

Annual Drinking Water Quality Report

For The

Boyertown Water System

PWSID # 3060081

Operated by Severn Trent Services, Inc.

We are pleased to present to you the **2011** Annual Drinking Water Quality Report. This report is designed to inform you about the water quality and services we deliver to you every day. We are proud that your water system was recognized for “outstanding efforts towards optimization of filter plant performance” by EPA Region 3 and the PADEP in calendar years 2008 and 2009.

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

Sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the land surface 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.

Our water sources are surface water from a 700 acre watershed area supplying the Trout Run and Popodickon Reservoirs, and from the Ironstone Creek. The Boyertown Municipal Authority is concerned with protecting its water sources. 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, can be naturally occurring or result from storm water run-off, oil and gas production, mining or farming.

Herbicides and pesticides may come from a variety of sources such as agriculture, storm water run-off or residential uses.

Organic chemical contaminants, including synthetic (SOC) and volatile organic (VOC) chemicals, are by-products of industrial processes and petroleum production and can also come from gas stations, storm water run-off or septic systems.

Radioactive contaminants can be naturally occurring or be the result of oil and gas production or mining activities.

In 2002, the PADEP and the Philadelphia Water Department, under contract for the PADEP, completed a Source Water Assessment for the Boyertown Water System. 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 two concerns were identified:

1. Spills resulting from vehicle accidents on Route 73 or Powder Mill Hollow Road.
2. Bacteria, nitrate and pesticide contamination from agricultural run-off into Ironstone Creek.

Current treatment processes ensure that raw water from the Authority's reservoirs, creek intake and springs becomes finished water that meets all federal and state drinking water standards. A copy of the Source Water Assessment Report is available for review from the Authority.

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. 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 Maximum Contaminant Level (MCL), for a lifetime, to have a one-in-a-million chance of having the described health effect.

The Boyertown Water System is routinely monitored for constituents in your drinking water according to federal and state laws. The following table lists contaminants that we detected for the reporting period of **January 1st to December 31st, 2010**. 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, though representative, are more than one year old. In the table 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:

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 (ug/l) – one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

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

Action Level (AL) – 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 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 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 highest level of a drinking water disinfectant below which there is no known or expected risk to health. MCLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

Minimum Residual Disinfectant Level – The minimum level of residual disinfectant required at the entry point of the distribution system.

DETECTED CONSTITUENTS							
Contaminant (Unit of Measure)	Violation Y/N	Level Found	Sample Date	MCLG	MCL	Typical Source of Contamination	
Total Coliform	N	1 positive sample	01/05/2010	0	Two or more positive samples/month	Naturally present in the environment	
Contaminant (Unit of Measure)	Violation Y/N	Highest Level Detected	Range	MCLG	MCL	Typical Source of Contamination	
Turbidity* (ntu)	N	0.11	100 (Lowest Monthly % of samples meeting TT/mo.)	0	95% of monthly samples TT ≤ (0.3)	Soil Run-off	
VOLATILE ORGANICS							
TTHM (Total Trihalomethanes) (ppb)	N	69	39-120	N/A	80	Byproduct of drinking water chlorination	
Haloacetic Acids (5) (ppb)	N	55	7-93	N/A	60	Byproduct of drinking water chlorination	
TOC (Total Organic Carbon) (ppm)	N	1.6	1.6	N/A	TT	Naturally occurring organic matter	
INORGANICS (Customer Tap)							
Contaminant (Unit of Measure)	Violation Y/N	Level Detected	Range	# Sites Above AL	MCLG	MCL	Source of Contamination
Copper (ppm) June 2010	N	0.0367	0.003-0.058	0	1.3	AL = 1.3	Home water pipes
Lead (ppb) June 2010	N	2.9	0-4	0	0	AL = 15	Home water pipes
Chemical Contaminants							
Contaminant (Unit of Measure)	Violation Y/N	Entry Point Range; (min)	Customer Tap Range; (max)	MRDLG	MRDL	Source of Contamination	
Chlorine (ppm)	N	0.6-2.3; (0.6)	0.06-2.2; (2.2)	4	4	Water additive used to control microbes	
Entry Point Disinfectant Residual							
Contaminant (Unit of Measure)	Violation Y/N	Lowest Level Detected	Range of Detection	Minimum Disinfectant Residual	Source of Contamination		
Chlorine (ppm)	N	0.6	0.6 – 2.3	0.2	Water additive used to control microbes		

* Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. For Turbidity, the Treatment Technique (TT) depends on the type of filtration provided. Compliance is based on 95% or more of the samples being ≤ 0.3 NTU. **Note:** No single sample may exceed 1.0 NTU.

What does all this mean?

As you can see under the “Violation” heading in the table, your system had **no** violations for detected contaminants. We’re proud that your drinking water test results meet all federal and state limits. Two test results submitted by an independent lab were not received by the PADEP in a timely manner, although the sampling and testing was completed on time.

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. 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.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemo-therapy, 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) or the Pennsylvania Department of Environmental Protection (610) 916-0100.

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 Boyertown water system 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>.

Please call our office (610-369-3041), and ask for Marc DesAutels, if you have questions. We at Severn Trent Services, and the Boyertown Water System, 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 our community, our way of life and our children's future. If you want to learn more, please attend any of our regularly scheduled meetings. They are held at 7:00 p.m. on the second Wednesday before Borough Council meetings as posted at the Boyertown Borough Hall.