

Annual Drinking Water Quality Report

Pemberton Township Water Department

“Main Supply”

For the Year 2019, Results from the Year 2018

We are pleased to present to you with 2019's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we delivered to you in 2018. Our constant goal is to provide you with a safe and dependable supply of drinking water.

We have six active wells, four of which draw their water from the Mount Laurel/ Wenonah Aquifer and two of which draw water from the Englishtown Aquifer. The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for this public water system, which is available at WWW.state.nj.us/dep/swap or by contacting NJDEP's Bureau of Safe Drinking Water at (609) 292-5550. You may also contact your public water system at 609-894-3373 to obtain information regarding your water system's Source Water Assessment. This water system's source water susceptibility ratings and a list of potential contaminant sources is attached.

We are pleased to report that our drinking water is safe and meets federal and state requirements.

We want our valued customers to be informed about their water utility. If you have any questions about this report or concerning your water utility, please contact Marvin Bell at 609-894-3373. If you want to learn more, please attend any of our regularly scheduled Township Council meetings at the Municipal Building, 500 Pemberton - Browns Mills Road. Meetings are held on the first and third Wednesdays of each month at 6:00 p.m. You may also visit the Township website at <http://www.pemberton-twp.com>.

The Pemberton Township Water Department routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2018. 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, though representative, are more than one year old.

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 storm water 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 storm water 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 storm water runoff, and septic systems.
- Radioactive contaminants which can be naturally occurring or be the result of oil and gas production and mining activities.

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 the 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.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Units of Measurement	MC LG	MCL	Likely Source of Contamination
Radioactive Contaminants:						
Combined Radium 226 & 228 Test results Yrs. 2017 & 2018	N	Range = ND – 1.5 Highest detect = 1.5	pCi/l	0	5	Erosion of natural deposits
Inorganic Contaminants:						
Arsenic Test results Yr. 2017	N	Range = ND – 1.2 Highest detect = 0.1	ppb	n/a	5	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium Test results Yr. 2017	N	Range = 0.002 – 0.1 Highest detect = 0.1	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper Test results Yr. 2016 Result at 90 th Percentile	N	0.07 No samples exceeded the action level	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits.
Fluoride Test results Yr. 2017	N	Range = ND – 0.4 Highest detect = 0.4	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead Test results Yr. 2016 Result at 90 th percentile	N	0.9 No samples exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Volatile Organic Contaminants / Disinfection Byproducts						
TTHM Total Trihalomethanes Test results Yr. 2018	N	Range = ND – 1 Highest LRAA = 1	ppb	N/A	80	By-product of drinking water disinfection
Regulated Disinfectants		Level Detected		MRDL		MRDLG
Chlorine Test Results Yr. 2018		Average = 0.7 ppm		4.0 ppm		4.0 ppm

For Total Halocetic Acids (HAA5s) and Total Trihalomethanes (TTHMs), which are disinfection byproducts, compliance is based on a Locational Running Annual Average (LRAA), calculated at each monitoring location. The LRAA calculation is based on four completed quarters of monitoring results.

Secondary Contaminant	Level Detected	Units of Measurement	RUL
Sodium Test results Yr. 2017	Range = 3 - 55	ppm	50

We slightly exceeded the secondary Recommended Upper Limit for Sodium at one of our Treatment Facilities. For healthy individuals, the sodium intake from water is not important, because a much greater intake of sodium takes place from salt in the diet. However, sodium levels above the Recommended Upper Limit (RUL) may be of concern to individuals on a sodium restricted diet.

Secondary Contaminant: Substances that do not have an impact on health. Secondary Contaminants affect aesthetic qualities such as odor, taste or appearance. Secondary standards are recommendations, not mandates.

Recommended Upper Limit (RUL) – Recommended maximum concentration of secondary contaminants. These reflect aesthetic qualities such as odor, taste or appearance. RUL's are recommendations, not mandates.

The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos and synthetic organic chemicals. Our system received monitoring waivers for all of these types of contaminants.

To ensure the continued quality of our water, we treat it in several ways. We decrease the iron content of the water from one of our wells using a polyphosphate solution, and disinfect the water using a sodium hypochlorite solution.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for seventy years to have a one-in-a-million chance of having the described health effect.

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of 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.

DEFINITIONS

In the "Test Results" table you may find some terms and abbreviations you might not be familiar with. To help you better understand these terms we have provided the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level - The "Maximum Allowed" (MCL) is 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 -The "Goal"(MCLG) is 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 contamination

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. The Pemberton Township Water Department is responsible for providing high quality drinking water, but can not 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 second to 2 minutes before using water for drinking and 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>.

The Pemberton Township Water Department participated in monitoring for unregulated contaminants under the Unregulated Contaminant Monitoring Rule (UCMR). Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether regulation is warranted. Our results are available upon request. We found the substances listed below.

Contaminant	Level Detected	Units of Measurement	Likely source
Chlorate	Range = ND - 280	ppb	Agricultural defoliant or desiccant; disinfection byproduct; used in the production of chlorine dioxide
Chromium	Range = ND – 0.34	ppb	Naturally-occurring element; used in the making of steel and other alloys; chromium -3 or -6 are used for chrome plating, dyes and pigments, leather tanning, and other wood preservation
Strontium	Range = ND - 310	ppb	Naturally-occurring element; historically commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions

We work hard to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

Please call our office if you have questions.

Pemberton Township Water Department - Main Supply- PWSID #NJ0329004

Pemberton Township Water Department - Main Supply is a public community water system consisting of 6 active wells.

This system's source water comes from the following aquifers: Englishtown Aquifer System, Mount Laurel-Wenonah Aquifer System.

Susceptibility Ratings for Pemberton Township Water Department - Main Supply Sources

The table below illustrates the susceptibility ratings for the seven contaminant categories (and radon) for each source in the system. The table provides the number of wells and intakes that rated high (H), medium (M), or low (L) for each contaminant category. For susceptibility ratings of purchased water, refer to the specific water system's source water assessment report.

The seven contaminant categories are defined at the bottom of this page. DEP considered all surface water highly susceptible to pathogens, therefore all intakes received a high rating for the pathogen category. For the purpose of Source Water Assessment Program, radionuclides are more of a concern for ground water than surface water. As a result, surface water intakes' susceptibility to radionuclides was not determined and they all received a low rating.

If a system is rated highly susceptible for a contaminant category, it does not mean a customer is or will be consuming contaminated drinking water. The rating reflects the potential for contamination of source water, not the existence of contamination. Public water systems are required to monitor for regulated contaminants and to install treatment if any contaminants are detected at frequencies and concentrations above allowable levels. As a result of the assessments, DEP may customize (change existing) monitoring schedules based on the susceptibility ratings.

Sources	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganics			Radionuclides			Radon			Disinfection Byproduct Precursors			
	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Wells - 6			6			6			6			6		1	5			6		3	3			6	

Pathogens: Disease-causing organisms such as bacteria and viruses. Common sources are animal and human fecal wastes.

Nutrients: Compounds, minerals and elements that aid growth, that are both naturally occurring and man-made. Examples include nitrogen and phosphorus.

Volatile Organic Compounds: Man-made chemicals used as solvents, degreasers, and gasoline components. Examples include benzene, methyl tertiary butyl ether (MTBE), and vinyl chloride.

Pesticides: Man-made chemicals used to control pests, weeds and fungus. Common sources include land application and manufacturing centers of pesticides. Examples include herbicides such as atrazine, and insecticides such as chlordane.

Inorganics: Mineral-based compounds that are both naturally occurring and man-made. Examples include arsenic, asbestos, copper, lead, and nitrate.

Radionuclides: Radioactive substances that are both naturally occurring and man-made. Examples include radium and uranium.

Radon: Colorless, odorless, cancer-causing gas that occurs naturally in the environment. For more information go to <http://www.nj.gov/dep/rpp/radon/index.htm> or call (800) 648-0394.

Disinfection Byproduct Precursors: A common source is naturally occurring organic matter in surface water. Disinfection byproducts are formed when the disinfectants (usually chlorine) used to kill pathogens reacts with dissolved organic material (for example leaves) present in surface water.