Annual Drinking Water Quality Report Brielle Water Department

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 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 are pleased to report that our drinking water meets all federal and state safety requirements.

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 Brielle Water Department and the New Jersey Water Supply Authority - Manasquan Reservoir Water Supply System routinely monitor for over 80 contaminants in your drinking water according to Federal and State laws. The tables list only detected contaminants and show the results of our monitoring from January 1st to December 31st, 2020. We have learned through our monitoring and testing that some contaminants have been detected. 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.

and the second of the second s	Brielle Water Department Test Results PWS ID # NJ1308001													
Contaminant:	Viola- tion Y/N	Level Detected	Units of Measure- ment	MC LG	MCL	Likely Source of Contamination								
Radioactive Contaminants:														
Combined Radium 228 & 226 Test results Yr. 2018	N	1.5	pCi/1	N/A	N/A	Erosion of natural deposits								
Inorganic Contaminants:				L		<u> </u>								
Copper Test results Yr. 2020 Result at 90 th Percentile	N	0.1 No samples exceed the action level	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits								
Lead Test results Yr. 2020 Result at 90 th Percentile	N	ND No samples exceed the action level.	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits								
Nitrate (as Nitrogen) Test results Yr. 2020	N	Range = 0.5 Highest detect = 0.5	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits								
Disinfection Byproducts:														
TTHM Total Trihalomethanes Test Results Yr. 2020	N	Range = 1 - 68 Highest LRAA = 36	ppb	N/A	80	By-product of drinking water disinfection								
HAA5 Haloacetic Acids Test Results Yr. 2020	N	Range = 13 - 32 Highest LRAA = 21	ppb	N/A	60	By-product of drinking water disinfection								
Synthetic Organic Contamina	mts:													
PFNA Perfluorononanoic Acid Test results Yr. 2020	N	Range = ND - 2.7 Highest detect = 2.7 Highest Average = 1.25	ppt	N/A	13	Used in the manufacture of fluoropolymers.								
Regulated Disinfectants		Level Detected	MRDL		MRDLG									
Chlorine Test results Yr. 2020 Chlorine: Water additive used to		Range = 0.5 – 1.0 ppm Average = 0.7 ppm	4.0 ppm		4.0 ppm									

Chlorine: Water additive used to control microbes

HAA5 and TTHM 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
Iron	Range = ND - 400	ppb	300
Test results Yr. 2018	•		

Iron: We exceeded the Secondary Recommended Upper Limit (RUL) for Iron at one of our treatment plants. The RUL for iron is based on unpleasant taste of the water and staining of laundry. Iron is an essential nutrient, but some people who drink water with iron levels well above the RUL could develop deposits of iron in a number of organs in the body. Iron is a naturally occurring element in soil, groundwater, and some surface waters. We do not treat for, or remove, iron. Iron bacteria are considered harmless to health, how- ever, they may give water an off taste or color, cause splotchy yellow stains on laundry, and clog water systems.

Our water source: We have two sources of drinking water: our wells and the New Jersey Water Supply Authority, Manasquan Reservoir Water Supply System. One well draws water from the Kirkwood Aquifer and the other two draw their water from the Englishtown Aquifer. The Manasquan Water Treatment Plant, located on Hospital Road in the, Allenwood section of Wall Township, is owned by the Monmouth County Improvement Authority and is operated by the New Jersey Water Supply Authority. The Manasquan Water Treatment Plant takes it water from the Manasquan River in Wall Township and the Manasquan Reservoir in Howell Township.

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 to obtain information regarding your water system's Source Water Assessment. Brielle Water Department's and the Manasquan Water Supply System's source water susceptibility ratings and a list of potential contaminant sources is included.

Potential sources of contamination: 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 lasts 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 nanogram per liter - one part per trillion corresponds to one minute in 20,000 years, or a single penny in \$100,000,000.

<u>Picocuries per liter</u> (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.

<u>Total Organic Carbon</u> – 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 a treatment processes.

<u>Turbidity</u> – 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 seen.

<u>Maximum Contaminant Level</u> - 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.

<u>Maximum Residual Disinfectant Level Goal (MRDLG):</u> The level of a drinking water disinfectant, below which there is no known or health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination

Waivers: 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 systems received monitoring waivers for asbestos and synthetic organic chemicals. The Manasquan Water Supply System received a monitoring waiver for synthetic organic contaminants.

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 Brielle Water Department and the New Jersey Water Supply Authority, Manasquan Reservoir Water Supply System 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 hot line or at http://www.epa.gov/safewater/lead.

For additional information: If you have any questions about this report or concerning your water utility, please call 732-528-5210. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled Borough Council meetings at Borough Hall, 601 Union Lane. Meetings are held on the second and fourth Monday of each month at 7:30 p.m.

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.

Unregulated Contaminant Monitoring: The Brielle Water Department monitored for the following unregulated contaminants in 2020. Unregulated contaminants are those for which the US Environmental Protection Agency (EPA) or the New Jersey Department of Environmental Protection (NJDEP) has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA and NJDEP in determining the occurrence of unregulated contaminants in drinking water and whether regulation is warranted. Per – and polyfluoroalkyl substances (PFAS) are widely found in the environment. EPA has identified a health advisory level for two PFAS analytes, PFOA and PFOS 0.070 ppb either singly or combined, and NJDEP has adopted new drinking water standards (Maximum Contaminant Levels (MCLs)) for PFOA and PFOS of 14 ng/L (ppt) and 13 ng/L (ppt), respectively, as of January 2021. The detected levels of PFOA and PFOS found are below DEP's MCLs.

Contaminant	Level Detected	Units of Measurement	Likely source
(PFOS) Perfluorooctane Sulfonate	Range = ND - 5.1	ppt	Used in the manufacture of fluoropolymers.
(PFOA) Perfluorooctanoic Acid	Range = ND - 3.4	ppt	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 en vironment 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-PFOA-websites-OLA%204-24-19SDM-(003).pdf

Please note: The New Jersey Water Supply Authority is not responsible for lead testing within the customer communities. Consult the Consumer Confidence Report of your community water system for lead results. The lead results in the table above are from faucets at the buildings on the Water Treatment facilities property. Lead and copper levels were detected in some samples taken at the water treatment plant and tested in 2019. The NJWSA adds a corrosion control chemical and adjusts the pH of the water leaving the Water Treatment plant in order to improve the corrosivity of the water and to achieve the regulatory level for these chemical elements.

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 such as ozonation. In order to check for the presence of Cryptosporidium, the USEPA issued the Long-Term Enhanced Surface Water Treatment Rule in January 2006. As part of this rule, the Manasquan System began monthly sampling and testing for Cryptosporidium in October 2016 and this testing continued through its completion in September 2018. The sample results did not show any presence of Cryptosporidium.

Unregulated Contaminant Monitoring: The Manasquan Water Supply monitored for the following unregulated contaminants in 2020. Unregulated contaminants are those for which the US Environmental Protection Agency (EPA) or the New Jersey Department of Environmental Protection (NJDEP) has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA and NJDEP in determining the occurrence of unregulated contaminants in drinking water and whether regulation is warranted. Per – and polyfluoroalkyl substances (PFAS) are widely found in the environment. EPA has identified a health advisory level for two PFAS analytes, PFOA and PFOS 0.070 ppb either singly or combined, and NJDEP has adopted new drinking water standards (Maximum Contaminant Levels (MCLs)) for PFOA and PFOS of 14 ng/L (ppt) and 13 ng/L (ppt), respectively. The detected levels of PFOA and PFOS found are below DEP's MCLs.

Contaminant	Level Detected	Units of Measurement	Likely source
(PFOS) Perfluorooctane Sulfonate	Range = $3.5 - 5.1$	ppt	Used in the manufacture of fluoropolymers.
(PFOA) Perfluorooctanoic Acid	Range = $4.8 - 5.9$	ppt	Used in the manufacture of fluoropolymers.
(PFHxS) Perfluorohexanesulfonic Acid	2.1	ppt	Used in the manufacture of fluoropolymers.
(PFHxA) Perfluorohexanoic Acid	2.6	ppt	Used in the manufacture of fluoropolymers.
Saxitoxin	0.084	ppb	Algae

Result at 90th Percentile the action level. ppm 1.3 AL=1.3 Corrosion of household plumbing systems; erosion on natural deposits			Manasquan Watei PWS	: Suppry 20 <u>D#NJ135200</u>		Results	
Turbidity N Range = 0.02 - 0.13 100% < 0.3 NTU 1	Contaminant	tion	20,02	Measure-	i i	MCL	
Total Organ Carbon (TOC) N Range = 21 - 54 Avg. Removal = 37% N/A TT 35% - 45% removal removal Reaction of bromide with Ppb N/A N/A TT 35% - 45% removal Reaction of bromide with Ppb N/A N/A TT 35% - 45% removal Reaction of bromide with Ppb N/A N/A Removal Ppm N N N N N N N N N	Microbiological Contamina	nts:					
Bromate Avg. Removal = 37% Bromate Avg. Removal = 37% Premoval	Turbidity	N		NTU	N/A	95% 0f monthly samples < 0.3	Soil runoff
Highest detect = 6 Dozone used in treatment process		N		%	N/A	35% - 45%	Soil runoff
Copper	Bromate	N		ppb	< 1.3	10	ozone used in treatment
Copper	Inorganic Contaminants:			-			
Test results 2 nd ½ of 2020 Result at 90th Percentile Lead Corrosion of household plumbing systems; erosion of natural deposits No samples exceeded the action level. Lead No samples exceeded the action level. No action fertilezer action from plastic and fertilizer and aluminum factories water additive which promot strong teeti, discharge from fertilizer action fertilizer action fertilizer action fertilizer action fertilizer action fertilizer action fertilizer acti	Copper Test results 1 st ½ 0f 2020	N	No samples exceeded	ppm	1.3	AL=1.3	plumbing systems; erosion of
Test results 1 st ½ of 2020 Result at 90th Percentile Lead Result at 90th Percentile Lead Result at 90th Percentile No samples exceeded the action level. Ppb O Al=15 Corrosion of household plumbing systems; erosion on natural deposits Result at 90th Percentile Barium N O O O O O O O O O O O O O O O O O O	Test results 2 nd ½ of 2020 Result at 90 th Percentile	N	No samples exceeded	ppm	1.3	AL=1.3	plumbing systems; erosion of
Test results 2nd ½ of 2020 Result at 90th Percentile Barium N 0.03 ppm 2 2 Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits Cyanide N 1.0 ppb 200 Discharge from steel/metal factories; discharge from plastic and fertilizer factories; discharge from plastic and fertilizer factories Fluoride N Range = 0.06 - 0.1 Highest detect = 0.1 Highest detect = 0.1 Nitrate (as Nitrogen) N 2.5 Ppb N/A N/A Discharge from steel/metal factories; discharge from plastic and fertilizer and aluminum factories Nitrate (as Nitrogen) N 0.48 Ppm 10 10 Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits Disinfection Byproducts: TTHM N 16.7 Ppb N/A 80 By-product of drinking water disinfection	Test results 1 st ½ of 2020 Result at 90 th Percentile	N	No samples exceeded	ppb	0	Al=15	plumbing systems; erosion of
Cyanide N 1.0 Ppb 200 Discharge from metal refineries; erosion of natural deposits N Range = 0.06 - 0.1 Highest detect = 0.1 Nickel N 2.5 Ppb N/A Nitrate (as Nitrogen) N 1.0 Ppb 1.0 Ppb 200 Discharge from steel/metal factories; discharge from plastic and fertilizer factories water additive which promot strong teeth; discharge from fertilizer and aluminum factories Nickel N 1.0 Ppm 4 4 Erosion of natural deposits; water additive which promot strong teeth; discharge from fertilizer and aluminum factories Nickel N 0.48 Ppm 10 10 Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits Sewage; erosion of natural deposits Nitrate (as Nitrogen) N 16.7 Ppb N/A 80 By-product of drinking water disinfection	Test results 2 nd ½ of 2020	N	No samples exceeded	ppb	0	Al=15	plumbing systems; erosion of
Cyanide N 1.0 ppb 200 200 Discharge from steel/metal factories; discharge from plastic and fertilizer factories Fluoride N Range = 0.06 - 0.1 Highest detect = 0.1 Ppm 4 4 Erosion of natural deposits; water additive which promot strong teeth; discharge from fertilizer and aluminum factories Nickel N 2.5 ppb N/A N/A Erosion of natural deposits Nitrate (as Nitrogen) N 0.48 ppm 10 10 Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits Disinfection Byproducts: TTHM N 16.7 ppb N/A 80 By-product of drinking water disinfection	Barium	N	0.03	ppm	2	2	refineries; erosion of natural
Fluoride N Range = 0.06 - 0.1 Highest detect = 0.1 Nickel N 2.5 Nitrate (as Nitrogen) N 2.4 N 2.5 Nitrate (as Nitrogen) N 3.4 N 3.5 Nitrate (as Nitrogen) N 3.6 N 3.6 N 4 N 5.7 N 6 N 6 N 7 N 7 N 7 N 7 N 80 N 7 N 80 N 80 N 9product of drinking water additive which promote strong teeth; discharge from fertilizer and aluminum factories N N/A N/A N/A Erosion of natural deposits Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits N 8 N 16.7	Cyanide	N	1.0	ppb	200	200	Discharge from steel/metal factories; discharge from
Nitrate (as Nitrogen) N 0.48 ppm 10 Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits Disinfection Byproducts: TTHM N 16.7 ppb N/A 80 By-product of drinking water disinfection	Fluoride	N	1 =	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum
Nitrate (as Nitrogen) N 0.48 ppm 10 Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits Disinfection Byproducts: TTHM N 16.7 ppb N/A 80 By-product of drinking water disinfection	Nickel	N	2.5	ppb	N/A	N/A	Erosion of natural deposits
Disinfection Byproducts: TTHM N 16.7 ppb N/A 80 By-product of drinking water disinfection Total Trihalomethanes V 0 </td <td>Nitrate (as Nitrogen)</td> <td>N</td> <td>0.48</td> <td>ppm</td> <td>10</td> <td>10</td> <td>Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural</td>	Nitrate (as Nitrogen)	N	0.48	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural
Total Trihalomethanes disinfection	Disinfection Byproducts:						
HAA5 N 142 Inph N/A 60 By-product of drinking water	Total Trihalomethanes	N		ppb		80	
Haloacetic Acids disinfection	HAA5 Haloacetic Acids	N	14.2	ppb	N/A	60	By-product of drinking water disinfection
			· · · · · · · · · · · · · · · · · · ·	P			
Synthetic Organic Contaminants:	DENIA	N	Panga - 2 0 2 2	l nnt	NI/A	1 10	Used in the many feature of

Synthetic Organic Contamir	iants:					
PFNA Perfluorononanoic Acid	N	Range = $2.0 - 3.2$ Highest detect = 3.2	ppt	N/A	13	Used in the manufacture of fluoropolymers.

Regulated Disinfectants	Level Detected	MRDL	MRDLG
Chlorine	Range = $0.5 - 1.8$ ppm	4.0 ppm	4.0 ppm
	Average = 1.2 ppm		

Chlorine: Water additive used to control microbes

Brielle Water Department-PWSID # NJ1308001

Brielle Water Department is a public community water system consisting of 3 wells and 1 purchased surface water source.

This system's source water comes from the following aquifers: Atlantic City "800-foot" Sand Aquifer System, Englishtown Aquifer System

This system purchases water from the following water system: NJ Water Supply - Manasquan System

Susceptibility Ratings for Brielle 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 as sessment 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 <u>potential</u> 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.

	Pa	ıthoge	ns	N	lutrien	ts	P	esticid	es	Volatile Organic Compounds			In	organi	cs	Rad	lionucl	ides]	Radon		Disinfection Byproduct Precursors		
Sources	Н	М	L	Н	М	L	H	М	L	Н	M	L	Н	М	L	Н	М	L	Н	М	L	Н	М	L
Wells - 3			3			3			3			3		2	1			3			3	1	2	

NJ Water Supply Authority - Manasquan System - PWSID # NJ352005

NJ Water Supply Authority - Manasquan System is a public community water system consisting of 2 surface water intakes.

This system's source water comes from the following surface water bodies: Manasquan Reservoir, Manasquan River

Susceptibility Ratings for NJ Water Supply Authority - Manasquan System 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 p urchased water, refer to the specific water system's source water assessment report.

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	P	athoge	ns	N	lutrien	ts	P	Volatile Pesticides Organic Compound		ic	Inorganics			Rad	lionucl	ides	Radon			Disinfection Byproduct Precursors				
Sources	H	М	L	Н	М	L	н	М	L	Н	М	L	Н	М	L	Н	М	L	Н	М	L	Н	М	L
Surface water intakes - 2	2				2			2			2			2				2			2	2		

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 gas oline 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, as bestos, 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.

Simple Tips to Help You Conserve Water INSIDE Your Home

View Video of simple tips to help you conserve water inside your home.

Here are some tips for saving water and money in the bathroom ...

- Update your shower with a low-flow showerhead and save up to 7,665 gallons and up to \$50 per year.
 Cut down the time you spend in the shower to 5 minutes ... and remember the suggestion of switching from baths to 5-minute showers and save 76,650 gallons and up to \$498 per year.
 Replace that old water guzzling toilet with a WaterSense low-flow version and save 10,986 gallons and up to \$70 per

- Get your family to turn the water off while brushing their teeth and save up to 11,680 gallons and up to \$75 per year.

 Update your faucet or attach an inexpensive faucet aerator to your existing one and save 15,622 gallons and up to \$100 per year.
 Fix a constantly running toilet and save up to \$480 per year
- Install a <u>Gate Tube Tollet Water Saver</u> in your tollet tank and <u>save up to 7,300 gallons and up to 5144 per year off your water and <u>sewer billin</u>, homes with wells and septic systems may significantly reduce the load and demand of the
 </u> well and septic field.

For the kitchen ...

- Only wash dishes when the dishwasher is full and save up to 2,920 gallons and up to \$19 per year.
- Replace the old dishwasher with a new high-efficiency model and save up to 1,314 gallons and up to \$8 per year.
 Use a faucet aerator and change to a low-flow faucet when possible and save up to 15,622 gallons and up to \$100.
 Store drinking water in the refrigerator instead of running the faucet until the water is cold.

And in the laundry room ...

- Upgrade to a high efficiency clothes washer and save up to 14,585 gallons and up to \$94 per year.
 Wash only full loads of clothing by adding until the washer is full and save up to 10,534 gallons and up to \$68 per year.
 Adjust the water-setting level to correspond with the size of the wash load.

These few tips add up to more than 167,000 gallons and up to approximately \$1,500 a year for the family to save,

and enjoy.

*Calculations for water and money sayings are based on estimated water use for a family of four with a water rate of \$6.50 per 1,000 gallons. Note: Water rates vary around the State.

More Indoor Water Saving Tips:

- Wash fruits and vegetables in a basin and not under running water
 Do not defrost frozen food under running water; instead thaw in the refrigerator overnight
- Add food wastes to your compost pile instead of using the garbage disposal Take care of household leaks and save up to 10% on your water bill
- To detect leaks, check your water meter before and after two hours of no water use

Simple Tips to Help You Conserve Water OUTSIDE Your Home

Video of simple tips to help you conserve water outside your home

Here are some tips for saving water and money while watering lawns and landscapes...

- · Only water when needed, New Jersey landscapes need approximately one inch of water a week ... most of which often comes from natural rainfall.

 Water flowers with rain collected from your roof with a barrel connected to your gutter downspout
- Use 30-50% less water with drip irrigation and micro-sprays compared to sprinklers
 If you have an irrigation system, get a system audit done by an irrigation specialist who is certified as a USEPA WaterSense

Here are some tips for saving water and money in the Garden:

- . Use native plants that survive best in local conditions, and group plants together based on water need
- Choose drought-tolerant grass varieties such as tall fescues Mulch around trees and plants to reduce evaporation and water-consuming weeds
- Cut back on lawn areas and increase the size of low water using and native plant garden beds.

Here are some tips for saving water and money while doing household chores:

- · Wash the car with a bucket, or use a commercial car wash that recycles water
- When using a hose, control the flow with an automatic shut-off nozzle
 Raise your lawn mower blade to at least 3 inches to promote deeper roots and root system shade that holds soil moisture.
- Don't over fertilize lawns as they need more water to survive
 Sweep driveways, sidewalks and steps rather than hosing them off

Here are some tips for saving water and money during recreational times:

- Avoid recreational toys that require a constant stream of water If you have a pool, remember to purchase a water-saving filter
- . Cover your pool to reduce evaporation when not in use

More Outdoor Water Saving Tips:

- You are over watering when guddles are forming on the landscape or in the street
 Do not water during the heat of the day water in the early morning hours or early evening hours to reduce evaporation
 Save water and reduce diseases by watering the root zone instead of the foliage
 Water deeply, less frequently for a deeper, healthier root systems
 Refer to these manuals for more ideas:

- Conserving Water on home Lawns and Landscapes in New Jersey
 Landscaping for WaterConservation
 Low Maintenance Landscaping (pdf)
 Add organic matter to the soil to improve water and nutrient-holding capacity for healthler plants
- . Use dehumidifier and air-conditioner condensation to water your plants

Stormwater Pollution

Easy Things You Can Do Every Day To Protect Our Water

A Guide to Healthy Habits for Cleaner Water

Pollution on streets, parking lots and lawns is washed by rain into storm drains, then directly to our drinking water supplies and the ocean and lakes our children play in. Fertilizer, oil, pesticides, detergents, pet waste, grass clippings: You name it and it ends up in our water.

Stormwater pollution is one of New Jersey's greatest threats to clean and plentiful water, and that's why we're all doing something about it.

By sharing the responsibility and making small, easy changes in our daily lives, we can keep common pollutants out of stormwater. It all adds up to cleaner water, and it saves the high cost of cleaning up once it's dirty.

As part of New Jersey's initiative to keep our water clean and plentiful and to meet federal requirements, many municipalities and other public agencies including

colleges and military bases must adopt ordinances or other rules prohibiting various activities that contribute to stormwater pollution. Breaking these rules can result in fines or other penalties.



As a resident, business, or other member of the New Jersey community, it is important to know these easy things you can do every day to protect our water.

Limit your use of fertilizers and pesticides

- Do a soil test to see if you need a fertilizer.
- Do not apply fertilizers if heavy rain is predicted.
- Look into alternatives for pesticides.
- Maintain a small lawn and keep the rest of your property or yard in a natural state with trees and other native vegetation that requires little or no fertilizer.
- If you use fertilizers and pesticides, follow the instructions on the label on how to correctly apply it.



Make sure you properly store or discard any unused portions.

Properly use and dispose of hazardous products

- Hazardous products include some household or commercial cleaning products, lawn and garden care products, motor oil, antifreeze, and paints.
- Do not pour any hazardous products down a storm drain because storm drains are usually connected to local waterbodies and the water is not treated.

- If you have hazardous products in your home or workplace, make sure you store or dispose of them properly. Read the label for guidance.
- Use natural or less toxic alternatives when possible.
- Recycle used motor oil.
- Contact your municipality, county or facility management office for the locations of hazardous-waste disposal facilities.



Keep pollution out of storm drains

- Municipalities and many other public agencies are required to mark certain storm drain inlets with messages reminding people that storm drains are connected to local waterbodies.
- Do not let sewage or other wastes flow into a stormwater system.

Clean up after your pet

- Many municipalities and public agencies must enact and enforce local pet-waste rules.
- An example is requiring pet owners or their keepers to pick up and properly dispose of pet waste dropped on public or other people's property.
- Make sure you know your town's or agency's requirements and comply with them. It's the law. And remember to:
 - Use newspaper, bags or pooper-scoopers to pick up wastes.
 - Dispose of the wrapped pet waste in the trash or unwrapped in a toilet.
 - Never discard pet waste in a storm drain.

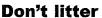
Don't feed wildlife

- Do not feed wildlife, such as ducks and geese, in public areas.
- Many municipalities and other public agencies must enact and enforce a rule that prohibits wildlife feeding in these areas.



Dispose of yard waste properly

- Keep leaves and grass out of storm drains.
- If your municipality or agency has yard waste collection rules, follow them.
- Use leaves and grass clippings as a resource for compost.
- Use a mulching mower that recycles grass clippings into the lawn.



- Place litter in trash receptacles.
- Recycle. Recycle. Recycle.
- Participate in community cleanups.



Contact information

For more information on stormwater related topics, visit www.njstormwater.org or www.nonpointsource.org

Additional information is also available at U.S. Environmental Protection Agency Web sites www.epa.gov/npdes/stormwater or www.epa.gov/nps

New Jersey Department of Environmental Protection Division of Water Quality Bureau of Nonpoint Pollution Control Municipal Stormwater Regulation Program (609) 633-7021



www.cleanwaternj.org

