

## Water Treatment

The Bethpage Water District provides treatment at all 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 corrosive action between the water and water mains and in-house plumbing by the addition of small amounts of sodium hydroxide. An air stripping tower at Plant No. 6 is utilized to treat potable water from Well Nos. 6-1 and 6-2 for the removal of volatile organic compounds. Similar treatment facilities are also utilized at Plant No. 4 for Well Nos. 4-1 and 4-2, and at Plant No. 5 for Well No. 5-1. Granular activated carbon (GAC) filters are installed on Well Nos. 7 and 8 for the removal

of volatile organic compounds. The District also installed a resin filter at BDG-1 well for the removal of perchlorate, and converted the GAC filters at Well No. 8 to resin filters to remove perchlorate from the well.

The District is no longer granted a waiver from mandatory disinfection by the State Health Department. The District is in the process of implementing chlorination for disinfection.

## Water Quality

In accordance with State regulations, the Bethpage 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. 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 your drinking water. 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. Please be assured that your drinking water meets all Federal and State water quality standards.

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 Bethpage Water District office located at 25 Adams Avenue, Bethpage, New York and the Bethpage Public Library. If you want to learn more about our public water, please attend any of our regularly scheduled District meetings. They are regularly held every other Thursday at 6:00 p.m. at the District office.

## 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. See the section entitled "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.

Our drinking water is derived from 8 wells. The source water assessment has rated most of the wells as having a high susceptibility to nitrates and three (3) of the wells as having a very high susceptibility to industrial solvents. The very high susceptibility to industrial solvents is due primarily to point sources of contamination related to commercial/industrial activities in the assessment area. The high susceptibility of nitrate contamination is attributable to unsewered high density residential land use and related practices in the assessment area, such as fertilizing lawns.

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

We at Bethpage 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. Please call our office if you have any questions.

# BETHPAGE WATER DISTRICT

Annual Water Supply Report

Spring 2011



### Board of Water Commissioners

William J. Ellinger  
Chairperson

John R. Sullivan  
Treasurer

Gary S. Bretton  
Secretary

Michael J. Boufis  
Superintendent

[www.bethpagewater.com](http://www.bethpagewater.com)

Established in 1923

# 2011 ANNUAL WATER QUALITY REPORT

*Public Water Supply Identification No. 2902817*

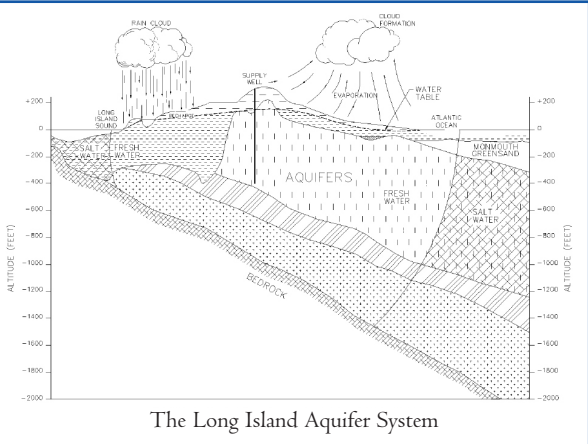
The Bethpage Water District is pleased to present this year's Water Quality Report. It is required to be delivered to all residents of our District in compliance with Federal and State regulations. We are happy to report that the District's supply water is in full compliance with all Federal, State and County regulations and that no violations exist.

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 the District takes to protect our water resources and continually improve the water quality treatment process.

## Where Does Our Water Come From?

The source of water for the District is groundwater pumped from eight (8) wells located throughout the community that are drilled into the Magothy aquifer beneath Long Island, as shown on the figure below. Generally, the water quality of the aquifer is good to excellent, although there are localized areas of contamination.

The population served by the Bethpage Water District during 2011 was 33,000. The total amount of water withdrawn from the aquifer in 2011 was 1.39 billion gallons, of which 95 percent was billed directly to consumers.



The Long Island Aquifer System



## Cost Of Water

The District utilizes a step billing schedule as shown below, with the average consumer being billed at \$1.05/1000 gallons. That's 10 gallons for one penny!!

## Step Schedule Of Water Rates (Per Quarter)

Consumption	Charges
Up to 10,000 gallons	\$7.50 minimum
10,001 – 35,000 gallons	\$1.05 per thousand gallons
35,001 – 60,000 gallons	\$1.35 per thousand gallons
60,001 – 100,000 gallons	\$1.65 per thousand gallons
Over 100,000 gallons	\$2.10 per thousand gallons

## Contacts For Additional Information

We are pleased to report that our drinking water meets and exceeds all Federal and State requirements. If you have any questions about this report or your public water supply, please contact the Water District Superintendent Michael Boufis at (516) 931-0093 or the Nassau County Dept. of Health at (516) 227-9692. We want our valued customers to be informed about our water system.

The Bethpage 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 parameters and contaminants. No water is “pure” (unless it’s distilled). It’s important to remember that the presence of these parameters and contaminants 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, and 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). It should be noted that Cryptosporidium and Giardia are primarily found in surface waters, not groundwater and our entire water supply is derived from groundwater.

The USEPA established a Lead and Copper Rule that required all public water suppliers to sample and test for lead and copper at the tap. The first testing was required in 1992. All of our 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. The same testing was last conducted in 2011 with the same excellent results. Routine testing for lead and copper is required every three (3) years.

Water from the Bethpage Water District has elevated levels of nitrates, but well 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 past on-site septic systems. If you are caring for an infant you should ask advice from your health care provider.

## Water Conservation Measures

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

In 2011, the Bethpage Water District continued to implement a water conservation program in order to minimize any unnecessary water use. The pumpage for 2011 was 19 percent less than as in 2010. This can be contributed to the wetter and cooler summer in 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.

It should also be noted that the Nassau County Lawn Sprinkler 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).

## Table Of Detected Parameters

Contaminants	Violation (Yes/No)	Date of Sample	Level Detected (Min. to Max.)	Unit Measurement	MCLG	Regulatory Limit (MCL or AL)	Likely Source of Contaminant
Inorganic Contaminants							
Copper	No	Sept. 2011	ND - 0.16 <sup>(1)</sup>	mg/l	1.3	AL = 1.3	Corrosion of galvanized pipes; Erosion of natural deposits
Lead	No	Sept. 2011	ND - 4.9 <sup>(1)</sup>	ug/l	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits
Barium	No	7/20/11	ND - 0.01	mg/l	n/a	MCL = 20	Naturally occurring
Sodium	No	04/08/11	4.0 - 17.2	mg/l	n/a	No MCL <sup>(2)</sup>	Naturally occurring
Zinc	No	07/20/11	ND - 0.16 <sup>(1)</sup>	mg/l	n/a	MCL = 5	Naturally occurring
Chloride	No	05/09/11	4.6 - 21.7	mg/l	n/a	MCL = 250	Naturally occurring
Iron	No(3)	07/20/11	ND - 90	ug/l	n/a	MCL = 300 <sup>(3)</sup>	Naturally occurring
Nitrate	No	07/20/11	0.5 - 7.9	mg/l	10	MCL = 10	Runoff from fertilizer and leaching from septic tanks and sewage
Sulfate	No	06/20/11	ND - 6.8	mg/l	n/a	MCL = 250	Naturally occurring
Magnesium	No	07/20/11	ND - 2.3	mg/l	n/a	None	Naturally occurring
Calcium	No	07/20/11	1.0 - 6.9	mg/l	n/a	None	Naturally occurring
Nickel	No	07/20/11	ND - 0.003	mg/l	n/a	MCL = 0.1	Naturally occurring
Volatile Organic Contaminants and Synthetic Organic Contaminants Including Pesticides and Herbicides							
Trichloroethene	No	07/18/11	ND - 0.6	ug/l	0	MCL = 5.0	Industrial Degreaser/Discharge
Total Trihalomethanes (THM)	No	06/08/11	ND - 1.3	ug/l	0	MCL = 80	Disinfection By-Product
Total Haloacetic Acid	No	06/08/11	ND - 2.0	ug/l	0	MCL = 60	Disinfection By-Product
Unregulated Contaminants(4)							
Perchlorate	No	02/08/11	ND - 7.6	ug/l	n/a	None <sup>(4)</sup>	Fertilizers

**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.  
**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  
**Non-Detects (ND)** - Laboratory analysis indicates that the constituent is not present.  
<sup>(1)</sup> - During 2011 we collected and analyzed 31 samples for lead and copper as part of a special water quality testing program. The 90% percentile level is presented in the table. The action levels for both lead and copper were not exceeded at any site tested. This special lead and copper sampling will be conducted again in 2014.  
<sup>(2)</sup> - No MCL has been established for sodium. However, 20 mg/L is a recommended guideline for people on highly restricted sodium diets and 270 mg/L for those on moderately restricted sodium diets.  
<sup>(3)</sup> - Iron is only a secondary water standard. Iron has no health effects. Therefore, exceeding the MCL represents a level at which adverse aesthetic effects start to occur.  
<sup>(4)</sup> - Perchlorate is an unregulated contaminant. However, the State Health Department has established an action level of 18 µg/L.

