

Borough of Emmaus  
28 South 4<sup>th</sup> Street  
Emmaus, PA 18049

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**Emmaus Borough Water System**  
[PWSID No. PA 3390032]  
**2016 Annual Water Quality Report**

Town Hall:  
28 S. Fourth Street  
Emmaus, PA 18049-3802  
Hours: 8 a.m. – 4 p.m.  
Monday – Friday  
Phone: 610-965-9231  
Fax: 610-965-0705

Public Works Department  
(24 Hours)  
Phone: 610-965-9288



Member: Lehigh Valley Water Suppliers, Inc.

*"Working together to support the production and appreciation of high-quality water in the Lehigh Valley"*  
We welcome any comments that you may have concerning this report.

## **WATER SYSTEM INFORMATION:**

Este informe contiene información muy importante acerca de su agua potable. Haga que alguien lo traduzca para usted, ó 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.)

This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact John Dychala at 610-965-9288. We want you to be informed about your water supply. If you want to learn more, please attend any of our regularly scheduled Council Meetings held at 7:00 p.m., on the first and third Monday of each month at Emmaus Borough Hall, 28 S. Fourth Street. Find out more about the Emmaus Borough Water System at [www.borough.emmaus.pa.us](http://www.borough.emmaus.pa.us).

## **SOURCE(S) OF WATER:**

The Emmaus Borough Water System is supplied by groundwater pumped from 5 wells\* located in and around the municipal boundaries of the Borough. \*(The Borough has a 6th well, which is currently not in service due to chemical contamination).

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 microbial contaminants are available from the *Safe Drinking Water Hotline* (800-426-4791).

## **MONITORING YOUR WATER:**

As a public water supplier, 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, 2016. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. 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 date has been noted on the sampling results table.

## **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.

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

**Total Trihalomehtanes (TTHMs)** – A group of four chemicals that are formed along with other disinfection byproducts when chlorine or other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic matter in water.

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

**Violations:** During the past year, the Borough was not required to conduct a Level 1 assessment. The Borough was required to take one corrective action(s) and we completed one of these actions(s). On July 22, 2016, the Borough was notified by the Pennsylvania Department of Environmental Protection that they had not received our organic volatiles for the water distribution entry point at Well 7. This water test is done on a quarterly basis. The water test was completed, but the reports were not submitted by the due date. This violation was corrected immediately by submitting the report after we were notified.

**DETECTED SAMPLE RESULTS:**



Type of Contaminants (UNITS)	MCL or MRDL	MCLG or MRDLG	Tests Results	Range of Detection	Sample Date	Violation Y/N	Typical Source of Contamination
<b>Disinfectants &amp; Disinfection By-Products:</b>							
<b>Chlorine</b>	<b>4</b>	<b>4</b>	<b>1.05</b>	<b>.72-1.05</b>	<b>2016</b>	<b>N</b>	<b>Water additive used to control microbes.</b>
<b>Haloacetic Acids (HAA5)</b>	<b>60</b>	<b>NA</b>	<b>8.0</b>	<b>0 – 8.0</b>	<b>2016</b>	<b>N</b>	<b>By product of drinking water disinfection.</b>
<b>Trihalomethanes (TTHM) (ppb)</b>	<b>80</b>	<b>NA</b>	<b>22.9</b>	<b>5.4-22.9</b>	<b>2016</b>	<b>N</b>	<b>By product of drinking water chlorination.</b>

Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Sample Date	Violation Y/N	Sources of Contamination
<b>Disinfectants &amp; Disinfection By-Products: Entry Point Disinfectant Residual</b>						
<b>Chlorine (ppm)</b>	<b>.40</b>	<b>0.65</b>	<b>.65 – 1.43</b>	<b>2016</b>	<b>N</b>	<b>Water additive used to control microbes.</b>

Contaminant	MCL or MRDL	MCLG or MRDLG	Test Results	Range of Detection	Sample Date	Violation Y/N	Sources of Contamination
<b>Inorganic Chemicals:</b>							
<b>Nitrates (ppm)</b>	<b>10</b>	<b>10</b>	<b>4.76</b>	<b>2.56-4.76</b>	<b>2016</b>	<b>N</b>	<b>Runoff from fertilizer use.</b>
<b>Radium Combined (pCi/L)</b>	<b>10</b>	<b>0</b>	<b>3.0</b>	<b>NA</b>	<b>2014</b>	<b>N</b>	<b>Erosion of natural deposits</b>
<b>Barium (ppm)</b>	<b>2</b>	<b>2</b>	<b>0.358</b>	<b>0.0336-0.358</b>	<b>2015</b>	<b>N</b>	<b>Erosion of natural deposits</b>
<b>Lead (ppb)</b>	<b>*A.L. = 15</b>	<b>0</b>	<b>90<sup>th</sup> Percentile = 4</b>	<b>1 out of 30</b>	<b>2016</b>	<b>N</b>	<b>Corrosion of household plumbing systems.</b>
<b>Copper (ppm)</b>	<b>*A.L. = 1.3</b>	<b>1.3</b>	<b>90<sup>th</sup> Percentile = 0.126</b>	<b>0 out of 30</b>	<b>2016</b>	<b>N</b>	<b>Corrosion of household plumbing systems.</b>

\*Action Levels (A.L.) are in place of Maximum Contaminate Levels (MCL's). We had no detections of Volatile Organic Compounds or Synthetic Organic Compounds.



### **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 by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater run-off, 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, EPA and DEP prescribes regulations which 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 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* (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 materials and components associated with service lines and home plumbing. The Borough of Emmaus 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>.

### **Concerning Nitrates in Our Water:**

Nitrates 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 advice from your health care provider. The detected level of nitrates in the Borough's wells is about half of the MCL or about 5ppm.



### **Be Hydro-Logical:**

**FACT:** More water is used in the bathroom than any other place in the home.  
**ACTION:** Turn off the water when you brush your teeth and shave. Install low-flow toilets, shower heads and faucet aerators and you'll save thousands of gallons/liters of water a year. It's a savings that should reduce your water bill.

**FACT:** A dripping faucet can waste up to 2,000 gallons/7,600 liters of water a year. A leaky toilet can waste as much as 200 gallons/260 liters of water a day.

**ACTION:** Check your plumbing and repair any leaks as soon as possible.

**FACT:** Lead in household plumbing can get into your water.

**ACTION:** Find out if your pipes are lead or if lead solder was used to connect the pipes. If you have lead in your plumbing system, when you turn on the tap for drinking or cooking, let the water run until it is cold. Never use water from the hot tap for cooking or drinking.

**FACT:** What's dumped on the ground, poured down the drain, or tossed in the trash can pollute the sources of our drinking water.

**ACTION:** Take used motor oil and other automotive fluids to an automotive service center that recycles them. Patronize automotive centers and stores that accept batteries for recycling. Take leftover paint, solvents, and toxic household products to special collection centers.

**FACT:** On average, 50% - 70% of household water is used outdoors for watering lawns and gardens.

**ACTION:** Make the most of the water you use outdoors by never watering at the hottest times of the day or when it's windy. Turnoff your sprinklers when it's raining. Plant low-water use grasses and shrubs to reduce your lawn watering by 20% - 50%.

**FACT:** Lawn and garden pesticides and fertilizers can pollute the water.

**ACTION:** Reduce your use of pesticides and fertilizers and look for safer alternatives to control weeds and bugs. For example, geraniums repel Japanese beetles; garlic and mint repel aphids; and marigolds repel whiteflies.

**FACT:** Your city government and state officials regularly make decisions that affect the quality of your drinking water resources.

**ACTION:** As the population grows and housing and industrial interest expand, attend local planning and zoning meetings and ask what's being done to protect water resources from contamination. Let elected officials know that you expect them to use their hydro-logic to protect the water.

**FACT:** Public water utilities regularly test the quality of the drinking water they provide to customers.

**ACTION:** Call your water utility and ask for a copy of their latest water quality report.

### **Help Us to Help You:**

This publication is intended only for customers and users of the Borough of Emmaus Water System. If you received this publication and are not a customer or user of water provided by the Borough of Emmaus Water System please disregard this information.

The Borough of Emmaus samples for lead and copper on a regular schedule. A treatment process, which is approved by PA DEP, has been installed. This treatment process is intended to minimize corrosion of the lead and copper service lines. Future sampling will analyze the effects of this treatment process.

The Borough of Emmaus is unaware of any lead water service lines that connect the homes to the shut-off valves at the curb, which is the owner's portion of the service line. Some of the homes constructed prior to the mid 1950's may have a section of lead pipe from the water main in the street to the shut-off at the curb, which is the water department's portion of the service line. If you are unsure of the type of service line material that enters your home (your service line), personnel from the water department, by appointment, are available to assist you in identifying the material.

The Borough is committed to providing a safe and reliable supply of drinking water to all our customers. As part of that commitment we maintain active memberships in the Lehigh Valley Water Suppliers, Inc., and the American Water Works Association.

The Borough of Emmaus Water Department employees carry identification, drive municipal vehicles and, unless specially scheduled, work week days during the hours of 7:00 a.m. to 3:00 p.m.

Water Department employees will, on occasion, contact residents for the purpose of making arrangements for water sampling. During these times, the employees will identify themselves. If you are ever suspicious of a person representing themselves as an employee of the water department or if a person does not appear to have proper identification DO NOT allow them to access your home. You can call the Borough's office at **610-965-9288 or 610-965-9231** and someone can verify the location of our employee.

It is very important that we are able to obtain water samples for testing purposes and if you are contacted to be a potential sampling location your cooperation is appreciated.

Sincerely,  
John Dychala  
Public Works Director

Learn more about the Emmaus Borough water system at our web site:  
[www.borough.emmaus.pa.us](http://www.borough.emmaus.pa.us).



### **FOR MORE INFORMATION**

You can consult a variety of sources for additional information:

**Your family doctor or pediatrician** can perform a blood test for lead and provide you with information about the health effects of lead.

**State and local government agencies** that can be contacted include:

**The Pennsylvania Department of Public Health at (717-783-8451) or  
1-800-440-5323 (leadline information) or the  
Lehigh County Health Department at (610-821-6770)**

can provide you with information about the health effects of lead and tell you how and where you can have your child's blood tested.

**The Pennsylvania Department of Environmental Protection (DEP) (610-861-2070)**  
can provide you with information on this and other environmental programs.

The following is a list of three state approved laboratories in our area that perform water sample testing:

**Benchmark Analytics**  
4777 Saucon Creek Road  
Center Valley, PA 18034  
Phone: 610-974-8100

**A-B-E Laboratory**  
7596 B Bath Pike  
Bath PA, 18014  
Phone: 610-837-7721

**M. J. Reider Associates, Inc.**  
107 Angelica Street  
Reading, PA 19611  
Phone: 610-374-5129