

2016
Annual Drinking Water Quality Report
For
The City of St. Clairsville
(As mandated by the US EPA)

The City of St. Clairsville Water Department is pleased to present this year's Annual Water Quality Report. This report is designed to inform our water customers about the quality water and services we deliver every day. Our constant goal is to provide a safe and dependable supply of drinking water. We want our consumers to understand the efforts we make to continually improve the water treatment process and protect our water resources.

In 2016 we treated 150,740,000 gallons of water. An additional 24,122,000 gallons were purchased from Belmont County Sanitary Sewer District. Our local water sources are: Main reservoir, located on Reservoir Road, and Provident reservoir, located on Vineyard Hills Road. The purchased water from Belmont County Sanitary Sewer District is treated water from wells. Information on Belmont County Sanitary Sewer District water is included on the separate table and additional information can be obtained at 740-695-3144.

We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of the regularly scheduled meetings. St. Clairsville City Council meets on the first and third Monday of each month. The meetings are held at the Municipal Building located at 100 N. Market St. beginning at 7:30 p.m. If you have any questions about this report please contact: Jim Zucal, 740-695-0156.

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 and Center for Disease Control guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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 St. Clairsville 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 or at <http://www.epa.gov/safewater/lead>.

The sources of drinking water both tap water and bottled water includes 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, 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.

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 (1-800-426-4791).

All surface waters are considered to naturally be susceptible to contamination. They can be readily contaminated by chemicals and pathogens with relatively short distances from the source to the intake. Based on information compiled by Ohio EPA, the City of St. Clairsville drinking water source protection area is susceptible to agricultural runoff, failing septic systems, and contamination through motor vehicle accidents or spills at sites where roads pass near one of the reservoirs. The City of St. Clairsville has not yet completed a Source Water Protection Plan for our water supply. For questions, please contact: Scott Brown at 695-1161.

The City of St. Clairsville Water Department routinely monitors for constituents in your drinking water according to Federal and State laws. The enclosed table shows the results of our monitoring for the period of January 1st to December 31st, 2016. Monitoring for some contaminants is required less than annually and these are noted in the table. As you can see by the following table, our system had no violations in 2016. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

Thank you for allowing us to continue providing your family with clean, quality water this year. We have a current, unconditioned license to operate our water system. We at the City of St. Clairsville work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

City of St. Clairsville Water Treatment Plant

Contaminant	Violation Yes / No	Level Detected	Range Detected	Units	MCLG	MCL	Sample Year	Typical Source of Contamination
Microbiological Contaminants								
Total Organic Carbon	No	4.79	3.27-4.79	n/a	n/a	TT	2016	Naturally present in the environment
Turbidity	No	0.26	.005-.26	NTU	n/a	TT	2016	Soil runoff
Turbidity (% of samples meeting standard)	No	99.9	n/a	n/a				
Inorganic Contaminants								
Fluoride	No	.9	.92	ppm	4	4	2016	Erosion of natural deposits; water additive which promotes strong teeth
Copper	No	0.318	n/a	ppm	0	AL = 1.3	2016	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Zero out of twenty samples was found to have copper levels in excess of the Action Level of 1.3 ppm								
Lead	No	<5.0	n/a	ppb	0	AL = 15	2016	Corrosion of household plumbing systems, erosion of natural deposits
Zero out of twenty samples was found to have lead levels in excess of the Action Level of 15 ppm								
Nitrate	No	1	<0.10-.82	ppm	10	10	2016	Runoff from fertilizer use
Barium	No	0.0552	n/a	ppm	2	2	2016	Discharge of drilling wastes; erosion of natural deposits
VOLATILE ORGANIC CONTAMINANTS								
Total Trihalomethanes (TTHM)	No	56	19.8-86.9	ppb	n/a	80	2016	By-product of drinking water chlorination
Bromodichloromethane	No	14.7	7.5-18.6	ppb	n/a	n/a	2015	By-product of drinking water chlorination
Chloroform	No	42.3	8.8 –77.1	ppb	n/a	n/a	2015	By-product of drinking water chlorination
Dibromochloromethane	No	3.7	2.2-5.7	ppb	n/a	n/a	2015	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	No	35	21-48	ppb	n/a	60	2016	By-product of drinking water chlorination
Residual Disinfectants								
Total Chlorine	No	1.3	1.3 – 2.1	ppm	MRDL-4	MRDL = 4	2016	Water additive used to control microbes

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 0.30 NTU in 95% of the daily samples and shall not exceed 5 NTU at any time. As reported above the City of St. Clairsville's highest recorded turbidity result for 2016 was 0.26 NTU and lowest monthly percentage of samples meeting the turbidity limits was 99.9%.

The value reported under "Level Found" for Total Organic Carbon (TOC) is the lowest ratio between percentages of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements.

PURCHASED WATER FROM BELMONT COUNTY SANITARY SEWER DISTRICT

Contaminant	Violation	Level Detected	Range Detected	Units	MCLG	MCL	Sample Year	Typical Source of Contamination
Microbiological Contaminants								
Total Coliform Bacteria	No	0	BDL - 0	n/a	0	2 per month	2016	Naturally present in environment
Inorganic Contaminants								
Fluoride	No	.92	.7-1.3	ppm	4	4	2016	Erosion of natural deposits; water additive which promotes strong teeth
Copper	No	<50	<5 – 19.2	ppm	1.3	AL = 1.3	2015	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	No	<2	<2 – 2.68	ppb	0	AL = 15	2015	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate-Nitrite	No	.55	n/a	ppm	0	10	2016	Runoff from fertilizer use
Volatile Organic Contaminants								
Trihalomethane	No	44.78	18-73	ppb	n/a	80	2016	By-product of drinking water chlorination
Bromodichloromethane	No	9.63	n/a	ppb	n/a	n/a	2016	By-product of drinking water chlorination
Bromoform	No	11.14	n/a	ppb	n/a	n/a	2016	By-product of drinking water chlorination
Chloroform	No	4.97	n/a	ppb	n/a	n/a	2016	By-product of drinking water chlorination
Dibromochloromethane	No	17.23	n/a	ppb	n/a	n/a	2016	By-product of drinking water chlorination
HaloAcetic Acid 5	No	8.3	2.22 – 10.86	ppb	n/a	60	2016	By-product of drinking water chlorination
Cis – 1,2 Dichloroethene	No	BDL	n/a	ppb	70	70	2016	Discharge from Industrial Chemical Facilities

In the table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

- The “ < ” symbol – A symbol which 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.
- Parts per million (ppm) or Milligrams per liter (mg/l) – units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.
- Parts per billion (ppb) or Micrograms per liter - units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.
- Action Level (AL) - the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.
- Treatment Technique (TT) - A required process intended to reduce the level of a contaminant in drinking water.
- Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 0.5 NTU is just noticeable to the average person.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- n/a – not applicable
- Maximum Residual Disinfectant Level (MRDL): The highest level of residual disinfectant level allowed.
- Maximum Residual Disinfectant Level Goal (MRDLG): The level of a residual disinfectant below which there is no known or expected health risk.