2020 WATER QUALITY REPORT
MANASQUAN WATER SUPPLY SYSTEM
PWSID 1352005

A division of the New Jersey Water Supply Authority, serving the customer communities of BRIELLE, SEA GIRT, SPRING LAKE, SPRING LAKE HEIGHTS AND WALL TOWNSHIP

The Manasquan Water Treatment Plant, located on Hospital Road in the Allenwood section of Wall Township, is owned by the Southeast Monmouth Municipal Utilities Authority and is operated by the New Jersey Water Supply Authority. The Manasquan Water Treatment Plant provides an average of 60% of the water used by the residents of the above customer communities. Raw water for this facility is taken from the MANASQUAN RIVER in Wall Township and the MANASQUAN RESERVOIR in Howell Township. The Manasquan Water Supply System also provides raw water to New Jersey American Water for treatment and distribution to other communities in Monmouth and Ocean Counties.

The water produced by the Manasquan Water Treatment Plant is monitored for the required number of contaminants. The contaminants, which have been detected in monitoring from January 1st, 2020 through December 31st, 2020, are listed in the **TEST RESULTS** tables below.

All 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 visiting the EPA web site or by calling the EPA Safe Drinking Water Hotline at 1-800-426-4791.

For the complete monitoring schedule or for further information about this report, you can contact Operations Supervisor Donald LeRoy or System Director Paul McKeon at the Manasquan Water Supply System. Telephone - 1-732-974-8383; Fax - 1-732-974-8607 or E-mail – dleroy@njwsa.org or pmckeon@njwsa.org.

This report is available at
http://www.njwsa.org/uploads/1/0/8/0/108064771/mwssccr.pdf

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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

TEST RESULTS TABLE

CONTAMINANT	HIGHEST LEVEL DETECTED	RANGE DETECTED	UNIT OF MEASUREMENT	MCL G	MCL	LIKELY SOURCE OF CONTAMINATION	VIOLATION
MICROBIOLOGICAL CONTAMINANTS							
TOTAL COLIFORM BACTERIA	0	0	%	0	5% OF SAMPLES POSITIVE	NATURALLY PRESENT IN THE WATERSHED	No
INORGANIC CONTAMINANTS							
BARIUM	0.0304		Mg/l	0	2	EROSION OF NATURAL DEPOSITS	No
FLUORIDE	0.0620	0.07	Mg/l	4	4		
NITRATE	0.478	0.163	Mg/l	10	1	RUNOFF FROM FERTILIZER USE; INDUSTRIAL AND DOMESTIC WASTE WATER DISCHARGES; EROSION OF NATURAL DEPOSITS	No
NITRITE	<0.005		Mg/l		1	RUNOFF FROM FERTILIZER USE; INDUSTRIAL AND DOMESTIC WASTE WATER DISCHARGES; EROSION OF NATURAL DEPOSITS	No
LEAD (Sampled at sink and fixtures at water treatment facility)	0.96	<0. 5- 0.96 No sample exceeded the Action Level	PPB	0	15 = the Action Level where corrosion control techniques must be employed	LEAD IN DRINKING WATER IS PRIMARILY FROM MATERIALS AND COMPONENTS ASSOCIATED WITH SERVICE LINES AND IN HOME PLUMBING	No
SULFATE	11.7		Mg/L		250	EROSION OF NATURAL DEPOSITS	

TEST RESULTS TABLE

CONTAMINANT	HIGHEST LEVEL DETECTED	RANGE DETECTED	UNIT OF MEASUREMENT	MCL G	MCL	LIKELY SOURCE OF CONTAMINATION	VIOLATION
BROMATE	6	<0.005-6	ppb	0	10 RUNNING ANNUAL AVERAGE OF ONE MONTHLY SAMPLE	REACTION OF NATURALLY OCCURRING BROMIDE WITH OZONE USED IN THE TREATMENT PROCESS	No
COPPER (Sampled at sink and fixtures at water treatment facility)	0.313	0.042-0.313 No sample exceeded the Action Level	Mg/l	<1. 3	1.3 is the Action Level where corrosion control techniques must be employed	COPPER IN DRINKING WATER IS PRIMARILY FROM MATERIALS AND COMPONENTS ASSOCIATED WITH HOME PLUMBING.	
SYNTHETIC ORGANIC CONTAMINANTS							
PFNA (Perfluorononanoic acid)	3.2	2.2 – 3.2	Ng/l		13	Breakdown of products designed to repel soil, grease, and water on materials including clothing, carpet, furniture treatments, and food wraps.	No
PFOA (Perfluorooctinoic acid)	5.9	4.8 - 5.9	Ng/l		14	Breakdown of products designed to repel soil, grease, and water on materials including clothing, carpet, furniture treatments, and food wraps.	
1,2,3 –TCP (TRICHLOROPROPANE)	<0.01	N/A	PPT		30	Application of pesticides to agricultural land; discharge from metal degreasing sites, chemical manufacturing plants, and other industrial sites	No
1,2 Dibromoethane	<0.01	N/A	PPT		50	Application of pesticides to agricultural land; discharge from metal degreasing sites, chemical manufacturing plants, and other industrial sites	No
1,2 Dibromo3-chloropropane	<0.01	N/A	PPT		200	Same as 1,2 Dibromoethane	No

TEST RESULTS TABLE

CONTAMINANT	HIGHEST LEVEL DETECTED	RANGE DETECTED	UNIT OF MEASUREMENT	MCL G	MCL	LIKELY SOURCE OF CONTAMINATION	VIOLATION
DISINFECTANT/DISINFECTANT BY-PRODUCTS (BASED ON SAMPLES OF WATER LEAVING THE PLANT AND IN THE DISTRIBUTION SYSTEM)							
CHLORINE Leaving the Water Treatment Plant	Highest Value 1.77	Range 0.45-1.52	Mg/l	4.0 MRDL GOAL	4.0 MRDL	WATER ADDITIVE USED TO CONTROL MICROBES	No
TTHM (TOTAL TRIHALOMETHANES) FROM THE ENTRANCE TO THE DISTRIBUTION SYSTEM	Total of 4 compounds in one sample 16.7	<0.5-6.5	ppb	N/A	ANNUAL SITE SAMPLING 80	BY-PRODUCTS OF DRINKING WATER CHLORINATION	No
HAA5 (HALOCETIC ACIDS) FROM THE ENTRANCE TO THE DISTRIBUTION SYSTEM	Total of 5 Acids in one sample 14.21	<1.0 – 6.9	ppb	N/A	ANNUAL SITE SAMPLING 60	BY-PRODUCT OF DRINKING WATER CHLORINATION	No
SUSPENDED AND DISSOLVED MATTER REMOVAL							
TOTAL ORGANIC CARBON (TOC)	ANNUAL AVERAGE REMOVAL: 37% MINIMUM REMOVAL: 21%	MONTHLY SAMPLES RANGE: 21% -54%	%	N/A	TT REQUIRED REMOVAL MINIMUM IS 35% TO 45% OF AVERAGE RAW WATER TOC OR 0% IF THM AND HAA RESULTS ARE BELOW A PERCENTAGE OF THEIR MCL	NATURALLY PRESENT IN THE ENVIRONMENT, DECAYING PLANT MATTER	No
TURBIDITY of FILTERED WATER	MAXIMUM 0.13	0.02-0.13	NTU		> 1 NTU (1.49 due to rounding)	SOIL AND ORGANIC MATTER RUNOFF	No
TURBIDITY of FILTERED WATER	Goal is for > 95% of samples to be <0.3NTU	100% of samples were <0.3NTU	%		TT = 95 % OF MONTHLY SAMPLES < 0.3 NTU	SOIL AND ORGANIC MATTER RUNOFF	No

SECONDARY CONTAMINANTS / WATER QUALITY PARAMETERS				
CONTAMINANT OR PARAMETER	AVERAGE LEVEL DETECTED	UNIT OF MEASUREMENT	RUL	LIKELY SOURCE OF CONTAMINATION
IRON	<0.05	Mg/L	0.3	EROSION OF NATURAL DEPOSITS
MANGANESE	<0.00748	Mg/L	0.05	EROSION OF NATURAL DEPOSITS
HARDNESS	39.4	Mg/L	50 – 250	EROSION OF NATURAL DEPOSITS
SODIUM	22.2	Mg/L	50	EROSION OF NATURAL DEPOSITS; ROADWAY ICE AND SNOW CONTROL
ALUMINUM	<0.0113	Mg/L	0.5	BASE ELEMENT OF ADDITIVE USED IN WATER TREATMENT
CHLORIDE	37.5	Mg/l	250	ROADWAY ICE AND SNOW CONTROL, NACL IN THE ENVIRONMENT
ZINC	0.370	Mg/L	5.0	CORROSION CONTROL ADDITIVE USED IN WATER TREATMENT ZINC - ORTHOPHOSPHATE
Total Dissolved Solids	186	Mg/L	500	IRON AND MANGANESE, ROADWAY ICE AND SNOW CONTROL, SALT WATER INTRUSION INTO FRESH WATER
COPPER	<0.010	Mg/L	1.3	EROSION OF NATURAL DEPOSITS

Information on the hardness of water in “grains per gallon” can improve the function of dishwashers, cooling equipment, and other process applications. To convert the Hardness value shown above into grains per gallon, divide the Hardness value in milligrams per liter by 17.

Additional Finished water inorganic compounds testing results. Sources for these minerals could be the product of soil erosion, human activity or natural deposits:

Analysis	**Result**	**Units**	**MCL**
Antimony	<0.0004	mg/l	0.006
Arsenic	<0.0005	mg/l	0.005
Asbestos	Total Fibers >0.5um = None	MFL	7 x 10^6 fibers/l>10um
Beryllium	<0.0003	mg/l	0.004
Cadmium	<0.0005	mg/l	0.005
Chromium	<0.004	mg/l	0.1
Cyanide	0.0010	mg/l	0.2
Mercury	<0.0002	mg/l	0.002
Nickel	0.00246	mg/l	
Selenium	<0.0025	mg/l	0.05

Silver	<0.002	mg/l	0.1
Thallium	<0.0003	mg/l	0.002

Volatile Organic Compounds sampling and testing was required for the three year cycle of 2017 through 2020 were collected in 2018 and 2020. Below are the results of the samples for 2020 for which contaminants have an EPA MCL:

ANALYSIS	RESULT	UNITS	MCL	DATE ANALYZED
Volatile Organic Compounds				All 9/17/20
Method: 524.2;				
Vinyl Chloride	<0.5	ug/l	2	
1,1-Dichloroethylene	<0.5	ug/l	2	
Methylene Chloride	<0.5	ug/l	3	
Methyl tert-Butyl Ether	<0.5	ug/l	70	
t-1,2-Dichloroethylene	<0.5	ug/l	100	
1,1-Dichloroethane	<0.5	ug/l	50	
cis-1,2-Dichloroethylene	<0.5	ug/l	70	
1,1,1-Trichloroethane	<0.5	ug/l	30	
Carbon Tetrachloride	<0.5	ug/l	2	
Benzene	<0.5	ug/l	1	
1,2-Dichloroethane	<0.5	ug/l	2	
Trichloroethylene	<0.5	ug/l	1	
1,2-Dichloropropane	<0.5	ug/l	5	
Toluene	<0.5	ug/l	**1000**	
1,1,2-Trichloroethane	<0.5	ug/l	3	
Tetrachloroethylene	<0.5	ug/l	5	
Chlorobenzene	<0.5	ug/l	50	
Ethylbenzene	<0.5	ug/l	700	
m-Xylene	<0.5	ug/l	1000	
p-Xylene	<0.5	ug/l	1000	
a-Xylene	<0.5	ug/l	1000	
Styrene	<0.5	ug/l	100	
Bromoform	<0.5	ug/l	80	
Toluene	<0.5	ug/l	1000	
1,1,2-Trichloroethane	<0.5	ug/l	3	
Tetrachloroethylene	<0.5	ug/l	5	
1,3-Dichlorobenzene	<0.5	ug/l	600	
1,4-Dichlorobenzene	<0.5	ug/l	75	
1,2-Dichlorobenzene	<0.5	ug/l	600	
1,2,4-Trichlorobenzene	<0.5	ug/l	70	
Naphthalene	<0.5	ug/l	300	
Xylenes, total	<0.5	ug/l	1000	
m,p-Xylene	<0.5	ug/l	1000	

Nonregulated Detected Contaminants:

ANALYSIS	RESULT	Likely Source of Contamination	MCLG	DATE ANALYZED
Perfluoroheptanoic acid (PFHpA)	<2.0 ng/l	Breakdown of products designed to repel soil, grease, and water on materials including clothing, carpet, furniture treatments, and food wraps.		2/4/20
Perfluorohexanesulfonic acid (PFHxS)	2.1 ng/L	Breakdown of products designed to repel soil, grease, and water on materials including clothing, carpet, furniture treatments, and food wraps.		2/4/20
Perfluorohexanoic acid (PFHxA)	2.6 ng/L	Breakdown of products designed to repel soil, grease, and water on materials including clothing, carpet, furniture treatments, and food wraps.		2/4/20
Perfluorooctanesulfonic acid (PFOS)	3.6 ng/L	Breakdown of products designed to repel soil, grease, and water on materials including clothing, carpet, furniture treatments, and food wraps.		2/4/20
Saxitoxin	0.084 ug/l	Algae		8/7/20

DEFINITIONS :

In the preceding **Test Results** table you will find 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 detectable above the minimum detection level for that analysis method.

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(ug/l) - 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 Nanograms per liter (ng/l) - one part per trillion corresponds to a single penny in $10,000, 000,000.

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

*Perfluorooctanoic acid (PFOA) (conjugate base perfluorooctanoate), also known as **C8**, is a synthetic perfluorinated carboxylic acid and fluorosurfactant. One industrial application is as a surfactant in the emulsion polymerization of fluoropolymers. It has been used in the manufacture of such prominent consumer goods as polytetrafluoroethylene (PTFE; Teflon and similar products). PFOA , PFOS, PFNA has been manufactured since the 1940s in industrial quantities.*

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.

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

MBAS - Methylene blue active substances assay - is a is a colorimetric analysis test method that uses methylene blue to detect the presence of anionic surfactants (such as a detergent or foaming agent) in a sample of water.

Maximum Contaminant Level (MCL) - 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 (MCLG) - The level of a contaminant 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 contaminants.

Million Fibers per Liter – (MFL)

Total Organic Carbon - Total Organic Carbon has no health effects. However, total organic carbon provides a medium for the formation of *Disinfection By-products*. The *Treatment Technique* for total organic carbon requires that 35% to 45% of the total organic carbon in the raw water is removed through the treatment processes.

Turbidity - Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for 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 a month must be less than 0.3 NTU.

TTHM - Total Trihalomethanes are carcinogenic compounds created when Chlorine is added to water as a disinfectant. The *MCL* for TTHM's requires that one annual sample from an approved location does not exceed 80 *parts per billion.*

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. RULs are recommendations, not mandates.

Disinfection By-products - These compounds are by-products of the addition of chlorine or ozone employed in the disinfection of drinking water. These compounds are confirmed or suspected carcinogens for which *MCLs* have been set.

HAA5 - Haloacetic Acids are compounds created when Chlorine is added to water as a disinfectant. The MCL for HAA5's requires that one annual sample from an approved location does not exceed 60 *parts per billion*.

Monitoring Waiver - Permission from NJDEP or EPA to reduce or eliminate sampling for specific contaminants.

SPECIAL HEALTH CONCERNS

Special considerations regarding children, pregnant women, 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 these 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.

Lead in Drinking Water

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. New Jersey Water Supply Authority – Manasquan Water Treatment Plant is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at http://www.epa.gov/safewater/lead.

Please note that 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 in untreated raw water, USEPA issued the Long Term 2 Enhanced Surfaced 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. Just as with the monthly samples taken in 2008, that round of samples did not show any presence of Cryptosporidium. All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man-made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. Cryptosporidium is effectively removed by filtration, and contact with Chlorine. Thus the inactivation of cryptosporidium is at least 99.99% likely. 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 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 human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage collection system leaks and overflows, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater run-off, 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 stormwater run-off and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and can also, come from gas stations, urban stormwater run-off 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 (MCL's) which limit the amounts of certain contaminants in water provided by public water systems. Further information about EPA safe drinking water regulations can be obtained over the Internet at EPA's drinking water website, http://www.epa.gov/safewater. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

The New Jersey Department of Environmental Protection (NJDEP) has completed Source Water Assessment Reports and Summaries for all of the public water systems in New Jersey. A summary of the report for NJWSA/Manasquan is included below. A complete copy of the Source Water Assessment Report at the NJDEP website: http://www.state.nj.us/dep/swap/noncreport.htm. Further information on the Source Water Assessment Program can be obtained by logging onto NJDEP's source water web site at http://www.state.nj.us/dep/swap or by contacting NJDEP's Bureau of Safe Drinking Water at 609-292-5550. You may also contact the Manasquan Water Supply System at 732-974-8383. The New Jersey Department of Environmental Protection issues an individual Public Water System Identification Number (PWSID) to each water supply facility. The PWSID for the NJWSA/Manasquan Water Treatment Plant is **1352005.** You can use this PWSID number to assist you in obtaining local drinking water quality information on the Internet at the NJDEP Bureau of Safe Drinking Water website at http://www.state.nj.us/dep/watersupply/waterwatch/

Interested individuals may participate in discussions of the operation of the Manasquan Water Supply System by attending the regular monthly meetings of the New Jersey Water Supply Authority or Southeast Monmouth Municipal Utilities Authority.

- New Jersey Water Supply Authority: first working Monday of each month at the NJWSA headquarters, 1851 Route 31, Clinton, NJ 08809. Call 1-908-638-6121 for details. Information on the New Jersey Water Supply Authority can also be obtained over the Internet at http://www.njwsa.org.
- Southeast Monmouth Municipal Utilities Authority: first Thursday of each month in the Main Meeting Room, First Floor, Wall Township Municipal Complex, 2700 Allaire Road, Wall, NJ 07719. Call 1-732-449-8444 for specific meeting dates and times or e-mail ph805@optonline.net.

NJ Water Supply Authority - Manasquan System- PWSID # 1352005

NJ Water Supply Authority - Manasquan System is a public community water system consisting of 0 well(s), 0 wells under the influence of surface water, 2 surface water intake(s), 0 purchased ground water source(s), and 0 purchased surface water source(s).

This system's source water comes from the following aquifer(s) and/or surface water body(s) (if applicable): Manasquan Reservoir, Manasquan River

This system purchases water from the following water system(s) (if applicable): N/A

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 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			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 - 0																								
GUDI - 0																								
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 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.