

# REPORT Water-Quality 2008



BUCKS COUNTY WATER & SEWER AUTHORITY

Middletown

SDWIS 1090024

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

BCWSA is committed to providing residents with a reliable supply of high-quality drinking water. We have our water tested using certified labs that use advanced procedures. BCWSA water meets State and Federal standards for both appearance and safety. This annual "Consumer Confidence Report," required by the Safe Drinking Water Act (SDWA), tells you where your water comes from, what our tests show about it, and other things you should know about drinking water. We are proud to report that the water provided by BCWSA meets or exceeds established water-quality standards.

Our utility has joined the Partnership for Safe Water, a new national initiative to help achieve operational excellence in water treatment. The partnership was developed through cooperation among the U.S. Environmental Protection Agency (EPA), States, and water supply associations to provide better protection for consumers from microbial contaminants that can cause intestinal illness.

Call us for information or questions about BCWSA and our water quality at 215-343-2538 x 112. Or consult our Web site at [www.bcwsa.net](http://www.bcwsa.net); or see U.S. Environmental Protection Agency (EPA) water information at [www.epa.gov/safewater/](http://www.epa.gov/safewater/) or the Pennsylvania Department of Environmental Protection (PA DEP) at [www.dep.state.pa.us](http://www.dep.state.pa.us).

## WATER SOURCE

BCWSA supplies drinking water to a majority of the Township with the exception of the Levittown sections, which are served by the Lower Bucks Joint Municipal Authority (LBJMA) and a northern portion of the Township, which is served by the Newtown Artesian Water Company. BCWSA also provides water service to the boroughs of Langhorne Manor, Langhorne, Penndel and portions of Hulmeville.

BCWSA is supplied water by the Philadelphia Water Department (PWD). This surface water supply, originally from the Delaware River, is treated and filtered at PWD's Baxter Water Treatment Plant. A second source of water is supplied through an interconnection with LBJMA. This supply is a mix of surface water and groundwater, blended, then treated and filtered.

## MONITORING YOUR WATER

We routinely monitor for contaminants in your drinking water according to federal and state laws. The following tables show the results of our monitoring for the period of January 1, 2008 to December 31, 2008. 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 is from prior years. The sample collection dates have been listed in parentheses on the sampling result tables.

## DEFINITIONS AND ABBREVIATIONS

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

**Chlorate** – a byproduct of chlorine resulting from the use of liquid chlorine bleach. Regulations are not yet planned.

**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 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 not known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

**Nephelometric turbidity units (Ntu)** - turbidity is measured with an instrument called a nephelometer. Measurements are given in nephelometric turbidity units.

**Picocuries per liter (Pci/l)** - a measure of radioactivity

**Parts per billion (ppb)** - one part per billion is equivalent to one green apple in a barrel with 999,999,999 red apples.

**Parts per million (ppm)** - one part per million is equivalent to one green apple in a barrel with 999,999 red apples

RAA – Running Annual Average

**Total Coliform** - coliforms are bacteria, which are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present.

**Total Haloacetic Acids (THAAs)** - a group of chemicals called infection byproducts, which form during chlorination. They will be regulated in the future. Similar but unregulated byproducts include: haloacetonitriles, halo ketones, chloropicrin, chloral hydrate and total organic halides.

**Total Organic Carbon (TOC)** - a measure of carbon content of organic matter. The measure provides an indication of how much organic material in the water could potentially react with chlorine to form THAAs and TTHMs.

**Total Trihalomethanes (TTHMs)** - a group of chemicals called disinfection byproducts, which form during chlorination. TTHMs form when natural organic matter in the rivers, e.g., leaves and algae, decompose and combine chemically with the chlorine added for disinfection. Levels of TTHMs vary seasonally.

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

**Microbiological Contaminants**

Contaminants	MCL	MCLG	Highest # or % of Positive Samples	Violation (Yes/No)	Typical Source of Contamination
Total Coliform Bacteria	0	0	0	No	Naturally present in the environment
Fecal Coliform and E. coli Bacteria	0	0	0	No	Human and animal fecal waste

Contaminants	Action Level (AL)	MCLG	90th Percentile Value	# of Sites Above AL of Total Sites	Violation of TT (Yes/No)	Typical Source of Contamination
Lead (ppb)*	15	0	3	0 out of 30	No	Corrosion of household plumbing.
Copper (ppm)*	1.3	1.3	.2	0 out of 30	No	Corrosion of household plumbing.

\*Lead and Copper tests were done in 2007. DEP required testing in 2010.

**Disinfectants & Disinfection By-Products**

Contaminants	MCL	Range	Average Level Detected	Violation (Yes/No)	Typical Source of Contamination
Chlorine residual (mg/L)	MRDL = 4	0.34 - .95	.67	No	Chlorination
TTHMs [Total Trihalomethane] (ppb)	80	15 - 145	57	No	By-product of drinking water chlorination
Haloacetic Acids (ppb)	60	11 - 51	30	No	Water additive used for disinfection

**PWD (Philadelphia Water Dept.) | PSWID 151001 | Baxter Plant | Year 2008**

**Clarity Characteristics**

Contaminants	MCL	MCLG	Highest Single Valve for the year	Violation (Yes/No)	Typical Source of Contamination
Turbidity (ntu) (measure of clarity)	.30	.30	0.081	No	Soil Runoff

Contaminants	MCL	MCLG	Annual Average	Violation (Yes/No)
Hardness	N/A	N/A	86 ppm or 5 gpg	No

**Radioactive Contaminants**

Contaminants	MCL	MCLG	Highest Level Detected	Range of Test Results For the Year	Violation (Yes/No)	Typical Source of Contamination
Alpha	15 pCi/L	0	3.7 pCi/L	0 - 3.7	No	Erosion of natural deposits of certain radioactive minerals
Combined Radium 226 & 228	5 pCi/L	0	3.2 pCi/L	0 - 3.2	No	Erosion of natural deposits of certain radioactive minerals

**Inorganic Contaminants**

Contaminants	MCL	MCLG	Highest Level Detected	Range of Test Results	Violation (Yes/No)	Typical Source of Contamination
Nitrate (ppm)	10	10	3.66	0.60 - 3.66	No	Runoff from fertilizer use; leaching from septic tank; erosion of natural deposits
Barium (ppm)	2	2	0.04	0.03 - 0.04	No	Erosion of natural deposits
Cyanide (ppm)	0.2	0.2	0.05	0.03 - 0.05	No	Discharge from steel/metal, plastics and fertilizer factories

Contaminants	Action Level (AL)	MCLG	90th Percentile Value	# of Sites Above AL of Total Sites	Violation of TT (Yes/No)	Typical Source of Contamination
Lead (ppb)	15	0	6	3 out of 97	No	Corrosion of household plumbing.
Copper (ppm)	1.3	1.3	0.3	0 out of 97	No	Corrosion of household plumbing.

#### Disinfectants & Disinfection By-Products

Contaminants	MCL	Range	Average Level Detected	Violation (Yes/No)	Typical Source of Contamination
TTHMs [Total Trihalomethane] (ppb)	80	15 - 98	36	No	By-product of drinking water chlorination
Haloacetic Acids (ppb)	60	17 - 64	35	No	Water additive used for disinfection

Contaminants	MCL	Range of Highest Levels Detected	One Year Average	Monthly Samples	Typical Source of Contamination
Chloramine	MRDL = 4	1.25 - 3.35 (ppm)	1.57 (ppm)	400	Chlorination

### LBJMA (Lower Bucks Joint Municipal Authority) | SDWIS 1090026 | Year 2008

#### Disinfectants & Disinfection By-Products

Contaminants	MCL	Range	Average Level Detected	Violation (Yes/No)	Typical Source of Contamination
Chlorine Residual (mg/l)	MRDL = 4	.5 - 1.4	.92	No	Chlorination
TTHMs [Total Trihalomethane] (ppb)	80	23 - 95	55	No	By-product of drinking water chlorination
Haloacetic Acids (ppb)	60	15 - 63	42	No	Water additive used for disinfection

#### Other Information

**Lead:** infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using the tap water. Additional information is available from the EPA's Safe Drinking Hotline (800-426-4791) or at their web site: [www.epa.gov](http://www.epa.gov)

#### REQUIRED ADDITIONAL HEALTH INFORMATION

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water. 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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791). 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 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:

- (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm run off, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.
- (D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.
- (E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.
- (F) 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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.
- (G) While your drinking water meets the EPA's standards for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Some people may be more vulnerable to contaminants in drinking water than is 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. Environmental Protection Agency (EPA) guidelines listing ways to lessen the risk by infection Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline, 800-426-4791.

## **CUSTOMER SERVICE**

It is BCWSA's mission to provide quality customer service in an environmentally safe manner at an affordable rate. Over the past five (5) years, BCWSA has implemented a number of improvements to provide better customer service. For instance, BCWSA installed a 24-hour 7-day-a-week emergency computer response system to address after-hour customer emergencies. The customer needs only to dial 215-343-3946 and listen for the instructions. A return call is generally made within 15 minutes with on-site response typically within the hour. Additionally, BCWSA initiated bi-annual newsletters to our customers and customer service areas. These newsletters are designed to keep our customers updated on the improvements and share information about our company. An interactive Web site ([www.bcwsa.net](http://www.bcwsa.net)) was set up and is updated regularly to initiate a friendlier, customer service-oriented means of communication for the new millennium. Please take the time to visit the Web site. BCWSA is also a member of the Upper Bucks, Central Bucks and Lower Bucks Chambers of Commerce.

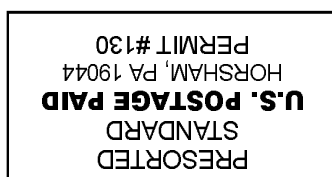
## **WATER EFFICIENCY MEASURES FOR RESIDENCES**

### **Bathrooms:**

- Never use your toilet as a waste basket.
- Do not let the water run while shaving or brushing teeth.
- Take short showers instead of tub baths.
- Turn off the water flow while soaping or shampooing.
- If you must use a tub, close the drain before turning on the water and fill the tub only half full. Bathe small children together.
- Never pour water down the drain when there may be another use for it - such as watering a plant or garden.

### **Kitchen and Laundry:**

- Keep drinking water in the refrigerator instead of letting the faucet run until the water is cool.
- Wash fruits and vegetables in a basin. Use a vegetable brush.
- Do not use water to defrost frozen foods, thaw in the refrigerator overnight.
- Use a dishpan for washing and rinsing dishes.
- Scrape, rather than rinse, dishes before loading into the dishwasher.
- Add food wastes to your compost pile instead of using the garbage disposal.
- Operate the dishwasher only when completely full.
- Use the appropriate water level or load size selection on the washing machine.



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