

Annual Drinking Water Quality Report

NORTH LENOIR WATER CORPORATION

PWS ID# 04-54-025

June 1, 2024

**Este informe contiene información muy importante sobre su agua potable.
Tradúzcalo o hable con alguien que lo entienda bien.**

If you have any questions about this report or any questions concerning your water utility, please contact Melvin Albritton at 252-527-8352 or on our website at: <http://www.nlwater.com>. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the third Wednesday night of each month at 7:00pm at our office located at 220 Academy Heights Rd. Kinston, N.C. 28504.

We're pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality of water and services 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.

I'm pleased to report that our drinking water is safe and meets federal and state requirements.

This report shows our water quality and what it means.

North Lenoir Water Corporation (NLWC) routinely monitors for contaminants in your drinking water according to Federal and State laws. After extensive testing, the tables below show only the detected contaminants from the results of our monitoring requirements for the period of January 1st to December 31st, 2023. NLWC water sources include wells which draw from the Black Creek and Upper Cape Fear Aquifers and the Neuse Regional Water and Sewer Authority (NRWASA), which is treated water supplied by the Neuse River (surface water). The sources of drinking water both tap water and bottled water includes 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.

All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk. All sources of drinking water are subject to potential contamination by substances that are naturally occurring or manmade. These substances can be microbes, inorganic or organic chemicals and radioactive substances. In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the number 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. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (1-800-426-4791). 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.

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 microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

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

“If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Infants and young children are typically more vulnerable to lead in drinking water than the general population. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. NLWC is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or on the Web at: <http://www.epa.gov/safewater/lead> . 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.

NLWC's service area is located within the Central Coastal Plain Capacity Use Area, (CCPUCA). This area has been providing, very good quality, potable water from ground water wells for many years. Regulations to restrict withdrawal of ground water have been applied to this area by NCDENR, due to withdrawal of the water being more rapid than the recharge back into the aquifers. This has resulted in the steady decline in water levels in our wells. Actual restrictions of water withdrawal began in 2008. In order to ensure a sustainable water supply for the future the NRWASA was formed. NLWC is one of the founding members of this organization. NRWASA consists of a surface water treatment plant, located on the Neuse River in Lenoir County, and the distribution lines to serve NLWC and other members of the entity. NLWC began purchasing water from NRWASA, September 1, 2008. Since the water purchase from NRWASA began, the water levels in each of NLWC's supply wells, has steadily risen which will insure protecting this natural resource for many years to come.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system that will benefit all of our customers. NLWC currently maintains approximately 420 miles of pipeline, 13 wells and 4 elevated storage tanks. The current storage capacity totals 3,500,000 gallons. NLWC serves approximately 6100 accounts, which is a population of about 15,250.

In the table below you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Not-Applicable (N/A) - Information not applicable/not required for that water system or for that rule.

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.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) or Picograms per liter (picograms/l) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

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

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
Required Reporting Level (R.R.L.)

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. MCLs are set as close to the MCLGs 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.

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.

2023 NLWC Detected Contaminates

Note: (# average of test results) (* range from low to high)

Microbiological Contaminants in the Distribution System - For systems that collect less than 40 samples per month.

Contaminant (units)	MCL Violation Y/N	Your Water	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (Presence or Absence)	N	0 of 180 Samples	N/A	TT*	Naturally present in the environment
E. coli (Presence or Absence)	N	0	0	Routine and repeat samples are total coliform-positive and either is <i>E. coli</i> -positive or system fails to take repeat samples following <i>E. coli</i> -positive routine sample or system fails to analyze total coliform-positive repeat sample for <i>E. coli</i> <u>Note:</u> If either an original routine sample and/or its repeat samples(s) are <i>E. coli</i> positive, a Tier 1 violation exists.	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.

Inorganic Water Characteristic Contaminants

Contaminant (units)	Sample Date	Your Water Avg.	Range Low/High	Secondary MCL
Fluoride (ppm)	2023	#0.31	*0.14-0.51	4
Iron (ppm)	2023	#0.021	*ND-.062	0.3
Manganese (ppm)	2023	#0.055	*0.004-0.018	0.05
Sodium (ppm)	2023	#57.551	*49.558-65.321	N/A
pH (units)	2023	#7.5	*7.3-7.7	6.5 to 8.5
Sulfates (ppm)	2017	#5.13	*ND-15.4	250

These Secondary Contaminants above, required by the NC Public Water Supply Section to be tested, are substances that affect the taste, odor, and/or color of drinking water. These aesthetic contaminants normally do not have any health effects and normally do not affect the safety of your water.

Lead and Copper Contaminants

Contaminant (units)	Sample Date	Your Water	# of sites found above the AL	MCLG	MCL	Likely Source of Contamination
Copper (ppm) 90 th percentile = .126	September 2021	*ND *.175 #.126	0 of 30	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb) 90 th percentile = ND	September 2021	*ND *.011 #ND	0 of 30	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits

Nitrate/Nitrite Contaminants June 2023

Contaminant (units)	MCL Violation Y/N	Your Water Avg.	Range		MCLG	MCL	Likely Source of Contamination
			Low	High			
Nitrate (as Nitrogen) (ppm)	N	ND	N/A		10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	N	N/A					

Radiological November 2021

Contaminant (pCi/L)	MCL Violation Y/N	Your Water Avg.	Range Low/High	MCLG	MCL	Likely Source of Contamination
Radium 228		#1.2	1 of 13 Wells			Erosion of Natural Deposits

Synthetic Organic Chemicals (SOC's) Including Pesticides and Herbicides Feb. 2023- Oct. 2023

Contaminant (units)	MCL Violation Y/N	Your Water Avg.	Range Low/High	MCLG	MCL	Likely Source of Contamination
	N	0 of 6 samples	ND			

Volatile Organic Chemicals (VOC's) May-Aug 2023

Contaminant (units)	MCL Violation Y/N	Your Water Avg.	Range Low/High	MCLG	MCL	Likely Source of Contamination
	N	0 OF 4 SAMPLES	ND			

Disinfection By-Product Contaminants Feb -Nov 2022

Contaminant (units)	MCL/MRDL Violation Y/N	Your Water Avg.	Range Low High	MCLG	MCL	Likely Source of Contamination
TTHM (ppb) [Total Trihalomethanes]	N	#29.12	*9.6 *47.2	N/A	80	By-product of drinking water disinfection
HAA5 (ppb) [Total Haloacetic acids]	N	#31.06	*8.9 *45.9	N/A	60	By-product of drinking water disinfection
Bromate (ppb)		N/A		0	10	By-product of drinking water disinfection
Chlorite (ppm)		N/A		0.8	1	By-product of drinking water disinfection
Chlorine dioxide (ppb)		N/A		MRDLG= 800	MRDL= 800	Water additive used to control microbes
Chloramines (ppm) (total chlorine)	N	#2.8	*1.3-3.9	MRDLG= 4	MRDL= 4	Water additive used to control microbes
Chlorine (ppm) (free chlorine)	N	#2.4	*1.5-3.3	MRDLG= 4	MRDL= 4	Water additive used to control microbes

NLWC Unregulated Contaminants 2015

Contaminant (ppb)	Your Water Avg.	Range Low High	Likely Source of Contamination
Molybdenum	#0.18	*0.0-1.6	Naturally occurring element found in ores and present in plants, animals, and bacteria; commonly used form molybdenum trioxide used as a chemical reagent.
Strontium	#31.00	*31-31	Natural occurring element: commercial use of strontium has been in the faceplate glass of cathode ray tube televisions to block x-ray emissions.
Vanadium	#0.17	*0.0-0.56	Naturally occurring elemental metal; used as vanadium pentoxide, which is a chemical intermediate and catalyst
Chlorate	#190	*180-200	Agricultural defoliant or desiccant; disinfectant by product; and used in production of chlorine dioxide
Chromium 6	#0.02	*0.036-0.037	Natural occurring element; used in steel making and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation.
Chromium (Total)	#0.25	*.24-0.26	Natural occurring element; used in steel making and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation.

1,4-Dioxane	#0.006	*0.0-0.14	Stabilizer used in storage and transport of aluminum containers; solvent in inks and adhesives, byproduct of producing ingredients found in cleansing and moisturizing products.
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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 whether future regulations are warranted.

Neuse Regional Water and Sewer Authority (NRWASA)
Water System ID# 60-54-001

Neuse Regional Water and Sewer Authority				
2023 Detected Contaminants				
Substances (Measuring Units)	Highest Level Allowed [MCL]	Highest Level Detected	Range Detected	Description and Origin of Substance
Sodium (ppm) 3/7/23	N/A	30.526 Avg	N/A	Naturally occurring mineral; also a byproduct of disinfection processes.
Fluoride (ppm) 3/7/23	4.0	0.93	N/A	Erosion of natural deposits; water additive to promote strong teeth; discharge from fertilizer and aluminum factories
Sulfate (ppm) 3/7/23	N/A	39.1 Avg	N/A	Natural occurring mineral; also a byproduct of conventional water treatment.
Combined Radium (pCi/L)	5	1.2	1.2	Natural occurring radioactive isotope; decays into radon gas, a known carcinogen.
Total Organic Carbon Raw (ppm)	TT*	1.13	1.04 - 1.63	Organic matter naturally present in the environment.
Total Organic Carbon Treated (ppm)	TT*	2.60	1.80 - 2.60	Organic matter naturally present in the environment.
Turbidity (NTU)	Less than 95% of samples are ≤ 0.3 NTU (Treatment Technique)	100 % of samples below 0.3	0.31	Measure of cloudiness in water; may be caused by inorganic soil particles or fragments of organic matter that can interfere with treatment. Soil runoff.
pH (units)	9.0	7.6	6.5 - 8.5	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 (ppm)	Removal Ration RAA <1.0 and alternative compliance criteria was not met	1.22 (Lowest RAA)	1.01 - 1.45	Organic matter naturally present in the environment
NRWASA Unregulated Contaminants - Sample Date 2014				
Substances (ppb)	Highest Level Detected	Range Detected	Description and Origin of Substance	
Chlorate	260	79-260	Agricultural defoliant or desiccant; disinfectant by product; and used in production of chlorine dioxide	

Chromium 6 or Hexavalent Chromium	0.07	0.04 - 0.07	Natural occurring element; used in steel making and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation.
Chromium (total)	0.2	0.2	Natural occurring element; used in steel making and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation.
Strontium	52	44 - 52	Natural occurring element: commercial use of strontium has been in the faceplate glass of cathode ray tube televisions to block x-ray emissions.
Vanadium	0.5	0.5	Naturally occurring elemental metal; used as vanadium pentoxide, which is a chemical intermediate and catalyst.
1,4-Dioxane	0.23	0.23	Stabilizer used in storage and transport of aluminum containers; solvent in inks and adhesives, byproduct of producing ingredients found in cleansing and moisturizing products.

* Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The Turbidity rule requires that 95% or more of the monthly samples must be less than or equal to 0.3 NTU. If you have any questions concerning NRWASA, please call Harold Herring at 252-522-2567.

NRWASA Monitoring of PFAS Contaminants 2023

EPA is proposing a National Primary Drinking Water Regulation (NPDWR) to establish legally enforceable levels, called Maximum Contaminant Levels (MCL's), for six Polyfluoroalkyl Substances (PFAS) in drinking water. PFOA and PFOS as individual contaminants, and PFNA, HFPO-DA, PFHxS, and PFBS (commonly referred to as GenX Chemicals) as a PFAS mixture. EPA is also proposing health-based, non-enforceable Maximum Contaminant Level Goals (MCLG's) for these six PFAS. EPA expects that if fully implemented, the rule will prevent thousands of deaths and reduce tens of thousands of serious PFAS-attributable illnesses. Additional information may be found on the EPA website.

PFAS Contaminants Monitored by NRWASA (With Pending Regulation)

Contaminant (ppt)	Range		EPA Proposed MCL
	Low	High	
Perfluorooctanoic acid (PFOA)	.47	7.7	4ppt
Perfluorooctane sulfonic acid (PFOS)	.71	16	4 pp!
Perfluorononanoic acid (PFNA)	.30	.79	1.0 Hazard Index
Hexafluoropropylene oxide dimer acid (HFPO-DA aka GenX)	No Detect		1.0 Hazard Index
Perfluorohexane sulfonic acid (PFHxS)	.53	7.9	1.0 Hazard Index
Perfluorobutane sulfonic acid (PFBS)	.85	9.1	1.0 Hazard Index

PFAS Contaminants Monitored by NRWASA (With No Pending Regulation)

Contaminant (ppt)	Range	
	Low	High
Perfluorobutanoic acid (PFBA)	3.3	9.0
Perfluoroheptanoic acid (PFHpA)	.47	2.4
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2FTS)	15	20
Perfluorooctanoic acid (PFHxA)	.80	6.8
Perfluorooctaneculfonamide (PFOSA)	.19	.29
Perfluoropentane sulfonic acid (PFPeS)	.36	1.5
Perfluorooctanoic acid (PFPeA)	1.0	7.5
Perfluorododecanoic acid (PFDA)	.26	.38
Perfluoroheptanesulfonic acid (PFHpS)	.21	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	.28	

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 assessments was to determine the susceptibility of each drinking water source (well or surface water intake) to Potential Contaminant Sources (PCSs). The results of the assessment are available in SWAP Assessment Reports that include maps, background information and a relative susceptibility rating of Higher, Moderate or Lower.

The relative susceptibility rating of each source for NLWC 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:

SWAP Results Summary

Source Name	Susceptibility Rating	SWAP Report Date
Well, #2	Lower	Sept. 12,2017
Well, #4A	Lower	Sept. 12,2017
Well, #8	Lower	Sept. 12,2017
Well, #9	Lower	Sept. 12,2017
Well, #10	Lower	Sept. 12,2017
Well, #11	Lower	Sept. 12,2017
Well, #12	Lower	Sept. 12,2017
Well, #13	Lower	Sept. 12,2017
Well, #14	Lower	Sept. 12,2017

Well, #15	Lower	Sept. 12,2017
Well, #16	Lower	Sept. 12,2017
Well, #17	Lower	Sept. 12,2017
Well, #18	Lower	Sept. 12, 2017
NRWASA	Higher	Sept., 2020

The complete SWAP Assessment report for North Lenoir Water Corporation may be viewed on the Web at: <http://www.deh.enr.state.nc.us/pws/swap> . Please note that because SWAP results and reports are periodically updated by the PWS Section, the results available on this web site may differ from the results that were available at the time this CCR was prepared. 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 indicate 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 919-715-2633.

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.

As you can see by these tables, our system had no violations concerning tested contaminants. We’re proud that your drinking water meets or exceeds all Federal and State 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.

We at North Lenoir Water Corporation work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children’s future.

This institution is an equal opportunity provider, and employer. Please call our office if you have any questions, 252-527-8352 or visit our website at <http://www.nlwater.com>