City of Kinston
PWSID # 04-54-010
2019 Water Quality Report

Where Does Our Water Come From?

The City of Kinston is pleased to present to you this year's Annual Water Quality Report. This report is available electronically on our website and at https://tinyurl.com/yafme9wq . You can also request a printed copy be sent by mail by contacting us at 252-939-3282.

The report is designed to inform you about the quality of water and services that we deliver to you every day. 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. Our water source is ground water which is drawn from the Black Creek and Upper Cape Fear Aquifers. The City's use of ground water as a water supply was restricted in 2008 due to the Central Coastal Plain Capacity Use Area regulations. The Neuse Regional Water And Sewer Authority , a surface water treatment plant began supplying drinking water to the City Of Kinston in 2008.

How is Our Water Treated?

The City of Kinston has a total of 17 ground water wells that pump water from these aquifers. At each well site we have pumps to inject chlorine and ammonia into the water distribution system. Chlorine and ammonia are added to the system for disinfection and fluoride is added at the WASA plant to aid in the prevention of tooth decay.

Would You Like To Know More?

We want our valued customers to be informed about their water utility. If you have any questions about this report or concerning your water utility, please contact Joey Pittman at (252) 939-3282. You may also attend any of the regularly scheduled City Council meetings, held on the 1st and 3rd Monday night of each month in the council chambers at 207 E. King St at 5:30pm or the Utility Advisory Commission meetings on the first Wednesday of each month at 5:00 pm at the Public Service Complex.

Terms & Abbreviations

In this table you will find many terms and abbreviations that you might not be familiar with. To help you better understand these terms, we have provided the following definitions:
Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.
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 - 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.
Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
Maximum Contaminant Level - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.
Maximum Contaminant Level Goal - The "Goal" (MCLG) is 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.

Contaminants and MCLs

The City of Kinston routinely monitors for over 100 contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2019 and the last test results of contaminants that were not due to be tested in 2019**.** As water travels over the land or underground it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It is important to remember that the presence of these contaminants does not necessarily pose 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.**
MCL's 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. 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**.**

Inorganic Contaminants

Contaminant	Sample Date	MCL Violation Y/N	Your Water	Range Low High	MCLG	MCL	Likely Source of Contamination
Fluoride (ppm)	2/5/2019	**N**	.53	ND-.53	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Lead and Copper Contaminants

Contaminant	Sample Date	Your Water	# of sites found above the AL	MCLG	MCL	Likely Source of Contamination
Copper (ppm) (90th percentile)	2/14/2018	.118	0	1.3	AL= 1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb) (90th percentile)	2/14/2018	N/D	0	4	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

Microbiological Contaminants **2019**

TEST RESULTS

Contaminant	Violation Y/N	Your Water	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	N	0	0	5% of monthly samples are positive	Naturally present in the environment

Nitrate/Nitrite Contaminants

Contaminant	Sample Date	MCL Violation Y/N	Your Water	Range Low High	MCLG	MCL	Likely Source of Contamination
Nitrate (as Nitrogen) (ppm)	2/5/2019	N	1.14	ND-1.14	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Volatile Organic Contaminants

Contaminant	Sample Date	MCL Violation Y/N	Your Water	Range Low High	MCLG	MCL	Likely Source of Contamination
Xylenes	12/12/2019	N	.0048	ND-.0048	10	10	Discharge from petroleum factories; discharge from chemical factories
Vinyl Chloride (ppb)	5/7/2019	N	.90	ND-.90	0	2	Leaching from PVC piping; discharge from plastics factories.
Toluene (ppm)	5/6/2019	N	.0051	ND-.0051	1	1	Discharge from petroleum factories

Dichloromethane (ppb)	12/12/2019	N	.9	ND-.9	0	5	Discharge from pharmaceutical and chemical factories
Benzene (ppb)	9/30/2019	N	1	ND-1	0	5	Discharge from factories; leaching from gas storage tanks and landfills

Stage 2 Disinfection Byproduct Compliance

Disinfection Byproduct	Year Sampled	MCL Violation Y/N	Your Water (AVG)	Range Low High	MCLG	MCL	Likely Source of Contamination
TTHM (ppb)	2019	N	25.83	8.70-37.60	N/A	80	By-product of drinking water disinfection
HAA5 (ppb)	2019	N	22.29	8.10-30.20	N/A	60	By-product of drinking water disinfection

Disinfectant Residuals Summary

	Year Sampled	MRDL Violation Y/N	Your Water (highest RAA)	Range Low High	Mrdlg	Mrdl	Likely Source of Contamination
Chlorine (ppm)	2019	N	2.8	0.4-2.8	4	4.0	Water additive used to control microbes
Chloramines (ppm)	2019	N	4.1	0.5-4.1	4	4.0	Water additive used to control microbes

As you can see by the tables, all of the contaminants tested were within allowable limits. We're proud that your drinking water meets or exceeds all state and federal requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water is safe at these levels.

Special Health Concerns

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 healthcare providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological's are available from the Safe Drinking Water Hotline **(800-426-4791)**.

Conclusion

Please call our office if you have questions. Telephone # **(252) 939-3282**
Contact person - Joey Pittman
Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments.Thank you for understanding. We ask that all our customers help us protect our water resources, which are the heart of our community, our way of life and our children's future.

Source Water Assessment Program (SWAP) Results

The North Carolina Department of Environment and Natural Resources (DENR), Public Water Supply (PWS) Section, Source Water Assessment Program (SWAP) conducted assessments for all drinking water sources across North Carolina . The purpose of the 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 that include maps, background information and a relative susceptibility rating of Higher , Moderate or Lower.
The relative susceptibility rating of each source for the **CITY OF KINSTON** was determined by combining the contaminant rating (number and location of PCSs within the assessment area) and the inherent vulnerability rating (i.c., 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 Water Sources to Potential Contaminant Sources (PCSs)

The complete SWAP Assessment report for the CITY OF KINSTON may be viewed on the web at: www.ncwater.org/pws/swap To obtain a printed copy of this report please mail a written request to : Source Water Assessment Program - Report Request, 1634 Mail Service Center, Raleigh NC 27699-1634, or email request to swap @ ncmail.net. Please give your system name, PWSID, 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 919-707-9078.
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 PCSs in the assessment area.

Water Source Name	Susceptibility Rating
Wells 1,3,4,6,7,9,11,14,17,19	Moderate
Wells 5,8,12,13,15,18,20,21,16	Lower

We received the following Nitrate monitoring violation in the 2018 sampling year.

Tier 3 **Monitoring Violation**

Nitrate violation	Explanation	Length of violation	Steps taken to correct violation
Violation was for failure to monitor at 1 well in 2018 well 14	Failed to take sample in 2018 due to well being down for repairs.	2018	Well repairs were made and routine sampling resumed.Sample results were well within allowable limits when sampling resumed in February of 2019.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.
The official public notice is found on the last page of this report.

NOTICE TO THE PUBLIC

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

CITY OF KINSTON HAS NOT MET MONITORING REQUIREMENTS

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the compliance period specified in the table below, we ['did not monitor or test' or 'did not complete all monitoring or testing'] 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 OR WILL BE TAKEN (Water System to Complete)
NT/NI	T14/E14	1/1/2018	1/YR	2/5/2019

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

What is being done? We have since taken the required samples, as described in the last column of the table above. The sample results showed we are meeting drinking water standards.

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

For more information, please contact:

Responsible Person CITY OF KINSTON	System Name **KINSTON, CITY OF**	System Address (Street) P.O. BOX 339
Phone Number 252-939-3316	System Number NC0454010	System Address (City/State/Zip) KINSTON, NC 28501

Violation Awareness Date: **JANUARY, 2019**

Date Notice Distributed: **MAY, 2020** **Method of Distribution**: POSTED WITH 2019 CCR

Public Notification Certification:

The public water system named above hereby affirms that public notification has been provided to its consumers in accordance with all delivery, content, format, and deadline requirements specified in 15A NCAC 18C .1523.

Owner/Operator: _____ **JOEY PITTMAN** **5/26/2020**
(Signature) (Print Name) (Date)

Contaminant Group List

(NT) Nitrate/ (NI) Nitrite – includes testing for nitrate and/or nitrite.

Neuse Regional Water and Sewer Authority

2019 Detected Contaminants

Substances (Measuring	Highest Level Allowed	Highest Level	Range Detected	Description and Origin of Substance
Sodium (ppm)	n/a	**20.8**	20.8	Naturally occurring mineral; also a byproduct of disinfection processes.
Fluoride (ppm)	4.0	**0.81**	0.66 - 0.81	Natural occurring mineral; also added to water to promote dental health.
Sulfate (ppm)	n/a	**25.0**	25.0	Natural occurring mineral; also a byproduct of conventional water treatment.
Total Organic Carbon Raw (ppm)	TT*	**6.96**	4.323 - 6.96	Organic matter naturally present in the environment.
Total Organic Carbon Treated (ppm)	TT*	**2.788**	1.202 - 2.788	Organic matter naturally present in the environment.
Turbidity (NTU)	1.0 and 95% of samples below 0.3 (Treatment	**0.12 and 100% of samples below 0.3**	n/a	Measure of cloudiness in water; may be caused by inorganic soil particles or fragments of organic matter that can interfere with treatment.
pH (units)	9.0	8.3	7.4 - 8.3	Measure of the acidity of water, with acidity decreasing with increasing pH value; pH scale ranges 0-14.

TT = Treatment Technique

Surface Plant Filtration Efficiency

Total Organic Carbon Treated	RR*	**1.09**	1.09 - 1.72	Ratio of organic matter removed from treated water as a measure of process efficiency; must meet a minimum 1.0 ratio

RR = Removal Ratio

Source Name	Suceptibility Rating	SWAP Report Date
Neuse River	**Higher**	September 2017