



2018 Drinking Water Quality Report

GARDEN CITY PARK WATER DISTRICT
PUBLIC WATER SUPPLY IDENTIFICATION NO. 2902825

2018 DRINKING WATER QUALITY REPORT

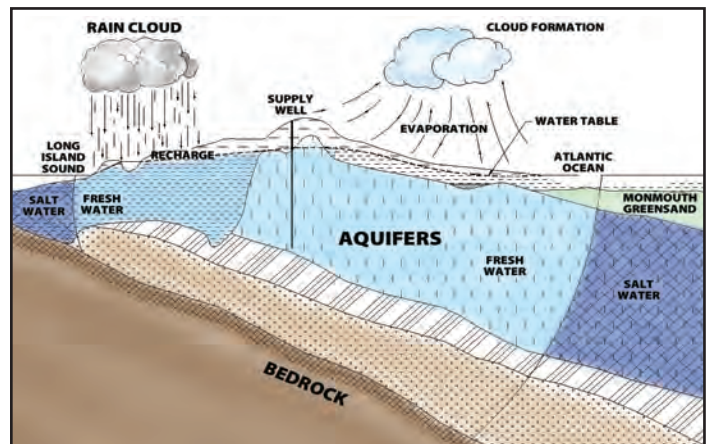
The Garden City Park Water District is pleased to present the 2018 Drinking Water Quality Report. The report is required to be delivered to all residents of our District in compliance with Federal and State regulations. This report is designed to inform you about the quality of water and services we 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 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 the six (6) 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.

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 and the FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.



THE LONG ISLAND AQUIFER SYSTEM

The population served by the Garden City Park Water District during 2018 was 18,000. The total amount of water withdrawn from the aquifer in 2018 was 1.24 billion gallons, of which approximately 91 percent was billed directly to consumers.

WATER TREATMENT

Prior to distribution to the consumer, the Garden City Park Water District provides treatment at all of its wells to improve the quality of the water pumped. 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. An air stripping tower at Plant No. 6 is utilized to treat potable water from Well No. 6 for the removal of volatile organic compounds. Similar treatment facilities are also utilized at Plant Nos. 7/10, 8 and 9. A granular activated carbon filter is used at Well No. 6 and 11 for the removal of volatile organic compounds. The District is also mandated to chlorinate the water supply with small amounts of chlorine. The chlorine disinfects the water to protect against the possibility of bacteria in the water supply.

COST OF WATER

The District utilizes a step billing schedule as shown in the table. The average consumer is being billed at \$1.20 per 1,000 gallons of water used.

QUARTERLY WATER RATES - RESIDENTIAL

Consumption (gallons)	Charges
Up to 10,000	\$1.10/thousand gallons
Over 10,000	\$1.20/thousand gallons
Consumer Rate	\$1.40/thousand gallons

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 2018, the Garden City Park Water District continued to implement a water conservation program in order to minimize any unnecessary water use. The pumpage for 2018 was 1.6 percent less than in 2017. This decrease can most likely be attributed to the cooler and wetter weather in the summer of 2018. The conservation program has been proven to be effective and will remain in effect in 2019.

Consumers should be aware that Nassau County Lawn Sprinkler Regulations of Odd-Even watering days are still in effect. In addition, the District feels it is necessary to impose increased water restrictions which prohibit irrigation between the hours of 6 a.m. and 6 p.m. 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). The District distributes “water conservation” rulers that include conservation tips and a leak estimator. We also distribute “toilet dye packs” that help detect silent toilet bowl leaks. For additional water conservation measures, please refer to the Water District’s annual newsletter.

WATER QUALITY

In accordance with State regulations, the Garden City Park 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. As listed in this newsletter, 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 that 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.

During 2017, the District collected 30 samples for lead and copper testing. 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. Garden City Park 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>.

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).

Water from the Garden City Park Water District has a slightly elevated nitrate level but is well below the maximum contaminant level of 10.0 parts per million. 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 for advice from your health care provider.

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 Garden City Park Water District, please contact Water District Superintendent Michael Levy at (516) 746-3194 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 on the second Wednesday of each month at 4:00 p.m. at the Water District office.

The Garden City Park 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.

The Garden City Park Water District conducts over 10,000 water quality tests throughout the year, testing for over 130 different contaminants which have been undetected in our water supply including:

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

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 Contaminant
Inorganic Contaminants							
Copper	No	July/August 2017	0.01 - 0.088 0.072 ⁽¹⁾	mg/l	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	No	July/August 2017	ND - 5.6 1.7 ⁽¹⁾	ug/l	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits
Manganese	No	07/30/18	ND - 0.62	ug/l	n/a	MCL = 300	Naturally occurring
Barium	No	11/14/18	0.013 - 0.028	mg/l	2.0	MCL = 2.0	Naturally occurring
Ammonia	No	01/17/18	ND - 0.33	mg/l	n/a	NONE	Naturally occurring
Sodium	No	02/05/18	18.2 - 39.9	mg/l	n/a	No MCL ⁽²⁾	Naturally occurring
Iron	No	02/05/18	ND - 39	ug/l	n/a	MCL = 300	Naturally occurring
Fluoride	No	06/04/18	ND - 0.11	mg/l	50	MCL = 2.2	Naturally occurring
Zinc	No	01/17/18	ND - 0.066	mg/l	n/a	MCL = 5	Naturally occurring
Nickel	No	01/17/18	ND - 5.7	ug/l	n/a	No MCL	Naturally occurring
Magnesium	No	06/04/18	9.5 - 17.7	ug/l	n/a	No MCL	Naturally occurring
Chloride	No	02/05/18	ND - 51.0	mg/l	n/a	MCL = 250	Naturally occurring
Calcium	No	06/04/18	16.4 - 28.9	mg/l	n/a	No MCL	Naturally occurring
Nitrate	No	08/20/18	2.1 - 8.3	mg/l	10	MCL = 10	Runoff from fertilizer and leaching from septic tanks and sewage
Nitrite	No	09/10/18	ND - 0.46	mg/l	n/a	MCL = 1.0	Runoff from fertilizer and leaching from septic tanks and sewage
Calcium Hardness	No	06/04/18	37.7 - 72.2	mg/l	n/a	No MCL	Naturally occurring
Total Hardness	No	06/04/18	74.4 - 145.0	mg/l	n/a	No MCL	Naturally occurring
Total Alkalinity	No	06/04/18	15.5 - 101.0	mg/l	n/a	No MCL	Naturally occurring
Total Dissolved Solids (TDS)	No	06/04/18	140.0 - 287.0	mg/l	n/a	No MCL	Naturally occurring
Turbidity	No	06/04/18	ND - 1.0	NTU	n/a	MCL = 5	Naturally occurring
Sulfate	No	11/14/18	25.5 - 48.6	mg/l	n/a	MCL = 250	Naturally occurring
Volatile Organic Contaminants							
Tetrachloroethene	No	11/06/18	ND - 0.62	ug/l	0	MCL = 5	Industrial/Commercial discharge
MTBE	No	11/14/18	ND - 1.3	ug/l	0	MCL = 10	Gasoline Additive
Disinfection By-Products							
Total Trihalomethanes (TTHMs)	No	08/14/18	ND - 7.0	ug/l	n/a	MCL = 80	Disinfection By-Products
Radionuclides							
Gross Alpha	No	08/02/17	ND - 2.31	pCi/L	0	MCL = 15	Naturally occurring
Gross Beta	No	08/02/17	2.92 - 3.95	pCi/L	0	MCL = 50	Naturally occurring
Radium 226 & 228	No	08/02/17	1.04 - 2.25	pCi/L	0	MCL = 5 ⁽³⁾	Naturally occurring
Uranium	No	08/02/17	ND - 1.16	ug/l	n/a	MCL = 30	Naturally occurring
Unregulated Contaminant Monitoring Rule⁽⁴⁾							
1,4-Dioxane	No	01/24/18	0.13 - 9.9	ug/l	n/a	HA = 35	Industrial discharge
Chromium	No	09/02/14	ND - 1.0	ug/l	100	MCL = 100	Natural deposits
Hexavalent Chromium	No	05/27/14	ND - 1.1	ug/l	n/a	No MCL	Natural deposits and Industrial discharge
Strontium	No	05/27/14	77.8 - 86.7	ug/l	n/a	HA = 4000	Naturally occurring
Chlorate	No	04/17/14	ND - 140	ug/l	n/a	No MCL	Naturally occurring
Bromide	No	07/30/18	72.6 - 265.0	ug/l	n/a	No MCL	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.

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.

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 technical guidance to assist Federal, State and local officials.

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 2017, we collected and analyzed 30 samples for lead and copper. The action levels for both lead and copper were not exceeded at any site tested. 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 4th highest result.

⁽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⁾ - MCL for Radium 226 and 228 is a combined total Radium = 5 pCi/L.

⁽⁴⁾ - UCMR3 - Unregulated Contaminant Monitoring Rule 3 is a Federal water quality sampling program where water suppliers sample and test their source water point of entry for 1 year. Results will be used by the USEPA to determine if the contaminants need to be regulated in the future.

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" 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.

Our drinking water is derived from six (6) wells. The source water assessment has rated five (5) of the wells as having a very high susceptibility to industrial solvents and one (1) well with a high susceptibility to nitrates. The elevated susceptibility to industrial solvents and nitrates is due primarily to point sources of contamination related to commercial/industrial facilities and related activities in the assessment area. In addition, the high susceptibility to nitrates is also attributable to unsewered residential land use and related to practices in the assessment area, such as fertilizing lawns.

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

INFORMATION FOR NON-ENGLISH SPEAKING RESIDENTS

Spanish

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

Copies of the Supplemental Data Package, which includes the water quality data for each of our supply wells utilized during 2018, are available at the Garden City Park Water District office which is located at 333 Marcus Avenue, Garden City Park, New York and the local Public Library.

We, at the Garden City Park 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 supply which will improve our way of life and our children's future.



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