2015 drinking water quality report

INC. VILLAGE OF OLD WESTBURY - WATER DEPARTMENT

PUBLIC WATER SUPPLY IDENTIFICATION NO. 290-2843

ANNUAL WATER SUPPLY REPORT **MAY 2016**

To comply with State regulations, The Village of Old Westbury Water Department annually issues a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, your tap water met all Federal, State, and County drinking water health standards. We are proud to report that our system did not violate a maximum contaminant level or any other water quality standard.

CONGRATULATIONS TO THE INCORPORATED VILLAGE OF OLD WESTBURY!

For the third year in a row, the Incorporated Village of Old Westbury Water Department has won the Annual Long Island Water Conference Water Tasting Contest for Nassau County. This year's contest was held at the Campus Center at the State University of Farmingdale during the last week of April and offered anonymous samples of local drinking water to volunteers for tasting. The Village proudly won the contest in 2014, 2015, and 2016. We aim to provide the best quality drinking water to our customers and an honor like this supports our hard work.

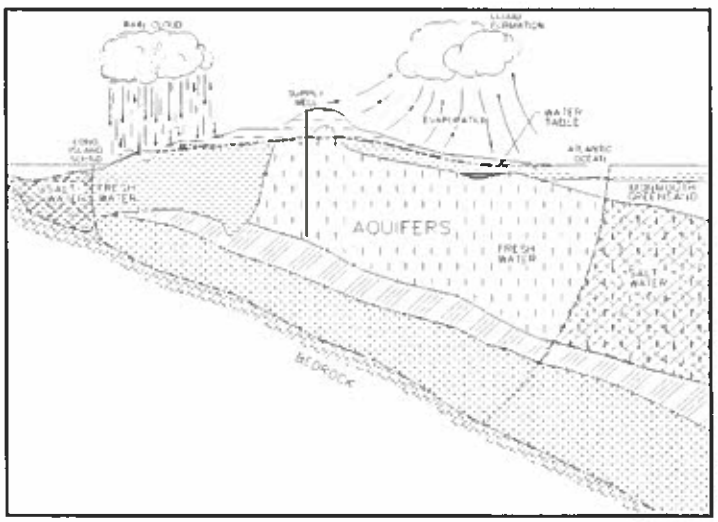
WATER CONSERVATION MEASURES

Water is a vital resource. In 2015, the Village of Old Westbury continued to implement a water conservation program in order to minimize any unnecessary water use. The pumpage for 2015 was 7.2 percent more than in 2014. This is due to the warmer and drier weather that occurred in the summer of 2015. Our system has an adequate amount of water to meet present demands and we plan to install a new well to meet future demands. It is important to conserve water and you can help by being conscious of the amount of water your household is using and by looking for ways to use less whenever you can.

SOURCE OF OUR WATER

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. 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 Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The water source for the Village of Old Westbury is groundwater pumped from 6 wells located throughout the community. These wells are drilled into the Magothy aquifer beneath Long Island, as shown on the adjacent figure. Our water system serves approximately 4,600 residents. The total water produced in 2015 was 788,168,000 gallons. The amount of water delivered to customers was 689,000,000 gallons. This leaves an unaccounted-for total of 99,168,000 gallons (12.6% of the total amount produced). This water was used to flush mains; fight fires; fill road sweepers and tanker trucks; and during water main breaks, leakage in mains and water services, and unauthorized use of hydrants.



THE LONG ISLAND AQUIFER SYSTEM

NEW YORK STATE MANDATORY HEALTH ADVISORY

The EPA established a Lead and Copper Rule that requires all public water supply systems to sample for lead and copper at the consumer's tap. The first testing was required in 1992 and the Village has continued this testing through 2014. In 2014, samples were collected from the distribution system at twenty sites and analyzed for lead and copper. The EPA mandates that the 90th percentile values for lead and copper (the eighteenth highest values for those contaminants) not exceed the Action Level for lead and copper, 15 ug/L and 1.3 mg/L, respectively. The 90th percentile for lead as shown in Table 1 is 2.5 ug/L and the 90th percentile for copper as shown in Table 1 is 0.49 mg/L. The next round of lead and copper sampling will be done in 2017.

We also are required to present the following information on lead in drinking water:

> 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 Village of Old Westbury 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 www.epa.gov/safewater/lead.

The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old. For example, sampling for radiological contaminants was done in 2013. Raw water samples were collected from District wells and analyzed for gross alpha activity, radium 226, and radium 228. The average of the gross alpha samples is 0.238 pCi/L, below the maximum contaminant level of 15 pCi/L. The average of the radium 226 samples is 0.818 pCi/L, below the maximum contaminant level of 15 pCi/L. The average of the radium 228 samples is 0.405 pCi/L, below the maximum contaminant level of 5 pCi/L.

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 (1-800-426-4791).

COST OF WATER

The Village uses a step billing schedule to charge consumers for the water consumed, as shown below.

SEMI-ANNUAL WATER RATES

Consumption (gallons)	Charges
Up to 100,000	$175.00 (minimum)
Next 300,000	$2.75/thousand gallons
Next 400,000	$3.75/thousand gallons
Over 800,000	$5.00/thousand gallons

OUTDOOR WATER USE RESTRICTIONS

Use of water for irrigation purposes for lawns, shrubs, trees, plants, and vegetation of any type is regulated by hours set forth by Nassau County. **Absolutely no watering is permitted between the hours of 10:00 a.m. and 4:00 p.m.** Watering will be permitted all other hours under the following conditions:

1. Residents with even house numbers may water on even dates.
2. Residents with odd house numbers may water on odd dates.
3. Premises without numbered addresses may water on even dates.
4. No watering is permitted on the 31st of any month.

CONTACTS FOR ADDITIONAL INFORMATION

If you have any questions about this report or concerning your drinking water, please contact the EPA Safe Drinking Water Hotline (1-800-426-4791), the Nassau County Department of Health at (516) 227-9692, or Thomas O'Connor, Superintendent of the Village of Old Westbury Water Department at (516) 626-0800. We want you to be informed about your drinking water. If you want to learn more, please visit the EPA's website at http://www.epa.gov/safewater/, the Department of Health's website at http://www.health.state.ny.us/, and attend any of our regularly scheduled meetings the third Monday of each month at 7:00 p.m. All meetings are at the Village Hall unless otherwise announced.

As the State regulations require, we routinely test your drinking water for numerous contaminants and parameters. The table presented on page 3, Table 1, depicts which parameters and compounds were detected in your drinking water. All groundwater pumped to the distribution system from the operating Village wells complies with New York State Department of Health Standards for public drinking water supplies. All drinking water, including bottled drinking 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.

WATER TREATMENT

The Village of Old Westbury provides treatment at all wells to improve the quality of the water pumped prior to distribution to the consumer. Disinfection is required by the Nassau County Department of Health. Calcium hypochlorite (chlorine) is routinely added to the water supply as a disinfecting agent and to prevent bacterial growth in the distribution system. Sodium hydroxide also is added at all well stations to maintain optimum pH levels and reduce corrosivity in the water.

We conduct over 10,000 water quality tests annually. In 2015, there were over 130 contaminants which remain undetected in our water supply, including:

Antimony	1,2-Dichloropropane	Alachlor
Arsenic	1,3,5-Trimethylbenzene	Aldrin
Beryllium	1,3-Dichlorobenzene	Chlordane
Cadmium	1,3-Dichloropropane	Endrin
Chromium	1,4-Dichlorobenzene	Heptachlor
Fluoride	2,2-Dichloropropane	Heptachlor Epoxide
Mercury	2/4-Chlorotoluene	Hexachlorobenzene
Silver	4-Isopropyltoluene	Hexachlorocyclopentadiene
Thallium	Benzene	Lindane
Zinc	Bromobenzene	Methoxychlor
Free Cyanide	Bromochloromethane	PCB Screen
Color	Bromomethane	Toxaphene
MBAS	Carbon Tetrachloride	2,4,5-TP
Ammonia	Chlorobenzene	2,4-D
Nitrite	Chlorodifluoromethane	Dalapon
Odor	Chloroethane	Dicamba
Turbidity	Chloromethane	Dinoseb
Total Coliform	Cis-1,3-Dichloropropene	Pentachlorophenol
Escherichia Coliform	Dibromomethane	Picloram
Bromodichloromethane	Dichlorodifluoromethane	Atrazine
Bromoform	Ethylbenzene	Benzo(a)pyrene
Chloroform	Hexachlorobutadiene	Bis(2-ethylhexyl)adipate
Dibromochloromethane	Isopropylbenzene	Bis(2-ethylhexyl)phthalate
Total Trihalomethanes	M,p-Xylene	Butachlor
Bromoacetic Acid	Methyl Tert-Butyl Ether	Metolachlor
Chloroacetic Acid	Methylene Chloride	Metribuzin
Dibromoacetic Acid	N-Butylbenzene	Propachlor
Dichloroacetic Acid	N-Propylbenzene	Simazine
Total Haloacetic Acid	O-Xylene	3-Hydroxycarbofuran
Trichloroacetic Acid	Sec-Butylbenzene	Aldicarb
1,1,1,2-Tetrachloroethane	Styrene	Aldicarb Sulfone
1,1,2,2-Tetrachloroethane	Tert-Butylbenzene	Aldicarb Sulfoxide
1,1,2-Trichloroethane	Tetrachloroethene	Carbaryl
1,1-Dichloroethane	Toluene	Carbofuran
1,1-Dichloropropene	Trans-1,2-Dichloroethene	Methomyl
1,2,3-Trichlorobenzene	Trans-1,3-Dichloropropene	Oxamyl
1,2,3-Trichloropropane	Trichloroethene	Glyphosate
1,2,4-Trichlorobenzene	Trichlorofluoromethane	Endothall
1,2,4-Trimethylbenzene	Vinyl Chloride	Diquat
1,2-Dichlorobenzene	1,2-Dibromo-3-Chloropropane	Dioxin
1,2-Dichloroethane	1,2-Dibromoethane	

2015 DRINKING WATER QUALITY REPORT - TABLE OF DETECTED PARAMETERS

Contaminant	Violation Yes/No	Date of Sample	Level Detected Avg/Max (Range) [1]	Unit Measurement	MCLG OR MRDLG	Regulatory Limit (MCL, MRDL, or AL)	Likely Source of Contamination
Inorganic Contaminants							
Barium	No	9/8/2015	0.011 (0.0031 - 0.011)	mg/L	2	MCL - 2	Discharge from metal refineries; Erosion of natural deposits
Calcium	No	9/8/2015	8 (1.1 - 8)	mg/L	n/a	n/a	Naturally occurring
Chloride	No	9/8/2015	17.6 (4.56 - 17.6)	mg/L	n/a	MCL - 250	Naturally occurring or indicative of road salt contamination
Iron	No	6/1/2015	68 (ND - 68)	ug/L	n/a	MCL - 300	Naturally occurring
Magnesium	No	9/8/2015	3.6 (0.35 - 3.6)	mg/L	n/a	n/a	Naturally occurring
Nickel	No	9/10/2015	0.0017 (ND - 0.0017)	mg/L	n/a	n/a	Naturally occurring
Sodium	No	6/1/2015	14 (2.9 - 14)	mg/L	n/a	20 / 270 [2]	Naturally occurring; Road salt; Water softeners; Animal waste
Sulfate	No	9/8/2015	8.35 (ND - 8.35)	mg/L	n/a	MCL - 250	Naturally occurring
Zinc	No	6/1/2015	0.25 (ND - 0.25)	mg/L	n/a	MCL - 5	Naturally occurring
Inorganic Contaminant (Nitrate)							
Nitrate as N	No	9/8/2015	3.06 (0.24 - 3.06)	mg/L	10	MCL - 10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Physical Characteristics							
Calcium Hardness	No	9/8/2015	20.1 (2.6 - 20.1)	mg/L	n/a	n/a	Naturally occurring
LSI	No	6/1/2015	-1.92 [-4.86 - (-1.92)]	units	n/a	n/a	Naturally occurring
pH	No	10/19/2015	7.3 (5.7 - 7.3)	units	n/a	n/a	Naturally occurring
Total Alkalinity	No	6/1/2015	29.6 (3.7 - 29.6)	mg/L	n/a	n/a	Naturally occurring
Total Dissolved Solids	No	6/1/2015	77 (ND - 77)	mg/L	n/a	n/a	Naturally occurring
Total Hardness	No	9/8/2015	34.8 (4.08 - 34.8)	mg/L	n/a	n/a	Naturally occurring
Disinfectant							
Chlorine Residual	No	5/4/2015	0.84 (0.61 - 1.08)	mg/L	n/a	MRDL - 4 [3]	Water additive used to control microbes
Organic Contaminants							
1,1,1 - Trichloroethane	No	8/27/2015	0.7 (ND - 0.78)	ug/L	n/a	MCL - 5	Discharge from metal degreasing sites and other factories
1,1 - Dichloroethene	No	8/27/2015	1.03 (ND - 1.23)	ug/L	n/a	MCL - 5	Discharge from industrial chemical factories
Additional Contaminant							
Perchlorate	No	8/27/2015	4.8 (ND - 4.8)	ug/L	n/a	MCL - 5	Released into the environment as fugitive emissions; Degreasing agent
Radioactive Contaminants							
Gross Alpha Activity	No	4/17/2013	0.689 (-0.746 - 0.689)	pCi/L	0	MCL - 15	Erosion of natural deposits
Radium 226	No	4/15/2013	1.56 (0.219 - 1.56)	pCi/L	0	MCL - 15	Erosion of natural deposits
Radium 228	No	4/15/2013	0.856 (0.255 - 0.856)	pCi/L	0	MCL - 5	Erosion of natural deposits

Contaminant	Violation Yes/No	Date of Sample	90th Percentile and Range	Unit Measurement	MCLG	Regulatory Limit (AL)	Likely Source of Contamination
Lead and Copper Contaminants							
Copper	No	8/4/2014	0.49 (ND - 1.1) [4]	mg/L	1.3	AL - 1.3	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	No	8/4/2014	2.5 (ND - 5.8) [5]	ug/L	0	AL - 15	Corrosion of household plumbing systems; Erosion of natural deposits

Notes:

(1) When compliance with the MCL is determined more frequently than annually, the data reported is the highest average or maximum of any of the sampling points used to determine compliance and the range of detected values

(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) The value presented represents the Maximum Residual Disinfectant Level (MRDL). MRDLs are not currently regulated, but in the future they will be enforceable in the same manner as MCLs.

(4) The level presented represents the 90th percentile of the 20 sites tested. 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 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, twenty samples were collected at your water system and the 90th percentile value was the eighteenth highest value (0.49 mg/L). The action level for copper was not exceeded at any of the sites tested.

(5) The level presented represents the 90th percentile of the 20 sites tested. The action level for lead was not exceeded at any of the sites tested.

Definitions:

MCL: Maximum Contaminant Level. The level of a contaminant in drinking water. MCLs are set as close to the MCLG 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.

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 contamination.

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

ND: Non-Detects: laboratory analysis indicates that the constituent is not present.

mg/L: Milligrams per Liter. Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

ug/L: Micrograms per Liter. Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

pCi/L: Picocuries Per Liter. A measure of the radioactivity in water.

n/a: not applicable, i.e. no value is assigned by regulatory authorities.

SOURCE WATER ASSESSMENT

The Nassau County Department of Health has completed a Source Water Assessment Program for the Village of Old Westbury. 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 Table 1 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 6 wells. The Source Water Assessment has rated all but 3 of the wells as having a very high susceptibility to industrial solvents and 2 of the wells as having a 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 high 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 the Village Water Department.

WATER QUALITY

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, Escherichia coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, trihalomethanes, haloacetic acids, radiological and synthetic organic compounds. Over 135 separate parameters are tested for in our wells numerous times annually. Table 1 presents those parameters or contaminants which were detected in our water. Many of the parameters detected are found naturally in all Long Island drinking water and do not pose any adverse health issues.

WATER SYSTEM IMPROVEMENTS

In 2015, the Village of Old Westbury made some improvements to our water system. We upgraded the chemical safety checks on the diesel engines for Wells 2 and 4, installed additional lighting at various well stations, and installed new pH monitoring equipment at all well stations. System improvements planned for 2016 include the installation of a new well to supplement the supply system and installation of a water storage tank.

A supplement to this report showing laboratory analyses of all samples taken from each water supply well in service, each tank, and from the distribution system is available for viewing at the Village of Old Westbury Village Hall, located at 1 Store Hill Road, Old Westbury, New York, and the Westbury Public Library.

Thank you for allowing us to continue to provide your family with clean, quality drinking water again this year. The Village of Old Westbury works hard to provide top quality water to every customer. We ask that all our customers help us protect our water resources.

INCORPORATED VILLAGE OF OLD WESTBURY
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