

2020 City of Medina Drinking Water Consumer Confidence Report For the 2019 calendar year

In 2019, the City of Medina had an unconditioned license to operate our water system. The City of Medina 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, how to participate in decisions concerning your drinking water and water system contacts.

During 2019, one water line replacement project was completed. A 12" water main was installed on W. Smith Rd. from Lake Rd. to Commerce Dr. then reduced to an 8" main to the City Limits. In 2020, the 4" water main on S. Broadway St. between Lafayette Rd. and Grant St. will be replaced with an 8" main.

Since July 2002, Medina has purchased water that is supplied from the City of Avon Lake Water Treatment Plant. During that same year, Ohio EPA conducted a source water assessment for the Avon Lake Regional Water System. That water is surface water drawn from Lake Erie. For the purposes of source water assessments, all surface waters in Ohio are considered susceptible to contamination. By their nature, surface waters are accessible and can be readily contaminated by chemicals and pathogens with relatively short travel times from source to the intake. Based on the information compiled for this assessment, the Avon Lake Water System drinking water source protection area (CAZ) is susceptible to contamination from municipal waste water treatment discharges, industrial waste water discharges, air contamination deposition, combined sewer overflows, runoff from residential, agricultural and urban areas, oil and gas production and transportation, and accidental releases and spills from rail and vehicular traffic as well as from commercial shipping operations and recreational boating. It is important to note that this assessment is based on available data, and therefore may not reflect current conditions in all cases. Water quality, land uses and other activities that are potential sources of contamination may change with time. While Lake Erie is considered susceptible to contamination, historically, Avon Lake Regional Water has effectively treated this source water to meet drinking water quality standards. Copies of the complete source water assessment report prepared for Avon Lake are available by contacting Greg Yuronich at (440) 933-3229 or by viewing this webpage: <http://wwwapp.epa.ohio.gov/gis/swpa/OH4700311.pdf>

On the following page is a table, which lists the various contaminants found in our drinking water. In addition, Avon Lake Water Treatment facility tests for 90 other contaminants, which do not appear in any detectable amount. To safeguard your health, the City of Medina collected 455 bacterial tests throughout the city in 2019 to verify that the water is free of coliform bacteria. We also test for lead and copper in the water, disinfection by-products, and several unregulated contaminants. We are currently in our fourth round of EPA selected unregulated contaminants. Lab results throughout the state will determination whether they become part of the regulated list in the future. Results of these tests are included in the chart on the back.

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 (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 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 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, USEPA 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Agency's Safe Drinking Water Hotline (1-800-428-4791).

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 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 (1-800-428-4791).

We hope that the information provided in this report is helpful to you and gives you some idea of the steps taken to insure the quality of your drinking water. Most of us do not think twice about purchasing bottled water at a price 2,000 to 10,000 times the price charged for tap water. Yet, we often negatively view a modest tap water rate increase to cover necessary investments for regulatory compliance and infrastructure renewal.

You can help us control costs by reporting suspicious water flows or areas of dampness. Last year, the City experienced 47 water main leaks requiring pipe, valve, or hydrant repairs. Some were high-pressure geysers while others barely surfaced as a minor trickle. These add up to lost unused water, which costs all of us money. The sooner we know about them, the sooner they can be repaired. Be aware also of the potential for water loss in your own home. A continuous pressurized leak the size of the tip of a pen can waste over 800 gallons of water per day. For a free DVD on tips for finding and fixing household leaks contact the water service office at 330-722-9081.

Help us also by becoming aware of potential backflow issues. An informational brochure was included with your water bill in May. This brochure is also available on line at <http://www.medinaoh.org/city-services/water-department/back-flow-department>

For additional copies of this report or more information, please contact the City of Medina Service Office at 330-722-9081. To become involved in water issues attend City Council meetings at 132 N. Elmwood Ave. Call 330-725-8861 for a schedule or visit the city's website at <http://www.medinaoh.org/city-hall/city-council/calendar>

TABLE OF DETECTED CONTAMINANTS

Contaminants (Units)	MCLG	MCL	Level	Range	Violation	Year	Typical Source of Contaminants
Microbiological Contaminates (Avon Lake)							
Turbidity (NTU) ¹	NA	TT	0.21	0.032 to 0.21	No	2019	Soil Run-Off
Turbidity (% meeting standard)	NA	TT	100%	100%	No	2019	Soil Run-Off
Total Organic Carbon (TOC) ²	NA	TT	1.37	1.00-2.21	No	2019	Naturally Present in the Environment
Inorganic Contaminants (Tested by wholesaler at their entryptoint-Avon Lake Regional Water)							
Fluoride (ppm)	4	4	0.96	0.77 to 1.10	No	2019	Water additive which promotes strong teeth
Barium (ppm)	2	2	0.032	NA	No	2019	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate (ppm)	10	10	1.06	<0.10 to 1.06	No	2019	Run off from fertilizer, Leaching from septic tanks, sewage; Erosion of natural deposits
Disinfectant and Disinfectant By-Products (Medina) ³							
Total Chlorine (ppm)	MRDLG=4	MRDL=4	1.4	1.18 to 1.55	No	2018-19	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	27.9	15.5 to 32.8	No	2018-19	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	NA	80	48.1	21.9 to 69.0	No	2018-19	By-product of drinking water disinfection
Lead and Copper (Medina)							
Contaminants (units)	Action Level (AL)	Results over the AL	90% were less than	Violation	Sample Year	Typical source of Contaminants	
Lead (ppb) ⁴	15 ppb	NA	<2	No	2019	Corrosion of household plumbing systems; erosion of natural deposits	
	0 samples out of 30 were found to have lead levels in excess of the lead action level of 15 ppb.						
Copper (ppm)	1.3 ppm	NA	0.06	No	2019	Erosions of natural deposits; Corrosions of household plumbing systems	
	0 samples out of 30 were found to have copper levels in excess of the copper action level of 1.3 ppm.						
Unregulated Contaminants (Medina) ⁵							
Contaminants (Units)	MCLG	MCL	Level Found	Range	Sample Location	Sample Year	Typical Source of Contaminants
Haloacetic Acids (HAA5) (ppb)	NA	60	31.29	24.83 to 35.38	Distribution	2019	Byproduct of Drinking Water Chlorination
Haloacetic Acids (HAA6Br) (ppb)	NA	NA	14.67	7.49 to 15.24	Distribution	2019	Byproduct of Drinking Water Chlorination
Haloacetic Acids (HAA9) (ppb)	NA	NA	45.62	34.12 to 49.57	Distribution	2019	Byproduct of Drinking Water Chlorination

plumbing. The City of Medina 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. Concerned about lead in your water, you may wish to have your water tested. A List of laboratories certified in the State of Ohio to test for lead may be found at <https://www.epa.ohio.gov/ddagw/labcert> or by calling 614-644-2752. 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 1-800-426-4719 or at <https://www.epa.gov/safewater/lead>.

⁵Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. In 2019, the City of Medina participated in the fourth round of the Unregulated Contaminant Monitoring Rule (UCMR 4). For a copy of the results, please call Bill Magargee at 330 722-9043.

AL = Action Level NA = Not Applicable

NTU = Nephelometric Turbidity Units

Contaminant = Any physical, chemical, biological, or radiological substance in water.

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

MCLG = Maximum Contaminant Level Goal: The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL = Maximum Residual Disinfectant Level

MRDLG = Maximum Residual Disinfectant Level Goal

Parts per billion (ppb) or Micrograms per Liter (ug/L) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

Parts per million (ppm) or Milligrams per Liter (mg/L) are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

TOC = Total Organic Carbon

TT = Treatment Technique

“<” Symbol means less than. A result of <2 means the lowest level that could be detected was 2 and the contaminant in that sample was not detected.

¹Turbidity is a measure of the cloudiness of the water and is an indication of the effectiveness of the filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the samples analyzed each month and shall not exceed 1 NTU at any time. As reported above the Avon Lake Water Treatment Plant highest recorded turbidity result for 2019 was 0.21 NTU and the lowest monthly percentage of samples meeting the turbidity limits was 100%.

²The value reported under “Level Found” for Total Organic Carbon (TOC) is the lowest ratio between percent of TOC actually removed to the percentage of TOC required to be removed. This removal ratio is calculated as the ratio between actual TOC removal and the TOC rule removal requirements and other parameters. A value of at least one (1) indicates that the water system is in compliance with TOC removal requirements.

³Disinfection byproducts are the result of providing continuous disinfection of your drinking water and form when disinfectants combine with organic matter naturally occurring in the source water. Disinfection byproducts are grouped into two categories, Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5). USEPA sets standards for controlling the levels of disinfectants and disinfectant byproducts in drinking water, including both TTHMs and HAA5s.

⁴If 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