

# 2014 drinking water quality report

DIX HILLS WATER DISTRICT

PUBLIC WATER SUPPLY IDENTIFICATION NO. 5103276

## ANNUAL WATER SUPPLY REPORT

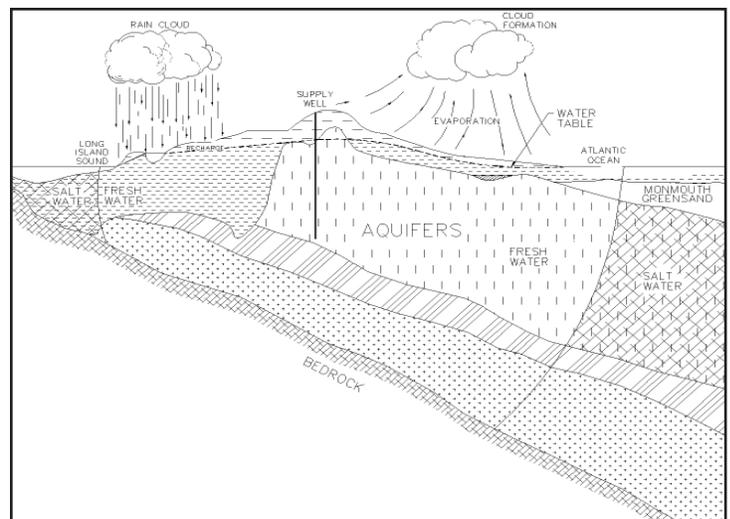
SPRING 2015

Each year, to comply with Federal and State requirements, the Dix Hills Water District sends you an annual Water Quality Report, and as in past years, the 2014 Water Quality Report notes that we are in full compliance with all Federal, State and County water quality regulations. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. The Huntington Town Board and the 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 17 wells located throughout the community that are drilled into the Glacial and Magothy aquifers 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. The water from these areas is treated by the District to remove any contaminants prior to the delivery of any water to the consumer.

The population served by the Dix Hills Water District during 2014 was 34,680. The total amount of water withdrawn from the aquifer in 2014 was 2.018 billion gallons, of which approximately 92 percent was billed directly to consumers.



THE LONG ISLAND AQUIFER SYSTEM

## WATER TREATMENT

The Dix Hills Water District provides treatment at all of its 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 the corrosive action between the water and water mains and in-house plumbing by the addition of sodium hydroxide. The District also adds small amounts of calcium hypochlorite (chlorine) as a disinfection agent and to prevent the growth of bacteria in the distribution system. Granular activated carbon filters are also installed at Plants No. 1, 5, and 8 to treat potable water for the removal of volatile organic compounds.

## COST OF WATER

The District utilizes a unit price billing schedule with the consumers being billed at a rate of \$0.80 per 1,000 gallons of water used. A surcharge of \$0.20 per 1,000 gallons is charged for water used between 61,000 to 120,000 gallons per quarter (up to a 1 inch meter). For over 120,000 gallons there is a surcharge of \$0.45 per 1,000 gallons. For all water rates for larger meters, please contact the District office.

In 2014, the Dix Hills Water District continued to implement a water conservation program in order to minimize any unnecessary water use. The District pumpage was approximately 6.9% less water in 2014 than in 2013. This decrease in water use can most likely be attributed to the cooler and wetter weather during the summer of 2014.

**From May 1st through September 30th, the District has established mandatory irrigation restrictions following the ODD and EVEN day of the month / ODD and EVEN house addresses schedule. Failure to comply with the lawn watering restrictions may result in fines.** The District wishes to inform all of its residents that water conservation is in everyone's best interest.

In accordance with State regulations, the Dix Hills 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 each 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 affects.

### CONTACTS FOR ADDITIONAL INFORMATION

We are pleased to report that our drinking water is safe and meets all Federal and State requirements with the exception of iron. If you have any questions about this report or the Dix Hills Water District, please contact Water District Supervisor John Hennessey at (631) 421-1812 or the Suffolk County Department of Health Services at (631) 852-5810. We want our residents to be informed about our water system. Major issues concerning the Dix Hills Water District can be discussed at the regularly scheduled Huntington Town Board meetings. They are normally held on the second or fourth Tuesday of each month at either 2:00 p.m. or 7:00 p.m. at Huntington Town Hall, 100 Main Street, Huntington. Please check with the Town Clerk's office or the Town's home page at <http://huntingtonny.gov> for exact times and dates of the meetings.

The Dix Hills Water 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 or [www.epa.gov/safewater](http://www.epa.gov/safewater).

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, and people with HIV/AIDS or other immune system disorders, some elderly and infants can also 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).

### NEW YORK STATE MANDATORY HEALTH ADVISORY

Water from some of the wells within the Dix Hills Water District have a slightly elevated nitrate level. This level is well below the maximum contaminant level of 10.0 parts per million (ppm). Nitrate in drinking water at levels above 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 healthcare provider.

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 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 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.

# 2014 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
<b>Inorganic Contaminants</b>							
Copper	No	August 2013	ND - 0.5 0.32 <sup>(1)</sup>	mg/l	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	No	August 2013	ND - 24.0 1.81 <sup>(1)</sup>	ug/l	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits
Barium	No	06/03/14	ND - 0.04	mg/l	2	MCL = 2.0	Naturally occurring
Fluoride	No	05/28/14	ND - 0.2	mg/l	n/a	MCL = 2.2	Naturally occurring
Sodium	No	09/17/14	2.7 - 2.2	mg/l	n/a	No MCL <sup>(2)</sup>	Naturally occurring
Chloride	No	06/03/14	2.6 - 34.5	mg/l	n/a	MCL = 250	Naturally occurring
Iron	Yes <sup>(3)</sup>	06/02/14	ND - 610	ug/l	n/a	MCL = 300	Naturally occurring
Nitrate	No	03/03/14	ND - 9.9	mg/l	10	MCL = 10	Runoff from fertilizer and leaching from septic tanks and sewage
Nickel	No	06/03/14	ND - 3	ug/l	n/a	MCL = 100	Naturally occurring
Sulfate	No	06/03/14	ND - 31.6	mg/l	n/a	MCL = 250	Naturally occurring
Zinc	No	06/03/14	ND - 0.03	mg/l	n/a	MCL = 5	Naturally occurring
<b>Synthetic Organic Contaminants Including Pesticides and Herbicides</b>							
None Detected	--	--	--	--	--	--	--
<b>Volatile Organic Contaminants</b>							
1,1,1-Trichloroethane	No	02/25/14	ND - 0.94	ug/l	0	MCL = 5	Industrial Chemical Discharge
Tetrachloroethene	No	09/15/14	ND - 0.52	ug/l	0	MCL = 5	Industrial Chemical Discharge
1,1-Dichloroethane	No	02/25/14	ND - 0.7	ug/l	0	MCL = 5	Industrial Chemical Discharge
MTBE	No	09/10/14	ND - 0.7	ug/l	0	MCL = 5	Gasoline Additive
Total Trihalomethanes	No	03/14/14	ND - 2.1	mg/l	0	MCL = 80	Disinfection By-Products
<b>Radionuclides</b>							
Gross Alpha	No	09-17-14	ND - 0.059	pCi/L	n/a	MCL = 15	Naturally occurring
Gross Beta	No	07/08/08	ND - 1.6	pCi/L	n/a	MCL = 50	Naturally occurring
Combined Radium 226 & 228	No	09/17/14	ND - 0.302	pCi/L	n/a	MCL = 5	Naturally occurring
<b>Unregulated Contaminants</b>							
Pechlorate	No	12/17/14	ND - 5.2	ug/l	0	AL = 18 <sup>(4)</sup>	Fertilizer
Chlorodifluoromethane	No	03/03/14	ND - 2.3	ug/l	n/a	n/a	Industrial Chemical Discharge
<b>Unregulated Contaminant Monitoring Rule<sup>(5)</sup></b>							
1,4-Dioxane	No	11/20/14	ND - 0.08	ug/l	n/a	No MCL	Naturally occurring
Strontium	No	11/20/14	ND - 106	ug/l	n/a	No MCL	Naturally occurring
Hexavalent Chromium	No	11/20/14	ND - 0.06	ug/l	n/a	No MCL	Natural deposits
Chlorate	No	11/20/14	ND - 88	ug/l	n/a	No MCL	Naturally occurring
<b>Bacteriological</b>							
Total Coliform	No	07/28/14	1 positive out of 480 in 2014	positive or negative	n/a	MCL = Positive results in more than 5% of the monthly samples	Commonly found in the environment

## 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.

<sup>(1)</sup> - During 2013, the District collect 31 samples for lead and copper. The 90% level is presented in the table as the maximum result. The next round of samples will occur in 2016. 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. Dix Hills 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 (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>

<sup>(2)</sup> - 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.

<sup>(3)</sup> - Iron has no health effects. 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 multi-vitamins may contain 3,000 or 4,000 micrograms of iron per capsule.

<sup>(4)</sup> - 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 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 "Water Quality" 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 17 wells. The source water assessment has rated most of the wells as having a high susceptibility to industrial solvents and nitrates, and some wells having a high susceptibility to pesticides. The susceptibility to nitrates is due primarily to unsewered residential and institutional land-use, and related activities in the assessment area. The susceptibility to industrial solvents is primarily due to point sources of contamination related to transportation routes and commercial/industrial activities. The high susceptibility to pesticides is due primarily to agricultural land use practices in the assessment area. A copy of the assessment, including a map of the assessment area, can be obtained by contacting the Water District.

The Dix Hills Water District conducts over 10,000 water quality tests throughout the year, testing for over 130 different contaminants. The parameters listed below have been undetected in our water supply:

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

Copies of a Supplemental Data Package, which includes the water quality data for each of our supply wells utilized during 2014, are available at the Dix Hills Water District office located at 683 Caledonia Road in Dix Hills, New York and at the Half Hollow Hills Public Library.

All of us at Dix Hills Water District work around the clock 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 futures.