

Pender County Utilities

2022 Annual Drinking Water Quality Report

System ID: 70-71-011

910-259-1570



We are pleased to present to you the 2022 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.



WHO WE ARE:

Operators, Meter Readers,
Customer Service, Technicians,
Mechanics, Engineers, and
Scientists

WHAT WE MANAGE:

907 Fire Hydrants
358 Miles of Water Lines
6 Storage Tanks
2 Wells
1 Water Treatment Plant
1 Wastewater Treatment Plant



WHAT WE DO:

Treat and deliver an average of
2.0 million gallons of drinking
water to over 11,400 customers
every day

WHO WE SERVE:

The residents of Columbia/Union,
Central Pender, Moore's Creek,
Rocky Point / Topsail, Hampstead
and Scotts Hill



What the EPA Wants You To Know

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

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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.

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://www.epa.gov.safewater/lead>.

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 treated drinking water within Pender County through one primary system 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. The Annex (well #6) and Kiwanis (Well #4) wells were added water sources in the Hampstead Area. Water from the wells is combined with the water from the Surface Water Plant up to seven days a week to serve the Hampstead / Topsail areas.

Plans are underway to add additional sources of water in the Hampstead / Scott's Hill areas. Plans include one operational well by the end of 2023, two additional operational wells by spring of 2024, and an additional 500,000 gallon elevated tank in 2024. 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 24 hours per day, 7 days per week to ensure a safe, high quality, and reliable drinking water source.

We also purchase treated water from the Town of Wallace, and their annual report can be viewed at <https://www.wallacenc.gov/wp-content/uploads/2023/05/Town-of-Wallace-2022-CCR.pdf>



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 located on Highway 421 just north of the New Hanover County border.

The plant has a finished water capacity of 2 million gallons per day (MGD) and utilizes a conventional treatment process that supplies water to 11,400 customers. Pender County Utilities administers water for five water districts to serve the residences of Pender County. The districts include Rocky Point / Topsail, Scotts Hill, Central Pender, Columbia Union, and Moore's Creek.

Pender County Utilities has seven storage tanks within the county for a total storage volume of 4 million gallons. In the Hampstead / Topsail area the county has two wells that were constructed in the fall of 2020 which is fed by the Upper Pee Dee 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 4 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 (see lead and copper information on previous page). 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 in the Hampstead / Topsail area. These chemicals serve the same purpose as at the water treatment plant.



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:

SUSCEPTIBILITY OF SOURCES TO POTENTIAL CONTAMINANT SOURCES PCSs)

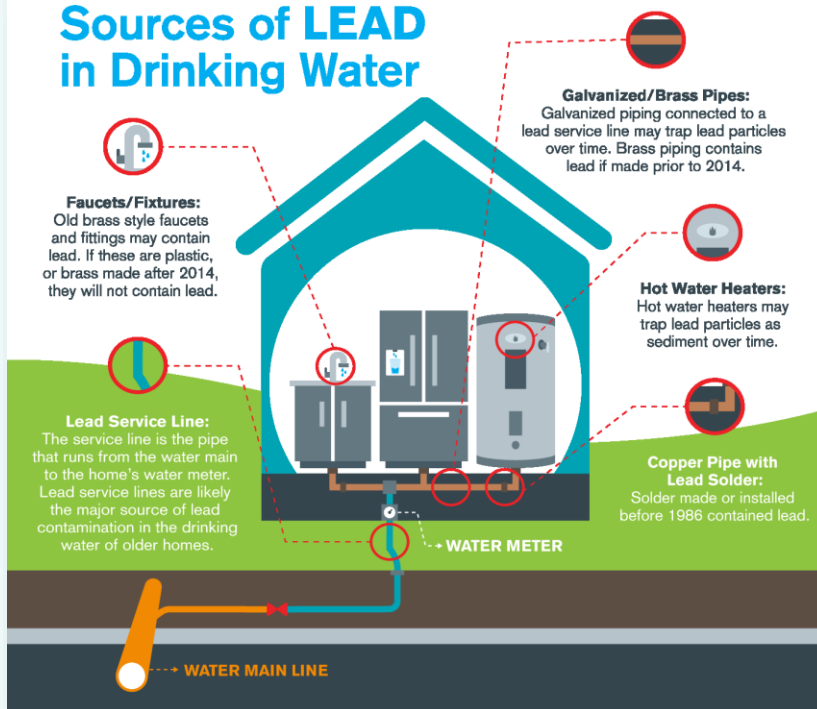
Source Name	Susceptibility Rating	SWAP Report Date
LCFWSA	Moderate	September 2020
Kiwanis Well #4	Moderate	September 2020
Annex Well #6	Moderate	September 2020

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 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.



Sources of LEAD in Drinking Water



Do you have a lead service line to your home?

Lead in drinking water has been a concern in the water industry for decades. The primary sources of lead in drinking water are corrosion in drinking water pipes, household plumbing, and appliances maintained by homeowners.

Throughout Pender County, homes may rely on aging plumbing systems that haven't been updated to meet newer standards. When internal plumbing components contain lead, residents and customers are more likely to be exposed to these metals as they leach into drinking water from faucets and other plumbing materials.

What is New with Lead and Copper:

In 1991, EPA published a regulation to control lead and copper in drinking water. This regulation is known as the lead and copper rule which can be found in the Code of Federal Regulations (40 CFR Part 141 Subpart I). In 2021 the lead and copper rule was revised to identify and replace all lead service lines. Lead is a common metallic element in nature and can be found in air, soil, and water. Lead was used for centuries in plumbing because of its pliability and resistance to leaks. In 1986, lead pipes were banned in the United States and plumbing materials were required to meet federal "lead free" specifications.

The new EPA standards require utilities to complete an inventory of their and customer water service lines by fall of 2024. Rather than wait for the deadline, PCU's staff launched the start of our inventory in 2021. Phase 1 of the inventory is to gather the date which the water customers' home was built. Build date of mobile homes is a large missing piece of the inventory data. Phase 2 will be to create a database of water service line materials, including lead.

Pender County Utilities is seeking customers to participate in the Safe Water Act Lead and Copper Rule monitoring program. Pender County Utilities' water mains are not made of lead. However, the water service line running from the water meter to your home may be made of lead. Pender County Utilities requests your help to determine the type of service line that is going from our water main to your home to complete our lead and copper sampling site plan.

To effectively monitor and manage lead and copper in drinking water, utilities often implement corrosion-control measures. For years, PCU has had a Corrosion-Control Program that is highly effective at preventing pipes from leaching metals, especially lead. Orthophosphate, a corrosion-control inhibiting mineral that is safe to drink, creates a protective coating on pipes as it flows through the water system and is the key to a successful Corrosion-Control Program. PCU's Lead and Copper Sampling Program also ensures corrosion control is working effectively by having staff work with our customers to sample water from homes across the county. PCU's corrosion control program has successfully managed the threat of lead in our drinking water. However, we cannot control the variety of materials used inside the home's plumbing system.

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 for calendar quarters under the Stage 2 Disinfectants and Disinfection Byproducts Rule.

MCL – Maximum Contaminate Level; The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs allow for a margin of safety.

MCLG – Maximum Contaminant Level Goal; The level of a contaminate 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 Goal; 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 more than 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; This is measurement of the mass of a chemical or contaminate per unit volume of water.

ppb – Parts per billion or ug/L – Micrograms per liter; is the number of units of mass of a contaminant per 1000 million units of total mass.

ppt - Parts per trillion or nanograms/L – Nanograms per liter; is the number of units of mass of a contaminant per 100000 billion units of total mass.

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

RAA – Running Annual Average; The average of samples taken at all locations throughout the system.

SDWA – Safe Drinking Water Act

S.U. – Standard Units (pH measurements)

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

µmhos/cm – microhos per centimeter, unit of measurement for conductivity which is the reciprocal of the unit of resistance.

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

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)



Pender County Solid Waste Convenience Center

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 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, 2022.** 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					

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	0.27	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 \leq 0.3 NTU	

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	1.67	0 - 2.4	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 3rd quarter, but this was not a treatment technique violation because we met the alternative compliance criteria for TOC removal by conventional filters.

Analyses of Interest

The NC Public Water Supply 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.

Contaminant (Units)	Your Water (annual average)	Range Low to High	SMCL	Likely Source of Contamination
pH (S.U.)	7.85		6.5 - 8.5	N/A
Alkalinity (ppm)	31.26	20 - 42	N/A	Soil Runoff
Total Hardness (ppm)	26.44	18 - 36	N/A	N/A
Iron (ppm)	0.01	0 - 0.05	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)	0.006	0 - 0.040	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)	313	256 - 642	N/A	N/A
Orthophosphate (ppm)	1.08	0.90 - 1.84	N/A	N/A
Total Phosphate (ppm)	1.69	1.39 - 1.98	N/A	N/A
Sodium (ppm)	42.40	0 - 42.4	N/A	N/A
Sulfate (ppm)	75.00	0 - 75.00	250	N/A

Analyses of Interest Kiwanis Well #4

Contaminant (Units)	Your Water (annual average)	Range Low to High	SMCL	Likely Source of Contamination
pH (S.U.)	6.96	6.49 - 8.13	6.5 - 8.5	N/A
Iron (ppm)	0.825	0 - 0.825	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)	0.039	0 - 0.039	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)	1.24	0.47 - 2.04	N/A	N/A
Sodium (ppm)	20.50	0 - 20.50	N/A	N/A

Analyses of Interest Annex Well #6

Contaminant (Units)	Your Water (annual average)	Range Low to High	SMCL	Likely Source of Contamination
pH (S.U.)	7.06	6.8 - 7.5	6.5 - 8.5	N/A
Iron (ppm)	0.22	0 - 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)	0.050	0 - 0.050	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)	1.12	0.36 - 1.99	N/A	N/A
Sodium (ppm)	16.70	0 - 16.70	N/A	N/A

Disinfectant Residuals

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	1.04	0.03 - 3.61	4	4	Water Additive used to control microbes
Chlorine (ppm) Well #4 Kiwanis	NO	1.41	0.68 - 2.20	4	4	Water Additive used to control microbes
Chlorine (ppm) Well #6 Annex	NO	1.32	0.72 - 2.10	4	4	Water Additive used to control microbes

Inorganic Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range Low - High	MCLG	MCL	Likely Source of Contamination
Fluoride (ppm)	8/10/2022	N	0.14	N/A	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Microbiological Contaminants

Pender County Utilities samples less than 40 samples per month.

Contaminant (Units)	MCL Violation (Yes / No)	MCL	Sample Date	MCLG	Likely Source of Contamination
Total Coliform Bacteria (Present or Absence)	Yes	3 positive samples / month*	8/10/2022	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.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments. During the past year we were required to conduct one level 1 assessment. One level 1 assessment was completed. In addition, we were required to take 1 corrective action and we completed one corrective action. This level 1 action was found to be due to a sampling error and has been corrected.

August 10, 2022

Pender County Utilities

70-71-011

Level 1 Assessment for the Revised Total Coliform Rule	Citation
Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.	40 CFR 141.153(h)(7)(i)(A)
During the past year we were required to conduct [1] Level 1 assessment. [1] Level 1 assessment was completed. In addition, we were required to take [1] corrective action and we completed [1] of these actions.	40 CFR 141.153(h)(7)(i)(B)

Unregulated Contaminants

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.

Per- and Polyfluoroalkyl Substances (PFAS)

PFAS substances, are a group of human-made chemicals that includes PFOA, PFOS, GenX, and many other chemicals. These substances have been used since the 1950's to make products to resist stains, grease, and water and in some firefighting foams. PFAS exposure can occur through contaminated drinking water, food, indoor dust, as well as some consumer products (cookware, pizza boxes, and cosmetics) and workplaces. Most people have been exposed to PFAS. Currently there are over 600 PFAS compounds that the EPA has approved for sale or imported into the United States. Due to their widespread use, PFAS are being found at low ambient levels in the environment.

Only a small amount of PFAS can get into your body through your skin, such as through bathing, showering, and swimming. Limited data from animal studies show some PFAS may cause skin irritation at high levels.

To reduce exposure to PFAS, reduce your use of products containing PFAS (packaged foods, products with non-stick or stain resistant coatings, and some personal care products).

If you have questions about the products you use in your home, contact the Consumer Product Safety Commission at (800) 638-2772

Contaminant (ppt)	Sample Date	Your Water	Range Low - High	Health Information
PFAS*	5/25/2022	2.53	ND - 2.53	None Established

* Results obtained using an analytical standard provided by Chemours; not a certified standard

Contaminant (ppt)	Sample Year	Your Water Average	Range Low - High	Health Information
PFBA	2022	3.43	ND - 3.43	None Established
PFPeA	2022	4.66	ND - 4.66	None Established
PFHxA	2022	3.70	ND - 3.70	None Established
PFHpA	2022	1.09	ND - 1.09	None Established
PFOA	2022	1.34	ND - 1.34	70 ppt EPA Health Advisory for Total Combined Concentration of PFOA and PFOS
PFOS	2022	1.19	ND - 1.19	
PFNA	2022	0.14	ND - 0.14	None Established
PFBS	2022	1.89	ND - 1.89	None Established
PFBS	2022	1.89	ND - 1.89	Advisory Level 2000 ng/L
PFPeS	2022	0.30	ND - 0.30	None Established
PFHxS	2022	1.12	ND - 1.12	None Established
PFOSA	2022	0.14	ND - 0.14	None Established
HFPO-DA (GenX)	2022	2.76	ND - 2.76	Advisory Level 10 ng/L
PFMOAA	2022	17.20	ND - 17.20	None Established
PFO2HxA	2022	5.08	ND - 5.08	None Established
PMPA	2022	5.41	ND - 5.41	None Established

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)	2022	Y			N/A	80	Byproduct of drinking water disinfection
B01				43 - 96			
B02				36 - 98			
B03			83	63 - 120			
B04				29 - 79			
HAA5 (ppb)	2022	N			N/A	60	Byproduct of drinking water disinfection
B01				3 - 36			
B02				11 - 47			
B03				9 - 86			
B04			33	8 - 90			

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

For 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.

Drink More Water!



Public Notice

During 2022, or during any compliance period that ended in 2022, **Pender County Utilities** received a monitoring violation without penalty that covered the period of January to December 2022. We have consulted with State officials and reviewed all sample compliance periods with all staff to assure this does not happen again.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Violation Awareness Date: July 1, 2022

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 exceeded 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 referenced compliance period, the sample location with the highest average level of TOTAL TRIHALOMETHANES had a concentration of 0.082 mg/L.

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	July 1, 2022	4 / Quarterly	All samples meet the MCL Requirements
TTHMs	70-71-011 / B03	October 1, 2022	4 / Quarterly	Samples remain over the (LRAA) Locational Running Annual Average

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

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?

- Pender County Utilities has lowered the disinfection dosing at the water treatment plant and at the wells.
- Extensive flushing of water lines is being performed.
- Additional TTHM sampling is currently happening.

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 businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.



Water Discoloration

Changes in water pressure, such as when water mains break 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 in your home or business. Avoid turning on any hot-water faucets, so the discolored water is not drawn into water heaters.

Frequently Asked Questions

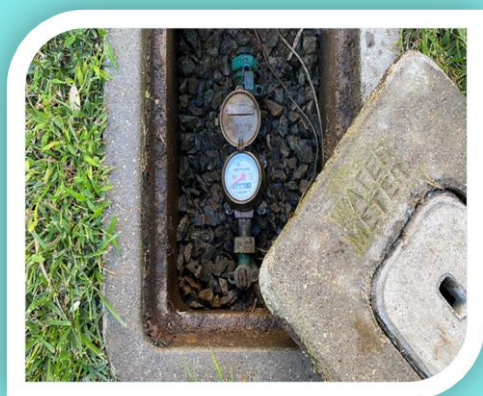
What is the pink slime or black ring in my bathroom? Biofilm is not from our water supply. These organisms are naturally in the environment and love the humid and damp areas. They are not harmful.

Why does my water smell like rotten eggs or sulfur?

A rotten egg or sulfur smell usually indicates bacteria growing in your drain or water heater. When hair or other materials clog the drain and decompose over time and water faucet is turned on it will cause a sulfur smell to drift up.

Why does my tap water appear milky?

In the winter, water contains more oxygen or air because it is cold. When water is delivered to your house, it warms up and releases oxygen. As the glass of water sits, the water clears from the bottom of the glass upward as the air bubbles rise and escape.



How to watch for leaks

Turn off all water indoors and outdoors including sprinklers, ice maker, etc. If the flow indicator moves, this may indicate a leak in an appliance or pipe. If the meter shows no obvious movement, note the reading on the meter and return in 4 hours to see if there is any change. Note: if you use water during that time, the meter reading will change.

It is the customer's responsibility to repair any leak past their water meter.

"Committed to Quality"

Pender County Utilities
605 East Fremont Street
Burgaw, NC 28425
910-259-1570 (8AM to 5PM)



Emergencies - after 5PM
Water main breaks or other
emergencies
910-471-1041

This institution is an equal opportunity provider and employer.