

2008 Water Quality Report

Public Water
System
I.D. 4140096

Spring / Summer
2009

Important Notice

English

This Water Quality Report contains important information about your drinking water. Translate it, or speak with someone who understands it.+

Español

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

Inside this issue:

Special Needs	2
Crypto / Giardia	2
Educational Info	2
Nitrate	3
Definitions	3
Sources of Supply	3
Lead in Water	3
Water Quality	4

HIGH QUALITY WATER

The State College Borough Water Authority is pleased to present our annual “**Water Quality Report**” for the year **2008**. Included in this report is information about the quality of our water and how it compares to standards set by state and federal agencies. We would like to recognize our thirty-six employees and seven Authority members for their hard work and dedication and our customers for their support in helping to build one of the best water systems in Pennsylvania. A water system that each year consistently **meets all regulatory standards**.

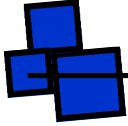
The Authority system includes a water treatment plant, twenty-three wells and one reservoir with a total permitted usage of 9.1 million gallons of water per day. The SCBWA serves the Borough of State College and portions of Benner, Colledge, Ferguson, Harris and Patton Townships. The name and municipal location of each well field and the reservoir can be found on page 3 of this report. Copies of this report may be obtained by calling (814) 238-6766 or by visiting our website at www.scbwa.org.

PHARMACEUTICALS

In 2008, newspapers across the country printed a number of stories focusing on the occurrence of trace pharmaceuticals in public drinking water. While the concentrations of these pharmaceuticals were extremely small (parts per trillion), the idea that any public water supply might contain traces of these drugs and medications was alarming to many. As a result of these stories and our immediate concern as to what we might find in our water supplies, we decided to test our water to see if pharmaceuticals might be present.

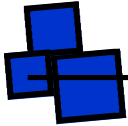
Of the twenty-four endocrine disruptor chemicals/pharmaceuticals that we tested for, we are pleased to report that we detected only two of the substances in our raw water and two in our finished water. The testing levels were in parts-per-trillion (ng/l). In our raw water, we found Sulfamethoxazole (3.4 ng/l), an antibiotic and Atrazine (71ng/l), an herbicide. In our finished water (water that has been treated), we found Atrazine (50 ng/l) and Bisphenol A (38 ng/l), a plasticizer for plastic bottles. The analytical techniques used to detect these substances are so sensitive that Bisphenol A was detected from the plastic bottle used to collect the finished water sample (it was not detected in the raw water).

The Maximum Contaminant Level (MCL) set by the Environmental Protection Agency is 3 parts-per-billion for Atrazine and we detected 3.4 parts-per-trillion. There are currently no MCLs for Sulfamethoxazole or Bisphenol A. The results of the testing were excellent. Once again, State College Borough Water Authority water has proven to be of the highest quality.



SPECIAL NEEDS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons - such as persons with cancer and undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, or some elderly persons and infants - can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.



CRYPTO / GIARDIA

Cryptosporidium and Giardia are microscopic organisms that, when ingested, can result in diarrhea, fever and other gastrointestinal symptoms. The State College Borough Water Authority has tested for Cryptosporidium and Giardia in all required wells and has never detected them in treated water. Giardia was discovered in our reservoir in 1988 and resulted in the building of our filtration plant. These organisms are found in rivers and streams and come from animal wastes. Both are eliminated in our water by an effective treatment combination including filtration, coagulation and disinfection. The Environmental Protection Agency (EPA) and the Centers for Disease Control and Prevention (CDC) guidelines on the appropriate means to lessen the risk of infection by Giardia, Cryptosporidium and other microbial contaminants are available by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.



EDUCATIONAL INFORMATION

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 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 and farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff and residual sources.
- 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.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (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.

Nitrate

Nitrate can be found in drinking water in many rural Pennsylvania communities. It is the primary source of nitrogen for plants. Although nitrate is known to originate from various sources, agricultural practices are generally considered to be the most serious source of contamination.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than 6 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 for advice from your health care provider.

Definitions

(Treated Water Quality Report)

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goals 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 known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

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

ppm - One (1) part per million. Comparable to one (1) milligram per liter. **ppb** - One (1) part per billion}

Turbidity (NTU) - Nephelometric Turbidity Units - A measure of water clarity. Good indicator of effectiveness of filtration.

pCi/L - Picocuries per liter, a measure of the radioactivity in water.

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

Non-Detect - Laboratory analysis indicates that a contaminant is not present at a detectable level.

More information about contaminants and potential health effects can be obtained by calling the EPA "Safe Drinking Water Hotline" at 1-800-426-4791. For questions about the quality of SCBWA drinking water, call David R. Nevel at (814) 238-6766.

Sources of Supply

Ground Water

Well Field No. 1 (Thomas)
Harris Township

Well Field No. 2 (Gray's Woods)
Halfmoon Township

Well Field No. 3 (Harter)
College / Harris Townships

Well Field No. 4 (Nixon)
Ferguson Township

Well Field No. 5 (Chestnut Ridge)
Ferguson Township

Well Field No. 6 (Alexander)
Benner Township

Well Field No. 7 (Kocher)
Ferguson Township

Surface Water

Shingletown Gap Reservoir

AUTHORITY MEETINGS

Open to the Public

**Third Thursday of each Month
4:00PM - Board Room**

1201 West Branch Road
State College, PA

Lead in Drinking Water

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 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>.

TREATED WATER QUALITY—2008

SUBSTANCE	HIGHEST LEVEL ALLOWED (MCL)	HIGHEST LEVEL DETECTED (MCL)	GOALS (MCLG)	SOURCES OF CONTAMINATION
Fluoride No Violation	2 ppm	1.49 ppm (Range: 0-1.49)	2 ppm	Erosion of natural deposits. Water additive that promotes strong teeth.
Nitrate (as N) No Violation	10 ppm	4.95 ppm (Range: 0.97-4.95)	10 ppm	Erosion of natural deposits. Runoff from fertilizer use. Leaching from septic tanks.
Gross Alpha Emitters (2003) Next Sample: 2014 No Violation	15 pCi/L	<1.74 pCi/L (Range: <1.36-1.74)	0	Erosion of natural deposits.
Lead No Violation	15 ppb Action Level	3.4 ppb (Range: 0-3.4) 0 Samples above Action Level	0	Corrosion of household plumbing systems. Erosion of natural deposits.
Copper No Violation	1.3 ppm Action Level	0.22 ppm (Range: 0.030-0.22)	1.3 ppm Action Level	Corrosion of household plumbing systems. Erosion of natural deposits.
Total Trihalomethanes No Violation	80 ppb	7.2 ppb (Range: 0-7.2)	None	By-product of drinking water chlorination.
Fecal Coliform No Violation	0	Non-Detect	0	Human and animal fecal waste.
Total Coliform No Violation	Less than 5% Positive of Monthly Samples	Non-Detect	0	Naturally present in the environment.
Turbidity No Violation	TT = 1 NTU TT = Percentage of Samples <0.3NTU	0.015– 0.055NTU 100%	N/A	Soil runoff.
Atrazine No Violation	3 ppb	0.4 ppb (Range: 0.3-0.4)	3 ppb	Runoff from herbicide used on row crops.
Haloacetic Acids No Violation	60 ppb	6.8 ppb (Range: 0-6.8)	N/A	By-product of drinking water disinfection.
Chlorine No Violation	4 ppm (MRDL)	1.41 ppm (Range: 0.80-1.41) Monthly Average	4 ppm (MRDLG)	Required disinfection. Entry point concentrations.
Xylene No Violation	10 ppm	0.007ppm (Range: 0-0.007)	10ppm	Solvent / cleaning product.

Listed above are only those contaminants which were detected in State College Borough Water Authority drinking water. All are below allowable levels. Not listed are the more than 80 other contaminants we tested for and found nothing.