

2019 drinking water quality report

INC. VILLAGE OF BAYVILLE

PUBLIC WATER SUPPLY IDENTIFICATION NO. 2902816

ANNUAL WATER SUPPLY REPORT

MAY 2020

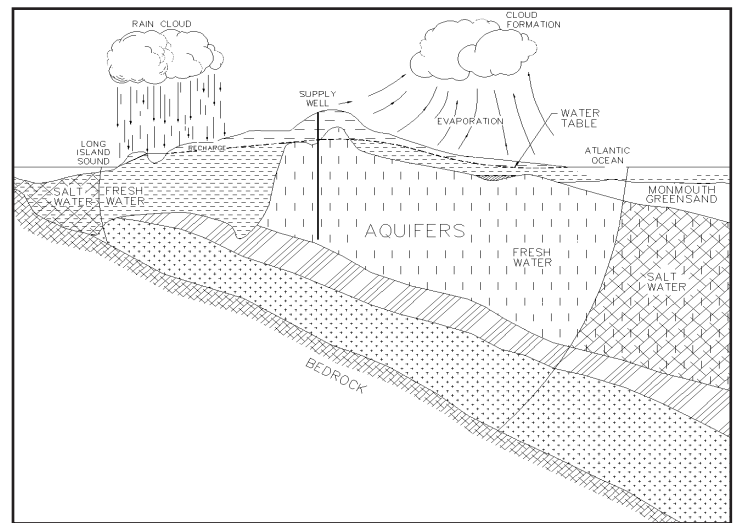
The Inc. Village of Bayville is pleased to present this year's Water Quality Report. The report is required to be delivered to all residents of our Village in compliance with Federal and State regulations. This report is designed to inform you about the quality of water and services we deliver to you 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 Trustees and the Village Water Department are committed to ensuring that you and your family receive the highest quality water.

SOURCE OF OUR WATER

During 2019, the source of water for the Village is groundwater pumped from the three (3) wells located throughout the Village that are drilled into the Lloyd aquifer beneath Long Island, as shown on the adjacent figure. Generally, the water quality of the aquifer is good-to-excellent.

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 Bayville during 2019 was 6,771. The total amount of water withdrawn from the aquifer in 2019 was 274.5 million gallons, of which approximately 92.52 percent was billed directly to consumers.



THE LONG ISLAND AQUIFER SYSTEM

WATER TREATMENT

The Inc. Village of Bayville 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 Village adds a slight amount of chlorine to the water as a disinfecting agent to prevent the growth of bacteria in the distribution system.

WATER QUALITY

In accordance with State regulations, the Village of Bayville 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 130 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.

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 2019, the Inc. Village of Bayville continued to implement a water conservation program in order to minimize any unnecessary water use. The pumpage for 2019 was 4.7 percent less than in 2018. This can be attributed to the cooler and wetter weather conditions that occurred in 2019 compared to 2018.

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. In addition, Nassau County Lawn Sprinkler Regulations are still in effect as follows:

- All water sprinkling is prohibited between 10 a.m. and 4 p.m.
- Even numbered addresses are allowed to sprinkle on even-numbered dates during the prescribed hours and odd-numbered addresses are allowed to sprinkle on odd-numbered dates during the prescribed hours.
- County law enforcement officers will assist water purveyors in enforcing the regulations through the issuance of a summons which will result in a fine.

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, SYSTEM IMPROVEMENTS AND BACKFLOW PREVENTION

The Village utilizes a step billing schedule as shown in the table. The average consumer is being billed at approximately \$2.52 per 1,000 gallons of water used, excluding the minimum charge.

The Village is currently in the planning stages of installing a computerized water plant operating system known as a SCADA System. We have also made significant improvements to our wells and treatment systems to improve its operational reliability.

The Village would like to remind consumers that backflow devices must be tested on an annual basis. This test is required pursuant to the New York State Cross Connection Control Program. All testing and maintenance of this backflow device must be performed by a State Certified Tester.

A list of certified testers in Nassau County can be found at:

http://www.health.ny.gov/environmental/water/drinking/cross/backflow_testers/nassau.htm

Quarterly Water Rates

| Consumption (gallons) | Charges |
|-----------------------------|-------------------------|
| Minimum Charge | \$27.50 minimum charge |
| 0 to 5,000 | \$1.19/thousand gallons |
| 5,001 to 67,500 | \$2.52/thousand gallons |
| 67,501 to 137,000 | \$3.63/thousand gallons |
| 137,001+ gallons | \$4.54/thousand gallons |
| (effective January 1, 2019) | |

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 concerns about your water utility, please contact the Supervisor of Water Plant Operations, Andrew J Petti III at (516)628-1439, ext. 119 or the Nassau County Department of Health at (516) 227-9692. You can also visit the Village website at <http://bayvilleny.gov/water/> for up to date information. 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 Village Board meetings. They are normally held on the fourth Monday of each month at 7:00 p.m. at the Village Hall.

The Inc. Village of Bayville 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 (800-426-4791) or visit 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, 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 Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

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.

2019 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-August 2017 | ND - 0.44 0.30 ⁽¹⁾ | ug/l | 1.3 | AL = 1.3 | Corrosion of household plumbing systems; Erosion of natural deposits |
| Lead | No | June-August 2017 | ND - 2.9 1.2 ⁽¹⁾ | mg/l | 0 | AL = 15 | Corrosion of household plumbing systems; Erosion of natural deposits |
| Sodium | No | 07/09/19 | 3.8 - 15.6 | mg/l | n/a | No MCL ⁽²⁾ | Naturally occurring |
| Iron | No | 07/09/19 | ND - 29 | ug/l | n/a | MCL = 300 | Naturally occurring |
| Chloride | No | 04/09/19 | 2.8 - 49.5 | mg/l | n/a | MCL = 250 | Naturally occurring |
| Nitrate | No | 09/10/19 | 0.56 - 0.74 | mg/l | 10 | MCL = 10 | Runoff from fertilizer and leaching from septic tanks and sewage |
| Nickel | No | 07/09/19 | ND - 3.5 | ug/l | n/a | MCL = 100 | Naturally occurring |
| Magnesium | No | 07/09/19 | 1.1 - 2.7 | mg/l | n/a | NONE | Naturally occurring |
| Calcium | No | 06/11/19 | 2.6 - 3.2 | mg/l | n/a | NONE | Naturally occurring |
| Barium | No | 06/11/19 | 0.0023 - 0.0029 | mg/l | 2.0 | MCL = 2.0 | Naturally occurring |
| Total Alkalinity | No | 07/09/19 | 10.8 - 13.5 | mg/l | n/a | No MCL | Naturally occurring |
| Calcium Hardness | No | 09/10/19 | 6.4 - 8.7 | mg/l | n/a | No MCL | Naturally occurring |
| Total Hardness | No | 07/09/19 | 10.8 - 18.4 | mg/l | n/a | No MCL | Naturally occurring |
| Total Dissolved Solids (TDS) | No | 07/09/19 | 30.0 - 63.0 | mg/l | n/a | No MCL | Naturally occurring |
| Disinfection By-Products | | | | | | | |
| Total Trihalomethanes (TTHM) ⁽³⁾ | No | 11/19/19 | ND - 1.8 | ug/l | 0 | MCL = 80 | Disinfection By-Products |
| Radionuclides | | | | | | | |
| Gross Alpha | No | 06/11/19 | ND - 0.594 | pCi/L | n/a | MCL = 15 | Naturally occurring |
| Gross Beta | No | 06/11/19 | ND - 1.59 | pCi/L | n/a | MCL = 50 | Naturally occurring |
| Radium 226 & 228 Combined | No | 08/13/19 | 0.403 - 1.01 | pCi/L | n/a | MCL = 5 ⁽⁴⁾ | Naturally occurring |
| Uranium | No | 06/11/19 | ND - 0.297 | ug/l | n/a | MCL = 30 | Naturally occurring |

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).

ppt - parts per trillion

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 2017, the Village collected 24 samples for lead and copper. 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. In our sampling program, the 90th percentile value is the third highest result.

The next round of samples will occur in 2020. 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. Inc. Village of Bayville 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>.

⁽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⁾ - TTHMs include Bromoform, Bromodichloromethane, Chloroform and Dibromochloromethane.

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

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. Please refer to section "Water Quality" and page 3 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 3 wells. The source water assessment has rated all of the wells as having a low susceptibility to potential sources of contamination. However, due to the highly sensitive characteristics of the aquifer, continued vigilance in compliance with water quality protection and pollution prevention programs as well as continued monitoring and enforcement will help to continue to protect groundwater quality.

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

Copies of the Supplemental Data Package, which includes the water quality data for each of our supply wells utilized during 2019, are available at Village Hall located at 34 School Street, Bayville, New York and the local Public Library.

We, at the Inc. Village of Bayville, 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 supply which will improve our way of life and our children's future.

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

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

* - The Village of Bayville tested its drinking water for PFOAs in 2019 due to the situation that occurred in the Village of Hoosick Falls, New York. Well No. 1-1 was tested on 03.19.19, Well 1-3 was tested on 06.04.19 and Well No. 2-1 was tested on 04.09.19. We are pleased to report that PFOA was not detected in our water supply.

** - The Village of Bayville tested its drinking water for 1,4-Dioxane in April and June 2018. We are pleased to report that 1,4-Dioxane was not detected in our water supply.