

2018 drinking water quality report

INC. VILLAGE OF FARMINGDALE WATER DEPARTMENT

PUBLIC WATER SUPPLY IDENTIFICATION NO. 2902821

ANNUAL WATER SUPPLY REPORT

MAY 2019

The Inc. Village of Farmingdale is pleased to present to you this year's Water Quality Report. It is required to be delivered to all residents of our Village in compliance with Federal and State regulations.

This report is designed to inform you about the quality 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 resources.

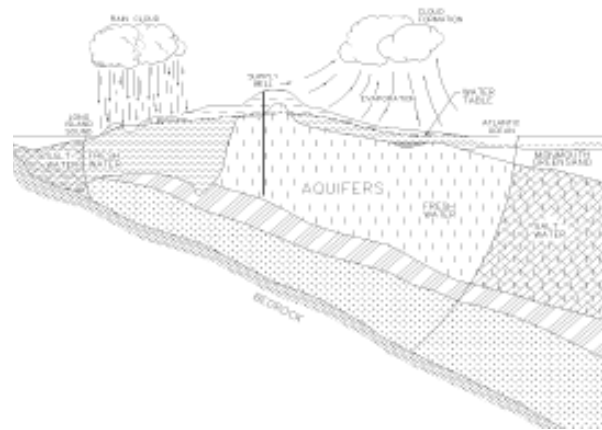
SOURCE OF OUR WATER

The source of water for the Village is groundwater pumped from the Magothy aquifer beneath Long Island, as shown on the figure below. Generally, the water quality of the aquifer is good to excellent, although there are localized areas of contamination.

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 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 Inc. Village of Farmingdale during 2018 was 9,094. The total amount of water withdrawn from the aquifer in 2018 was 371.9 million gallons, of which approximately 92 percent was billed directly to consumers.



THE LONG ISLAND AQUIFER SYSTEM

WATER TREATMENT

The Inc. Village of Farmingdale Water Department 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 sodium hydroxide. The village also adds small amounts of calcium hypochlorite (chlorine) as a disinfecting agent and to prevent the growth of bacteria in the distribution system.

WATER QUALITY

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

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 concerning your water supply, please contact the Water Department Supervisor Andrew Fisch at (516) 249-0111 or the Nassau County Department of Health at (516) 227-9692. We want our valued customers to be informed about our water system.

During 2016, the Village collected 21 samples for lead and copper. The next round of samples will occur in 2019. 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. The Inc. Village of Farmingdale 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>.

The Inc. Village of Farmingdale routinely monitors for different parameters and contaminants in your drinking water as required by federal and state laws. Last year, as in the past, your tap water met all the State Drinking Water Health Standards. This report and the table of laboratory test results, shown on page 3, present an overview of last year's water quality. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk. Most of these constituents are naturally present in the water such as minerals and other inorganics. For more information on contamination and potential health risks, please contact the USEPA Safe Drinking Water Hotline at 1-800-426-4791.

COST OF WATER

The Village utilizes a billing schedule, as shown on the following tables.

Residential Schedule of Water Rates (Annually)

Consumption (gallons)	Charges
Service Charge	\$96.00/year
0 – 300,000	\$2.25/thousand gallons
300,001 and over	\$3.75/thousand gallons

Commercial Schedule of Water Rates (Annually)

Consumption (gallons)	Charges
Service Charge	\$196.00/year
	\$3.75/thousand gallons

Multi-Residential Schedule of Water Rates (Annually)

Consumption (gallons)	Charges
Service Charge	\$50.00/year
	\$2.25/thousand gallons

WATER CONSERVATION MEASURES

In 2018, the Inc. Village of Farmingdale continued to implement a water conservation program in order to minimize any unnecessary water use. Pumpage for 2018 was 1.0 percent less than in 2017. This is most likely the result of the Village's water conservation program.

Residents of the Village 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/appliances and maintaining a daily awareness of water conservation in their personal habits. 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).

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. The source water assessments provide resource managers with additional information for protecting source waters into the future.

As mentioned before, our water is derived from three (3) drilled wells. The source water assessment has rated the wells as having a very high susceptibility to industrial solvents and two (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 lawns, as well as the commercial/industrial activities in the assessment area. A copy of the assessment, including a map of the assessment area, can be obtained by contacting the Village Hall.

Copies of a Supplemental Data Package, which includes the water quality data for each of our supply wells utilized during 2018, are available at the Inc. Village of Farmingdale – Village Hall located at 361 Main Street, Farmingdale, New York and the Farmingdale Public Library.

If you want to learn more, please attend any of our regularly Village Board scheduled meetings. They are normally held the 1st Monday of the month at 8:00 p.m. (work sessions at 7:00 p.m.) and all are posted on the Village website.

We at the Inc. Village of Farmingdale 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 future.

2018 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 Contamination
Bacterial Parameters							
Total Coliform ⁽¹⁾	Yes	10/17/2018	1 positive detection during October	N/A	0	2 positive samples in one month	Naturally present in the environment. Resamples showed no detections
Lead and Copper							
Copper	No	09/08/2016	ND-0.75 0.32 ⁽²⁾	mg/L	1.3	1.3	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	No	09/08/2016	ND-4.5 1.6 ⁽²⁾	µg/L	0	15	Corrosion of household plumbing systems; Erosion of natural deposits
Inorganic Contaminants							
Barium	No	06/28/2018	0.0031-0.034	mg/L	2	2	Naturally occurring
Sodium	No	06/28/2018	3.4-13.7	mg/L	N/A	No MCL ⁽³⁾	Naturally occurring
Manganese	No	06/28/2018	ND-0.027	mg/L	N/A	0.3	Naturally occurring
Chloride	No	06/28/2018	4.1-28.6	mg/L	N/A	250	Naturally occurring
Iron	No	06/28/2018	ND-0.17	mg/L	N/A	0.3	Naturally occurring
Nitrate	No	06/28/2018	0.29-3.7	mg/L	10	10	Runoff from fertilizer and leaching from septic tanks and sewage
Magnesium	No	06/28/2018	0.037-3.2	mg/L	N/A	No MCL	Naturally occurring
Nickel	No	06/28/2018	0.0033-0.0082	mg/L	N/A	No MCL	Naturally occurring
Calcium	No	06/28/2018	1.0-3.6	mg/L	N/A	No MCL	Naturally occurring
Zinc	No	06/28/2018	ND-0.039	mg/L	N/A	5	Naturally occurring
Calcium Hardness	No	06/28/2018	2.6-7.6	mg/L	N/A	N/A	Naturally occurring
Total Hardness	No	06/28/2018	4.1-12.6	mg/L	N/A	N/A	Naturally occurring
Total Dissolved Solids	No	06/28/2018	21-82	mg/L	N/A	500	Naturally occurring
Radionuclides							
Gross Alpha	No	06/22/2016	0.14-1.94	PCi/L	0	15	Naturally occurring
Gross Beta	No	06/22/2016	0.83-2.73	PCi/L	0	50	Naturally occurring
Radium 226 & 228 Combined	No	06/22/2016	ND-3.6	PCi/L	0	5 ⁽⁴⁾	Naturally occurring
Uranium	No	06/22/2016	0.07-0.97	µg/L	N/A	30	Naturally occurring
Unregulated Contaminant Monitoring Rule⁽⁵⁾							
1,4-Dioxane	No	09/26/2018	0.076-0.38	µg/L	N/A	HA=35	Industrial discharge
Perfluorooctanesulfonic acid	No	08/31/2016	ND-4.39	ng/L	N/A	HA=70	Industrial discharge

Perfluorooctanoic Acid	No	06/22/2017	2.03-4.55	ng/L	N/A	HA=70	Industrial Discharge
Hexavalent Chromium	No	03/28/2018	0.025-0.43	µg/L	N/A	None	Industrial discharge

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.

Maximum Residual Disinfection Level (MRDL) - 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.

Maximum Residual Disinfection Level Goal (MRDLG) - 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 contaminants.

Milligrams per liter (mg/l) - Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm). **Micrograms per liter (µg/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 perLiter is a measure of radioactivity in water.

ng/L - Parts per trillion

Health Advisory (HA) - An estimate of acceptable drinking water levels for a chemical substance based on health effects information; a health advisory is not a legally enforceable Federal standard, but serves as technological guidance to assist Federal, State, and local officials.

(1) - A violation occurs when more than 2 Total Coliform samples collected per month are positive.

(2) - During 2016, we collected and analyzed 21 samples for lead and copper. The action levels for both lead and copper were not exceeded at any site tested. Resampling will be required in 2019. The values reported for lead and copper represent the 90th percentile. 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 lead and copper values detected at your water system.

(3) - 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.

(4) - MCL for Radium is for Radium 226 and Radium 228 combined.

(5) - UCMR3 - Unregulated Contaminant Monitoring Rule 3 is a Federal water quality sampling program where water suppliers sample and test their source water for 1 year. Results will be used by the USEPA to determine if the contaminants need to be regulated in the future.

NEW YORK STATE MANDATORY HEALTH ADVISORY

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 Inc. Village of Farmingdale conducts over 3,000 water quality tests throughout the year, testing from over 130 different contaminants which have been undetected in our water supply including:

Arsenic	Perchlorate	Dicamba	Bromoacetic Acid	Bromochloromethane	1,2,4-Trichlorobenzene
Cadmium	Lindane	Pentachlorophenol	Dichloroacetic Acid	1,1,1-Trichloroethane	Hexachlorobutadiene
Chromium	Heptachlor	Hexachlorocyclopentadiene	Trichloroacetic Acid	Carbon Tetrachloride	1,2,3-Trichlorobenzene
Fluoride	Aldrin	Bis(2-Ethylhexyl)adipate	Dibromoacetic Acid	1,1-Dichloropropene	Benzene
Mercury	Heptachloro Epoxide	Bis (2-Ethylhexyl) phthalate	Total Haloacetic Acid	1,2-Dichloroethane	Toluene
Langier	Dieldrin	Hexachlorobenzene	Chloroform	Trichloroethene	Ethylbenzene

Saturation Index					
Selenium	Endrin	Benzo(A)Pyrene	Bromodichloromethane	1,2-Dichloropropane	M,P-Xylene
Silver	Methoxychlor	Aldicarb Sulfone	Dibromochloromethane	Dibromomethane	O-Xylene
Color	Toxaphene	Aldicarb sulfoxide	Bromoform	Trans-1,3-Dichloropropene	Styrene
Turbidity	Chlordane	Aldicarb	Total Trihalomethanes	Cis-1,3-Dichloropropene	Isopropylbenzene (Cumene)
Odor	Total PCBs	Total Aldicarbs	Dichlorodifluoromethane	1,1,2-Trichloroethane	N-Propylbenzene
Ammonia	Propachlor	Oxamyl	Chloromethane	Tetrachloroethene	1,3,5-Trimethylbenzene
Nitrite	Alachlor	Methomyl	Vinyl Chloride	1,3-Dichloropropane	Tert-Butylbenzene
Total Hardness	Simazine	3-Hydroxycarbofuran	Bromomethane	Chlorobenzene	1,2,4-Trimethylbenzene
Total Alkalinity	Atrazine	Carbofuran	Chloroethane	1,1,1,2-Tetrachloroethane	Sec-Butylbenzene
Thallium	Metolachlor	Carbaryl	Trichlorofluoromethane	Bromobenzene	4-Isopropyltoluene (P-Cumene)
Total Dissolved Solids	Metribuzin	Glyphosate	1,4-Dichlorobenzene	1,1,1,2-Tetrachloroethane	
Detergents (MBAS)	Butachlor	Diquat	1,1-Dichloroethene	1,2,3-Trichloropropane	
Sulfate	2,4-D	Endothall	Methylene Chloride	2-Chlorotoluene	
Free Cyanide	2,4,5-TP (Silvex)	1,2-Dibromoethane (EDB)	Trans-1,2-dichloroethene	4-Chlorotoluene	
Antimony	Dinoseb	1,2-Dibromo-3-Chl.Propane	1,1-Dichloroethene	1,2-Dichlorobenzene	
Beryllium	Dalapon	Dioxin	Cis-1,2-Dichloroethene	1,3-Dichlorobenzene	
Picloram	Chloroacetic Acid	2,2-Dichloropropane	Methyl Tert.Butyl Ether (MTBE)	N-Butylbenzene	

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