

Know the Health Risks (Continued)

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 at 1-800-426-4791

Nitrate in drinking water at levels above 10ppm 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.

As a precaution we always notify physicians and health care providers in this area if there is a ever a higher than normal level of nitrates in the water supply. In 2002, the Department of Environmental Protection completed a Source Water Assessment for the Wernersville Municipal Authority (Authority). This Assessment evaluated potential contaminant threats to the raw water sources used by the Authority and the susceptibility of the sources to these threats.

- The following top three concerns were identified:
1. Bacterial contamination of sources by malfunctioning residential on-lot septic systems.
 2. Contamination of Well #8 from runoff flowing into an abandoned quarry.
 3. Nitrate and pesticide contamination of sources originating in agricultural areas.

A Source Water Assessment for the Western Berks Water Authority (PWSID #3060066) was also completed by the Philadelphia Water Department, working under contract for the Pennsylvania Department of Environmental Protection in 2002.

If you have any questions about this report or concerning your water utility, please contact Robert L. Walborn, Authority Manager, at the Authority office at 610-678-4711.

If you have questions regarding water conservation methods, please visit our office for additional information.

WERNERSVILLE MUNICIPAL AUTHORITY

We at the Wernersville Municipal Authority work around the clock to provide top quality water to every tap. Therefore, we ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

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 at 7:00 PM on the first Tuesday of every month at the Authority Administration Building, 250 North Elm Street, Wernersville. Visit us at our website:

www.wernmunauth.org

Undetected Impurities Tested for by Wernersville Municipal Authority

Inorganic Contaminants

- Aluminum*
- Ammonia, as Nitrogen*
- Antimony (2006)
- Arsenic
- Barium (2006)
- Beryllium (2006)
- Cadmium (2006)
- Chromium, Hexavalent*
- Chromium, Total (2006)
- Cyanide, Free (2006)
- Cyanide, Total*
- Iron*
- Mercury (2006)
- Nickel (2006)
- Selenium (2006)
- Silver*
- Thallium (2006)

Microbiological Contaminants

- Total Coliform

Organic Contaminants

- 1,1 - Dichloroethane*
- 1,1 - Dichloroethylene (2008)
- 1,1 - Dichloropropene*
- 1,1,1 - Trichloroethane (2008)
- 1,1,1,2 - Tetrachloroethane*
- 1,1,2 - Trichloroethane (2008)
- 1,1,2,2 - Tetrachloroethane*
- 1,2 - Dichlorobenzene*
- 1,2 - Dichloroethane (2008)
- 1,2 - Dichloropropane (2008)*
- 1,2,3 - Trichlorobenzene*
- 1,2,3 - Trichloropropane*
- 1,2,4 - Trichlorobenzene (2008)
- 1,3 - Dichlorobenzene*
- 1,3 - Dichloropropane*

Organic Contaminants (Cont.)

- 1,4 - Dichlorobenzene*
- 2,2 - Dichloropropane*
- 2-Chloroethylvinyl ether*
- Alachlor (2008)
- Atrazine (2008)
- Benzene (2008)
- Bromoform*
- Bromomethane*
- Carbon Tetrachloride (2008)
- Chlorobenzene*
- Chloroethane*
- Chloroform*
- Chloromethane*
- cis-1,2-Dichloroethylene (2008)
- cis-1,3-Dichloropropylene*
- Dibromomethane*
- 2,4-D (2008)
- Dicamba (2001)*
- Dichloromethane (2008)
- Dichlorobromomethane*
- o-Dichlorobenzene (2008)
- Ethylbenzene (2008)
- Glyphosate (2001)
- Metholachlor (2001)
- Methylene Chloride*
- Styrene (2008)
- Tetrachloroethylene (2008)
- Toluene (2008)
- Total Petroleum Hydrocarbons*
- trans-1,2-Dichloroethylene (2008)
- trans-1,3-Dichloropropylene*
- Trichloroethylene (2008)
- Vinyl Chloride (2008)
- Xylenes, Total (2008)

Radiological

Other

* Unregulated Contaminants are shown in italics above. All contaminants are not sampled every year. Those contaminants which were not sampled in 2009 are noted with the last year of sampling in the table above.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

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Wernersville PA 19565-0145
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Office Hours:
8:30 a.m. to 2:30 p.m.
Monday through Friday

PWSID# 3060076

2013



Water Quality

Report

WERNERSVILLE MUNICIPAL AUTHORITY

P.O. Box 145, 250 North Elm Street
Wernersville PA 19565-0145

Tel.:610-678-4711

Email: wma@comcast.net

Public Water Supply Identification Number (PWSID#) is 3060076

We are pleased to present to you this year's Water Quality Report. This report is designed to inform you about the quality of 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 maintain and improve the water treatment process and protect our water resources. Last year, the Wernersville Municipal Authority provided nearly 220 million gallons of water to almost 2, 200 customers.

Our water sources include eleven springs, four active wells and a tunnel well located in South Heidelberg Township, south of Wernersville along Furnace Road. In addition, we have one well in the Borough. During the year, the Western Berks Water Authority served as a regular water supplier to our system. This supplier, which provided approximately 2.0% of our total demand, has made our supply system much more reliable and will ensure a safe supply for decades to come. We are committed to ensuring the quality of your water.

What does this mean?

As you can see by the table, although trace elements and compounds were present, the WMA had no MCL violations. **We are pleased to report that our drinking water meets federal and state contaminant limit requirements.** The WMA routinely monitors for impurities in your drinking water according to federal and state laws. The table herein shows the results of our monitoring for the period of January 1st to December 31st, 2013.

Definitions:

In the tables in this report 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:

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

MCL - Maximum Contaminant Level: 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.

mg/l - Milligrams per liter or Parts per million (ppm): one milligram per liter corresponds to one minute in two years or a single penny in \$10,000.

MRDL - Maximum Residual Disinfectant Level: 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.

MRDLG - Maximum Residual Disinfectant Level Goal: 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.

ND - Non-Detectable Levels: Lab sample levels are too low for the testing equipment to identify particular impurity.

NTU - Nephelometric turbidity Units: Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our water quality.

pCi/l - Picocuries per liter: Picocuries per liter is a measure of the radioactivity in water.

TT - Treatment Technique: A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

ug/l - Micrograms per liter: one microgram per liter corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Impurities Detected by Wernersville Municipal Authority

| Substance | WMA Range of Detected Values | WMA Highest Detected Level | Highest Level Allowed (MCL) | EPA MCLG (EPA Goal) | Sources of Contaminant | Violation Y/N | |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------------|-----------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------|
| Radiobiological Contaminants | | | | | | | |
| Gross Alpha (2011) | ND—15.69 pCi/l | 15.69 pCi/l | 15 pCi/l | N/A | Erosion of natural deposits | N | |
| Radium (226-228) (2011) | ND—3.05 pCi/l | 3.05 pCi/l | 5 pCi/l | N/A | Erosion of natural deposits | N | |
| Combined Uranium (2011) | ND—3.12 pCi/l | 3.12 pCi/l | 20 pCi/l | N/A | Erosion of natural deposits | N | |
| Disinfectant and Disinfectant By- Products | | | | | | | |
| Total Trihalomethanes (TTHMs) | 1.5—11.7 ug/l | 11.7 ug/l | 80 ug/l | | By-product of drinking water chlorination | N | |
| Haloacetic Acids (five) | ND— 2 ug/l | 2 ug/l | 60 ug/l | | By-product of drinking water chlorination | N | |
| Chlorine | 0.58— 0.75 mg/l | 0.75 mg/l | 4.0 mg/l | | Water additive used to control microbes | N | |
| Inorganic Contaminants | | | | | | | |
| Nitrate (as Nitrogen) | 1.99— 5.69 mg/l | 5.69 mg/l | 10 mg/l | | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits | | |
| Substance | WMA Detection Range | 90th Percentile Value | Action Level (AL) | EPA MCLG (EPA Goal) | # of Sites Above AL of Total Sites | Sources of Contaminant | Violation Y/N |
| Copper (2013) | 42—224 ug/l | 191 ug/l | 1.3 mg/l | 1.3 mg/l | 0 of 20 | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives | N |
| Lead (2013) | ND— 21 ug/l | 6 ug/l | 15 ug/l | 0 ug/l | 1 of 20 | Corrosion of household plumbing systems; Erosion of natural deposits | N |
| Entry Point Disinfectant Residual | | | | | | | |
| Substance | Minimum Disinfectant Residual | Lowest Level Detected | Range of Detections | Sources of Contaminant | Violation Y/N | | |
| Chlorine | 0.40 | 0.40 | 0.40-1.41 | Water additive used to control microbes | N | | |
| Microbial | | | | | | | |
| Substance | MCL | MCLG | The Highest # of Positive Samples | Sources of Contaminant | Violation Y/N | | |
| Total Coliform Bacteria | For systems that collect <40 samples/month: •More than 1 positive monthly sample For systems that collect ≥40 samples/month: • 5% of monthly samples are positive | 0 | 0 | Naturally present in the environment. | N | | |
| Fecal Coliform Bacteria or E. coli | 0 | 0 | 0 | Human and animal fecal waste. | N | | |
| Impurities Detected by the Western Berks Water Authority | | | | | | | |
| Substance | WBWA Range of Detected Values | WBWA Highest Detected Level | Highest Level Allowed (MCL) | EPA MCLG (EPA Goal) | Sources of Contaminant | Violation Y/N | |
| Flouride (2012) | 0.7 mg/l | 0.7 mg/l | 2.0 mg/l | 4.0 mg/l | Water additive which promotes strong teeth | N | |
| Total Organic Carbon ¹ | N/A | N/A | TT | N/A | Naturally present in the environment | N | |
| Physical Properties | | | | | | | |
| Substance | MCL | EPA MCLG (EPA) | Highest Level Detected | Sources of Contaminant | Violation Y/N | | |
| Turbidity ² | TT | TT | 0.257 NTU | Soil Runoff | N | | |

*The PA DEP allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Items not sampled for in 2011 are noted with the last year of sampling.

Unregulated impurities are shown in italics in the table above. Unregulated contaminant monitoring helps DEP and EPA to determine whether certain contaminants occur and whether they need to regulate those contaminants.

**The 90th percentile results were reported for Copper and Lead as the Highest Detected Levels. No Copper or Lead samples taken were above the required Action Level (AL) shown above..

This information is provided by Western Berks Water Authority, which provides a small portion of our water supply:

1. A 'percent removal' is specified with regard to treatment for Total Organic Carbon. This percent removal is determined by the amount of alkalinity in the raw water source. Given the levels of alkalinity in our raw water, our percent removal requirement is either 15% OR 25%. The removal rate achieved by our treatment was between 36.5% and 49.4%.
2. TT=Treatment Technique; to meet TT standard, at least 95% of monthly samples must be less than or equal to 0.3 NTU. Also TT=1.0 NTU for a single measurement. 100% of all readings at required sample times were below the TT value of 0.3.

Know the Health Risks

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. Wernersville 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>.

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 minerals and, in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity. All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or man-made. Those constituents 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. 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. 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.

MCLs 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. 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.

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