Bucks County Water & Sewer Authority
Water Quality Report

2016

New Hope System PWSID # 1090130

Este informe contiene informacion importante acerca de su agua potable.
Traduzcalo ó hable con alguien que lo entienda bien.

BCWSA is committed to providing customers with a reliable supply of high quality drinking water that meets or surpasses state and federal standards for quality and safety. Our water is tested using certified labs that use advanced procedures. We are pleased to provide this Water Quality Report as required by the Safe Drinking Water Act (SDWA) with results of our 2016 water testing. In addition to results of laboratory testing, this report also includes details regarding the source of our drinking water and how it compares to Environmental Protection Agency (EPA) and state standards. Any questions or concerns may be directed to Erin Rapp at 215-343-2538 x112 or visit us online at www.bcwsa.net.

Water Source

BCWSA's New Hope System is supplied by a combination of surface water from the Delaware River and ground water from 5 wells located in Solebury Township, PA. The water from the Delaware River is treated at BCWSA's Waterworks Water Treatment Plant, which treats an average of 10,000 GPD.

Under Section 1453 of the U.S. Environmental Protection Agency's 1996 Safe Drinking Water Act, states must evaluate all drinking water sources that serve public systems and provide a mechanism for development of local protection programs. In accordance with the Pennsylvania Department of Environmental Protection's Source Water Assessment and Protection Program (SWAP), a source water assessment has been completed and BCWSA's water treatment plant has been evaluated. The Assessment has found that our source is potentially most susceptible to discharges of treated and untreated sewage and polluted runoff from stormwater. A summary report of the Assessment is available on the Source Water Assessment & Protection web page at www.dep.state.pa.us/dep/deputate/watermgt/wc/Subjects/SrceProt/SourceAssessment/default.htm. The complete Assessment is available for public review at the Southeast Regional DEP office in Norristown, PA.

Educational Information

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, 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 stormwater 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 stormwater 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 stormwater 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. We treat your water according to EPA's regulations. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 at 800-426-4791.

Customer Participation

Residents can help ensure the safety of our water supply by reporting any suspicious activities near any water tank, reservoir, or hydrants to our office at 215-343-3946, 24 hours a day, 7 days a week.

The Board of Directors of BCWSA meets on the second Tuesday of each month at 8:30am and the fourth Monday of each month at 7:00pm in the public meeting room at the Authority office located at 1275 Almshouse Road in Warrington, PA. Please feel free to attend and participate in these meetings.

Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference – try one today an soon it will become second nature.

- Take short showers – a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

Special Warning

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* and other microbial contaminants are available from the Safe Drinking Water Hotline at 800-426-4791.

Water Quality Data

The following tables list all of the drinking water contaminants that we detected during the 2016 calendar year. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented is from testing done January 1 – December 31, 2016. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Contaminant	MCLG	MCL	Level Detected	Sample Date	Violation	Typical Source
Turbidity						
Turbidity (NTU)	0	TT = 1 NTU for a single measurement	0.195	2016	No	Soil runoff
		TT = at least 95% of monthly samples ≤0.3 NTU	100%		No	

Contaminant	Range of % Removal Required	Range of % Removal Achieved	Number of Quarters Out of Compliance	Sample Date	Violation	Typical Source
Total Organic Carbon (TOC)						
Total Organic Carbon	35	36.1 – 57.1	0	2016	No	Naturally present in the environment

Contaminants	Entry Point	Minimum Disinfectant Residual	Lowest Level Detected	Highest Level Detected	Sample Date	Violation	Typical Source
Entry Point Disinfectant Residual							
Chlorine (ppm)	Waterworks	0.2	0.74	1.77	2016	No	Water additive used to control microbes
	Wells	0.4	0.63	1.77		No	

Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source
Lead and Copper							
Lead – AL at consumer taps (ppb)	0	15	2	2016	0 out of 12	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper – AL at consumer taps (ppm)	1.3	1.3	0.343	2016	0 out of 12	No	Corrosion of household plumbing systems; erosion of natural deposits

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Chemical Contaminants								
Chlorine (ppm)	4	4	1.11	0.55	1.11	2016	No	Water additive used to control microbes
Arsenic (ppb)	0	10	5	ND	5	2016	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	2	2	0.5	0.5	0.5	2015 & 2016	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nitrate (ppm)	10	10	2.7	1.08	2.7	2016	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Haloacetic Acids (HAA5) (ppb)	NA	60	1.09	ND	1.09	2016	No	By-product of drinking water chlorination
Total Trihalomethanes (TTHMs) (ppb)	NA	80	10.0	ND	10.0	2016	No	By-product of drinking water disinfection
Dichloromethane (ppb)	0	5	0.5	ND	0.5	2016	No	Discharge from pharmaceutical and chemical factories
Alpha Emitters (pCi/L)	0	15	1.75	NA	NA	2013	No	Erosion of natural deposits
Combined Uranium (µg/L)	0	30	6.24	0.55	6.24	2013	No	Erosion of natural deposits

Contaminant	TT	MCLG	Assessments/Corrective Actions	Violation	Typical Source
Microbiological Contaminants					
Total Coliform Bacteria	Any system that has failed to complete all the required assessments or correct all identified sanitary defects, is in violation of the treatment technique requirement.	NA	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments(s) to identify problems and to correct any problems that were found during these assessments. During the past year we were required to conduct one Level 1 Assessment. One Level 1 Assessment was completed. In addition, we were required to take zero corrective actions.	No	Naturally present in the environment

* Note: Some terms and abbreviations you may see in these tables can be found on the next page.

Additional Testing

Tests were performed in 2014 for Synthetic Organic Compounds, in 2014 and 2016 for Volatile Organic Compounds, and in 2016 for Inorganic Compounds. No compounds other than dichloromethane and barium which are listed in the table above were detected in any of these tests.

Violations

In November 2016 the laboratory failed to report chlorine residual results from the distribution system to the Pennsylvania Department of Environmental Protection on time, as required. This violation had no impact on the quality of the water our customers received and it posed no risk to public health.

Additional Information for Lead

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. BCWSA 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 at 800-426-4791 or at www.epa.gov/safewater/lead.

Terms and Abbreviations

Action Level	AL	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
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	Highest level of disinfectant allowed in drinking water. There is convincing evidence that additional 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. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
Not Applicable	NA	Results are not applicable.
Not Detectable	ND	Results are below the detection level of the instrumentation.
Nephelometric Turbidity Units	NTU	A measure of water clarity.
Picocuries per liter	pCi/L	A measure of radioactivity.
Parts per million or milligrams per liter (mg/L)	ppm	One part per million equals about: 1 minute in 2 years or 1 inch in 16 miles.
Parts per billion or micrograms per liter (µg/L)	ppb	One part per billion equals about: 1 second in 32 years or 1 inch in 16,000 miles.
Treatment Technique	TT	A required process intended to reduce the level of contaminant in drinking water.