

A cartoon water drop character with a face, arms, and legs is standing on a wooden dock. It is holding a fishing rod with a blue lure. The background shows a blue body of water with white waves, a brown shoreline with several green trees, and a light blue sky. A green oval callout bubble is positioned in the lower right, containing the text '2017 Water Quality Report'.

Doylestown Township Municipal Authority

PWS # 1090128

2017
Water Quality
Report

This Water Quality Report is available at
<http://www.doylestownpa.org/ccr/pdf>

2017 Water Quality Report

Public Water System # 1090128

This report contains important information about your drinking water. If you do not understand it, please have someone translate it to you.

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

Dear Customer:

The Doylestown Township Municipal Authority (DTMA) owns and operates a public water system for the benefit of Doylestown Township residents. It also owns and operates the public water systems of the Cross Keys Place Shopping Center in Plumstead Township and the Fountainville Center in New Britain Township. This report is to apprise you of efforts to provide our customers with water that meets or exceeds water quality standards under the Safe Drinking Water Act (SDWA). This report will be available to all customers on an annual basis no later than July of the ensuing year. The report contains information regarding the water system operation, water sources, treatment, and monitoring results for contaminant testing as required by permit under the Federal Safe Drinking Water Act; the Pennsylvania Department of Environmental Protection and the Delaware River Basin Commission.

The Authority routinely monitors for over seventy contaminants as required by permit under state and federal laws. The results of the water-monitoring program are presented in the attached report. The report will show results from the period January 1, 2017 through December 31, 2017. Should you have any questions regarding this report, please call Water Superintendent, Scott Miele at 215-348-9915 or attend the Authority meeting on the third Thursday of the month beginning at 4:00 PM.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. It is important to remember that the presence of these contaminants do not necessarily pose a health risk. Locally, DTMA distributes groundwater pumped from 12 wells within Doylestown Township and one well in Plumstead Township and may receive groundwater

via an interconnection with Doylestown Borough (DBWD) and a blend of surface and groundwater via an interconnection with North Penn Water Authority (NPWA). For 2017, North Penn Water Authority provided 2.2% of source water distributed by DTMA and Doylestown Borough provided 7.6% of source water distributed by DTMA. The water provided by NPWA is a blend of surface and ground water. Cryptosporidium and Giardia are microbial pathogens found in surface water throughout the U.S. NPWA monitors their source water (before treatment) at NPWA's Forest Park Water indicated the presence of Cryptosporidium in 3 out of 9 samples collected. Giardia was detected in 5 out of 9 samples collected. FPW treatment processes are designed to remove or inactivate these pathogens with a high level of certainty. Current available test methods do not allow NPWA to determine if the organisms are dead or if they are capable of causing disease.

All sources of drinking water are subject to potential contaminants that are naturally occurring or man-made. More information about contaminants and potential health effects can be obtained by calling the:

Environmental Protection Agency's Safe Drinking Water Hotline @ 1-800-426-4791 or: www.epa.gov/safewater/dwhealth.

PA DEP @717-772-4018 or www.depweb.state.pa.us

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons with cancer, undergoing chemotherapy, persons who have undergone organ transplants, people with the 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 (800) 426-4791 or by visiting the EPA web site at: www.epa.gov/safewater/dwhealth.

Definition of Key Terms

While your drinking water meets 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 costs 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.

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. DTMA 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 of at <http://www.epa.gov/safewater/lead>.

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 advice from your health care provider.

In order to insure 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 level of protection to the public's health. The State allows us to monitor for some contaminants less than once per year. This is because the

concentrations do not change frequently. Some of our data, though representative, are more than one year old.

As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals. In addition, water can pick substances resulting from the presence of animal or human activity. Substances that may be present in source water may include:

- Microbial contaminants: Such as viruses and bacteria which may come from sewage treatment plants, septic systems, agriculture/livestock operations and wildlife.
- Pesticides and herbicides: Which may come from a variety of sources such as agriculture, urban storm water runoff and residential use.
- Radioactive contaminants: which can be naturally occurring or the result of oil and gas production and mining activities.
- Organic Chemical Contaminants: Including synthetic or volatile organic chemicals, which are byproducts of industrial processes, petroleum production or mining activities.

Inorganic contaminants: Such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

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Definition of Key Terms (Continued)

TABLE DEFINITIONS that you may not be familiar with:

- Parts per million (ppm) or milligrams per liter (mg/L): One part per million corresponds to a single penny in \$10,000.

Parts per billion (ppb) or micrograms per liter (ug/L): One part per billion corresponds to a single penny in \$10,000,000.

- NTU: Nephelometric turbidity is a measure of the clarity of water.

- 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 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. MCL's are set close to the MCLG's 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. MCLG's 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 no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminant.

Picocurie per liter (pCi/L): A measure of radioactivity in water.

SOURCE WATER ASSESSMENT

A SOURCE WATER ASSESSMENT OF OUR SOURCES WAS COMPLETED BY THE PA Department of Environmental Protection (PA DEP). The assessment has found that our sources is potentially most susceptible to agricultural activities and transportation corridors (spills, road salt) and residential activities. Overall, our sources have little to high risk of significant contamination. A summary report of the Assessment is available on the Source Water Assessment & Protection web page at: <http://www.dep.state.pa.us/deputate/water/wc/Subjects/SrceProt/SourceAssessment/default.htm>. Complete reports were distributed to municipalities, water supplier, local planning agencies and PADEP offices. Copies of the complete report is available for review at the PA DEP Southeast Regional Office Records Management Unit at 484-250-5900.

PWS # 1090128

Water Quality Table

TABLE OF CONTAMINANTS			PWS #1090128 2017		
Unless otherwise noted, all data is from 2017					
Contaminants	MCL	MCLG	Test Value ¹	Major Sources in Drinking Water	Violation Y / N
INORGANIC CONTAMINANTS					
*North Penn Water Authority **Doylestown Borough					
Arsenic	10 ppb	NA	Range: 3.8 – 5.1	Erosion of natural deposits. Discharge from refineries and factories.	NO
Doylestown Twp. 2015			5.1 (2015)		
North Penn* 2017			*6.0 (2017)		
Barium 2015	2 ppm	2 ppm	0.66 ppm Range:0.18_0.66	Erosion of natural deposits.	NO
Fluoride 2015	2 ppm	2 ppm	0.12 ppm 0.11 " 0.12	Erosion of natural deposits; discharge from fertilizer and aluminum factories.	NO
Nitrates 2017	10 ppm	10 ppm	Range: 1.07 – 5.51	Erosion of natural deposits. Runoff from fertilizer use. Leaching from septic tanks.	NO
Doylestown Twp.			5.51		
Doylestown Boro**			5.60**		
VOLATILE CONTAMINANTS					
1,1-Dichloroethylene 2016	7 ppb	0 ppb	2.1 ppb	Discharge from industrial chemical factories.	NO
Tetrachloroethylene 2017	5 ppb	0 ppb	2.4 ppb Range:0.59-2.4	Discharge from factories and dry cleaners	NO
Xylenes (Total) 2017	10 ppm	10 ppm	0.0014 ppm	Discharge from petroleum and chemicals factories.	NO
RADIOLOGICAL CONTAMINANTS					
*North Penn Water Authority					
Gross Alpha 2017	15 pCi/L	0 pCi/L	7.86 pCi/L Range:3.33-7.86	Erosion of natural deposits	NO
Combined Uranium	30 pCi/L	0 pCi/L	2017	Erosion of natural deposits	NO
Doylestown Twp.			4.16 pCi/L		
North Penn*			5.50 ppb*		
Radium 226 2017	5 pCi/L	0 pCi/L	2.44 pCi/L Range: 1.18 " 2.44	Erosion of natural deposits	NO
Radium 228 2017	5 pCi/L	0 pCi/L	1.18 pCi/L Range:1.07-1.18	Erosion of natural deposits	NO
SYNTHETIC ORGANIC CONTAMINANTS					
Di2-ethyhexylphthalate **2017	6ppb	0	** 0.60ppb **DBoro (2017)	Discharge from rubber/chemical factories	NO
1Pennsylvania DEP allows public water systems to monitor for some contaminants less than once per year because the Concentrations of these contaminants do not change frequently. Some of the data presented on this table, though representative, may be more than one year old. In these cases, the calendar year in which water samples were tested for these contaminants is shown in parentheses.					

TABLE OF CONTAMINANTS

PWS #1090128

Unless otherwise noted, all data is from 2017

Contaminants	MCL	MCLG	Test Value ¹	Major Sources in Drinking Water	Violation Y / N
LEAD AND COPPER RULE					
				*North Penn Water Authority **Doylestown Borough	
Copper 2017	AL = 1.3 ppm	1.3 ppm	90% Percentile	Corrosion of household plumbing systems. Erosion of natural deposits	NO
Doylestown Twp.			0.669		
North Penn*			0.698*		
Doylestown Boro**			N/A**		
Lead 2017	AL = 15 ppb	0 ppb	90% Percentile	Corrosion of household plumbing systems. Erosion of natural deposits	NO
Doylestown Twp.			0		
North Penn*			2.0*		
Doylestown Boro**			2.4 (2016)**		
Number of sites above AL:			[Lead: 1 of 41]	[Copper: 1 of 41]	
DISINFECTION BYPRODUCTS (DBPS), PRECURSORS AND DISINFECTANT RESIDUALS					
Free Chlorine Distribution	MRDL = 4.0 ppm	MRDLG = 4.0 ppm	High Avg: 0.92 Low Avg: 0.62	Water additive used to control microbes	NO
Haloacetic Acids	60ppb	NA	2017	Byproduct of drinking water chlorination	NO
Doylestown Twp.			2.7		
North Penn*			12.1*		
Total Trihalomethanes	80ppb	NA	2017	Byproduct of drinking water chlorination	NO
Doylestown Twp.			13.8		
North Penn*			28.9*		
GROUND WATER TREATMENT RULE (GWTR)					
Free Chlorine At Entry Point	Min. RDL=0.2 ppm	N/A	High / Low 1.37 ^m 0.11ppm	Water additive used to control microbes.	

¹ Pennsylvania DEP allows public water systems to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data presented on this table, though representative, may be more than one year old. In these cases, the calendar year in which water samples were tested for these contaminants is shown in parentheses.

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More information may be obtained from the following:

Environmental Protection Agency, Safe Drinking Water

Hotline: 1-800-426-4791

www.epa.gov/your-drinking-water

PA Department of Environmental Protection: 717-772-4018

www.depweb.state.pa.us

How can I get involved with protecting our water sources?

“Water is life” and we can all play an important role in protecting and conserving life’s most sustaining resource. First, be aware of what goes down the drain, be it sanitary or storm drain, can alter the potential for keeping our water sources free of contamination. Secondly, conserve water by washing clothes or dishes when you have full loads; use water saving devices and make timely repair of plumbing leaks.

“When the well is dry, we know the worth of water”.

— Benjamin Franklin (1706-1790)
Poor Richard’s Almanac, 1746



**Doylestown Township
Municipal Authority**

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