2020 City of Clinton Water Quality Report

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Inside This Report:

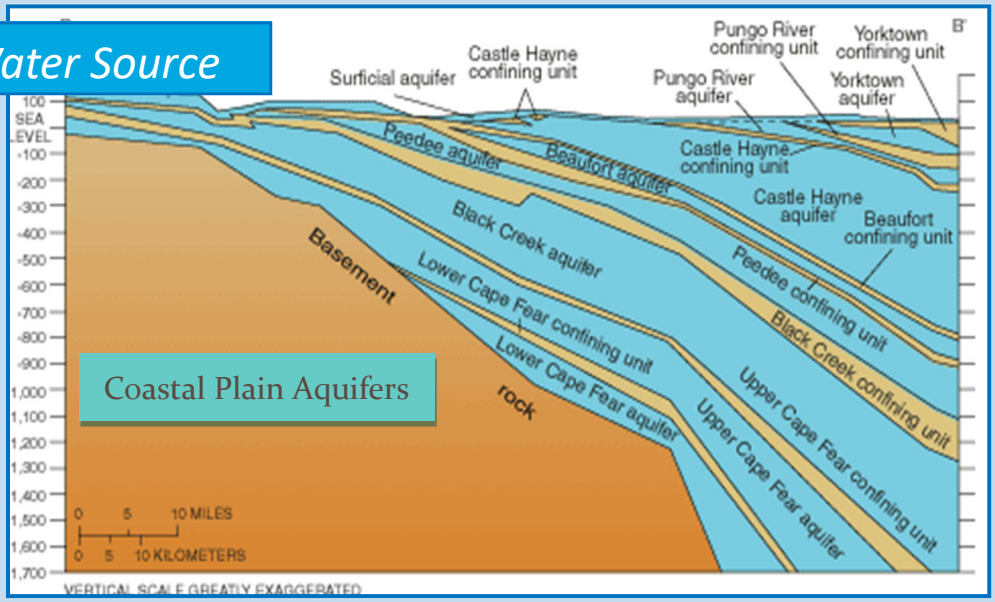
The City of Clinton Department of Public Works and Utilities is pleased to present to you the 2020 Annual Drinking Water Quality Report. The Federal Environmental Protection Agency (EPA) sets forth the National Primary Drinking Water Regulations under the Safe Drinking Water Act. These regulations limit amounts of specific contaminants or pollutants in our drinking water, and they ensure the quality of public water supplies. In addition, the State of North Carolina regulates our drinking water via the Department of Environmental Quality (NCDEQ), Public Water Supply Section, "Rules Governing Public Water Supplies." Year round, City of Clinton Water Utilities employees are working to provide its citizens with drinking water that not only meets but exceeds federal and state requirements. This report summarizes the City's water supply quality by providing you with details regarding the source of your water supply, what that water supply contains, and how your water compares to standards set by regulatory agencies. As a community, we strive to meet the challenges to continually improve the water treatment process, protect our water resources, and to educate ourselves and you, our customers, in best management practices.

We are committed to ensuring the quality of your water and to providing you with this information. Should you have any questions about this report or concerning your water, please contact the Public Works & Utilities Department at (910) 299-4905. We want our valued customers to be informed about their water utility.

Our Community's Water Source

The water that is used by our system is drawn from wells supplied by the Upper Cape Fear and Black Creek Aquifers.

Approximately 67% of the City's water is drawn from 10 wells, and this water is then treated at our Parsons-Anders Water Treatment Facility. We also supplement our water production with 4 additional wells that are treated on site, and feed directly into the system.



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 at (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 at (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. The City of Clinton 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 at (800) 426-4791, or at **http://www.epa.gov/safewater/lead.**

In order to ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Federal Food and Drug Administration (FDA) establishes the limits that regulate contaminants in bottled water, which must provide the same protection for public health.

Impurities That May Be Present in Untreated Water

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 untreated 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. These are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

Our Water Quality

In accordance with Federal and State laws, the City of Clinton Water Utilities employees routinely monitor for over 150 contaminants in your drinking water. The tables included in this report list all the drinking water contaminants that were detected in the last round of sampling for each particular contaminant group. Please note that detection of any particular contaminant alone is not an indication that your water poses a health risk. Unless a contaminant is greater than the Federal or State specified limit, the water is below the limit at which any health risk is expected. Please refer to the Glossary of Terms for an explanation of the limits determinations.

The City of Clinton Drinking Water continues to meet or surpass Federal and State primary drinking water standards.

For certain contaminants, the EPA and the State require us to monitor less than once per year. This is because the concentrations of these contaminants are not expected to vary significantly from year to year. **Unless otherwise noted, the data presented in the tables are from testing done January 1 through December 31, 2020**. Some of the data, though representative of the water quality, is more than one year old due to the monitoring frequency requirements. For the calendar year of 2020, the City of Clinton water quality met or surpassed all primary Federal and State water quality standards.

Glossary of Terms

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Locational Running Annual Average (LRAA): 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.

Maximum Residual Disinfection Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Maximum Residual Disinfection Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Not Applicable (NA): Information not applicable/not required for that particular water system or for that particular rule.

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

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

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

Picocuries per liter (pCi/L): Picocuries per liter is a measure of the radioactivity in water.

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

Water Quality Data Tables of Detected Contaminants

Inorganic Contaminants

Contaminant (Units)	Location	Sample Date	MCL Violation? Y/N	Your Water	Range		MCLG	MCL	Likely Source
					LOW	HIGH			
Fluoride (ppm)	Well 12	7/14/20	N	0.2	NA	NA	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge form fertilizer and aluminum factories
	Well 13	7/14/20	N	0.3					
	Well 16	7/14/20	N	0.8					
	Well 17	7/14/20	N	0.3					
	Water Plant	7/14/20	N	0.9					

Lead and Copper Contaminants

Contaminant (Units)	Sample Date	Your Water	No. of Sites Found to be Above the AL	MCLG	AL	Likely Source
Copper (ppm) (90th percentile)	7/14/20 to 7/21/20	0.157	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (90th percentile)	7/14/20 to 7/21/20	< 3	1	0	15	

Radiological Contaminants

Contaminant (Units)	Sample Date	MCL Violation? Y/N	Your Water	Range		MCLG	MCL	Likely Source
				LOW	HIGH			
Combined Radium (pCi/L)	5/19/20	N	1.3	ND	1.3	0	5	Erosion of natural deposits

Disinfectant Residuals Summary

Residual	Year Sampled	MCL Violation? Y/N	Your Water (Highest RAA)	Range		MRDLG	MRDL	Likely Source
				LOW	HIGH			
Chlorine (ppm)	2020	N	1.15	1	1.4	4	4.0	Water additive used to control microbes

Stage 2 Disinfectant Byproduct Compliance

Disinfection Byproduct	Year Sampled	MCL Violation? Y/N	Your Water (Highest LRAA)	Range		MCLG	MCL	Likely Source
				LOW	HIGH			
TTHM (ppb)	2020	N	10	ND	10	NA	80	Byproduct of drinking water disinfection
HAA5 (ppb)	2020	N	1	ND	1	NA	60	

Unregulated Contaminants

The City of Clinton participated in the Unregulated Contaminant Monitoring Rule 4 (UCMR4), Assessment Monitoring for Metals, Pesticides, Alcohols and SVOCs as well as Assessment Monitoring for HAA Groups. Unregulated contaminants are those for which the EPA has not established drinking water of standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted.

The UCMR4 Assessment Monitoring groups assigned to the City were comprised twenty-eight (28) additional unregulated contaminants for which the City monitored during the calendar year 2019. Monitoring was conducted during August and was performed at fourteen (14) sites within the City's water system. Of the 28 unregulated contaminants tested, nineteen (19) were below detectable levels. Amounts of unregulated contaminants that were detected are listed below.

UCMR4 Detected Contaminants

CONTAMINANT	YOUR WATER, AVERAGE, ppm	RANGE, ppm	
		LOW	HIGH
Bromide	0.447	ND	0.720
Dichloroacetic acid (DCAA)	0.019	0.003	0.003
Trichloroacetic acid (TCAA)	0.009	0.007	0.010
Monobromoacetic acid (MBAA)	0.005	ND	0.005
Dibromoacetic acid (DBAA)	0.008	ND	0.008
Bromochloroacetic acid (BCAA)	0.011	0.003	0.019
Bromodichloroacetic acid (BDCAA)	0.006	ND	0.006
Chlorodibromoacetic acid (CDBAA)	0.004	ND	0.004

All samples collected August 27, 2019

To learn more about the EPA's Unregulated Contaminant Monitoring Rule, you may visit:

Learn About the Unregulated Contaminant Monitoring Rule | Monitoring the Occurrence of Unregulated Drinking Water Contaminants | US EPA

Other Miscellaneous Water Characteristics

The North Carolina 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. The state requires the City to monitor for this group of secondary contaminants every three (3) years. The most recent monitoring for these contaminants was conducted in 2020. All secondary contaminants that were detected in 2020 are listed in the table below.

Contaminant (Units)	Location	Sample Date	Your Water	SMCL
Iron (ppm)	Well 12	7/14/20	0.2	0.3
	Well 13	7/14/20	0.2	
Manganese (ppm)	Well 12	7/14/20	0.07	0.05
	Well 13	7/14/20	0.08	
	Well 16	7/14/20	0.05	
	Well 17	7/14/20	0.01	
	Water Plant	7/14/20	0.02	
Sodium (ppm)	Well 12	7/14/20	13	N/A
	Well 13	7/14/20	12.6	
	Well 16	7/14/20	30.5	
	Well 17	7/14/20	49.6	
	Water Plant	7/14/20	16.1	
pH (standard units)	Well 12	7/14/20	7.4	6.5 to 8.5
	Well 13	7/14/20	7.4	
	Well 16	7/14/20	7.7	
	Well 17	7/14/20	7.8	
	Water Plant	7/14/20	7.9	

Help Protect Your Source Water

What can you do now to help protect your source water?

You can help protect our community's source water in several ways: dispose of chemicals properly; take used motor oil to a recycling center; recycle used cooking oil using the City's cooking oil recycling program; don't over-use pesticides or fertilizers; return unused medications to your pharmacy or to the Clinton Police Department's Medicine Drop—do not flush medicines or dump them in waterways; participate in the City's household hazardous waste day; prepare a presentation about your watershed for a school or civic organization; volunteer for the City's Keep Clinton Beautiful upcoming programs, or another clean-up opportunity in our community. For additional information on volunteering, dates of household hazardous waste days, assistance with presentations, or any additional questions you may have regarding source water protection, please contact the City's Environmental Programs Manager at (910) 299-4912, M-F, 7:00 a.m. to 3:30 p.m.

Protection of drinking water is everyone's responsibility.

While the City of Clinton utilizes underground wells for our source water rather than surface water (lakes or rivers), those wells are supplied ultimately by river aquifers. The more we protect our surface waters and our ground water, the more our source water wells are protected.

The City of Clinton has a Plan for Protecting Your Source Water

In 2018 The City of Clinton implemented a Local Wellhead Protection Program Plan protect its water supply from possible sources of contamination. The Wellhead Protection Program can beneficially educate the community and get residents and businesses involved in preventing groundwater contamination for the protection of the public water supply and public health. The plan prepares for the future of our water source and assists in preventing potentially costly remediation. As a part of the program, we have identified the vulnerable areas around our well sites called the "Wellhead Protection Areas". Chemicals and other pollutants spilled or dumped in these areas can be drawn into the wells, possibly contaminating our community's drinking water supply. Brochures about the Wellhead Protection Program have been sent to residents and businesses in these areas advising them on best management practices when dealing with chemicals and other pollutants. As part of the ongoing program, the City will continue to inventory development and use inside its Wellhead Protection Areas and provide guidance on helping us to preserve our water quality for our current and future needs.

Source Water Assessment Program

The North Carolina Department of Environmental Quality (NCDEQ), Public Water Supply (PWS) Section, Source Water Assessment Program (SWAP) periodically conducts assessments of all drinking water sources across North Carolina. These assessments are performed in order to determine the susceptibility of each drinking water source (well or surface water intake) to Potential Contaminant Sources (PCSs).

The results of the assessments are available in SWAP Assessment Reports that include maps, background information and a relative susceptibility rating of Higher, Moderate or Lower. The report assigns this relative susceptibility rating of each drinking water source 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.). It is important to understand that a susceptibility rating of "Higher" does not imply poor water quality, only the systems' potential to become contaminated by PCS's in the assessment area. The assessment ratings of the September 10th, 2020 SWAP assessment for the City of Clinton water sources are summarized in the table below.

SWAP Assessment Rating Summary

Source Name	Inherent Vulnerability Rating	Contaminant Rating	Susceptibility Rating
Well 12B	Lower	Lower	Lower
Well 13	Lower	Moderate	Moderate
Well 16	Lower	Lower	Lower
Well 17	Lower	Moderate	Moderate
Well 18 Deep	Lower	Lower	Lower
Well 18 Shallow	Lower	Lower	Lower
Well 21 Deep	Lower	Lower	Lower
Well 21 Shallow	Lower	Lower	Lower
Well 22 Shallow	Higher	Lower	Moderate
Well 24 Shallow	Lower	Lower	Lower

For more information on the SWAP Assessment Report or to view the complete report, you may visit https://www.ncwater.org/?page=600, and enter water system number 0382010. Note that because SWAP results and reports are periodically updated by the PWS Section, the results available on the above 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 mail a written request 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 (City of Clinton), PWSID (0382010), and provide your name, mailing address and telephone number. If you have any questions about the SWAP report please contact the Source Water Assessment staff by phone at (919) 707-9098.

What If I Have Questions?

If you have any questions about this report or concerning your water, please contact the City of Clinton Public Works and Utilities Department at (910) 299-4905 or the Environmental Programs Manager at (910) 299-4912.

You may also wish to visit the following websites for more information:

The EPA's Ground Water and Drinking Water website: http://water.epa.gov/drink/.

For more information on the EPA standards and a list of drinking water contaminants, please visit http://water.epa.gov/drink/contaminants/index.cfm.

For more information on North Carolina rules governing public water systems, please visit http://www.ncwater.org/?page=9.

On and after June 1st, 2021, this Water Quality Report may be viewed in full on the City's website at www.cityofclintonnc.com, under the Documents link. A direct link will be provided to all customers on the monthly water and sewer bill.

For information regarding City Council meetings, scheduling, holiday changes, etc. please contact the City's Administration Department at (910) 592-1961.

Did You Know?...
A jellyfish and a cucumber are each 95% water? They sure are!

Tools for Educators and Kids:

Try the EPA's WaterSense for Kids page, which includes tips on saving water, educator tools such as 'A Day in the Life of a Drop', and an interactive on-line water quiz. Move the water-efficiency hero Flo through water pipes and answer water-efficiency questions while avoiding water-wasting monsters like Sogosaurus, Drip Drip, and Drainiac. Link to the tools page here:

http://www.epa.gov/WaterSense/watersense-kids