City of Steubenville Water Department
2020 Drinking Water Consumer Confidence Report

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Introduction

The Steubenville Water System 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 Steubenville Water Department receives its drinking water from the Ohio River. Our raw water pumping station and intakes are located at mile marker 65.3 of the Ohio River. Surface waters are by their nature susceptible to contamination, and numerous contaminant sources along their banks make them more so. The protection areas around the Ohio River include numerous potential contaminant sources, including municipal and industrial waste water discharges, combined sewer overflows, runoff from urban, residential, mining and agricultural areas, and transportation spills related to rail and highway crossings, commercial shipping and recreational boating. As a result, the drinking water supplied to the City of Steubenville public water supply system is considered to have a high susceptibility to contamination.

Historically, the Steubenville public water system has effectively treated this water source to meet drinking water quality standards. The potential for water quality impacts can be further decreased by implementing measures to protect the Ohio River. More detailed information is provided in the City of Steubenville, Source Water Assessment Protection report which can be obtained by calling the Steubenville Water Department at (740) 283-6041.

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).

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).

About your Drinking Water.

The EPA requires regular sampling to ensure drinking water safety. The Steubenville Water System conducted sampling for bacteria, inorganic, synthetic organic, and volatile organic chemicals in 2020. Samples were collected for a total of 61 different contaminants, most of which were not detected in the Steubenville water supply. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old.

The City samples on a reduced frequency schedule for lead and copper. Lead has been an issue in other communities. Steubenville last sampled in 2019, and is scheduled to sample again in 2022. Steubenville has always met EPA regulations for lead and copper, which is why reduced sampling was approved. Those results from the 2019 sampling event(s) are listed in the table of detected contaminants, as they are the most recent. A corrosion inhibitor is added to the water in Steubenville.

A sample was taken for PFAS at the direction of the State of Ohio. There were none detected in the Steubenville water system.

Monitoring & Reporting Violations & Enforcement Actions

There were no reporting or monitoring violations for 2020.

Table of Detected Contaminants

Listed at the end of this notice is the information table on those contaminants that were found in the Steubenville Water System drinking water. There are also tables for UCMR sampling and our operational water quality.

Unregulated Contaminant Monitoring Rule (UCMR) Sampling

The City participated in the UCMR4, known as the Unregulated Contaminant Rule. The contaminants tested for that were detected are summarized in the attached table titled 2020 Table of Unregulated Contaminants. Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of the monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is required. In 2020, Steubenville participated in the fourth round of Unregulated Contaminant Rule (UCMR4.) For a copy of the results, call (740) 283-6041.

Turbidity

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 samples analyzed each month and shall not exceed 1 NTU at any time. As reported above, the Steubenville water system highest recorded turbidity result for 2020 was 0.378 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100%.

Violations

The Steubenville water system had an MCL violation for TTHM's at one of the monitoring sites in the second quarter of 2020 for which a public notice was issued. The sample was 0.085 mg/l. The MCL is 0.080 mg/l.

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

Steubenville has enhanced their peroxidation and instituted a more rigorous flushing program in an effort to reduce TTHMs. Steubenville has returned to compliance as of October 2020.

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. Steubenville water system 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 (1-800-426-4791) or at http://www.epa.gov/safewater/lead.

License to Operate (LTO) Status Information

In 2020 we had a conditioned license to operate our public water system. The conditions require us to address ongoing violations. For more information on these violations, contact Jim Jenkins at (740) 283-6041.

Public Participation.

How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings of Steubenville City council, which meets each Tuesday at the city building at 115 South 3rd St., Steubenville, Ohio. For more information on your drinking water contact Jim Jenkins at (740) 283-6041.

Definitions of some terms contained within this report.

- 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.

- 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.

*Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

- Maximum Residual Disinfectant Level Goal (MRDLG): The level of drinking water 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.

- 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.

- Contact Time (CT) means the mathematical product of a “residual disinfectant concentration” (C), which is determined before or at the first customer, and the corresponding “disinfectant contact time” (T).

- 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.

Terms used in the report that is not considered "every-day" language.

- 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.

- Parts per Billion (ppb) or Micrograms per Liter (µg/L) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

- 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.

- Picocuries per liter (pCi/L): A common measure of radioactivity.

2020 Table of Detected Contaminants
City of Steubenville Water Department

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Year Sampled	Typical Source of Contamination
Residual Disinfectants							
Chlorine (ppm)	MRDLG = 4	MRDL = 4	1.89	1.60 – 2.00	No	2020	Water additive used to control microbes.
Inorganic Contaminants							
Lead (ppb)	0	Action Level =15	2.12	0 – 10.2	No	2019	Corrosion of household plumbing systems, erosion of natural deposits.
	0 out of 38 samples were found to have lead levels in excess of the lead action level of 15 ppb.						
Copper (ppm) Distribution	1.3	Action Level =1.3	.102	.0048 - .270	No	2019	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
	0 out of 38 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.						
Nitrate (ppm)	10	10	1.33	.62 – 1.33	No	2020	Runoff from fertilizer use; erosion of natural deposits.
Fluoride (ppm)	4	4	1.04	.50 – 1.42	No	2020	Water additive, which promotes strong teeth; erosion of natural deposits.
Barium (ppm)	2	2	.0306	NA	No	2020	Discharge of drilling Waste; discharge from metal refineries; erosion of natural deposits.
Radioactive Contaminants							
Alpha emitters pCi/L	0	15 pCi/L	.695	NA	No	2018	Erosion of natural deposits.
Combined Radium 226 & 228 pCi/L	0	5 pCi/L	226 - Not sampled 228- .0186	NA	No	2018	Decay of natural and man-made deposits.
Volatile Organic Contaminants							
Total Trihalomethanes (ppb)	NA	80	84.9	24.2 – 93.5	Yes	2020	By-product of drinking water chlorination.
Five Haloacetic Acids (ppb)	NA	60	33.4	12.2 – 56.4	No	2020	
Treatment Technique							
Turbidity (NTU)	NA	TT	.378	.027 – .378	No	2020	Soil Runoff
Turbidity (% samples meeting standard)	NA	TT	100	100 – 100	No	2020	
Total Organic Carbon	NA	TT	1.27	1.00 – 1.88	No	2020	Naturally present in the environment.

2020 Table of Unregulated Contaminants
City of Steubenville Water Department

Contaminants (Units)	Sample Year	Average Level Found	Range of Detections	Sample Location
Haloacetic Acids (HAA5) (ppb)	2020	18.12	10.5 – 32.3	Distribution
Haloacetic Acids (HAA6) (ppb)	2020	10.54	9.3 – 12.3	Distribution
Haloacetic Acids (HAA9) (ppb)	2020	27.82	19.2 – 41.1	Distribution
Manganese (ppb)	2020	.73	None	Entry to Distribution System

2020 Table of Operational Water Quality
City of Steubenville Water Department

Parameter	Sample Year	Average Level Found	Range of Detections	Sample Location
pH	2020	7.51	7.18 – 7.84	Entrance to Distribution System
Total Alkalinity	2020	47	33 - 63	
Total Hardness	2020	102	71 - 133	