

2023

Pender County Utilities Drinking Water Quality Report

We are pleased to present to you the 2023 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 Pender County Utilities at (910) 259-1570. We want our valued customers to be informed about their water utility. If you want to learn more, please attend Pender County Board of Commissioners' meetings on the first and third Monday of each month at 4:00 p.m. All meetings are open to the public in the Public Assembly Room located at 805 South Walker Street, Burgaw, NC 28425 unless otherwise noted.



Pender County Utilities
605 East Fremont Street
Burgaw, NC 28425
910-259-1570 (8AM – 5PM)
System ID# 70-71-011

Un informe español de calidad del agua 2023 está disponible: <http://www.pendercountync.gov/ut/>

After 5PM – “Emergencies”
Water main breaks
or other emergencies
910-471-1041

What the EPA Wants You to Know

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

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 healthcare 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. Pender County Utilities 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 and 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 <http://epa.gov/safewater/lead>.



<http://www.epa.gov/safewater/lead>
Safe Drinking Water Hotline
800-426-4791



<https://www.cdc.gov/healthywater/drinking>
800-232-4636

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

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



WHEN YOU TURN ON YOUR TAP, CONSIDER THE SOURCE

Pender County Utilities processes, treats, and distributes potable drinking water within Pender County through one primary system, five wells, and three emergency connection systems. The primary source of water is surface water from the Cape Fear River purchased from the Lower Cape Fear Water and Sewer Authority which is treated at the Pender County Utilities Water Treatment Plant. Additional emergency water supply is groundwater provided from the Pee Dee and Black Creek Aquifers, including purchased water from the Town of Wallace. In April 2024, three operational wells and a 500,000-gallon elevated tank in the Scott's Hill / Hampstead area were added to the Pender County Utilities water system. These water supply additions are necessary for the future population growth in the eastern part of Pender County.

A staff of highly trained, state certified water treatment operators, a state certified laboratory manager, and a team of skilled maintenance technicians keep all the facilities fully operational to ensure a safe, high quality, and reliable drinking water source.

The Town of Wallace's 2023 Annual Water Quality Report is attached to the end of this report.



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 Pender County Utilities 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:

Source Name	Susceptibility Rating	SWAP Report Date
LCFWSA	Moderate	September 2020
Kiwanis Well #4	Moderate	September 2020
Annex Well #6	Moderate	September 2020

The complete SWAP Assessment report for Pender County Utilities 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@ncdenr.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. We have implemented the following source water protection actions: Water Shortage Response Plan, Drought Management Plan, and Water Conservation Plan. You can help protect your community's drinking water source(s) in several ways:

- 💧 Disposal of fertilizers, pesticides, paints, and medications properly
- 💧 Taking motor oil to a recycling center
- 💧 Volunteering in your community to protect your drinking water source (Cape Fear River)

Recycling, Disposal, and Earth Day information will be

posted on: pendercountync.gov,



&



Abbreviations

AL – Action Level; the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

LOD – Limit of Detection

Level 1 Assessment – A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment – A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

LRAA – Locational Running Annual Average; The average of sample analytical results for samples taken at a monitoring location during the previous four calendar quarters under the Stage 2 Disinfectants and Disinfection Byproducts Rule.

MCL – Maximum Contaminant Level; 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.

MCLG – Maximum Contaminant Level Goal; 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.

MRDL – Maximum Residual Disinfection Level; 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.

MRDLG – Maximum Residual Disinfection Level Goal; 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.

NTU – Nephelometric Turbidity Unit; is the measurement of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

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

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

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

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

pCi/L – Picocuries per liter; is a measure of radioactivity in water.

RAA – Running Annual Average; The average of sample analytical results for samples taken during the previous four calendar quarters.

TT – Treatment Technique – A required process intended to reduce the level of a contaminant in drinking water.

Variances and Exceptions – State or EPA permission not to meet an MCL or Treatment Technique under certain conditions.

PUBLIC NOTICE

During 2023, or during any compliance period that ended in 2023, **Pender County Utilities** received a monitoring violation (Tier 2) without penalty that covered the period of January to December 2023. We have consulted with State officials and reviewed all sample compliance periods with all staff to ensure this does not happen again.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Violation Awareness Date: March 30, 2023

Pender County Utilities (Old Landing Road) –has levels of Total Trihalomethanes above Drinking Water Standards

Our water system recently violated a drinking water standard. Although this incident was not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

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. During the compliance period specified in the table below, we exceed the standard, or maximum contaminant level (MCL) for the contaminants listed and therefore cannot be sure of the quality of your drinking water during that time. The standard for TOTAL TRIHALOMETHANES is 0.080 mg/L. Over the reference compliance period, the sample location with the highest average level of TOTAL TRIHALOMETHANES had a concentration of 0.094 mg/L.

(TTHM) – Total Trihalomethanes – include Chloroform, Bromoform, Bromodichloromethane, and Dibromochloromethane

Contaminant Group	Facility ID NO. / Sample Point ID	Compliance Period Begin Date	Number of Samples / Sampling Frequency	When Samples Were Taken (Returned to Compliance)
TTHMs	70-71-011 / B03	January 1, 2023	4 / Quarterly	Samples remain over the (LRAA) Locational Running Annual Average
TTHMs	70-71-011 / B03	April 1, 2023	4 / Quarterly	Samples remain over the (LRAA) Locational Running Annual Average
TTHMs	70-71-011 / B03	July 1, 2023	4 / Quarterly	Samples remain over the (LRAA) Locational Running Annual Average
TTHMs	70-71-011 / B03	October 1, 2023	4 / Quarterly	Samples remain over the (LRAA) Locational Running Annual Average

What should I do?

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.
- If you have severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

What is being done?

- Flushing stations have been installed in the Topsail Area of the Distribution System.
- A mixer has been added to the Topsail Water Tower.
- Additional TTHM sampling is currently taking place.

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

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 following tables list all the drinking water contaminants that we detected in the last round of sampling for each particular contaminant group. The presence of contaminants does not necessarily indicate that water poses a health risk. Unless otherwise noted, the data presented in these tables is from testing done January 1 through 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.

Lead and Copper Contaminants

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, Pender County Utilities 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>.

Contaminant (Units)	Sample Date	Your Water (90th Percentile)	MCLG / MCL	# of sites found above the AL	Likely Source of Contamination
Copper (ppm) (90th percentile)	2021	0.283	1.3 / 1.3 = AL	0	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (90th percentile)	2021	<3.0	0 / 15 = AL	0	Corrosion of household plumbing systems; erosion of natural deposits

AL = Action Level

Disinfectant Residuals

The most common use of chlorine in water treatment is to disinfect water. Chlorine kills bacteria, viruses, and other microorganisms that cause disease and immediate illness. In addition to disinfection, chlorine can be effectively used to oxidize iron, manganese, and hydrogen sulfide to facilitate their removal, to reduce color in water, and to aid in such treatment process as sedimentation and filtration.

Chlorine is effective and continues to keep the water safe as it travels from the treatment plant to the consumer's tap.

Contaminant (units)	MRDL Violation Y/N	Your Water (Highest RAA)	Range Low to High	MRDLG	MRDL	Likely Source of Contamination
Chlorine (ppm) 70-71-011	NO	1.06	0.20 - 3.4	4	4	Water Additive used to control microbes
Chlorine (ppm) Well #4 Kiwanis	NO	3.09	0.95 - 3.70	4	4	Water Additive used to control microbes
Chlorine (ppm) Well #6 Annex	NO	3.1	0.90 - 3.70	4	4	Water Additive used to control microbes

Disinfection Byproducts

Based upon Locational Running Annual Average (LRAA)

Disinfection Byproduct	Year Sampled	MCL Violation Y/N	Your Water Highest (LRAA)	Range Low to High	MCLG	MCL	Likely Source of Contamination
THM (ppb)	2023	Y			N/A	80	Byproduct of drinking water disinfection
B01				23-65			
B02				34-61			
B03			94	63-125			
B04				29-50			
HAA5 (ppb)	2023	N			N/A	60	Byproduct of drinking water disinfection
B01				1-20			
B02				8-21			
B03			44	13-60			
B04				8-21			

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

HAA5: Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Total Organic Carbon Contaminants

Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs).

Contaminant (units)	(TT) Violation Y/N	Your Water (Lowest RAA)	Range Monthly Removal Ration Low to High	MCLG	Treatment Technique (TT) violation if:	Likely Source of Contamination
Total Organic Carbon (TOC) (Removal ratio) - Finished Water	NO	1.6	0 - 2.5	N/A	*Removal Ration RAA <1.00 and alternative compliance criteria was not met	Naturally present in the environment

*The RAA of our removal ratio was below 1.0 during the 2nd and 4th quarters, but this was not a treatment technique violation because we met the alternative compliance criteria for TOC removal by conventional filters.

Microbiological Contaminants

Total coliforms are a group of related bacteria that are (with few exceptions) not harmful to humans. A variety of bacteria, parasites, and viruses, known as pathogens, can potentially cause health problems if humans ingest them. EPA considers total coliforms a useful indicator of other pathogens for drinking water. Total coliforms are used to determine the adequacy of water treatment and the integrity of the distribution system.

Pender County Utilities tests thirty (30) samples per month for Total Coliform.

Contaminant (Units)	MCL Violation (Yes / No)	MCL	Sample Date	MCLG	Likely Source of Contamination
Total Coliform Bacteria (Present or Absence)	No	3 positive samples / month*	2023	N/A	Naturally present in the environment
E. Coli (Present or Absence)	NO	Routine and repeat samples are total coliform - positive and either is E. Coli - positive or system fails to take repeat samples following E. Coli - positive routine sample or system fails to analyze total coliform - positive repeat sample for E. Coli Note: If either an original routine sample and/or its repeat sample(s) are E. Coli positive a Tier 1 violation exists.		0	Human and animal fecal waste

*If a system collecting fewer than 40 samples per month has two or more positive samples in one month, an assessment is required.

E. Coli are bacteria whose presence indicates that the water may be contaminated with human or animal waste. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose special health risks for infants, young children, some of the elderly, and people with severely compromised immune systems.

Turbidity Contaminants

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The turbidity rule requires that 95% or more of the monthly samples must be less than or equal to 0.3 NTU. Turbidity has no health effects.

Contaminant (units)	(TT) Violation Y/N	Your Water	MCLG	(TT) Violation if:	Likely Source of Contamination
Turbidity (NTU) - Highest single turbidity measurement	N	0.05	N/A	Turbidity >1	Soil Runoff
Turbidity (NTU) - Lowest monthly percentage (%) of samples meeting turbidity limits		100%	N/A	Less than 95% of monthly turbidity measurements are ≤ 0.3 NTU	

Analyses of Interest

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

Analyses from Water Treatment Plant – Entry Point (E02)

Contaminant (Units)	Your Water (annual average)	MCL	Likely Source of Contamination
pH (S.U.)	7.31	6.0 - 9.0	N/A
Alkalinity (ppm)	31.11	N/A	Soil Runoff
Total Hardness (ppm)	28	N/A	N/A
Iron (ppm)	0.02	0.3	Maybe from the corrosion of iron or steel pipes or other components of the plumbing system where the acidity of the water, measured as pH, is below 6.0 S.U.
Manganese (ppm)	0.005	0.05	Is a mineral that is found naturally in the environment and is one of the most abundant metals on the earth's surface, in air, in water, and soil.
Conductivity (µmhos/cm)	325	N/A	N/A
Orthophosphate (ppm)	1.08	N/A	N/A
Total Phosphate (ppm)	1.58	N/A	N/A
Sodium (ppm)	55.90	N/A	N/A
Sulfate (ppm)	100.00	250	N/A

Analyses of Interest

Analyses from Kiwanis Well (E04)

Contaminant (Units)	Your Water (annual average)	MCL	Likely Source of Contamination
pH (S.U.)	7.20	6.0 - 9.0	N/A
Total Hardness (ppm)	406	N/A	N/A
Iron (ppm)	0.7	0.3	Maybe from the corrosion of iron or steel pipes or other components of the plumbing system where the acidity of the water, measured as pH, is below 6.0 S.U.
Manganese (ppm)	0.037	0.05	Is a mineral that is found naturally in the environment and is one of the most abundant metals on the earth's surface, in air, in water, and soil.
Total Phosphate (ppm)	1.19	N/A	N/A
Sodium (ppm)	17.30	N/A	N/A
Fluoride	0.22	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Dalapon	2.68	200	Runoff from herbicide used on rights of way.

Analyses of Interest

Analyses from Annex Well (E06)

Contaminant (Units)	Your Water (annual average)	MCL	Likely Source of Contamination
pH (S.U.)	7.11	6.0 - 9.0	N/A
Total Hardness (ppm)	420	N/A	N/A
Iron (ppm)	0.22	0.3	Maybe from the corrosion of iron or steel pipes or other components of the plumbing system where the acidity of the water, measured as pH, is below 6.0 S.U.
Manganese (ppm)	0.052	0.05	Is a mineral that is found naturally in the environment and is one of the most abundant metals on the earth's surface, in air, water, and soil.
Total Phosphate (ppm)	1.16	N/A	N/A
Sodium (ppm)	17.30	N/A	N/A
Fluoride	0.21	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Dalapon	3.66	200	Runoff from herbicide used on rights of way.

How is Pender County Utilities Water Treated?

The Pender County Surface Water Treatment Plant is the main source of potable water for Pender County. The water treatment plant is on Highway 421 just north of the New Hanover County border.

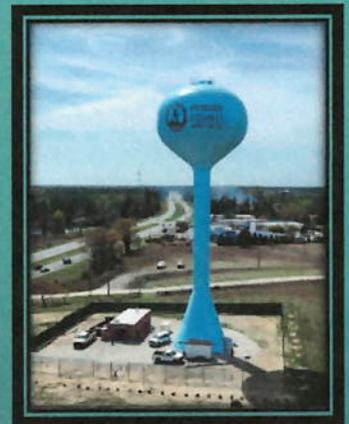
The plant has a finished water capacity of 4 million gallons per day (MGD). It utilizes a conventional treatment process that supplies water to Pender County water customers in five water districts.

Pender County Utilities has eight storage tanks within the county for a total storage volume of 4.5 million gallons. In the Hampstead, Topsail, and Scott's Hill area the county has five wells fed by the Upper PeeDee Aquifer. The pumps at these wells can provide 350 gallons per minute.

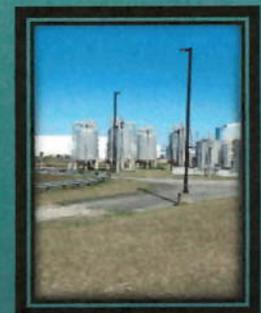
The water plant operates using a conventional treatment process. The initial treatment step is coagulation which involves the rapid mixing of Caustic and Ferric Sulfate into the raw (untreated) water. Next, the water flows into chambers where gentle mixing allows particles to stick together or flocculate. The heavy floc particles that have formed then settle and are removed in sedimentation basins. The water then flows through sand and anthracite filters to remove any remaining particles. Water then flows to four Granular Activated Carbon (GAC) Contactors that help remove contaminants such as GenX, PFOA, PFOS, TOC, Taste, and Odor. In the final step, Orthophosphate and chlorine is added to the water.

The Orthophosphate is added to prevent metals from leaching into the drinking water as it travels through the water lines to the customer. Chlorine is added to the water as a disinfectant to kill bacteria in the distribution system.

Orthophosphate and chlorine are added to the well water before discharging into the distribution system. These chemicals serve the same purpose as at the water treatment plant.



Scotts Hill Elevated Tank
Est. 2024



Water Treatment Plant GACs
Est. 2012

Unregulated Contaminants

Per- and Polyfluoroalkyl Substances (PFAS)

Contaminant (ppt)	Sample Year	Your Water Average	Range Low - High	Health Information
PFAS*	2023	3.68	ND - 4.66	None Established
PFBA	2023	3.79	ND - 4.89	None Established
PFPeA	2023	6.46	ND - 9.60	None Established
PFHxA	2023	4.50	ND - 6.14	None Established
PFHpA	2023	1.61	ND - 2.16	None Established
PFOA	2023	2.14	ND - 2.83	70 ppt EPA Health Advisory for Total Combined Concentration of PFOA and PFOS
PFOS	2023	1.54	ND - 2.14	
PFNA	2023	0.74	ND - 0.20	None Established
PFBS	2023	2.79	ND - 3.86	None Established
PEPA	2023	0.97	ND - 1.46	Advisory Level 2000 ng/L
PFPeS	2023	0.19	ND - 0.31	None Established
PFHxS	2023	1.42	ND - 2.32	None Established
PFOSA	2023	0.41	ND - 0.17	None Established
HFPO-DA (GenX)	2023	2.75	ND - 4.51	Advisory Level 10 ng/L
PFMOAA	2023	8.21	ND - 12.10	None Established
PFO2HxA	2023	2.51	ND - 5.61	None Established
PMPA	2023	6.00	ND - 12.10	None Established

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



Water Tap



Installing Your

What Are PFAS?

Per-and polyfluoroalkyl substances (PFAS) are a group of manufacture chemicals used worldwide, since the 1950s to make fluoropolymer coatings and products that resist heat, oil, stains, grease, and water. During production and use, PFAS can migrate into the soil, water, and air. Most PFAS do not break down; they remain in the environment, ultimately finding their way into drinking water. Because of their widespread use and their persistence in the environment, PFAS are found all over the world at low levels. Some PFAS can build up in people and animals with repeated exposure over time.

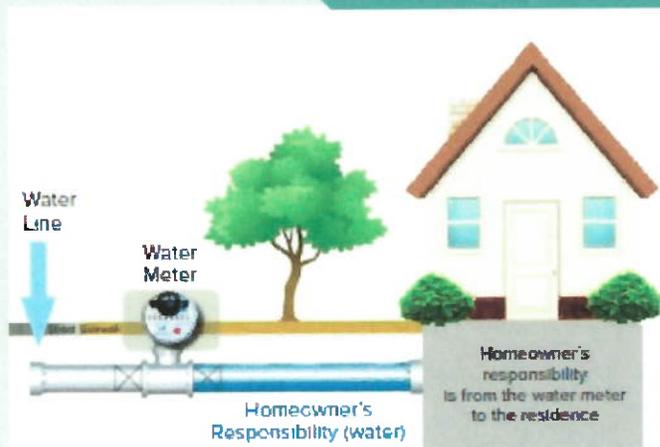
The most studied PFAS are perfluorooctanoic Acid (PFOA) and perfluorooctane sulfonic acid (PFOS). PFOA and PFOS have been phased out of production and use in the United States, but other countries may still manufacture and use them.

Some products that may contain PFAS include:

- Some grease-resistant paper, fast food containers/wrappers, microwave popcorn bags, pizza boxes
- Nonstick cookware
- Stain-resistant coatings used on carpets, upholstery, and other fabrics
- Water-resistant clothing
- Personal care products (shampoo, dental floss) and cosmetics (nail polish, eye makeup)
- Cleaning products
- Paints, varnishes, and sealants

Even though recent efforts to remove PFAS have reduced the likelihood of exposure, some products may still contain them. If you have questions or concerns about products you use in your home, contact the Consumer Product Safety Commission at (800) 638-2772.

Water Leaks?



It is the customer's responsibility to repair any leaks past their water meter. If you suspect a leak on PCU's side of the meter, please call 910-259-1570 (8 AM to 5 PM) after 5PM 910-471-1041

PENDER COUNTY EMERGENCY ALERT SYSTEM

Receive community information instantly!

Sign up today!

Be safe tomorrow!

Mobile Alerts: text your zip code to 8877
Or

<https://local.nixle.com/pender-county-nc>

Or

Download the Everbridge (Nixle Alert) app



Changes in water pressure, such as water main breaks or fire hydrants are used or flushed, can occasionally cause drinking water to be discolored. The discoloration is caused by sediments in pipes mixing with clear water. The sediments occur naturally from the oxidation of iron in pipes. While discolored water is ordinarily safe to drink, it is best to flush any discolored water from pipes by turning on all cold-water faucets. Avoid turning on any hot-water faucets, so the discolored water is not drawn into water heaters.

“Committed to Quality”

This Institution is an equal opportunity provider and employer.

2023 Annual Drinking Water Quality Report

Town of Wallace

Water System Number: NC: 04-31-010

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 Brent Dean at (910) 285-2812. 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. They are held at Wallace Town Hall on the second Thursday of each month at 7:00 pm.

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. Town of Wallace 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>.

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

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

When You Turn on Your Tap, Consider the Source

The water that is used by this system is ground water from throughout the 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 Town of Wallace was determined by combining the contaminant rating (number and location of PCSs within the assessment area) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the well or watershed and its delineated assessment area). The assessment findings are summarized in the table below:

Susceptibility of Sources to Potential Contaminant Sources (PCSs)

Source Name	Susceptibility Rating	SWAP Report Date
Well #11	Moderate	September 10, 2020
Well #14	Moderate	September 10, 2020
Well #2	Moderate	September 10, 2020
Well #4	Moderate	September 10, 2020
Well #5	Moderate	September 10, 2020
Well #6	Moderate	September 10, 2020
Well #8	Lower	September 10, 2020
Well#9	Moderate	September 10, 2020

The complete SWAP Assessment report for Town of Wallace 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 web site 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@ncdenr.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. We have implemented the following source water protection actions: You can help protect your community’s drinking water source(s) in several ways: (examples: dispose of chemicals properly; take used motor oil to a recycling center, volunteer in your community to participate in group efforts to protect your source, etc.).

Violations that Your Water System Received for the Report Year

During 2023, or during any compliance period that ended in 2023, we received a LEAD CONSUMER NOTICE (LCR) violation that covered the time period of 1/1/2023 through 3/24/2023. We received a FOLLOW-UP OR ROUTINE TAP M/R (LCR) violation that covered the time period of 1/1/2023 through 12/31/2023. We received (2) MONITORING, ROUTINE MINOR (SOC) violations that covered the time period of 1/1/2020 through 12/31/2022. We received a LEAD CONSUMER NOTICE (LCR) violation that covered the time period of 1/1/2024. We received a MONITORING, ROUTINE MINOR (NITRATE) violation that covered the time period of 1/1/2023 through 12/31/2023. We are/have reviewed all sampling compliance periods with staff to assure this does not happen again.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Wallace, Town of Has Not Met Monitoring Requirements

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. During the compliance period(s) specified in the table below, we [did not monitor or test] or [did not complete all monitoring or testing] for the contaminants group(s) listed and therefore cannot be sure of the quality of our drinking water during that time.

CONTAMINANT GROUP**	ENTRY POINT/ LOCATION CODE	COMPLIANCE PERIOD BEGIN DATE	SAMPLING FREQUENCY	WHEN SAMPLES WERE OR WILL BE TAKEN (Water System to Complete)
NT/NI	P09 / 009	1/1/2023	1 / YR	Late April 2024
LC - follow up tap monitoring	D01	1/1/2023	20 / YR	2/26/2024

** See back of this notice for the complete list of individual contaminants for each contaminant group

What should I do? There is nothing you need to do at this time.

What happened? What is being done? When will the problem be corrected?

Compliance sampling requirements have been reviewed with all staff to ensure that all future samples are collected within their correct compliance periods. The missed samples have been (or have been scheduled to be) collected.

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 TOWN OF WALLACE	System Name Wallace, Town of	System Address (Street) 316 E MURRAY ST
Phone Number (910) 285-4136	System PWSID # NC0431010	System Address (City, State, Zip) WALLACE, NC, 28466

Violation Awareness Date: 12/4/2023 - 2/6/2024

Date Notice Distributed: _____ Method of Distribution: US. Mail (via) 2023 CCR

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: Brent Dean

Brent Dean

(Signature)

(Print Name)

(Date)

(LC) Lead and Copper are tested by collecting the required number of samples and testing each of the samples for both lead and copper.
(NT) Nitrate/ (NI) Nitrite – includes testing for nitrate and/or nitrite.

For more information about this violation, please contact the responsible person listed in the first paragraph of this report.

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.
 - *Parts per quadrillion (ppq) or Picograms per liter (picograms/L)* - One part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.
 - *Picocuries per liter (pCi/L)* - Picocuries per liter is a measure of the radioactivity in water.
 - *Million Fibers per Liter (MFL)* - Million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.
 - *Nephelometric Turbidity Unit (NTU)* - Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
 - *Variances and Exceptions* – State or EPA permission not to meet an MCL or Treatment Technique under certain conditions.
 - *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.
 - *Locational Running Annual Average (LRAA)* – The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters under the Stage 2 Disinfectants and Disinfection Byproducts Rule.
 - *Running Annual Average (RAA)* – The average of sample analytical results for samples taken during the previous four calendar quarters.
 - *Level 1 Assessment* - A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
 - *Level 2 Assessment* - A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
 - *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.
-

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. Unless otherwise noted, the data presented in this table is from testing done January 1 through 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			
Fluoride (ppm)	10/3/22	N	0.155 (ppm)	0.129 (ppm)	0.191 (ppm)	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Lead and Copper Contaminants

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)	9/28/23	1.08 (ppm)	1	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (90 th percentile)	9/28/23	0.00 (ppb)	0	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits

Disinfectant Residuals Summary

	MRDL Violation Y/N	Your Water (RAA)	Range		MRDLG	MRDL	Likely Source of Contamination
			Low	High			
Chlorine (ppm)	N	0.36 (ppm)	0.04 (ppm)	1.54 (ppm)	4	4.0	Water additive used to control microbes

Total Trihalomethanes (TTHM) and Haloacetic Acids (five) (HAA5)

Contaminant (units)	Year Sampled	MCL Violation Y/N	Your Water (highest LRAA)	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
TTHM (ppb)	2023	N				N/A	80	Byproduct of drinking water disinfection
B01			23.0 (ppb)	23.0 (ppb)				
B02			17.0 (ppb)	17.0 (ppb)				
HAA5 (ppb)	2023	N				N/A	60	Byproduct of drinking water disinfection
B01			0.00 (ppb)	0.00 (ppb)				
B02			0.00 (ppb)	0.00 (ppb)				

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

Other Miscellaneous Water Characteristics Contaminants

Contaminant (units)	Sample Date	Your Water	Range		SMCL
			Low	High	
Iron (ppm)	10/3/22	0.131 (ppm)	0.088 (ppm) - 0.234 (ppm)		0.3 mg/L
Manganese (ppm)	10/3/22	0.023 (ppm)	0.017 (ppm) - 0.037 (ppm)		0.05 mg/L
Sodium (ppm)	10/3/22	57.31 (ppm)	16.40 (ppm) - 156.00 (ppm)		N/A
pH	10/3/22	8.97	7.73 - 11.23		6.5 to 8.5