

## 2017 Water Quality Report Information Concerning Your Community's Water Supply

Mount Sterling Water and Sewer is pleased to present the information contained in this annual report to you, our customer, on behalf of the 34 employees, employed by our utility. Each employee strives to insure that water provided to you and your family not only meets, but exceeds both state and federal drinking water standards. The intent of this document is that it be used as a tool to help you as a consumer to be better informed regarding your community's water supply and to better understand the challenges faced by our utility in providing this most important service. Our utility provides service to more than 5,400 residences, businesses and industries throughout our community, in addition to a total of 6 water districts and associations. Together Mt. Sterling Water and Sewer in conjunction with the districts and associations, previously noted, provide water service to an estimated 97% of Montgomery County, with some providers systems servicing sectors located within a number of neighboring counties.

We feel that building close customer relationships is not only essential in developing consumer confidence, but customers who are well informed are crucial in gaining support for improvements necessary for our utility to provide a superior product and service. A product which not only meets the high quality standards set forth by both state and federal regulators, but one which you expect and deserve. The most effective way for an individual to become more involved in making a positive impact in improving our community's water supply is to become better informed, voicing your opinion should a problem or concern arise. Questions or comments concerning this report or any other aspect associated with Mount Sterling Water and Sewer can be directed to either Rick Fletcher or Brad Reed at (859) 498-0166. In addition, Mt. Sterling Water and Sewer conducts monthly board meetings, the Monday preceding the third Tuesday at 7:00 pm, which the public is invited to attend. Public comments and views are welcome.

### Mt. Sterling's Source Water

Mt. Sterling's treated water is derived from two interconnected surface water sources of raw water. Our primary source is Slate Creek, with Greenbrier Reservoir (Greenbrier) being our secondary supply. The normal operational procedure is to withdraw water primarily from Slate Creek, utilizing Greenbrier as a reserve during periods of low flow, i.e. summer months and/or drought conditions. Water from these two sources is treated at our Howard's Mill water treatment facility, which currently has a production capacity of 4.3 million gallons per day.

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 may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800-426-4791).



*Aerial View of Greenbrier Lake*

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 the 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 (800-426-4791).

### Information about 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 material and components associated with service lines and home plumbing. Your local public 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 (800-426-4791), or by web at <http://www.epa.gov/safewater/lead>.

**PROTECT AND  
CONSERVE  
OUR WATER  
SUPPLY.**



**MAKE IT  
YOUR  
BUSINESS  
TOO!**

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 may pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include: microbial contaminants such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife. Inorganic contaminants such as salts and metals may be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming. Pesticides and herbicides which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses. Organic chemical contaminants including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, may also come from gas stations, urban storm water runoff, and septic systems. Radioactive contaminants may either be naturally-occurring or be the result of oil and gas production and mining activities. To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. U.S. FDA regulations establish limits for contaminants in bottled water that shall provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small

The Gateway Area Development District (GADD) has completed a study as part of a federally mandated Source Water Protection Program which identifies possible sources of contamination, which could negatively impact Mt. Sterling's raw (untreated) water supplies. Based on this study our susceptibility rating was noted to be in the high category, referring to the potential for an occurrence of a contamination event. The areas of greatest concern include several major roadways and bridges which extend over and along streams within the Slate Creek/Greenbrier water sheds. The water sheds which supply our community's source water. In addition to numerous car repair facilities, salvage yards and three specifically identified super fund sites. A copy of this report in its entirety is available at our office, located at the address listed below or on our web site at <http://www.mtsterlingwaterandsewer.com>

**Spanish (Español) Este informe contiene informacío'n muy impotante sobre la calidad de su agua beber. Traduzcalo o hable con alguien que lo entienda bien.**

The data presented in this report are from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data in this table, though representative, may be more than one year old.

Contaminant	Allowable Levels	Highest Single Measurement	Lowest Monthly %	Violation	Likely Source
<b>Turbidity (NTU) TT</b> * Representative samples of filtered water	No more than 1 NTU* Less than 0.3 NTU in 95% of monthly samples	0.14	100	No	Soil runoff

#### Regulated Contaminant Test Results

Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
<b>Inorganic Contaminants</b>							
<b>Arsenic</b> [1005] (ppb)	10	N/A	0.3	0.3 to 0.3	Feb-17	No	Natural erosion; runoff from orchards or glass and electronics production wastes
<b>Barium</b> [1010] (ppm)	2	2	0.022	0.022 to 0.022	Feb-17	No	Drilling wastes; metal refineries; erosion of natural deposits
<b>Copper</b> [1022] (ppm) sites exceeding action level 0	AL = 1.3	1.3	0.141 (90 <sup>th</sup> percentile)	0.0056 to 0.254	Jun-16	No	Corrosion of household plumbing systems
<b>Fluoride</b> [1025] (ppm)	4	4	0.6	0.6 to 0.6	Feb-17	No	Water additive which promotes strong teeth
<b>Lead</b> [1030] (ppb) sites exceeding action level 0	AL = 15	0	4 (90 <sup>th</sup> percentile)	0 to 12	Jun-16	No	Corrosion of household plumbing systems
<b>Nitrate</b> [1040] (ppm)	10	10	0.4	0.4 to 0.4	Nov-17	No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits

#### Disinfectants/Disinfection Byproducts and Precursors

Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
<b>Total Organic Carbon</b> (ppm) (measured as ppm, but reported as a ratio)	TT*	N/A	1.41 (lowest average)	1.01 to 3.41 (monthly ratios)	2017	No	Naturally present in environment.
<b>*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average must be 1.00 or greater for compliance.</b>							
<b>Chlorine</b> (ppm)	MRDL = 4	MRDLG = 4	1.31 (highest average)	0.3 to 1.9	2017	No	Water additive used to control microbes.
<b>HAA</b> (ppb) (Stage 2) [Haloacetic acids]	60	N/A	48 (high site average)	22 to 94 (range of individual sites)	2017	No	Byproduct of drinking water disinfection
<b>TTHM</b> (ppb) (Stage 2) [total trihalomethanes]	80	N/A	50 (high site average)	20.1 to 72.9 (range of individual sites)	2017	No	Byproduct of drinking water disinfection.

#### Other Contaminant Test Results

Secondary Contaminants	Allowable Level	Report Level	Range	Date	
<b>Aluminum</b>	0.05 to 0.2 mg/l	0.03	0.03 to 0.03	Feb-17	<b>No violations noted for the 2017 monitoring period</b>
<b>Chloride</b>	250 mg/l	15.8	15.8 to 15.8	Feb-17	
<b>Iron</b>	0.3 mg/L	0.068	0.068 to 0.068	Feb-17	
<b>Fluoride</b>	2.0 mg/l	0.6	0.6 to 0.6	Feb-17	
<b>pH</b>	6.5 to 8.5 S.U.	7.7	7.7 to 7.7	Feb-17	
<b>Sulfate</b>	250 mg/l	26.7	26.7 to 26.7	Feb-17	
<b>Total Dissolved Solids</b>	500 mg/l	181	181 to 181	Feb-17	

**EPA has not established drinking water standards for unregulated contaminants. There are no MCL's and therefore no violations were found.**

	Average	Range of Detection
<b>Fluoride (added for dental health)</b>	0.8	0.7 to 0.9
<b>Sodium (EPA guidance level = 20 mg/L)</b>	9.8	9.8 to 9.8

**\*Cryptosporidium.** We are required to monitor the source of your drinking water for Cryptosporidium in order to determine whether treatment at the water treatment plant is sufficient to adequately remove Cryptosporidium from your drinking water. We have detected cryptosporidium in some of the samples tested. We believe it is important for you to know that cryptosporidium may cause serious illness in 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. These people should seek advice from their health care providers. However these samples were taken from the Raw Water Source in which the results places us in the Bin 1 category that requires no additional treatment is necessary.

#### Definitions of Abbreviations

**Maximum Contaminant Level (MCL)** - the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to 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 are no known or expected health risk. MCLGs allow for a margin of safety.

**Maximum Residual Disinfection Level (MRDL)** - the highest level of disinfection allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for the control of microbial contaminants.

**Maximum Residual Disinfection Level Goal (MRDLG)** - the level of drinking water disinfection below which there is no known or expected health risk. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Quarter (QTR)** - represents a consecutive three month period in which 4 occur within a calendar year, beginning in January.

**Nephelometric Turbidity Unit (NTU)** - a measure of clarity in water. Turbidity does not directly impact health, however turbidity can provide a medium for microbial growth. Turbidity is monitored because it is a good indicator of the effectiveness of a filtration system.

**Parts per Million (PPM)** - one part per million equates to one minute in a two year period or a single penny in \$10,000.00.

**Parts per Billion (ppb)** - one part per billion equates to one minute in a 2,000 year period or a single penny in \$10,000,000.00.

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

**Milligrams per Liter (mg/L)** - A measure of the concentration by weight of a substance per unit volume in water or wastewater.

**Treatment Technique (TT)** - a required process intended to reduce the level of a contaminant in drinking water.

**N/A** - Not applicable or not available