2021 Annual Drinking Water Quality Report
System ID# MD0060006
The Town of Manchester, Maryland
April, 2022

Este informe contiene informacion muy importante sobre su agua beber. Traduzcalo o hable con alguien que lo entienda bien.

The Town of Manchester is pleased to present to you, the consumer, our 2021 Annual Drinking Water Quality Report. This report is designed to inform you about the quality of water and services the Town of Manchester delivers to you every day. Our constant goal is to provide you and your family with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water sources. We, at the Town of Manchester Water Department, are committed to ensuring the quality of your water.

We at the Town of Manchester are pleased to report that our drinking water is safe and meets Federal and State requirements. The following report is in compliance with Federal regulations and will be provided annually. This report outlines the quality of our finished drinking water and what that quality means. Should you have any questions concerning your water utility, please contact Rodney Kuhns, Director of Public Works, at 410-239-1482 between the hours of 8:00 AM - 4:00 PM Monday - Friday. If you want to learn more, please attend any of our regularly scheduled Town Council meetings. They are scheduled on the 2nd Tuesday of every month at 7:30PM at the Town Hall, 3337 Victory Street.

The Town of Manchester currently withdraws its' water from 19 Groundwater Sources (Wells) and l Surface Water Source (Springs). These sources are identified as: Walnut St Springs and Well #1, Holland Dr. Well #2, Bachman Rd. #4, Patricia Ct. #7, Crossroads I #8, Crossroads II #9, Manchester Farms Well B & D #10, Hallie Hills I #11, Ferrier Rd. 3 Wells #12, Park Ridge Wells A & B #13, Hallie Hills II Well L & N #14, Manchester Valley HS 3 Wells #15. One thing to remember is that Well Sources are columns that are drilled into the earth to an aquifer. This aquifer is tapped and the water is then pumped to the surface for distribution. Surface Water Sources are shallow water sources that are closer to the earth's surface; this water is collected in an underground tank called a cistern, treated, and is then ready for distribution. All of the Wells and the Walnut Street Spring are in the Gillis Group Formation Aquifer, with the exception of the Bachman Road Well which is in the Sam's Creek Formation Aquifer.

Summary

The Maryland Department of the Environment's Water Supply Program (WSP) has conducted a Source Water Assessment for the Town of Manchester. The required components of this report as described in Maryland's Source Water Assessment Plan (SWAP) are: I) delineation of an area that contributes water to the source, 2) identification of potential sources of contamination, and 3) determination of the susceptibility of the water supply to contamination. Recommendations for protecting the drinking water supply conclude this report. The website is:
https://mde.maryland.gov/programs/Water/water_supply/Source_Water_Assessment_Program/Pages/by_county.aspx For more information call 1-800-633-6101

The source of Manchester's water supply is an unconfined fractured rock aquifer, known as the Upper Pelitic Schist. The system currently uses eighteen wells and one spring to obtain its drinking water. The Source Water Assessment Area was delineated by the Carroll County Bureau of Water Resources Management and the Water Supply Program using U.S. EPA approved methods specifically designed for each source.

Potential sources of contamination within the assessment area were identified based on site visits, database reviews and land use maps. Well information and water quality data were also reviewed. Figures showing land uses and potential contaminant sources within the Source Water Assessment Area and an aerial photograph of the well locations are available for review at the Town Hall.

The susceptibility analysis for Manchester's water supply is based on a review of the water quality data, potential sources of contamination, aquifer characteristics, and well and spring integrity. It was determined that all of Manchester's water supply sources are susceptible to contamination by nitrates, volatile organic compounds, and radon, but not to synthetic organic compounds, other radionuclides or inorganic compounds. It was also determined that all of Manchester's water supply sources are not susceptible to protozoans except for Crossroads Well I. In addition, Bachman Rd., Patricia Ct. and Walnut St. Wells and Walnut Street Spring hillside are susceptible to total coliform.

The Town of Manchester's Water Department routinely monitors for contaminants in your drinking water according to Federal and State laws. The information on the following pages shows the results of our monitoring period of January 1 - December 31, 2021. All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man-made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. As water travels over the land or underground, it can pick up these substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It is important to remember that the presence of these contaminants does not necessarily pose a health risk.

Definitions

In this report you may find many terms and abbreviations you might not be familiar with. To better understand these terms we have provided the following definitions:

Non-Detects (NID)- laboratory analysis indicates that the contaminant is not present.
Not-Applicable (NIA)- laboratory analysis was not required for this contaminant.
Parts per million (ppm) or Milligram per liter (mg/1) -one part per million corresponds to one minute in two years.
Parts per billion (ppb) or Micrograms per lifer- one part per billion corresponds to one minute in 2,000 years.
Parts per trillion (ppt) or Nanograms per liter (nanograms//)- one part per quadrillion corresponds to one minute in 2,000,000 years.
Parts per quadrillion (ppq) or Picograms per liter (picograms/1)- I part per quadrillion corresponds to !minute in 2,000,000,000 years.
Picocuries per liter (pCi/1)- picocuries per liter is a measure of the radioactivity in water.
Millirems per year (mremlyr)- measure of radiation absorbed by the body.
Mill1on Fibers per Liter (MFL)- million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.
Nephelometric Turbidity Unit (NTU) - unit to measure the clarity of water.
Action Level- the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Treatment Technique(l7)- A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
Maximum Contaminant Level- The "Maximum Allowed"(MCL) is the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.
Maximum Contaminant Level Goal- The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

Maximum Contaminant Levels

Maximum Contaminant Levels (MCL's) are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

TEST RESULTS

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants						
Combined radium (2020) 226/228	N	0.5	pCi/L	0	5	Erosion of natural deposits
Inorganic Contaminants						
Copper (2020)	N	0.79	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead – Distribution (2020)	N	3	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen) (2021)	N	6	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Barium (2021)	N	0.023	ppm	2	2	Discharge of drilling waste; Discharge from metal refineries; erosion of natural deposits

Chlorine (2021)	N	0.7	ppm	4	4	Water Additive used to control microbes
Chromium (2021)	N	12	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Unregulated Contaminants						
PFOA +PFOS	N	14.73	ppt	N/A	N/A	See Below
Volatile Organic Contaminants						
TTHM (Distribution) (2021) [Total trihalomethanes]	N	10	ppb	0	80	By-product of drinking water chlorination
HAA5 [Haloacetic Acids] (Distribution) (2021)	N	3	ppb	0	60	By-product of drinking water chlorination

Note: Test results are for year 2021 or as otherwise indicated; all contaminants are not required to be tested for annually.

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.

NOTE: As can be seen by results listed in the above tables, lead, which is tested for on a triennial basis (every 3 years) in Manchester's distribution system in accordance with Federal and State regulations, has not been detected in collected samples. Our most recent testing was in 2020.

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. We 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."

PFAS – short for per- and polyfluoroalkyl substances- refers to a large group of more than 4000 human made chemicals that have been used since the 1940's in a range of products, including stain- and water-resistant fabrics and carpeting, cleaning products, paints, cookware, food packaging, and fire fighting foams. These uses of PFAS have led to PFAS entering our environment, where they have been measured by several states in the soil, surface water, groundwater and seafood. Some PFAS can last a long time in the environment and in the human body and can accumulate in the food chain.

Currently, there are no federal regulations (i.e. Maximum Contaminant Levels (MCLs) for PFAS in drinking water. However, the US Environmental Protection Agency (EPA) has issued a health advisory level (HAL) of 70 parts per trillion (PPT) for the sum of PFOA and PFOS concentrations in drinking water. While not enforceable regulatory standard, when followed, the EPA HAL does provide drinking water customers, even the most sensitive populations, with a margin of protection from lifetime exposure to PFOA and PFOS in drinking water. Beginning in 2020, the Maryland Department of the Environment (MDE) initiated a PFAS monitoring program. In 2020, results from samples taken at the Town of Manchester's drinking water treatment plant showed a combined PFOA and PFAS concentrations of 0.0-14.73 ppt. No additional actions are planned at this time. MDE anticipates that EPA will establish an MCL for PFOA and PFOS in the near future. This would entail additional monitoring. Additional information about PFAS can be found on the MDE website: mde.maryland.gov

Educational Information

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 EPA's Safe Drinking Water Hotline (1-800-426-4791),

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno- compromised persons such as persons with cancer undergoing chemo-therapy, 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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791). 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. 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 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.

Violations

We, at the Town of Manchester, are proud that your drinking water meets or exceeds all Federal and State requirements.

What The Future Holds!!

The Town of Manchester is continually making strides to up-grade your water system. The Town of Manchester is also continuing our exploration of new water sources for the Town to enhance the current system.

To keep making these improvements to your water system, and to maintain a safe and dependable supply, the costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary and dictated by the State in order to continually make improvements.

We, at the Town of Manchester, work very hard and diligently to provide top quality water to every tap. We ask that all our customers help us to protect all of our water sources, which are the heart of our community, our way of life, and our children's future.

Thank you again for allowing us to continue providing you and your family with clean, quality water in 2021.

Again, should you have any questions about this report, please contact:

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or
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