

PWSID# NJ0815001

Borough of Pitman Water Department
Annual Drinking Water Quality Report
For the Year 2021, Results from the Year 2020

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 of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources

We are committed to ensuring the quality of your water. Our water sources are wells that draw groundwater from the Potomac-Raritan-Magothy Aquifer and we purchase water from the NJ American Water Company (NJAW Water Report is included).

The Pitman Water Department and NJ American Water Company routinely monitor for contaminants in your drinking water according to Federal and State Laws. The tables below show the results of the monitoring period from January 1, 2020 to December 31, 2020. The state allows monitoring for some contaminants less than once per year because the concentrations of these contaminants don't change frequently. Some of the data, through representative, are more than one year old.

The Sources of drinking water (both tap water and bottled) 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 plant, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salt and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas projections, 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, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottle 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.

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 Water at (609) 292-5550. You may also contact your Pitman Water Department at (856) 589-1040 to obtain information regarding your water system's Source Water Assessment.

We are pleased to report that our drinking water meets all federal and state safety requirements. This report shows our water quality and what it means. We want our customers to be informed about their water utility. If you want to learn more, please attend regular scheduled council meetings at 110 South Broadway. Meetings are held the 2nd and 4th Mondays each month at 7 PM.

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).

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. Our system received monitoring waivers for asbestos and synthetic organic compounds.

EPA requires monitoring for over 80 drinking water contaminants. Those contaminants listed in the table below are the only contaminants detected in your water.

Definitions

In the following table you will find many 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 (mg/l)- 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.

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

Maximum Contaminant Level (MCL)- The "Maximum Allowed" (MCL) is the highest level of 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 "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.

Sodium

For healthy individuals the sodium intake from water is not important, because 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.

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. Pitman 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 for 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>.

Special considerations regarding children, pregnant woman, nursing mothers, and others:

Children may receive a slightly higher amount of a contaminant present in the water than do adults, on a body weight basis, because they may drink a greater amount of water per pound of body weight than do adults. For this reason, reproductive or developmental effects are used for calculating a drinking water standard if these effects occur at lower levels than other health effects of concern. If there is insufficient toxicity information for a chemical (for example, lack of data on reproductive or developmental effects), an extra uncertainty factor may be incorporated into the calculation of the drinking water standard, thus making the standard more stringent, to account for additional uncertainties regarding the effects. In the cases of lead and nitrate, effects on infants and children are the health endpoints upon which the standards are based. Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six 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.

The Pitman Water Department strives to provide quality drinking water to every tap for the residents of Pitman. 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 Pitman Public Works, 856-589-1040, if you have any questions.

PLEASE CONTINUE TO CONSERVE WATER. ALL NON-ESSENTIAL USE TO OCCURE ON AN ODD/EVEN DAY BASIS.

Pitman Water Department Test Results

Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Total Coliform Bacteria Test Results- 2020	N	0/100 ML	P/A	N/A	0	Naturally present in the environment
Radioactive Contaminants						
Gross Alpha Test Results- 2018	N	Range= ND Highest Avg. <3	pCi/1	0	15	Erosion of natural deposits
Combined Radium- 228 & 226 Test Results- 2018	N	Range= ND Highest Avg. <1	pCi/1	0	5	Erosion of natural deposits
Inorganics						
Barium Test Results- 2018	N	Range= 0.03-0.037	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium Test Results- 2018	N	Range= 0.0018-0.0019	ppm	0.10	.010	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper Test Results- 2018 Results at 90 th Percentile	N	Range= 0.062-0.577 No Samples exceeded the Action Level	ppm	1.3	AL= 1.3	Corrosion of household plumbing systems; erosion of natural deposits
Fluoride Test Results- 2018	N	Range= 1.9-2.0	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead Test Results- 2018 Results at 90 th Percentile	N	Range= <2-5.12 No Sample exceeded the Action Level	ppb	0	AL= 15	Corrosion of household plumbing systems; erosion of natural deposits
Nitrate (as Nitrogen) Test Results- 2020	N	Range= <1.0-1.10	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Disinfection By-Products						
Total Trihalomethanes (TTHM) Test Results- 2020	N	Range= 3.85-32.49	ppb	N/A	80	By Product of drinking water disinfection
Halo acetic Acid (HAA5) Test Results- 2020	N	Range= 0-9.3	ppb	N/A	60	By Product of drinking water disinfection

Regulated Disinfectants	Level Detected	MRDL	MRDLG
Chlorine Test Results- 2019	Range= 0.5-1.11 Average= 0.25	4.0 ppm	4.0 ppm

Secondary Contaminant	Level Detected	Units of Measurement	RUL
Sodium Test Results- 2019	Range= 119.7-132.4	ppm	50

PFAS -Synthetic Chemicals

PFAS is short for per- and polyfluoroalkyl substances. These chemicals were used in household products and industrial uses. Examples are nonstick pans, firefighting foam, cleaning products, stain resistant fabrics, and waterproof personal care. The makeup of these chemicals, while useful, are resistant to breaking down naturally.

Unregulated Perfluorinated Compounds				
Contaminant	Violation Y/N	Level Detected	Units	Typical Source
Perfluorooctanesulfonic Acid (PFOS)	N	ND-2.6 Average Result- 0.32	ppt	Used in items for grease, stain, water and heat resistance
Perfluorooctanoic Acid (PFOA)	N	ND-3.1 Average Result- 0.38	ppt	Non stick pans(Teflon), fire fighting foam, lubricants, cosmetics, adhesives.

Pitman Water Department

Source Water Assessment Summary

A State Review of Potential Contamination Sources Near Your Drinking Water

The Department of Environmental Protection (DEP) has conducted an assessment of the water sources that supply each public water system in the state, including yours. The goal of the assessment was to measure each system's susceptibility to contamination, not actual (if any) contamination measured in a water supply system.

The assessment of your water system, the *Pitman Water Department*, involved:

- Identifying the area (known as the source water assessment area) that supplies water to your public drinking water system;
- Inventorying any significant potential sources of contamination in the area; and
- Analyzing how susceptible the drinking water source is to the potential sources of contamination.

DEP evaluated the susceptibility of all public water systems to eight categories of contaminants. These contaminant categories are explained, along with a summary of the results for your water system, on page 3. Page 4 contains a map of your water system's source water assessment area.

Pitman Water Department- PWSID# 0815001

The Borough of Pitman Water Department is a public water system consisting of 2 well(s), 0 wells under the influence of surface water, 0 surface water intake(s), 1 purchased ground water source(s), and 1 purchased surface water source(s).

This system's source water comes from the following aquifer(s) and/or surface water body(s) (if applicable): upper Potomac-Raritan-Magothy aquifer.

This system purchases water from the following water systems(s) (if applicable): GLASSBORO WATER DEPARTMENT, NJAWCO-WESTERN DIVISION.

Susceptibility Ratings for Pitman Water Department 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 intake's 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			Radio-nuclides			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- 2			3			3			3			3		3			3			3		3		
GUIDI- 0																								
Surface Water Intakes- 0																								

- **Pathogens:** Disease-causing organisms such as bacteria and viruses. Common sources are animal and human fecal waste.
- **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 pest, 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.

Water Quality Results

New Jersey American Water conducts extensive monitoring to determine if your water meets all water quality standards. The detections of our monitoring are reported in the following tables. While most monitoring was conducted in 2020, certain substances are monitored less than once per year because the levels do not change frequently. For help with interpreting the tables below, see the "Definition of Terms" on the previous page. Some unregulated substances are measured, but maximum contaminant levels have not been established by the government. These contaminants are shown for your information.

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 (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial pathogens are available from the Safe Drinking Water Hotline (1-800-426-4791).

NOTE: Regulated contaminants not listed in this table were not found in the treated water supply.

PRIMARY REGULATED SUBSTANCES

LEAD AND COPPER MONITORING PROGRAM - At least 50 tap water samples collected at customers' taps every year						
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	Action Level (AL)	90th Percentile	No. of Homes Sampled
Lead (ppb)	2020	Yes	0	15	2	52
Copper (ppm)	2020	Yes	0	1.3	0.292	52
						Corrosion of household plumbing systems.
						Corrosion of household plumbing systems.

TOTAL COLIFORM RULE - At least 150 samples collected each month in the distribution system

Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Percentage	Typical Source
Total Coliform	2020	Yes	0	Less than 5%	0.7%	Naturally present in the environment.
E. Coli	2020	Yes	0	TT = No confirmed samples	0	Human and animal fecal waste.

NOTE: Coliforms are bacteria that are naturally present in the environment and are used as an indicator of the general bacteriological quality of the water. We are reporting the highest percentage of positive samples / highest number of positive samples in any month.

PRIMARY REGULATED SUBSTANCES

DISINFECTANTS - Collected at the Surface Water Treatment Plant and Distribution System								
Substance (with units)	Year Sampled	Compliance Achieved	MRDLG	MRDL	Minimum Chlorine Residual	Compliance Result	Range Detected	Typical Source
Entry Point Chlorine Residual (ppm) ¹	2020	Yes	4	4	TT ≥ 0.20	0.56	0.56 to 1.46	Water additive used to control microbes.
Distribution System Chlorine Residual (ppm) ²	2020	Yes	4	4	TT ≥ 0.20	0.67	ND to 1.48	Water additive used to control microbes.

1 - Data represents the lowest residual entering the distribution system from our water treatment plant.

2 - Data represents the highest monthly average of chlorine residuals measured throughout our distribution system.

DISINFECTION BYPRODUCTS - Collected In the Distribution System							
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Compliance Result	Range Detected	Typical Source
Total Trihalomethanes (TTHMs) (ppb)	2020	Yes	NA	80	38.1	3.3 to 50.7	By-product of drinking water disinfection.
Haloacetic Acids (HAAs) (ppb)	2020	Yes	NA	60	15.3	1.3 to 23.6	By-product of drinking water disinfection.

NOTE: Compliance is based on the running annual average at each location. The Highest Compliance Result reflects the highest average at any location and the Range Detected reflects all samples from this year used to calculate the running annual average.

TREATMENT BYPRODUCTS PRECURSOR REMOVAL - Collected at the Treatment Plant								
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Range of % Removal Required	Range of % Removal Achieved	Number of Quarters Out of Compliance	Typical Source
Total Organic Carbon (TOC)	2020	Yes	NA	TT ≥ 35% Removal	35% to 45%	45% to 66%	0	Naturally present in the environment.
Actual / Required TOC Removal (Ratio)	2020	Yes	NA	TT: Running Annual Average ≥ 1.0		1.29 to 1.89	0	Naturally present in the environment.

PRIMARY REGULATED SUBSTANCES

TURBIDITY - Continuous Monitoring at the Treatment Plant							
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Single Measurement and Lowest Monthly % of Samples ≤ 0.3 NTU	Sample Date of Highest and Lowest Compliance Result	Typical Source
Turbidity (NTU) ³	2020	Yes	0	TT: Single result > 1 NTU	0.1	1/3/2020	Soil runoff.
	2020	Yes	NA	TT: At least 95% of samples ≤ 0.3 NTU	100%	NA	Soil runoff.

3 - 100% of the turbidity readings were below the treatment technique requirement of 0.3 NTU. Turbidity is a measure of the cloudiness of the water. We monitor turbidity because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

OTHER REGULATED SUBSTANCES - Collected at the Treatment Plant							
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL/SMCL	Highest Compliance Result	Range Detected	Typical Source
Nitrate (ppm)	2020	Yes	10	10	0.99	ND to 0.99	Runoff from fertilizer use; industrial or domestic wastewater discharges; erosion of natural deposits.
Barium (ppm)	2020	Yes	2	2	0.1	ND to 0.1	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Copper (ppm)	2020	Yes	1.3	1.3	0.038	ND to 0.038	Plumbing fixtures & piping; erosion of natural deposits.
Lead (ppb)	2020	Yes	0	15	3	ND to 3	Plumbing fixtures & piping; erosion of natural deposits.
Alpha Emitters (pCi/L)	2020	Yes	0	15	5.72	3.91 to 5.72	Erosion of natural deposits.
Combined Radium 226/228 (pCi/L)	2020	Yes	0	5	1.63	ND to 1.63	Erosion of natural deposits.

UNREGULATED CONTAMINANT MONITORING

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 future regulation is necessary. Every five years, the EPA issues a new list of no more than 30 unregulated contaminants to be monitored.

Unregulated Contaminants Monitoring (UCMR4) 2019				
Parameter	Units	Average Result	Range Detected	Typical Source
Manganese ⁴	ppb	1.02	ND to 1.8	Naturally-occurring elemental metal; largely used in aluminum alloy production. Essential dietary element.
2-Methoxyethanol	ppb	0.24	ND to 0.47	Used as a solvent in varnishes, dyes, resins, airplane deicing solutions. It is also used in organometallic chemistry synthesis.

4 - Manganese is regulated as a secondary contaminant with a secondary maximum contaminant level of 50 ppb

PFAS MONITORING

PFAS refers to per- and polyfluoroalkyl substances, a class of synthetic chemicals, manufactured for industrial applications and commercial household products such as: non-stick cookware; waterproof and stain resistant fabrics and carpets; firefighting foam and cleaning products. The properties that make these chemicals useful in so many of our every-day products also resist breaking down and therefore persist in the environment. Exposure may be from food, food packaging, consumer products, house dust, indoor and outdoor air, drinking water and at workplaces where PFAS are made or used.

UNREGULATED PERFLUORINATED COMPOUNDS				
Parameter	Units	Average Result	Range Detected	Typical Source
Perfluorooctanoic Acid (PFOA)*	ppt	0.46	ND to 5.0	Used for its emulsifier and surfactant properties in or as fluoropolymers (such as Teflon), fire fighting foams, cleaners, cosmetics, lubricants, paints, polishes, adhesives and photographic films
Perfluorooctanesulfonic Acid(PFOS)*	ppt	0.41	ND to 4.8	Manmade chemical; used in products for stain, grease, heat and water resistance

* PFOA and PFOS MCLs became active in 2021