 th percentile)	7/01/2023-12/31/20223	0 ppb	0	0	AL=15 ppb	Corrosion of household plumbing systems; erosion of natural deposits

Disinfectant Residuals Summary (Purchased Water System January-May)

	MRDL Violation Y/N	Your Water (RAA)	Range		MRDLG	MRDL	Likely Source of Contamination
			Low	High			
Chlorine (ppm)	N	2.59	1.4 mg/l	3.4 mg/l	4 mg/l	4.0 mg/l	Water additive used to control microbes
Chloramines (ppm)	N	2.04	.92 mg/l	3.34 mg/l	4 mg/l	4.0 mg/l	Water additive used to control microbes

Disinfectant Residuals Summary (Aquifer Sourced ROWTP June-December)

	MRDL Violation Y/N	Your Water (RAA)	Range		MRDLG	MRDL	Likely Source of Contamination
			Low	High			
Chlorine (ppm)	N	.53mg/l	.15mg/l	1.23mg/l	4 mg/l	4.0 mg/l	Water additive used to control microbes



Total Trihalomethanes (TTHM) and Haloacetic Acids (five) (HAA5) (Purchased Water System January-May)

Contaminant (units)	Year Sampled	MCL Violation Y/N	Your Water (highest LRAA)	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
TTHM (ppb)	23	N				N/A	80	Byproduct of drinking water disinfection
B01			9		N/A			
B02			10		N/A			
B03			14		N/A			
B04			10		N/A			
HAA5 (ppb)	23	N				N/A	60	Byproduct of drinking water disinfection
B01			14		N/A			
B02			16		N/A			
B03			19		N/A			
B04			18		N/A			

Total Trihalomethanes (TTHM) and Haloacetic Acids (five) (HAA5) (Aquifer Sourced ROWTP June-December)

Contaminant (units)	Year Sampled	MCL Violation Y/N	Your Water (highest LRAA)	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
TTHM (ppb)	23	N				N/A	80	Byproduct of drinking water disinfection
B01			12.6		<1-27			
B02			<1		<1-<1			
B03			1.6		<1-3			
B04			4.3		3-6			
HAA5 (ppb)	23	N				N/A	60	Byproduct of drinking water disinfection
B01			2		<2-2			
B02			2		<2-2			
B03			<2		<2-<2			
B04			<2		<2-<2			



BRUNSWICK REGIONAL WATER AND SEWER H2GO LOCALLY ELECTED GOVERNMENT

A Sanitary District Committed to Quality of Life for Our Valued Customers in North Brunswick County. Established by North Carolina Public Health Commission under Article 2, Part 2 of the General Statutes of North Carolina, Section 130A-47 to 130A-87.

WHO WE ARE

Formerly, Leland Sanitary District and then North Brunswick Sanitary District, was established in 1976 for the purpose of preserving and promoting public health and welfare without regard to county, township, or municipal lines. Today, Brunswick Regional Water and Sewer H2GO is a partner serving our community by delivering clean water free of manmade contaminants from our new state-of-the-art Aquifer-Sourced Reverse Osmosis Water Treatment Plant located in Belville, NC.

WHO WE SERVE

Brunswick Regional Water and Sewer H2GO currently serves over 15,000 water and sewer customers – a population of roughly 45,000 in Belville, Leland, Navassa, and unincorporated areas of NE Brunswick County.

HOW WE OPERATE

Brunswick Regional Water and Sewer H2GO operates a water and sewer public enterprise, subject to fiscal and accounting standards prescribed for units of local government by the Local Government and Fiscal Control Act.

H2GO RATES

Brunswick Regional Water and Sewer H2GO's combined water and sewer rates are amongst the lowest compared to other water and sewer public enterprises in our regional Councils of Government, with annual water and sewer bills at 1.28% of the annual median household income.

H2GO'S COMMITMENT

Brunswick Regional Water and Sewer H2GO is committed to providing customers with quality service. Our team is here for all your water needs, 24 hours a day. Our on-call after-hours technicians are available for any emergency that may occur outside normal business hours. H2GO takes pride in being a resource for our customers and partner with local area agencies and municipalities in providing quality of life for Northern Brunswick County residents.

Experiencing water quality concerns? Have an issue with your water meter? Possibly, a question about a backflow device, or anything else about water. We have you covered. Contact H2GO at [910-371-9949](tel:910-371-9949). Our astute customer service department is happy to assist and get you connected with the appropriate staff member if further assistance is needed.



Water distribution systems include interconnected pipes, pumps, valves, and storage facilities transporting drinking water. A water distribution system provides water to residents, businesses, schools, and other facilities as well as fire protection requirements. Water distribution systems depend on the water source used, topography, and water service levels. H2GO's new Aquifer-Sourced Reverse Osmosis Water Treatment Plant has introduced an alternate water source to the residents of North Brunswick County free of manmade contaminants.

The brackish water is treated to remove any sediment and salts, then treated for adequate alkalinity and disinfectant before making its way to the H2GO Distribution System. H2GO's water distribution system includes over 200 miles of water lines, providing water to a population of roughly 45,000.

SOURCES OF DRINKING WATER

Sources of drinking water include surface water (lakes, rivers, and reservoirs) and ground water (aquifers). In the United States, 9 out of 10 people get their water from one of more than 148,000 public water systems. Around 13 million U.S. households get their drinking water from a private well.

[Water Sources](#) | [Public Water Systems](#) | [Drinking Water](#) | [Health Water](#) | [CDC](#)

Ground Water

Ground water is located below the surface of the earth in spaces between rock and soil. Ground water is naturally filtered, which might remove some germs and chemicals depending on the water's depth and the area's local geology. Water that comes from a well is ground water.

Surface Water

Surface water collects on the ground or in streams, rivers, lakes, reservoirs, or the ocean. Surface water is constantly evaporating out of water bodies, seeping into ground water supplies, and being replenished by rain. A spring is where ground water comes to the surface and becomes surface water. Public drinking water systems that use water from streams, rivers, lakes, or reservoirs treat the water before it reaches your tap.

H2GO Aquifer-Sourced Water

H2GO developed 5 well sites, each with a nested pair of wells in the Lower Peedee and Black Creek aquifers for a total of 10 wells. Both aquifers are protected by anthropogenic contamination by thick, nearly impermeable confining layers. The Lower Peedee Aquifer wells have average chloride concentrations of approximately 1500 mg/L, and the Black Creek Aquifer wells have an average chloride concentration of approximately 3000 mg/L. The combined design capacity for each well site of 600 gallons per minute (gpm) from the Lower Peedee Aquifer well, and 900 gpm from the Black Creek Aquifer well, including the average blended chloride concentrations fed to the Reverse Osmosis Water Treatment Plant (ROWTP) is approximately 2500 mg/L. The brackish (salty) aquifer water is located 320' – 600' deep in the earth. The combined 12-hour raw water supply from the well field is approximately 5.8 million gallons per day (MGD). The finished water capacity of the new ROWTP is 6.0 MGD

About [71 percent of the Earth's surface is water-covered](#), and the [oceans](#) hold about 96.5 percent of all Earth's water. Water also exists in the air as [water vapor](#), in [rivers](#) and [lakes](#), in icecaps and [glaciers](#), in the ground as soil moisture and in [aquifers](#).











NC 811 – DIG SAFELY

Homeowners & Contractors

Utility companies that supply home and businesses with power, water, telephone, sewer, gas and cable television are doing so with underground lines. Many of these lines are close to the surface, which makes digging blindly risky and dangerous.

APWA UNIFORM COLOR CODE FOR MARKING UNDERGROUND UTILITY LINES



	PROPOSED EXCAVATION		COMMUNICATION, ALARM OR SIGNAL LINES, CABLES OR CONDUIT
	TEMPORARY SURVEY MARKINGS		POTABLE WATER
	ELECTRIC POWER LINES, CABLES, CONDUIT AND LIGHTING CABLES		RECLAIMED WATER, IRRIGATION, AND SLURRY LINES
	GAS, OIL, STEAM, PETROLEUM OR GASEOUS MATERIALS		SEWERS AND DRAIN LINES

**For all locate requests, call
811 or 1-800-632-4949**

**Need the status of a locate?
1-877-632-5050**

Thank goodness, you can find out where these utility owned lines are buried by dialing 811.

Anyone who plans to dig should call 811 or go to their state 811 center's website before digging to request the approximate location of buried utilities be marked with paint or flags to reduce the risk of unintentional and costly damage to utility owned lines.

When you call 811, please have the following ready:

- Phone number;
- Address and County;
- Inside or outside city limits;
- Is it in a subdivision;
- A cross-street name (nearest intersection within ¼ mile);
- Exact location of where you plan to dig (marked with paint or flags), and
- Work, date, time, estimated time for completion, what type of work it is and who it is for.

At the conclusion of the call, you will be provided with a ticket number and list of utility companies that are notified by 811. Make sure to have paper and pen read to take note. Not all utilities provided necessarily own buried lines on your property. Every utility is not a member of North Carolina 811.

JOIN OUR COOKING OIL RECYCLING EFFORT!

~ C.O.R.E. ~

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 by hot water, this will eventually cause problems with your home's plumbing and the public sewer system. **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. 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. i.e. paper towels, personal hygiene products, food scraps, disposable diapers, "flushable" wipes, plastic bags or any other plastic objects.

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

H2GO Office

516 Village Road, NE

Waterford Shopping Center

2013 Olde Regent Way

In addition to blockages, **INFLOW AND INFILTRATION** can potentially cause sanitary sewer overflows (SSO's) during heaving rains. Missing and broken cleanout caps, broken or improperly set manhole lids, contribute to this problem. Please be observant when you drive and travel through the H2GO District area and let us know if anything doesn't look right or seems out of place. A single broken cleanout can allow up to 4,600 gallons of water to enter the wastewater system each hour; this adds up to higher treatment cost.



SAVE WATER AND \$\$ ON YOUR WATER BILL

- Wash only full loads of laundry/dishes.
- Take a shower, instead of the bath. *Did you know, a 5–10-minute shower will save up to 45 gallons of water over taking a bath!*
- Turn off the faucet when brushing your teeth. *This can save 8 gallons a day per person.*
- 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.*
- Inspect toilets for leaks by placing food coloring in the toilet tank before bed. If the water in the toilet bowl shows signs of the food coloring in the morning, this is a good indication of a leak.
- 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 at <https://www.epa.gov/watersense/using-water-efficiently>.

- Purchase a rain sensor for your irrigation system so you don't water your landscaping during rain events. These little devices can easily attach to most programmable sprinkler systems and can be purchased at most local home improvement stores.
- Raise your lawn blade, taller grass provides shade for soil and better water retention.
- Water landscaping early in the morning or late in the evening when water is less likely to evaporate.
- Inspect irrigation system for leaks.
- Use soaker hose or drip irrigation.
- Add a shutoff nozzle to your house.
- Know what your lawn needs! Southern grass only requires 1" of precipitation per week.

PROGRAM YOUR SPRINKLER SYSTEM TO H2GO'S IRRIGATION SCHEDULE

H2GO Irrigation Schedule

ODD ADDRESS	EVEN ADDRESS
Tuesday	Wednesday
Thursday	Friday
Saturday	Sunday

MONDAY ~ NO IRRIGATION

USE THE CYCLE / SOAK IRRIGATION METHOD

Cycle and soak is a method of irrigation where water is applied in multiple, short cycles. This allows the water to be applied more slowly, allowed to soak into the soil and prevent run-off, promoting deeper roots and healthier plants.

Conserve Water - Reduce Water Run Off

Brought to you by Brunswick Regional Water and Sewer H2GO

<u>Controller Setting</u>	<u>Zone 1</u>	<u>Zone 2</u>
Irrigation On	5 minutes	10 minutes
Soak (irrigation off)	30 minutes	30 minutes
Irrigation On	5 minutes	10 minutes
Soak (irrigation off)	30 minutes	30 minutes
Irrigation On	5 minutes	10 minutes
CYCLE COMPLETE	Total run time 15 minutes	Total run time 30 minutes



CONNECT WITH H2GO!



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