2024 Consumer Confidence Report:
Your Guide to Your Drinking Water

This annual Drinking Water Quality Report for the calendar year 2024 is designed to inform you about your drinking water quality. Our goal is to provide you with a safe and dependable supply of drinking water, and we want you to understand the efforts we make to protect your water supply.

The quality of your drinking water must meet state and federal requirements administered by the Virginia Department of Health (VDH). Each year, the Department of Health requires water system providers to report to the public on the quality of their drinking water. The Consumer Confidence Report was mandated by the 1996 Amendments to the Safe Drinking Water Act. We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. The tables list only detected contaminants that are required to be reported. Many other contaminants have been analyzed, but were not present or were below the detection limits of lab equipment. Some of the water quality results in the tables below are from testing done prior to 2024. However, the Commonwealth of Virginia allows the Town to monitor for these contaminants less than once per year because their concentrations do not change frequently. Therefore, these data, though more than one-year-old, are accurate.

GENERAL INFORMATION

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.

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 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 byproducts 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 results of oil and gas production and mining activities.

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. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

All drinking water, including bottled drinking 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 can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (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 healthcare 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 (800-426-4791).

SOURCE AND TREATMENT OF YOUR DRINKING WATER

Kilmarnock's water is extracted via wells from groundwater. Three wells serve Kilmarnock. They are located on E. Church Street, Radio Road and adjacent to Rappahannock General Hospital.

As a first step toward protection of our sources of drinking water, the Virginia Department of Health (VDH) evaluated the susceptibility of Virginia's water supplies to contamination. Contamination sources and pathways were reviewed using maps, known and observed activities, water quality data and information about the water source. Using criteria developed by the State in its EPA-approved Source Water Assessment Program, it was determined that, on a relative basis, Well No. 3A (Rappahannock General Hospital) and Well No. 4 (Radio Road) are of low susceptibility to contamination. However, well No. 2 (E. Church Street) is of high susceptibility to contamination. This does not mean that your drinking water is currently unsafe.

The only treatment of Kilmarnock's drinking water is chlorination, injected at the well site. Fluoride occurs naturally in our water and more information on both chemicals is contained in the following chart. A copy of the source water assessment report is available by contacting Susan Cockrell, Town Manager at 804-435-1552 ext. 25 or via email: susancockrell@kilmarnockva.com. Your current water quality is described in the rest of this report.

WHAT DO THE RESULTS SHOW? All identified contaminants are within the limits established by the Virginia Dept. of Health. No items require actions to be taken.

FLUORIDE PUBLIC NOTICE

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/l) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by your community water system had a fluoride concentration of 3.5 mg/l in the sampling shown above. Dental fluorosis in its moderate or severe forms may result in a brown staining and or pitting of the permanent teeth. This problem occurs only in developing teeth before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water.

Drinking water containing more than 4 mg/l of fluoride (the U.S. Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than 4 mg/l of fluoride, but we're required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/l because of this cosmetic dental problem. For more information, please call Town Manager, Susan Cockrell at 804-435-1552 ext. 25

Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8-NSF-HELP.

WATER QUALITY RESULTS (Detected Contaminants Only)

Contaminant (units)	MCLG	MCL	Level Found	Range	Violation	Date of Sample	Typical Source of Contamination
Fluoride (ppm)	4	4	3.5	3.0-3.5	No	2022	Erosion of natural deposits.
Nitrite/Nitrate (ppm)	10	10	< 0.05	ND	No	2024	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Barium (ppm)	2	2	0.016	0.13-0.016	No	2022	Discharge from drilling waste; Discharge from metal refineries; Erosion of natural deposits.
Alph Emitters (pCi/L)	0	15	1.2	ND- 1.2	No	2019,2022	Erosion of natural deposits.
Gross Beta (pCi/L)	0	50*	4.0	1.9-4	No	2019,2022	Erosion of natural and man-made deposits
Combined Radium (pCi/L)	0	5	1.7	.04-1.7	No	2019,2022	Erosion of natural deposits.

** The MCL for Gross Beta is 4 mrem/year however EPA considers 50 pCi/L to be the level of concern.*

Disinfection and Disinfection By-products

CONTAMINANT (units)	MCLG or MRDLG	MCL or MRDL	Level Detected	Range	Date of Sample	Violation	Typical Source of Contamination
Chlorine (ppm)	4	4	0.2	0.1-0.4	2024	No	Water additive used to control microbes
HAA5 (ppb)	60	60	2.6	NA	2024	No	A by-product of drinking water chlorination
TTHM (ppb)	80	80	7.4	NA	2024	No	A by-product of drinking water chlorination

Lead and Copper Contaminants

CONTAMINANT (units)	MCLG	Action Level	Level Detected	Range	# of samples above AL	Date of Sample	Typical Source of Contamination
Copper (ppm)	1.3	1.3	0.11	0.035-0.12	0	2021	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching of wood preservatives.
Lead (ppb)	0	15	6.1	ND- 6.1	0	2024	Corrosion of household plumbing; Erosion of natural deposits

LEAD EDUCATION STATEMENT

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 Town of Kilmarnock 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 15 to 30 seconds or until it becomes cold or reaches a steady temperature before using water for cooking or drinking. 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 are available from the Safe Drinking Water Hotline at http://www.epa.gov/safewater/lead.

SODIUM INFORMATIONAL STATEMENT

The average concentration from 2022 samples is 188ppm. This exceeds the recommended maximum contaminant level of 20 mg/l for persons on a “strict” sodium diet.

VIOLATION INFORMATION

Your water system did not have any violations during the year.

GLOSSARY OF TERMS

Non-detects (ND) – lab analysis indicates that the contaminant 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 (AL) – the concentration of a contaminant, which if exceeded, triggers treatment or other requirements a water system must follow.
Maximum Residual Disinfectant Level (MRDL) – the level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects.
Maximum Residual Disinfectant Level Goal (MRDLG) – the level of a disinfectant added for water treatment at which no known or anticipated adverse effect on the health of persons would occur.
Treatment Technique (TT) – a required process intended to reduce the level of a contaminant in drinking water.
Maximum Contaminant Level (MCLs) is set at very stringent levels by the U.S. Environmental Protection Agency. In developing the standards, EPA assumes that the average adult drinks 2 liters of water each day throughout a 70-year lifespan. EPA generally sets MCLs at levels that will result in no adverse health effects for some contaminants or a one-in-ten-thousand to a one-in-a-million chance of having the described health effect for other contaminants.
Maximum Contaminant Level Goal, or 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.
Millirems per year (mrem/year) – The measure of radiation absorbed by the body.

More information may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.

Additional Town of Kilmarnock information can be found on our website: www.kilmarnockva.com or by calling the Town office at 804-435-1552 between 9 AM & 5 PM Monday through Friday.
If you have questions about this report, want additional information about any aspect of your drinking water, or want to know how to participate in decisions that may affect the quality of your drinking water, please contact Susan Cockrell, Town Manager, 804-435-1552 ext. 25 or via email: susancockrell@kilmarnockva.com.