

Muskingum County Water Department

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2021

Drinking Water

Consumer Confidence Report

- Southeast System -

The Muskingum County Water Department (MCWD) has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included within this report is general health information, water quality test results, and how to participate in decisions concerning your drinking water and water system contacts.

Despite the hardships created by Covid restrictions; staffing and material shortages, several projects were completed in 2021. Line extensions have been completed on the Clay Pike-from Three Towers Road to the Wayne Township line, Clay Pike-from Long Road to Spry Road, Long Road, National Road, County Line Road and the new National Road Business Park.

What's the Source of Your Drinking Water?

The MCWD water supply is located one mile north of Duncan Falls on State Route 60 along the Muskingum River floodplain. The source water is extracted from a buried valley sand and gravel aquifer (underground source of water) by four self-supporting wells. From there, it is pumped to our treatment plant, which is located at 3830 Wayne Ridge Road. The treatment plant, put into operation in February 1998, utilizes a treatment process that includes filtration for removal of iron & manganese, fluoridation to support dental health, and chlorination for disinfection. ***The Ohio Environmental Protection Agency has issued to the Muskingum County Water Department a current, unconditional license for the operations of this system.***

Protecting our drinking water source from contamination is the responsibility of all area residents. Please dispose of hazardous chemicals in the proper manner and report polluters to the proper authorities. Only by working together can we ensure an adequate safe supply of water for future generations.

The MCWD has implemented a program required by the EPA, called "***THE WELLHEAD PROTECTION PLAN***". The Ohio EPA has completed a study of Muskingum County's source of drinking water, to identify potential contaminant sources and provide guidance on protecting the drinking water source. According to this study, the aquifer that supplies water to the MCWD has a high susceptibility to contamination. To date, no contamination event has occurred within the MCWD wellhead protection area. This determination is based on the following: (a) the lack of a protective layer of clay/shale/or other impervious materials overlying the aquifer, (b) a shallow depth (less than 20 feet below ground) of the aquifer and the ground surface and any contaminants placed on the ground surface could move downward into the source of drinking water for MCWD. Through this study some potential sources of contamination have been identified; including agricultural, light industrial, septic systems and State Route 60. Because of these potential sources of contamination that exists within the wellhead/source water protection area, and the sensitive nature of the aquifer, the Muskingum County Water Department's wellfield is considered to be susceptible to contamination. Protective strategies have been implemented, and MCWD will work with all agencies to develop a zoning overlay that sets specific standards for chemical storage, handling of waste materials, and other source control strategies to reduce the risk of ground water contamination in the wellhead/source water protection area. *For a copy of the source water assessment or for more information please call our office at 740-453-0678.*

The MCWD has in place a back-up connection with the City Of Zanesville near Richards Road, Fairview Road and Rehl Road for use in the event of an emergency. This report does not contain information of the water quality that may be received from the City of Zanesville. A copy of their consumer confidence report may be obtained by contacting the City of Zanesville at 740-617-4916, or online at coz.org under Public Service, Water Maintenance.

What Are Sources of Contamination to Drinking Water?

The sources of drinking water both tap water and bottled water includes 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: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife: (B) 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: (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses: (D) 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 storm water runoff, and septic systems: (E) 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. FDA 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 (1-800-426-4791).

Who Needs 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 for infection. 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).

Lead in your Drinking Water

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. Muskingum County Water 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 at <http://www.epa.gov/safewater/lead>.

Customers who wish to check their homes for lead exposure:

Lead testing sample kits are available at our main office at a cost of \$15 per test to cover lab fees. Samples will be analyzed by an independent laboratory in Dublin, Ohio. Call our office at 740-453-0678 for more information.

Sampling Requirements and Results

The EPA requires regular sampling to ensure drinking water safety. MCWD conducted sampling for Nitrates, Volatile Organic Compounds, Inorganic Compounds, Asbestos, Radium, Lead and Copper, Trihalomethane and Haloacetic Acid contaminants. **Contaminants detected can be found in the chart included in this report.** The Ohio EPA requires MCWD to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some data, though accurate, is more than one year old.

The MCWD is required to conduct bacteria samples monthly. A total of 20 regular samples per month are required, totaling a minimum of 240 Total Coliform Bacteria samples for the year. All routine samples collected were negative for bacteria. In addition to the required monthly and annual sampling, the water is tested daily for iron, manganese, fluoride and chlorine at the treatment plant and throughout the distribution system by state certified lab analysts to assure water quality.

Water Monitoring Results (PWS: 6000412)

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Inorganic Contaminants							
Fluoride (ppm)	4	4	1.09	0.62 - 1.22	No	2021	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Barium (ppm)	2	2	0.054	NA	No	2021	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate (ppm)	10	10	0.894	NA	No	2021	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits
Contaminants (Units)	Action Level	MCLG	Individual Results Over the AL	90% of test levels were less than:	Violation	Sample Year	Typical Source of Contaminants
Lead (ppb)	15	0	N/A	2.4 ppb	No	2021	Corrosion of household plumbing systems
	Zero out of 30 samples was found to have lead levels in excess of the Action Level of 15 ppb						
Copper (ppm)	1.3	1.3	N/A	0.591 ppm	No	2021	Corrosion of household plumbing systems
	Zero out of 30 samples was found to have copper levels in excess of the Action Level of 1.3 ppm						
Volatile Organic Contaminants							
Total Trihalomethanes TTHMs (ppb)	NA	80	54.2	19.2 - 77.1	No	2021	By-product of drinking water chlorination
Haloacetic Acids HAA5 (ppb)	NA	60	20.6	6.8 - 26.1	No	2021	By-product of drinking water chlorination
Disinfectant Residuals							
Contaminants (Units)	MRDLG	MRDL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Total Chlorine Residual (ppm)	4	4	1.45	0.77 - 1.63	No	2021	Water additive used to control microbes.

In 2020, our Public Water System was sampled by the State of Ohio's Drinking Water Per – and Polyfluoroalkyl Substances (PFAS) Sampling Initiative. Results from this sampling indicated PFBS were detected in our drinking water system, well below the action level established by Ohio EPA. **Follow up monitoring was conducted in 2021 and the samples indicated No Detections.** For more information about PFAS, and to view our latest results, please visit pfas.ohio.gov.

PFBS (Perfluorobutanesulfonic acid) and related substances are short-chain perfluoroalkyl substances mainly used as surfactants and repellents. Additional applications include: flame retardants (firefighting foams), metal plating and pesticides.

Maximum Level Found: 6.5 parts per trillion

Minimum Level Found: 5.6 parts per trillion

Ohio EPA established Action Level: 140,000 parts per trillion

Public participation and comments are encouraged. For more information on your drinking water, please contact Don Madden, General Manager or Debbie Ralph, Water Plant Supervisor, at 740-453-0678.

DEFINITIONS OF SOME TERMS CONTAINED WITHIN THIS REPORT:

The “<” symbol: A symbol which means less than the detectable level.

ACTION LEVEL (AL): The concentration, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

MAXIMUM CONTAMINANT LEVEL GOAL (MCLG): The level of a contaminant in drinking water below, which is no known or expected risk to health. MCLG’s allow for a margin of safety.

MAXIMUM CONTAMINANT LEVEL (MCL): 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 treatment available.

MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL (MRDLG): The level of 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.

MAXIMUM RESIDUAL DISINFECTANT LEVEL (MRDL): 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.

PARTS PER MILLION (ppm) OR MILLIGRAMS PER LITER (mg/L): Unit of measure for the concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

PARTS PER BILLION (ppB) OR MICROGRAMS PER LITER (µg/L): Unit of measure for the concentration of a contaminant. A part per billion corresponds to 1 second in 37 years.

PARTS PER TRILLION (ppt) OR NANOGRAMS PER LITER (ng/L): Unit of measure for the concentration of a contaminant. A part per trillion corresponds to 30 seconds in 1 Million years.

PFAS: Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals applied to many industrial, commercial and consumer products to make them waterproof, stain resistant, or nonstick. PFAS are also used in products like cosmetics, fast food packaging, and a type of firefighting foam called aqueous film forming foam (AFFF) which are used mainly on large spills of flammable liquids, such as jet fuel. PFAS are classified as contaminants of emerging concern, meaning that research into the harm they may cause to human health is still ongoing.

TTHM: Trihalomethanes, A bi-product of drinking water chlorination.

HAA5: Haloacetic Acids, A by-product of drinking water chlorination.

SDWA = Safe Drinking Water Act