



2024
Pender County Utilities
Drinking Water Quality Report
ID# NC 70-71-011

“Think Outside the Bottle”

Pender County Utilities
605 East Fremont Street
Burgaw, NC 28425
910-259-1570 (8AM – 5PM)
910-471-1041 (After 5PM)



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

We are pleased to present to you the 2024 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 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 Commissioner's meetings on the first and third Monday of each month at 4:00 PM. All meetings are open to the public in the Public Assembly Room located at 805 South Walker Street, Burgaw, NC 28425 unless otherwise noted.



80% of plastic water bottles never get recycled



Requires up to 450 years to decompose

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, and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

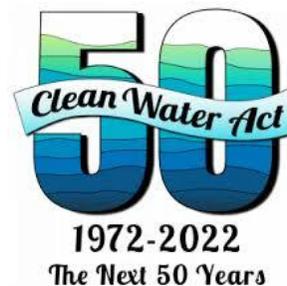
Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants 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>.

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.

To ensure that tap water is safe to drink, the EPA prescribes regulations that 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 manages the distribution and treatment of drinking water in Pender County through a variety of sources and infrastructure. The system primarily relies on surface water from the Cape Fear River, which is purchased from the Lower Cape Fear Water and Sewer Authority and treated at the county's Water Treatment Plant. This is supplemented by groundwater from the Pee Dee and Black Creek Aquifers, as well as purchased water from the Town of Wallace for emergency situations.

To support growing water demands, especially in the eastern regions of the county, additional infrastructure was introduced in April 2024. This includes three operational wells and a 500,000-gallon elevated tank in the Scott's Hill/Hampstead area. These upgrades are intended to accommodate the increasing population in the area, ensuring that sufficient water supply is available for future needs.

The combination of surface water, groundwater, and emergency connections ensures that Pender County Utilities can meet the demands of both current and future residents while maintaining a reliable and sustainable water supply.

The water treatment and distribution system in Pender County is supported by a dedicated and professional team. The staff includes highly trained, state-certified water treatment operators who ensure that water is treated and processed to meet safety and quality standards. The team also includes a state-certified laboratory manager responsible for overseeing water quality testing and ensuring compliance with all regulatory requirements.

In addition to the water treatment staff, a skilled team of maintenance technicians works diligently to maintain the facilities, including the treatment plant, wells, and emergency connections. This collaborative effort ensures that the entire water system remains fully operational and that residents consistently receive safe, high-quality, and reliable drinking water. This commitment to excellence in both operations and maintenance is essential to meeting the community's water needs and safeguarding public health.

The town of Wallace's 2024 Annual Water Quality Report can be viewed at:
<https://www.wallacenc.gov/ccr>



Making bottles to meet Americans' demand for bottled water requires more than 17 million barrels of oil annually, enough to fuel more than 1 million U.S. cars for a year.





The North Carolina Department of Environmental Quality (DEQ), Public Water Supply (PWS) Section, Source Water Assessment 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, which 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	Suseptibility Rating	SWAP Report Date
LCFWSA	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 of this CCR was prepared. If you are unable to access your SWAP report on the web, you may email 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, on the system’s potential to become contaminated by PCSs in the assessment area.



It takes more water to produce a plastic bottle than it will hold.

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 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.

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

Public Notice

During 2024, or during any compliance period that ended in 2024, Pender County Utilities received a monitoring violation (Tier 2) without penalty that covered the period of January to December 2024. We have consulted with State Officials and reviewed all sample compliance periods with all staff to ensure this does not happen again.

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

(HAA5) –Haloacetic Acids - Include Monochloroacetic Acid, Dichloroacetic Acid, Trichloroacetic Acid, Monobromoacetic Acid, Dibromoacetic Acid



**1.7 tons of plastic
makes it way to the
OCEAN**

Estimated 100,000 marine mammals are killed each year by plastic pollution.



IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Violation Awareness Dates:

01/12/2024, 4/2/2024, 7/10/2024, & 10/3/2024

Pender County Utilities (Old Landing Road) was in violation due to the Local Running Annual Average (LRAA) which exceeded 0.080 mg/L

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.

NOTICE TO THE PUBLIC				
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, 2024	4 / Quarterly	Samples remain over the (LRAA) Locational Running Annual Average
TTHMs	70-71-011 / B03	April 1, 2024	4 / Quarterly	Samples remain over the (LRAA) Locational Running Annual Average
TTHMs	70-71-011 / B03	July 1, 2024	4 / Quarterly	Samples returned to compliance in the 4th quarter
HHA's	70-71-011 / B03	March 25, 2024	4 / Quarterly	Samples returned to compliance in the 2nd quarter

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 a specific health concern, 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 a 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 provider 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 and mail.

Public Notice

During 2024, or during any compliance period that ended in 2024, Pender County Utilities received a monitoring violation (Tier 3) without penalty that covered the period of January to December 2024. We have consulted with State Officials and reviewed compliance periods with all staff and contract laboratories to ensure this does not happen again.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Violation Awareness Dates:
November 6, 2024

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 did not complete all monitoring (misplaced sample during transport to the contracted laboratory) for the contaminants listed, and therefore cannot be sure of the quality of your drinking water during that time.

Contaminant Group	Facility ID No. / Sample Point ID	Compliance Period Begin Date	Number of Samples / Sampling Frequency	When Samples Were Taken (Returned to Compliance)
SOC(Dalapon)	P04 / E04	3rd Quarter 2024	1 / Annually	October 9, 2024

(SOC) – Synthetic Organic Chemicals / Pesticides – include 2,4-D, 2,4,5-TP (Silvex), Alachlor, Altrazine, Benzo(a)pyrene, Carbofuran, Chlordane, Dalapon, Gi(2-ethylhexyl)adipate, Di(2-ethylhexyl)phthalate, Dibromochloropropane (DBCP), Dinoseb, Endrin, Ethylene dibromide (EDB), Heptachlor, Heptachlor, Epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene, Lindane, Methoxychlor, Oxamyl(vydate), PCBs, Pentachlorophenol, Picloram, Simazine, Toxaphene.

Dalapon – a chemical compound, specifically an herbicide, used to control certain grass weeds.

What should I do?

- There is nothing you need to do at this time.
- You do not need to boil your water or take other corrective actions.

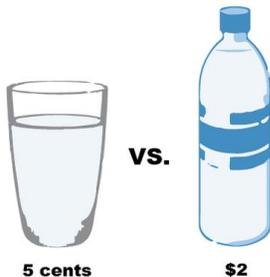
What is being done?

- Communications with the grounds and facilities director and staff that no herbicide shall be sprayed near or around well sites at any time.
- PCU's Laboratory staff should follow up with the contract laboratory to ensure that all compliance samples arrive on time.
- Take samples early within the compliance period to allow time in case the samples need to be resampled.

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 and mail.

For more information about this violation, please contact Pender County Utilities at 910-259-1570 from 8 AM to 5 PM.

Same water. Different price.



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, 2024. 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

The table below summarizes our most recent lead and copper tap sampling data. 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 it 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 that can be taken to minimize exposure is available from the Safe Drinking Water Hotline or at <https://www.epa.gov/safewater/lead>.

Contaminant (Units)	Sample Date	Your Water (90th Percentile)	Range Low - High	MCLG / MCL	# of sites found above the AL	Likely Source of Contamination
Copper (ppm) (90th percentile)	3/3/25 - 4/8/2025	0.408	0 - 0.67	1.3 / 1.3 = AL	0	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (90th percentile)	3/3/2025 - 4/8/2025	<3.0	0 - 15	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	1.12	0.20- 2.96	4	4	Water Additive used to control microbes
Chlorine (ppm) Well #4 Kiwanis	NO	3.41	1.30 - 3.90	4	4	Water Additive used to control microbes
Chlorine (ppm) Well #5 Scotts Hill	NO	2.42	2.26 - 2.69	4	4	Water Additive used to control microbes
Chlorine (ppm) Well #6 Annex	NO	3.42	1.45 - 3.98	4	4	Water Additive used to control microbes
Chlorine (ppm) Well #7 Hampstead	NO	2.71	0.75 - 3.72	4	4	Water Additive used to control microbes
Chlorine (ppm) Well #8 Hoover	NO	3.39	1.45 - 3.86	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)	2024	Y			N/A	80	Byproduct of drinking water disinfection
B01				16 - 54			
B02				24 - 89			
B03			99	64 - 103			
B04				17 - 44			
HAA5 (ppb)	2024	Y			N/A	60	Byproduct of drinking water disinfection
B01				6 - 31			
B02				0 - 18			
B03			61	0 - 81			
B04				12 - 19			

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 products include trihalomethanes (THMs) and haloacetic acids (HAA5).

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	1.7	1.5 - 1.6	N/A	*Removal Ration RAA <1.00 and alternative compliance criteria was not met	Naturally present in the environment

Turbidity Contaminants

Turbidity measures 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 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	0.24	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	

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) monthly samples 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 *	2024	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.

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.

Analysis from Water Treatment Plant – Entry Point (E02)

Contaminant (Units)	Your Water (annual average)	MCL	Likely Source of Contamination
pH (S.U.)	7.9	6.0 - 9.0	N/A
Alkalinity (ppm)	28.23	N/A	Soil Runoff
Total Hardness (ppm)	28	N/A	N/A
Iron (ppm)	0.01	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)	0.004	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)	337	N/A	N/A
Orthophosphate (ppm)	1.35	N/A	N/A
Total Phosphate (ppm)	1.03	N/A	N/A
Sodium (ppm)	61.10	N/A	N/A
Sulfate (ppm)	109	250	N/A

Analysis 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
Iron (ppm)	0.65	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.
Total Phosphate (ppm)	1.60	N/A	N/A
Dalapon (ppb)	2	200	Runoff from herbicide used on rights of way.

Analysis from EMS/Scotts Hill Well (E05)

Contaminant (Units)	Your Water (annual average)	MCL	Likely Source of Contamination
pH (S.U.)	7.10	6.0 - 9.0	N/A
Iron (ppm)	0.19	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.
Total Phosphate (ppm)	1.22	N/A	N/A

Analysis from Annex Well (E06)

Contaminant (Units)	Your Water (annual average)	MCL	Likely Source of Contamination
pH (S.U.)	7.10	6.0 - 9.0	N/A
Iron (ppm)	0.23	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.
Total Phosphate (ppm)	1.11	N/A	N/A
Dalapon (ppb)	2	200	Runoff from herbicide used on rights of way.

Analysis from Hampstead Well (E07)

Contaminant (Units)	Your Water (annual average)	MCL	Likely Source of Contamination
pH (S.U.)	7.10	6.0 - 9.0	N/A
Iron (ppm)	1.12	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.
Total Phosphate (ppm)	1.51	N/A	N/A

Analysis from Hoover Road Well (E08)

Contaminant (Units)	Your Water (annual average)	MCL	Likely Source of Contamination
pH (S.U.)	7.00	6.0 - 9.0	N/A
Iron (ppm)	0.45	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.
Total Phosphate (ppm)	1.53	N/A	N/A
Dalapon (ppb)	2	200	Runoff from herbicide used on rights of way.

Unregulated Contaminants

Our water system has sampled for a series of unregulated contaminants. Unregulated contaminants are those for which EA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted. If you are interested in examining the results, please contact us at pendercountync.nextrequest.com.

Per-and Polyfluoroalkyl Substances (PFAS)

Contaminant (ppt)	Sample Year	Your Water Average	Range Low - High	Health Information
PFAS*	2024	4.63	ND -5.32	None Established
PFBA	2024	3.15	ND - 4.06	None Established
PFPeA	2024	3.54	ND - 4.00	None Established
PFHxA	2024	3.20	ND - 3.48	None Established
PFHpA	2024	1.26	ND - 1.44	None Established
PFOA	2024	2.18	ND - 2.42	70 ppt EPA Health Advisory for Total Combined Concentration of PFOA and PFOS
PFOS	2024	2.46	ND - 2.90	
PFO3OA	2024	0.48	ND - 0.48	None Established
PFBS	2024	2.31	ND - 2.44	None Established
PEPA	2024	1.46	ND - 2.53	Advisory Level 2000 ng/L
PFPeS	2024	0.28	ND - 0.34	None Established
PFHxS	2024	1.70	ND - 2.13	None Established
PFOSA	2024	0.30	ND - 0.32	None Established
HFPO-DA (GenX)	2024	2.97	ND - 3.81	Advisory Level 10 ng/L
PFMOAA	2024	14.76	ND - 23.6	None Established
PFO2HxA	2024	4.47	ND - 5.47	None Established
PMPA	2024	6.79	ND - 9.39	None Established

Additional information about PFAS can be found on the Utilities website at:

<https://www.pendercountync.gov/1793/PFAS-PFOA>



What Are PFAS?

Per- and polyfluoroalkyl substances (PFAS) are a group of manufactured 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, and 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.



- ✚ Has fewer regulations for production
- ✚ Production contributes high carbon levels in the atmosphere
- ✚ Don't know where the water comes from
- ✚ Production uses up to 2,000 times more energy than tap water production
- ✚ Bottled production regulated by the (FDA) and tap water production regulated by the (EPA)

Radiological Contaminants

Analysis from EMS/Scotts Hill Well (E05)

Contaminant (Units)	MCL	MCLG	Your Water	Range	Sample Date	Violation	Typical Source
Beta Particles (pCi/L)	50*	0	4.7**	ND - 4.7	9/18/2024	N	Erosion of Natural Deposits

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

**Because the beta particle results were below 50 pCi/L, no testing for individual beta particle constituents is required.

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.

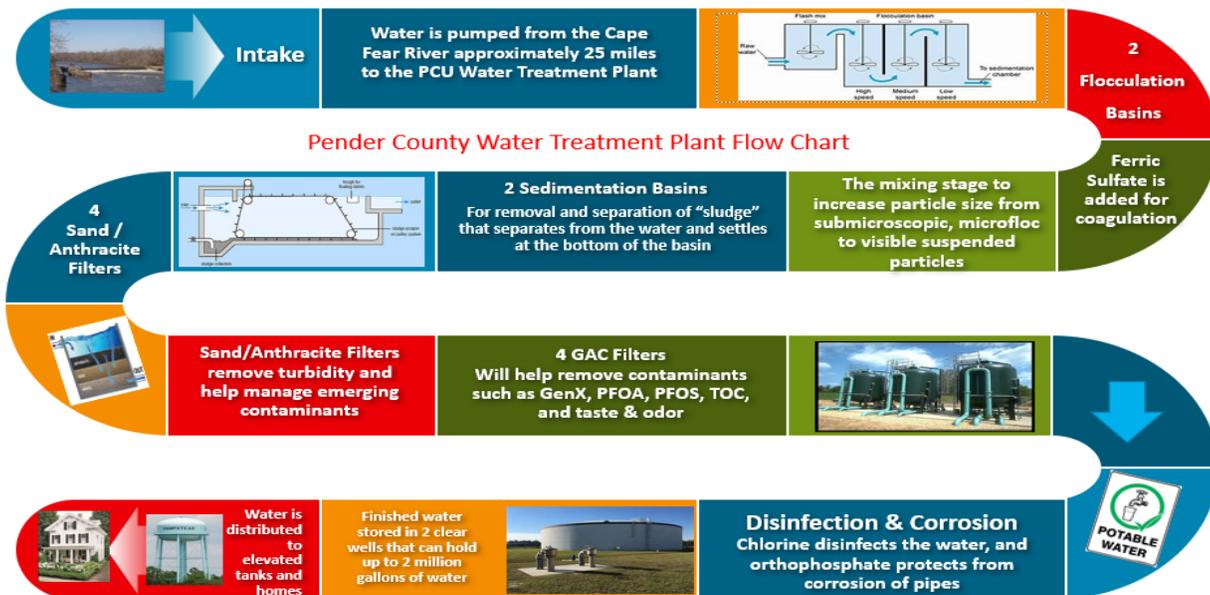
The plant has a finished water capacity of 4 million gallons per day (MGD). It utilizes a conventional treatment process that supplies water to Pender County water customers in the county.

Pender County Utilities has 8 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 5 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 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 are 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.



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)



<https://capefearriverwatch.org/>



Bottled water costs an average of \$1.11 per gallon, while tap water costs less than a penny per gallon.



Drinking the recommended 8 glasses of water per day costs about \$0.49 per year from tap, but \$1,400 with bottled water



LEAD SERVICE LINE INVENTORY

By the U.S. Environmental Protection Agency's Lead and Copper Rule Revisions (LCRR) published on December 16, 2021, all community water systems and non-transient non-community water systems are required to develop an inventory of all service line connections both system-owned and customer-owned, to identify the potential presence of lead.

Pender County Utilities completed its initial service line inventory and submitted it to the North Carolina Public Water Supply Section on October 16, 2024. Following a thorough evaluation, Pender County Utilities confirms zero county system side service lines.

Pender County Utilities remains committed to providing safe, clean, and reliable drinking water to all customers. For additional information about the Lead Service Line Inventory, contact the Burgaw Office at 910-259-1570.

WATER PRESSURE

Changes in water pressure, such as water main breaks or fire hydrants being 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 hot water heaters.

WATER LEAKS

It is the customer's responsibility to repair any leaks past their meter. If you suspect a leak on the Pender County Utilities' side of the meter, please call

910-259-1570
(8 AM to 5 PM)
Or
910-471-1041
(AFTER 5 PM)

8 SIGNS TO DETECT WATER LEAKS IN YOUR HOME

- Test Your Water Meter**
 Turn off all the faucets in your home. Then, check the water meter. If it continues to run, you likely leak.
- Assess Water Pressure**
 Turn off all the faucets and measure the pressure. If it's lower than usual, you might leak.
- Listen to Running Water**
 If there are no visible signs of a leak, try listening for running water.
- Toilet Dye Leak Check**
 If the water in the bowl changes color by morning, there's a leak between the tank and the bowl.
- Inspect Your Appliances**
 To find water leaks, unplug all appliances and check each one for leaks.
- Detect Wet Walls**
 If you notice dampness around your kitchen, bathroom, or laundry area, it's a clear sign of a water leak.
- Monitor Your Water Bills**
 A sudden spike in your water bill can signal a hidden leak.
- Unusual Smells**
 Unusual smells, like musty or damp odors, can signal a hidden water leak.

Pender County Utilities

“Committed to Quality”

This institution is an equal opportunity provider and employer

