

# **2008 Water Quality Report**

## **Shillington Municipal Authority**

### **PWSID 3060067**

We are very pleased to provide you with this year's 2008 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 muy importante sobre su agua de beber. Traduzcalo o hable con alguien que lo entienda bien.

#### **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.

In 2002, the Philadelphia Water Department, working under contract for the Pennsylvania Department of Environmental Protection, completed a Source Water Assessment 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 copy of the Source Water Assessment report is available for review by contacting the Western Berks Water Authority at (610) 678-4400.

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 George Torak, 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, 2008. 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.

**MNR** - Monitoring not required, but recommended.

**Na** - Not applicable

<b>TEST RESULTS</b>						
<b>Inorganic Contaminants</b>						
<b>Contaminant (Unit of)</b>	<b>Violation Y/N</b>	<b>Level Detected</b>	<b>Range</b>	<b>MCLG</b>	<b>MCL</b>	<b>Likely Source of Contamination</b>
Fluoride (ppm) (a)	N	.9	N/A	4	4	Erosion of natural deposits; water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen) (ppm) (a)	N	5.59	2.17-5.59	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
<b>Disinfection By-Products</b>						
Chloramine (as C12)(mg/L)	N	1.73	0.60-1.73	4	4	Water additive used to control microbes. (b)
Haloacetic Acids(5) (ppb)	N	33	22-33	Na	60	By-product of drinking water chlorination

Contaminant (Unit of)	Violation Y/N	Level Detected	Range	MCLG	MCL	Likely Source of Contamination
TTHM (ppb)	N	27	12-27	Na	80	By-product of drinking water chlorination
Total Organic Carbon (a)	N	2.4	0.7-2.4	Na	TT	Naturally occurring organic matter

**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.

<b>ADDITIONAL TEST RESULTS</b>						
<b>Lead and Copper Rule</b>						
Contaminant (Unit of)	Violation Y/N	Level Detected	Range	Action Level (AL)	MCLG	Likely Source of Contamination
Copper(ppm) 9/2007	N	0.26	(c)	1.3	1.3	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb) 9/2007	N	0.0	(c)	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

**Footnotes:**

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

<b>ADDITIONAL TEST RESULTS</b>					
Contaminant (Unit of)	Violation Y/N	No. of Positive Samples/Month	MCL	MCLG	Likely Source of Contamination
Total Coliform Bacteria	N	NP	≥5% monthly samples are positive	0	Naturally present in the environment

**Footnotes:**

**NP** = No Bacteria Present

<b>ADDITIONAL TEST RESULTS</b>							
<b>Microbiological Contaminants</b>							
Contaminant (Unit of)	Violation Y/N	Your Water	Range		MCL = (TT)	MCLG	Likely Source of Contamination
			Low	High			
Turbidity (NTU) (a)	N	100% of samples <0.3	0.03	0.25	<=0.3	Na	Soil runoff
<b>Radioactive Contaminants</b>							
Contaminant	Violation Y/N	Level Detected		MCL	MCLG	Likely Source of Contamination	
Alpha emitters (pCi/L) (a)	N	0.5		15	0	Erosion of natural deposits	
Radium (combined 226- 228) (pCi/L) (a)	N	0.8		5	0	Erosion of natural deposits	

**Footnotes:**

(a) Western Berks Water Authority samples

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

As you can see by the tables, our system has not exceeded a maximum contaminant level. We are proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through monitoring and testing that some constituents have been detected.

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Ingestion of cryptosporidium may

cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals overcome the disease within a few weeks. However, immuno-compromised people are at a greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

The Western Berks Water Authority collects samples in the raw water samples monthly from April through December and Cryptosporidium was not detected. Also Cryptosporidium was not detected in the finished water samples.

### **Additional Health Information:**

All sources of drinking water are subject to potential contaminants that are naturally occurring or manmade. Those contaminants can be microbes, organic or inorganic chemicals, or radioactive materials. All 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 the 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 at 1-800-426-4791.

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.

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. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

MCL's are set at very stringent levels for health effects. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

During the month of 2008, our water system violated drinking water standards. Even though this was not an emergency you have the right to know what happened and what we did to correct this situation.

We routinely monitor for drinking water contaminants. We took 15 samples to test for the presence of coliform bacteria during May 2008. Of the 15 samples tested, two samples showed the presence of total coliform bacteria. The standard is that no more than one sample per month may do so.

This was not an emergency. If it had been, immediate notification would have been implemented. Coliforms are bacteria, which are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Water samples collected at one location (a utility sink) within one institutional building showed the presence of coliform bacteria, while samples collected at other locations within the same building did not. Further investigation showed that the utility sink faucet was dirty, and most likely acted as an external source to introduce coliform bacteria into the water sample while it was being collected. To prevent a recurrence of this event, the Authority will ensure that all water sampling locations have been properly cleaned and sanitized before water samples are collected.

A public notification of this event was published in the Reading Eagle on June 6, 2008, to inform customers of the situation.

**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).**

To help maintain the quality of our water, the Shillington Municipal Authority has implemented a 6% surcharge to each water bill beginning January 2008. This surcharge will be used to update facilities, replace old piping, and ensure the transmission of safe and consistent water to our customers.

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 2008. 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 web sites:

[www.wbwa.org](http://www.wbwa.org) - for information on the Western Berks Water Authority system

[www.waterdata.com](http://www.waterdata.com) - for water quality data for community water systems through  
The United States

[www.epa.gov/safewater/](http://www.epa.gov/safewater/) - EPA's drinking water web site