What are Drinking Water Standards?

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 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 runoff and septic systems; (E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production or 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.

The City of Avon Lake's public water system treats the water to meet drinking water quality standards. Implementing measures to protect Lake Erie and the Black River can further decrease the potential for water quality impacts. More detailed information is provided in the Drinking Water Source Water Assessment Report, which can be obtained by calling Greg Yuronich at 933-3229.

VILLAGE OF SHEFFIELD
4480 COLORADO AVE.
SHEFFIELD VILLAGE, OH
44054

DRINKING WATER CONSUMER CONFIDENCE REPORT

Reporting Year 2017

Sheffield Village Water System
Village Administrator: Ken Kaczay
440-949-6210

The Village of Sheffield has a current, unconditioned license to operate our water system from the Ohio EPA.

PWS ID#: OH4701203

Where does my water come from?

The Village of Sheffield receives it's drinking water from the Avon Lake Municipal Utilities Department. The Avon Lake Water treatment facility draws its water from Lake Erie. There are two separate pump stations and three intake cribs to insure their ability to pump from this endless source of quality raw water. The raw water is then treated with alum to aid in the removal of turbidity (dirt) after which it goes through flocculation, sedimentation and filtration. Once the turbidity is removed the water is treated with chlorine for disinfection and fluoride for dental health prior to being pumped to your tap.

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.

What is the Latest Information on Disinfection?

Disinfection is an absolute essential component in the treatment of drinking water. Trihalomethanes (THM's) and Haloacetic Acids (HAA's) are by-products of chlorinating water containing organic matter. There are some health concerns related to higher levels of disinfection byproducts. The EPA lowered the MCL for the THM's in 2002 and added a MCL for HAA's due to these health issues. Avon Lake also monitors the total organic carbon before and after sedimentation to minimize the organic matter in the water prior to adding chlorine.

Microbiological Contaminants

Total coliform, Fecal coliform, and E-coli are naturally present in the environment. Sheffield Village Water Dept. personnel collect samples throughout our system routinely testing for the presence of these contaminants. Through proper disinfecting practices we have not found this in our finished water supply.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 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 or www.epa.gov/safewater/hotline/.

How Can You Learn More?

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 United States Environmental Protection Agency's Safe Drinking Water Hotline (800 426-4791). To participate, or for more information, contact our community's water system department, Monday thru Friday from 8:00 am to 4:00 pm at 4480 Colorado Avenue or by calling 440-949-6210.

Sheffield Village Table of Detected Contaminants in 2017

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation?	Year Sampled	Typical Source of Contaminants
Microbiological Contaminants							
[1]Turbidity (NTU)	NA	TT	0.25	0.03 - 0.25	NO	2017	Soil Runoff
Turbidity (% samples meeting standard)	NA	TT	100.0%	100%	NO	2017	
[2]Total Organic Carbon (ppm)	NA	TT	1.11	1.11- 1.72	NO	2017	Naturally present in the environment
Inorganic Contaminants							
[3]Barium (ppm)	2	2	0.029	0.029	NO	2017	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Copper (ppm)	1.3	AL=1.3	.077	NA	NO	2015	Corrosion of household plumbing
90th percent sample result	**Zero out of thirty samples was found to have copper levels in excess of the copper action level of 1.3 ppm.**						
Lead (ppb)	0	AL=15	<3.0	NA	NO	2015	Corrosion of household plumbing
90th percent sample result	**Zero out of thirty samples was found to have lead levels in excess of the lead action level of 15 ppb.**						
Fluoride (ppm)	4	4	1.02	0.14-1.31	NO	2017	Water additive which promotes strong teeth
Nitrate (ppm)	10	10	1.02	0.11-1.02	NO	2017	Natural deposits, fertilizers, sewage
[3]Volatile Organic Contaminants							
[4] Haloacetic Acids (ppb)	NA	60	19.5	8.4—25.1	NO	2016-17	By-product of drinking water disinfection
[4]Total Trihalomethanes(ppb)	NA	80	40.2	16.6—39.0	NO	2016-17	By-product of drinking water disinfection
Residual Disinfectants	**MRDLG**	**MRDL**					
[3]Chlorine (ppm)	4	4	1.56	1.4—1.8	NO	2016-17	Water additive to control microbes
Radiological Contaminants (Alpha & Beta)							
[5]Gross Alpha (pCi/l)	0	15	7.94	NA	NO	2015	Erosion of natural deposits

Lead and Drinking Water The Village of Sheffield has been in full compliance with all regulations for lead and copper control. If present, elevated levels of lead can cause serious health problems, especially for pregnant and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sheffield Village 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 thirty seconds to two 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. A list of laboratories certified in the State of Ohio to test for lead may be found at *http://www.epa.ohio.gov/ddagw/labcert.aspx* 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 800-426-4719 or at *http://www.epa.gov/safewater/lead.*

Table of Detected Contaminants in 2017

[1]Turbidity 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 daily samples and shall not exceed 1 NTU at any time. As reported in the chart the Sheffield Village Water Department's highest recorded turbidity result for 2017 was 0.25 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100%.

[2]The 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.

[3]These contaminants level found is the highest compliance value based on a running annual average. This average includes results from 2016 & 2017.

[4] Disinfection 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 TTHM's and HAA5's."

5 Gross 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

1. AL=Action level- The concentration of a contaminant that, if exceeded, triggers a treatment or other requirement which a water system must follow.
2. Contaminant-Any physical, chemical, biological, or radiological substance or matter in water.
3. MCL=Maximum Contaminant Level – 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.
4. MCLG=Maximum Contaminant Level Goal-The level of contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
5. MRDL=Maximum Residual Disinfectant Level: The highest level of a disinfectant allowed in drinking water.
6. MRDLG= Maximum Residual Disinfectant Level Goal: The level of residual disinfectant below which there is no known or expected risk to health.
7. ND= Not Detected
8. NA= Not Applicable
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. pCi/l= picoCuries per liter (A common measure of radioactivity)
13. TOC=Total Organic Carbon 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. TT= Treatment technique—A required process intended to reduce the level of a contaminant in drinking water. For example we add lime to increase the pH of our finished water in order to maintain compliance with the lead and copper rule.
15. WTP– Water Treatment Plant