WEST NECK WATER DISTRICT
A Municipal Shelter Island Water System
P.O. Box 970
Shelter Island, NY 11964

June 2020

Dear Customers,

It is the start of summer, unlike what we have ever known before. Many of us will be weeding and admiring our iris and peonies. What we should also be thinking about is water. If you've been paying attention to the SIReporter, especially the March 5th issue, you know that the Island leadership is thinking, and talking, water. Often, there has been a reference to our District as a guide for addressing the Island water problems, either by the creation of new such districts or adopting the conservation measures mandated by our Rules and Regulations. And that is the purpose of this letter.

Over the years, especially recently, when we have been blessed with abundant rainfall, some of us have been lax in observing those mandates. There are even soaker hose systems peeking out around plants and bushes. At one time, these hoses were considered conservation friendly but they are NOT. Some customers have found out the hard way when an extremely high water bill arrives and no one knows why. Soaker hoses are a likely culprit which is why you may see a neighbor pulling his up. Once discovered, some dismantling has been required by the Building Department. You should do the same if, indeed, you have put them in.

Since the District's creation, the only approved means of watering is by hand-held hose. NOT approved is any automatic watering system whether a soaker hose or a sprinkler or something on a timer. This is difficult for new plantings but it is doable.

In John Hallman's yearly report, enclosed, he always includes water conservation methods. One we should always keep in mind is the use of "gray" water. It is only a little trouble to have a watering can or pail nearby to pour that water into; you just need to plan. And mulch is always advised, the thicker the layer the better.

So we hope you have a wonderful and safe summer!

Sincerely,
Your District Board of
Directors

Annual Drinking Water Quality Report for 2019

WEST NECK WATER DISTRICT
TOWN OF SHELTER ISLAND
BOX 970
SHELTER ISLAND, NY 11964

(Public Water Supply ID# 5110623)

INTRODUCTION

To comply with State regulations, West Neck Water District, will be issuing an annual report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, we conducted tests for over 80 contaminants. We detected 8 of those contaminants, and found none of those contaminants at a level higher than the State allows. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

If you have any questions about this report or concerning your drinking water, please contact John W. Hallman, Plant Operator at 631 749-0195. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled Water District Board meetings. The meetings will be held July 25, 2020, October 31, 2020, January 30, 2021 and April 24, 2021, all starting at 9:00 a.m, at the Shelter Island Town Hall.

WHERE DOES OUR WATER COME FROM?

In general, 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 which 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.

Our water system serves 195 people through 63 residential connections, and 7 commercial connections. Our original water sources are three wells at the water plant located behind the Tuck Shop and the Augustin house on West Neck Road. Due to the poorer quality of the water in these wells, they are used infrequently. Our main wells are the two wells located near the 3rd tee of the Shelter Island Country Club. These wells are used 95% of the time as the water quality is far superior and we can generate more water from these wells. After the water is pumped out of the well, we treat it with disinfectant (chlorine) to protect you against microbial contaminants. We also add soda ash to raise the pH of the water to make it less corrosive on the system piping and your household plumbing. Finally, we add a poly-phosphate to sequester any iron or manganese that is commonly found in Long

Island water, prior to distribution. Due to the higher quality of the water from the new wells, fewer chemicals are needed. Last year we pumped 5.223 million gallons of water.

The New York State Department of Health has completed a source water assessment for this system, based on available information. Known and possible contamination sources to this drinking water source were evaluated. The state source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily 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 "Are there contaminants in our drinking water?" for a list of the contaminants that have been detected (if any). The source water assessments provide resource managers with additional information for protecting source water in the future. As mentioned before, our water is derived from 3 wells behind the Tuck Shop, and 2 wells on the golf course. The source water assessment has rated the three wells as having a high susceptibility to industrial solvents, and microbials. Please note that our water is disinfected to ensure that the finished water delivered into your home meets New York State's drinking water standards for microbial contamination. Also be advised that the state has not done a source water assessment for the two wells located on the golf course.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiological and synthetic organic compounds The table presented below depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

It should be noted that all drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that 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) or the Suffolk County Health Department at 631 852-5810

Table of Detected Contaminants

Contaminant	Sample Date	MCL Violation Y/N	Level Detected	Units measured	MCLG	MCL	Likely Source of Contamination
Nitrate (1)	1/30-10/23/19	N	2.78-5.97	mg/L	10	10	Runoff from fertilizer use: leaching from septic tanks, sewage; erosion of natural deposits
Sodium (2)	4/24//19	N	45.35	mg/L	N/A	No MCL	Naturally occurring; road salt; water softeners; animal waste
Iron (3)	7/24/19	Y	<.1-0.435	mg/L	N/A	0.3	Naturally occurring
Manganese(4)	7/24/19	N	<.1-0.021	mg/L	N/A	0.3	Naturally occurring
Sulfates	7/24/19	N	7.25-15.6	Mg/L	N/A	250	Naturally occurring
Hexavalent Chromium (5)	10/21/19	N	0.08-0.28	µg/L	N/A	100	Anti-corrosion coating, pigments in dyes, paints, inks, plastics, wood preservative
Chloroform	8/22/17	N	1.23	µg/L	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains organic matter
Bromodichloromethane	8/22/17	N	2.25	µg/L	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains organic matter
Dibromochloroethane	8/22/17	N	2.85	µg/L	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains organic matter
Bromoform	8/22/17	N	1.25	µg/L	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains organic matter
Lead (6)	August 2018	N	<.720-.1.7	ug/L	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Copper(7)	August 2018	N	.075 - .502	mg/L	1.3	AL=1.3	Corrosion of household plumbing systems, erosion of natural deposits

Contaminants	Violation (Yes/No)	Date of Sample	Level Detected	Unit Measurement	MCLG	Regulatory Limit (MCL or AL)	Likely Source of Contaminant
Perfluorohexane sulfonic Acid (PFHxS)	No	12/17/18	**2.28**	ng/L	N/A	MCL = 50000	*PFOA (or, PFOS) can get into drinking water through releases from fluoropolymer manufacturing or processing facilities, wastewater treatment plants, and landfills."*
Perfluorooctanesulfonic acid (PFOS)	No	12/17/18	**5.66**	ng/L	N/A	HA = 70	
Perfluorooctanoic Acid (PFOA)	No	12/17/18	**4.48**	ng/L	N/A	HA = 70	
Perfluorobutanesulfonic Acid (PFBS)	No	12/17/18	**13.4**	ng/L	N/A	MCL = 50000	

HA –United States Environmental Protection Agency (USEPA) Health Advisory of 70 nanograms per liter (ng/L) is for PFOS and PFOA combined.

Nanograms per liter (ng/l) - Corresponds to one part of liquid in one trillion parts of liquid (parts per trillion - ppt).

Notes:

(1) Nitrate in drinking water at levels above 10 mg/L is 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 for advice from your health care provider. Also be advised, that well 3 is rarely used during the year. Our main supply wells are numbers 5 and 6, with Well #4 used as a backup during busy summer weekends.

(2) Water containing more than 20 mg/L of sodium should not be used for drinking by people on severely restricted sodium diet. Water containing more the 270 mg/L of sodium should not be used for drinking by people on moderately restricted sodium diet.

(3 Iron is a common metal and a dietary mineral that is essential for maintaining human health. It is used in construction materials, in drinking water pipes, in paint pigments and plastics, and as a treatment for iron deficiency in humans. Iron can be elevated in drinking water in areas where there are high concentrations of iron in soil and rocks, and where iron salts are used in the water treatment process. Iron can also get into drinking water from corrosion of cast iron, steel and galvanized iron pipes used for water distribution. Elevated levels of iron in water can result in a rusty color and sediment, a metallic taste and reddish or orange staining. Although iron is essential for good health, too much iron can cause adverse health effects. For example, oral exposure to very large amounts of iron can cause effects on the stomach and intestines (nausea, vomiting, diarrhea, constipation and stomach pain). These effects occur at iron exposure levels higher than those typically found in drinking water, and usually diminish once the elevated iron exposure is stopped. A small percentage of people have a condition called hemochromatosis, in which the body absorbs and stores too much iron. People with hemochromatosis may be at greater risk for health effects resulting from too much iron in the body (sometimes called "iron overload") and should be aware of their overall iron intake., The New York State standard for iron in drinking water is 0.3 milligrams per liter, and is based on the effects of iron on the taste, odor and appearance of the water.

(4) Manganese is a common element in rocks, soil, water, plants, and animals. Manganese occurs naturally in water after dissolving from rocks and soil.. Contamination of drinking water may occur if manganese gets into surface or groundwater after dissolving from rocks and soil. It may also occur if manganese gets into surface or groundwater after improper waste disposal in landfills or by facilities using manganese in the production of steel or other products. Manganese is an essential nutrient that is necessary to maintain good health. However, exposure to too much manganese can cause adverse health effects. There is some evidence from human studies that long-term exposure to manganese in drinking water is associated with nervous system effect in adults (e.g. weakness, stiff muscles and trembling of the hands) and children (learning and behavior). The results of these studies only suggest an effect because the possible influences of other factors were not adequately assessed. There is supporting evidence that manganese causes nervous system effects in humans from occupational

studies of workers exposed to high levels of manganese in air, but the relevance of these studies to long term drinking water exposure is less clear because the exposures were quite elevated and by inhalation, not by ingestion

(5) Hexavalent chromium was sampled by the Health Department and showed traces of the mineral.

(6) The level presented represents the 90th percentile of the 5 sites tested. 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 copper values detected at our water system. In this case, five samples were collected at our water system and the 90th percentile value was the average of the highest sample (<.001) and value of the second highest sample (<.001) which was <.001 mg/L, well below the action level of .015 mg/l.

(7) _ The level presented represents the 90th percentile value of the five samples collected. In this case, five samples were collected at our water system and the 90th percentile value was the average of the highest sample (.55) and the value of the second highest sample (.37) which equaled .46 mg/L, also well below the action level of 1.3 mg/L.

Lead and copper samples are required to be done every three years. These samples represent the samples that were taken in 2018. We will be resampling for lead and copper in year – 2021.

The contaminants from Chloroform through Bromoform are all byproducts of chlorination. These results are well below Standards, we just have to list them because they were detected. On a good note, MTBE, (ter.butyl Methyl Ether, the additive that was put in gasoline), was not detected in any of our wells in 2019.

Notes for (2), is included because it was detected, well below the MCLs. Shelter Island is surrounded by salt water and is usually the cause of chlorides and sodium.

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 Disinfectant 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 Disinfectant 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 contamination.

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

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Non-Detects (ND): Laboratory analysis indicates that the constituent is not present.

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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).

Nanograms per liter (ng/l): Corresponds to one part of liquid to one trillion parts of liquid (parts per trillion - ppt).

Picograms per liter (pg/l): Corresponds to one part per of liquid to one quadrillion parts of liquid (parts per quadrillion – ppq).

Picocuries per liter (pCi/L): A measure of the radioactivity in water.
Millirems per year (mrem/yr): A measure of radiation absorbed by the body.
Million Fibers per Liter (MFL): A measure of the presence of asbestos fibers that are longer than 10 micrometers.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, West Neck Water District had no violations, but we have learned through our testing that some contaminants have been detected: however, these contaminants were detected below New York State requirements. Although nitrate was detected below the MCL, it was detected at 5.97 mg/L in Well number 3, which is greater than one-half of the MCL.

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. West Neck Water 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.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards.

During 2019, our system was in compliance with all applicable State drinking water operating, other monitoring and reporting requirements.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

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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). However, we do not test for Cryptosporiduim or Giardia as they are not present in our wells

WHY SAVE WATER AND HOW TO AVOID WASTING IT?

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- Saving water saves energy and some of the costs associated with both of these necessities of life;
- Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers; and
- Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions.

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.

CLOSING

2019 was a very unusual year. Rainfall was 55 inches, which is 15 inches more than a good normal average 40 inches per year. What does this do for us? The aquifer under Shelter Island benefits as it replenishes the drinking water supply that had suffered by the lack of rainfall in the previous years. But we ask that you conserve water whenever possible. Your West Neck Water District Board is continually looking for ways to upgrade the system without major outlays from you, the consumer.

The Board is planning for the drilling and installation of a new well on the golf course (Town) property. We were told by the Suffolk County Health Department that Wells 2 and 3 are no longer permitted as they are suction wells. These wells have only been used sparingly over the years and Well #2 has been capped and no longer in use. Well #3 will only be used during emergencies. We have gotten the approval of the Suffolk County Health Department to drill test wells in four locations on the golf course, for this next step. We have gotten bids for this work and will have more hurdles in the future to contend with.

We are continuing to replace water meters with new meters as needed. The old meters are past their prime and as they age, the meters slow down and do not reflect the actual amount of water being used. We expect to replace those meters on the lower east end of the district first.

Thank you for allowing us to continue to provide your family with quality drinking water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. We ask that all our customers help us protect our water sources, which are the heart of our community. Please call our office if you have questions.

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