

2013 ANNUAL WATER QUALITY REPORT

Locust Valley Water District

226 Buckram Road, Locust Valley

Public Water Supply Identification No: 2902833

In accordance with Title Three of Article Eleven of the New York State Public Health Law and the 1996 U.S.E.P.A. Safe Drinking Water Act regulations, the following is the 2013 Annual Water Quality Report of the Locust Valley Water District.

Established in 1922, the Locust Valley Water District, with over 2,505 residential and commercial service connections, supplies a population of approximately 7,500 through 56 miles of interconnected pipeline. The district serves Locust Valley, Lattingtown and sections of Mill Neck and Matinecock.

As defined by the United States Geological Survey, the district's water source is groundwater from the North Shore, Lloyd and Upper Glacier Aquifers in the Locust Valley, Lattingtown and Matinecock area. With a total pumping capacity of 8.50 million gallons per day, five wells, located on five separate well fields, and one 1-million-gallon storage tank adequately supply consumer and fire fighting demands.

In 2013, Well #8, located on Duck Pond Road in Matinecock, was limited in use as perchlorate, an unregulated contaminant, remained above an action level set by the New York State Department of Health. Well #5, located on

Buckram Road in Locust Valley, was removed from use by increasing levels of tetrachloroethene, trichloroethene, cis-1,2-dichloroethene and 1,1-dichloroethane. No distribution samples exceeded the maximum contaminant levels as set by the New York State Department of Health. The district monitors more frequently than required by State standards to insure the quality of the community's drinking water supply.

With drought conditions experienced in the summer and fall months, annual consumption was above average with 711.562 million gallons of water withdrawn from the aquifers. The district's average demand was 1.949 million gallons per day with a record peak demand of 5.239 million gallons per day.

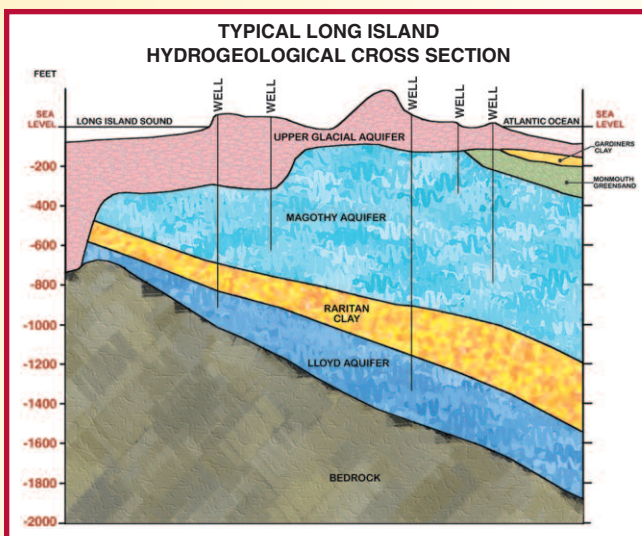
Consumer meters registered 90.1 percent of the water demand. The remaining 9.9 percent is attributed to unaccountable demands such as water main and water service leaks, water main and hydrant flushing, fire fighting and training, road maintenance and aging water meters. On average, consumers this year paid a total of \$600 for water, excluding taxes.

To reduce the natural corrosiveness of the water found in this region, the district adds Sodium Hydroxide to the water to raise its pH before entering the distribution system. This treatment has allowed for the Lead and Copper testing program to be under reduced monitoring in accordance with federal and state requirements. The 2011 sampling yielded overall results below mandated action levels with 90th percentile levels of 1.16 ug/l for lead and 0.11 mg/l for copper.

The district routinely monitors the drinking water quality to insure its safety. Tests were performed for coliform bacteria, inorganic compounds, nitrates/nitrites, perchlorate, volatile organic compounds, trihalomethanes, haloacetic acids, radiological and synthetic organic compounds. It is for this reason that the district and Nassau County Department of Health do not recommend the use of unregulated private wells for domestic consumption.

All water, including bottled drinking water, may reason-

(continued on page 5)



Aquifer System

LOCUST VALLEY WATER DISTRICT
2013 WATER QUALITY TESTING RESULTS
TABLE OF DETECTED PARAMETERS

Parameters or Contaminants	Violation (Yes/No)	Date of Sample	Level Detected (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL or AL)	Likely Source of Contaminant
Microbiological							
None Detected	—	—	—	n/a	n/a	MCL =>5% of samples positive during month	Naturally present in the environment
Inorganic Contaminants							
Copper	No	09/20/11	ND - 0.11 ⁽¹⁾	mg/l	1.3	AL = 1.3	Corrosion of galvanized pipes; erosion of natural deposits
Lead	No	07/02/11	ND - 1.16 ⁽¹⁾	ug/l	0	AL = 15	Corrosion of household plumbing systems; erosion of natural deposits
Barium	No	09/17/13	0.02 - 0.1	mg/l	n/a	MCL = 2.0	Naturally occurring
Zinc	No	08/28/13	ND - 0.02	mg/l	n/a	MCL = 5.0	Naturally occurring
Sodium	No	09/17/13	6.5 - 11.0	mg/l	n/a	No MCL ⁽²⁾	Naturally occurring
Chloride	No	09/10/13	ND - 27.0	mg/l	n/a	MCL = 250	Naturally occurring
Nitrate	No	09/10/13	2.4 - 4.2	mg/l	10	MCL = 10	Runoff from fertilizer and leaching from septic tanks and sewage
Sulfate	No	08/28/13	ND - 20.2	mg/l	n/a	MCL = 250	Naturally occurring
Calcium	No	09/17/13	7.3 - 13.7	mg/l	n/a	No MCL	Naturally occurring
Nickel	No	08/28/13	ND - 1.1	ug/l	n/a	MCL = 100	Naturally occurring
Magnesium	No	09/17/13	3.1 - 5.4	mg/l	n/a	No MCL	Naturally occurring
Perchlorate	No	07/24/13	ND - 15.6	ug/l	n/a	AL = 18 ⁽³⁾	Fertilizer, matches, road flares, and fireworks
Synthetic Organic Contaminants Including Pesticides and Herbicides							
None Detected	—	—	ND	—	—	—	—
Radiological							
Gross Alpha	No	12/26/13	ND - 0.13	pci/L	n/a	MCL = 15	Erosion of natural deposits
Radium 226	No	12/26/13	0.11 - 0.25	pci/L	n/a	MCL = 5	Erosion of natural deposits
Radium 228	No	12/26/13	0.18 - 0.49	pci/L	n/a	No MCL	Erosion of natural deposits
Volatile Organic Contaminants							
Tetrachloroethene	No	10/29/13	ND - 5.7	ug/l	0	MCL = 5	Industrial discharge
cis-1,2-Dichloroethene	No	10/29/13	ND - 3.3	ug/l	0	MCL = 5	Industrial discharge
Trichloroethene	No	10/29/13	ND - 2.1	ug/l	0	MCL = 5	Industrial discharge
1,1-Dichloroethane	No	09/10/13	ND - 0.7	ug/l	0	MCL = 5	Industrial discharge
Total Trihalomethanes (THMs)	No	10/21/13	ND - 0.7	ug/l	n/a	MCL = 80	Disinfection by-product

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 (ug/l) - Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

Picocuries per liter (pCi/L) - a measure of radioactivity in water.

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

(1) - During 2011 we collected and analyzed 20 samples for lead and copper. The 90th percentile level is presented in the table. The action levels for both lead and copper were not exceeded at any site tested. Resampling is scheduled for 2014.

(2) - No MCL has been established for sodium. However, 20 mg/l is a recommended guideline for people on high restricted sodium diets and 270 mg/l for those on moderate sodium diets.

(3) - Perchlorate is an unregulated contaminant, however, the New York State Dept. of Health has established an action level of 18 ug/l.

(continued from page 3)

ably be expected to contain at least a small amount of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791 or by looking online at www.epa.gov or www.health.state.ny.us.

The New York State Department of Health 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. The source water assessments provide resource managers with additional information for protecting source waters into the future.

Drinking water is derived from five (5) wells. The source water assessment has rated two (2) of the wells as having a very high susceptibility to industrial solvents and a high to very high susceptibility to nitrates, and one well having a high susceptibility to microbial contamination. The very high susceptibility to industrial solvents is due primarily to point sources of contamination related to transportation routes, industrial facilities and gas stations in the assessment area. The high susceptibility to nitrate and microbial contamination is attributable to unsewered high density residential land use and related activities 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, as noted below.

The tables on page 4 are the analytical results of the distribution system samples required by the U.S.E.P.A., New York State Department of Health and Nassau County Depart-

ment of Health from January 1, 2013 to December 31, 2013. The district also takes eight (8) bacteriological samples per month at designated points throughout the service area. A yearly supplement containing water quality data for the district's five (5) wells is available at the district office or can be mailed to consumers upon request.

During 2013, the district, using calcium hypochlorite, maintained the State required minimum of 0.2 parts per million of chlorine throughout the distribution system.

The district's distribution water met all federal and state microbiological, chemical and radiological quality requirements. As indicated through district monitoring and testing, some constituents have been detected. The United States Environmental Protection Agency and the New York State Department of Health have determined that your water is safe at these levels.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people such as chemotherapy patients; organ transplant patients; people with HIV, AIDS or other immune system disorders; dialysis patients; people with Crohn's disease; some elderly and infants can be particularly at risk for infections. People with weakened immune systems should seek advice from their health care providers 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. For additional information please contact the Nassau County Department of Health at (516) 227-9697 or at www.nassaucountyny.gov.

Upgrades to the district's facilities in 2013 included the installation of a one-million gallon ground storage tank and 850 feet of 16" transmission water main at the Horse Hollow facility as well as various hydrant and valve replacements throughout the district.

Having bond authorization from the Town of Oyster Bay for infrastructure improvements, the district is currently constructing Granulated Activated Carbon filters for Well #5 on Buckram Road, a booster pumping station at the Horse Hollow facility and has submitted an application to the NYSDEC for a new 1,200-gallon-per-minute well. The district also has received plan approval from the Nassau County Department of Health to replace the well screen at Well #5 on Buckram Road and to replace the water main

(continued on page 6)

(continued from page 5)

crossing at the intersection of Oyster Bay and Chicken Valley Roads.

To conserve the district's water supply, lawn irrigation is restricted by Nassau County Conservation Ordinance 248A-1987. Water for irrigation accounts for over 50 percent of the district's annual production. Considerable cost savings are available if consumers adhere to good irrigation and landscaping practices. Other conservation measures include correcting leaking fixtures, installing water saving devices and daily conscientious water use. For further conservation information, consumers can contact the Cornell Cooperative Extension at 1-516-433-7970 or www.cce.cornell.edu/nassau, the New York State Public Service Commission at 1-518-474-7080 or at www.askPSC.com or the American Water Works Association at 1-800-926-7337 or www.awwa.org.

The following provides the 2014 rate structure of the Locust Valley Water District:

INSIDE DISTRICT (QUARTERLY)

0 – 20,000	\$1.50 / 1,000 GALLONS (minimum charge \$15)
20,001 – 50,000	\$2.20 / 1,000 GALLONS
50,001 – 80,000	\$2.60 / 1,000 GALLONS
OVER 80,001	\$2.90 / 1,000 GALLONS
ANNUAL TAX RATE \$7.11 / \$100 OF ASSESSED VALUATION	

OUTSIDE DISTRICT (QUARTERLY)

0 – 20,000	\$2.50 / 1,000 GALLONS (minimum charge \$25)
20,001 – 50,000	\$3.20 / 1,000 GALLONS
50,001 – 80,000	\$3.60 / 1,000 GALLONS
OVER 80,000	\$3.90 / 1,000 GALLONS
NO PROPERTY TAX ASSESSMENT	

The Board of Water Commissioners welcomes all consumers with ideas for improvement. Public meetings are held on the second and fourth Wednesday of the month at 5:00 p.m. in the district office at 226 Buckram Road, Locust Valley.

For a copy of this report or further information about your drinking water supply system, please visit the district's informational website at www.locustvalleywater.com.

If there are any questions regarding the Annual Water Quality Report or Sample Supplement for 2013, please contact Superintendent Charles Savinetti at the district office at (516) 671-1783, Monday through Friday, 8:00 a.m. to 4:30 p.m.

Board of Water Commissioners

Anker Johansen
Louis P. Savinetti
Pasquale J. Eliseo

WATER CYCLE

