

Annual Drinking Water Quality Report- Lovingston

Is my water safe?

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies. Last year, we conducted tests for over 80 contaminants. We only detected 17 of those contaminants, and found only 1 at a level higher than the EPA allows. As we informed you at the time, our water temporarily exceeded drinking water standards. (For more information see the section labeled Violations at the end of the report.)

Do I need to take special precautions?

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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Where does my water come from?

Your drinking water is a combination of groundwater and surface water in the Lovingston, Colleen and Shipman areas. The groundwater is pumped from six (6) drilled wells and is introduced throughout the distribution system. The surface water is collected in the 14MG Black Creek Reservoir located next to the NCSA Black Creek Treatment Plant. Water is stored at four (4) storage tanks located in a variety of locations within our system. Our distribution system consists of water mains ranging in diameter from 2"-16".

Source water assessment and its availability

A source water assessment for the Nelson County Service Authority, Lovingston waterworks was completed by Virginia Department of Health on May 2, 2002. The assessment determined that the wells service our community may be susceptible to

contamination because they are located in an area that promotes migration of contaminants from certain land use activities of concern.

Why are there contaminants in my drinking water?

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 (EPA) 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:

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

How can I get involved?

If you have any questions about this report or if you want additional information about any aspect of your drinking water, please contact Mr. George T. Miller, Jr., Executive Director at toll-free 1-888-263-5341. The times and location of regularly scheduled board meetings are as follows: The third Tuesday of every month at 9am at the Nelson County Service Authority Administrative Building-basement located at 620 Cooperative Way, Arrington, VA 22922.

Description of Water Treatment Process

Your water is treated in a "treatment train" (a series of processes applied in a sequence) that includes coagulation, flocculation, sedimentation, filtration, and disinfection. Coagulation removes dirt and other particles suspended in the source water by adding chemicals (coagulants) to form tiny sticky particles called "floc," which attract the dirt particles. Flocculation (the formation of larger flocs from smaller flocs) is achieved using gentle, constant mixing. The heavy particles settle naturally out of the water in a sedimentation basin. The clear water then moves to the filtration process where the water passes through sand, gravel, charcoal or other filters that remove even smaller particles. A small amount of chlorine or other disinfection method is used to kill bacteria and other microorganisms (viruses, cysts, etc.) that may be in the water before water is stored and distributed to homes and businesses in the community.

NOTICE TO CONSUMERS of the NCSA - LOVINGSTON WATERWORKS

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

State Health Officials have advised us of a failure to perform required monitoring in accordance with the Virginia *Waterworks Regulations*.

We are required to monitor your drinking water monitor for disinfection byproduct precursors and meet certain removal requirements at the water treatment plant regularly. Results of regular monitoring are an indicator of whether our drinking water meets health standards. During the April - June 2024 monitoring period, we did sample the raw water for disinfection byproduct precursors at the water treatment plant; however, the lab did not test the samples correctly. Therefore, we cannot be sure of the quality of our drinking water during that time.

One (1) sample was required for analysis and none (0) was analyzed correctly.

Removal of disinfection byproduct precursors is monitored at the water treatment plant to make sure the plant is operating effectively and producing the highest quality water possible to minimize the formation of potentially harmful disinfection byproducts in the distribution piping system. The sample results of actual disinfection byproducts from the distribution system were low and met all requirements during this period.

There is nothing you need to do at this time. We have continued collecting the required samples.

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One (1) sample was required for analysis and none (0) was analyzed.

Removal of disinfection byproduct precursors is monitored at the water treatment plant to make sure the plant is operating effectively and producing the highest quality water possible to minimize the formation of potentially harmful disinfection byproducts in the distribution piping system.

There is nothing you need to do at this time. We will collect the required samples.

**NOTICE TO CONSUMERS
of the NCSA - LOVINGSTON WATERWORKS**

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Failure to Monitor for Radiologicals Alpha (RADA)

Our water system violated drinking water requirements over the past year. Although this situation does not require that you take immediate action, 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 regularly. Results of regular monitoring are an indicator of whether our drinking water meets health standards. During October 1, 2024 – December 31, 2024, monitoring period, we did not monitor or test for Radiologicals Alpha (RADA) during the 4th Quarter and therefore cannot be sure of the quality of your drinking water during that time.

What should I do?

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

The table below lists the contaminant we did not properly test for during the last year, how often we are supposed to sample for Radiologicals Alpha (RADA), how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When samples should have been taken	When samples were taken
RADA	1 sample every quarter	0	4th Quarter 2024 (October 1, 2024 – December 31, 2024)	

What is being done?

We are taking the sample immediately and having it analyzed for RADA at a certified lab.

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IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

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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.

What should I do? There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

For more information, please contact Mr. George T. Miller, Jr. at 434-263-5341 or at PO Box 249, Lovingson, VA 22949.

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.

Monitoring Violations

	Explanation	What is being done?	Health Effects
Failure to Monitor for Radiologicals Alpha (RADA)	During the January 1 - -March 31, 2025, monitoring period, we did not monitor or test for Radiologicals Alpha (RADA) and therefore cannot be sure of the quality of your drinking water during that time.* We were supposed to collect one sample per quarter, and collected 0 for the 1st quarter 2025.	We have collected and analyzed samples for each remaining quarters in 2025.	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the PMCL over many years may have an increased risk of getting cancer.

Failure to Monitor for Disinfection Byproduct Precursors	During December 2025, we did not monitor or test for disinfection byproduct precursors and therefore cannot be sure of the quality of your drinking water during that time.* We are required to test monthly for total organic carbon and alkalinity to verify that our treatment plant is removing enough total organic carbon from our source water to keep disinfection byproduct formation low.	We continue to collect our samples each month per our approved monitoring plan.	Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.
Failure to Monitor for Volatile Organic Chemicals (VOCs)	During the 2023-2025 and 2025 compliance period, we did not monitor or test for volatile organic chemicals at all of the required locations and therefore cannot be sure of the quality of your drinking water during that time.* We are required to collect these samples every three years from our groundwater well entry points and every year from our water treatment plant entry points. We did not collect a sample from the Rainbow Well #2 entry point between 2023-2025.	We are continuing to collect our samples for volatile organic chemicals as requested by the Office of Drinking Water.	Volatile organic chemicals (VOCs) are a large class of chemicals, which range from relatively nontoxic to highly toxic in nature. If consumed well in excess of their PMCLs over a long period, certain VOCs can cause health effects including increased risks of cancer, issues with the liver, kidney, or circulatory systems, or issues with anemia.
Failure to Monitor for Radium-228	During the 2nd and 3rd quarters of 2025, we did not monitor or test for radium-228 and therefore cannot be sure of the quality of your drinking water during that time.* We collected radiological samples as required, but the laboratory did not test for radium-228 which is a required measurement.	We are continuing to collect our samples for radiologicals and ensuring that the laboratory measures all required parameters.	Some people who drink water containing radium-226 or radium-228 in excess of the PMCL over many years may have an increased risk of getting cancer.

Failure to Monitor for Inorganic Chemicals	During 2023 through 2025 and 2025 compliance period, we did not monitor or test for inorganic chemicals or certain chemicals that were not reported by our laboratory and therefore cannot be sure of the quality of your drinking water during that time.* We did not collect some or all of the required samples from our Bowling Well #2, Brown Well, Dawson Well, Payne Well and State Shed Well entry points. Our laboratory did not measure color and sulfate in our Rainbow Well #2 sample	We have collected inorganics samples for these wells in 2026.	Inorganic chemicals are a class of chemicals including antimony, arsenic, asbestos, barium, beryllium, and more. Health effects vary by chemical.
Failure to Monitor for Radiologicals	During the 2020-2025 six-year monitoring period, we did not monitor or test for combined radium-226 and radium-228, gross alpha particle activity and uranium and therefore cannot be sure of the quality of your drinking water during that time.* We were required to collect a sample from each entry point location, but we missed the sample from our Rainbow Well #2 entry point.	We are continuing to collect our samples for radiologicals.	Certain minerals are radioactive and may emit forms of radiation known as photons, alpha radiation, and beta radiation. Some people who drink water containing alpha, beta, and photon emitters or radium-226 or radium-228 in excess of the PMCL over many years may have an increased risk of getting cancer.

Additional Information for Lead

The system inventory does not include lead service lines.

In 2024, we developed a service line inventory as required by EPA Lead and Copper Rule Revisions. We do not have any lead service lines as part of this water system. Should you have detailed questions or wish to see the results of the service line inventory, please contact the Nelson County Service Authority.

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. NCSA - LOVINGSTON is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact NCSA - LOVINGSTON (Public Watersystem Id: VA2125325) by calling 434-263-5341 or emailing gmiller@ncsava.com. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>.

Additional Information for Nitrate

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 for advice from your health care provider.

Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most

cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Chlorine (as Cl2) (ppm)	4	4	0.85	0.08	2.13	2025	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	11	ND	15	2025	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	25	ND	49	2025	No	By-product of drinking water disinfection
Inorganic Contaminants								
Barium (ppm)	2	2	0.072	0.008	0.072	2025	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beryllium (ppb)	4	4	0.2	NA	0.18	2025	No	Discharge from metal refineries and coal- burning factories; Discharge from electrical, aerospace, and

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
								defense industries
Chromium (ppb)	100	100	3.2	NA	3.2	2025	No	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (ppm)	4	4	1.7	ND	1.7	2025	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	10	10	1.6	ND	1.6	2025	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (optional) (ppm)	NA		13.5	4.3	13.5	2025	No	Erosion of natural deposits; Leaching
Thallium (ppb)	0.5	2	0.1	NA	0.09	2025	No	Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories
Microbiological Contaminants								
E. coli (RTCR) - in the distribution system (positive samples)	00	Routine and repeat samples are total coliform positive and either is E. coli - positive or system	00	NA	NA	2025	No	Human and animal fecal waste

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source	
				Low	High				
		fails to take repeat samples following E. coli positive routine sample or system fails to analyze total coliform positive repeat sample for E. coli.							
Turbidity (NTU)	NA	TT*	0.7	NA	NA	2025	No	Soil runoff	
99.93% of the samples were below the TT value of .3. A value less than 95% constitutes a TT violation. The highest single measurement was .7. Any measurement in excess of 1 is a violation unless otherwise approved by the state.									
Radioactive Contaminants									
Alpha emitters (pCi/L)	00	15	4.9	ND	4.9	2025	No	Erosion of natural deposits	
Beta/photon emitters (mrem/yr)	00	4	10.8	3.9	10.8	2025	Yes	Decay of natural and man-made deposits.	
Radium (combined 226/228) (pCi/L)	00	5	3.7	NA	3.7	2025	No	Erosion of natural deposits	
Contaminants	MCLG	AL	Your Water	Range		# Samples Exceeding AL	Sample Date	Exceeds AL	Typical Source
				Low	High				
Inorganic Contaminants									
Copper - action level at consumer taps (ppm)	1.3	1.3	0.07	ND	2.54	1	2023	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb)	00	15	3.3	<.05	0.39	0	2023	No	Corrosion of household plumbing systems; Erosion of natural deposits

Violations and Exceedances
Beta/photon emitters Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer. EPA considers 50 pCi/l to be the level of concern for beta particles. No violations No violations

Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
mrem/yr	mrem/yr: millirems per year (a measure of radiation absorbed by the body)
NTU	NTU: Nephelometric Turbidity Units. 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.
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.
positive samples	positive samples/yr: The number of positive samples taken that year

Important Drinking Water Definitions	
Term	Definition
MCLG	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.
MCL	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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	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.

Important Drinking Water Definitions	
MRDL	MRDL: Maximum residual disinfectant 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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level
90th Percentile	Compliance with the lead and copper action levels is based on the 90th percentile lead and copper levels. This means that the concentration of lead and copper must be less than or equal to the action level in at least 90% of the samples collected.

For more information please contact:

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