

Annual Drinking Water Quality Report

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.

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 both groundwater and surface water at Wintergreen. Our groundwater source is obtained from four (4) drilled wells. Our surface water is obtained from Stoney Creek and Lake Monacan. The surface water is treated by chemical and physical treatment processes before releasing water into the distribution system. Chlorine is used to disinfect the treated water and a corrosion inhibitor chemical is added to prevent corrosion of internal plumbing. Water is distributed throughout the community by one booster pumping station, three storage tanks and distribution piping.

Source water assessment and its availability

A source water assessment for the Nelson County Service Authority was completed by the Virginia Department of Health on May 27, 2002. This assessment determined that the raw water sources (Lake Monacan, Stoney Creek and the four drilled wells) may be susceptible to contamination. All surface water sources are exposed to a wide array of contaminants at varying

concentrations and changing hydrologic, hydraulic and atmospheric conditions that promote migration of contaminants from land use activities of concern within the assessment area.

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 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 Thursday of every month at 8:30am at the Nelson County Service Authority Administrative Building-basement located at 620 Cooperative Way, Arrington, VA 22922.

Monitoring and reporting of compliance data violations

We violated a drinking water standard. Even though this was not an emergency, as our customers, you have a right to know what happened and what we are doing to correct this

situation.

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 calendar year 2022 (January through December), we were required to collect an inorganics sample from our water treatment plant entry point. We collected this sample, however the laboratory failed to analyze and report the concentration of total dissolved solids; therefore, we cannot be sure of the quality of our drinking water in relation to the total dissolved solids during that time.

State Health Officials believe that there is no need for concern about the safety of your water because total dissolved solids is an aesthetic contaminant. Elevated dissolved solids, above 500 mg/L, can be a result of water hardness or other dissolved minerals and salts and cause deposits; colored water; staining and/or salty taste. Annual samples for total dissolved solids from our water treatment plant typical have a total dissolved solids concentration of less than 100 mg/L. What is Being Done? Steps We Are Taking.

We will collect our 2023 inorganics sample and ensure that all parameters are measured and reported by the laboratory.

Failure to Monitor for Combined Nitrate-Nitrite as Nitrogen

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 on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the calendar year 2022 (January-December), we did not monitor for Nitrates at Well No. 17 Entry Point 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.

What is being done?

We will collect the required Nitrate sample as soon as possible. Currently Well No. 17 is inoperable and has not been in service since October 2022.

Additional Information for Lead

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. Nelson County Service Authority-Wintergreen 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 at <http://www.epa.gov/safewater/lead>.

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 Cl ₂) (ppm)	4	4	1.28	.01	1.86	2022	No	Water additive used to control microbes

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Haloacetic Acids (HAA5) (ppb)	NA	60	32	6	36	2022	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	43	15	45	2022	No	By-product of drinking water disinfection
Inorganic Contaminants								
Barium (ppm)	2	2	.023	.0095	.023	2021	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	.67	NA	1.69	2021	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	10	10	.56	.36	.56	2022	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium (optional) (ppm)	NA		26.5	7.9	26.5	2021	No	Erosion of natural deposits; Leaching
Microbiological Contaminants								
E. coli (RTCR) - in the distribution system	0	Routine and repeat samples are total coliform positive and either is E. coli - positive or system fails to take repeat samples following E. coli positive routine sample or system fails to analyze total coliform positive repeat sample for E. coli.	2	NA	NA	2022	No	Erosion of natural deposits; Leaching; There was 1 detection in February and 1 in September, but since none of the repeat samples were positive it was not a violation.
Although we have detected E. coli, we are not in violation of the E. coli MCL.								
Turbidity (NTU)	NA	0.3	100	NA	NA	2022	No	Soil runoff
100% of the samples were below the TT value of .3. A value less than 95% constitutes a TT violation. The highest single measurement was .29. Any measurement in excess of 1 is a violation unless otherwise approved by the state.								

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Radioactive Contaminants								
Alpha emitters (pCi/L)	0	15	2.8	.6	2.8	2018	No	Erosion of natural deposits
Beta/photon emitters (pCi/L)	0	50	7.5	2	7.5	2018	No	Decay of natural and man-made deposits. The EPA considers 50 pCi/L to be the level of concern for Beta particles.
Radium (combined 226/228) (pCi/L)	0	5	.75	NA	.75	2018	No	Erosion of natural deposits
Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source	
Inorganic Contaminants								
Copper - action level at consumer taps (ppm)	1.3	1.3	.04	2022	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	
Lead - action level at consumer taps (ppb)	0	15	1	2022	0	No	Corrosion of household plumbing systems; Erosion of natural deposits. Exposure to lead can be minimized by running your faucet for several minutes prior to capturing the water for use. This moves the water that's been sitting in the service lateral and faucet out of the line and supplies fresh water from the main. The infrequent use of faucets can increase risk of exposure to lead. Always run your faucet before use.	

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)
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.

Unit Descriptions	
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.
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

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