

**2009 Annual Drinking Water Quality Report  
Lyons Borough Municipal Authority  
PWSID # 3060096**

**We're pleased to present to you this year's Annual Water Quality Report (Consumer Confidence Report). This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water sources are two wells. Currently, two springs are not being utilized. The Authority also maintains a 150,000-gallon storage tank in the event of water emergencies or droughts. These sources supply slightly over 200 connections. The Authority currently provides water to portions of both Lyons Borough and Maxatawny Township. "Este informe contiene informacion muy importante sobre su agua beber. Traduzcalo o hable con alguien que lo entienda bien."**

We at Lyons Borough Municipal Authority work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of the community, our way of life and our children's future. Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for your understanding.

If you have any questions about this report or concerning your water utility, please contact Lyons Borough Municipal Authority at 610-682-0305. We want our valued customers to be informed about their Water Utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the second Monday of each month at 7:00 p.m. at the Lyons Borough Hall located at 316 South Kemp Street.

Lyons Borough Authority routinely monitors for contaminants in your drinking water according to Federal and State laws. The enclosed table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2009 for contaminants that were detected. **We are pleased to report that our drinking water meets federal and state requirements.**

In this table, you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms, please refer to the "**Definitions**" in the back of this report.

As noted on the table, nitrates have been detected but have not exceeded the MCL (maximum contaminant level). Monitoring is ongoing and if nitrate levels should begin to approach or exceed the MCL, you will be informed immediately. We are required to inform you of the health effects of nitrate, as follows: Nitrate in drinking water at levels of about 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: Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and 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.

We constantly monitor for various constituents in the water supply to meet all regulatory requirements. As you can see by the table, our system had no exceeded levels in 2009. We have learned through our monitoring and testing that no MCL limits set by the Pennsylvania Department of Environmental Protection (DEP) and the United States Environmental Protection Agency (EPA) were exceeded.

*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 (1-800-426-4791).*

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. Lyons Borough 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 or at <http://www.epa.gov/safewater/lead>.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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 (1-800-426-4791).

The sources of drinking water (both tap 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 materials 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 storm water runoff, 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 storm water runoff 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 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.

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 of the regulated contaminants, 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.

**DEFINITIONS**

**Non-Detects (ND)** – laboratory analyses indicates that the constituent is not present.

**Mg/l- Parts per million (ppm) or Milligrams per liter** – one part per million corresponds to one minute in two years or a single penny in \$10,000.00.

**Ug/l - 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 \$10,000,000.00.

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

**Action Level** – the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

**Maximum Contaminant Level (MCL)** – The “Maximum Allowed” (MCL) is the highest level of a contaminant that is allowed in drinking water. MCL’s are set as close to the MCLG’s as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal (MCLG)** – The “Goal” (MCLG) is the level of a contaminant in drinking water below, which there is no known or expected risk to health. MCLG’s 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. MRDLG’s do not reflect the benefits of the use of disinfectants to control microbial contamination.

**NTU- Nephelometric Turbidity Unit** – nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

<b>TEST RESULTS</b>						
<b>(Contaminant unit of measurement)</b>	<b>Violation Y/N</b>	<b>Level Detected</b>	<b>Range</b>	<b>EPA MCLG (EPA Goal)</b>	<b>MCL</b>	<b>Likely Source of Contamination</b>
<b>Disinfection Byproducts</b>						
Chlorine	N	0.97	0.63-0.97 mg/l	MRDLG= 4mg/l	MRLD= 4 mg/l	Water additive used to control microbes
Haloacetic Acids (2008)	N	.0020 mg/l	.0010-.0020 mg/l	60 ug/l	60 ug/l	Byproduct of disinfection
Trihalomethanes (2008)	N	.0035 mg/l	.00052-.0035 mg/l	80 ug/l	80 ug/l	Byproduct of disinfection
<b>Inorganic Contaminants</b>						
Nitrate (as Nitrogen)(ppm)	N	5.49 mg/l	4.31-5.49 mg/l	10.0	10.0	Runoff from fertilizers, septic tanks, geology
Calcium(2005)	N	42.10 mg/l	36.30-42.10 mg/l	N/A	N/A	Found mostly in soil system such as limestone
Total Alkalinity (2005)	N	150.00 mg/l	150 mg/l	N/A	N/A	Naturally occurring soluble mineral salts
Fluoride (2003)	N	0.1 mg/l	0.1 mg/l	4 mg/l	2 mg/l	Natural deposits, fertilizers, aluminum factories
Barium (2003)	N	0.146 mg/l	0.146 mg/l	2 mg/l	2 mg/l	Metal refineries, drilling wastes, natural deposits
<b>Radioactive Contaminants</b>						
Gross Alpha (pCi/L) (2003)	N	3.56	3.56	0 pCi/l	15 pCi/l	Erosion of natural deposits
Combined Uranium (2003)	N	1.59	1.59	0 pCi/l	30 pCi/l	Erosion of natural deposits
Radium (226 & 228)- (2003)	N	0.52	0.42-0.52 pCi/l	0pCi/l	5 pCi/l	Erosion of natural deposits

<b>LEAD &amp; COPPER RULE</b>							
<b>Substance</b>	<b>Violation Y/N?</b>	<b>Range of Detected Values</b>	<b>90<sup>th</sup> Percentile</b>	<b>Action Level</b>	<b>EPA MCLG</b>	<b># of Sites above Action Level of Total Sites</b>	<b>Sources of Contaminant</b>
Copper mg/l (2007)	N	0.33-0.296	0.142	1.3	1.3	0 out of 10	Corrosion of pipes, geology, wood preservatives
Lead ug/l (2007)	N	ND-6.4	2	15	0	0 out of 10	Corrosion of old pipes, geology

<b>Undetected Contaminants Tested for by Lyons Borough Municipal Authority</b>			
<b><u>Inorganic Chemicals</u></b>		<b><u>Volatile Organic Contaminants</u></b>	
Antimony (2006)	Iron (2001)	1,1,1-Trichloroethane	Ethylbenzene
Arsenic	Mercury (2003)	1,1,2- Trichloroethane	o-Dichlorobenzene
Beryllium (2003)	Nickel (2001)	1,1-Dichloroethylene	Para-Dichlorobenzene
Cadmium (2003)	Nitrite (2001)	1,2,4- Trichlorobenzene	Styrene
Chloride (2001)	Selenium (2003)	1,2- Dichloroethane	Tetrachloroethylene
Chromium (2003)	Thallium (2003)	1,2-Dichloropropane	Toluene
Cyanide (Free, 2003)	Zinc (2003)	Benzene	Trans-1,2-
		Carbon tetrachloride	Dichloroethylene
		Chloroenezene	Tichloroethylene
<b><u>Synthetic Organic Chemicals</u></b>		Cis-1,2-Dichloroethylene	Vinyl chloride
Alachlor	Methoxychlor	Dichloromethane	Xylenes (Total)
Atrazine	Simazine		
Lindane			
		<b><u>Microbiological Contaminants</u></b>	
		Total Coliforms	