

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]

2008 Annual Water Quality Report

Business Office:  
28 S. Fourth Street  
Emmaus, PA 18049-3802

Hours: 8 AM – 4 PM  
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.

**This is an annual report** relating to the quality of water delivered by the Emmaus Borough Water System. This report is in compliance with the federal Safe Drinking Water Act (SDWA) requirement for "Consumer Confidence Reports" and contains information on the source of our water, its constituents, and the health risks associated with any contaminants. Safe water is vital to our community. **Please read this report carefully** and, if you have questions, call the numbers listed in this report.

**Este informe contiene informacion muy importante sobre su agua potable. Traduzcalo ó hable con alguien que lo entienda bien.**

## The bottom line: Is the water safe to drink? Absolutely.

**We encourage public interest** and participation in our community's decisions affecting drinking water. Regular Council meetings occur on the first and third Monday of each month, at Emmaus Borough Hall, 28 S. Fourth St., Emmaus at 7:00 PM. Any changes to the meeting schedules will be published in the local newspaper. The public is welcome.

**Find out more** about the Emmaus Borough Water System at [www.borough.emmaus.pa.us](http://www.borough.emmaus.pa.us).

## Water Source

**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).

**2008 Contaminant Table**

Inorganic Contaminants	Date Tested	Units	MCL	MCLG	Detected Level	Range	Major Sources of Contamination	Violations
Nitrate	Quarterly	ppm	10	10	4.68	2.38-4.68	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	NO

Lead/Copper	Date Tested	Units	MCL	MCLG	Detected Level	Range	Major Sources of Contamination	Violations
(a) Lead	8/9/07	ppb	AL=15	0	5	na (a)	Corrosion of household plumbing systems; Erosion of natural deposits	NO
(a) Copper	8/1/07	ppm	AL=1.3	1.3	0.036	na (a)	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.	NO

Radioactive Contaminants	Date Tested	Unit	MCL	MCLG	Detected Level	Range	Major Sources of Contamination	Violations
Gross Alpha	2/6/03	pCi/L	15	0	1.5	na	Erosion of natural deposits.	NO
Radium 226	3/15/08	pCi/L	15	0	0.13	na	Erosion of natural deposits.	NO
Radium 228	3/19/08	pCi/L	15	0	0.89	na	Erosion of natural deposits.	NO

Disinfection By Products	Date Tested	Unit	MCL	MCLG	Detected Level	Range	Major Sources of Contamination	Violations
TTHMs (Total Trihalomethanes)	8/8/08	ppb	80	na	12.7	.6-12.7	By-product of drinking water chlorination.	NO
HAA5 (Haloacetic Acid)	8/28/2009	pCi/L	60	na	1	0-.001	By-product of drinking water chlorination	NO

Disinfectants	Date sampled	Unit	MRDL	MRDLG	Detected Level	Range	Typical Source of Contaminant	Violations
Chlorine	Monthly	ppm	4	4	0.5	.34-.50	Water additive used to control microbes.	NO

### Water-Quality Table Footnotes:

(a) 0 out of 30 sites tested were above the AL

### Key to Table

AL = Action Level  
MCL = Maximum Contaminant Level  
MCLG = Maximum Contaminant Level Goal  
MRDL = Maximum Residual Disinfectant Level  
MRDLG = Maximum Residual Disinfectant Level Goal  
pci/l = picocuries per liter (a measure of radioactivity)  
ppm = parts per million, or milligrams per liter (mg/l)  
corresponds to 1 minute in 2 years, or one penny in \$10,000.  
ppb = parts per billion, or micrograms per liter (ug/l)  
corresponds to 1 minute in 2,000 years, or one penny in \$10,000,000.

## What Does This Table Mean?

The table on the opposite page lists all the drinking water contaminants that we detected during the 2008 calendar year, or the most recent testing done in accordance with the current regulations. The presence of these contaminants in the drinking water does not necessarily indicate the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 to December 31, 2008. The state requires us to test for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old, as indicated by the test date. Although we tested for many contaminants, only substances that were detected are listed.

**Maximum Contaminant Level or 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 or 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.

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**Maximum Residual Disinfectant Level or 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 or 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.

### Additional Health Information

**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. FDA regulations establish limits for contaminants in bottled water, which much provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at the least small amounts of some contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (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 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 storm runoff, industrial or domestic wastewater, oil and gas production, mining, or farming.
- ▶ Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.
- ▶ Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.
- ▶ Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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

### Concerning Lead in Our Water

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested or flush your tap for 1 to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

The United States Environmental Protection Agency (EPA) and the Borough of Emmaus are concerned about lead in your drinking water. If you have any questions about how we are carrying out the requirements of the lead regulation or desire additional information please give us a call at (610) 965-9288.

### 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.

## **The Little Lehigh Creek Watershed**

The Little Lehigh Creek Watershed is a great resource for drinking water as well as passive and active recreation. The Pennsylvania Department of Environmental Protection (PA DEP) classifies the Little Lehigh Creek as a High Quality-Cold Water Fishery (HQ-CWF). However, the creek does have problems and is in need of attention as documented by the PS DEP's list of impaired streams, which describes that the Little Lehigh Creek suffers from land development and agricultural pollution due to increased storm water runoff and sediment.

Two groups have been formed through funding made available by the Pennsylvania Department of Environmental Protection's "Growing Greener Initiative" aimed at the protection of the Little Lehigh Creek watershed.

**The Alliance for the Little Lehigh Watershed** is made of a core group of local conservationists, academic and governmental groups as well as the City of Allentown's Water Resources Department. The Alliance for the Little Lehigh Watershed's mission is to preserve, protect and enhance the environmental health of the Little Lehigh Creek watershed, through water quality monitoring, education, restoration and the formation of broad-based partnerships.

The Alliance for the Little Lehigh Watershed is a project of:

**Wildlands Conservancy • City of Allentown  
Pennsylvania Growing Greener**

**A Multi-Municipal Environmental Advisory Council** has recently been formed by the Borough of Emmaus and Upper Milford Township. The purpose of the Council is to address recommendations contained in the Leibert Creek Watershed Assessment and the Wellhead Protection Plan, as well as other environmental concerns.

The Environmental Advisory Council is a project of:

**Emmaus Borough • Upper Milford Township**

## **Did you know that the Little Lehigh Creek Watershed...?**

- ▶ Supplies drinking water to approximately 137,000 people in the City of Allentown and surrounding communities.
- ▶ provides 7 million gallons per day of creek or surface water.
- ▶ provides 10 million gallons per day of ground water.
- ▶ Has approximately 88.8 square-miles of drainage basin located in Lehigh County and approximately 18.7 square-miles located in Berks County.
- ▶ Flows 24 miles from its origin in Longswamp Township, in Berks County, through Lower Macungie and Salisbury Townships and the City of Allentown before being joined by the Jordan Creek and eventually flowing into the Lehigh River.

### **What can you do...?**

Investigate all of the sources/types of non-point source pollution in your everyday life and try to find ways of reducing them.

- ▶ Non-point source pollution – comes from diffuse, intermittent, and non-stationary sources usually in the form of runoff from farm fields or urban areas during storm events rather than readably identifiable sources such as smokestacks or pipes. Examples: trash, oil and gas from vehicles, fertilizers, pesticides, sediment and stormwater.

Practice Best Management Practices (BMPs) in your watershed. **The actions of one person can make a difference.**

- ▶ BMPs – techniques utilized to reduce the amount of non-point source pollution either generated or allowed to run off the land into waterways.

- ▶ Examples of BMPs: maintain vehicles properly preventing leaks, use garden products (fertilizers and pesticides) sparingly, do not throw trash down storm drains, do not litter, do not allow soil to erode and run off site and do not empty pools/hot tubs into creeks and/or wetlands.
- ▶ Farmers can contact their local Natural Resources Conservation Service for lists of agricultural BMPs as well as potential funding sources to implement these improvements.
- ▶ Residents of more urban and suburban settings can contact their local municipality, local conservation district office, or the Environmental Advisory Council to learn more about urban BMPs.

Get involved in your watershed. Contact your municipality, local environmental/conservation organization, or the Alliance for the Little Lehigh Watershed (Chris Kocher 610-965-4397x23 [ckocher@wildlandspa.org](mailto:ckocher@wildlandspa.org)) or the Environmental Advisory Council (Jeff Clapper 610-965-9288, [jclapper@borough.emmaus.pa.us](mailto:jclapper@borough.emmaus.pa.us)) and find out how you can get involved to preserve our water resources for future generations.

**For more information**

Contact Jeffry D. Clapper, waterworks operator, at Emmaus Borough's offices (610-965-9288) 8AM-4PM  
Learn more about the Emmaus Borough water system at our web site: [www.borough.emmaus.pa.us](http://www.borough.emmaus.pa.us).

**ADDITIONAL INFORMATION**

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 of Emmaus Water Department employees carry identification, drive municipal vehicles and, unless specially scheduled, work week days during the hours of 7 AM to 3 PM.

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,

Jeffry D. Clapper  
Public Works Director  
Borough of Emmaus

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

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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 Borough of Emmaus Public Works Department (610-965-9288)

can provide you with information about your water supply.

**The Borough of Emmaus Zoning Office (610-967-1322)**

can assist in providing you with available information about building permit records that may contain the names of plumbing contractors that plumbed your home.

**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**

**M. J. Reider Associates, Inc.**

**107 Angelica Street**

**Reading, PA 19611**

**Phone: 610-374-5129**

**A-B-E Laboratory**

**7596-B Bath Pike**

**Bath, PA 18014**

**Phone: 610-837-7721**