



## 2016 ANNUAL DRINKING WATER QUALITY REPORT

### PWSID # 1090144 - Plumstead Township Northern Water System

*Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, ó hable con alguien que lo entienda.* (This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.)

#### WATER SYSTEM INFORMATION:

This report defines our water quality, services, and briefly describes testing information and results. The Northern Water System serves Plumstead residents in the Cabin Run, Landis Greene, Country Greene, Windtree, Plumstead Preserve, Plumstead Woods, a portion of the Timberly Farms developments and a limited number of residences and commercial businesses within the village of Plumsteadville. If you have any questions concerning this report or your water utility, please contact Alan Bleam, Director of Public Works for Plumstead Township at 215-766-0189.

We want you to be informed about your water supply. If you want to learn more, please attend any of our regularly scheduled Board of Supervisors meetings. The meetings are generally held the second and fourth Tuesday of the month beginning at 7:30 PM at the Plumstead Township Municipal Building, 5186 Stump Road, Plumsteadville, PA 18949. Please check the township web site at [www.plumstead.org](http://www.plumstead.org), or call 215-766-8914 to confirm dates and times of the meetings to be held.

#### SOURCE(S) OF WATER:

The public water supply serving your system relies on groundwater sources located in the Cabin Run, Country Greene and Landis Greene developments. The wells are known as CR-1, CR-2, CR-3, MT-1, MT-2 and LG-6. We are pleased to inform you that your water meets or exceeds all USEPA and PADEP drinking water standards. The standards set forth in the Safe Drinking Water Act uphold very stringent quality testing levels with regard to health effects. To understand the possible health effects described by many regulated constituents, a person would have to drink two 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.

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 1-800-426-4791.

#### 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 to December 31, 2016. 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 in accordance with the Safe Drinking Water Act. The date has been noted on the sampling results table.

## DEFINITIONS:

*Action Level (AL)* - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which 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)* - 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. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

*Minimum Residual Disinfectant Level (MinRDL)* - The minimum level of residual disinfectant required at the entry point to the distribution system.

*Level 1 Assessment* – A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

*Level 2 Assessment* – A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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

*Mrem/year* = millirems per year (a measure of radiation absorbed by the body)

*pCi/L* = picocuries per liter (a measure of radioactivity)

*ppb* = parts per billion, or micrograms per liter ( $\mu\text{g/L}$ )

*ppm* = parts per million, or milligrams per liter (mg/L)

*ppq* = parts per quadrillion, or picograms per liter

*ppt* = parts per trillion, or nanograms per liter

**DETECTED SAMPLE RESULTS:**

Chemical Contaminants								
Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine	MRDL = 4	MRDL= 4	0.94	0.19 - 0.94	mg/l	2016	N	Water additive used to control microbes
Arsenic	10	0	1.8	0.0 - 1.8	ppb	2012	N*	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production waste.
Barium	2	2	0.0384	0.0244 - 0.0384	ppm	2015	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Chromium	100	100	2.9	N/A	ppb	2015	N	Discharge from steel and pump mills, Erosion of natural deposits.
Nickel	100	100	2.8	N/A	ppb	2015	N	Erosion of natural deposits; by product of various industrial processes.
Nitrate	10	10	2.82	2.66 - 2.82	ppm	2016	N	Runoff from fertilizer use; leaching from septic tanks; sewage; Erosion of natural deposits.
Haloacetic Acid (HAA5)	60	N/A	2.8	N/A	ppb	2016	N	By-product of drinking water chlorination
Trihalomethanes (TTHMs)	80	N/A	52.3	N/A	ppb	2016	N	By-product of drinking water chlorination
Gross Alpha	15	0	5.75	1.88 - 5.75	pCi/l	2015	N	Erosion of natural deposits
Combined Uranium	20	0	1.273	N/A	pCi/l	2014	N	Erosion of natural deposits
Radium 226	5	0	0.478	N/A	pCi/l	2015	N	Erosion of natural deposits

\*Arsenic results have a running annual average for the calculation of sample results.

\*\* EPA's MCL for fluoride is 4 ppm. However, Pennsylvania has a lower limit MCL to better protect human health.

Entry Point Disinfectant Residual							
Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine EP 101	0.4	0.12	0.12 - 2.98	Mg/l	08/10/16	N	Water additive used to control microbes.
Chlorine EP 102	0.4	0.05	0.05 - 2.16	Mg/l	06/08/16	N	Water additive used to control microbes.
Chlorine EP 103	0.4	0.00	0.00 - 1.89	Mg/l	04/26/16	N	Water additive used to control microbes.

Lead and Copper							
Contaminant	Action Level (AL)	MCLG	90 <sup>th</sup> Percentile Value	Units	# of Sites Above AL of Total Sites	Violation Y/N	Sources of Contamination
Lead 2016	15	0	11.3	ppb	0	N	Corrosion of household plumbing.
Copper 2016	1.3	1.3	0.045	ppm	0	N	Corrosion of household plumbing.

Microbial (related to Assessments/Corrective Actions regarding TC positive results)					
Contaminants	TT	MCLG	Assessments/ Corrective Actions	Violation Y/N	Sources of Contamination
Total Coliform Bacteria	Any system that has failed to complete all the required assessments <b>or</b> correct all identified sanitary defects, is in violation of the treatment technique requirement	N/A	See detailed description under "Detected Contaminants Health Effects Language and Corrective Actions" section	N	Naturally present in the environment.

Microbial (related to E. coli)					
Contaminants	MCL	MCLG	Positive Sample(s)	Violation Y/N	Sources of Contamination
<i>E. coli</i>	Routine and repeat samples are total coliform-positive <b>and</b> either is <i>E. coli</i> -positive <b>or</b> system fails to take repeat samples following <i>E. coli</i> -positive routine sample <b>or</b> system fails to analyze total coliform-positive repeat sample for <i>E. coli</i> .	0	0	N	Human and animal fecal waste.

Contaminants	TT	MCLG	Assessments/ Corrective Actions	Violation Y/N	Sources of Contamination
<i>E. coli</i>	Any system that has failed to complete all the required assessments <b>or</b> correct all identified sanitary defects, is in violation of the treatment technique requirement	N/A	See description under "Detected Contaminants Health Effects Language and Corrective Actions" section	N	Human and animal fecal waste.

Raw Source Water Microbial					
Contaminants	MCLG	Total # of Positive Samples	Dates	Violation Y/N	Sources of Contamination
<i>E. coli</i>	0	0	N/A	N	Human and animal fecal waste.

#### 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 run-off, 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 by-products 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 and DEP prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA and DEP 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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791. You may also visit the EPA groundwater website at [www.epa.gov/ground-water-and-drinking-water](http://www.epa.gov/ground-water-and-drinking-water).

## **Information about 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. Plumstead Township Water Department 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>.

Plumstead Township continually works to provide top quality water to every customer on the system every day. Please help protect this precious resource by disposing of waste properly and conserving usage at all times. Protecting our water resources, which are at the heart of our community, our way of life and our children's future, is a good thing to do!

In order to maintain a dependable and safe water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments.

Thank you for your cooperation.