

2021 drinking water quality report

SMITHTOWN WATER DISTRICT
TOWN OF SMITHTOWN

PUBLIC WATER SUPPLY IDENTIFICATION NO. 5105656

ANNUAL WATER SUPPLY REPORT

SPRING 2022

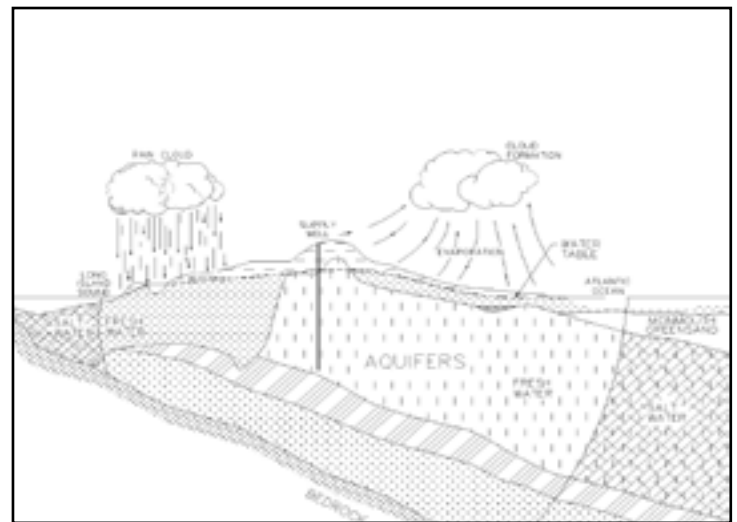
The Smithtown Water District is pleased to present to you this year's Water Quality Report. The report is required to be delivered to all residents of our district in compliance with Federal and State regulations. Our goal is to provide you with safe and dependable supply of drinking water everyday. We also want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. The Board of Water Commissioners and District employees are committed to ensuring that you and your family receive the highest quality of water.

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 concerning your drinking water, please contact Superintendent Christopher Nustad at the Smithtown Water District at (631) 269-9202. If you want to learn more, please attend any of our regularly scheduled Board of Water Commissioners meetings. Please call this office for a schedule of meetings and locations.

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 USEPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the USEPA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

All of the water the District supplies you comes from beneath the ground and is referred to as groundwater. Your water is stored beneath the ground in a sandy geological formation known as the Aquifer System. Water in the Aquifer System originates as precipitation, which slowly percolates down through the soil. There are three primary formations that lie one on the other to make up the Long Island Aquifer System. These formations in order are: Glacial – which contains the newest water to the groundwater system, Magothy – this is the largest of the three formations and holds the most water, most of it being hundreds of years old and Lloyd – which is a largely untapped layer, containing the oldest water, some that has been held in the system more than 5,000 years. The depth of the Long Island Aquifer System is approximately 600 feet on the north shore, and approximately 2,000 feet on the south shore. Most of our drinking water comes from the Glacial and Magothy formations.



THE LONG ISLAND AQUIFER SYSTEM

The Smithtown Water District purchases its water from the Suffolk County Water Authority (SCWA). SCWA maintains over 500 public supply wells throughout Suffolk County. We have ten (10) interconnections with Suffolk County Water Authority where water supplied by SCWA enters our distribution system. During 2021, our system did not experience any restriction of our water service.

The Smithtown Water District was organized in 1948 as a municipal water district, and serves about 20,601 people through 5,880 connections. We have about 84 miles of water main, and 583 fire hydrants (which are painted red and silver). The total amount of water withdrawn in 2021 was 952.2 million gallons, of which approximately 97% was billed directly to the customers. Most of the non-revenue for water was used in water main flushing, fire fighting, and water main breaks. The District utilizes a unit price billing schedule with the consumer being billed at \$2.56 per 1,000 gallons with a quarterly base fee of \$27.58 plus a \$20 per quarter water treatment charge. Water bills are mailed quarterly.

Although our drinking water met or exceeded State and Federal regulations, 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 healthcare 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).

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, bacteria, turbidity, inorganic compounds, nitrate, nitrite, 26 metals including lead and copper, 85 volatile organic compounds, total trihalomethanes, and synthetic organic compounds which include 22 pesticides. The table of detected contaminants describes compounds that were detected in your drinking water. We have also tested for other contaminants that were not found in your drinking water. A complete list can be obtained from our office. The State allows us to test for some contaminants less than once a year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than a year old.

SCWA provides treatment at all 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 about 7.2 to reduce corrosive action between the water and water mains and in-house plumbing by the addition of lime (calcium hydroxide). Chlorine is also added to the water for disinfecting purposes.

The hardness of our water is considered low (soft). We average 36ppm. Hardness expressed as calcium carbonate (CaCO₃), increases the consumption of soap.

SCWA provides the water for quality test results by distribution area as well as by individual well. The Smithtown Water District conducts water quality testing from the distribution system.

It should be noted that all drinking water, including bottled drinking water, may reasonably be 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 (1-800-426-4791) or the Suffolk County Health Department at (631) 852-5810 or www.epa.gov/safewater.

ADDITIONAL TESTING

The District was not required to take radiological samples. Also, because of past testing, Suffolk County has been waived from testing for the following SOCs and Pesticides; Aldicarb, Aldicarb sulfone, Aldicarb sulfoxide, Carbaryl, Carbofuran, 3-hydroxycarbofuran, methomyl, oxamyl, alachlor, aldrin, chlordane, dieldrin, enfrin, heptachlor, heptachlor epoxide, lindane, methoxychlor, dibromochloropropane, and ethylene dibromide.

Every three years we are required to perform lead and copper water sampling from specific houses. Houses are chosen according to the NYS Health Department regulations. There are no houses with lead services in our District, so houses were chosen from those built just before the lead solder ban went into effect in the Town of Smithtown (1982). We thank those houses that participate in the testing program. In our 2019 sampling program, no samples exceeded the lead Action Level Limit of 15 ug/L (ppb) and no samples exceeded the copper Action Level Limit of 1.3 mg/L (ppm). In 2019, the 90th percentile result for lead was 1.5 ppb, and for copper it was 0.20 ppm. The range for lead was ND (not detectable) to 9.5 ppb. The range for copper was ND to 0.22 ppm.

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. The Smithtown Water District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your drinking water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your 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>.

2021 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 2019	ND -0.22 0.20 ⁽¹⁾	mg/l	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	No	July 2019	ND -9.5 1.5 ⁽¹⁾	ug/l	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits
Barium	No	03/09/21	0.0083 - 0.027	mg/l	2	MCL = 2.0	Naturally occurring
Sodium	No	07/20/21	10.0 - 17.7	mg/l	n/a	No MCL ⁽²⁾	Naturally occurring
Color	No	03/09/21	ND - 5.0	Units	n/a	MCL = 15	Naturally occurring
Chloride	No	03/09/21	15.9 - 61.9	mg/l	n/a	MCL = 250	Naturally occurring
Nitrate	No	03/09/21	2.8 - 3.9	mg/l	10	MCL = 10	Runoff from fertilizer and leaching from septic tanks and sewage
pH	No	07/20/21	6.8 - 7.3	pH Units	n/a	n/a	Measure of water acidity or alkalinity
Calcium Hardness	No	07/20/21	47.2 - 60.9	mg/l	n/a	No MCL	Naturally occurring
Total Hardness	No	07/20/21	60.4 - 75.8	mg/l	n/a	No MCL	Naturally occurring
Specific Conductance	No	03/09/21	185 - 277	umhos/cm	n/a	No MCL	Naturally occurring
Chlorate	No	08/13/21	83.4 - 94.2	ug/l	n/a	No MCL	By-Product of chlorination
Synthetic Organic Contaminants Including Pesticides and Herbicides							
None Detected	--	--	--	--	--	--	--
Disinfection By-Products							
Chloroform	No	08/10/21	0.99 - 3.99	ug/l	n/a	MCL = 80 ⁽⁴⁾	Disinfection by-products
Dibromochloromethane	No	08/10/21	0.93 - 2.8	ug/l	n/a	MCL = 80 ⁽⁴⁾	Disinfection by-products
Bromodichloromethane	No	08/10/21	0.74 - 3.6	ug/l	n/a	MCL = 80 ⁽⁴⁾	Disinfection by-products
Bromoform	No	08/10/21	ND - 0.79	ug/l	n/a	MCL = 80 ⁽⁴⁾	Disinfection by-products
Total Trihalomethanes (THMs)	No	08/10/21	2.7 - 11.1	ug/l	n/a	MCL = 80 ⁽⁴⁾	Disinfection by-products
Dichloroacetic Acid	No	08/10/21	ND - 1.2	ug/l	n/a	MCL = 60 ⁽⁵⁾	Disinfection by-products

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).

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 2019, the District collected 33 samples for lead and copper. The 90% level is presented in the table as the maximum result. The next round of samples will occur in 2022. 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. Smithtown 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>

⁽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⁾ - Iron is essential for maintaining good health. However, too much iron can cause adverse health effects. Drinking water with very large amounts of iron can cause nausea, vomiting, diarrhea, constipation and stomach pain. These effects usually diminish once the elevated iron exposure is stopped. A small number 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 300 micrograms per liter, and is based on iron's effects on the taste, odor and color of the water.

⁽⁴⁾ - MCL of 80 is for total sum of Total Trihalomethanes (THMs).

⁽⁵⁾ - MCL of 60 is for total sum of five different Haloacetic Acids.

WHY SAVE WATER AND HOW TO AVOID WASTING IT

In 2021, the Smithtown Water District continued to implement a water conservation program in order to minimize any unnecessary water use. Residents of the District can implement their own water conservation measures such as retrofitting plumbing fixtures with flow restrictors, adding rain sensors to automatic lawn sprinklers, and by installing water saving toilets. We also ask consumers to repair leaks, install water conservation fixtures and maintain a constant awareness of water conservation in their personal habits.

Automatic sprinkler systems draw a tremendous amount of water. We ask you to refrain from watering between the hours of 4am and 8am and run only every third day. This will help alleviate problems of low pressure during peak morning hours. Sprinklers might have to run more often during July and August, and much less during the spring and fall.

WATER SYSTEM INFORMATION

The Smithtown Water District spends some money each year upgrading the infrastructure. We also put some money away each year so major renovations will not affect the overall budget. We own all fire hydrants, and rent them to the fire districts. We are on call 24/7. Our staff attends educational seminars each year to keep pace with the increasing standards imposed on the water industry, and are members of the Long Island Water Conference and American Water Works Association.

MCL DEFERRAL

When a public water system (PWS) is issued a deferral, the water system agrees to a schedule for corrective action and compliance with the new PFOS, PFOA or 1,4-dioxane MCLs. In exchange, the New York State Department of Health (the Department) agrees to defer enforcement actions, such as assessing fines, if the PWS is meeting established deadlines. Deferral recipients are required to update the Department and the Suffolk County Department of Health Services each calendar quarter on the status of established deadlines. The Department can resume enforcement if the agreed upon deadlines are not met. We purchase water from a PWS (Suffolk County Water Authority) that is currently operating under a deferral. Information about that system's deferral and established deadline can be found at: <https://www.scwa.com/emerging-contaminants/>. Their deferral public notification can be found at:

[https://www.scwa.com/assets/1/6/Deferral_Public_Notification_Suffolk_County_Water_Authority_FINAL_\(008\).pdf](https://www.scwa.com/assets/1/6/Deferral_Public_Notification_Suffolk_County_Water_Authority_FINAL_(008).pdf)

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