

# **Annual Drinking Water Quality Report for 2019**

**Sands Point Water Department  
2 Governor's Lane  
Sands Point, New York  
Public Water Supply ID# 2902852**

**May 2020**

The Sands Point Water Department issues this annual report describing the quality of our water in compliance with Federal and State regulations. The purpose is to inform you of the nature of our drinking water and of the need to protect its sources.

“Contaminant” is defined as any physical, chemical, microbiological or radiological substance or matter in water. In 2019, we conducted tests for over 120 potential contaminants. Low levels of some contaminants were detected, but none exceeded the level mandated by the State. This report details what our water contains and how it compares to State standards.

## **Sources of Water**

Our drinking water comes from water stored in the naturally sandy soil beneath Long Island. This groundwater is stored in three layers called aquifers. The most readily accessible is the Upper Glacial. Directly below is the Magothy followed by the deepest aquifer called the Lloyd. On our "Manhasset Neck" Peninsula there are two smaller aquifers known as the Port Washington Aquifer and the Port Washington Confining Unit. We utilize the Upper Glacial and Port Washington aquifers in delivering water to the system.

In 2019 we utilized six separate wells located on three well fields. Two 500 gallon per minute wells are located on the Village Club property. Two 650 gallon per minute wells are located on the property behind the Village Hall on Tibbits Lane. Two wells are located at the Governor's Lane facility. One well is designed at 600 gallons per minute and the other well produces 350 gallons per minute. Both wells are equipped with iron and manganese filtration systems. During 2019 we had three elevated storage tanks and one ground storage tank in service with a combined capacity of 1,830,000 gallons.

## **Water Treatment**

Our water has long been treated with sodium hydroxide to lessen acidity, thereby reducing corrosivity before it enters the distribution system. Sodium hypochlorite is added to the water to maintain disinfection. The water from Well 6 and Well 8 is pumped from the well and treated with sodium hypochlorite to also enhance the iron and manganese removal process as it passes through the greensand and anthracite filters.

## Water Usage

Our system serves approximately 2900 people with 1667 metered connections. Of those connections, 775 are for underground sprinkler systems. The total water produced in 2019 was 379 million gallons. The daily average of water treated and pumped into the system was 1,038,356 gallons. The average daily use during the Fall/Winter months was 402,132 gallons. **The average daily use during the Spring/Summer months was 1,667,462 gallons.** Our highest single day was 2,818,000 gallons. The amount of water delivered to customers was approximately 339 million gallons. The balance was used for flushing mains, fire fighting, service line leaks, filter back wash, and water main breaks. As an incentive for conservation, the charge for 1000 gallons of water for domestic use begins at \$1.95 and rises to \$4.00. The charge for sprinkler use begins at \$4.40 and rises to \$7.30. Rates for sprinkler and domestic water use increase based on consumption level.

## Water Quality - Analytical Testing Results

The results of detected contaminants, obtained from distribution samples and wells, are listed in Table 1. The highest level of a contaminant that is allowed in drinking water is known as the Maximum Contaminant Level (MCL). There were no samples obtained in 2019 exceeding the maximum contaminant level. Some of the contaminants for which tests were made include: total coliform, inorganic compounds, nitrate, lead and copper, and volatile organic compounds.

Some contaminants are regulated by an Action Level (AL) which, if exceeded, triggers treatment or other requirements by the water regulations. We are specifically required to report detections over certain limits. The MCL for nitrate is 10.0 mg/l (milligrams per liter). In one well sample, we had a nitrate level of 7.0 mg/l. Although the detected level is less than the maximum contaminant level, this level is sufficient to require the following notification:

*Nitrates in drinking water at levels above 10.0 mg/l are a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.*

For lead and copper, the levels shown on Table 1 represent the 9th sample taken out of 10 samples, as required by regulation. The action level for lead is 15(ug/l) micrograms per liter and the action level for copper is 1.3 (mg/l) milligrams per liter. It should be noted that no samples for lead and copper exceeded the action level in 2017. Sampling for lead and copper was not required in 2019. Although we had no violations, we are providing you with the following information on lead in drinking water:

*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. Sands Point Water Department 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).*

All drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

### **Non-Detected Contaminants**

In accordance with local and State regulations, the Sands Point Water Department routinely collects samples from the distribution system and wells for analysis. Contaminants that were analyzed for in 2019, but were **not** detected are listed herein:

Dichlorodifluoromethane, chloromethane, vinyl chloride, bromomethane, chloroethane, trichlorofluoromethane, 1,1-dichloroethene, methylene chloride, trans-1,2-dichloroethene, 1,1-dichloroethane, cis-1,2-dichloroethene, 2,2-dichloropropane, bromochloromethane, 1,1,1-trichloroethane, carbon tetrachloride, 1,1-dichloropropene, 1,2-dichloroethane, trichloroethene, 1,2-dichloropropane, dibromomethane, trans-1,3-dichloropropene, 1,3-dichloropropene, 1,1,2-trichloroethane, tetrachloroethene, 1,3-dichloropropane, chlorobenzene, 1,1,1,2-tetrachloroethane, bromobenzene, 1,1,2,2-tetrachloroethane, 1,2,3-trichloropropane, 2-chlorotoluene, 2/4-chlorotoluene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2,4-trichlorobenzene, hexachlorobutadiene, 1,2,3-trichlorobenzene, benzene, ethylbenzene, m,p-xylene, o-xylene, styrene, isopropylbenzene, n-propylbenzene, 1,3,5-trimethylbenzene, tert-butylbenzene, 1,2,4-trimethylbenzene, 4-isopropyltoluene, sec-butylbenzene, n-butylbenzene, arsenic, beryllium, cadmium, chromium, selenium, silver, antimony, thallium, fluoride, mercury, free cyanide, nitrogen, ammonia (as N), Nitrite as N, turbidity, bromoacetic acid, dichloroacetic acid, and trichloroacetic acid, alachlor, Aldrin, chlordane, dieldrin, endrin, heptachlor, heptachlor epoxide, hexachlorobenzene, hexachlorocyclopentadiene, lindane, methoxychlor, Total PCB's, toxaphene, 2,4,5-TP (Silvex), 2,4-D, dalapon, dicamba, dinoseb, pentachlorophenol, picloram, 3-hydroxycarbofuran, aldicarb, aldicarb sulfone, aldicarb sulfoxide, carbaryl, carbofuran, methomyl, oxamyl, glyphosate, diquat, atrazine, benzo(a)pyrene, bis(2-ethylhexyl)adipate, bis(2-ethylhexyl)phthalate, butachlor, metolachlor, metribuzin, propachlor, simazine, endothall, dioxin, 1,2-dibromo-3-chloropropane, 1,2-Dibromoethane, total coliform, and toluene.

For further details, a 300-page supplement is available for review at the Village Hall of all sampling done in 2019 for wells and the distribution system.

### **Educational Statements**

Some people may be more vulnerable to microorganisms or pathogens in drinking water that cause disease than the general population. Immuno-compromised persons such as those 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 sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, 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 include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemicals; and radioactive contaminants. In order to ensure that tap water is safe, the State and EPA prescribe regulations which limit the amounts of certain contaminants in water provided by the public water systems.

The New York State Dept. of Health, with assistance from the local health department and CDM consulting firm, has completed a source water assessment for Sands Point and Nassau County, based on available information. 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. The source water assessments provide resource managers with additional information for protecting source waters into the future. A copy of the assessment, including a map of the assessment area, can be reviewed at the Village Hall located on Tibbits Lane.

Drinking water is derived from six wells in Sands Point. The source water assessment has rated wells 3 and 4 located at the Village Club Facility as having a high susceptibility to industrial solvents and nitrates. The elevated susceptibility to industrial solvents is due primarily to point sources of contamination related to a commercial/industrial spill site in the assessment area. The elevated susceptibility to nitrates is due to unsewered residential land use and related practices, such as fertilizing lawns, in the assessment area. Although the two wells were rated high for susceptibility, there have been no industrial solvents in the wells. There have been low to moderate levels of nitrates detected in these wells, but no well has exceeded the 10 mg/l level allowed by health standards. These wells have never exceeded the maximum contaminant level for anything.

At the request of the Nassau County Department of Health, we have been asked to inform those residents who have unregulated private wells that the water should not be used for consumption purposes.

### **System Improvements**

The drilling of Test Well 9 located on the south side of the Village Club was completed. The Village's consultant will be submitting water quality and monitoring well data to the NYS Department of Environmental Conservation for review by May 15<sup>th</sup>. The DEC will review the data and will determine if the Village can proceed with a permanent well.

## Water Conservation Measures

We ask that you practice some basic conservation measures so that saltwater does not contaminate our potable water supply here on the peninsula. Consider and think about the waste of a precious resource when watering lawns during and immediately after heavy rain, and by turning on and using irrigation systems in March and April; and leaving systems on in November and December. Proper maintenance of irrigation system heads, rain sensors, control valves, and piping will also save water.

When it rains, turn off the system for a few days or a week. Better yet, take advantage of the \$150.00 rebate being offered by the Village and install a Smart Irrigation Controller. Contact your irrigation company for more details. The days of “set it and forget it” should change for the preservation of the aquifer systems below Sands Point.

**Please do not water your lawns or gardens when it is raining**, or for several days after adequate precipitation. If an effort is made by everyone, we calculate that 50 - 100 million gallons of water could be saved each year.

If you have questions about this report, or concerning your water, please contact Brian Gunderson at 883-3491 or the Nassau County Health Department at 516-227-9692. If you want to learn more, please attend the regularly scheduled Board of Trustee meetings. The meetings are usually held on the 4<sup>th</sup> Tuesday of the month at 8:00 PM at the Village Hall.

*Brian J. Gunderson* \_\_\_\_\_

Brian J. Gunderson  
Superintendent of Public Works

*Daniel Scheyer* \_\_\_\_\_

Daniel Scheyer  
Water Commissioner

**Sands Point Water District - Table 1 – Detected Contaminants Only – DISTRIBUTION & WELLS**

Contaminant	Violation Yes/No	Date of Sample	Maximum Level Detected	Average Level Detected	Range Detected Low-High	Unit Measurement	MCLG	Regulatory Limit (MCL OR AL)	Likely Source of Contamination
<b>Inorganic Contaminants</b>									
Chloride	No	7/16/2019	67.1	25.8	4.9 – 67.1	mg/l	N/A	MCL=250	Naturally occurring
Nitrate	No	3/19/2019	7.00	2.79	<0.050 – 7.00	mg/l	10	MCL=10	Runoff fertilizer, leaching septic tanks
Sulfate	No	10/15/2019	50.0	32.3	10.9 – 50.0	mg/l	N/A	MCL=250	Naturally occurring
Sodium	No	5/15/2019	38.8	17.9	7.7 – 38.8	mg/l	N/A	N/A	Naturally occurring; Road salt
Manganese	No	10/15/2019	0.17	0.02	<0.010 – 0.17	mg/l	N/A	MCL=0.30	Naturally occurring
Magnesium	No	10/15/2019	17.3	9.6	5.6 – 17.3	mg/l	N/A	N/A	Naturally occurring
Calcium	No	10/15/2019	30.1	21.1	13.0 – 30.1	mg/l	N/A	N/A	Naturally occurring
Iron	No	10/15/2019	0.021	0.010	<0.020 – 0.021	mg/l	N/A	MCL=0.30	Naturally occurring
Barium	No	10/15/2019	0.055	0.030	0.017 – 0.055	mg/l	2	MCL=2	Erosion of natural deposits
Zinc	No	10/15/2019	0.020	0.002	<0.020 – 0.020	mg/l	N/A	MCL=5	Naturally occurring
Nickel	No	10/15/2019	0.0099	0.002	<0.0005 – 0.0099	mg/l	N/A	N/A	Corrosion of household plumbing
Perchlorate	No	10/15/2019	1.6	0.2	<1.0 – 1.6	ug/l	N/A	MCL=18	Oxygen additive in solid fuel propellant for rockets, missiles and fire works
<b>Lead and Copper</b>									
Copper (3)	No	9/13/2017	0.20*	0.12	<0.02 - 0.23	mg/l	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives
Lead (3)	No	9/13/2017	3.5*	1.1	<1.0 – 3.7	ug/l	0	AL=15	Corrosion of household plumbing systems; Erosion of natural deposits
<b>Disinfection By-products</b>									
Total Trihalomethanes	No	9/9/2019	6.9	0.74	<0.50 – 6.9	ug/l	N/A	MCL=80	By-product of drinking water chlorination
Total Haloacetic Acid	No	9/9/2019	2.0	2.0	2.0 – 2.0	ug/l	N/A	MCL=60	By-product of drinking water chlorination
<b>Organic Contaminants</b>									
Bromoform	No	9/9/2019	2.0	0.10	<0.50 – 2.0	ug/l	N/A	MCL=50	By-product of drinking water chlorination
Bromodichloromethane	No	9/9/2019	3.0	0.16	<0.50 – 3.0	ug/l	N/A	MCL=50	By-product of drinking water chlorination
Dibromochloromethane	No	5/14/2019	1.7	0.08	<0.50 – 1.7	ug/l	N/A	MCL=50	By-product of drinking water chlorination
Chloroform	No	9/9/2019	1.9	0.40	<0.50 – 1.9	ug/l	N/A	MCL=50	By-product of drinking water chlorination
Methyl-tert-butyl ether	No	12/3/2019	0.52	<0.50	<0.50 – 0.52	ug/l	N/A	MCL=10	Was an additive to gasoline
<b>Radioactive Contaminants (4)</b>									
Gross Alpha	No	10/23/2018	0.934	0.327	-0.007 – 0.934	pCi/L	0	MCL=15	Erosion of natural deposits
Gross Beta (1)	No	10/23/2018	1.400	0.942	-0.077 – 1.400	pCi/L	0	MCL=50	Erosion of natural deposits
Combined Radium 226 & 228 (2)	No	10/23/2018	1.312	0.848	0.568 – 1.312	pCi/L	0	MCL=5	Erosion of natural deposits

<b>Synthetic Organic Contaminants</b>									
DCPA (Dacthal)	No	3/19/2019	15.3	3.8	<1.0 – 15.3	ug/l	N/A	MCL=50	Degradation of a herbicide
<b>Emerging Contaminants (UCMR 3)</b>									
1,4 – Dioxane (a)	No	3/19/2019	0.073	0.03	<0.02 – 0.073	ug/l	N/A	MCL=50	Released into the environment through its use as a solvent and in textile processing, printing processes and detergent preparations
<b>PFAS (b)</b>									
Perfluorooctanoic acid (PFOA)	No	12/30/2019	9.2	3.80	<1.8 – 9.2	ng/l	N/A	MCL=50,000	These compounds have been used to make carpets, leathers, textiles, fabrics for furniture, and other materials that are resistant to water, grease, or stains. These have been used in firefighting foams at airfields.
Perfluorooctanesulfonic acid (PFOS)	No	12/30/2019	3.3	0.80	<1.8 – 3.3	ng/l	N/A	MCL=50,000	
Perfluorohexanesulfonic acid	No	11/19/2019	5.2	2.0	<1.8 – 5.2	ng/l	N/A	MCL=50,000	
Perfluoroheptanoic acid	No	10/15/2019	3.9	1.3	<1.8 – 3.9	ng/l	N/A	MCL=50,000	
Perfluorobutanesulfonic acid	No	12/30/2019	2.7	0.40	<1.9 – 2.7	ng/l	N/A	MCL=50,000	
<b>Physical Characteristics</b>									
Calcium Hardness	No	10/15/2019	70	53	33 - 70	mg/l	N/A	N/A	Naturally occurring
Total Hardness	No	10/15/2019	139	92	56 - 139	mg/l	N/A	N/A	Naturally occurring
Total Alkalinity	No	5/14/2019	118	70	55 – 118	mg/l	N/A	N/A	Naturally occurring
Total Dissolved Solids	No	5/14/2019	267	173	94 - 267	mg/l	N/A	N/A	Naturally occurring

(1) The State Health Department considers 50 pCi/L to be the level of concern for beta particles.

(2) There is no separate MCL for Radium 226 and Radium 228. The combined MCL is 5 picocuries/L

(3) Sampling for Lead and Copper was not required in 2019

(4) Sampling results are from 2017, no samples were taken in 2019

(a) 1,4 Dioxane: The New York State (NYS) proposed MCL for 1,4 dioxane is 1 part per billion (ppb).

(b) The US Environmental Protection Agency has established a lifetime health advisory (HAL) of 70 parts per trillion (ppt) for PFOA and PFOS combined. The New York State (NYS) proposed MCL is 10 ppt for PFOA and 10 ppt for PFOS.

pCi/L – Picocuries per liter - A measure of the radioactivity in water.

There were no detections of microbiological contaminants of Total Coliform in the wells or treated water during 2019

\*The levels shown represent the 90<sup>th</sup> percentile of the sites tested. **90<sup>th</sup> 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 90<sup>th</sup> percentile is equal or greater than 90% of the Lead and Copper values detected in our system.

ng/l – nanograms per liter – corresponds to one part of liquid in one trillion parts of liquid. (Parts for trillion-ppb)

ug/l – Micrograms per liter - corresponds to one part of liquid in one billion parts of liquid (parts per billion-ppb)

mg/l -milligrams per liter. – corresponds to one part of liquid in one million parts of liquid. (Parts per million -ppm)

**MCL** – Maximum Contaminant Level – The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**MCLG** – Maximum Containment Level Goal – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG allow for a margin of safety.

**MRDL**- Maximum Residual Disinfection Level – 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.

**MRDLG** – Maximum Residual Disinfection Goal – 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.

**Action Level (AL)** – The concentration of a contaminant which if exceeded triggers treatment or other requirements which a water system must follow.

**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.

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PORT WASHINGTON, NEW YORK 11050-0109

## Annual Drinking Water Quality Report for 2019

WATER COMMISSIONER:  
DANIEL SCHEYER

WATER SUPERINTENDENT:  
BRIAN J. GUNDERSON

### **Chapter 168. WATER**

§ 168-20. Accessibility and maintenance of curb boxes and water meter pits.

A. Curb boxes to be accessible and at ground level. Curb boxes must be at all times accessible and level with the ground surface. Where the elevations of the ground surface have been changed after the curb box has been installed and the curb box is either too high or too low, the consumer must immediately raise or lower the curb box to the new grade. Failure to alter the curb box promptly will result in the water supply being shut off until the work is done, and a turnoff and turn-on charge will be made to cover the labor and expense by the Village resulting from the consumer's neglect. (See §§ **168-48** and **168-49**.)

B. Water meter pits to be accessible and maintained. All water meter pits shall be free of vegetation and debris. Meter pits must be accessible so that the meters can be read. Water meter pits shall be maintained and kept in good repair by the property owner.