

Board of Commissioners
James M. Logan, Chairman
John T. McLaughlin, Secretary
William M. Wieck, Treasurer

Superintendent
Robert Santoriello

GREENLAWN WATER DISTRICT

2011 Drinking Water Quality Report

Public Water Supply Identification No.: 5103271

ANNUAL WATER SUPPLY REPORT MAY 2012

The Greenlawn Water District is pleased to present this 2011 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 5. 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

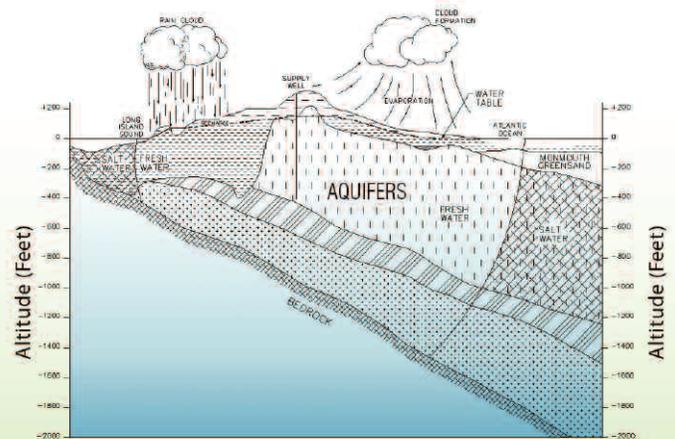
The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick 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 EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the 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 12 active wells located throughout the community that are drilled into the Magothy aquifers beneath Long Island, as shown on the figure at 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 2011 was 42,000. The total amount of water withdrawn from the aquifer in 2011 was 2.22 billion gallons, of which approximately 91 percent was billed directly to consumers.



The Long Island Aquifer System

COST OF WATER

The District utilizes a step billing schedule as shown in the table, effective January 1, 2006. The average residential consumer is being billed at \$0.90 per 1,000 gallons of water used.

QUARTERLY WATER RATES – RESIDENTIAL	
Consumption (gallons)	Charges
Up to 8,000	\$10.00 minimum
8,001 – 58,000	\$0.90/thousand gallons
58,001 – 100,000	\$1.15/thousand gallons
Over 100,000	\$1.40/thousand gallons

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.

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 *Cryptosporidium*, *Giardia* and other microbial pathogens are available from the Safe Drinking Water Hotline (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. 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.

The USEPA established a Lead and Copper Rule that required all public water suppliers to sample and test for lead and copper at the consumer's tap. The first testing was required in 1992. All results were excellent indicating that the District's corrosion control treatment program was effective in preventing the leaching of lead and copper from your home's plumbing in to your drinking water. The same testing was conducted in 2010 with the same excellent results. The next testing program is scheduled to be completed in 2013.

WATER CONSERVATION MEASURES

In 2011, the Greenlawn Water District continued to implement a water conservation program in order to minimize any unnecessary water use. The pumpage for 2011 was 6.7 percent less than in 2010. This decrease can most likely be attributed to the relatively cooler and drier summer weather in 2011 compared to 2010.

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 pumped 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. Granular activated carbon

filters are also installed at Plant Nos. 8 and 11 to treat potable water 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.

2011 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	Sept. 2010	ND - 3.23 ⁽¹⁾	µg/L	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	No	Sept. 2010	ND - 0.1 ⁽¹⁾	mg/L	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits
Calcium	No	06/14/11	1.6 - 13.4	mg/L	—	No MCL	Naturally occurring
Zinc	No	01/14/11	ND - 0.03	mg/L	n/a	MCL = 5	Naturally occurring
Sodium	No	07/12/11	3.9 - 24.0	mg/L	n/a	No MCL ⁽²⁾	Naturally occurring
Chloride	No	01/14/11	4.0 - 50.0	mg/L	n/a	MCL = 250	Naturally occurring
Iron	No	06/14/11	ND - 50	µg/L	n/a	MCL = 300	Naturally occurring
Nitrate	No	04/14/2011	0.5 - 9.9	mg/L	10	MCL = 10	Runoff from fertilizer and leaching from septic tanks and sewage
Sulfate	No	06/14/11	ND - 27.7	mg/L	n/a	MCL = 250	Naturally occurring
Manganese	No	06/14/11	ND - 40	µg/L	n/a	MCL = 300	Naturally occurring
Magnesium	No	06/14/11	0.7 - 5.9	mg/L	n/a	No MCL	Naturally occurring
Volatile Organic Contaminants							
1,1,1-Trichloroethane	No	10/14/11	ND - 1.6	µg/L	0	MCL = 5	Industrial/Commercial discharge
Tetrachloroethene	No	09/13/11	ND - 0.6	µg/L	0	MCL = 5	Industrial/Commercial discharge
Trichloroethene	No	09/13/11	ND - 2.8	µg/L	0	MCL = 5	Industrial/Commercial discharge
Carbon Tetrachloride	No	09/13/11	ND - 1.4	µg/L	0	MCL = 5	Industrial/Commercial discharge
1,1-Dichloroethene	No	01/14/11	ND - 0.7	µg/L	0	MCL = 5	Industrial/Commercial discharge
1,1-Dichloroethane	No	10/12/11	ND - 0.7	µg/L	0	MCL = 5	Industrial/Commercial discharge
1,2-Dichloropropane	No	09/13/11	ND - 1.4	µg/L	0	MCL = 5	Industrial/Commercial discharge
MTBE	No	10/14/11	ND - 1.6	µg/L	0	MCL = 10	Release from gasoline storage tanks. Former gasoline additive.
Total Trihalomethanes	No	10/14/11	ND - 3.3	mg/L	0	MCL = 80	Disinfection By-Products
Radionuclides							
Gross Alpha	No	06/23/08	ND - 1.4	pCi/L	n/a	MCL = 15	Naturally occurring
Gross Beta	No	06/23/08	ND - 3.0	pCi/L	n/a	MCL = 50	Naturally occurring
Radium 228	No	01/17/08	ND - 1.6	pCi/L	n/a	NO MCL	Naturally occurring
Unregulated Contaminants							
Perchlorate	No	06/14/11	ND - 2.9	µg/L	0	AL = 18 ⁽³⁾	Fertilizer
Bacteriological							
Total Coliform ⁽⁴⁾	No	50 Samples every month	Negative or Positive	n/a	n/a	MCL = Positive results in more than 5% of the monthly samples	Commonly found in the environment

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.

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

Micrograms per Liter (µg/L) - Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

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

(1) - During 2010, we collected and analyzed 30 samples for lead and copper. The maximum result represents the 90th percentile. No sample exceeded the action level for copper and lead. Next testing is scheduled for 2013. 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) - NYS Dept. of Health has established an action level of 18.0 µg/L, even though perchlorate is unregulated by the USEPA.

(4) - We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During the month of August 2011, we did not complete all of our monitoring or test for microbiological contaminants and, therefore, cannot be sure of the quality of your drinking water during that time. Due to the issues related to Tropical Storm/Hurricane Irene, we only collected 40 of the required 50 samples during the month. We collected the extra 10 samples two (2) days late. All results were negative for bacteria.

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 coliform bacteria, turbidity, inorganic contaminants, lead and copper, nitrate, volatile organic contaminants, total trihalomethanes and synthetic organic contaminants. As listed in this newsletter, over 135 separate parameters are tested for in each of our wells numerous times per year. The table presented on page 5 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 affects.

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 13 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.

PROPOSED WATER SYSTEM IMPROVEMENTS

Over the past year, the District has completed the rehabilitation of several well pumps at Plant Nos. 5 and 8 and is constructing a new well and pump station at Plant No. 3 on Park Avenue.

Copies of a Supplemental Data Package, which includes the water quality data for each of our supply wells utilized during 2011, 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.

The Greenlawn Water District conducts over 10,000 water quality tests throughout the year, testing for over 130 different contaminants which have been **undetected** in our water supply including:

Arsenic	Oxamyl	1,2-Dichlorobenzene
Barium	Methomyl	1,3-Dichlorobenzene
Cadmium	3-Hydroxycarbofuran	1,4-Dichlorobenzene
Chromium	Carbofuran	1,2,4-Trichlorobenzene
Fluoride	Carbaryl	Hexachlorobutadiene
Mercury	Glyphosate	1,2,3-Trichlorobenzene
Selenium	Diquat	Benzene
Ammonia	Endothall	Toluene
Nitrite	1,2-Dibromoethane (EDB)	Ethylbenzene
Antimony	1,2-Dibromo-3-Chl.Propane	M,P-Xylene
Beryllium	Chloroacetic Acid	O-Xylene
Nickel	Bromoacetic Acid	Styrene
Cyanide	Dichloroacetic Acid	Isopropylbenzene (Cumene)
Lindane	Trichloroacetic Acid	N-Propylbenzene
Heptachlor	Dibromoacetic Acid	1,3,5-Trimethylbenzene
Aldrin	Total Haloacetic Acid	Tert-Butylbenzene
Heptachlor Epoxide	Bromodichloromethane	1,2,4-Trimethylbenzene
Dieldrin	Dibromochloromethane	Sec-Butylbenzene
Endrin	Bromoform	4-Isopropyltoluene (P-Cumene)
Methoxychlor	Dichlorodifluoromethane	N-Butylbenzene
Toxaphene	Chloromethane	
Chlordane	Vinyl Chloride	
Total PCBs	Bromomethane	
Propachlor	Chloroethane	
Alachlor	Trichlorofluoromethane	
Simazine	Methylene Chloride	
Atrazine	Trans-1,2-Dichloroethene	
Metolachlor	cis-1,2-Dichloroethene	
Metribuzin	2,2-Dichloropropane	
Butachlor	Bromochloromethane	
2,4-D	Carbon Tetrachloride	
2,4,5-TP (Silvex)	1,1-Dichloropropene	
Dinoseb	1,2-Dichloroethane	
Dalapon	1,2-Dichloropropane	
Picloram	Dibromomethane	
Dicamba	Trans-1,3-Dichloropropene	
Pentachlorophenol	cis-1,3-Dichloropropene	
Hexachlorocyclopentadiene	1,1,2-Trichloroethane	
bis(2-Ethylhexyl)Adipate	Tetrachloroethene	
bis(2-Ethylhexyl)Phthalate	1,3-Dichloropropane	
Hexachlorobenzene	Chlorobenzene	
Benzo(A)Pyrene	1,1,1,2-Tetrachloroethane	
Aldicarb Sulfone	Bromobenzene	
Aldicarb Sulfoxide	1,1,2,2-Tetrachloroethane	
Aldicarb	2-Chlorotoluene	
Total Aldicarb	4-Chlorotoluene	