Annual Drinking Water Quality Report

Point Pleasant Beach Water Department

For the Year 2020, Results from the Year 2019

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Beginning in March 2000, the Borough of Point Pleasant Beach has obtained its entire drinking water supply from the Brick Township Municipal Utilities Authority (BTMUA). The water from BTMUA is drawn from groundwater wells and the Metedeconk River and treated at the BTMUA facility on Route 88 in Brick Township.

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued a 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 to obtain information regarding BTMUA's Source Water Assessment. BTMUA's source water susceptibility ratings and a list of potential contaminant sources is included.

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Point Pleasant Beach Water Department 2019 Test Results
PWS ID #NJ1525001

Contaminant	Viola-tion Y/N	Level Detected	Units of Measure-ment	MC LG	MCL	Likely Source of Contamination
Inorganic Contaminants:						
Copper Test results Yr. 2018 Result at 90th Percentile	N	0.06 No samples exceeded the action level.	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead Test results Yr. 2018 Result at 90th Percentile		ND No samples exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Disinfection Byproducts:						
TTHM Total Trihalomethanes Test results Yr. 2019	N	Range = 15 - 77 Highest LRAA = 38	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids Test results Yr. 2019	N	Range = 4 - 32 Highest LRAA = 27	ppb	N/A	60	By-product of drinking water disinfection

Regulated Disinfectants	Level Detected	MRDL	MRDLG
Chlorine Test results Yr. 2019	Range = 0.1 – 0.9 ppm Average = 0.4 ppm	4.0 ppm	4.0 ppm

Chlorine: Water additive used to control microbes.

HAA5 and TTHM compliance is based on the Locational Running Annual Average (LRAA), calculated at each monitoring location. The LRAA calculation is based on four completed quarters of monitoring results.

The Point Pleasant Beach Water Department participated in the Unregulated Contaminant Monitoring Rule (UCMR) in 2018. Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Point Pleasant Beach Water Department UCMR Results

Perfluoro octane sulfonic acid (PFOS)	ppt	Range = ND – 3.8 Average = 1.9	Used in the manufacture of fluoropolymers
Perfluoro octanoic acid (PFOA)	ppt	Range = 13 – 14 Average = 13.5	Used in the manufacture of fluoropolymers

What are PFOA and PFOS?
Perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) are per- and polyfluoroalkyl substances (PFAS), previously referred to as perfluorinated compounds, or PFCs, that are man-made and used in industrial and commercial applications. PFOA was used as a processing aid in the manufacture of fluoropolymers used in non-stick cookware and other products, as well as other commercial and industrial uses based on its resistance to harsh chemicals and high temperatures. PFOS is used in metal plating and finishing as well as in various commercial products. PFOS was previously used as a major ingredient in aqueous film forming foams for firefighting and training, and PFOA and PFOS are found in consumer products such as stain resistant coatings for upholstery and carpets, water resistant outdoor clothing, and grease proof food packaging. Although the use of PFOA and PFOS has decreased substantially, contamination is expected to continue indefinitely because these substances are extremely persistent in the environment and are soluble and mobile in water. More information can be found at:
https://www.state.nj.us/dep/wms/bears/docs/2019-4-15-FAQs_PFOS-PFOA-websites-OLA%204-24-19SDM-(003).pdf

The Point Pleasant Beach Water Department and the Brick Township Municipal Utilities Authority (BTMUA) routinely monitor for contaminants in your drinking water according to Federal and State laws. The tables show the results of that monitoring for the period of January 1st to December 31st, 2019. 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**.**

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 Point Pleasant Beach Water Department and the Brick Township Municipal Utilities Authority are 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 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.

If you have any questions about this report or concerning your water utility, please contact Kevin Thompson, Supervisor of the Water/Sewer Department at 732-892-2550. We want you to be informed about you drinking water. If you want to learn more, please attend any of our regularly scheduled Borough Council meetings held at the Borough Hall, 416 New Jersey Avenue.

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.

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. Food and Drug Administration 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 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.

DEFINITIONS

In the “Test Results” tables you may find some terms and abbreviations you might not be familiar with. To help you better understand these terms we've 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.
Parts per trillion (ppt) or Micrograms per liter - one part per billion corresponds to one minute in 20,000 years, or a single penny in $100,000,000.
Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.
Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
Total Organic Carbon – Total Organ Carbon (TOC) has no health effects. However, TOC provides a medium for the formation of disinfection byproducts. The *Treatment Technique* for TOC requires that 35% - 45% of the TOC in the raw water is removed through the treatment processes.
Locational Running Annual Average (LRAA) - LRAA calculation is based on four completed quarters of results for disinfection byproducts at each individual monitoring location.
Turbidity – Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium microbial growth. Turbidity is measured as an indication of the effectiveness of the filtration process. The *Treatment Technique* for turbidity requires that no individual sample exceeds 1 NTU and 95% of the samples collected during the month must be less than 0.3 NTU.
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.

The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos, volatile organic chemicals and synthetic organic chemicals. BTMUA received monitoring waivers for synthetic organic chemicals.

Cryptosporidium

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Cryptosporidium is usually removed through the filtration process and inactivated by other treatment processes. In order to check for the presence of Cryptosporidium, the USEPA issued the Long Term Enhanced Surface Water Treatment Rule in January 2006. The Authority's testing performed in 2017 exhibited no detectable presence of cryptosporidium on any occasion. Cryptosporidium is effectively removed by filtration, consequently no finished water delivered by BTMUA has ever shown any presence of Cryptosporidium.

Brick Township Municipal Utilities Authority 2019 Test Results

PWSID # NJ1506001

Contaminant	Violation Y/N	Level Detected	Units of Measurement	MC LG	MCL	Likely Source of Contamination
Microbiological Contaminants:						
Turbidity	N	Highest detect = 0.18 100% < 0.3 NTU Highest average = 0.06	NTU	N/A	TT 95% 0f monthly samples < 0.3 NTU	Soil runoff
Total Coliform Bacteria	N	Highest month 2.0 %		0	5% of monthly samples positive	Naturally present in the environment
Radioactive Contaminants:						
Combined Radium 228 & 226 Test results Yr. 2014	N	1.03	pCi/1	0	5	Erosion of natural deposits
Inorganic Contaminants:						
Barium	N	Range = 0.04 – 0.06 Highest detect = 0.06	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper Result at 90th Percentile	N	0.03 No samples exceeded the action level.	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead Result at 90th Percentile	N	1.32 No samples exceeded the action level.	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	N	Range = 0.13 – 0.65 Highest detect = 0.65	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	N	Range = ND – 1.21 Highest detect = 1.21	ppb	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Disinfection Byproducts:						
TTHM Total Trihalomethanes	N	Range = 19 - 68 Highest LRAA = 44	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids	N	Range = 13 - 37 Highest LRAA = 27	ppb	N/A	60	By-product of drinking water disinfection

Regulated Disinfectants	Level Detected	MRDL	MRDLG
Chloramines	Highest Average = 1.33 ppm Range = 0.27 – 1.88	4.0 ppm	4.0 ppm
Chlorine	Highest Average = 0.97 ppm Range = 0.12 – 1.69	4.0 ppm	4.0 ppm

Chlorine / Chloramines: Water additives used to control microbes.

HAA5 and TTHM compliance is based on the Locational Running Annual Average (LRAA), calculated at each monitoring location. The LRAA calculation is based on four completed quarters of monitoring results.

Brick Township MUA participated in the Unregulated Contaminant Monitoring Rule. Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Brick Township MUA Unregulated Contaminant Monitoring

Contaminant	Level Detected	Units of Measurement	Likely source
Haloacetic Acids (HAA5)	Range = 19 - 46 Highest detect = 46	ppb	By-product of drinking water disinfection
Haloacetic Acids (HAA6Br)	Range = 4 - 8 Highest detect = 8	ppb	By-product of drinking water disinfection
Haloacetic Acids (HAA9)	Range = 24 - 53 Highest detect = 53	ppb	By-product of drinking water disinfection

Brick Township MUA- PWSID # NJ1506001

Brick Township MUA is a public community water system consisting of 11 wells, 2 wells under the influence of surface water, 1 surface water intake.

This system's source water comes from the following aquifers and/or surface water bodies: Kirkwood-Cohansey Watertable Aquifer System, Metedeconk River, Potomac-Raritan-Magothy Aquifer System

Susceptibility Ratings for Brick Township MUA 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.

	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganics			Radionuclides			Radon			Disinfection Byproduct Precursors		
Sources	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 - 11		6	5	7		4		7	4	7		4	7		4	7	4			7	4	7	4	
GUDI - 2	2			2						2			2			2				2		2		
Surface water intakes - 1	1				1				1		1		1					1			1	1		

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 react with dissolved organic material (for example leaves) present in surface water.