



Warrington Township

**2018 WARRINGTON TOWNSHIP
WATER QUALITY REPORT**

PWSID# 1090070

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien. (This report contains important information about your drinking water. Translate it, or speak with someone who understands it.)

Introduction

This report presents a summary of the quality of the public drinking water provided by Warrington Township during 2018. We have included details about the sources of your water, what it contains, and how the water quality compares to the standards set by the Pennsylvania Department of Environmental Protection (PADEP) and the Environmental Protection Agency (EPA) Safe Drinking Water Act (SDWA). The Warrington Township Board of Supervisors is committed to providing safe and reliable drinking water to our more than 21,000 customers. We feel that this information is important and that an informed customer is a public utility's best ally.

Where Does Your Water Come From

During 2018 all water supplied through the Warrington Township public water system was purchased from North Wales Water Authority and the Forest Park Water Treatment Plant. A treatment system for Wells 1, 2, and 6 has been constructed, which will remove PFOA and PFOS to non-detectable levels. These wells are available to be used as supplemental source of supply during times of drought or other emergencies. Treatment systems for additional wells are planned and funding for these treatment systems has been obtained from Federal and State Agencies.

Source Water Assessments of the NWWA Forest Park Water Treatment Plant and the Warrington Township Water Systems were completed by the PA Department of Environmental Protection in February 2003 and June 2005, respectively. The systems were found to be potentially susceptible to contamination in transportation corridors; from auto repair shops; and from storm water runoff from agricultural fields, lawn care, golf courses, and parking lots. A summary report of the Assessments is available on the Source Water Assessment Summary Reports eLibrary Web Page, www.depgreenport.state.pa.us/elibrary/GetFolder?FolderID=4499. Complete reports were distributed to municipalities, water supplier, local planning agencies and PADEP offices. Copies of the complete report are available for review at the PADEP SouthCentral Regional Office, Records Management Unit at (484)250-5910

Why We Monitor Your Drinking Water

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 before it is treated 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 agricultural, 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 PADEP prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. We treat and monitor our water according to their regulations. FDA and PADEP 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 1-800-426-4791.

Our 2018 Water Monitoring Results

During 2018, Warrington Township conducted hundreds of tests for 90 possible drinking water contaminants. We detected no contaminant levels higher than the State and Federal Drinking Water standards allow. Similar testing was also completed by the Forest Park Treatment Plant. This arrangement results in some duplication of testing, but also provides more quality control.

The attached Tables summarize the results of monitoring in the Western and Eastern systems, respectively, for the year 2018. Dozens of other contaminants that were tested for, but not detected, are not listed. Unless otherwise noted, the data presented in the tables is from testing done from January 1, 2018 to December 31, 2018. The PADEP requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of our data, though representative, are more than 1 year old.

Related Information

In 2001, the Township participated in the Unregulated Contaminants Monitoring Rule (UCMR) Program in which suppliers began a 3-year monitoring period for unregulated contaminants, including the gasoline additive MTBE. Although the EPA does not regulate MTBE, the Township recognized the potential threat of MTBE and began voluntarily sampling for it prior to 2001 in each well and at various locations in both the eastern and western distribution systems. MTBE has **never** been detected in the Township's water supply. In 2010, the Township participated in the UCMR-2 Program, and in 2014 and 2015, the Township participated in the UCMR-3 program. In 2018, North Wales Water Authority participated in the UCMR-4. The UCMR-4 and its predecessors were designed to establish data for contaminants listed on EPA's Contaminant Candidate List for which EPA may establish future MCL's.

Educational Information

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. Warrington Township 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 www.epa.gov/safewater/lead.

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 and the Center for Disease Control (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 or visit the EPA website at www.epa.gov/safewater/dwhealth.

For More Information

Warrington Township Water and Sewer Department is staffed with State-certified water operators who work to provide top quality water to every tap. Information about the Township's water system and a full 2018 Water Quality Report prepared by NWWA for their system is available for review at the Warrington Township Water and Sewer Department Office. For more information about your water quality, please contact Christian Jones, Director of the Warrington Township Water and Sewer Department at (215) 343-1800 or log on to the Township's web site at www.warringtontownship.org.

The Warrington Township Board of Supervisors meets the second and fourth Tuesday of each month at 7:00 p.m. in the Warrington Township Municipal Building at 852 Easton Road. These meetings allow the public to voice any concerns or comments they may have pertaining to the public water or sewer systems. Please feel free to participate in these meetings.

Other Violations

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. On December 12, 2018 Warrington Township's contract laboratory did not conduct all disinfection performance level sampling within the area of Upper Nike Park, 300 Folly Road. We are required to maintain a disinfectant residual of 0.02 to 4.0 mg/L in the water supplied to consumers. A water sample was taken on December 12, 2018 which showed a disinfectant residual concentration of less than 0.02 mg/L, which generates a special microbiological sampling requirement. Residuals of less than 0.02mg/L are considered nondetectable and thus noncompliant with PA DEP regulations. As a result of missing this sample, we cannot be certain of the quality of our drinking water on that date.

What should have been done:

The Contract Laboratory should have also taken a "Heterotrophic Plate Count" sample to confirm compliance after the disinfection result of <0.02 mg/L on December 12, 2018.

A public notice concerning the sampling deficiency should have been published within 30 days of the violation. In lieu of this, we are providing this notice within our annual consumer confidence report as directed by the PA DEP. This report shall serve as public notice of the sampling and testing omission. The Township has taken corrective action to ensure future similar incidents will not occur.

Definitions and Abbreviations

These are the definitions of the terms and abbreviations used in Tables 1 and 2 on the inside of this folder:

- **MCL** (*Maximum Contaminant Level*): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.
- **MCLG** (*Maximum Contaminant Level Goal*): 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.
- **MRDL** (*Maximum Residual Disinfectant Level*): 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.
- **MRDLG** (*Maximum Residual Disinfectant Level Goal*): 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.
- **ppm** (*parts per million*): one part per million corresponds to one minute in two years, a single penny in \$10,000, one ounce to 31 tons, or 1 inch in 16 miles.
- **ppb** (*parts per billion*): one part per billion corresponds to one second in 32 years, a single penny in \$10 million, a pinch of salt to 10 tons of potato chips, or 1 inch in 16,000 miles.
- **ppt** (*parts per trillion*): one part per trillion corresponds to one second in 32,000 years, a single penny in \$10 billion, a pinch of salt to 10,000 tons of potato chips, or 1 inch in 16,000,000 miles.
- **pCi/l** (*picocuries per liter*): picocuries per liter is a measure of the radioactivity of water.
- **NTU** (*Nephelometric Turbidity Unit*): nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- **AL** (*Action Level*): the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

- **TT** (*Treatment Technique*): a treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- **MinRDL** (*Minimum Residual Disinfectant Level*): The minimum level of residual disinfectant required at the entry point to the distribution system.

2018 Water from North Wales Water Authority

Forest Park Water Treatment Plant

PWSID # 1460048

DETECTED SAMPLE RESULTS:

Inorganic Chemical Contaminants								
Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Nitrate (as Nitrogen)	10	10	0.739	0.359-1.22	ppm	2018	No	Runoff from fertilizer, leaching from septic tanks, erosion of natural deposits
Barium	2	2	0.023	N/A	ppm	2018	No	Erosion of natural deposits. Discharge of drilling wastes; discharge from metal refineries.

Disinfectants and Disinfection Byproducts								
Contaminant	MCL	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine Residual	4 MRDL	4 MRDLG	1.48	1.09 – 1.77	ppm	2018	No	Water additive used to control microbes.
Total Trihalomethanes (TTHM)	80	N/A	16.35	9.5 – 22.5	ppb	2018	No	Byproduct of drinking water disinfection
Haloacetic Acids (HAA5)	60	0	8.85	6.4 – 12.7	ppb	2018	No	Byproduct of drinking water disinfection
Bromate	10	0	2.8	2.2 – 3.3	Ppb	2018	No	Byproduct of drinking water disinfection

Lead and Copper – 2017 Results							
Contaminant	Action Level (AL)	MCLG	90 th Percentile Value	Units	# of Sites Above AL of Total Sites	Violation Y/N	Sources of Contamination
Lead	15	0	1.0	ppb	0 of 33	No	Corrosion of household plumbing
Copper	1.3	1.3	0.247	ppm	0 of 33	No	Corrosion of household plumbing

**2018 Water from North Wales Water Authority
Forest Park Water Treatment Plant
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Microbial Contaminants							
Contaminant	MCL	MCLG	Level Detected	Sample Date	Range	Violation Y/N	Sources of Contamination
Total Coliform Bacteria	Presence of coliform bacteria in 5% or less of monthly samples	0	0	2018	N/A	No	Naturally present in the environment.
Fecal Coliform and <i>E. Coli</i> Bacteria	A routine sample and repeat sample are total coliform positive, and sample is also fecal coliform or <i>E. coli</i> positive.	0	0	2018	N/A	No	Human and animal fecal waste
Turbidity (in NTU)	Treatment Technique Filtration System to maintain less than 0.1 NTU	N/A	0.05	2018	0.03-0.08	No	Soil runoff

Unregulated Chemical Contaminants – Perfluorinated Compounds						
Contaminant	Health Advisory Limit (PFOS and PFOA Combined)	Level Detected	Range of Detection	Units	Sample Date	Sources of Contamination
Perflouroctanesulfonic Acid (PFOS)	70	1.5	0 – 2.3	ppt	2018	Firefighting foam and other man-made sources
Perflouroctanoic Acid (PFOA)	70	4.0	3.0 – 4.5	ppt	2018	Firefighting foam and other man-made sources

ppt – parts per trillion

In addition during 2018, North Wales Water Authority/Forest Park Water Treatment Plant conducted testing for volatile organic chemicals; synthetic organic chemicals, and radioactive contaminants with none detected.

2018 Warrington Township – Test Results within Warrington Service Area

DETECTED SAMPLE RESULTS:

Lead and Copper – 2016 Results							
Contaminant	Action Level (AL)	MCLG	90 th Percentile Value	Units	# of Sites Above AL of Total Sites	Violation Y/N	Sources of Contamination
Lead	15	0	2.45	ppb	0 of 55	No	Corrosion of household plumbing
Copper	1.3	1.3	0.443	ppm	0 of 55	No	Corrosion of household plumbing

Disinfectants and Disinfection Byproducts								
Contaminant	MCL	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine Residual-Distribution System	4 MRDL	4 MRDLG	0.65	0 – 1.47	ppm	2018	No	Water additive used to control microbes.
Total Trihalomethanes (TTHM)	80	N/A	32.9	6.2-74.4	ppm	2018	No	Water additive used to control microbe.
Haloacetic Acids (HAA5)	60	0	15.2	6 – 26.2	ppm	2018	No	Water additive used to control microbe.

Microbial Contaminants							
Contaminant	MCL	MCLG	Level Detected	Sample Date	Range	Violation Y/N	Sources of Contamination
Total Coliform Bacteria	Presence of coliform bacteria in 5% or less of monthly samples	0	0	2018	N/A	No	Naturally present in the environment.
Fecal Coliform and <i>E. Coli</i> Bacteria	A routine sample and repeat sample are total coliform positive, and sample is also fecal coliform or <i>E. coli</i> positive.	0	0	2018	N/A	No	Human and animal fecal waste

2018 Warrington Township – Test Results within Warrington Service Area

DETECTED SAMPLE RESULTS:

Inorganic Chemical Contaminants								
Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Barium	2	2	0.096	0.096 1 sample	ppm	2015	No	Runoff from fertilizer, leaching from septic tanks, erosion of natural deposits
Chromium	100	100	5.4	5.4 1 sample	ppm	2015	No	Erosion of natural deposit, discharge from steel and pulp mills.

Volatile Organic Chemical Contaminants								
Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Tetrachloro-ethylene	5	0	0.09	0 – 0.9	ppb	2015	No	Discharge from factories and dry cleaners.

Synthetic Organic Chemical Contaminants								
Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Di(2-ethylhexyl) phthalate	6	0	1.0	0.89 – 1.11	ppb	2015	No	Discharge from petroleum refineries.

Radioactive Contaminants								
Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Gross Alpha	15	0	17.89	1.98 – 26.1	pCi/L	2014	Yes	Erosion of natural deposits
Combined Radium	5	0	1.17	0.51 – 1.17	pCi/L	2014	No	Erosion of natural deposits
Combined Uranium	30	0	10	4.1 – 9.8	ppb	2015	No	Erosion of natural deposits

Note: All groundwater supply wells were out of service in 2018. All public water was purchased from North Wales Water Authority and supplied by the Forest Park Water Treatment Plant.