Annual Drinking Water Quality Report for 2018

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

May 2019

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 2018, 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 addition, due to the Port Washington Water District replacing their elevated water storage tank on Longview Road, both Sands Point and Port Washington Water supplied water to the South Road Elevated Tank owned by the Village of Sands Point. At times both water suppliers filled the South Road Tank and supplied water to residents on both systems. You can review the full Annual Water Quality Report for the Port Washington Water District at www.pwwd.org.

In 2018 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 2018 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 1652 metered connections. Of those connections, 733 are for underground sprinkler systems. The total water produced in 2018 was 360 million gallons. The daily average of water treated and pumped into the system was 984,908 gallons. The average daily use during the Fall/Winter months was 362,706 gallons. **The average daily use during the Spring/Summer months was 1,596,966 gallons**. Our highest single day was 2,672,960 gallons. The amount of water delivered to customers was approximately 342 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 748 gallons of water for domestic use begins at $1.45 and rises to $3.00. The charge for sprinkler use begins at $3.30 and rises to $5.50. 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 2018 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 7.1 mg/l. Although the detected levels are less than the maximum contaminant level, they are 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 2018. 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.

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 2018, but were **not** detected are listed herein:

Dichlorodifluoromethane, chloromethane, vinyl chloride, bromomethane, chloroethane, trichlorofluoromethane, 1,1-dichloroethene, methylene chloride, trans-1,2-dichoroethene, 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, methyl tert-butyl ether, 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 perchlorate.

For further details, a 300-page supplement is available for review at the Village Hall of all sampling done in 2018 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.

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.

A copy of the assessment, including a map of the assessment area, can be reviewed at the Village Hall located on Tibbits Lane.

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 Water Department building located on Governors Lane is scheduled to be upgraded by adding a new roof and repairing the mortar joints and coping. New windows will be installed; and interior upgrades will include new carpet and light fixtures.

South Road and Preserve elevated water tanks are in the process of being cleaned inside and out. Rusted areas will be repaired and painted.

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 4th Tuesday of the month at 8:00 PM at the Village Hall.

Brian J. Gunderson
Superintendent of Public Works

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
Inorganic Contaminants									
Chloride	No	5/8/2018	73.3	25.5	4.8 – 73.3	mg/l	N/A	MCL=250	Naturally occurring
Nitrate	No	7/17/2018	7.10	2.72	<0.050 – 7.10	mg/l	10	MCL=10	Runoff fertilizer, leaching septic tanks
Sulfate	No	10/16/2018	49.2	34.1	10.2 – 49.2	mg/l	N/A	MCL=250	Naturally occurring
Sodium	No	5/8/2018	68.9	26.1	7.0 – 68.9	mg/l	N/A	N/A	Naturally occurring; Road salt
Manganese	No	10/16/2018	0.044	0.014	<0.010 – 0.044	mg/l	N/A	MCL=0.30	Naturally occurring
Magnesium	No	10/16/2018	16.4	10.9	5.6– 16.4	mg/l	N/A	N/A	Naturally occurring
Calcium	No	5/8/2018	30.5	22.5	12.3– 30.5	mg/l	N/A	N/A	Naturally occurring
Iron	No	1/23/2018	0.06	<0.02	<0.02 – 0.06	mg/l	N/A	MCL=0.30	Naturally occurring
Barium	No	5/8/2018	0.049	0.032	0.014 – 0.049	mg/l	2	MCL=2	Erosion of natural deposits
Zinc	No	10/16/2018	0.031	<0.020	<0.020 – 0.031	mg/l	N/A	MCL=5	Naturally occurring
Nickel	No	10/16/2018	0.0100	0.0030	<0.0005 – 0.0100	mg/l	N/A	N/A	Corrosion of household plumbing
Lead and Copper									
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
Disinfection By-products									
Total Trihalomethanes	No	9/10/2018	11.3	3.1	<0.50– 11.3	ug/l	N/A	MCL=80	By-product of drinking water chlorination
Total Haloacetic Acid	No	9/10/2018	2.3	1.2	<2.0 – 2.3	ug/l	N/A	MCL=60	By-product of drinking water chlorination
Organic Contaminants									
Bromoform	No	1/23/2018	3.1	<0.50	<0.50 – 3.1	ug/l	N/A	MCL=50	By-product of drinking water chlorination
Bromodichloromethane	No	9/10/2018	2.9	<0.50	<0.50 – 2.9	ug/l	N/A	MCL=50	By-product of drinking water chlorination
Dibromochloromethane	No	1/23/2018	2.8	<0.50	<0.50 – 2.8	ug/l	N/A	MCL=50	By-product of drinking water chlorination
Chloroform	No	9/10/2018	2.4	<0.50	<0.50 – 2.4	ug/l	N/A	MCL=50	By-product of drinking water chlorination
Toluene	No	1/23/2018	0.7	<0.50	<0.50 – 0.7	ug/l	N/A	MCL=5	Leaks from gasoline tanks; discharge from petroleum Factories. Leaching of solvent from lining of potable water tanks
Radioactive Contaminants									
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

Synthetic Organic Compounds									
DCPA-mono and di-acids	No	3/14/2018	18.1	4.9	<1.0 – 18.1	ug/l	N/A	MCL=50	Degradation of a herbicide
Unregulated Contaminant									
1,4 – Dioxane (4)	No	3/28/2017	0.086	<0.070	<0.070 – 0.086	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
Physical Characteristics									
Calcium Hardness	No	5/8/2018	76	56	31 – 76	mg/l	N/A	N/A	Naturally occurring
Total Hardness	No	5/8/2018	139	101	54 – 139	mg/l	N/A	N/A	Naturally occurring
Total Alkalinity	No	5/8/2018	132	82	53 – 132	mg/l	N/A	N/A	Naturally occurring
Total Dissolved Solids	No	5/8/2018	331	190	83 – 331	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 2018
(4) Sampling results are from 2017, no samples were taken in 2018

pCi/L – Picocuries per liter - A measure of the radioactivity in water.
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 Contaminant Level Goal -The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
AL- Action Level -The concentration of a contaminant which if exceeded, triggers treatment or other requirements which a water system must follow.
Mg/l -milligrams per liter. – corresponds to one part of liquid in one million parts of liquid. (Parts per million -ppm)
Ug/l – Micrograms per liter - corresponds to one part of liquid in one billion parts of liquid (parts per billion-ppb)

There were no detections of microbiological contaminants of Total Coliform in the wells or treated water during 2018
*The levels shown represent the 90th percentile of the sites tested.

CROSS CONNECTION CONTROL PROGRAM

The New York State Department of Health requires that **all** back-flow prevention devices be inspected and tested annually to insure continued reliability.

The purpose of these back-flow prevention devices is to protect the Village water supply from contaminants. Failure or malfunction of the check valves in the back-flow device may result in the return of pesticides, lawn fertilizers, pool chemicals, or other contaminants into the Village water mains in the event of a sudden drop in the system pressure. You must comply in accordance with New York State Health Department rules and regulations (Chapter 1, Part 5, Section 5-1.31 of the State Sanitary Code).

We would appreciate your cooperation in this matter; you must have your back-flow devices tested before July 1, 2019. Homeowners who do not comply by the deadline indicated may be subject to a $250.00 fine per device and/or the shut-off of the service line to their lawn sprinkler system. Fines will be issued after July 15, 2019 for non-compliance.

PLEASE NOTE: There are numerous homes in the Village that have two back-flow devices installed. One is for the domestic service; the other is for the sprinkler system. If you have two devices, both must be tested. Most complaints the Sands Point Water Department receives about inadequate water pressure is a direct result of the lack of testing and maintenance of the back-flow device on the domestic service. Please have both devices tested and serviced.

We ask that you consider installing a Smart Irrigation Controller. These systems will save water by monitoring the weather and adjusting the hours, days and amount of water applied to your landscaping based on precipitation. Sands Point Water Department has seen tremendous water savings by residents that installed these controllers.

If you have any questions, please call Water Department at 883-3491.

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Water Quality Report for 2018

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