# 2013 drinking water quality report

PLAINVIEW WATER DISTRICT
PUBLIC WATER SUPPLY IDENTIFICATION NO. 2902845

**ANNUAL WATER SUPPLY REPORT** **APRIL 2014**

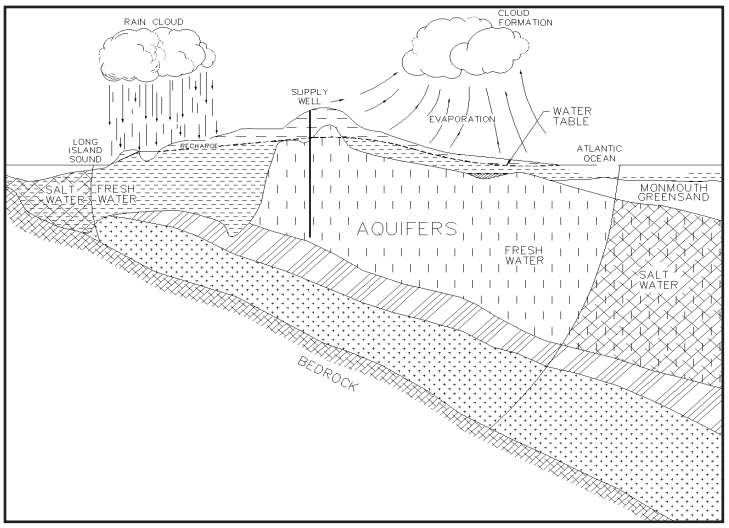
The Plainview Water District is pleased to present this year's Water Quality Report. The report is required to be delivered to all residents of our District in compliance with Federal and State regulations. This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We also want you to understand the efforts we make to continually improve the water treatment process and protect our water supply. The Board of Water Commissioners who live in the community and District employees are committed to ensuring that you and your family receive the highest quality water.

## SOURCE OF OUR WATER

The source of water for the District is groundwater pumped from 12 wells located throughout the community that are drilled into the Magothy aquifer beneath Long Island, as shown on the adjacent figure. Generally, the water quality of the aquifer is good-to-excellent, although there are localized areas of contamination.

In order to ensure that our 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 population served by the Plainview Water District during 2013 was 35,000. The total amount of water withdrawn from the aquifer in 2013 was 1.845 billion gallons, of which approximately 95 percent was billed directly to consumers.




THE LONG ISLAND AQUIFER SYSTEM

## WATER TREATMENT

The Plainview Water District provides treatment at all wells to improve the quality of the water pumped prior to distribution to the consumer. The pH of the pumped water is adjusted upward to reduce corrosive action between the water and water mains and in-house plumbing by the addition of lime. The pumped water is also chlorinated to a minimum chlorine residual of 0.2 milligrams per liter (mg/l) to protect against the growth of bacteria within the distribution system. At Plant No. 4, an individual well with high nitrate levels is blended with another well with low nitrate levels to meet the nitrate limit of 10 mg/l. Carbon adsorption treatment systems are available for Well Nos. 1-2 and 3-2 for the removal of volatile organic compounds. Well Nos. 2-1, 4-2, 4-3, 5-1, 5-2, 5-3, 5-4, 7-1 and 7-2 are presently treated by air stripping treatment systems for the removal of volatile organic compounds.

The District is in the process of wrapping up a multi-plant Capital Improvement Program to upgrade the equipment and facilities throughout the District.

## WATER CONSERVATION MEASURES

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

In 2013, the Plainview Water District continued to implement a water conservation program in order to minimize any unnecessary water use. The pumpage for 2013 was 1.5 percent more than in 2012. This can most likely be attributed to the hotter and drier weather in the summer of 2013.

Residents of the District can also implement their own water conservation measures such as retrofitting plumbing fixtures with flow restrictors, modifying automatic lawn sprinklers to include rain sensors, repairing leaks in the home, installing water conservation fixtures/applications and maintaining a daily awareness of water conservation in their personal habits. In addition, the Nassau County Lawn Sprinkler Regulations are still in effect. Besides protecting our precious underground water supply, water conservation will produce a cost savings to the consumer in terms of both water and energy bills (hot water).

## COST OF WATER

The District utilizes a step billing schedule as shown with the average consumer being billed at $1.65 per 1,000 gallons.

## WATER QUALITY

In accordance with State regulations, the Plainview Water District routinely monitors your drinking water for numerous parameters. We test your drinking water for coliform bacteria, turbidity, inorganic contaminants, lead and copper, nitrate, volatile organic contaminants, total trihalomethanes and synthetic organic contaminants. Over 135 separate parameters are tested for in each of our wells numerous times per year. The table presented on page 3 depicts which parameters or contaminants were detected in the water supply. It should be noted that many of these parameters are naturally found in all Long Island drinking water and do not pose any adverse health effects.

### QUARTERLY WATER RATES - 2014

| Consumption (gallons) | Charges |
|---|---|
| Up to 10,000 | $7.50 minimum |
| 10,000 - 30,000 | $1.65/ thousand gallons |
| 30,000 - 50,000 | $2.20/thousand gallons |
| 50,000 - 70,000 | $2.65/thousand gallons |
| Over 70,000 | $2.95/thousand gallons |

## CONTACTS FOR ADDITIONAL INFORMATION

We are pleased to report that our drinking water is safe and meets all Federal and State requirements. If you have any questions about this report or the Plainview Water District, please contact Water District Superintendent Richard Tobin at (516) 931-6469 or the Nassau County Department of Health at (516) 227-9692. We want our valued customers to be informed about our water system. If you want to learn more, please attend any of our regularly scheduled meetings. They are normally held every Tuesday at 5:30 p.m. at the Water District office, located at 10 Manetto Hill Road. Updated meeting schedules are posted on a monthly basis at the Water District office, Plainview Public Library and on the District website located at http://www.plainviewwater.org.

The Plainview District routinely monitors for different parameters and possible contaminants in your drinking water as required by Federal and State laws. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some impurities. It's important to remember that the presence of these impurities does not necessarily pose a health risk. For more information on contamination and potential health risks, please contact the USEPA Safe Drinking Water Hotline at 1-800-426-4791.

The USEPA established a Lead and Copper Rule that required all public water suppliers to sample and test for lead and copper at the tap. The first testing was required in 1992. All results were excellent indicating that the District's corrosion control treatment program was effective in preventing the leaching of lead and copper from your home's plumbing into your drinking water. The same testing is repeated every three years and was last conducted in 2011. Results of the 2011 testing also were excellent. The next round of sampling will occur this year.

## NEW YORK STATE MANDATORY HEALTH ADVISORY

Water from the Plainview Water District has elevated levels of nitrates, but below the maximum contaminant level of 10.0 parts per million (ppm). Nitrate in drinking water at levels about 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. The source of the nitrates is the nitrogen in fertilizers and from on-site septic systems. If you are caring for an infant you should ask advice from your health care provider.

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 to infection by Cryptosporidum, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).]

# 2013 DRINKING WATER QUALITY REPORT - TABLE OF DETECTED PARAMETERS

| Contaminants | Violation (Yes/No) | Date of Sample | Level Detected (Maximum Range) | Unit Measurement | MCLG | Regulatory Limit (MCL or AL) | Likely Source of Contaminant |
|---|---|---|---|---|---|---|---|
| Inorganic Contaminants | | | | | | | |
| Copper | No | June, July, August 2011 | ND - 0.18<br>0.14[1] | mg/l | 1.3 | AL = 1.3 | Corrosion of household plumbing systems; Erosion of natural deposits |
| Lead | No | June, July, August 2011 | ND - 1.33<br>1.05[1] | ug/l | 0 | AL = 15 | Corrosion of household plumbing systems; Erosion of natural deposits |
| Sulfate | No | 03-12-13 | ND - 5.2 | mg/l | n/a | MCL = 250 | Naturally occuring |
| Sodium | No | 03-12-13 | 3.5 - 16.9 | mg/l | n/a | None[2] | Naturally occurring |
| Calcium | No | 03-12-13 | 1.2 - 14.1 | mg/l | None | None | Naturally occurring |
| Chloride | No | 03-12-13 | 5.3 - 23.8 | mg/l | n/a | MCL = 250 | Naturally occurring |
| Barium | No | 03-12-13 | ND - 0.04 | mg/l | n/a | MCL = 2.0 | Naturally occurring |
| Iron | No | 03-12-13 | ND - 260 | ug/l | n/a | MCL = 300 | Naturally occurring |
| Nitrate | No | 08-21-13 | 0.7 - 8.1 | mg/l | 10 | MCL = 10 | Runoff from fertilizer and leaching from septic tanks and sewage |
| Manganese | No | 03-12-13 | ND - 3.0 | ug/l | n/a | MCL = 300 | Naturally occurring |
| Magnesium | No | 03-12-13 | 0.6 - 4.5 | mg/l | n/a | None | Naturally occurring |
| Nickel | No | 03-12-13 | ND - 0.005 | ug/l | n/a | None | Naturally occurring |
| Zinc | No | 03-12-13 | ND - 0.06 | mg/l | n/a | MCL = 5.0 | Naturally occurring |
| Synthetic Organic Contaminants Including Pesticides and Herbicides | | | | | | | |
| None Detected | -- | -- | -- | -- | -- | -- | -- |
| Volatile Organic Contaminants | | | | | | | |
| 1,1,1-Trichloroethane | No | 10-22-13 | ND - 1.5 | ug/l | 0 | MCL = 5 | Industrial/Commercial discharge |
| Tetrachloroethene | No | 10-22-13 | ND - 0.8 | ug/l | 0 | MCL = 5 | Industrial/Commercial discharge |
| Trichloroethene | No | 07-22-13 | ND - 2.2 | ug/l | 0 | MCL = 5 | Industrial/Commercial discharge |
| cis-1,2-Dichloroethene | No | 10-22-13 | ND - 1.0 | ug/l | 0 | MCL = 5 | Industrial/Commercial discharge |
| 1,1-Dichloroethene | No | 10-22-13 | ND - 1.6 | ug/l | 0 | MCL = 5 | Industrial/Commercial discharge |
| 1,1-Dichloroethane | No | 10-22-13 | ND - 2.1 | ug/l | 0 | MCL = 5 | Industrial/Commercial discharge |
| Disinfection By-Products | | | | | | | |
| Total Trihalomethanes | No | 07-17-13 | ND - 19.0 | ug/l | 0 | MCL = 80 | Disinfection By-Products |
| Radionuclides | | | | | | | |
| Gross Alpha | No | 02-25-13 | ND - 0.767 | pCi/L | n/a | MCL = 15 | Naturally occurring |
| Gross Beta | No | 05-20-13 | 0.087 - 1.32 | pCi/L | n/a | MCL = 50 | Naturally occurring |
| Radium 228 | No | 05-20-13 | ND - 1.17 | pCi/L | n/a | MCL = 5 | Naturally occurring |
| Unregulated Contaminants | | | | | | | |
| Perchlorate | No | 02-13-13 | ND - 14.0 | ug/l | 0 | AL = 18[3] | Fertilizer |

**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.

**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).

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

**pCi/L** - pico Curies per Liter is a measure of radioactivity in water.

[1] - During 2011, we collected and analyzed 35 samples for lead and copper. The 90% percentile level is presented in the table. The action level for lead was not exceeded at any site tested. The action level for copper was not exceeded at any site. The next round of sampling and testing will occur in 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 NYS Dept. of Health has established an action level of 18.0 ug/l.

## SOURCE WATER ASSESSMENT

The NYSDOH, with assistance from the local health department, has completed a source water assessment for this system, based on available information. Possible and actual environmental threats to this drinking water source were evaluated. The source water assessment includes a susceptibility rating based on the risk posed by 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. Please refer to section "Water Quality" for a list of the contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters into the future.

Drinking water is derived from 12 wells. The source water assessment has rated most of the wells as having a very high susceptibility to industrial solvents and a high susceptibility to nitrates. The elevated 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 elevated susceptibility to nitrates is due to unsewered residential land use and related practices, such as fertilizing lawns, in portions of the assessment area.

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

It must be noted that assessment results indicating an elevated susceptibility does not imply supply well contamination or inevitability. Susceptibility correlates to contamination prevalence and sensitivity. Furthermore, a supply well that has a medium to high susceptibility demonstrates the need for continuing management of potential contamination sources. It is important to note that there is a distinct difference between raw source water and actual finished (treated) water delivered to the customers. Water suppliers are obligated by strict federal, state and local laws and regulations to provide water that is safe to drink. Treatment is required when water quality results indicate the presence of contaminants at or above an established maximum contaminant level.

The Plainview Water District conducts over 14,000 water quality tests throughout the year, testing for over 130 different contaminants which have been undetected in our water supply, including:

| | | |
|---|---|---|
| Arsenic | Dicamba (SOC) | 1,1-Dichloropropene |
| Cadmium | Pentachlorophenol (SOC) | 1,2-Dichloroethane |
| Chromium | Hexachlorocyclopentadiene (SOC) | Dibromomethane |
| Fluoride | bis(2-Ethylhexyl)adipate (SOC) | Trans-1,3-Dichloropropene |
| Mercury | bis(2-Ethylhexyl)phthalate (SOC) | cis-1,3-Dichloropropene |
| Selenium | Hexachlorobenzene (SOC) | 1,1,2-Trichloroethane |
| Silver | Benzo(A)Pyrene (SOC) | 1,3-Dichloropropane |
| Color | Aldicarb Sulfone (SOC) | Chlorobenzene |
| Turbidity | Aldicarbsulfoxide (SOC) | 1,1,1,2-Tetrachloroethane |
| Odor | Aldicarb (SOC) | Bromobenzene |
| Ammonia | Total Aldicarbs (SOC) | 1,1,2,2-Tetrachloroethane |
| Nitrite | Oxamyl (SOC) | 1,2,3-Trichloropropane |
| Detergents (MBAS) | Methomyl (SOC) | 2-Chlorotoluene |
| Free Cyanide | 3-Hydroxycarbofuran (SOC) | 4-Chlorotoluene |
| Antimony | Carbofuran (SOC) | 1,2-Dichlorobenzene |
| Beryllium | Carbaryl (SOC) | 1,3-Dichlorobenzene |
| Thallium | Glyphosate (SOC) | 1,4-Dichlorobenzene |
| Lindane (SOC) | Diquat (SOC) | 1,24-Trichlorobenzene |
| Heptachlor (SOC) | Endothall (SOC) | Hexachlorobutadiene |
| Aldrin (SOC) | 1,2-Dibromoethane (EDB) (SOC) | 1,2,3-Trichlorobenzene |
| Heptachloro Epoxide (SOC) | 1,2-Dibromo-3-Chl.Propane (SOC) | Benzene |
| Dieldrin (SOC) | Dioxin (SOC) | Ethylbenzene |
| Endrin (SOC) | Chloroacetic Acid | M,P-Xylene |
| Methoxychlor (SOC) | Bromoacetic Acid | O-Xylene |
| Toxaphene (SOC) | Dichloroacetic Acid | Styrene |
| Chlordane (SOC) | Trichloroacetic Acid | Isopropylbenzene (Cumene) |
| Total PCBs (SOC) | Dibromoacetic Acid | N-Propylbenzene |
| Propachlor (SOC) | Total Haloacetic Acid | 1,3,5-Trimethylbenzene |
| Alachlor (SOC) | Radium 226 | Tert-Butylbenzene |
| Simazine (SOC) | Dichlorodifluoromethane | 1,2,4-Trimethylbenzene |
| Atrazine (SOC) | Chloromethane | Sec-Butylbenzene |
| Metolachlor (SOC) | Vinyl Chloride | 4-Isopropyltoluene (P-Cumene) |
| Metribuzin (SOC) | Bromomethane | N-Butylbenzene |
| Butachlor (SOC) | Chloroethane | Methyl Tert.Butyl Ether (MTBE) |
| 2,4-D (SOC) | Chlorodifluoromethane | |
| 2,4,5-TP (Silvex) (SOC) | Methylene Chloride | |
| Dinoseb (SOC) | Trans-1,2-Dichloroethene | |
| Dalapon (SOC) | 2,2-Dichloropropane | |
| Picloram (SOC) | Bromochloromethane | |

***Note: (SOC) - A Synthetic Organic Contaminant***

## NOTICE OF SAMPLING VIOLATION

*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator to whether or not our drinking water meets health standards. During the sample period of July 1, 2011 to December 31, 2012 we did not monitor or test Well Nos. 1-1 and 4-2 for Synthetic Organic Contaminants (SOCs) and therefore cannot be sure of the quality of our drinking water during that time. The SOC's that were not tested are listed on the above and noted as SOC*

In 2013, the District took over 900 water quality samples for 150 different contaminants from our wells, treatment facilities, storage tanks and distribution system. The contaminants tested for include microbiological, POC's (Principal Organic Contaminants), IOC's (Inorganic Contaminants), nitrates, perchlorate, radiological, disinfection byproducts, asbestos, and SOC's. Each contaminant has a specific sampling cycle in which it is required to be tested. SOC's are required to be sampled from each well every 18 months. Due to an error, the SOC's from well's 1-1 and 4-2 were inadvertently overlooked and not sampled. Only two (2) water quality samples out of 900 samples were missed however, to avoid the reoccurrence of such a monitoring violation, a system of checks and balances has been instituted. The District immediately collected the samples once it was realized that they were not taken. The water from Well Nos. 1-1 and 4-2 were tested for SOC's prior to and after the missed monitoring with the results indicating that the water had no detections of SOC's in Well Nos. 1-2 and 4-2.

At this time no action needs to be taken by consumers and no alternative water supply needs to be used. *Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools and businesses). You can do this by posting this notice in a public place or distributing copies by hand and/or mail.*

Should you have any questions concerning this sampling violation, please contact the District office at 516-931-6469 or the Nassau County Health Department at 516-227-9692.

Copies of the Supplemental Data Package, which includes the water quality data for each of our supply wells utilized during 2013, are available at the Plainview Water District office which is located at 10 Manetto Hill Road, Plainview, New York, the local Public Library and the Water District website located at http://www.plainviewwater.org.

We, at the Plainview Water District, work diligently to provide top quality water to every tap throughout the community. We ask that all our customers help us protect our water resources, which are the heart of our community, our way of life and our children's future.