

Annual Drinking Water Quality Report for 2025

Town of Burkeville

PWS ID No. 5135110

INTRODUCTION

This Annual Drinking Water Quality Report for calendar year 2025 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).

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:

Clerk/Treasurer Town of Burkeville P.O. Box 277 204 W. Nunnally St. Burkeville, VA 23922 (434) 767-4095 clerk@townofburkeville.org
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GENERAL INFORMATION

The sources of drinking water (both tap 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 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- **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 which limit the amount of certain contaminants in water and 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.

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 Safe Drinking Water Hotline (800-426-4791).

VULNERABLE POPULATIONS

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 (800-426-4791).

IMPORTANT INFORMATION ABOUT LEAD IN DRINKING WATER

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. Town of Burkeville 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 Town of Burkeville personnel noted above. 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>.

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney or nervous system problems.

There are no lead service lines at the Town of Burkeville. Service line inventories are stored with the ownership and are maintained by maintenance personnel. You may contact the owners for additional information.

SOURCES AND TREATMENT OF YOUR DRINKING WATER

The source of your drinking water is groundwater drawn from six (6) drilled wells located throughout the Town of Burkeville. Well Nos. 1, 2, 3, 4, and 5 are treated with sodium hypochlorite for disinfection purposes, soda ash for pH adjustment, and an orthophosphate compound for corrosion control. Well No. 7 is untreated.

A source water assessment of our system was conducted in 2003 by the Virginia Department of Health. The wells were determined to be of high susceptibility to contamination using the criteria developed by the state in its approved Source Water Assessment Program.

The assessment report consists of maps showing the source water assessment area, an inventory of known land use activities of concern, and documentation of any known contamination within the last 5 years. The report is available by contacting your water system representative at the contact information noted above.

DEFINITIONS

In this report you will find many terms and abbreviations you might not be familiar with. The following definitions are provided to help you better understand these terms:

Non-detects (ND) - lab analysis indicates that the contaminant is not detectable, based on the limits of the analytical equipment used.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or one penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (µg/l)- one part per billion corresponds to one minute in 2,000 years, or one 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 which a water system must follow.

Treatment Technique (TT) - a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level Goal (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.

Maximum Contaminant Level (MCL) - 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.

Secondary Maximum Contaminant Level (SMCL) – the highest level recommended for a contaminant in drinking water, based on aesthetic considerations.

Variances and exemptions - state or EPA permission not to meet an MCL or a treatment technique under certain conditions

WATER QUALITY RESULTS

Contaminants in your drinking water are routinely monitored according to federal and state regulations. The following table shows the results of this monitoring for the period of January 1st through December 31st, 2025. However, the state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our results, though representative, are more than one year old. The table lists only those contaminants that had some level of detection in the last five years. Many other contaminants have been analyzed but were not present or were below the detection limits of the lab equipment.

Inorganic Contaminants						
Contaminant /Unit of Measurement	MCLG	MCL	Level Found/Range	Violation	Date of Sample	Typical Source of Contamination
Nitrate (ppm)	10	10	Highest Level: 7.58 Range: 0.96 to 7.58	No	May & Nov 2025	Fertilizer use runoff; septic tank / sewage leaching; erosion of natural deposits
Barium (ppm)	2	2	Highest Level: 0.094 Range: 0.022 to 0.094	No	2024/2025	Erosion of natural deposits, discharge from metal refineries, discharge from drilling wastes
Lead and Copper						
Contaminant /Unit of Measurement	MCLG	MCL	Level Found/Range	Exceedance	Date of Sample	Typical Source of Contamination
Lead (ppb)	N/A	AL 15	2.37 (90 th percentile) Range: ND to 2.41 Of the 5 samples collected none exceeded the AL.	No	September 2024	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	N/A	AL 1.3	1.207 (90 th percentile) Range: ND to 1.75 Of the 5 samples collected, one exceeded the AL.	No	September 2024	Corrosion of household plumbing systems; Erosion of natural deposits
Radiological Contaminants						
Contaminant / Unit of Measurement	MCLG	MCL	Level Found/Range	Violation	Date of Sample	Typical Source of Contamination
Alpha emitters (including uranium) (pCi/L)	0	15	Highest Level: 2.7 Range: 0.87 to 2.7	No	2018/2024	Erosion of natural deposits
Combined radium (pCi/L)	0	5	Highest Level: 1.7 Range: 0.6 to 1.7	No	2018/2024	Erosion of natural deposits
Beta Emitters (pCi/L)	0	50	Highest Level: 4.2 Range: 2.3 to 4.2	No	2024/2025	Decay of natural and man-made deposits
Disinfection Byproducts						
Contaminant/Unit of Measurement	MCLG	MCL	Level Found/Range	Violation	Date of Sample	Typical Source of Contamination
HAA5 (Total Haloacetic Acids) (ppb)	N/A	60	Not Detected	No	Sept. 2025	By-product of drinking water disinfection
TTHM (Total Trihalomethanes) (ppb)	N/A	80	Not Detected	No	Sept 2025	By-product of drinking water disinfection

Chlorine (ppm)	4	4	Highest Quarterly Avg: 0.2 Range: 0.04 to 0.56	No	Tested Monthly	Water additive used to control microbes
Aesthetic Quality						
Contaminant/Unit of Measurement	MCLG	MCL	Level Found/Range	Violation	Date of Sample	Typical Source of Contamination
Iron (ppm)	N/A	0.3	Highest Level: 0.183 Range: ND to 0.183	No	2024	Erosion of natural deposits
Manganese (ppm)	N/A	0.05	Highest Level: 0.015 Range: ND to 0.015	No	2024	Erosion of natural deposits
Sodium (mg/L)	20	N/A	Highest Level: 179 Range: 55.8 to 179	No	2024	Erosion of natural deposits, byproduct of treatment system

SODIUM: According to the results for chemical analysis for Metals based on samples collected on February 12, 2025 and June 3, 2024, the sodium in the treated water ranged from 55.8 to 179 mg/L. This is above the EPA recommended optimal level of less than 20 mg/L for sodium in the drinking water, which is established for those individuals on a strict sodium intake diet.

During the 2025 calendar year, we are pleased to report all of the required bacteriological samples were clear with no detections of total coliforms or fecal coliforms.

The U.S. Environmental Protection Agency sets MCLs at very stringent levels. In developing the standards EPA assumes that the average adult drinks 2 liters of water each day throughout a 70-year life span. EPA generally sets MCLs at levels that will result in no adverse health effects for some contaminants or a one-in-ten-thousand to one-in-one-million chance of having the described health effect for other contaminants.

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, then you should ask advice from your health care provider.

VIOLATION INFORMATION

The Town of Burkeville did have a monitoring violation for the 2025 period for Failure to Distribute a copy of the 2024 Consumer Confidence Report and certification statement prior to July 1, 2025. The 2024 CCR was delivered to customers on August 28, 2025, and new tracking procedures have been implemented to ensure that all future reports are submitted on time.