

Table of Detected Contaminants in 2011

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Year Sampled	Typical Source of Contaminants				
								Level Found	Range of Detections	Violation	Year Sampled
Microbiological Contaminants											
¹ Turbidity (NTU)	NA	TT	0.22	0.04-0.22	NO	2011	Soil Runoff				
Turbidity (% samples meeting standard)	NA	TT	100.0%	100%	NO	2011					
² Total Organic Carbon (ppm)	NA	TT	1.0	1.0-2.68	NO	2011	Naturally present in the environment				
Inorganic Contaminants											
³ Barium (ppm)	2	2	0.022	<0.02-0.026	NO	2010-11	Discharge of drilling wastes. Discharge from metal refineries. Erosion of natural deposits.				
Copper (ppm)	1.3	AL=1.3	0.149	NA	NO	2009	Corrosion of household plumbing				
90th percent sample result	Zero out of ten samples was found to have copper levels in excess of the copper action level of 1.3 ppm.										
Lead (ppb)	0	AL=15	3	NA	NO	2009	Corrosion of household plumbing				
90th percent sample result	One out of ten samples was found to have lead levels in excess of the lead action level of 15 ppb.										
Fluoride (ppm)	4	4	1.0	0.70 - 1.09	NO	2011	Water additive which promotes strong teeth				
³ Nickel (ppb)	100	100	7.7	5.6-8.1	NO	2010-11	Erosion of natural deposits. Discharge from electroplating, stainless steel and alloy products				
Nitrate (ppm)	10	10	1.2	20 - 1.2	NO	2011	Natural deposits, fertilizers, sewage				
Volatile Organic Contaminants											
⁴ Haloacetic Acids (ppb)	NA	60	29	29 - 29	NO	2010-11	By-product of drinking water disinfection				
⁴ Total Trihalomethanes TTHM's (ppb)	NA	80	55	54.9 - 54.9	NO	2010-11	By-product of drinking water disinfection				
Residual Disinfectants											
³ Chlorine (ppm)	4	MRDLG	4	MRDL	NO	2010-11	Water additive to control microbes				
Unregulated Contaminants (Monitoring Required)											
Contaminants (Units)		Distribution system		Level Found		Range of Detections		Year Sampled		Typical Source of Contaminants	
Chloroform (ppb)				35.0		35.0		2011		By-product of drinking water disinfection	
Bromoform (ppb)				0.7		ND - 0.7		2011		By-product of drinking water disinfection	
Bromodichloromethane (ppb)				13.5		13.5		2011		By-product of drinking water disinfection	
Dibromochloromethane (ppb)				5.7		5.7		2011		By-product of drinking water disinfection	

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 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 2011 was 0.22 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 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 2010 & 2011.

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."

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 Steve Heimlich at 440-933-3229.

Lead and Drinking Water

The Village of Sheffield has been in full compliance with all regulations for lead and copper control. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. A list of laboratories certified in the State of Ohio to test for lead may be found at <http://www.epa.state.oh.us/ddagw> or by calling 614-644-2752. Information of drinking water lead testing methods go to <http://epa.gov/safewater/lead>.

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
6. MRDLG= Maximum Residual Disinfectant Level Goal
7. ND= Not Detected
8. NTU= Nephelometric Turbidity Units
9. 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 ounce in 7,350,000 gallons of water.
10. Parts per million (ppm) or Milligrams per liter (mg/L) or one ounce in 7,350 gallons of water.
11. 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.
12. 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.
13. VOC-Volatile Organic Chemicals
14. WTP– Water Treatment Plant

Important Health Information

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 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/.

The Avon Lake Water Plant has been sampling Lake Erie water for Cryptosporidium monthly since April of 2007. In those months of sampling no Cryptosporidium has been detected in the source water.

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.



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2011 Annual Water Quality Report

The Village of Sheffield is committed to supplying safe water that surpasses state and federal standards.

Where does my water come from?

The Village of Sheffield receives its 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.

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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791). In addition, the public is welcome to attend the regularly scheduled meetings of the Sheffield Village Council on the 2nd and 4th Mondays of each month at 7:00 PM in the Sheffield Village Municipal Complex, 4340 Colorado Ave.

Microbiological Contaminants

Total coliform, Fecal coliform, and E-coli are naturally present in the environment. Sheffield 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.

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