



PUBLIC NOTICE: ROSLYN WATER DISTRICT

2010 ANNUAL WATER QUALITY REPORT

TOWN OF NORTH HEMPSTEAD – NASSAU COUNTY, NEW YORK

WATER SUPPLY SYSTEM INFORMATION

This document is prepared by the Roslyn Water District (PWS ID NO. 2902851) as prescribed by Part 5-1.72 of the New York State Sanitary Code (10NYCRR) and by the Federal Consumer Confidence Report Regulation (40 CFR part 141, subpart U). This report contains important information about your drinking water. Included are details about where your water comes from, what it contains, and how it compares to State standards. We are proud to report that during 2010 our system did not violate a maximum contaminant level or any other water quality standard.

The Roslyn Water District is a municipal corporation having its offices at 24 West Shore Road, Roslyn, N.Y. 11576. The District has 5,792 service connections and supplies drinking water to a population estimated at 17,000 people. It is managed by a Board of Commissioners consisting of three commissioners each elected to a separate three year term. The person in charge of operating the water supply system is the Superintendent of the District, Richard J. Passariello, who can be reached by telephone at (516) 621-7770 to answer questions about this report.

The Board of Commissioners have regular scheduled meetings open to the public held at the District office on the first, second, third and fifth Thursdays of the month at 9:00 A.M. Consumers within the Roslyn Water District are given the opportunity to participate in decisions affecting drinking water quality at these public meetings. Nassau County Department of Health has jurisdiction over the water system of the District. The Department of Health is located at 106 Charles Lindbergh Boulevard, Uniondale, New York 11553 and representatives can be reached by telephone at (516) 227-9692.

WATER SUPPLY SOURCES AND TREATMENT

Our source of drinking water is groundwater drawn from seven individual wells drilled into the Magothy aquifer at depths ranging from 431 feet to 530 feet and from one well field containing eight wells connected to a common suction pump. The seven individual wells are located throughout the District and on separate sites consisting of approximately one acre each. Two wells are in the Inc. Village of Roslyn Estates and five are located in the Inc. Village of East Hills.

Water is pumped directly from these wells into our distribution system at a rate for each well of between 1,000 and 1,200 gallons per minute. The distribution system includes three (3) storage tanks ranging in size from 1 million gallons in capacity to 3 million gallons with a total storage capacity of 6 million gallons.

Eight common suction wells ranging in depths from 260 feet to 555 feet are located on a well field in the Inc. Village of Roslyn. These wells consist of flowing artesian wells, seven of which are in the Magothy aquifer and one in the Lloyd aquifer. All eight wells are connected to a single turbine pump, which delivers the water directly into the distribution system at a rate of 1,100 gallon per minute.

Water is treated at each well site before entering distribution as follows: sodium hydroxide to adjust the naturally occurring acidity in groundwater this helps prevent corrosion; calcium hypochlorite is added as a precaution for disinfection.

One well located in the Inc. Village of Roslyn Estates, in addition to treatment for pH adjustment and disinfection, is treated by granular activated carbon for adsorption of organic contaminants 1,2-Dibromoethane (EDB), 1,1-Dichloroethane, Tetrachloroethene, Trichloroethene, 1,1,1-Trichloroethane, 1,1-Dichloroethene, Dacthal (DCPA) and Methyl tert-butyl ether (MTBE). These contaminants are generally removed to below the detection level before the water enters the distribution system.

SOURCE WATER ASSESSMENT

The New York State Department of Health, with assistance from the local health department and the CDM consulting firm, 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 section "What Did We Find In Your Drinking Water" for a list of the contaminants that have been detected (if any). The source water assessments provide resource managers with additional information for protecting source waters into the future.

Drinking water is derived from 8 wells. The source water assessment has rated some of the wells as having a very high susceptibility to industrial solvents and most of the wells as having a high to very high susceptibility to nitrates. The elevated susceptibility to industrial solvents is due primarily to point sources of contamination related to commercial/industrial facilities and related activities in the assessment area. The elevated susceptibility to nitrates is due to unsewered 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 us, as noted below.

WHAT DID WE FIND IN YOUR DRINKING WATER?

In accordance with State and County regulations, we routinely monitor your drinking water for numerous contaminants. We test your drinking

water for coliform bacteria, physical and inorganic constituents like lead, copper and nitrate; principal organic contaminants, total trihalomethanes, radiological, and specific organic contaminants/ pesticides. The following table depicts only those contaminants, which were detected in your drinking water during 2010.

It should be noted that any 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 Environmental Protection Agency's (EPA's) Safe Drinking Water Hotline (800) 426-4791 or the Nassau County Health Department at (516) 227-9692.

WHAT DOES THIS INFORMATION MEAN?

A review of the table indicates that our system has no violations. We have learned through our testing that some contaminants were detected; however, these contaminants were detected below the level prescribed by the State.

Although nitrate was detected below the MCL, it was detected at 5.86 mg/l which is greater than one-half of the MCL of 10 mg/l. Therefore, we are required to present the following information on nitrate in drinking water:

"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





TABLE OF DETECTED CONTAMINANTS

Contaminant	Violation Yes/No	Date of Sample or Number of Samples	Level Detected (Range) (Average)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
INORGANIC CONTAMINANTS/NITRATES							
Total Alkalinity	NO	9	3.00 to 65.3 18.10	mg/l	n/a	None	Naturally occurring.
Calcium	NO	9	1.73 to 25.0 7.58	mg/l	n/a	None	Naturally occurring.
Calcium Hardness	NO	9	4.30 to 62.5 18.94	mg/l	n/a	None	Naturally occurring.
Chloride	NO	9	4.64 to 40.1 14.78	mg/l	n/a	MCL = 250	Naturally occurring or indicative of road salt contamination.
Total Dissolved Solids	NO	9	18 to 196 74.67	mg/l	n/a	None	Naturally occurring.
Iron	NO	9	<20 to 60 20	µg/l	n/a	MCL =300(1)	Naturally occurring.
Magnesium	NO	9	0.78 to 14.6 3.90	mg/l	n/a	None	Naturally occurring.
Nitrate	NO	29	0.57 to 5.86 4.01	mg/l	10	MCL = 10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium	NO	9	3.70 to 19.10 9.28	mg/l	n/a	(see Health Effects) ⁽²⁾	Naturally occurring; Road salt; Water softeners; Animal waste.
Sulfate	NO	9	<5.0 to 26.0 7.87	mg/l	n/a	MCL = 250	Naturally occurring.
Total Hardness	NO	9	7.5 to 122.0 34.90	mg/l	n/a	none	Naturally occurring.
LEAD AND COPPER							
Lead	NO	2nd half of 2008	<1.0 to 6.66 1.57 ⁽³⁾	µg/l	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper	NO	2nd half of 2008	<0.02 to 0.12 0.08 ⁽⁴⁾	mg/l	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits, leaching from wood preservatives.
VOLATILE ORGANIC CONTAMINANTS							
Dichlorodifluoromethane	NO	48	<0.5 to 0.5 0.26	µg/l	n/a	MCL = 5	Used as a refrigerant.
1,1,1 Trichloroethane	NO	48	<0.5 to 0.90 0.37	µg/l	n/a	MCL = 5	Discharge from metal degreasing sites and other factories.
1,1 Dichloroethane	NO	48	<0.5 to 0.7 0.26	µg/l	n/a	MCL = 5	Discharge from industrial chemical factories.
Tetrachloroethane	NO	48	<0.5 to 1.0 0.28	µg/l	n/a	MCL = 5	Discharge from factories and dry cleaners; Waste Sites; Spills.
OTHER PRINCIPAL ORGANIC CONTAMINANTS							
1,1 Dichloroethane	NO	48	<0.5 to 1.20 0.47	µg/l	n/a	MCL = 5	Released into the environment as fugitive emissions and in wastewater during production and use as a chemical intermediate solvent; used in vinyl chloride manufacturing; chlorinated solvent intermediate; coupling agent in anti-knock gasoline; degreasing agent
UNSPECIFIED ORGANIC CONTAMINANTS							
Dacthal (DCPA)	NO	16	<1.0 to 2.7 0.86	µg/l	n/a	MCL = 50	Released to the environment through its use and application as an agricultural herbicide used on a wide range of vegetable crops.
CONTAMINANTS LISTED IN TABLE 16 OF PART 5							
Methyl tert-butyl ether (MTBE)	NO	48	<0.5 to 1.7 0.37	µg/l	n/a	MCL = 10	Releases from gasoline storage tanks. MTBE is an octane enhancer in unleaded gasoline. Atmospheric deposition.
Perchlorate	NO	10	<1.0 to 2.1 0.79	µg/l	n/a	MCL = 18 ⁽⁵⁾	Oxygen additive in solid fuel propellant for rockets, missiles and fireworks.
DISINFECTION BY-PRODUCTS							
Chloroform	NO	49	<0.5 to 0.70 0.33	µg/l	n/a	⁽⁶⁾	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Bromoform	NO	49	<0.5 to 1.4 0.27	µg/l	n/a	⁽⁶⁾	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Dibromochloromethane	NO	49	<0.5 to 1.30 0.28	µg/l	n/a	⁽⁶⁾	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Total Trihalomethanes	NO	49	<0.5 to 3.4 0.89	µg/l	n/a	MCL = 80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
RADIOLOGICAL							
Gross Alpha Activity	NO	8 (2010)	-0.420 to 0.270 -0.153	pCi/l	0	MCL = 15	Erosion of natural deposits.
Gross Beta Activity	NO	7 (2006)	0.294 to 2.15 1.28	pCi/l	0	MCL = 50 ⁽⁷⁾	Decay of natural deposits and man-made emissions
Radium 228	NO	8 (2010)	1.03 to 2.74 1.52	pCi/l	0	MCL = 5	Erosion of natural deposits.

NOTES:

- (1) If iron and manganese are present, the total concentration of both should not exceed 500 µg/l.
- (2) 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.
- (3) During 2008, 30 point of use samples were collected and analyzed for lead. The level included in the table represents the 90th percentile of the sites tested. The action level for lead was not exceeded at any of the sites tested.
- (4) During 2008, 30 point of use samples were collected and analyzed for copper. The level included in the table represents the 90th percentile of the sites tested. The action level for copper was not exceeded at any of the sites tested.
- (5) An MCL has not been established for this contaminant. The value represents a State Guidance Level.
- (6) Total Trihalomethanes (TTHMs) have a MCL = 80 µg/l. TTHMs consist of Bromoform, Chloroform, Bromodichloromethane and Dibromochloromethane.
- (7) The State considers 50 pCi/l to be the level of concern for beta particles

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.

Treatment Technique (TT) - A required process intended to reduce the level of a contaminant in drinking water.

Milligrams per liter (mg/l) - Corresponds to one part of a substance in one million parts of liquid (parts per million - ppm).

Micrograms per liter (µg/l) - Corresponds to one part of a substance in one billion parts of liquid (parts per billion - ppb).

N/A - This stands for not applicable. No MCLG has been established for this contaminant.

< - This symbol indicates the level is less than the number shown.

Picocuries per liter (pCi/l) - Picocuries per liter is a measure of the radioactivity in water.

*Again this year,
your District
is pleased to report
that the water supplied
to the community meets all the
standards required by the
U.S. Environmental
Protection Agency, the
NY Department of Health
and the Nassau County
Department of Health.*





(Water Quality Report Continued)

rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.”

The table also indicates that none of the samples analyzed for lead and copper monitoring exceeded the action levels. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Roslyn 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 or at <http://www.epa.gov/safewater/lead>.



DESCRIPTION OF WATER USED

During 2010, a total of 1,361,999,000 gallons of water was pumped from the District’s Wells. Of that total, 60,200,000 gallons were supplied under contract to the Glenwood Water District and 9,610,000 gallons were supplied under contract to the Albertson Water District. Metered water sales to District consumers including Glenwood residents and a portion of Albertson residents account for is 1,277,271,000 gallons. This leaves an unaccounted for total of 84,728,000 gallons. This is the amount of water used during the year for flushing hydrants, fire fighting, main breaks and service line leaks. It represents 6.2% of the total water produced.

WATER SOURCE RESTRICTIONS

Our water service to customers in 2010 continued without permanent interruption or restriction due to contamination of water quality. The yield from our Well No. 4 (N4623) has been reduced from 1,200 gallons per minutes to 1,000 gallons per minute to limit the submergence on the pump due to a lowering of the water table level in that area. The pump has been lowered to maintain a safe amount of submergence. No further action other than monitoring the situation is anticipated at this time. The reduced yield does not pose a capacity problem in meeting system demand.

WATER CONSERVATION MEASURES

The Roslyn Water District has implemented a water conservation program, portions of which are contained in the Ordinances of the District including regulations of lawn irrigation systems, which require all systems to have time clock controllers and a rain or soil moisture sensor. Sprinkling of lawns and gardens can only be performed between the hours of 4:00 p.m. and 10:00 a.m. for a maximum of 3-hour duration on alternate days; on odd days for odd numbered premises and even days for even numbered premises, and even days for premises with no numbers. Consumers are required by law to comply with these regulations. Consumers can reduce water by promptly repairing leaks as soon as they are disclosed. A leak of one drop per second wastes 2,400 gallons per year. Consumers can also reduce water use by installing aerators on faucets, displacement devices in toilet tanks and automatic shut-off nozzles on garden hoses. During remodeling, if old plumbing fixtures are replaced, the law requires that new fixtures must be of the approved water saving type. Each customer should reduce overall water use by at least ten (10) percent.

FACILITY MODIFICATIONS

We constantly work at improving and upgrading our facilities. During the past year, we have completed the following projects:

- Motor Control Center replaced at Well No. 8
- Replaced Fuel Tank Level Gauges and Leak Detection at Well Nos. 5, 6 and 7.
- Supervisory Control and Data Acquisition System (SCADA) – work in progress

REPORTING OF NON DETECTED CONTAMINANTS

From the drinking water compliance samples collected from the system, the following inorganic contaminants were analyzed for but not detected in any of the samples analyzed:

Ammonia	Chromium	Mercury	Silver
Arsenic	Color	Nickel	Thallium
Antimony	Cyanide free	Nitrite	Turbidity
Barium	Foaming Agents	Nitrogen	Zinc
Beryllium	Fluoride	Odor	
Cadmium	Manganese	Selenium	

There were no detections of the following principal organic contaminants in the samples analyzed:

Benzene	1,2-Dichloroethane	1,2,3-Trichlorobenzene
Bromobenzene	cis-1,2-Dichloroethene	1,2,4-Trichlorobenzene
Bromochloromethane	trans-1,2-Dichloroethene	1,1,2-Trichloroethane
Bromodichloromethane	1,2-Dichloropropane	Trichloroethene
Bromomethane	1,3-Dichloropropane	Trichlorofluoromethane
N-Butylbenzene	2,2-Dichloropropane	1,2,3-Trichloropropane
sec-Butylbenzene	1,1-Dichloropropene	1,2,4-Trimethylbenzene
tert-Butylbenzene	cis-1,3-Dichloropropene	1,3,5-Trimethylbenzene
Carbon Tetrachloride	trans-1,3-Dichloropropene	m,p-Xylene
Chlorobenzene	Ethylbenzene	o-Xylene
Chloroethane	Hexachlorobutadiene	Vinyl chloride
Chloromethane	Isopropylbenzene	
2-Chlorotoluene	4-Isopropyltoluene (Cymene)	
4-Chlorotoluene	Methylene Chloride	
Dibromochloromethane	N-Propylbenzene	
Dibromomethane	Styrene	
1,2-Dichlorobenzene	1,1,1,2-Tetrachloroethane	
1,3-Dichlorobenzene	1,1,2,2-Tetrachloroethane	
1,4-Dichlorobenzene	Toluene	

There were no detections of the following synthetic organic contaminants, including pesticides and herbicides, in the samples analyzed

Alachlor	Toxaphene	3-Hydroxycarbofuran
Aldicarb	2,4,5-TP (Silvex)	Methomyl
Adicarb Sulfoxide	Aldrin	Metolachlor
Aldicarb Sulfone	Benzo(a)pyrene	Metribuzin
Altrazine	Butachlor	Oxamyl
Carbofuran	Carbaryl	Picloram
Chlordane	Dalapon	Propachlor
2,4-D	Bis (2-ethylhexyl) adipate	Simazine
Endrin	Bis (2-ethylhexyl) phthalates	Diquat
Heptachlor	Dicamba	Dioxin
Heptachlorepoixide	Dieldrin	Endothall
Lindane	Dinoseb	1,2-Dibromoethane
Methoxychlor	Glyphosate	1,2-Dibromo-3-chloro-propane
Total PCB's	Hexachlorobenzene	
Pentachlorophenol	Hexachlorocyclopentadiene	

There were no detections of the following disinfection by-products in the samples analyzed:

Total Haloacetic Acids

ANNUAL AVERAGE CHARGE FOR WATER

Our water rate structure is designed to promote conservation; the more you use, the more you pay. The average consumer pays a minimum quarterly charge of \$9.60 for 12,000 gallons. Our water rate is \$0.80 per 1,000 gallons for the first 21,000 gallons consumed; \$1.00 per 1,000 gallons for the next 21,000 gallons; \$1.50 for the next 66,000 gallons and \$2.05 per 1,000 gallons for quarterly use over 108,000 gallons. The average annual cost for metered water for a residential user in 2010 was \$237.74 or 65 cents per day.

(Water Quality Report Continued)

EDUCATIONAL INFORMATION

Drinking water, including bottled water, may reasonably be 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 (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).

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 tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the Food and Drug Administration's (FDA's) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

ANNUAL WATER QUALITY REPORT SUPPLEMENT

A supplement to this Water Quality Report has been prepared which contains the analytical results of water quality monitoring from the individual wells in the District. This report is available at the District office.

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all our consumers help us protect our water sources which are the heart of our community and our way of life. Please call our office if you have questions.

RWD Staff Receives CPR Refresher Course

Recently many RWD staff members received a refresher course in CPR through a project of the American Heart Association.



Reprinted from Roslyn News - Friday, 15 April 2011

Water Wars – Bottled vs. Tap



There's no doubt that one of the biggest debates in this country deals with something most people take for granted: water — and more specifically bottled water versus tap water. There are many strong views on both sides of the argument, but the truth is that most people just don't know the facts. The Long Island Water Conference wants you to know that our tap water is not only cheaper, healthier and more convenient, it is also much better for the environment.

Every year, Americans spend over \$11 billion on bottled water. In fact, bottled water costs between 250 to 10,000 times more than tap water, and in blind taste tests people can't even tell the difference. For the \$1.50 price of a single-use bottle of water at the deli, you could drink a hefty 1,000 gallons of Long Island tap water.

THE ILLUSION OF MARKETING

There is a perception among many people that bottled water is somehow more healthy or pure than water from their tap. This is simply an illusion of marketing. No matter what the bottled water's source, it is not subject to the same strict water-quality standards and testing by the state and federal governments as tap water is. Bottled water companies are not required to disclose where they get their water, how it is purified or whether it is treated at all. As a matter of fact, 40 percent of all bottled water companies use municipal water as its main supply source.

State and federal agencies require local tap water to be tested every two to three days, while the Food and Drug Administration requires that bottled water be tested only once a month. Since tap water is a public resource, extensive documentation on its quality and content must be made available to the consumer through the Annual Water Supply Statement that all Long Island water suppliers send out every year.

ENVIRONMENTAL COSTS OF BOTTLED WATER

There are also the tremendous environmental costs associated with bottled water. Unfortunately, about 85 percent of the plastic bottles are ending up in regular trash. That's over 15 million tons of plastic worldwide, every year. Recent studies have found that only one in five plastic bottles is being recycled. These bottles either sit in landfills—taking up space and creating a source of possible contamination—or they are incinerated, releasing dioxins into the atmosphere. Not to mention the energy used to bottle and deliver the bottled water to the stores.

The Long Island Water Conference urges you to think twice the next time you plan on buying bottled water. Why not just fill a reusable water bottle with tap water! New York State's regulations for tap water are among the most stringent in the U.S. — and Long Island tap water is one of the purest quality.