

2017 City of Medina Drinking Water Consumer Confidence Report

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.

These are a few of the improvements made during 2017. A water main was replaced on W. Smith Rd. west of Fair Rd. and continuing to S. State St. Another was on N. Court St. from just south of Harding St. to north of City limits. A third was on Wadsworth Rd. from Smokerise Dr. to Twin Oaks Blvd. On Prospect St between W Smith Rd. and Lafayette Rd. a 4 inch water main was abandoned and all residents were placed on the 8 inch main due to ongoing water discoloration issues.

Since July 2002, Medina has purchased water that is supplied from the City of Avon Lake Water Treatment Plant. During that same year a source water assessment was conducted by Ohio EPA 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 to be susceptible to contamination. Due to the vast size and dilution capabilities of Lake Erie, Ohio EPA evaluated their water's contamination potential based on a Critical Assessment Zone (CAZ) and determined there was no direct source of pollution. Ohio EPA further determined that their source water analysis and emergency operation plan would minimize undetected contamination.

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 573 bacterial tests throughout the city in 2017 to verify that the water is free of coliform bacteria. We also test for lead and copper in the water. Medina's history of good results for these tests allows us to continue testing on a reduced monitoring schedule. The City tests 30 samples every three years at residences that have the potential for lead contamination. Tests were conducted in 2017 and are included in this report.

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 buying 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 53 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.

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 www.medinaoh.org.

Table of Detected Contaminants in 2017 Results as Reported by Avon Lake (Avon) and Medina (Med)

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Year Sampled	Typical Source of Contaminants
Microbiological Contaminants							
¹ Turbidity (NTU) (Avon)	NA	TT	0.25	0.03 – 0.25	NO	2017	Soil Runoff
Turbidity (% samples meeting standard) (Avon)	NA	TT	100.0%	100%	NO	2017	
² Total Organic Carbon (ppm) (Avon)	NA	TT	1.11	1.11 – 1.72	NO	2017	Naturally present in the environment
Coliform Bacteria (Med)	0	1 positive/month	0	0	NO	2017	Naturally present in the environment
Inorganic Contaminants							
Barium (ppm) (Avon)	2	2	0.029	0.029	NO	2017	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper (ppm) (Med) 90 th percentile sample result	1.3	AL=1.3	0.110	NA	NO	2017	Corrosion of household plumbing Zero out of thirty samples was found to have copper levels in excess of the lead action level of 1.3 ppm.
³ Lead (ppb) (Med) 90 th percentile sample result	0	AL=15	2.9	NA	NO	2017	Corrosion of household plumbing Zero out of thirty samples was found to have lead levels in excess of the lead action level of 15 ppb.
Fluoride (ppm) (Avon)	4	4	1.02	0.14 - 1.31	NO	2017	Water additive which promotes strong teeth
Nitrate (ppm) (Avon)	10	10	1.02	0.11 – 1.02	NO	2017	Natural deposits, fertilizers, sewage
⁴Volatile Organic Contaminants							
⁵ Haloacetic Acids (ppb) (Med)	NA	60	28.0	15.4 – 33.5	NO	2016-17	By-product of drinking water disinfection
⁵ Total Trihalomethanes (ppb) (Med)	NA	80	53.5	27.9 – 58.8	NO	2016-17	By-product of drinking water disinfection
⁴Residual Disinfectants MRDLG MRDL							
Total Chlorine (ppm) (Med)	4	4	1.39	0.40 – 2.00	NO	2016-17	Water additive to control microbes
Radiological Contaminates (Alpha & Beta)							
⁶ Gross Alpha (pCi/l)	0	15	7.94	NA	NO	2015	Erosion of natural deposits

The City of Medina has a current, unconditioned license to operate our water system from the Ohio EPA

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 daily samples and shall not exceed 1 NTU at any time. As reported above the Avon Lake Water Treatment Plant highest recorded turbidity result for 2017 was 0.25 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 percentage of TOC actually removed to the percentage of TOC required to be removed. This removal ratio is calculated as the ratio between the 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.

³If 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 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. 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 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

⁴Volatile Organic Contaminants and Residual Disinfectants levels found is the highest compliance value based on a running annual average. This average includes results from 2016 & 2017.

⁵Disinfection 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 disinfectant by-products in drinking water, including both TTHMs and HAA5s.

⁶Gross Alpha particles – Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

DEFINITIONS/ABBREVIATIONS

AL= Action Level

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 contaminate 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

NA = Not Applicable

NTU = Nephelometric Turbidity Units

Parts per billion (ppb) or Micrograms per Liter (ug/L) are units of measure for concentration of a contaminate. 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 contaminate. A part per million corresponds to one second in a little over 11.5 days.

pCi/l = picoCuries per liter (A common measure of radioactivity)

TOC = Total Organic Carbon

TT = Treatment Technique

VOC = Volatile Organic Chemicals