South Farmingdale Water District

Over 85 years of Commitment to Quality Water

2022 DRINKING WATER QUALITY REPORT

Public Water Supply Identification No. 2902854

2022 Drinking Water Quality Report



The South Farmingdale 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. This report is designed to inform you about the quality 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 every day. 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 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 11 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 radiological 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's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health. The population served by the South Farmingdale Water District during 2022 was approximately 44,500. The total amount of water withdrawn from the aquifer in 2022 was 1.828 billion gallons, of which approximately 82.7 percent was billed directly to consumers.



The Long Island Aquifer System

Water Treatment

The South Farmingdale Water District 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 reduce corrosive action between the water and water mains and in-house plumbing by the addition of sodium hydroxide. South Shore wells (including those of the South Farmingdale Water District) have high iron in the raw well water. Iron is an aesthetic problem and is not health related. The District sequesters the iron by the addition of Aqua-Mag (linear chain phosphate) to keep the iron in solution and prevent the staining of laundry and plumbing fixtures. The District also operates six (6) iron removal treatment facilities at Plant Nos. 1, 2, 3, 4, 5 and 6, three (3) air strippers at Plant Nos. 1 and 3 for Well Nos. 1-3, 1-5 and 3-1, one (1) Advanced Oxidation Process (AOP) system for the removal of 1,4-Dioxane at Well No. 3-1, and one (1) granular activated carbon treatment system to remove 1,1-Dichloroethane (1,1-DCA) and a trace of Perfluorooctanoic Acid (PFOA) from Well No. 5-1 at Plant No. 5. The raw water concentration of both 1,1-dichloroethane (1,1-DCA) and PFOA is below the maximum contaminant level, but the District treats 1,1-DCA and PFOA to a concentration below the detection limits. The District completed the construction of air strippers in the event volatile organic contaminants impact Well Nos. 1-3, 1-5 and 3-1. The District also adds small amounts of sodium hypochlorite (chlorine) as a disinfecting agent and to prevent growth of bacteria in the water distribution system. The District has a Capital Improvement Program which includes an Advanced Oxidation Process (AOP) system at Plant No. 6 for the removal of 1,4-Dioxane, currently in the planning phase.

New York State Mandatory Health Advisory

appropriate means to lessen the risk of infection by Cryptosporidum, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (1-800-426-4791).

During 2021, the District collected 31 samples for lead and copper. The next round of samples will occur in 2024. If present, elevated levels of lead can cause serious health problems, especially for

Some people may be more vulnerable to disease-causing mi- pregnant women, infants, and young children. It is possible that croorganisms or pathogens in drinking water than the general lead levels at your home may be higher than at other homes in the population. Immuno-compromised persons such as individuals with community as a result of materials used in your home's plumbing. cancer undergoing chemotherapy, persons who have undergone South Farmingdale Water District is responsible for providing high organ transplants, people with HIV/AIDS or other immune system quality drinking water, but cannot control the variety of materials disorders, some elderly and infants can be particularly at risk from used in plumbing components. When your water has been sitting infections. These people should seek advice from their health for several hours, you can minimize the potential for lead exposure care provider about their drinking water. EPA/CDC guidelines on 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.



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 2022, the South Farmingdale Water District continued to implement a water conservation program in order to minimize any unnecessary water use. The pumpage for 2022 was 9.1 percent more than in 2021. This can be attributed to a warm, dry summer.

Residents of the District can also implement their own water conservation measures such as retrofitting plumbing fixtures with flow restrictors, modifying automatic lawn sprinklers to include rain sensors, repairing leaks in the home, installing water conservation fixtures/ appliances and maintaining a daily awareness of water conservation in their personal habits. In addition, consumers should be aware that the Nassau County Lawn Sprinkler Regulations are still in effect. 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).

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 concerning your water utility, please contact Water District Superintendent Frank Koch, P.E. at (516) 249-3330 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 the second and fourth Tuesday of each month at 4:30 p.m. at the Water District office. The South Farmingdale Water District routinely monitors for different parameters and 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 constituents. It's important to remember that the presence of these constituents 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 or visit www.epa.gov/safewater.

The South Farmingdale 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:

Cadmium Chromium Copper Fluoride Lead Mercury Langlier Saturation Index Silver Zinc Turbidity Manganese Nitrite Nitrate Detergents (MBAS) Free Cyanide Antimony Beryllium Thallium Perchlorate Lindane Heptachlor Aldrin Perfluorodecanoic Acid Perfluoro-3-Methoxypropanoic Acid Perfluoropentanoic Acid Perfluorotridecanoic Acid HFPO-DA 6:2FTS Acetone Heptachloro Epoxide Dieldrin Endrin Methoxychlor Toxaphene Chlordane Total PCBs Propachlor Alachlor Simazine Atrazine Metolachlor

Metribuzin Butachlor 2,4-D 2,4,5-TP (Silvex) Dinoseb Dalapon Picloram Dicamba Pentachlorophenol Hexachlorocyclopentadiene bis(2-Ethylhexyl)adipate bis(2-Ethylhexyl)phthalate Hexachlorobenzene Benzo(A)Pvrene Aldicarb Sulfone Aldicarbsulfoxide Aldicarb Total Aldicarbs Oxamyl Methomyl 3-Hydroxycarbofuran Carbofuran Carbaryl Glyphosate Diquat Endothall 1,2-Dibromoethane (EDB) Perfluorododecanoic Acid Perfluoro-4-Methoxybutanoic Acid Perfluoropentanesulfonic Acid NEtFOSSA NFDHA 8:2FTS 1,1,2-Trichlorotrifluoroethane 1,2-Dibromo-3-Chl.Propane Dioxin Chloroacetic Acid Bromoacetic Acid Dichloroacetic Acid Trichloroacetic Acid

Dibromoacetic Acid

Total Haloacetic Acid Chloroform Bromodichloromethane Dibromochloromethane Bromoform Gross Alpha Gross Beta Radium 226 Radium 228 Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane Chlorodifluoromethane 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 Perfluoro(2-ethoxyethane)sulfonic Acid Perfluoroundecanoic Acid **NMeFOSSA** 11Cl-PF64dS ADONA 4:2FTS Acetone cis-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 4-Chlorotoluene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 124-Trichlorobenzene Hexachlorobutadiene 1.2.3-Trichlorobenzene Benzene Toluene Ethylbenzene M,P-Xylene O-Xylene Styrene Isopropylbenzene (Cumene) N-Propylbenzene 1,3,5-Trimethylbenzene Tert-Butylbenzene 1,2,4-Trimethylbenzene Sec-Butylbenzene 4-Isopropyltoluene (P-Cumene) N-Butylbenzene Methyl Tert.Butyl Ether (MTBE) Perfluorobutanesulfonic acid Perfluoroheptanoic acid Perfluorononanoic acid Perfluorohexanesulfonic acid Perfluorooctanesulfonic acid Perfluorooctanoic acid Perfluorobutanoic Acid Perfluoro-1-heptanesulfonic Acid Perfluorohexanoic Acid Perfluorotetradecanoic Acid 9CL-PF3ONS

2022 Drinking Water Quality Report - Table of Detectable Parameters

Cantanianta	Violation	Dete of Second	Level Detected	Unit	MGLC	Regulatory Limit	Likely Source
Contaminants	(Yes/No)/	Date of Sample	(Maximum Range)	Measurement	MCLG	(MCL or AL)	of Contaminant
Lead & Copper - Residential Sampling 2021							
Copper	No	July/August 2021	0.0082-0.15 0.11 ⁽¹⁾	mg/l	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	No	July/August 2021	ND - 3.5 ND ⁽¹⁾	ug/l	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits
Inorganic Contaminants							·
Arsenic	No	05/26/22	ND - 1.1	ug/l	0	MCL = 10	Naturally occurring
Barium	No	04/19/22	ND - 0.014	mg/l	2	MCL = 2	
Iron	No	06/06/22	ND - 140.0	ug/l	n/a	MCL = 300 ⁽²⁾	
Sodium	No	10/12/22	1.9 - 31.5	mg/l	n/a	No MCL ⁽³⁾	
Color	No	04/20/22	ND - 9.0	Units	n/a	MCL = 15	
Odor	No	05/06/22	ND - 2.0	Units	n/a	MCL = 3	
Magnesium	No	04/19/22	ND - 3.0	mg/l	n/a	No MCL	
Chloride	No	04/19/22	3.9 - 56.2	mg/l	n/a	MCL = 250	
Nickel	No	04/19/22	1.1 - 14.0	ug/l	n/a	No MCL	
Calcium	No	04/19/22	ND - 7.6	mg/l	n/a	No MCL	
Bromide	No	05/06/22	ND - 0.080	mg/l	0	No MCL	
Sulfate	No	05/06/22	ND - 15.7	mg/l	n/a	MCL = 250	
Selenium	No	05/05/22	ND - 5.1	ug/l	50	MCL = 50	Discharge from petroleum
Phosphorus	No	08/10/22	ND - 0.28	mg/l	n/a	No MCL	Runoff from fertilizer
Ammonia (Nitrogen)	No	05/26/22	ND - 0.22	mg/l	n/a	No MCL	Runoff from fertilizer and leaching from septic tanks and sewage
Disinfection By-Products Stage - 2		1					
Total Trihalomethanes	No	08/05/22	ND - 1.8	ug/l	n/a	MCL = 80	Disinfection by-products
Radionuclides		1					
Gross Alpha	No	06/09/20	ND - 2.09	pCi/L	0	MCL = 15	Erosion of natural deposits
Gross Beta	No	06/08/20	ND - 3.04	pCi/L	0	MCL = 50	Decay of natural deposits and man- made emissions
Radium 226 & 228	No	06/01/20	0.6 - 1.872	pCi/L	0	MCL = 5 ⁽⁴⁾	Erosion of natural
Total Uranium	No	06/09/20	ND - 1.05	ug/l	0	MCL = 30	deposits
Disinfectant							
Chlorine Residual	No	Continuous	0.48 - 1.32	mg/l	n/a	MRDL = 4.0	Disinfection chemical
Physical Characteristics							
рН	No	Continuous	7.0 - 8.2	pH units	n/a	7.5 - 8.5 ⁽⁵⁾	Measure of acidity or alkalinity
Total Dissolved Solids	No	05/05/22	63.9 - 154.0	mg/l	n/a	No MCL	
Total Hardness	No	08/10/22	ND - 15.9	mg/l	n/a	No MCL	Naturally occurring
Calcium Hardness	No	05/06/22	1.0 - 7.2	mg/l	n/a	No MCL	
Total Alkalinity	No	05/06/22	26.0 - 36.2	mg/l	n/a	No MCl	
Synthetic Organic Contaminants (SOCs)							
1.4-Diovane	No	10/12/22	ND - 0 19	ug/l	n/a	$MCI = 1.0^{(6)}$	Industrial discharge ⁽⁷⁾
Unregulated Contaminant Monitoring Rule (TICMR4) ⁽⁸⁾	10/12/22	110 0.19	ug/i	ii/u	MCL 1.0	industriar discharge
Management Containing Monitoring Pare	N	05/05/21	0.01 0.012			M(2) = 200(2)	Naturella a surrige
wangallese	1N0	05/05/21	0.01 - 0.013	ug/1		WICL = 300(-)	ivaturany occurring
НАА5	No	10/08/19	0.36 - 3.05	ug/l	n/a	MCL = 60	- Disinfection By-Products
HAA6Br	No	10/08/19	ND - 0.99	ug/l	n/a	No MCL	
HAA9	No	10/08/19	0.36- 3.35	ug/l	n/a	No MCL	
Chlorate	No	08/17/22	107.0 - 142.0	ug/l	0	No MCL	
Hexavalent Chromium	No	02/08/22	ND - 0.23	ug/l	0	No MCL	Natural deposits

Definitions:

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. 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. MRDLG - 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 - The level of a disinfectant allowed in drinking water is no known or expected risk to health. MDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants. MIBLIG - The level of a disinfectant so 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).

Definitions Continue

Nanograms per liter (ng/l) - Corresponds to one part of liquid in one trillion parts of liquid (parts per trillion - ppt) Non-Detects (ND) - Laboratory analysis indicates that the constituent is not present.

Non-products (Intro) - Laboratory analysis indicates that the construction is not present. <u>PC//L</u> (b) Curies per Liter is a measure of radioactivity in water. <u>N/A (Not Available)</u> - No value assigned by regulatory authories. (1) - During 2021, we collected and analyzed 31 samples for lead and copper. The action levels for both lead and copper were not exceeded at any site tested. The next sampling program for lead and copper will be conducted in 2024. 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. ^(a) - If from and Manganese are present, the total concentration of both should not exceed 500 ug/l. Higher levels may be allowed by the State when justified by the supplier of water.

^(II) - 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

(4) -MCL for Radium is for Radium 226 and Radium 228 combined.

As per Nassau County Department of Health guidelines
A 1,4-Dioxane -The New York State (NYS) established an MCL for 1,4 dioxane at 1 part per billion(ppb) on August 26, 2020.

n - It is used as a solvent for cellulose formulations, resins, oils, waxes and other organic substances. It is also used in wood pulping, textile processing, degreasing, in lacquers, paints, varnishes, and stains; and in paint and varnish removers I - UCMR - Unregulated Contaminant Monitoring Rule - UCMR is a Federal water quality sampling program where water suppliers sample and test their source water for several years. Results will be used by the USEPA to determine if the contaminant Non-test and the several years.

Cost of Water

The District utilizes the following daily step billing schedule for residential and commercial accounts:

Daily Water Rates (For 5/8, 3/4 and 1-inch meters)

Consumption (gallons)	Charges
First 66.6666	\$0.00353405 (min. charge)
Next 155.5555	\$0.00230423
Next 111.1111	\$0.00275625
Next 111.1111	\$0.00319725
Remaining	\$0.00390285

Source Water Treatment

The NYSDOH, with assistance from the local health department and the CDM consulting firm, 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. See the section entitled "Table of Detected Parameters" 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 11 wells. The source water assessment has rated all but one (1) of the wells as having a very high susceptibility to industrial solvents and 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 elevated susceptibility to nitrates is also due to residential land use and related practices, such as fertilizing lawns, in the assessment area.

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

Water **Ouality**

In accordance with State regulations, the South Farmingdale 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, synthetic organic contaminants and radiological contaminants. 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 were detected in your drinking water. 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 affects.

Copies of a Supplemental Data Package, which includes the water quality data for each of our supply wells utilized during 2022, are available at the South Farmingdale Water District office located at 40 Langdon Road, Farmingdale, New York and the Farmingdale Public Library.

We at South Farmingdale Water District work around the clock to provide high quality water to every tap throughout the community. We ask that all our customers help us protect our water resources, which are the heart of our community, our way of life and our children's future.