2020 Water Quality Report

Data collected for Frederick Acres Water System from Calendar Year 2019 or the most recent testing period.
PWSID Number 5067160

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Welcome to the Western Virginia Water Authority

The Western Virginia Water Authority was formed in July 2004 to provide reliable public water and wastewater service to the residents of the City of Roanoke and Roanoke County. In early 2009, Franklin County joined the Authority, and Botetourt County joined in 2015. These expansions offered a larger regional approach to meeting our communities’ water and wastewater needs.

The Authority’s Executive Director is Michael McEvoy. The Water Authority’s Board of Directors meets the third Thursday of each month (with the exception of August and December) at 601 S. Jefferson Street. The Board meetings are open to the public. The Authority’s mission 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.

Your Water Quality Report

This water quality report contains information about the source of your water, what it contains and how it compares to the standards set by regulatory agencies based on data collected during calendar year 2019 or the most recent testing period. In 2019, a Notice of Violation was issued by the Virginia Department of Health Office of Drinking Water for failure to distribute a Consumer Confidence Report (CCR) for the 2018 calendar year to customers and to the state by the July 1, 2019 deadline. A copy was delivered to customers on July 23, 2019, which was past the deadline.

About the water system

The Frederick Acres Water System is served by one (1) groundwater well. In 2019, upgrades to the system were made including installation of a 10,000 gallon atmospheric storage tank, two booster pumps, piping upgrades, and the addition of a Sodium Hypochlorite feed system for water disinfection.

A source water assessment was conducted during 2002 by the Virginia Department of Health. The sources of water for Frederick Acres were found to have a high susceptibility to contamination using criteria developed by the state in its approved Water Assessment. The assessment report is available by contacting the Western Virginia Water Authority at 853.5700 or info@westernvawater.org

Definitions

Action Level (AL): The concentration of a contaminant that triggers treatment or other requirement that a water system must follow.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available treatment technology.

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.

Nephelometric Turbidity Unit (NTU): a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Non-detect (ND): lab analysis indicates that the contaminant is not present.

pCi/L: Picocuries per liter is a measure of the radioactivity of water.

ppb: One part per billion
(for example, one minute in 2,000 years).

ppm: One part per million
(for example, one minute in two years).
The Western Virginia Water Authority constantly monitors for various contaminants in the water supply to meet all regulatory requirements. The table lists only those contaminants that had some level of detection. Many other contaminants have been analyzed but were not present or were below the detection limits of the lab equipment. Maximum Contaminant Levels (MCLs) are set at very stringent levels by the U.S. Environmental Protection Agency. In developing the standards, the 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-a-million chance of having the described health effect for other contaminants.

Manganese levels (0.0567 ppm) are above the EPA's recommended secondary maximum contaminant levels (or SMCLs) of 0.05 ppm. There are currently no known adverse health effects associated with the presence of manganese at this level; however, it can result in aesthetic problems such as staining or discoloration of clothes or fixtures, as well as the impairment of taste of beverages made with the water.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. Coliforms were found indicating the need to look for potential problems in water treatment or distribution. During the past year, we were required to conduct one Level 1 assessments for Coliform bacteria. The corrective action included the installation of a 10,000 gallon atmospheric storage tank, two booster pumps, piping upgrades, and the addition of a Sodium Hypochlorite feed system for water disinfection.
Drinking Water Information

As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or from human activity. Contaminants in source water may be naturally occurring substances, or may come from septic systems, discharges from domestic or industrial wastewater treatment facilities, agricultural and farming activities, urban stormwater runoff, residential uses, and many other types of activities. Water from surface sources is treated to make it drinkable while groundwater may or may not have any treatment.

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.
• 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.

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).

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/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).

Lead & Copper

Copper is a nutritionally essential element, but at high levels, copper can cause gastrointestinal difficulties such as nausea and diarrhea.

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 Western Virginia Water Authority 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 or until it becomes cold or reaches a steady temperature 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 Discoloration

Changes in water pressure in water systems, such as when water mains break or technicians flush hydrants, can occasionally cause drinking water to be discolored. The discoloration is caused by sediments in pipes mixing with clear water. The sediments occur naturally from the oxidation of iron in pipes. While discolored water is ordinarily safe to drink, it is best to flush any discolored water from pipes by turning on all cold-water faucets in your home or business. Avoid turning on hot-water faucets so the discolored water is not drawn into water heaters.

One cause of water pressure change is from the use or flushing of fire hydrants. If you notice evidence of a water main break or leaking fire hydrants, please call 853.5700.