

2017 Water Quality Report

Shillington Municipal Authority

PWSID 3060067

We are very pleased to provide you with this year's 2017 Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide to you a safe and dependable supply of drinking water.

Este informe contiene informacion importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda. (This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.)

OVERVIEW:

We are a consecutive system, meaning we purchase all our water from the Western Berks Water Authority which is treated surface water from the Tulpehocken Creek. Within our system, we test for lead, copper, total coliform, total trihalomethanes and haloacetic acids and are pleased to report that our water meets all Federal and State requirements. This report also shows the water quality from our supplier and what it means.

A *Source Water Assessment* of our source was completed by the PA Department of Environmental Protection (Pa. DEP) for the Western Berks Water Authority. This Assessment evaluated potential contaminant threats to the raw water sources used by the Western Berks Water Authority and the susceptibility of the sources to these threats. The following items were identified as the top three concerns:

1. Nitrate and pesticide contamination from agricultural runoff.
2. Bacterial and chemical contamination from discharges of sewage treatment plants and industrial sources.
3. Contamination from roadway accidents and urban runoff.

The Western Berks Water Authority is concerned about protecting its water source. Current treatment processes ensure that raw water from the Tulpehocken Creek becomes finished water that meets all Federal and State drinking water

standards. A summary report of the Assessment is available on the *Source Water Assessment & Protection* web page at:

(www.dep.state.pa.us/dep/deputate/watermgt/wc/Subjects/SrceProt/SourceAssessment/default.htm).

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

If you have any questions about this water quality report or concerning your water utility, please contact Michael D. Mountz, Borough Manager at (610) 777-1338 for any questions concerning the Shillington Municipal Authority. Any questions regarding the water source and/or treatment may be addressed to Matthew R. Walborn, Western Berks Water Authority Operations Manager at (610) 678-4400. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of the regularly scheduled Borough Council meetings held the second Thursday of each month beginning at 7:30 p.m. in the Borough's Municipal Building or the Western Berks Water Authority meetings held the second Monday of each month at 6:30 pm at the treatment plant located at 91 Water Road, Lower Heidelberg Township.

The Shillington Municipal Authority routinely monitors for constituents 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. Some of our data is from prior years in accordance with the Safe Drinking Water Act. The tables indicate the month/year of the most recent samples for those constituents not tested for during the report year.

KEY TO TABLES:

In the following tables, 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:

Non-Detects (ND) - laboratory analysis indicates that the contaminant is not present at a detectable level.

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.

Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.

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

Action Level – 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 (MCL) - The “Maximum Allowed” 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 (MCLG) - The “Goal” 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 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 contamination.

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 the 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 the water system on multiple occasions.

N/A - Not applicable

TEST RESULTS

Chemical Contaminants

Contaminant (Unit of)	Violation Y/N	Level Detected	Range	MCLG	MCL	Likely Source of Contamination
Fluoride (ppm) (a)	N	0.44	0.43 - 0.44	4	2*	Water additive which promotes strong teeth.
Nitrate (as Nitrogen) (ppm) (a)	N	4.81	4.29 – 4.81	10	10	Runoff from fertilizer use.

*EPA's MCL for fluoride is 4 ppm. However, Pennsylvania has set a lower MCL to better protect human health.

Entry Point Disinfectant Residual

Contaminant	Minimum Disinfection Residual	Lowest Level Detected	Range of Detections	Units	Violation Y/N	Sources of Contamination
Chloramine(a)	0.2	1.0	1.0 – 3.7	ppm	N	Water additive used to control microbes

ADDITIONAL TEST RESULTS

Disinfection By-Products

Contaminant (Unit of)	Violation Y/N	Level Detected	Range	MCLG	MCL	Likely Source of Contamination
Chloramine (as Cl ₂)(mg/L) (b)	N	1.76	.45 – 1.76	4	4	Water additive used to control microbes.
Haloacetic Acids(5) (ppb)	N	35	11-35	N/A	60	By-product of drinking water chlorination
TTHM (ppb)	N	29	13-29	N/A	80	By-product of drinking water chlorination

Footnotes:

(a) Western Berks Water Authority samples

(b) The Western Berks Water Authority uses chloramines instead of free available chlorine residual due to the length of its transmission main and the distribution of its consecutive systems.

ADDITIONAL TEST RESULTS					
MICROBIAL					
Contaminant (Unit of)	Violation Y/N	No. of Positive Samples/Month	MCL	MCLG	Likely Source of Contamination
Total Coliform Bacteria	N	None	No more than one positive sample per month	0	Naturally present in the environment

Detected Contaminants Health Effects Language and Corrective Actions -
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 the water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct any problems that were found during these assessments.

During the last year we were required to conduct one (1) Level 1 Assessment. One (1) Level 1 Assessment was completed. In addition, we were required to take one (1) Corrective Action, and we completed this Corrective Action.

2017 Distribution Microbial Summary Table				
Number of Positive E.coli Sample Results	Number of Level 1 Assessments	Number of Level 2 Assessments triggered by an E.coli MCL	Number of Level 2 Assessments Triggered by Multiple Level 1 Assessments	Number of Corrective Actions Required
0	1	0	0	1

ADDITIONAL TEST RESULTS						
Lead and Copper Rule						
Contaminant (Unit of)	Violation Y/N	Level Detected	Range	Action Level (AL)	MCLG	Likely Source of Contamination
Copper (ppm) 2016	N	0.157	(c)	1.3	1.3	Corrosion of household plumbing systems.
Lead (ppb) 2016	N	1.0	(d)	15	0	Corrosion of household plumbing systems.

Footnotes (Lead and Copper Rule):

(c) None of the 30 samples collected exceeded the action level

(d) One of the 30 samples collected exceeded the action level. Subsequent tests did not exceed the action level.

ADDITIONAL TEST RESULTS							
Turbidity							
Contaminant (Unit of)	Violation Y/N	Your Water	Range		MCL = (TT)	MCLG	Likely Source of Contamination
			Low	High			
Turbidity (NTU) (a)	N	95% of samples <0.3	<0.03	0.17	TT=1.0	0	Soil runoff
Total Organic Carbon							
Contaminant	Violation Y/N	Range of % Removal Required	Range of Percent Removal Achieved	Number of Quarters out of Compliance	Likely Source of Contamination		
Total Organic Carbon (a)	N	15-25%	29.5 – 56.8%	0	Naturally present in the environment		

Footnotes:

(a) Western Berks Water Authority samples

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 run-off and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and 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.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) and DEP prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (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 EPA's *Safe Drinking Water Hotline* (800-426-4791).

Other Violation Information:

During 2017 our water system received a violation from the Pa. DEP:

- The violation was for the late filing of the certification form with the Pa. DEP which states that our 2016 CCR was distributed to our customers on time and appropriately.

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. The Shillington Municipal 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 (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

Additional Health Information:

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).

Other Information:

The Shillington Municipal Authority, the Shillington Borough Council and all Shillington employees work diligently to provide you with quality drinking water. We are proud to share this report with you indicating that we have again achieved an outstanding record in meeting the Safe Drinking Water Program requirements during 2017. As always, we are constantly striving to provide you, the consumer, with excellent water. You are encouraged to contact us with any suggestions you feel may benefit us with this effort.

Additional information can be obtained at the following websites:

www.shillingtonboro.net – for more information on our water system

www.wbwa.org - for information on the Western Berks Water Authority system

www.epa.gov/your-drinking-water - EPA's drinking water website