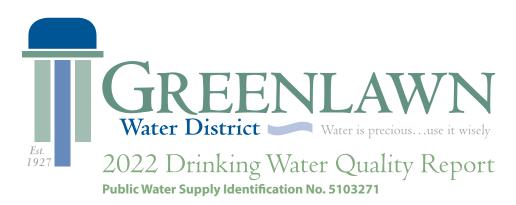
Board of Commissioners

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ANNUAL WATER SUPPLY REPORT

MAY 2023

The Greenlawn Water District is pleased to present this 2022 Water Quality Report. The report is required to be delivered to all residents of our District in compliance with Federal and State regulations. We are happy to report that our water supply is in full compliance with all Federal, State and County regulations as presented on page 3. Our constant goal is to provide you with a safe and dependable supply of drinking water every day. We also want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. The Board of Commissioners and the District employees are committed to ensuring that you and your family receive the highest quality water.

SOURCE OF OUR WATER

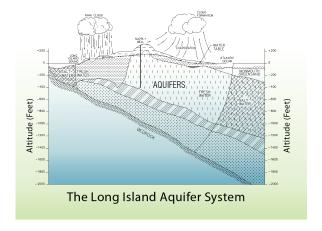
The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants.

In order to ensure that our tap water is safe to drink, the State and the Environmental Protection Agency (EPA) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the Food and Drug Administration's (FDA's) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The source of water for the District is groundwater pumped from 14 active

wells located throughout the community that are drilled into the Magothy aquifer beneath Long Island, as shown on the figure to the right. Generally, the water quality of the aquifer is good to excellent, although there are localized areas of contamination. The water from these areas is treated by the District to remove any contaminants prior to the delivery of any water to the consumer. It should also be noted that the District maintains electrical generators at many of our well sites in order to continuously provide water to the community, even during emergency situations such as power outages.

The population served by the Greenlawn Water District during 2022 was 42,000. The total amount of water withdrawn from the aquifer in 2022 was 2.142 billion gallons, of which approximately 94 percent was billed directly to consumers.



COST OF WATER

The District utilizes a step billing schedule as shown in the table. The average residential consumer is being billed at \$1.60 per 1,000 gallons of water used. Please refer to the District website for water treatment surcharge and irrigation water rates.

QUARTERLY WATER RATES - RESIDENTIAL

Consumption (gallons)	Charges
Up to 10,000	\$16.00 minimum
10,001 - 60,000	\$1.20/thousand gallons
60,001 - 100,000	\$1.80/thousand gallons
100,001 - 150,000	\$2.25/thousand gallons
150,001 - 200,000	\$2.55/thousand gallons
Over 200,000	\$2.75/thousand gallons

COST OF WATER CONTINUED

Copies of a Supplemental Data Package, which includes the water quality data for each of our supply wells utilized during 2022, are available at the Greenlawn Water District office located at 45 Railroad Street, Greenlawn, New York and the Commack, Elwood and Harborfields Public Libraries.

We at Greenlawn Water District work around the clock to provide top quality water to every tap throughout the community. We ask that all our customers help us protect our water resources, which are the heart of our community, our way of life and our children's future.

CONTACTS FOR ADDITIONAL INFORMATION

We are pleased to report that our drinking water is safe and meets all Federal and State requirements. If you have any questions about this report or the Greenlawn Water District, please contact Water District Superintendent Robert Santoriello at (631) 261-0874 or the Suffolk County Department of Health Services at (631) 852-5810. We want our residents to be informed about our water system. Major issues concerning the Greenlawn Water District can be discussed at the regularly scheduled District meetings. They are normally held on Wednesday at 9:00 a.m. at the District Office, 45 Railroad Street, Greenlawn.

The Greenlawn Water District routinely monitors for different parameters and possible contaminants in your drinking water as required by Federal and State laws. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some impurities. It's important to remember that the presence of these impurities does not necessarily pose a health risk. For more information on contamination and potential health risks, please contact the USEPA Safe Drinking Water Hotline at 1-800-426-4791 or www. epa.gov/safewater.

Some people may be more vulnerable to disease-causing microorganisms or pathogens 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 from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidum, Giardia and other

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

Water from some of the wells within the Greenlawn Water District have a slightly elevated nitrate level. This level is below the maximum contaminant level of 10.0 parts per million (ppm). 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. The source of the nitrates is the nitrogen in fertilizers and from on-site septic systems. If you are caring for an infant, you should ask advice from your health care provider.

During 2022, the District collected 31 samples for lead and copper. The next round of samples will occur in 2025. If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. Greenlawn Water District 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 from the Safe Drinking Water Hotline (1-800-426-4791) or at http://www.epa.gov/safewater/lead.

WATER CONSERVATION MEASURES

In 2022, the Greenlawn Water District continued to implement a water conservation program in order to minimize any unnecessary water use. The pumpage for 2022 was approximately the same as in 2021. This can be attributed to the the District's Water Conservation efforts.

Residents are urged to implement their own water conservation measures such as retrofitting plumbing fixtures with flow

restrictors, modifying automatic lawn sprinklers to include rain sensors, repairing leaks in the home, installing water conservation fixtures/appliances and maintaining a daily awareness of water conservation in their personal habits. Besides protecting our precious underground water supply, water conservation will produce a cost savings to the consumer in terms of both water and energy bills (hot water).

WATER TREATMENT

The Greenlawn Water District provides treatment at all of its wells to improve the quality of the water pumped prior to distribution to the consumer. The pH of the water is adjusted upward to reduce the corrosive action between the water and water mains and in-house plumbing by the addition of sodium hydroxide. Since 2010, the District has added a small amount of chlorine as a disinfecting agent to prevent the growth of bacteria in the distribution system. Granular activated carbon filters are installed at Plant Nos. 3, 8, 11 and 13 for the removal of volatile organic compounds. An air stripping treatment facility

is in service at Plant No. 12, also for the removal of volatile organic compounds.

Beginning in June 2010, the District also started to add a small amount of chlorine as a disinfecting agent to prevent the growth of bacteria in the distribution system.

The District recently completed the installation of a wellhead treatment system at Plant No. 12 for the removal of 1,4-Dioxane. Construction of a similar treatment system at Plant No. 11 has just begun, expected to be on-line in early 2024.

2022 DRINKING WATER QUALITY REPORT - TABLE OF DETECTED PARAMETERS

Contaminants	Violation (Yes/No)	Date of Sample	Level Detected (Maximum Range)	Unit Measurement	MCLG	Regulatory Limit (MCL or AL)	Likely Source of Contaminant
Inorganic Contaminants							
Lead	No	September 2022	ND - 13.5 6.3 ⁽¹⁾	ug/l	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	No	September 2022	0.012 - 0.17 0.15 ⁽¹⁾	mg/l	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits
Barium	No	01/26/22	0.0028 - 0.21	mg/l	2	MCL = 2	Naturally occurring
Calcium	No	01/26/22	1.8 - 18.9	mg/l	n/a	No MCL	Naturally occurring
Zinc	No	01/26/22	ND - 0.037	mg/l	n/a	MCL = 5	Naturally occurring
Sodium	No	01/26/22	3.8 - 34.5	mg/l	n/a	No MCL ⁽²⁾	Naturally occurring
Chloride	No	01/26/22	6.1 - 73.5	mg/l	n/a	MCL = 250	Naturally occurring
Iron	No	01/26/22	ND - 0.079	ug/l	n/a	$MCL = 300^{(3)}$	Naturally occurring
Nitrate	No	01/26/22	0.79 - 6.8	mg/l	10	MCL = 10	Runoff from fertilizer and leaching from septic tanks and sewage
Nickel	No	01/26/22	ND - 0.0034	ug/l	n/a	MCL = 100	Naturally occurring
Sulfate	No	01/26/22	ND - 31.1	mg/l	n/a	MCL = 250	Naturally occurring
Manganese	No	01/26/22	ND - 0.034	ug/l	n/a	$MCL = 300^{(3)}$	Naturally occurring
Magnesium	No	01/26/22	ND - 8.1	mg/l	n/a	No MCL	Naturally occurring
Synthetic Organic Contaminant	ts (SOCs)						
1,4-Dioxane	No	08/24/22	ND - 0.96	ug/l	n/a	$MCL = 1.0^{(4)}$	Industrial/Commercial discharge ⁽⁵⁾
Perfluorooctanesulfonic Acid (PFOS)	No	08/25/22	ND - 5.5	ng/l	n/a	MCL = 10 ⁽⁹⁾	Released into the environment from widespread use in commercial and industrial applications
Perfluorooctanoic Acid (PFOA)	No	08/25/22	ND - 5.7	ng/l	n/a	MCL = 10 ⁽⁹⁾	Released into the environment from widespread use in commercial and industrial applications
Volatile Organic Contaminants							
1,1,1-Trichloroethane	No	12/06/22	ND - 0.53	ug/l	0	MCL = 5	Industrial/Commercial discharge
Tetrachloroethene	No	12/09/22	ND - 4.9	ug/l	0	MCL = 5	Industrial/Commercial discharge
1,1,2-Trichlorotrifluoroethane	No	10/20/22	ND - 1.5	ug/l	0	MCL = 5	Industrial/Commercial discharge
Acetone	No	10/20/22	ND - 6.1	ug/l	0	MCL = 50	Industrial/Commercial discharge
1,1-Dichloroethane	No	10/20/22	ND - 1.9	ug/l	0	MCL = 5	Industrial/Commercial discharge
1,1-Dichloroethene	No	01/26/22	ND - 0.56	ug/l	0	MCL = 5	Industrial/Commercial discharge
cis-1,2-Dichloroethene	No	10/20/22	ND - 2.3	ug/l	0	MCL = 5	Industrial/Commerical discharge
1,2,3-Trichloropropane	No	04/13/22	ND - 0.59	ug/l	0	MCL = 5	Industrial/Commerical discharge
Methylene Chloride	No	01/26/22	ND - 1.9	ug/l	0	MCL = 5	Industrial/Commerical discharge
Methyl Tert.Butyl Ether (MTBE)	No	01/26/22	ND - 2.3	ug/l	0	MCL = 10	Released from gasoline storage tanks. Former gasoline additive.
Disinfection By-Products							
Total Trihalomethanes (THMS)	No	10/20/22	ND - 3.2	ug/l	0	MCL = 80	Disinfection By-Products
Unregulated Contaminant Mon	itoring Rule U	JCMR4 ⁽⁶⁾					
Chlorate	No	08/06/22	ND - 41.3	ug/l	n/a	No MCL	Disinfection By-Product

2022 DRINKING WATER QUALITY REPORT -TABLE OF DETECTED PARAMETERS (CONTINUED)

Radionuclides							
Gross Alpha	No	08/24/22	0.747 - 1.28	pCi/L	0	MCL = 15	Naturally occurring
Gross Beta	No	08/25/22	1.04 - 2.47	pCi/L	0	MCL = 50	Naturally occurring
Combined Radium 226 & 228	No	08/25/22	ND - 1.28	pCi/L	0	MCL = 5 ⁽⁷⁾	Naturally occurring
Uranium	No	08/24/22	0.37 - 0.64	ug/l	0	MCL = 30	Naturally occurring
Contaminants	Violation (Yes/No)	Date of Sample	Level Detected (Maximum Range)	Unit Measurement	MCLG/ EPA(10)(11)	Regulatory Limit (MCL or AL)	Likely Source of Contaminant
Unregulated Perfluorinated Che							
Perfluorohexanesulfonic Acid (PFHxS)	No	08/24/22	ND - 3.6	ng/l	n/a	MCL = 50,000	Industrial/Commercial discharge
Perfluorobutanesulfonic Acid (PFBS)	No	08/25/22	ND - 1.1	ng/l	2,000	MCL = 50,000	Industrial/Commercial discharge
Perfluoroheptanoic Acid (PFHpA)	No	08/25/22	ND - 2.1	ng/l	n/a	MCL = 50,000	Industrial/Commercial discharge
Perfluorononanoic Acid (PFNA)	No	08/25/22	ND - 0.93	ng/l	n/a	MCL = 50,000	Industrial/Commercial discharge
Perfluorohexanoic Acid (PFHxA)	No	08/25/22	ND - 3.5	ng/l	n/a	MCL = 50,000	Industrial/Commercial discharge
Perfluorobutanoic Acid (PFBA)	No	08/25/22	ND - 3.7	ng/l	n/a	MCL = 50,000	Industrial/Commercial discharge
Perfluoropentanoic Acid (PFPeA)	No	08/30/22	ND - 7.0	ng/l	n/a	MCL = 50,000	Industrial/Commercial discharge
6:2 FTS	No	08/25/22	ND - 5.6	ng/l	n/a	MCL = 50,000	Industrial/Commercial discharge
Physical Characteristics							
рН	No	Continuous	7.5 - 8.0	pH units	n/a	7.5 - 8.5	Measure of water acidity or alkalinity
Total Hardness	No	01/26/22	7.6 - 80.6	mg/l	n/a	No MCL	Naturally occurring
Calcium Hardness	No	01/26/22	4.5 - 47.2	mg/l	n/a	No MCL	Naturally occurring
Total Dissolved Solids	No	01/26/22	51.0 - 166.0	mg/l	n/a	No MCL	Naturally occurring

Definitions:

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.

Maximum Contaminant Level Goal (MCLG)- 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. Action Level (AL)- The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Health Advisory (HA) - An estimate of acceptable drinking water levels for a chemical substance based on health effects information; a health advisory is not a legally enforceable Federal standard, but serves as technical guidance to assist Federal, State and local officials.

Milligrams per liter (mg/l) - Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

Micrograms per liter (ug/l) - Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

Nanograms per liter (ng/l) - Corresponds to one part of liquid in one trillion parts of liquid (parts per trillion - ppt).

Micromhos (umhos/cm) - The unit of measurement for conductivity.

Non-Detects (ND) - Laboratory analysis indicates that the constituent is not present.

pCi/L - pico Curies per Liter is a measure of radioactivity in water.

- (1) During 2022, we collected and analyzed 31 samples for lead and copper. The result indicated represents the 90th percentile as defined by the Lead and Copper Rule. No sample exceeded the action level for copper and lead. Next testing is scheduled for 2025. If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. Greenlawn Water District 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 from the Safe Drinking Water Hotline (1-800-426-4791) or at http://www.epa.gov/safewater/lead.
- (2) No MCL has been established for sodium. However, 20 mg/l is a recommended guideline for people on high restricted sodium diets and 270 mg/l for those on moderate sodium diets.
- (3) If iron and manganese are present, the total concentration of both should not exceed 500 ug/l.
- (4) 1,4-Dioxane -New York State has established an MCL for 1,4 dioxane at 1 part per billion(ppb) effective August 26, 2020.
- (5) It is used as a solvent for cellulose formulations, resins, oils, waxes and other organic substances. It is also used in wood pulping, textile processing, degreasing, in lacquers, paints, varnishes,
- (6) UCMR4 Unregulated Contaminant Monitoring Rule 4 is a Federal water quality sampling program where water suppliers sample and test their source water for 1 year. Results will be used by the USEPA to determine if the contaminants need to be regulated in the future.
- ⁽⁷⁾ -MCL for Radium is for Radium 226 and Radium 228 combined.
- (8) PFCs has been used to make carpets, leathers, textiles, fabrics for furniture, paper packaging, and other materials that are resistant to water, grease, or stains. It is also used in firefighting foams at airfields. Many of these uses have been phased out by its primary U.S. manufacturer; however, there are still some ongoing uses.
- (9) The US Environmental Protection Agency (EPA) has established a life time health advisory level (HAL) of 70 parts per trillion (ppt) for PFOA and PFOS combined. New York State has established a maximum contaminant level (MCL) of 10 ppt for PFOA and 10 ppt for PFOS effective August 22, 2020.
- (10) USEPA Health Advisory Levels identify the concentration of a contaminant in drinking water at which adverse health effects and/or aesthetic effects are not anticipated to occur over specific exposure durations. Health Advisory Levels are not to be construed as legally enforceable federal standards and are subject to change as new information becomes available.
- (11) All Perfluoroalkyl substances, besides PFOA and PFOS, are considered Unspecified Organic Contaminants (UOC) which have an MCL = 50,000 ng/l.

WATER QUALITY

In accordance with State regulations, the Greenlawn Water District routinely monitors your drinking water for numerous parameters. We test your drinking water for lead and copper, chemicals, inorganic nitrate/nitrite, principal contaminants, specific organic containments, pesticides, coliform bacteria, radiological, disinfection byproducts, perchlorate, perfluoroalkyl substances, 1,4-dioxane, and other water quality parameters. As listed in this newsletter, over 190 separate parameters are tested for in each of our wells numerous times per year. The table presented on page 3 depicts which parameters or contaminants were detected in the water supply. It should be noted that many of these parameters are naturally found in all Long Island drinking water and do not pose any adverse health effects.

SOURCE WATER ASSESSMENT

The NYSDOH, with assistance from the local health department, has completed a source water assessment for this system, based on available information. Possible and actual threats to this drinking water source were evaluated. The source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how rapidly contaminants can move through the subsurface to the wells. The susceptibility of a water supply well to contamination is dependent upon both the presence of potential sources of contamination within the well's contributing area and the likelihood that the contaminant can travel through the environment to reach the well. The susceptibility rating is an estimate of the potential for contamination of the source water, it does not mean that the water delivered to consumers is, or will become, contaminated. Please refer to section "Water Quality" for a list of the contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters into the future.

As mentioned before, our water is derived from 14 drilled wells. The source water assessment has rated most of the wells as having a high susceptibility to industrial solvents and nitrates. The elevated susceptibility to nitrates is due primarily to point sources of permitted discharge facilities (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state and/or federal government), and activities associated to unsewered residential land use and activities, such as fertilizing lawns. The susceptibility to industrial solvents is primarily due to point sources of contamination related to transportation routes and commercial/industrial activities in the assessment area.

A copy of the assessment, including a map of the assessment area, can be reviewed by contacting the District Office.

EMERGING CONTAMINANTS - MCL DEFERRAL

When a public water system (PWS) is issued a deferral, the water system agrees to a schedule for corrective action and compliance with the new PFOS, PFOA or 1,4-dioxane MCLs. In exchange, the New York State Department of Health (the Department) agrees to defer enforcement actions, such as assessing fines, if the PWS is meeting established deadlines. Deferral recipients are required to update the Department and the Suffolk County Department of Health Services each calendar quarter on the status of established deadlines. The Department can resume enforcement if the agreed upon deadlines are not met. Information about our deferral and established deadline can be found at the following site: https://www.greenlawnwater.org/whats-new/14-dioxane-archives/ In 2022, Greenlawn Water District conducted over 9,800 water quality tests analyzing over 190 different parameters. The following contaminants have been undetected in our water supply:

1,1,1,2-Tetrachloroethane	Benzene	Mercury
1,1,2,2-Tetrachloroethane	Benzo(a)pyrene	Methomyl
1,1,2-Trichloro-1,2,2-Trifluoroethane	Beryllium	N-Butylbenzene
1,1,2-Trichloroethane	bis(2-ethylhexyl)adipate	NEtFOSAA
1,1-Dichloropropene	bis(2-ethylhexyl)phthalate	NFDHA
1,2,3-Trichlorobenzene	Bromobenzene	Nitrite
1,2,4-Trichlorobenzene	Bromochloromethane	NMeFOSAA
1,2,4-Trimethylbenzene	Bromoform	N-Propylbenzene
1,2-Dibromo-3-CHL.Propane	Bromomethane	Odor
1,2-Dibromomethane (EDB)	Cadmium	Oxamyl
1,2-Dichlorobenzene	Carbaryl	o-xylene
Antimony	Carbofuran	Pentachlorophenol
1,2-Dichloropropane	Carbon Tetrachloride	Perfluoro-1-Heptansulfonic Acid
1,3,5-Trimethylbenzene	Chlorobenzene	Perfluoro-3-Methoxypropanoic Acid
Hexachloro-1,3-Butadiene	Chlorodifluoromethane	Perfluoro-4-Methoxybutanoic Acid
1,3-Dichlorobenzene	Chloroethane	Perfluorodecanoic Acid
1,3-Dichloropropane	Chloromethane	Perfluorododecanoic Acid
1,4-Dichlorobenzene	Chromium	Perfluoropentanesulfonic Acid
11Cl-PF3OUdS	cis-1,3-Dichloropropene	Perfluorotetradecanoic Acid
2,2-Dichloropropane	Color	Perfluorotridecanoic Acid
2,4,5-TP (SILVEX)	Dalapon	Perfluoroundecanoic Acid
2,4-D	Dibromomethane	Perluoro(2-Ethoxyethane)Sulfonic Acid
2-Chlorotoluene	Dicamba	Picloram
3-Hydroxycarbofuran	Dichlorodifluoromethane	Sec-Butylbenzene
4:2FTS	Dinoseb	Selenium
4-Chlorotoluene	Diquat	Silver
4-Isopropyltoluene (P-CUMENE)	Endothall	Styrene
8:2FTS	Ehtylbenzene	Tert-Btuylbenzene
9CL-PF3ONS	Fluoride	Thallium
ADONA	Glyphosate	Toluene
Aldicarb	Hexachlorobenzene	Total Aldicarbs
Aldicarb Sulfone	Hexachlorocyclopentadiene	Trans-1,2-Dichloroethene
Aldicarbsulfoxide	HFPO-DA	Trans-1,3-Dichloropropene
Ammonia	Isopropylbenzene (CUMENE)	
m,p-xylene	Trichlorofluoromethane	
Arsenic	Vinyl Chloride	