

# The City of Steubenville Water Department

1575 University Blvd.  
Steubenville, Ohio 43952  
Phone: (740) 283-6041

## ***Drinking Water Consumer Confidence Report 2016***

### **Section 1: Introduction**

The City of Steubenville Water Department has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. This report is required as part of the Safe Drinking Water Act Reauthorization of 1996 and is required to be delivered to the consumers by July 1, 2017. Included within this report are general health information, water quality test results, and how to participate in decisions concerning your drinking water and water system contacts.

**The City of Steubenville water system meets or exceeds all of the current federal and state standards for public water systems.**

The City of Steubenville has a current, unconditional license to operate our water system in 2016.

### **CAPITAL IMPROVEMENTS TO YOUR WATER SYSTEM**

Recent capital improvements include relocation of some lines on S.R. 7 in connection with the changes there, along with line replacements in the Mall, Lover's Lane area.

### **Section 2: What is the source of your drinking water?**

The City of Steubenville's public water system uses surface water drawn from the Ohio River at mile 65.3. Surface waters are by their nature susceptible to contamination, and numerous potential 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's public water system is considered to have a high susceptibility to contamination.

Historically, the Steubenville public water system has effectively treated this source water 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's Drinking Water Source Assessment report, which can be obtained by calling the City of Steubenville Water Department at (740) 283-6041.

### **Section 3: What are sources of contamination to drinking water?**

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 that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water that 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).

#### **Section 4: 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).**

#### **Section 5: About your drinking water.**

The EPA requires regular sampling to ensure drinking water safety. The City of Steubenville Water Department conducted sampling for: bacteria; inorganic; radiological; synthetic organic; volatile organic contaminants during 2016. Samples were collected for a total of 50 different contaminants most of which were not detected in the City of 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 monitoring schedule, for lead and copper. Lead has recently been an issue in other communities. Steubenville has always met EPA regulations with regard to lead and copper, which is why the City was permitted to sample under the reduced frequency schedule. The samples were taken in 2016, and are included in the Table of detected Contaminants. A corrosion inhibitor is added to the water to prevent lead and/or copper from becoming an issue for persons with those materials present in their plumbing systems.

**The City of Steubenville had the following violations in 2016.** There was a Turbidity Monitoring Violation, caused by a faulty air release valve, which occurred in August of 2016. (Public Notice issued.)

The City of Steubenville failed to provide adequate filtration during the month of August of 2016. **Inadequately treated water may contain disease causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms including nausea, cramps, diarrhea, and associated headaches.** The City of Steubenville Water department has taken the following steps to correct the violation and prevent future violations: A faulty air release valve, which caused erroneous turbidity readings has been rebuilt, and a back-up method for removing entrained air has been installed. The violation duration was for fifteen (15) minutes.

The monthly operating reports were not received by Ohio EPA in a timely manner for the period of August 2016. (Report was due by Sept. 10.)

Steps have been taken to see there are no future repeats of these violations.

## **Section 6: 2016 Table of Detected Contaminants**

Please see the table on the last page.

## **Section 7: Definitions of some terms contained within this report.**

In this 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:

### TOC Language:

The value reported under "Level Found" for Total Organic Carbon (TOC) is the lowest ratio between the percentage 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. A value of less than one (1) indicates a violation of the TOC removal requirements.

*Non-Detects (ND)* – laboratory analysis indicates that the contaminant is not present.

*Parts per million (ppm) or Milligrams per liter (mg/l)* - one part per million corresponds to one minute in two years or a single penny in \$10,000.

*Parts per billion (ppb) or Micrograms per liter* - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

*Nephelometric Turbidity Unit (NTU)* - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

*Action Level (AL)* - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

*Maximum Contaminant Level* -The "Maximum Allowed" (MCL) is 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* - The "Goal"(MCLG) is 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.

*Treatment Technique (TT)* – A treatment technique is a required process intended to reduce the level of contaminant in drinking water.

*Maximum Residency Daily Limit (MRDL)* – Maximum allowed Chlorine residual allowed at the farthest point in the water system. MRDLG is *Maximum Residency Daily Limit Goal*.

## **Section 8: 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 in 95% of the daily samples and shall not exceed 1 NTU at any time. As reported above the City of Steubenville's highest recorded turbidity result for 2016 was 1.49 NTU and the lowest monthly percentage of samples meeting turbidity limits was 99.9%.

## **Section 9: Explanation of Health Risks of chemicals detected**

*Total Coliform Bacteria:* Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. The City of Steubenville Water Department tested over 250 samples in 2015. No samples tested positive.

## **Section 10: 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 every Tuesday at 7:30 P.M. at the City Building at 123 S. 3<sup>rd</sup> St. The Council's Utility Committee meets on an as needed basis. Information on any council meeting may be obtained from the Clerk of Council at (740) 283-6000 extension 2100.

## **Section 11: Educational information on Lead.**

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 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 the 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://epa.gov/safewater/lead>.

**For more information on your drinking water contact the City of Steubenville Water Department at (740) 283-6041, or email us at [water@cityofsteubenville.us](mailto:water@cityofsteubenville.us). We will be happy to answer any water related questions that you may have.**

**2016 Table of Detected Contaminants  
City of Steubenville Water Department**

<b>Contaminants (Units)</b>	<b>MCLG</b>	<b>MCL</b>	<b>Level Found</b>	<b>Range of Detections</b>	<b>Violation</b>	<b>Year Sampled</b>	<b>Typical Source of Contamination</b>
<b>Residual Disinfectants</b>							
Chlorine (ppm)	MRDLG = 4	MRDL = 4	1.96	1.23 – 2.61	No	2016	Water additive used to control microbes.
<b>Inorganic Contaminants</b>							
Lead (ppb)	0	Action Level =15	0	0 – 1.35	No	2016	Corrosion of household plumbing systems, erosion of natural deposits.
Copper (ppb) Distribution	1300	Action Level =1300	117	0 – 210	No	2016	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Copper (ppb) Plant	1300	Action Level =1300	13.1	0 - 13.1	No	2016	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Nitrate (ppm)	10	10	1.05	.59 – 1.05	No	2016	Runoff from fertilizer use; erosion of natural deposits.
Fluoride (ppm)	4	4	1.03	.44 – 1.15	No	2016	Water additive, which promotes strong teeth; erosion of natural deposits.
Barium (ppb)	2000	2000	28.4	NA	No	2016	Discharge of drilling Waste; discharge from metal refineries; erosion of natural deposits.
<b>Volatile Organic Contaminants</b>							
Total Trihalomethanes (ppb)	NA	80	65.0	14.9 – 102.0	No	2016	By-product of drinking water chlorination.
Five Haloacetic Acids (ppb)	NA	60	55.0	11.4 – 122.6	No	2016	
<b>Treatment Technique</b>							
Turbidity (NTU)	NA	TT	1.49	.028 – 1.49	Yes	2016	Soil Runoff
Turbidity (% samples meeting standard)	NA	TT	99.9 %	99.9 - 100 %	No	2016	
Total Organic Carbon	NA	TT	1.34	.98 – 1.73	No	2016	Naturally present in the environment.