

## Water Treatment

To enhance water quality, the South Farmingdale Water District treats water as it is pumped from all District wells. The pH of the pumped water is adjusted upward to reduce corrosive action between the water and water mains and in-house plumbing. South Shore area wells (including those of the South Farmingdale Water District) have high iron in the raw well water. Iron is an aesthetic problem and is not health related. The District sequesters the iron by the Aqua-Mag (linear chain phosphate) to keep the iron in solution and prevent the staining of laundry and plumbing fixtures.

The District also operates three (3) iron removal treatment facilities at Plant Nos. 2, 5 and 6 and one (1) granular activated carbon treatment system to remove 1,1-Dichloroethane (1,1-DCA) from well No. 5-1 at Plant No. 5. The raw water concentration is below the maximum contaminant level, but the District treats 1,1-DCA to a concentration below the detection limits. The District recently completed the construction of a dual treatment iron removal and air stripping for volatile organic contaminant treatment facility at Plant No. 1 for Well Nos. 1-3 and 1-5. The District also adds small amounts of sodium hypochlorite (chlorine) as a disinfecting agent and to prevent growth of bacteria in the water distribution system.

## Water Quality

In accordance with State regulations, South Farmingdale Water District monitors your drinking water on a regular basis using more than 135 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. The "Table Of Detected Parameters" presented on page 5 depicts which contaminants were detected in your drinking water. It should be noted that many of these parameters are found naturally 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 our 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. See the section entitled "Table of Detected Parameters" 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.

Our drinking water is derived from 11 wells. The source water assessment has rated all but one (1) of the wells as having a very high susceptibility to industrial solvents and a high susceptibility to nitrates.

The elevated susceptibility to industrial solvents and nitrates is due primarily to point sources of contamination related to commercial/ industrial facilities and related activities in the assessment area. In addition, the elevated susceptibility to nitrates is due to residential land use and related practices, such as fertilizing lawns, in the assessment area.

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

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 South Farmingdale Water District office and the Farmingdale Public Library.

South Farmingdale Water District works very diligently to provide the highest quality water to every tap throughout our 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.

# SOUTH FARMINGDALE WATER DISTRICT

2011 Annual Water Supply Report



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Over 75 Years of Commitment to Quality Water

# 2011 ANNUAL WATER QUALITY REPORT

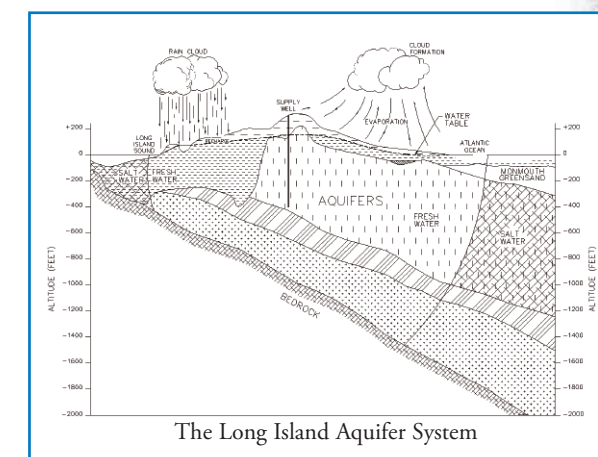
Public Water Supply Identification No. 2902854

In accordance with Federal and State regulations, the Board of Water Commissioners of the South Farmingdale Water District is pleased to provide you with the 2011 Annual Water Quality Report. This in-depth report is filled with important information regarding the District's water quality, cost of water, sources of water, water treatment procedures and more. Our goal is to provide all rate-payers, whether residential or commercial, with a safe, dependable water supply throughout the year. While the District works diligently to monitor our water supply on a day-to-day basis to ensure the highest quality standards, we are also very busy planning for the future. This report will also provide you with our proactive water conservation measures designed to ensure a safe, plentiful water supply for years to come.

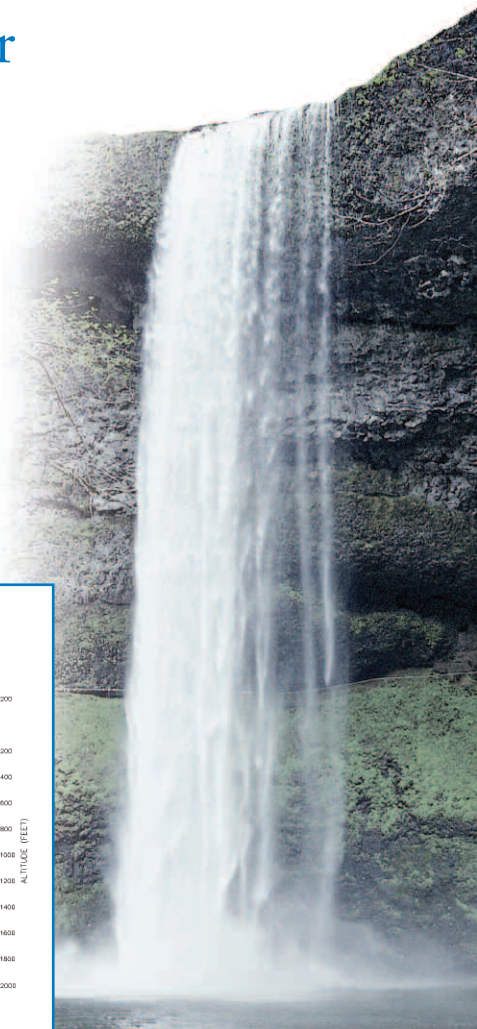
## Source Of Our Water

All water provided through our District is groundwater pumped from 11 wells located throughout the community. These wells are drilled into the Magothy aquifer beneath Long Island, as shown in the figure below. Generally, the water quality of the aquifer is good to excellent, although there are localized areas of contamination.

The South Farmingdale Water District serviced 44,700 customers in 2011. The total amount of water withdrawn from the aquifer in 2011 was 1.79 billion gallons, of which approximately 90 percent was billed directly to consumers.



The Long Island Aquifer System



## Cost Of Water

The District utilizes the following daily step billing schedule for residential and commercial accounts:

Daily Usage (gallons)	Cost Per Gallon
First 66.6666	\$0.00075 (min. charge)
Next 155.5555	\$0.00132
Next 111.1111	\$0.00160
Next 111.1111	\$0.00187
Remaining	\$0.0031

## Contact For Additional Information

Our drinking water is safe and meets all Federal and State requirements except for iron, for which the water is treated. If you have any questions about this report or your water utility, please contact Superintendent Charles Prucha at (516) 249-3330, visit our website at [www.sfwater.com](http://www.sfwater.com) or the Nassau County Department of Health at (516) 227-9692. If you want to learn more, please attend any of our regularly scheduled meetings. They are normally conducted the second and fourth Tuesday of each month at 4:30 p.m. at the South Farmingdale Water District office at 40 Langdon Road, Farmingdale, NY.

The South Farmingdale Water District routinely monitors for different parameters and 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 constituents. It's important to remember that the presence of these constituents 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 (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 individuals undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, and some elderly people and infants may be particularly at risk for 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 at (800) 426-4791.

The USEPA established a Lead and Copper Rule that requires all public water suppliers to sample and test for lead and copper at the 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 into your drinking water. Identical testing was conducted in 2009 with the same excellent results. The District will conduct its next round of sampling and testing in 2012.

## Water Conservation Measures

The underground water system of Long Island has more than enough water for present water demands. However, saving water will ensure that our future generations will always have a safe and abundant water supply.

In 2011, the South Farmingdale Water District continued to implement a water conservation program in order to minimize any unnecessary water use. The pumpage for 2011 was 7.7 percent less than in 2010. This can most likely be attributed to the relatively wetter and cooler weather during the summer of 2011.

Residents of the District can also 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.

In addition, consumers should be aware that the Nassau County Lawn Sprinkler 2 Irrigation Regulations are still in effect. 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).

## Daily Water Rates

## Table Of Detected Parameters

Contaminants	Violation (Yes/No)	Date of Sample	Level Detected (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL or AL)	Likely Source of Contaminant
<b>Inorganic Contaminants</b>							
Copper	No	June/July 2009	ND - 0.11 <sup>(1)</sup>	mg/L	1.3	AL = 1.3	Corrosion of galvanized pipes; Erosion of natural deposits
Lead	No	June/July 2009	ND - ND <sup>(1)</sup>	µg/L	0	AL = 15	Corrosion of household plumbing systems; erosion of natural deposits
Sodium	No	9/8/2011	2.2 - 31.2	mg/L	n/a	No MCL <sup>(3)</sup>	Naturally occurring
Zinc	No	3/7/2011	ND - 0.06	mg/L	n/a	MCL = 5	Naturally occurring
Chloride	No	5/27/2011	3.0 - 17.4	mg/L	n/a	MCL = 250	Naturally occurring
Iron	Yes <sup>(2)</sup>	12/19/2011	ND - 1520	µg/L	n/a	MCL = 300	Naturally occurring
Manganese	No	5/27/2011	ND - 30	µg/L	n/a	MCL = 300	Naturally occurring
Calcium	No	8/2/2011	0.4 - 5.2	mg/L	n/a	None	Naturally occurring
Nitrate	No	—	ND	mg/L	10	MCL = 10	Runoff from fertilizer and leaching from septic tanks and sewage
Magnesium	No	12/5/2011	0.3 - 2.0	mg/L	n/a	None	Naturally occurring
Sulfate	No	3/7/2011	ND - 30.8	mg/L	n/a	MCL = 250	Naturally occurring
<b>Synthetic Organic Contaminants Including Pesticides and Herbicides</b>							
None Detected	—	—	ND	—	—	—	—
<b>Radiological</b>							
Gross Alpha	No	10/18/2011	ND - 0.39	pCi/L	—	MCL = 15	Naturally occurring
Radium 228	No	10/18/2011	ND - 0.28	pCi/L	—	No MCL	Naturally occurring
<b>Volatile Organic Contaminants</b>							
TTHM <sup>(4)</sup>	No	8/1/2011	ND - 2.9	µg/L	0	MCL = 80	Disinfection By-Product
1,1 - Dichloroethane	No	5/27/2011	ND - 0.7	µg/L	0	MCL = 5	Industrial Discharge

### 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 that a water system must follow.

**Nephelometric Turbidity Unit (NTU)** - A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**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).

**pCi/L** - pico Curies per Liter. A measure of radioactivity in water.

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

<sup>(1)</sup> - During 2009 we collected and analyzed 30 samples for lead and copper. The 90% percentile level is presented in the table. The action levels for both lead and copper were not exceeded at any site tested.

<sup>(2)</sup> - Iron is only a secondary drinking water standard. Iron has no health effects. Therefore, exceeding the MCL represents a level at which adverse aesthetics effects start to occur.

<sup>(3)</sup> - 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.

<sup>(4)</sup> - TTHM - Total Trihalomethanes

