

# 2011 Annual Water Quality Report

Public Water System  
Identification No.  
NY 2902830

Water Authority of Western Nassau County, 58 South Tyson Avenue, Floral Park, NY 11001

## Communities Served

Bellerose  
Elmont  
Floral Park  
Floral Park Centre  
Franklin Square \*  
Garden City \*  
New Hyde Park  
North Valley Stream \*  
South Floral Park  
Stewart Manor  
Valley Stream \*

\* Partially served communities

## Appointed Board Members

**George Bakich**  
Town of Hempstead

**Aly Kayne**  
Town of Hempstead

**Marianna Wohlgemuth**  
Town of North Hempstead

**Susan Powderly**  
Village of Bellerose

**Dominick Longobardi**  
Village of Floral Park

**Bart Brown**  
Village of Garden City

**Reid Sakowich**  
Village of New Hyde Park

**Arlene McMullan**  
Village of South Floral Park

**Christopher Gorman**  
Village of Stewart Manor

## A Message from the Chairman

Dear Water Authority Customer:

We are pleased to provide this year's Annual Water Quality Report. In accordance with New York State Public Health Law and Federal regulations, this report provides information about the quality of your drinking water, including a summary of the laboratory results for all testing performed during 2011. Our water is continually tested by an independent laboratory service that uses the most sophisticated equipment and advanced testing procedures currently available.

The purpose of this report is to aid your understanding of the source of your drinking water, help you to understand the process by which safe drinking water is delivered to your home and educate customers about the importance of preventive measures, such as source protection, that ensure a safe drinking water supply. Edu-

cated customers are more likely to help protect their drinking water sources and to appreciate the challenges and the true costs of providing safe drinking water.

The Water Authority has always assured the safety of its customers and employees, as well as the protection of its water system assets. We remain dedicated to providing a continuous and reliable supply of high quality drinking water. You can be confident that the water delivered to your home meets all Federal, State and Nassau County standards for quality and safety.

The annual Chairman's Report to the customers within the Water Authority's service area is also included in this document and can be found on page 7.

We encourage you to review the enclosed test results and other important

information included in this report. Additional copies of this report, as well as a supplemental package of complete water quality data of both treated and untreated water for each well placed in service during 2011, are available at our business office located at 58 South Tyson Avenue, Floral Park, New York, 11001. This year's Annual Water Quality Report, as well as several previous years' reports and other useful information, can be found at [www.wawnc.org](http://www.wawnc.org).

Our employees look forward to serving you in 2012 and beyond.

We welcome your comments and suggestions. Please contact us at 516-327-4100 or [inquiry@wawnc.org](mailto:inquiry@wawnc.org).

Sincerely,

*John E. Ryan*

Chairman

## About the Water Authority

The Water Authority is a corporate governmental agency constituting a public benefit corporation which was organized and exists under and by virtue of the laws of the State of New York. The Water Authority provides the essential services of extraction, treatment, distribution and sale of water for residential, commercial, industrial and public fire protection purposes.

The Water Authority is governed by a Board of Directors

consisting of nine members, two appointed by the Town of Hempstead, one appointed by the Town of North Hempstead and one member each appointed by the village boards of the Villages of Bellerose, Floral Park, Garden City, New Hyde Park, South Floral Park and Stewart Manor. Each member's term is for a period of two years.

The Water Authority's Board of Directors conducts regularly scheduled meetings

which are generally held on the fourth Monday of each month beginning at 7:00 p.m. at our business office in Floral Park. A public notice is submitted to the local newspapers and libraries each month announcing the time and date of the regular meeting, as well as any specially scheduled meeting. In addition, a notice is posted at our office location, generally two weeks prior to the meeting as well as on our website at [www.wawnc.org](http://www.wawnc.org).

## Lead in Drinking Water

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. The Water Authority 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 at 1-800-426-4791 or at:

<http://www.epa.gov/safewater/lead>.



## Are there contaminants in our drinking water?

As New York State ("State") regulations require, the Water Authority routinely tests your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiological and synthetic organic compounds.

The table presented on pages 4 and 5 depicts which contaminants were detected in your drinking water. The State allows water systems to test for

some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of our data, though representative of the water quality, is more than one year old.

In order to ensure that 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 Department of Health's and the FDA's regulations establish limits for contaminants in bottled water

which must provide the same protection for public health.

It should be noted that all drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791 or the Nassau County Department of Health at 516-227-9692.

## Do I need to take special precautions?

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 under-

gone 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/Center for Disease Control 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 1-800-426-4791.

## What does this information mean?

We have learned through our testing that some contaminants have been detected; however, with one exception, these contaminants were detected below New York State requirements. As you will see by the testing results contained in the table on pages 4 and 5, our system did uncover a problem last year which was rectified in accordance with Nassau County Department of Health procedures as detailed in footnote 2 on page 5 of this report. Our comprehensive water quality monitoring and testing confirmed that there was no need to remove any well from service due to water quality in 2011, nor were there any restrictions of our water source. Wells which have aesthetic problems, such as high iron concentrations, or which have higher electrical or chemical treatment costs, are primarily used only during the summer months when the demand for water is higher.

There were many individual contaminants that were analyzed for but not detected. These non-detected contaminants include the following:

**Microbiological contaminants** such as *turbidity*;

**Principal organic contaminants** such as *benzene*, *bromobenzene*, *chloromethane*, *styrene*, *vinyl chloride*;

**Specific organic chemicals and pesticides** such as *aldicarb*, *aldrin*, *carbofuran*, *dioxin*, *endosulfan*, *endrin*, *propachlor*;

**Physical and inorganic contaminants** such as *arsenic*, *cadmium*, *detergents (MBAs)*, *fluoride*, *silver*, *thallium*;

**Unregulated contaminants** such as *dimethoate*, *alachlor*, *acetochlor*.

A complete list of non-detected contaminants can be obtained by contacting Robert Swartz, Chief Engineer, at 516-327-4100.

## Water Source

In general, 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.

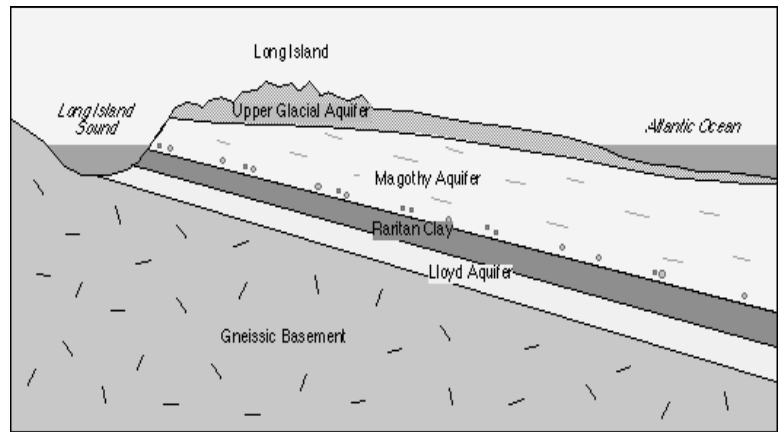
All of the water supplied by the Water Authority comes from groundwater drawn from 24 drilled wells located in the aquifer system beneath the land surface. The Water Authority has wells in the Upper Glacial, Magothy and Lloyd aquifers. These wells range in depth from 87 to 722 feet.

## Water Treatment

All well water is treated with chlorine (sodium hypochlorite) prior to distribution for disinfection purposes. Disinfection is mandated by the State Sanitary Code to assure that the water, which is free of bacteria as it is pumped from the aquifer, maintains its bacteria-free quality within the distribution system. Other treatment that the water receives before entering the distribution system includes the use of:

- **Caustic soda** (sodium hydroxide) to neutralize the naturally acidic water found in Long Island groundwater. Raising the pH level to a neutral range of approximately 7.5 minimizes the corrosion of water mains, service lines and household plumbing.
- **Zinc metaphosphate** to sequester iron, a mineral which is found naturally in Long Island groundwater. This sequestering agent combines with the iron and prevents the iron from discoloring the water. Since high water temperatures can cause the iron to come out of solution and possibly stain clothing, customers are advised to use cold or warm water when washing laundry to minimize this problem.
- **Zinc orthophosphate**, a corrosion inhibitor which coats the surface of our water mains and service lines thereby reducing corrosion and extending their useful service life.
- **Air strippers and granular activated carbon treatment** are used to remove Volatile Organic Compounds from the water prior to distribution. These compounds have entered the water supply as a result of improper disposal practices by industries and have been detected in groundwater.

These forms of treatment all comply with applicable Federal, State and local drinking water standards.



## Source Water Assessment

The Source Water Assessment was carried out by the New York State Department of Health, with assistance from the local health department and CDM, a consulting firm, to identify the vulnerability of individual wells used by public drinking water systems to potential sources of contamination by microbials, nitrates, pesticides and volatile contaminants based on current land uses and water pumping patterns.

The source water assessment for this system has been completed based on available information, evaluating possible and actual threats to this drinking water source. 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 "Table of Detected Contaminants" found on page 4 for a complete list of contaminants that have been detected in your drinking water. The source water assessments provide resource managers with additional information for protecting source waters into the future.

Drinking water is derived from 21 wells. The source water assessment has rated most of the wells as having a very high susceptibility to industrial solvents and most of the wells as having a high susceptibility to nitrates. The very high susceptibility to industrial solvents is due primarily to point sources of contamination related to transportation routes and commercial/industrial facilities and related activities in the assessment area. The high susceptibility to nitrate contamination is attributable to high density residential and commercial 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 reviewed upon request by contacting the Water Authority's Chief Engineer, Robert Swartz, at 516-327-4100.

## TABLE OF DETECTED CONTAMINANTS

Contaminant	Date of Sample (Month)	Maximum Amount Detected	Detected Range	Unit Measurement	Regulatory Limit	Violation	MCLG	Sources in Drinking Water
<b>MICROBIOLOGICAL CONTAMINANTS</b>								
Total Coliform Bacteria <sup>1</sup>	4/15/2011 4/26/2011 6/23/2011 7/18/2011 7/19/2011 8/01/2011 8/16/2011 8/29/2011 9/12/2011 9/14/2011 9/28/2011 12/02/2011 12/14/2011	1 Positive Sample 1 Positive Sample 1 Positive Sample 1 Positive Sample 1 Positive Sample 1 Positive Sample 1 Positive Sample 1 Positive Sample 1 Positive Sample 1 Positive Sample 1 Positive Sample 1 Positive Sample 1 Positive Sample	N/A	N/A	MCL=5 or more positive samples in one month	No	0	Naturally present in the environment.
E. coli	7/18/2011	1 Positive Sample	N/A	N/A	Any positive sample	Yes <sup>2</sup>	0	Human and animal fecal waste.
<b>PHYSICAL &amp; INORGANIC CONTAMINANTS</b>								
Alkalinity, Total (as CaCO <sub>3</sub> )	7/11, 8/11, 12/11	68	13 to 68	mg/l	No Standard	No	N/A	
Ammonia (as Nitrogen)	4/11, 12/11	1.5	ND to 1.5	mg/l	No Standard	No	N/A	
Barium	4/11, 12/11	11	ND to 11	ug/l	2,000	No	2,000	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Calcium	4/11, 7/11, 8/11, 12/11	22	5.5 to 22	mg/l	No Standard	No	N/A	
Calcium Hardness (as CaCO <sub>3</sub> )	4/11, 7/11, 8/11, 12/11	54	14 to 54	mg/l	No Standard	No	N/A	
Chloride	4/11, 12/11	53	17 to 53	mg/l	MCL=250	No	N/A	Naturally occurring or indicative of road salt contamination.
Color	4/11, 12/11	10	ND to 10	Units	15	No	N/A	The presence of metals such as copper, iron and manganese.
Copper	6/09, 7/09, 8/09	0.14 <sup>3</sup>	ND to 0.27	mg/l	AL=1.3	No	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Dissolved Solids, Total	4/11, 12/11	213	109 to 213	mg/l	No Standard	No	N/A	
Hardness, Total (as CaCO <sub>3</sub> )	4/11, 12/11	97	33 to 97	mg/l	No Standard	No	N/A	
Iron	1/11 to 12/11	1,650	ND to 1,650	ug/l	MCL=300 <sup>4</sup>	No	N/A	Naturally occurring.
Langelier Saturation Index (LSI)	4/11, 12/11	-2.26	-1.04 to -2.26	SI	No Standard	No	N/A	
Lead	6/09, 7/09, 8/09	2.00 <sup>5</sup>	ND to 4.0	ug/l	AL=15	No	0	Corrosion of household plumbing systems; erosion of natural deposits.
Magnesium	4/11, 12/11	11	3.5 to 11	mg/l	No Standard	No	N/A	
Manganese	4/11, 12/11	30	ND to 30	ug/l	300	No	N/A	Naturally occurring; indicative of landfill contamination.
Nickel	4/11, 12/11	1.4	ND to 1.4	ug/l	No Standard	No	N/A	Naturally occurring.
Nitrate (as Nitrogen)	4/11, 12/11	4.9	0.38 to 4.9	mg/l	MCL=10 <sup>6</sup>	No	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Orthophosphate (as Phosphorus)	1/11 to 12/11	0.5	ND to 0.5	mg/l	No Standard	No	N/A	
pH	1/11 to 12/11	8.0	6.1 to 8.0	N/A	No Standard	No	N/A	
Sodium	4/11, 12/11	31	28 to 31	mg/l	7	No	N/A	Naturally occurring; road salt; animal waste; water softeners.
Specific Conductivity	7/11, 8/11	427	157 to 427	umhos/cm	No Standard	No	N/A	
Sulfate	4/11, 12/11	34	24 to 34	mg/l	MCL=250	No	N/A	Naturally occurring.
Temperature	4/11, 7/11, 8/11, 9/11, 10/11, 12/11	28	16 to 28	°C	No Standard	No	N/A	
Zinc	4/11, 12/11	0.53	ND to 0.53	mg/l	MCL=5	No	N/A	Naturally occurring.
<b>PRINCIPAL ORGANIC CONTAMINANTS</b>								
Methyl tert-butyl ether (MTBE)	4/11	0.5	ND to 0.5	ug/l	10	No	N/A	Releases from gasoline storage tanks. MTBE is an octane enhancer in unleaded gasoline. Atmospheric deposition.
Toluene	4/11	0.7	ND to 0.7	ug/l	5	No	N/A	Leaks from gasoline tanks; discharge from petroleum factories; leaching of solvent from lining of potable water tanks.

## TABLE OF DETECTED CONTAMINANTS (continued)

Contaminant	Date of Sample (Month)	Maximum Amount Detected	Detected Range	Unit Measurement	Regulatory Limit	Violation	MCLG	Sources in Drinking Water
<b>RADIOACTIVE CONTAMINANTS</b>								
Gross Alpha Activity	11/10, 12/10	3.4	0.20 to 3.4	pCi/l	MCL=15	No	0	Erosion of natural deposits.
<b>DISINFECTION BYPRODUCTS</b>								
Total Haloacetic Acids <sup>8</sup>	9/11	3.4	ND to 3.4	ug/l	MCL=60	No	N/A	Byproduct of drinking water chlorination.
Total Trihalomethanes <sup>9</sup>	9/11	12	ND to 12	ug/l	MCL=80	No	N/A	Byproduct of drinking water chlorination.
<b>UNREGULATED CONTAMINANTS</b>								
Perchlorate	4/11, 5/11, 6/11, 8/11	2.3	ND to 2.3	ug/l	MCL=18	No	N/A	Oxygen additive in solid fuel propellant for rockets, missiles & fireworks.

**90<sup>th</sup> Percentile Value** The values presented for lead and copper represent the 90<sup>th</sup> percentile. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90<sup>th</sup> percentile is equal to or greater than 90% of the lead and copper values detected at your water system.

**AL (Action Level)** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements which a water system must follow.

**MCL (Maximum Contaminant Level)** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.

**MCLG (Maximum Contaminant Level Goal)** 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.

**mg/l (Milligrams per Liter)** Corresponds to one part of liquid in one million parts of liquid (parts per million—ppm)

**MRDL (Maximum Residual Disinfectant Level)** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**MRDLG (Maximum Residual Disinfectant Level Goal)** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**N/A** Not applicable.

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

**pCi/L (Picocuries per Liter)** A measure of the radioactivity in water.

**SI (Saturation Index)** A measurement of the Langelier Saturation Index (LSI). LSI is a calculated number used to predict whether water will precipitate, dissolve or be in equilibrium with calcium carbonate. A negative LSI indicates that water has no scaling potential; a positive LSI indicates that scale has the potential to form.

**ug/l (Micrograms per Liter)** Corresponds to one part of liquid in one billion parts of liquid (parts per billion—ppb).

**umhos/cm (Micromhos per Centimeter)** A measurement of specific conductivity. The specific conductivity is an indication of the degree of mineralization found in the water. The higher the number the more minerals there are in the water.

1 In April 2011, June 2011, August 2011, September 2011, and December 2011 total coliforms were detected in two, one, three, three, and two samples, respectively, of the 100 monthly routine compliance samples collected in our system during those months. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially-harmful bacteria may be present. Forty-five (45) additional samples were subsequently collected and total coliforms were not detected in those samples. Since total coliforms were detected in less than 5 percent of the samples collected during these months, the system did not have an MCL violation. In July 2011 total coliforms were detected in one of the 100 monthly routine compliance samples, and in one of the required repeat samples. See Note 2 below.

2 A violation occurs when a total coliform positive sample is positive for E.coli and a repeat total coliform sample is positive, or when a total coliform positive sample is negative for E.coli but a repeat total coliform sample is positive and the sample is also positive for E.coli. On July 18, 2011 one out of 11 water samples collected by the Water Authority was found positive for E.coli bacteria at a distribution sampling location near N. Fletcher Avenue and Dutch Broadway. Upon resampling of this location on July 19, 2011, there was no detection of E.coli or Total Coliform bacteria; however, another location near N. Fletcher Avenue and Dutch Broadway tested positive for Total Coliform bacteria, but negative for E. coli triggering mandatory public notification. *Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.*

In order to insure the safety of the water, the Water Authority flushed the mains in the area of the positive bacteria sample, collected samples throughout the area and all wells and water storage tanks in the area, and increased the level of chlorine (sodium hypochlorite), which is used for disinfection purposes in the distribution system. After extensive testing of over 170 samples collected by the Water Authority and the Nassau County Department of Health (NCDH) during a 2-day period, all samples were found to be NEGATIVE for total coliform bacteria and E.coli. This issue was resolved to the satisfaction of the NCDH, and the Water Authority is no longer in violation.

3 The value reported for copper represents the 90<sup>th</sup> percentile. In this case 50 samples

were collected at your water system and the 90<sup>th</sup> percentile value was the fifth highest value (0.14 mg/l). The action level for copper was not exceeded at any of the sites tested.

4 Iron has no health effects. The limit for iron is set for aesthetics. At 1,000 ug/l a substantial number of people will note the bitter astringent taste of iron. Also, at this concentration, it imparts a brownish color to laundered clothing and stains plumbing fixtures with a characteristic rust color. Staining can result at levels of 50 ug/l, lower than those detectable to taste buds. Therefore, the MCL of 300 ug/l represents a reasonable compromise as adverse aesthetic effects are minimized at this level. Many multivitamins may contain 3,000 ug/l or 4,000 ug/l of iron per capsule. Higher levels of iron are allowed by the State when justified by the water supplier. The Water Authority uses zinc metaphosphate for sequestering the iron.

5 The value reported for lead represents the 90<sup>th</sup> percentile. In this case 50 samples were collected at your water system and the 90<sup>th</sup> percentile value was the fifth highest value (2.00 ug/l). The action level for lead was not exceeded in any of the samples collected.

6 Nitrate in drinking water at levels above 10 mg/l is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

7 Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.

8 Total Haloacetic Acids mean the sum of mono-, di-, and trichloroacetic acid, and mono- and di- bromoacetic acid.

9 Total Trihalomethanes (TTHMs) mean the sum of Chloroform, Bromodichloromethane, Dibromochloromethane, and Bromoform.

## Water Conservation Methods

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water. Saving water saves energy and some of the costs associated with both of these necessities of life. Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water storage tanks. It also lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire fighting needs are met.

You can play a role in conserving water and saving yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less water whenever you can. The following suggestions will help you make your home “water efficient” without sacrificing comfort or changing lifestyles:

- Turn off your automatic lawn sprinkler if rain is expected or install a rain sensor.
- Load your automatic dishwasher to its maximum capacity before running it. Dishwashers use approximately 15 gallons for every cycle regardless of how many dishes are loaded.
- Turn off the tap when brushing your teeth or while shaving.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilet for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl which will indicate a leak. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. By fixing it, you can save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all faucets and water using appliances, and be sure no one in your family uses water during the testing period. Note the water meter reading and check the meter after 15 minutes. If the dial indicator on the water meter moved, you have a leak.

## 2011 Statistics At-a-Glance

Wells Closed/Restricted	One
Violations of Standards	None
Number of Service Connections (Customers)	27,795
Population Served	120,000
Total Water Produced (billion gallons) <sup>1</sup>	4.09
Daily Average (million gallons)	11.22
Highest Single Day (million gallons)	22.12
Total Wells in System	24
Active Wells in System <sup>2</sup>	23
Storage Facilities	4 ground, 3 elevated
Storage Capacity (million gallons)	11.8
Miles of Main	234
Fire Hydrants	2,432
Water Obtained or Disbursed through Interconnections With Other Water Suppliers	None
Average Annual Residential Water Rates (based on 100,000 gallons) <sup>3</sup>	\$327

<sup>1</sup> Approximately 83.6 percent of the water produced in 2011 was billed directly to customers and 5.4 percent was used for main flushing, hydrant testing and maintenance, and station and tank maintenance. The balance, or unaccounted for water of approximately 11 percent, was used for contractor activity, fighting fires, filling street sweepers and sewer cleaning trucks and also includes losses due to leaks, water main breaks and hit hydrants.

<sup>2</sup> Well number 15D, located in Elmont, was removed from service in the 1980s due to high nitrate levels.

<sup>3</sup> Under the Water Authority’s rate structure effective June 1, 2011 the average customer pays a minimum quarterly charge of \$32.20 for the first 9,000 gallons and \$3.097 per thousand gallons for the next 96,000 gallons used. Large users pay \$2.125 per thousand gallons for usage over 105,000 gallons.

### Outside Water Use Restrictions

Lawn sprinkling remains the leading nonessential use of water. Your lawn needs about 1-1/2 inches of water a week, preferably in one watering. You shouldn’t follow a fixed schedule, but water only when the grass or plants show signs of needing it. During a cool or cloudy spell, you don’t need to water as often.

And, please remember that Nassau County watering regulations for lawns and gardens are in effect year-round. Outside water usage is prohibited between the hours of 10:00 a.m. and 4:00 p.m. year-round. Customers with odd-numbered addresses may only water on odd days of the month and customers with even-numbered (or no number) addresses may only water on even days of the month.

Customers in violation of the Nassau County watering regulations are subject to the following terms adopted by the Water Authority’s Board of Directors on May 27, 2003:

1st Violation:	Warning
2nd Violation:	\$50 Service Charge
3rd Violation:	\$75 Service Charge
4th Violation:	\$150 Service Charge
5th Violation:	\$300 Service Charge
Each Additional:	\$300 Service Charge

These service charges will be billed to the customer’s water service account.

## System Improvements

In addition to the extensive monitoring and testing performed on our water supply, the Water Authority maintains, services and upgrades its water supply facilities and distribution system regularly. In 2011 capital projects completed or underway included the following:

- Replacement of a 12-inch transmission main under the Southern State Parkway at Elmont Road in North Valley Stream;
- Construction of 2 iron removal plants in Franklin Square and Elmont to address high levels of iron due to the characteristics of the aquifer from which the water in these areas is withdrawn;
- Installation of new well pump bowl and appurtenances at Well Station No. 20 (in New Hyde Park);
- Installation of security system at well stations;
- Installation of new telephone system at office;
- Continuation of the installation of radio transmitters on residential accounts;
- Compliance projects required by the Departments of Health and Environmental Conservation;
- Service and hydrant replacements;
- Meter change outs; and
- Large equipment replacements.

Planned improvements for 2012 include:

- Completion of the construction of the two iron removal plants at Well Station No. 28 in Elmont (late spring, 2012) and Well Station No. 30 (in Franklin Square (early fall, 2012);
- Replacement of 3,600 feet of 8-inch water main with new 12-inch main, 7 hydrants and 81 water services in the Birchwood Drive West and Birchwood Drive South area of Valley Stream;
- Replacement of 1,800 feet of 100-year old 6-inch water main, 4 hydrants and 30 water services in Hathaway Drive, Garden City;
- Construction of Phase II of the new headquarters office building in New Hyde Park;
- Compliance projects required by the Departments of Health and Environmental Conservation;
- Completion of the installation of radio transmitters on residential accounts;
- Well pump bowl replacements;
- Service and hydrant replacements;
- Meter change outs; and
- Vehicle and large equipment replacements.



Iron Removal Plant at Well Station No. 28  
nears completion

## Annual Chairman's Report Summary of Untreated Well Water Quality Exceeding Standard or Two-Thirds of Standard (For Calendar Year Ended December 31, 2011) \*

Substance	2011 Standard	Designation of Wells Exceeding Standard or Two-Thirds of Standard	Concentration (ug/l) Unless noted		Sample Date (2011)
			BEFORE Treatment	AFTER Treatment	
Chloride	250 mg/l	None	N/A	N/A	N/A
Nitrate	10 mg/l	None	N/A	N/A	N/A
1,1-Dichloroethane	5 ug/l	57 57A	12.0 9.1	ND ND	10/20 4/4
1,1-Dichloroethene	5 ug/l	57 57A	10 9.5	ND ND	5/17 1/13
cis-1,2-Dichloroethene	5 ug/l	57 57A	30 17	ND ND	10/20 5/17
Tetrachloroethene	5 ug/l	15B 20 35A 40A 57 57A	20 17 4.9 6.6 106 46	ND ND ND ND ND ND	11/10 11/14 4/4 6/1 11/8 2/24
Trichloroethene	5 ug/l	35A 44A 44C 57 57A	7.9 9.5 6.3 135 86	0.80 ND ND ND ND	11/8 5/3 10/25 4/4 2/24
Vinyl Chloride	2 ug/l	57 57A	2.0 2.0	ND ND	10/20 3/9

Well Nos. 15B, 44A & 44C are located in Elmont  
Well Nos. 20, 40A, 57 & 57A are located in New Hyde Park  
Well No. 35A is located in Floral Park  
N/A—Not Applicable  
ND—Non Detection (Laboratory analysis indicates that the constituent is not present.)  
\*Note: No water is pumped into the distribution system until it has been treated.

## Fiscal Year June 1, 2010 to May 31, 2011

Total Revenues Earned	<b>\$13,201,000</b>
Operating and Maintenance Expenses	<b>\$7,843,000</b>
Interest Expense on Long-term Debt	<b>\$2,854,000</b>
Interest Income	<b>\$536,000</b>
Miscellaneous Income	<b>\$350,000</b>

Additional expenses during the year included depreciation and amortization of original revenue bond and subsequent refinancing closing costs associated with the original purchase of the water system.

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## **2011 Annual Water Quality Report**

### **About this Report**

To comply with New York State (“State”) regulations, the Water Authority annually issues a report describing the quality of your drinking water. During 2011, our system was in compliance with applicable State drinking water operating, and reporting requirements.

Last year, the Water Authority conducted more than 29,000 tests for over 150 drinking water contaminants. We detected 32 of those contaminants and only found one of those contaminants at a level higher than the State allows. As we told you at that time, our water temporarily exceeded a drinking water standard; and we rectified the problem in accordance with Nassau County Department of Health procedures as detailed in footnote 2 on page 5 of this report.

This report provides an overview of last year’s water quality and includes details about where your water comes from, what it contains and how it compares to EPA and State standards. As in years past, our system was in compliance with all applicable State drinking water operating and reporting requirements as well as notification procedures.

If you have any questions about this report or your drinking water, please contact Robert Swartz, our Chief Engineer, at 516-327-4100.

### **Share This Report**

Landlords, businesses, schools, hospitals and other groups are encouraged to share this important water quality information with water users at their location who are not customers of the Water Authority of Western Nassau County.

Additional copies of this report are available on our website at [www.wawnc.org](http://www.wawnc.org).

Or contact our customer service department at:  
516-327-4100

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.