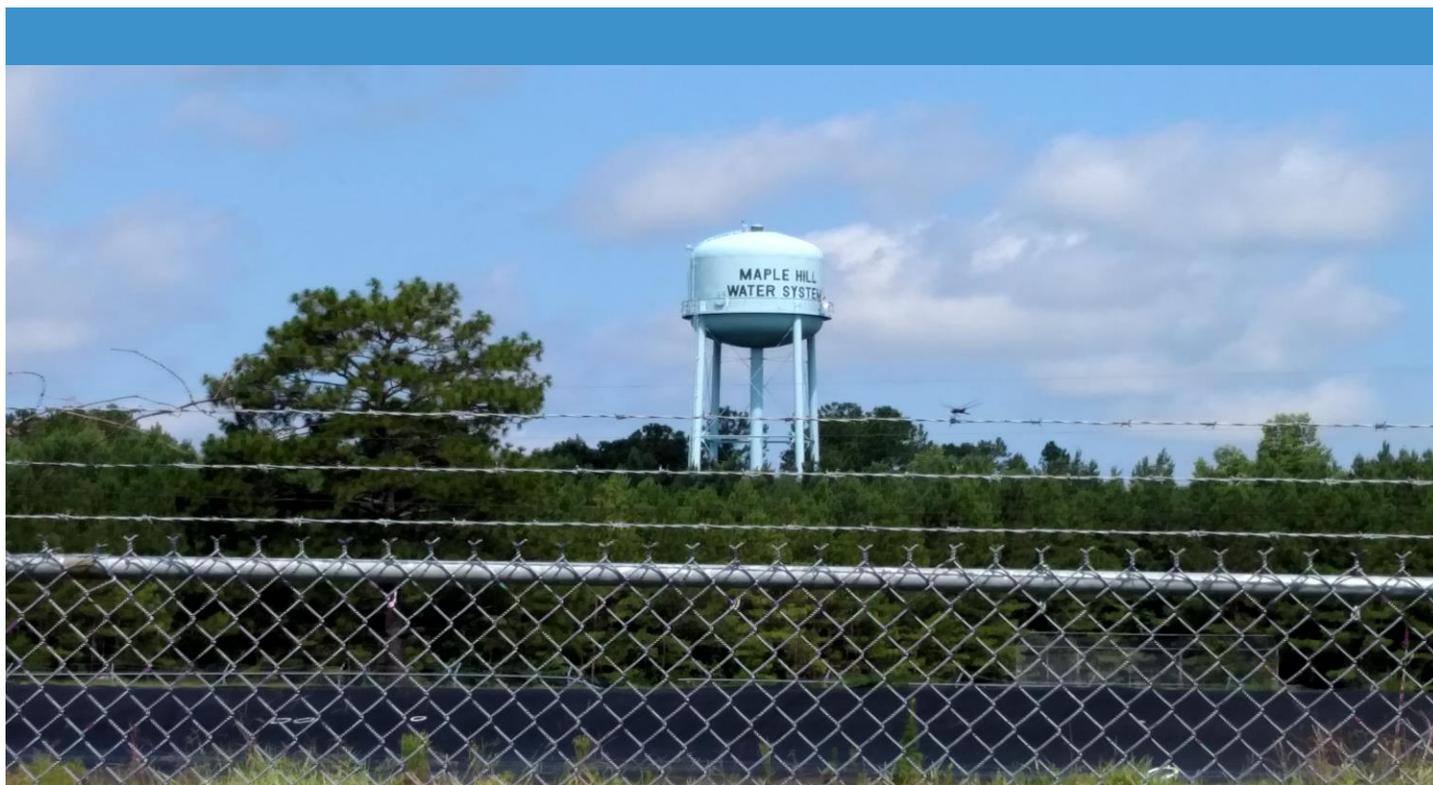


2020 Annual Water Quality Report For Maple Hill Water & Sewer District



IN CASE OF EMERGENCY

For water main breaks or other emergencies after 5 PM, please contact us via our On Call phone number:

910-471-1041

DEAR CUSTOMER

This report is a snapshot of last year's water quality. Included are details about where your water comes from, 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 are committed to ensuring the quality of your water and to providing you with this information, because informed customers are our best allies.

PENDER COUNTY UTILITIES

605 E. Fremont St.
P.O. Box 995
Burgaw, NC 28425
Phone: 910-259-1570
Fax: 910-259-1579

Law Enforcement Center

www.pendercountync.gov

Copies of the CCR can be obtained from web site or the Utilities Office

Committed to Quality

Pender County Utilities is committed to ensure that you receive quality potable water that meets the North Carolina Division of Environmental Quality and EPA Standards.

We are proud to supply our customers with a reliable supply of clean and safe drinking water. As part of the work, we do for you, we are pleased to present our 2020 Annual Water Quality Report. This document gives you detailed information about where your water comes from, quality of the treated water, and the steps we take to send clean drinking water to your tap every day.

Since 1992 the Chinquapin Water Association (CWA) has supplied water in the Maple Hill Water District for Pender County Utilities (PCU). The water allowance to obtain water from the Chinquapin Water Association was decreased by the North Carolina Department of Environmental Quality (DEQ) which led Pender County Utilities to seek a new water source. For Pender County Utilities to continue to serve quality water to the Maple Hill district, a connection with Onslow Water and Sewer Authority (ONWASA) will take place the fall of 2021. Current water from Chinquapin is supplied from the Black Creek Aquifer. Maple Hill's new source of water from ONWASA is supplied from the Black Creek and Castle Hayne Aquifer which is blended with the Dixon Water Treatment Plant in Jacksonville, North Carolina. The new connection with ONWASA will allow Pender County Utilities to continue to serve quality water to you.

PCU water employees are always walking a straight line to carry out daily water operations to meet stringent requirements set by the U.S. Environmental Protection Agency (EPA) and the North Carolina Department of Environmental Quality (DEQ) to ensure you receive the best quality of water. Our water professionals produce water that is safe from biological pathogens as well as organic and inorganic contaminants. As you will see in our 2020 report, you will have a better understanding of the drinking water process and our commitment to protecting public health. We look forward to supplying Pender County Utilities customers with quality water now and in the future.

Committed to Quality,



Kenny Keel, PE, Director
Pender County Utilities & Solid Waste





WHAT THE EPA WANTS YOU TO KNOW

Environmental Protection Agency's Safe Drinking Water Hotline

(800-426-4791)

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. The Environmental Protection Agency (EPA) and Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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

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

When You Turn on Your Tap, Consider the Source

The water that is used by this system is groundwater and located at 4 well sites owned and operated by the Chinquapin Water Association and purchased by the Maple Hill Water & Sewer District.



*Environmental
Quality*

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 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	Inherent Vulnerability Rating	Contaminant Rating	Susceptibility Rating
Well #1	Lower	Lower	Lower
Well #2	Lower	Lower	Lower
Well #3	Lower	Lower	Lower
Well #4	Lower	Lower	Lower

The complete SWAP Assessment report for Pender County Utilities may be viewed on the Web at <http://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 Water Quality Report was prepared. If you are unable to access your SWAP report on the web, you may also request a printed copy by submitting a request to: Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh, NC 27699-1634, or email request to swap@ncdnr.gov. Please indicate your system name, number, and provide your name, mailing address, and phone number. If you have any questions about the SWAP report, please contact the Source Water Assessment staff by phone at 919-707-9098.

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

Help Protect Your Source Water

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source(s) in several ways:

- 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)



Water Quality Data Table of Detected Contaminants

WE ROUTINELY MONITOR FOR OVER 150 CONTAMINANTS IN YOUR DRINKING WATER ACCORDING TO FEDERAL AND STATE LAWS. THE TABLE BELOW LIST ALL THE DRINKING WATER CONTAMINANTS THAT WE DETECTED IN THE LAST ROUND OF SAMPLING FOR THE PARTICULAR CONTAMINANT GROUP. THE PRESENCE OF CONTAMINANTS DOES NOT NECESSARILY INDICATE THAT WASTRE POSES A HEALTH RISK. UNLESS OTHERWISE NOTED, THE DATA PRESENTED IN THIS TABLE IS FROM TESTING DONE JANUARY 1 THROUGH DECEMBER 31, 2020. THE EPA OR THE STATE REQUIRES 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, THROUGH REPRESENTATIVE OF THE WATER QUALITY, IS MORE THAN ONE YEAR OLD.

UNREGULATED CONTAMINANTS ARE THOSE FOR WHICH EPA 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 FUTURE REGULATIONS IS WARRANTED.



Key To Abbreviations In Table

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

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 allow for a margin of safety.

MCLG – Maximum Contaminant Level Goal; The level of a contaminant in drinking water below which there is no known or expected risk to health. NCLGs 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 mythology 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 the radioactivity in water.

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

TOC – Total Organic Carbon; has no health effects, however, organics provide a medium for the formation of disinfection by products. The TOC compliance criterion applies only to treated water.

Chinquapin Water Association – PWS ID# 04-31-050

Contaminant (units)	Your Water	MCL Violation	MCL	MCLG	Likely Source of Contamination
Inorganic Chontaminants (IOC) (ppm)					
Sample Point 001 - Fluoride	0.25	N	4	4	Erosion of natural deposits water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Sample Point 001 - pH (pH units)	8.0	N	6.5 to 8.5	N/A	N/A
Sample Point 001 - Sodium	55.1	N	N/A	N/A	N/A
Sample Point 002 - Fluoride	0.17	N	4	4	Erosion of natural deposits water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Sample Point 002 - pH (pH units)	7.57	N	6.5 to 8.5	N/A	N/A
Sample Point 002 - Sodium	23.8	N	N/A	N/A	N/A
Sample Point 003 - Fluoride	0.65	N	4	4	Erosion of natural deposits water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Sample Point 003 - pH (pH units)	8.28	N	6.5 to 8.5	N/A	N/A
Sample Point 003 - Sodium	112.0	N	N/A	N/A	N/A
Sample Point 012 - Fluoride	0.25	N	4	4	Erosion of natural deposits water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Sample Point 012 - pH (pH units)	7.54	N	6.5 to 8.5	N/A	N/A
Sample Point 012 - Sodium	30.0	N	N/A	N/A	N/A

Contaminant (units)	Sample Date	Your Water	MCLG / MCL	# of sites found above the AL	Likely Source of Contamination
Copper (ppm) (90th percentile)	6/2/2020	0.3	1.3 / 1.3 = AL	0	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppm) (90th Percentile)	6/2/2020	<0.015	0 / 0.015 = AL	0	Corrosion of household plumbing systems; erosion of natural deposits
			AL = Action Level		

Contaminant (units)	Your Water	MCL Violation Yes / NO	MCL	MCLG	Likely Source of Contamination
Total Coliform Bacteria (Presence or Absence)	No Detect	NO	Determined by one positive monthly sample	0	Naturally present in the environment
E. Coli (Presence or Absence)	No Detect	NO	0*	0	Human and animal fecal waste

*The MCL is exceeded if a routine sample and repeat sample are total coliform positive and one is also E. Coli positive

Contaminant (units)	Sample Date	Your Water (Highest LRAA)	Range Low to High	MCL / MCL Violation (Yes or No)	Likely Source of Contamination
THM (ppb) {Total Trihalomethanes}					
Location B01	2020	41	36-45	80 / No	By-product of drinking water chlorination
Location B02	2020	22	13-31	80 / No	By-product of drinking water chlorination
Contaminant (units)	Sample Date	Your Water	Range Low to High	MCL / MCL Violation (Yes or No)	Likely Source of Contamination
HAA5 (ppb) {Total Haloacetic Acids}					
Location B01	2020	24	21-27	60 / No	By-product of drinking water disinfection
Location B02	2020	11	13-Aug	60 / No	By-product of drinking water disinfection

Disinfectants and Disinfection Byproducts Contaminants - Based on Location Running Annual Average

Contaminant (units)	Your Water	Range Low to High	MCL / MCL Violation (Yes or No)	MCLG	Likely Source of Contamination
Combined Radium (pCi/L)	0.37	0.3 - 1.0	5 / No	0	Erosion of natural deposits
Chloride (ppm)	6.75	0.0 - 12.0	N/A	N/A	N/A
Chlorine (ppm)	0.62	0.10 - 1.69	4 / N	4	Water additive used to control microbes

Maple Hill Water and Sewer District – PWS ID# 04-71-025

Contaminant (units)	Sample Date	Your Water	MCLG / MCL	# of sites found above the AL	Likely Source of Contamination
Copper (ppm) (90th percentile)	6/5/2019	0.117	1.3 / 1.3 = AL	0	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppm) (90th percentile)	6/5/2019	0	0 / 0.015 = AL	0	Corrosion of household plumbing systems; erosion of natural deposits
AL = Action Level					

If present, elevated levels of lead can cause serious health problems if ingested over many years, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with private service lines and home plumbing and not the distribution mains or water supply. The Rocky Point/Topsail Water & Sewer District is responsible for providing high quality drinking water but cannot control the variety of materials uses in plumbing components. Most sources of drinking water have no lead or very low levels of lead. Most lead gets into drinking water after the water leaves the local water well or treatment plant and comes into contact with plumbing materials containing lead with a home or business. 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. Do not boil water to remove lead and identify if your plumbing fixtures contain lead. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at the office of Pender County Utilities or from the Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

If more than 10% of tap water samples exceed the lead “action level”, Pender County Utilities is required to inform the site authorizing the sample about their water quality results, provide public education on lead to those sampling sites that participate in our lead tap monitoring program, continue monitoring for lead and copper; and document our efforts to the North Carolina Department of Environment and Natural Resources Division of Environmental Health.

Contaminant (units)	Your Water	MCL Violation Yes / NO	MCL	MCLG	Likely Source of Contamination
Total Coliform Bacteria (Presence or Absence)	No Detect	NO	Determined by one positive monthly sample	0	Naturally present in the environment
E. Coli (Presence or Absence)	No Detect	NO	0*	0	Human and animal fecal waste

*The MCL is exceeded if a routine sample and repeat sample are total coliform positive and one is also E. Coli positive

Contaminant (units)	Your Water	Range Low to High	MCL / MCL Violation (Yes or No)	MCLG	Likely Source of Contamination
Chlorine (ppm)	0.36	0.25 - 0.63	4 / N	4	Water additive used to control microbes

Contaminant (units)	Sample Date	Your Water	Range Low to High	MCL / MCL Violation (Yes or No)	Likely Source of Contamination
THM (ppb) (Total Trihalomethanes)					
Location D01	7/28/2020	30	0 to 30	80 / No	By-product of drinking water chlorination
Contaminant (units)	Sample Date	Your Water	Range Low to High	MCL / MCL Violation (Yes or No)	Likely Source of Contamination
HAA5 (ppb) (Total Haloacetic Acids)					
Location D01	7/28/2020	13.4	0 to 13.4	60 / No	By-product of drinking water disinfection

Disinfectants and Disinfection Byproducts Contaminants - Based on Location Running Annual Average

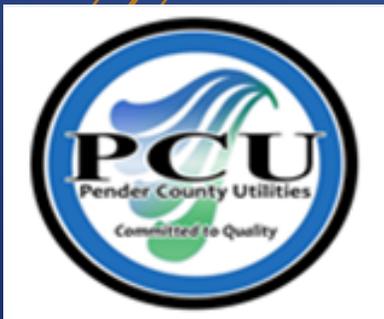


BECOME MORE INVOLVED?

Please contact
Pender County
Utilities at:

(910) 259-1570

If you have any
questions
regarding this
report or your
water, we want
our valued
customers to be
informed about
their water
quality.



Community Participation

You can be involved in decisions regarding Pender County Utilities' water or other County issues. Citizens are welcome to attend regularly scheduled Board of County Commissioner's meetings on the first and third Monday of each month at 4:00 p.m.

All meetings are open to the public and are held at the Public Assembly Room located at 805 South Walker Street, Burgaw, NC 28425. Public Comment is accepted at all meetings at designated times on the agenda. Meeting agendas, minutes, and videos are generally posted on

<https://pendercountync.civicweb.net/portal/>

Before 11 a.m. on the Friday preceding the meetings and videos are generally posted the next business day. Questions regarding the meetings can be directed to the County Manager's office at 910-259-1200.

