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GREENLAWN WATER DISTRICT

# 2008 Drinking Water Quality Report

Public Water Supply Identification No.: 5103271

## ANNUAL WATER SUPPLY REPORT

The Greenlawn Water District is pleased to present this 2008 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

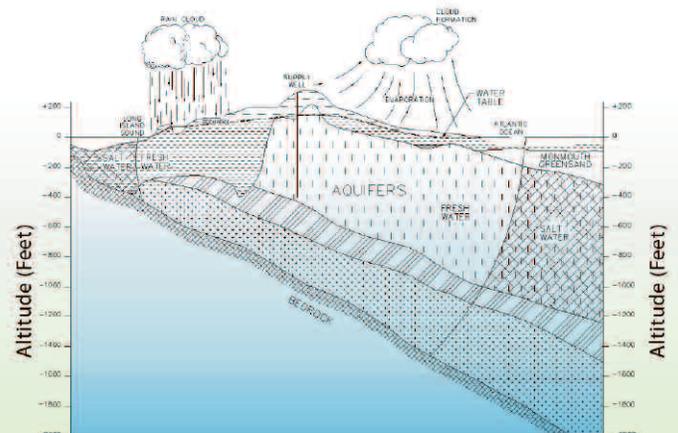
The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick 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 EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems.

The source of water for the District is groundwater pumped from 13 active wells located throughout the community that are drilled into the Glacial and Magothy aquifers beneath Long Island, as shown on the adjacent figure. 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 2008 was 42,000. The total amount of water withdrawn from the aquifer in 2008 was 2.05 billion gallons, of which approximately 93 percent was billed directly to consumers.



The Long Island Aquifer System

## COST OF WATER

The District utilizes a step billing schedule as shown below, 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 the second and fourth Wednesday of each month at 7:30 p.m. and on the first and third Wednesday at 11:30 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 well 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 2007 with the same excellent results. The next testing program is scheduled to be completed in 2010.

## WATER CONSERVATION MEASURES

In 2008, the Greenlawn Water District continued to implement a water conservation program in order to minimize any unnecessary water use. The pumpage for 2008 was 9 percent less than in 2007. This decrease can most likely be attributed to the relatively wetter and cooler summer weather in 2008 compared to 2007.

# GREENLAWN WATER DISTRICT

## 2008 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
<b>INORGANIC CONTAMINANTS</b>							
Lead	No	July/August 2007	ND - 2.23 <sup>(1)</sup>	ug/l	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	No	July/August 2007	ND - 0.05 <sup>(1)</sup>	mg/l	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits
Sodium	No	01/17/08	3.4 - 28.4	mg/l	n/a	No MCL(2)	Naturally occurring
Chloride	No	01/17/08	4.1 - 49	mg/l	n/a	MCL = 250	Naturally occurring
Iron	No	01/17/08	ND - 150	ug/l	n/a	MCL = 300	Naturally occurring
Nitrate	No	01/17/08	0.3 - 7.7	mg/l	10	MCL = 10	Runoff from fertilizer and leaching from septic tanks and sewage
Sulfate	No	01/16/08	ND - 23.2	mg/l	n/a	MCL = 250	Naturally occurring
Manganese	No	01/16/08	ND - 20	ug/l	n/a	MCL = 300	Naturally occurring
<b>Volatile Organic Contaminants</b>							
1,1,1-Trichloroethane	Yes <sup>(5)</sup>	10/23/08	ND - 5.9 <sup>(5)</sup>	ug/l	0	MCL = 5	Industrial/Commercial discharge
Tetrachloroethene	No	10/23/08	ND - 3.7	ug/l	0	MCL = 5	Industrial/Commercial discharge
Trichloroethene	No	10/23/08	ND - 1.8	ug/l	0	MCL = 5	Industrial/Commercial discharge
1,2,3-TCP	No	07/17/08	ND - 3.2	ug/l	0	MCL = 5	Industrial/Commercial discharge
1,1-Dichloroethene	No	10/23/08	ND - 2.8	ug/l	0	MCL = 5	Industrial/Commercial discharge
1,1-Dichloroethane	No	10/23/08	ND - 1.8	ug/l	0	MCL = 5	Industrial/Commercial discharge
MTBE	No	10/23/08	ND - 1.4	ug/l	0	MCL = 10	Release from gasoline storage tanks. Former gasoline additive.
<b>Radionuclides</b>							
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
<b>Unregulated Contaminants</b>							
Perchlorate	No	01/16/08	ND - 5.6	ug/l	0	AL = 18 <sup>(3)</sup>	Fertilizer
<b>Bacteriological</b>							
Total Coliform(4)	No	2 positive out of 58 samples in August 2008	2 positive samples out of 58 (3.5%); 4 positive samples out of 619 for the year	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 (ug/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 2007, 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 2010.

(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 ug/l, even though perchlorate is unregulated by the USEPA.

(4) - Total coliform bacteria was detected in routine monthly compliance samples collected within our distribution system. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. Resamples were collected and all follow-up testing were clean.

(5) - Well No. 11 detected a level of 1,1,1-Trichloroethane at 5.9 ug/l, above the MCL on October 23, 2008. The well was immediately taken off-line. A treatment system is being constructed.

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 No. 8 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.

The District also maintains standby emergency chlorination equipment for disinfection. The District has been granted a waiver from disinfection by the State Health Department, therefore, chlorination is not required.

## ■ 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 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 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.