

Contaminant	Violation Y/N	Level Detected	Units of Measure	MRDLG	MRDL	Likely Source of Contamination
Disinfection and Disinfection Byproduct Contaminants						
Chlorine	N	Annual Avg. 2.4 Range 1.7 – 3.3	ppm	4	4	Water additives used to control microbes

Chlorine can be solid, liquid, or a gas additive used to control microbes in drinking water. Drinking water that has not been treated with chlorine or some other form of disinfectant or process may or may not contain harmful bacteria. Untreated drinking water may cause gastrointestinal distress or other health problems.

Contaminant	Violation Y/N	Level Detected	Units of Measure	MCLG	MCL	Likely Source of Contamination
Stage 2 Disinfection Byproducts						
Haloacetic Acids (HAA5) Oakmont Tank	N	Annual Avg. 24.9 Range 13.7 – 44.4	ppb	N/A	60	By-product of drinking water disinfection
Haloacetic Acids (HAA5) Elm Grove Dodge	N	Annual Avg. 24.3 Range 10.9-37.4	ppb	N/A	60	By-product of drinking water chlorination
Haloacetic Acids (HAA5) 139 E. Bethlehem Blvd.	N	Annual Avg. 21.2 Range 9.6-36.7	ppb	N/A	60	By-product of drinking water chlorination
Haloacetic Acids (HAA5) 1000 National Rd.	N	Annual Avg. 17.1 Range 8.3-29.8	ppb	N/A	60	By-product of drinking water chlorination
Total Trihalomethanes (TTHMs) Oakmont Tank	N	Annual Avg. 54 Range 33.3-66.5	ppb	N/A	80	By-product of drinking water chlorination
Total Trihalomethanes (TTHMs) Elm Grove Dodge	N	Annual Avg. 51.5 Range 25.3-81.3	ppb	N/A	80	By-product of drinking water chlorination
Total Trihalomethanes (TTHMs) 139 E. Bethlehem Blvd.	N	Annual Avg. 46.7 Range 22.1-79.9	ppb	N/A	80	By-product of drinking water chlorination
Total Trihalomethanes (TTHMs) 1000 National Rd.	N	Annual Avg. 36.8 Range 18.1-64.5	ppb	N/A	80	By-product of drinking water chlorination

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

**Table of Test Results - Unregulated Conaminants**

Contaminant	Violation Y/N	Level Detected	Units of Measure	MRDLG	MRDL	Likely Source of Contamination
Sodium**	N	40.8	ppm	NE	20	Erosion of natural deposits

\*\* Sodium is an unregulated contaminant. Our sodium level exceeds the guidance MCL. Anyone having a concern over sodium should contact their health care provider.

Wheeling Water conducted additional monitoring under the Long Term 2 Enhanced Surface Water Treatment Rule for cryptosporidium, E.coli, and turbidity issued by the US EPA. There were no detects. The monitoring data is available by contacting Wheeling Water, 304-234-3835.

Wheeling Water performed additional sampling for microcystins for Assessment Monitoring under the Forth Unregulated Contaminant Monitoring Rule issued by the US EPA. There were no detects. The monitoring data is available by contacting Wheeling Water, 304-234-3835.

**Definitions**

ppm – parts per million or milligrams per liter  
 ppb – parts per billion or micrograms per liter  
 NE - Not Established  
 N/A – Not Applicable  
 pCi/L - picocuries per liter - measurement of radioactivity  
 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.  
 Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.  
 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.  
 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. MCLs are set at very stringent levels. A person would have to drink two liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having any possible related health effects.  
 Maximum Residual Disinfectant Level Goal (MRDLG) is the level of a drinking water disinfectant below which there is no known or expected risk to health.  
 Maximum Residual Disinfectant level (MRDL) is the highest level of a disinfectant allowed in drinking water.

**Technical Information**

**Total Coliform Bacteria** - the presence of coliform bacteria indicates that other potentially harmful bacteria may be present. Wheeling Water's 2018 testing indicates 0% presence of coliform bacteria.

**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. Wheeling Water 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 drinking 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>.

In March 2018, Wheeling Water received a Notice of Violation for failure to complete corrective actions for Backflow Prevention according to an approved corrective action plan. The City Council has since drafted, passed, and begun to implement this program.

Wheeling Water works around the clock to meet all regulations required by the Safe Drinking Water Act and provide quality water to all of our customers. The operation staff at our plant is highly trained, experienced and holds a minimum of a Class III Water Plant Operator's License. The facility is staffed 24 hours a day, 365 days a year.

We ask that you help support our water system and protect our water sources, which are the heart of our community.

# Consumer Confidence REPORT 2018 (CCR)



Wheeling Water Treatment Plant  
1551 Richland Avenue  
Wheeling, WV 26003

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[www.wheelingwv.gov](http://www.wheelingwv.gov)

In compliance with the Safe Drinking Water Act and Environmental Protection Agency (EPA) requirements, Wheeling Water is pleased to submit information to all of our customers on the quality of our water. The following Water Quality Report details the water analysis from January 1 to December 31, 2018. Wheeling Water is committed to providing you with a clean and dependable supply of drinking water. The high quality of your water is the result of continuous monitoring by highly skilled water treatment professionals.

Our goal is to continue meeting or exceeding the high standards set forth by the EPA and the Safe Drinking Water Act. We hope that you will review the information contained in our annual Consumer Confidence Report (CCR) and compare our water supply with the federal regulations. Please feel free to contact Michael Rice, Treatment Plant Manager, at 304-234-3835 with any questions or review our website. You may also attend any of the regularly scheduled City Council meetings held on the first Tuesday of each month at 12:00 noon and third Tuesday of each month at 5:30 p.m. in the Council Chambers of the City County Building, 1500 Chapline St., Wheeling, WV.

### Source Water & Treatment

The source of drinking water (both tap and bottled) includes rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of 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.

The Ohio River, which is surface water, is the source water for the Wheeling Water Treatment plant. The river has a higher susceptibility to contamination, due to the sensitive nature of surface water supplies and the potential contaminant sources identified within the area. This does not mean that this intake will become contaminated; only that conditions are such that the surface water could be impacted by a potential contaminant source.

Future contamination may be avoided by implementing protective measures. The West Virginia Bureau for Public Health has completed a Source Water Assessment Report on Wheeling's source water, which includes more detailed information on this issue. The report is available for review by calling the Wheeling Water Treatment Plant at 304-234-3835.

The water is pumped from the Ohio River into the treatment plant where it is carefully treated, filtered and disinfected to ensure safe water to the customer. In addition to the Ohio River, there are five wells located near the plant that may be utilized as an alternative source of water in the event the Ohio River becomes contaminated due to a spill. These wells, which are not under the influence of surface water, are treated the same way as the river water and can provide approximately 50% of the average daily usage.

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 of contaminants in bottled water which must provide the same protection for public health. The Ohio River is typically a reliable water supply. However, it is vulnerable to contamination. This requires a very diligent monitoring program and a sophisticated treatment facility to ensure that the water meets all state and federal health and safety regulations. As the water quality of the Ohio River improves, it brings additional treatment problems, such as large quantities of algae and prolific growth of zebra mussels, which can plug intakes and foul treatment systems. These new problems have created additional expenses to meet the increasingly stringent requirements set by the EPA and ensure the quality of water our customers have come to expect. The Wheeling Water Plant treats approximately 6.7 million gallons of water per day and distributes this water through 200 miles of water mains, some of which are over 100 years old. The maintenance and upgrade of this diversified system is reflected in periodic rate increases.

*Turbidity*, caused by soil runoff, is generally thought of as the cloudiness of water. We test turbidity because it is a good indicator of the effectiveness of our filtering system. Although turbidity has no health effects, at high levels it can impair the disinfection process. The highest turbidity reading for 2018 was 0.023 NTU and the lowest turbidity reading was 0.012 NTU. The yearly average was 0.017 NTU.

All drinking water, including bottled water, may reasonably be expected to contain at least minute amounts of some contaminants. 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Contaminants that may be present in source water include:

- *Microbial Contaminants* such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

- *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, and farming.

- *Pesticides and Herbicides* which may come from a variety of sources such as agriculture, urban storm runoff, and residential uses.

- *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.

- *Radioactive Contaminants* which can be naturally-occurring or the result of oil and gas production and mining activities.

Table of Test Results - Regulated Contaminants

Contaminant	Violation Y/N	Level Detected	Units of Measure	MCLG	MCL	Likely Source of Contamination
Microbiological						
Turbidity <sup>1</sup>	N	0.017 100% of monthly samples <0.3	NTU	0	TT	Soil Runoff
Inorganic						
Copper <sup>2</sup> (2016)	N	0.331	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead <sup>2</sup> (2016)	N	3.0	ppb	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits
Fluoride	N	0.732	ppm	4	4	Erosion of natural deposits; additive to water which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	N	1.04	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Barium	N	0.04	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits

1. Turbidity is a measure of the cloudiness in water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

2. Copper and lead samples were collected from 39 homes in our community water system in July 2016. Only the 90th percentile is reported. None of the samples exceeded the MCL.