

UNREGULATED CONTAMINANTS

UNREGULATED CONTAMINANTS	SAMPLE POINT	AVG. LEVEL FOUND	RANGE OF DETECTIONS	YEAR SAMPLED
Manganese	Distribution	1.9	1.9	2020
Haloacetic Acids (HAA5) (ppb)	Distribution	16.3	9.7 - 22.9	2020
Haloacetic Acids (HAA6Br) (ppb)	Distribution	9.1	8.4 - 9.8	2020
Haloacetic Acids (HAA9) (ppb)	Distribution	21.75	18.3 - 25.2	2020

Unregulated 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 2020 Avon participated in the fourth round of the Unregulated Contaminant Monitoring Rule (UCMR 4). For a copy of the results please call Brian Bruce, Superintendent of Utilities, or Kevin Smith, Assistant Superintendent of Utilities at 440-937-5740.

PFAS (Per- and polyfluoroalkyl substances)

In 2020, Avon Lake Regional Water was sampled as part of the State of Ohio's Drinking Water Per- and Polyfluoroalkyl Substances (PFAS) Sampling Initiative. Six PFAS compounds were sampled and none were detected in finished drinking water. For more information about PFAS, please visit pfas.ohio.gov.

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 from 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).

MONITORING VIOLATION

During the second quarter of 2020 Avon City PWS mistakenly monitored for Disinfection By-Products during the incorrect week and month of the quarter. Upon notification of the violation additional samples were collected and analyzed. In total during 2020 five sets of samples were collected instead of the required four and none resulted in high levels of contaminants. As required by the EPA a public notice was distributed on April 5th of 2021. Safeguards have been implemented to prevent this in the future.

LICENSE TO OPERATE (LTO) STATUS INFORMATION

In 2020 Avon City PWS had an unconditioned license to operate our water system.

PUBLIC PARTICIPATION AND CONTACT INFORMATION

Public participation and comment are encouraged at regular meetings of the Avon City Council which meets the second and fourth Monday of every month at 7:30PM at the Avon City Hall located at 36080 Chester Rd. For more information on your drinking water contact Brian Bruce, Superintendent of Utilities or Kevin Smith, Assistant Superintendent of Utilities at (440) 937-5740.

SAFE WATER ON TAP!



The City of Avon is
committed to supplying safe
water that surpasses all
state and federal standards.



Avon Department of Utilities
35030 Detroit Road
Avon, OH 44011

INTRODUCTION

The City of Avon PWS 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.

SOURCE WATER INFORMATION

The City of Avon PWS receives its drinking water from Avon Lake Regional Water (Avon Lake City PWS). Avon Lake Regional Water receives its drinking water from Lake Erie. In Avon Lake, there are two separate intakes to ensure our ability to pump from this virtually endless source of quality raw water.

Avon Lake Regional Water treats water to meet EPA drinking water quality standards. A Source Water Assessment Report was prepared for Avon Lake Regional Water by Ohio EPA. Copies of the complete source water assessment report prepared for Avon Lake Regional Water are available by contacting Greg Yuronich at (440) 933-3229.

Excerpt from Drinking Water Source Assessment for the City of Avon Lake 6.0 SUSCEPTIBILITY ANALYSIS

For the purposes of source water assessments, all surface waters are considered to be 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 the source water for the City of Avon Lake is considered susceptible to contamination, historically, the Avon Lake Public Water System has effectively treated this source water to meet drinking water quality standards.

WHAT ARE SOURCES OF CONTAMINATION TO DRINKING WATER?

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: (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, 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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Federal Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

Avon City PWS

TABLE OF DETECTED CONTAMINANTS 2020

CONTAMINANTS (UNITS)	MCLG	MCL	LEVEL FOUND	RANGE OF DETECTIONS	VIOLATION	SAMPLE YEAR	TYPICAL SOURCE OF CONTAMINANTS
Microbiological Contaminants							
Turbidity (NTU) ¹	NA	TT	0.24	0.03 to 0.24	NO	2020	Soil Runoff
Turbidity (% samples meeting standard)	NA	TT	100%	100%	NO	2020	Soil Runoff
Total Organic Carbon (TOC) ²	NA	TT	1.41	1.00 to 1.95	NO	2020	Naturally present in the environment
Disinfectants and Disinfection Byproducts³							
Total Chlorine (ppm)	MRDLG=4	MRDL=4	1.5	1.4 to 1.62	NO	2020	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb) ⁴	NA	60	20.5	9.7 to 22.9	NO	2020	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb) ⁴	NA	80	44.15	20.1 to 50.5	NO	2020	By-product of drinking water disinfection
Inorganic Contaminants							
Barium (ppm)	2	2	0.02	NA	NO	2020	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	0.94	0.17 to 1.10	NO	2020	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (ppm)	10	10	1.01	<0.10 to 1.01	NO	2020	Run off from fertilizer use, Leaching from septic tanks, sewage; Erosion of natural deposits
Copper							
	ACTION LEVEL (AL)	INDIVIDUAL RESULTS OVER THE AL	90% OF TEST LEVELS WERE LESS THAN	VIOLATION	YEAR SAMPLED	TYPICAL SOURCE OF CONTAMINANTS	
Copper (ppm)	1.3 ppm	NA	0.042	NO	2020	Erosions of natural deposits; leaching from wood preservatives; Corrosions of household plumbing systems	
Zero out of 30 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.							

LEAD EDUCATIONAL INFORMATION

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 City of Avon 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>.

30 samples were collected and analyzed for Lead in 2020 and no detectable amounts were found.

¹Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our 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 WTP highest recorded turbidity result for 2020 was 0.24 NTU and 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.

³These contaminants level found is the highest compliance value based on a running annual average. This average includes results from 2019 & 2020.

⁴Disinfection 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 disinfection byproducts in drinking water, including both TTHMs and HAA5s.

DEFINITIONS

- 1. Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- 2. Contaminant:** Any physical, chemical, biological, or radiological substance or matter in water.
- 3. Maximum Contaminant Level (MCL):** The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- 4. Maximum Contaminant Level Goal (MCLG):** 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.
- 5. Maximum Residual Disinfectant Level (MRDL):** The highest residual disinfectant level allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- 6. Maximum Residual Disinfectant Level Goal (MRDLG):** The level of residual 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.
- 7. NA: Not Applicable**
- 8. ND: Not Detected**
- 9. NTU: Nephelometric Turbidity Units**
- 10. 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.
- 11. 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.
- 12. PFAS** 12. **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.
- 13. Total Organic Carbon (TOC)** has no health effects. However, TOC provides a medium when the water is disinfected for the formation of disinfection byproducts. TOC removal early in the treatment plant is required.
- 14. Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water. For example Avon Lake Regional Water adds orthophosphate to maintain compliance with the lead and copper rule.
- 15. VOC: Volatile Organic Chemicals**
- 16. WTP: Water Treatment Plant**
- 17. The "<" Symbol:** A symbol that means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.