Este Informe contiene information muy importante. Traduscalo o hable con un amigo quien lo entienda bien.

# <u>Annual Drinking Water Quality Report</u> Lakewood Township Municipal Utilities Authority For the Year 2024, Results from the Year 2023

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 your drinking water and the 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.

# Landlords must distribute this information to every tenant as soon as practicable, but no later than three business days after receipt. Delivery must be done by hand, mail or email, and by posting information in a prominent location at the entrance of each rental premises, pursuant to section 3 of P.L. 2021, c. 83 (C.58:12A-12.4 et seq.).

The Lakewood Township Municipal Utilities Authority ("Authority") services the eastern portion of Lakewood Township (approx. 11 square miles). The Authority's water sources include twelve (12) wells, which draw from several aquifers, including the Cohansey, Englishtown, and Potomac-Raritan-Magothy (PRM). Water from the wells (except for some of the smaller and/or seasonal wells) is treated at one of the Authority's two treatment plants located on New Hampshire Ave and Shorrock St respectively. The Authority also purchases water from the New Jersey American Water (NJAW). NJAW's water comes from a blend of sources that may include groundwater from the Cohansey, Vincentown, Wenonah-Mount Laurel, Englishtown, and PRM aquifers and surface water from the Glendola Reservoir, the Manasquan River / Reservoir, the Shark River and the Swimming River / Reservoir.

The Authority (and NJAW) routinely monitor for contaminants in your drinking water according to Federal and State laws. The tables show the Authority's results, as well as those of the NJAW for the monitoring period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2023. The state allows monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative, are more than one year old. 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. The Authority's system received monitoring waivers for asbestos and synthetic organic contaminants. NJAW received a monitoring waiver for synthetic organic contaminants.

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 projection, 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 Environmental Protection Agency ("EPA") prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration ("FDA") regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

#### **DEFINITIONS**

In the following 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 was not detected in the analyzed sample.

<u>Parts per million</u> (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. <u>Parts per billion</u> (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. <u>Parts per trillion</u> (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.

<u>Action Level</u> - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. <u>Treatment Technique</u> (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

<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.

Secondary Contaminant - Secondary Contaminants affect aesthetic qualities such as odor, taste or appearance. Secondary standards are recommendations, not mandates.

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

<u>Maximum Residual Disinfectant Level</u> (MRDL) - 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</u> (MRDLG) - 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.

- <u>Total Organic Carbon</u> Total Organic 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.
- <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.

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 persons, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA and Center for Disease Control ("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).

Contaminant	Violation	Level	NJ1514002 Units of	MCLG	MCL	Likely Source of			
Containmant	Y/N	Detected	Measure ment	MCLG	MCL	Contamination			
Radioactive Contaminants:			•			•			
Combined Radium	Ν	Range = $ND - 4.35$	pCi/1	0	5	Erosion of natural deposits			
228 & 226		Highest detect $= 4.35$	F	-		F			
Test results Year 2022		8							
Gross Alpha	N	Range = $ND - 10.8$	pCi/1	0	15	Erosion of natural deposits			
Test results Year 2022	14	Highest detect = $10.8$	pent	Ŭ	15	Elosion of hatara deposits			
Inorganic Contaminants:		Tingliest detect 10.0		1					
	N		r		2	D: 1 (1.11) (			
Barium Test results Yr. 2023	N	Range = ND - 0.086 Highest detect = 0.086	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits			
Copper	Ν	90 <sup>th</sup> percentile – 0.001	ppm	1.3	AL=1.3	Corrosion of household			
Test results Yr. 2022		No samples exceeded	11			plumbing systems; erosion of			
Result at 90 <sup>th</sup> Percentile		the action level.				natural deposits			
Iron	N	Range =ND - $0.18$	ppm	0	2	Corrosion of household			
Test results Yr. 2023	1	Highest detect $= 0.18$	ppm	Ū	2	plumbing systems; erosion of natural deposits			
Lead	Ν	90 <sup>th</sup> percentile – ND	ppb	0	AL=15	Corrosion of household			
Test results Yr. 2022		No samples exceeded				plumbing systems, erosion of			
Result at 90 <sup>th</sup> Percentile		the action level.				natural deposits			
Mercury (inorganic)	Ν	Range = ND - 0.85	ppb	2	2	Erosion of natural deposits;			
Test results Yr, 2023		Highest detect $= 0.85$	FF-	_		discharge from refineries and			
10001000000 11, 2020		ingliebt deteet 0100				factories; runoff from landfills;			
						runoff from cropland			
Nickel	N	Range = $ND - 0.012$	ppm	N/A	N/A	Erosion of Natural Deposits			
Test results Yr. 2023	14	Highest detect = $0.012$	ppin	1.0.2.1	10/21	Elosion of Hatara Deposits			
		-	-						
Nitrate (as Nitrogen)	Ν	Range = $ND - 1.66$	ppm	10	10	Runoff from fertilizer use;			
Test results Yr. 2023		Highest detect $= 1.66$				leaching from septic tanks,			
						sewage; erosion of natural			
						deposits			
Disinfection Byproducts:		1	•						
TTHM	Ν	Range =ND - 33	ppb	N/A	80	By-product of drinking water			
Total Trihalomethanes*		Highest LRAA = 33				disinfection			
Test results Yr. 2023		_							
TT + + 7	ŊŢ	D 11	1	N/A	(0)				
HAA5	Ν	Range = $11$	ppb	IN/A	60	By-product of drinking water disinfection			
Haloacetic Acids*		Highest LRAA = 11				disinfection			
Test results Yr. 2023									
Volatile Organic Contaminar									
Methyl tertiary butyl ether	Ν	Range = $ND - 0.83$	ppb	70	70	Leaking underground gasoline			
(MTBE)		Highest detect = 0.83				and fuel oil tanks. Gasoline and			
Test results Yr. 2022						fuel oil spills.			
<b>Regulated Disinfectants**</b>		Level Detected		MRDL		MRDLG			
Chlorine		Highest RAA = 1.10ppm		4.0 ppm		4.0 ppm			
Test results Yr. 2023		Range = $0.025 - 1.10$ ppm							
Secondary Contaminant		Level Detected		Units of M	leasurement	RUL			
Sodium		Range = $6.97 - 63.2$		ppm		50			
Test results Yr. 2023		Highest detect = $63.2$							
PFAS									
PFOA	Ν	Range =ND to 12 ppt	ppt	N/A	14	Runoff from fire suppression			
Test results Yr. 2023		Highest Detect 12 ppt	- FP.		- •	foam			
PFOS	N	Range = $ND - 5.05 \text{ ppt}$	nnt	N/A	13	Runoff from fire suppression			
Test results Yr. 2023	14	Highest Detect 5.05 ppt	ppt	11/11	13	foam			
PFNA	N	Range = $ND - 1.53$ ppt	ppt	N/A	13	Runoff from fire suppression			

\* 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. Range indicates the range of individual sample results.

\*\* Regulated disinfectants – chlorine compliance is based on a Running Annual Average (RAA). The RAA calculation is based on four completed quarters of monitoring results. Range indicates the range of individual sample results.

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.

**Sodium** - For healthy individuals, the sodium intake from water is not important, because a much greater intake of sodium takes place from salt in the diet. However, sodium levels above the recommended upper limit 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. The Authority, the BTMUA, and NJAW 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 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 is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead. However, for those served by a lead service line, flushing times may vary based on the length of the service line and plumbing configuration in your home. If you home is set back further from the street a longer flushing time may be needed. *To conserve water, other household water usage activities such as showering, washing clothes, and running the dishwasher are effective methods of flushing out water from a service line.* To determine if you have a lead service line, please contact Fred Diaz at (732) 363-4422 extension 104 or Harry Robbins at (732) 363-4422 extension 137.

### 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\_PFOA-websites-OLA%204-24-19SDM-(003).pdf

#### **Unregulated Contaminant Monitoring:**

Our water system has sampled for a series of unregulated contaminants. Unregulated contaminants are those that don't yet have a drinking water standard set by EPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard. As our customers, you have a right to know that this data is available. If you are interested in examining the results, please contact Fred Diaz at (732) 363-4422 extension 104 or Harry Robbins at (732) 363-4422 extension 137.

The fifth round of unregulated contaminant monitoring (known as UCMR5) were sampled in 2023, and includes 29 PFAS compounds and lithium. Sampling will continue into 2024.

LTMUA – Fifth Unregulated Contaminant Monitoring (UCMR5) Results													
Parameter	Unit	Highest Detected (ppt)	Range Detected (ppt)	Typical Source									
Perfluorooctanoic acid (PFOA)*	ppt	8.6	ND to 8.6	Used for its emulsifier and surfactant properties in or as fluoropolymers (such as Teflon) firefighting foams, cleaners, cosmetics, lubricants, paints, polishes, adhesives and photographic films									
Perfluorobutanesulfonic Acid (PFBS)	ppt	10.1	ND to 10.1	Manmade chemical; used in products for stain, grease, heat and water resistance									
Perfluorohexanoic Acid (PFHxA)	ppt	5.2	ND to 5.2	Manmade chemical; used in products for stain, grease, heat and water resistance									
Perfluoropentanoic Acid (PFPeA)	ppt	6.2	ND to 6.2	Manmade chemical; used in products for stain, grease, heat and water resistance									

\*PFOA has a NJ-mandated MCL of 14 ppt

Note: The following information was supplied by New Jersey – American Water (NJAW) for water purchased by the LTMUA. The LTMUA makes no warrantees regarding the timeliness or accuracy of their data.

Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCLG	MCL	Likely Source of Contamination				
<b>Microbiological Contami</b>	nants:	·								
Turbidity	N	Range = 0.2-0.20 Highest detect = 0.02	NTU	N/A	TT = 1 NTU	Soil runoff				
		95% of Samples<0.3 NTU Highest result =100%			TT = percent of samples < 0.3 NTU					
Total Organ Carbon (TOC)	N	Range = 1.00- 1.36 Highest removal = 1.36 RAA % Removal Ration = 1.00 % Removal Range = 36% -62% Removal Ratio Range = 1.00 -1.36	RAA (%) Removal Ratio	N/A	Percent Removal Required = 36% - 62%	Naturally present in environment.				
Inorganic Contaminants:										
Copper Result at 90 <sup>th</sup> Percentile	N	Range 0.025 - 0.221 No samples exceeded the action level.	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits				
Fluoride	N	Range = ND - 0.24 Highest detect = 0.24	ppm	2	2	Erosion of natural deposits; water additive which promotes strong teeth.				
Lead Result at 90 <sup>th</sup> Percentile	N	Range $= 1 - 7$	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits				
Nitrate (as Nitrogen)	Ν	Range = ND – 1.83 Highest detect = 1.83	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits				
Radioactive Contaminant	ts	•								
Alpha Emitters	N	Range = ND -0.639 Highest detect = 0.639	pCi/l	0	15	Erosion of natural deposits				
Combined Radium 228 & 226	N	Range = 0.383-0.517 Highest detect = 0.517	pCi/1	0	5	Erosion of natural deposits				
Volatile Organic Contam	inants			-						
Styrene Test results Yr. 2023	Ν	Range = $ND - 0.5$ Highest detect = 0.5	ррb	100	100	Discharge from rubber and plastic factories; leaching from landfills				
Xylenes (Total) Test results Yr. 2023	N	Range = ND - 0.0005 Highest detect = 0.0005	ppm	1	1	Discharge from petroleum factories; discharge from chemical factories				
<b>Disinfection Byproducts:</b>	•	•	•		•					
TTHM Total Trihalomethanes	N	Range = 26.0-60.0 Highest LRAA = 60.0	ppb	N/A	80	By-product of drinking water disinfection				
HAA5 Haloacetic Acids	Ν	Range = 11-23 Highest LRAA = 23	ррb	N/A	60	By-product of drinking water disinfection				
	N	Range =0.08 -0.53 Average = 0.35	ppm	N/A	1	By-product of drinking water disinfection				
Regulated Disinfectants		Level Detected		MRDL		MRDLG				
Chloramines		Range = 0.15 – 2.89 Highest Average = 2.89		4.0 ppm		4.0 ppm				
Chlorine Dioxide		Range = 115-639 Highest Average = 639		800 ppb		800 ppb				

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
Sodium	Range = $4.1 - 49.6$	ppm	50
Iron	Range = ND $-0.31$	ppm	0.3
Manganese	Range = ND-0.04	ppm	0.05
Hardness	Range = $72 - 140$	ppm	250
Aluminum	Range = $ND-0.03$	ppm	0.2

New Jersey American Water slightly exceeded the secondary Recommended Upper Limit (RUL) for Iron which 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. Iron bacteria are considered harmless to health however, they may give water an off taste or color, cause splotchy yellow stains on laundry, and clog water systems.

For healthy individuals, the sodium intake from water is not important, because a much greater intake of sodium takes place from salt in the diet. However, sodium levels above the Recommended Upper Limit (RUL) may be of concern to individuals on a sodium restricted diet.

## NJAW Unregulated Contaminant Monitoring

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

#### NJAW Unregulated Per- and Polyfluoroalkyl Substances

Per- or polyfluoroalkyl substances (PFAS) are man-made substances used in a variety of products, such as: stain resistant fabric, non-stick coatings, firefighting foam, paints, waxes, and cleaning products. They are also components in some industrial processes like electronics manufacturing and oil recovery. The New Jersey Department of Environmental Protection (NJDEP) has begun regulating some of these compounds, establishing a Maximum Contaminant Level for perfluorononanoic acid (PFNA) in 2019. While all other PFAS are not regulated, New Jersey American Water recognizes the importance of testing for these contaminants. Compounds detected are tabulated below, along with typical sources.

NJAW Perfluorinated Compour	nds			
Parameter	Unit	Highest Level Detected	Range Detected	Typical Source
Perfluorooctanoic acid (PFOA)*	ppt	6.9	ND to 6.9	Used for its emulsifier and surfactant properties in or as fluoropolymers (such as Teflon) firefighting foams, cleaners, cosmetics, lubricants, paints, polishes, adhesives and photographic films
*PFOA has a proposed MCL of 14	ppt			
Perfluorohexanoic Acid (PFHxA)	ppt	4.6	ND to 4.6	Manmade chemical; used in products for stain, grease, heat and water resistance
Perfluoropentanoic Acid (PFOS)**	ppt	4.8	ND to 4.8	Manmade chemical; used in products for stain, grease, heat and water resistance
**PFOS has a proposed MCL of 1	3 ppt		·	
Perfluorodecanoic Acid (PFDA)	ppt	ND	ND	Manmade chemical; used in products for stain, grease, heat and water resistance
Perfluorononanoic Acid (PFNA)	ppt	ND	ND	Manmade chemical; used in products for stain, grease, heat and water resistance
Perfluorododecanoic Acid (PFDoA)	ppt	ND	ND	Manmade chemical; used in products for stain, grease, heat and water resistance
Perfluorotetradecanoic Acid (PFTA)	ppt	ND	ND	Manmade chemical; used in products for stain, grease, heat and water resistance
Perfluorotridecanoic Acid (PFTrDA)	ppt	ND	ND	Manmade chemical; used in products for stain, grease, heat and water resistance
Perfluoroundecanoic Acid (PFUnA)	ppt	ND	ND	Manmade chemical; used in products for stain, grease, heat and water resistance
Perfluorohexanesulfonic Acid (PFHxS)	ppt	ND	ND	Manmade chemical; used in products for stain, grease, heat and water resistance
Perfluoroheptanoic Acid (PFHpA)	ppt	ND	ND	Manmade chemical; used in products for stain, grease, heat and water resistance
Perfluorobutanesulfonic Acid (PFBS)	ppt	9.2	ND to 9.2	Manmade chemical; used in products for stain, grease, heat and water resistance

# NJAW Water Research Efforts

*Cryptosporidium* is a protozoan found in surface water throughout the U.S. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 percent removal. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, people with severely weakened immune systems have a risk of developing a life-threatening illness. We encourage such people to consult their doctors regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease. It can also be spread through means other than drinking water. For additional information regarding cryptosporidiosis and how it may impact those with weakened immune systems, please contact your personal health care provider.

The U.S. EPA issued a rule in January 2006 that requires systems with higher *Cryptosporidium* levels in their source water to provide additional treatment. To comply with this rule, NJAW once again began conducting 24 consecutive months of monitoring for *Cryptosporidium* in our raw water sources starting in in 2015. The monitoring to date indicates the presence of these organisms in the source water. The samples were collected from the source before the water was processed through our treatment plants. NJAW continued monitoring until April 2017. The data collected is presented in the Source Water Monitoring table below.

# NJAW Source Water Monitoring

Contaminant	Swimming River source water	Jumping Brook source water	Oak Glen source Water	
Cryptosporidium, Oocysts/L	ND - 0.100	ND	ND	Microbial pathogens found in surface waters throughout the
Giardia, Cysts/L	0 - 0.558	0 - 0.089	0 - 0.558	United States.

#### Source Susceptibility

The NJDEP has completed and issued the Source Water Assessment Report and Summary for the Authority's public water system and for NJAW's system, which are available at https://www.nj.gov/dep/watersupply/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. The Authority's and NJAW's source water susceptibility ratings and a list of potential contaminant sources are included.

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, NJDEP may customize (change existing) monitoring schedules based on the susceptibility ratings.

The seven contaminant categories are defined on the next page. NJDEP 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.

The table below provides a summary of susceptibility ratings for the Authority's water sources. The source column of the table provides the number of ground water and surface water (GUDI) wells in the system. The other columns provide the total number of sources that rated high (H), medium (M), and low (L) for each of the contaminant categories.

<u>LTMUA</u>	Pathogens N		Nutrients		Pesticides			Volatile Organic Compounds			Inorganics			Rac	Radon			Disinfection Byproduct Precursors						
Sources	Н	М	L	Н	М	L	н	М	L	Н	М	L	Н	М	L	н	М	L	н	М	L	Н	М	L
Wells = 12		6	6	6		6			12	6		6	6	3	3	2	5	5		6	6		12	

The table below provides a summary of the susceptibility ratings for NJAW's sources. The source column of the table provides the number of ground water and surface water sources and the number of ground water under the direct influence of surface water (GUDI) wells in the system. The other columns provide the total number of sources that rated high (H), medium (M), and low (L) for each of the contaminant categories.

<u>NJAW</u>	Pathogens		Nutrients		Pesticides			Volatile Organic Compounds		Inorganics			Ra	dionuc	lides		Rado	n	Disinfection Byproduct Precursors					
Sources	Н	М	L	Η	М	L	Η	М	L	Η	М	L	Η	М	L	Н	М	L	Η	М	L	Η	М	L
Wells - 30			30			30			30			30		18	12		19	11			30		18	12
Surface water intakes - 5	5			1	4			2	3		5		3	2				5			5	5		

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 <u>http://www.nj.gov/dep/rpp/radon/index.htm</u> 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.

We want our valued customers to be informed about their water utility. The Authority also continues to be vigilant in protecting the security of our water system, and looks for the assistance of the public in protecting our most valuable assets. Please contact Fred Diaz at (732) 363-4422 extension 104 or Harry Robbins at (732) 363-4422 extension 137 if you have any questions about this report or concerning your water utility. For additional information, you are welcome to attend our monthly Board of Commissioner's Meeting (open to the public) at the Authority's Office, 390 New Hampshire Avenue, Lakewood, NJ 08701. Please visit our website, <u>www.lakewoodmua.com</u>, or call our office at (732) 363-4422 for public meeting schedules.