



**Steelton Borough Authority**  
**2017 Annual Drinking**  
**Water Quality Report**  
**PWSID #7220036**

*Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, ó hable con alguien que lo entienda.*

### WATER SYSTEM INFORMATION

This report details our water quality and explains what it means. If you have any questions about this report or concerning your water utility, please contact Mark Handley at (717) 939-0425 Ext. 4. We want you to be informed about your water supply. If you want to learn more, please attend any of our regularly scheduled meetings. They are held the second Monday in January, March, May, August, October, and December at 5:00 P.M. in the Borough building.

### SOURCE OF WATER

Our water source is supplied by surface water from the Susquehanna River and treated at our filtration plant along Christian Street.

A *Source Water Assessment* of our source was previously completed by the PA Department of Environmental Protection (DEP). The Assessment has found that our source is potentially most susceptible to agricultural activities, gas/service stations, auto repair shops, NPDES locations, urban/storm-water runoff, spills from transportation corridors, water treatment plants, aquatic wildlife, wastewater treatment plants, landfills, livestock, and industrial discharges. Overall, our source water from the river has high risk of significant contamination. However, no contaminants are normally found in concentrations that require alteration of our treatment procedures. A summary report of the Assessment is available on the *Source Water Assessment & Protection* web page at (<http://www.dep.state.pa.us/dep/deputate/watermgt/wc/Subjects/SrceProt/SourceAssessment/default.htm>).

Complete reports were distributed to municipalities, water supplier, local planning agencies and DEP offices. Copies of the complete report are available for review at the DEP South-central Regional Office, Records Management Unit at (717) 705-4732.

## EDUCATIONAL INFORMATION

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:

**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 stormwater run-off, 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 stormwater runoff, and residential uses.

**Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, can also come from gas stations, urban stormwater runoff, and septic systems.

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

## 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 materials and components associated with service lines and home plumbing. Steelton Borough Authority 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>.

In order to ensure that tap water is safe to drink, EPA and DEP prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. FDA and DEP 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).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 microbial contaminants are available from the *Safe Drinking Water Hotline* (1-800-426-4791).

## DEFINITIONS

**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 (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.

**Maximum 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 a 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.

**Minimum Residual Disinfectant Level (MinRDL)** - The minimum level of residual disinfectant required at the entry point to the distribution system.

**Level 1 Assessment** - A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

**Level 2 Assessment** - A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E.coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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

**Mrem/year** = millirems per year (a measure of radiation absorbed by the body)

**pCi/L** = picocuries per liter (a measure of radioactivity)

**ppb** = parts per billion, or micrograms per liter (µg/L)

**ppm** = parts per million, or milligrams per liter (mg/L)

## OTHER VIOLATIONS

1. 01/01/2017, 04/01/2017, 07/01/2017 & 10/01/2017 – Average MCL Violation (Disinfection/Disinfection By-Product Rule) Haloacetic Acids Five (HAA5): This is a running annual average violation for systems serving greater than 10,000 when the monitoring frequency is quarterly and the running annual average is greater than 0.060 mg/L.
2. 04/01/2017, 07/01/2017, & 10/01/2017 – Average MCL Violation (Disinfection/Disinfection By-Product Rule) Trihalomethanes (TTHMs): This is a running annual average violation for systems serving greater than 10,000 when the monitoring frequency is quarterly and the running annual average is greater than 0.080 mg/L.
3. 5/11/2017 – Public Notification Tier 2: Failure to issue a public notification for a Tier 2 violation.
4. 12/11/2017 – Revised Total Coliform Rule Assessment Correction Action Reporting: See detailed description under “Detected Contaminants Health Effects Language and Corrective Actions” section.
5. 12/11/2017 – Revised Total Coliform Rule Level 1 Assessment Treatment Technique: See detailed description under “Detected Contaminants Health Effects Language and Corrective Actions” section.

## MONITORING YOUR WATER

We routinely monitor for contaminants in your drinking water according to federal and state laws. The following tables show the results of our monitoring for the period of January 1 to December 31, 2017. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

<b>CHEMICAL CONTAMINANTS</b>								
Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation	Sources of Contamination
Barium	2	2	0.023	0.023	ppm	5/17/2017	No	Discharge of drilling wastes, Discharge from metal refineries, Erosion of natural deposits.
Chlorine	MRDL = 4	MRDLG = 4	1.23	0.52-1.23	ppm	2017	No	Water additive used to control microbes.
Nitrate	10	10	0.56	0.56	ppm	5/17/2017	No	Runoff from fertilizer use, Leaching from septic tanks, sewage, Erosion of natural deposits.
Haloacetic Acids 5	60	N/A	92	32.3-246	ppb	2017	Yes*	By-product of drinking water disinfection.
Trihalomethanes	80	N/A	88.4	45-155	ppb	2017	Yes**	By-product of drinking water chlorination.
<b>ENTRY POINT DISINFECTANT RESIDUAL</b>								
Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Sample Date	Violation	Sources of Contamination	
Chlorine	0.2	0.24	0.24-1.84	ppm	2017	No	Water additive used to control microbes.	
<b>LEAD AND COPPER</b>								
Contaminant	Action Level (AL)	# of Sites Above AL of Total Sites	MCLG	90 <sup>th</sup> Percentile Value	Units	Sample Date	Violation	Sources of Contamination
Lead	15	1 out of 20	0	2.2	ppb	2016	No	Corrosion of household plumbing.
Copper	1.3	0 out of 20	1.3	0.21	ppm	2016	No	Corrosion of household plumbing.
<b>MICROBIAL (related to Assessments/Corrective Actions regarding TC positive results)</b>								
Contaminant	TT	MCLG	Assessments/Corrective Actions			Violation	Sources of Contamination	
Total Coliform	Any system that has failed to complete all the required assessments or correct all identified sanitary defects, is in violation of the treatment technique requirement	N/A	See detailed description under "Detected Contaminants Health Effects Language and Corrective Actions" section			Yes	Naturally present in the environment.	

<b>TURBIDITY</b>						
<b>Contaminant</b>	<b>MCL</b>	<b>MCLG</b>	<b>Sample Date</b>	<b>Level Detected</b>	<b>Violation</b>	<b>Sources of Contamination</b>
Turbidity	TT = 1 NTU for a single measurement	0	1/5/2017	0.125	No	Soil runoff.
	TT = at least 95% of monthly samples $\leq$ 0.3 NTU		2017	100%	No	
<b>TOTAL ORGANIC CARBON (TOC)</b>						
<b>Contaminant</b>	<b>Range of % Removal Required</b>	<b>Range of % Removal Achieved</b>	<b>Number of Quarters Out of Compliance</b>		<b>Violation</b>	<b>Sources of Contamination</b>
TOC	25 - 35%	17%-46%	2		No	Naturally Present in the Environment.

### HEALTH EFFECTS

\* Some people who drink water containing Haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

\*\* 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.

### DETECTED CONTAMINANTS HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS

During the past year, we were required to conduct a Level 1 Assessment because we had a confirmed positive total coliform result. We did not complete the required Level 1 Assessment on time. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially-harmful, bacteria may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments. We sent notices to all of our customers within 30 days of learning of the failure to complete the required Level 1 assessment on time. The Authority lead employee was not aware of the positive sample early enough to collect the repeat samples on time. The repeat samples were taken 1 day late and all came back negative for coliforms. The Level 1 assessment was then completed and sent in to DEP.