2023 drinking water quality report

FRANKLIN SQUARE WATER DISTRICT
PUBLIC WATER SUPPLY IDENTIFICATION NO. 2902822

ANNUAL WATER SUPPLY REPORT

MAY 2024

To keep our customers up-to-date on the quality of our drinking water the Franklin Square Water District is pleased to present this year's Water Quality Report. New York State and the EPA set regulations for drinking water quality and indicate the levels of various substances that are acceptable in public drinking water. This report explains how our water supply compares to the standards that the State and the EPA have developed.

Our constant goal is to provide you with a safe and dependable supply of drinking water every single day. The Board of Water Commissioners and the District employees are committed to ensuring that you and your family receive the highest quality water.

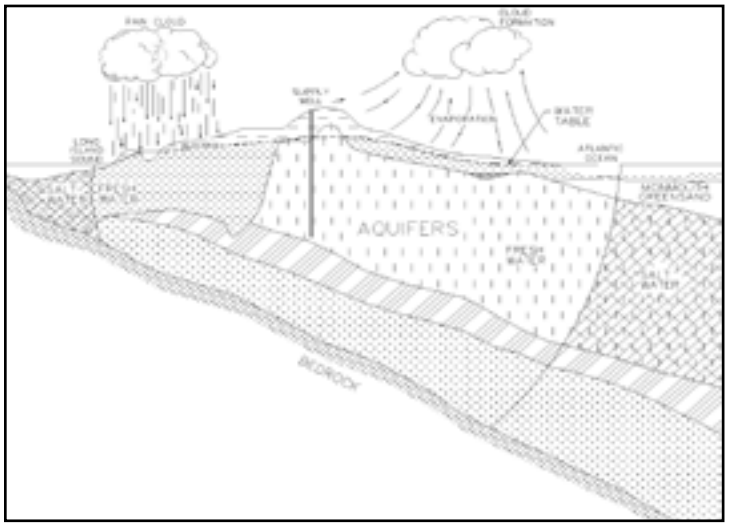
WHERE DOES OUR WATER COME FROM?

We have five (5) wells located throughout our community that pump water out of the Magothy aquifer which is located beneath the land surface of Long Island as shown in the adjacent drawing. Aquifers are underground layers of porous rock and sand that store about 50 percent of the rain and snow that fall on Long Island. Generally, the water quality of the aquifers in Franklin Square is excellent.

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 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 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 within the Franklin Square Water District during 2023 was approximately 20,000 people served across over 5,162 services. The total amount of water withdrawn from the aquifer during the year was 710.6million gallons.



THE LONG ISLAND AQUIFER SYSTEM

WATER CONSERVATION MEASURES

The underground water system of Long Island has more than enough water for present water demands. However, saving water can reduce your water bill and most importantly will ensure that our future generations will have a safe and abundant water supply.

We would like to thank the residents who have begun implementing water conservation measures in their homes. We hope that making some small changes continues as the trend in 2024 and years to come. Some of the steps that can be made to conserve water are:

- Check for and repair leaks in the home. A slow drip can waste 15 to 20 gallons a day!
- Replace showerheads, faucets and toilets with water-saving devices or retrofitting existing plumbing fixtures with flow restrictors.
- Try to maintain an awareness of personal and family habits that can lead to water conservation. For example, don't let the faucet run when it isn't in use!
- Modify automatic lawn sprinklers to include rain sensors and don't forget - Nassau County Lawn Sprinkler Regulations are still in effect.

But we aren't leaving all conservation efforts to the consumers. The Franklin Square Water District has been implementing our own water conservation measures. In 2023, we continued to implement a water conservation program in order to minimize any unnecessary water use. The pumpage for 2023 was approximately the same compared to 2022. This was most likely due to the similar weather conditions in 2023 and 2022. We will remain dedicated to implementing water conservation measures at our wells and throughout the distribution system. Additional education material are available at the District office.

WATER QUALITY FACTS

In accordance with State regulations, the Franklin Square Water District routinely monitors your drinking water for numerous parameters. We test your drinking water for coliform bacteria, turbidity, inorganic contaminants, lead and copper, nitrates, volatile organic contaminants, 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 effects.

Some people may be more vulernable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as person 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).

During 2023, the District collected 30 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 2026. 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. Franklin Square 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.

The District implements several measures to protect the quality of water. One of these measures is maintaining an active backflow prevention program where plumbing devices are installed on water services to prevent the backflow of any contaminant into the distribution system. The District requires all residents with automatic sprinkler systems to maintain a backflow device. Please contact the District office for the District's backflow requirements.

WHAT TYPE OF WATER TREATMENT DO WE PROVIDE?

The Franklin Square Water District provides treatment at all wells to improve the quality of the water pumped prior to distribution to the consumer. The pH of groundwater is normally a bit low, so to reduce any corrosion in water mains and in-house plumbing, sodium hydroxide is added to the water to raise the pH.

The District utilizes packed tower aeration, advanced oxidation process, and granular activated carbon for treatment. All four of the District's production wells utilize packed tower aeration treatment for volatile organic compounds. Well Nos. 4 and 5 also utilize advanced oxidation process and granular activated carbon for treatment of 1,4-dioxane and perfluorinated compounds. Well No. 3 was not utilized into the system during the 2023 calendar year.

The District also adds small amounts of sodium hypochlorite to the water as a disinfection agent.

PUBLIC INFORMATION AND PARTICIPATION

If you have any questions about this report or about your water supply, the following contacts and resources are available to you:

- Water District Superintendent John Hughes at (516) 354-0780.
- Nassau County Department of Health at (516) 227-9692.
- All our residents are welcome to attend any of our regularly scheduled meetings. They are normally held on the first, second, third and fourth Tuesday of each month at 5:30 p.m. at the Water District office.

The Franklin Square 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. If you would like to find more information on contamination and potential health risks, you can contact:

- USEPA Safe Drinking Water Hotline at (800-426-4791).
- Website addresses for EPA (www.epa.gov/safewater) and/or NYSDOH (www.health.state.ny.us).

CAPITAL IMPROVEMENT PROGRAM

The District is currently constructing a new granular activated carbon treatment system to treat perflurorinated compounds at the Schroeter Avenue plant site (Well Nos. 1 & 2). We are happy to report that it received a New York State Water Infrastructure Improvement Act (WIIA) grant in the amount of $3.645 million (approximately 60% of the total project cost) to offset the costs to the Water District's constituents. The construction project is expected to be completed by the end of 2024. This capital improvement project will help ensure that the residents of the Franklin Square Water District will have the highest quality and reliable drinking water for decades to come.

2023 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	June - August 2023	0.01 - 0.15 0.062[1]	mg/l	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	No	June - August 2023	ND - 1.2 ND[1]	ug/l	0	AL = 15	
Barium	No	08/01/23	ND - 0.0025	mg/l	n/a	MCL = 2.0	Naturally occurring
Sodium	No	08/01/23	9.8 - 12.7	mg/l	n/a	No MCL[2]	
Chloride	No	08/01/23	19.5 - 22.1	mg/l	n/a	MCL = 250	
Iron	No	08/01/23	ND - 0.057	mg/l	n/a	MCL = 300[3]	
Sulfate	No	08/01/23	11.1 - 24.9	mg/l	n/a	MCL = 250	
Magnesium	No	07/05/23	3.8 - 4.2	mg/l	n/a	None	
Nickel	No	08/01/23	ND - 0.00088	ug/l	n/a	MCL = 100	
Calcium	No	08/01/23	6.2 - 8.2	mg/l	n/a	No MCL	
Nitrate	No	02/14/23	ND - 2.1	mg/l	10	MCL = 10	Runoff from fertilizer and leaching from septic tanks and sewage
Perchlorate	No	08/01/23	ND - 7.2	ug/l	n/a	AL = 18[4]	Oxygen additive in solid fuel propellant for rockets, missles and fireworks
Disnfection By-Products							
Bromodichloromethane	No	07/11/23	ND - 1.4	ug/l	n/a	MCL = 80	Disinfection By-Products
Bromoform	No	07/11/23	ND - 1.3	ug/l	n/a	MCL = 80	Disinfection By-Products
Chloroform	No	07/11/23	ND - 0.51	ug/l	n/a	MCL = 80	Disinfection By-Products
Dibromochloromethane	No	07/11/23	ND - 1.4	ug/l	n/a	MCL = 80	Disinfection By-Products
Total Trihalomethanes (TTHMs)	No	07/11/23	ND - 4.2	ug/l	n/a	MCL = 80	Disinfection By-Products
Radionuclides							
Gross Alpha	No	07/05/23	0.157 - 1.36	pCi/L	n/a	MCL = 50	Naturally occurring
Radium 226 & 228	No	07/05/23	1.31 - 2.14	pCi/L	n/a	MCL = 5[5]	
Uranium	No	07/05/23	0.0785 - 0.68	ug/l	n/a	MCL = 30	
Synthetic Organic Contaminants (SOCs)							
1,4-Dioxane	No	01/03/23	ND - 0.22	ug/l	n/a	MCL = 1.0[6][7]	Industrial discharge
Perfluorooctanesulfonic Acid (PFOS)	No	04/04/23	ND - 5.5	ng/l	0	MCL = 10	Released into the environment from widespread use in commercial and industrial applications
Perfluorooctanoic acid (PFOA)	No	10/03/23	ND - 2.3	ng/l	0	MCL = 10	
Disinfectants							
Chlorine Residual	No	Continuous	0.6 - 1.5	mg/l	n/a	MRDL = 4.0	Measure of disinfectant
Disinfection By-Products							
Chlorate	No	01/03/23	93.4	ug/l	n/a		
Physical Characteristics							
pH	No	Continuous	7.4 - 8.1	pH units	n/a	7.5 - 8.5[8]	Measure of acidity or alkalinity
Calcium Hardness	No	08/01/23	15.6 - 20.2	mg/l	n/a	No MCL	Naturally occurring
Total Alkalinity	No	08/01/23	5.5 - 6.1	mg/l	n/a	No MCL	
Total Hardness	No	08/01/23	32.3 - 37.2	mg/l	n/a	No MCL	
Total Dissolved Solids (TDS)	No	08/01/23	97.0 - 134.0	mg/l	n/a	No MCL	

2023 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
Unregulated Contaminant Monitoring Rule - Phase 4 (UCMR4)[9]							
Manganese	No	10/15/19	3.5 - 69.4	ug/l	n/a	MCL = 300[3]	Naturally occurring; indicative of landfill contamination
HAA6Br	No	04/16/19	0.91 - 1.67	ug/l	n/a	No MCL	Disinfection By-Products
HAA9	No	04/16/19	1.23 - 2.07	ug/l	n/a	No MCL	Disinfection By-Products
2-methoxyethanol	No	04/16/19	ND - 0.47	ug/l	n/a	No MCL	Industrial solvent
2-propen-1-ol	No	04/16/19	ND - 1.1	ug/l	n/a	No MCL	Laboratory chemical

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).
Nanograms per liter (ng/l) - Corresponds to one part of liquid in one trillion parts of liquid (parts per trillion - ppt).
Maximum Residual Disinfectant Level (MRDL) - The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
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 2023, we collected and analyzed 30 samples for lead and copper. The action levels for lead and copper was not exceeded at any site tested. Retesting is required in 2026. 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.
[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] - If iron and manganese are present the total concentration of both should not exceed 500 ug/l.
[4] Perchlorate is an unregulated contaminant. However, the NYS Dept. of Health has established an action level of 18.0 ug/l.
[5] - MCL for Radium is for Radium 226 and Radium 228 combined.
[6] - 1,4-Dioxane -The New York State (NYS) established MCL for 1,4-Dioxane at 1 part per billion(ppb) effective August 2020.
[7] - 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.
[8] - As per, Nassau County Department of Health guidelines.
[9] - UCMR - Unregulated Contaminant Monitoring Rule is a Federal water quality sampling program in which water suppliers sample and test their source water for a designated period during 2015-2020. The USEPA will use the results in determining whether the contaminants need to be regulated in the future.

COST OF WATER

The District bills its consumers at a billing rate of $34.00 per quarter for the first 9,000 gallons and $3.40 per additional 1,000 gallons. Of the 710.6 million gallons that was withdrawn, approximately 93.0 percent was billed directly to the consumers. The typical District resident pays less than $1 per day for water. We are sure you will agree that your water bill is by far the cheapest of all your utility bills.

SOURCE WATER ASSESSMENT

The NYSDOH, with assistance from the local health department, 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 section "Water Quality Facts" 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.

As mentioned before, our water is derived from five (5) wells. The source water assessment has rated the wells as having a very high susceptibility to industrial solvents and a high susceptibility to nitrates. The elevated susceptibility to industrial solvents is due primarily to point sources of contamination related to transportation routes, and commercial/ industrial facilities and related activities in the assessment area. The elevated susceptibility to nitrates is due to residential land use and related practices, such as fertilizing lawns, as well as the commercial/industrial activities in the assessment area. The District routinely monitors for these contaminants and treats the water if elevated levels are found to meet all NYSDOH requirements for drinking water.

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

The Franklin Square Water District conducts over 7,500 water quality tests throughout the year, testing for over 130 different contaminants which have been undetected in our water supply including:

Arsenic	Alachlor	Dioxin	1,1,1,2-Tetrachloroethane
Cadmium	Simazine	Chloroacetic Acid	Bromobenzene
Chromium	Atrazine	Bromoacetic Acid	1,1,2,2-Tetrachloroethane
Fluoride	Metolachlor	Dichloroacetic Acid	1,2,3-Trichloropropane
Mercury	Metribuzin	Trichloroacetic Acid	2-Chlorotoluene
Langlier Saturation Index	Butachlor	Dibromoacetic Acid	4-Chlorotoluene
Selenium	2,4-D	Total Haloacetic Acid	1,2-Dichlorobenzene
Silver	2,4,5-TP (Silvex)	Dichlorodifluoromethane	1,3-Dichlorobenzene
Zinc	Dinoseb	Chloromethane	1,4-Dichlorobenzene
Color	Dalapon	Vinyl Chloride	1,2,4-Trichlorobenzene
Turbidity	Picloram	Bromomethane	Hexachlorobutadiene
Odor	Dicamba	Chloroethane	1,2,3-Trichlorobenzene
Manganese	Pentachlorophenol	Trichlorofluoromethane	Benzene
Ammonia	Hexachlorocyclopentadiene	Chlorodifluoromethane	Toluene
Nitrite	bis(2-Ethylhexyl)adipate	Methylene Chloride	Ethylbenzene
Chloride	bis(2-Ethylhexyl)phthalate	Trans-1,2-Dichloroethene	M,P-Xylene
Detergents (MBAS)	Hexachlorobenzene	1,1-Dichloroethane	O-Xylene
Free Cyanide	Benzo(A)Pyrene	cis-1,2-Dichloroethene	Styrene
Antimony	Aldicarb Sulfone	2,2-Dichloropropane	Isopropylbenzene (Cumene)
Beryllium	Aldicarbsulfoxide	Bromochloromethane	N-Propylbenzene
Thallium	Aldicarb	1,1,1-Trichloroethane	1,3,5-Trimethylbenzene
Lindane	Total Aldicarbs	Carbon Tetrachloride	Tert-Butylbenzene
Heptachlor	Oxamyl	1,1-Dichloropropene	1,2,4-Trimethylbenzene
Aldrin	Methomyl	1,2-Dichloroethane	Sec-Butylbenzene
Perfluorodecanoic Acid	3-Hydroxycarbofuran	1,2-Dichloropropane	4-Isopropyltoluene (P-Cumene)
Perfluoro-3-Methoxypropanoic Acid	Carbofuran	Dibromomethane	N-Butylbenzene
Perfluoropentanoic Acid	Carbaryl	Trans-1,3-Dichloropropene	Methyl Tert.Butyl Ether (MTBE)
Perfluorotridecanoic Acid	Glyphosate	Perfluoro(2-ethoxyethane) sulfonic Acid	Perfluorobutanesulfonic acid
HFPO-DA	Diquat	Perfluorododecanoic Acid	Perfluoroheptanoic acid
6:2FTS	Endothall	NMeFOSSA	Perfluorononanoic acid
2,3,5,6-Tetrafluorobenzaldehyde	1,2-Dibromoethane (EDB)	11Cl-P3ONS	Perfluorohexanesulfonic acid
Crontonaldehyde	Perfluoroundecanoic Acid	ADONA	Perfluorobutanoic Acid
Heptanal	Perfluorohexanoic Acid	4:2FTS	Perfluoro-1-heptansulfonic Acid
Pentanal	Perfluoropentanesulfonic Acid	Acetone	Perfluoro-4-Methoxybutanoic Acid
Chlorite	NEtFOSSA	Benzaldehyde	Perfluorotetradecanoic Acid
Valeri Acid	NFDHA	Formaldehyde	9CL-PF3ONS
Dimethipin	8:2FTS	Octanal	Bromide
Tebuconazole	1,1,2-Trichlorotrifluoroethane	Acetic Acid	Butanal
o-Toluidine	Acetaldehyde	Formic Acid	Glyoxal
2-Propen-1-OL	Decanal	Chlorpyrifos	Methy Glyoxal (2-Oxopropanal or Pyruvic Aldehyde
2-Butanone (MEK)	Nonanal	Oxyfluorfen	Butyric Acid
Naphthalene	Propanal	Tribufos	Propionic Acid
Tribromoacetic Acid	Cyclohexanone	1-Butanol	Alpha-Hexachlorocyclohexane
Heptachloro Epoxide	Germanium	HAA6Br (6 brominated Haloacetic Acids)	Propfenofos
Dieldrin	Ethoprop	Tetrahydrofuran	Butylated Hydroxyanisole
Endrin	Total Permethrin (cis- & trans-)	Bromodichloroacetic Acid	2-Methoxyethanol
Methoxychlor	Quinoline	cis-1,3-Dichloropropene	HAA9 (9 Haloacetic Acids)
Toxaphene	HAA5 (5 regulated Haloacetic Acids)	1,1,2-Trichloroethane	4-Methyl-2-Pentanone (MIBK)
Chlordane	2-Hexanone	Tetrachloroethene	Chlorodibromoacetic Acid
Total PCBs	Bromochloroacetic Acid	1,3-Dichloropropane	Hexavalent, Chromium
Propachlor	1,2-Dibromo-3-Chl.Propane	Chlorobenzene	
1,1-Dichloroethene	1,1,2-Trichlorotrifluroethane	Trichloroethene	

Copies of the Supplemental Data Package, which includes the water quality data for each of our supply wells utilized during 2023, are available at the Franklin Square Water District office located at 895 Schroeter Avenue, Franklin Square, New York and the local Public Library.

We, at the Franklin Square Water District, work around the clock to provide top quality water to every tap throughout the community. The District is proud of the fact that we consistently are voted one of the Best Tasting Waters in Nassau County. We ask that all our customers help us protect our water supply, which is the heart of our community, our way of life and our children's future.

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 our drinking water meets health standards. During January 2022 and June 2023 period. We did not complete all monitoring for SOC's, and, therefore cannot be sure of the quality of your drinking water during that time.

What This Means

This is not an emergency. There is nothing you need to do at this time.

The table below lists the contaminants we did not properly test for during the last year, how often we are supposed to sample for these contaminants, how many samples we are supposed to take, how many samples we took, when samples should have been taken and the date on which follow-up samples were taken.

Contaminant	Required Sampling Frequency	Number of Samples Taken	When Samples Should have Been Taken	When Samples Were Taken
SOC's	18 Months	0	January 2022 - June 2023	02/14/2024

Steps We Are Taking

Upon noticing the error, the District immediately took the required samples and the results indicated that all SOC contaminants were not detected in the drinking water. Please also note that during the previous monitoring period between June 2020 and December 2021, all SOC contaminants were also not detected in the water supply. The District has implemented internal protocols to ensure that this accidental oversight does is not repeated. We began collecting our samples for SOC's on February 14, 2024 and will continue to follow our required monitoring schedule.

For more information, please contact John Hughes at (516) 354-0780 or email john@fswd.org.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools and businesses). You can do this by posting this notice in a public space or distributing copies by hand or mail.

This notice is being sent to you by the Franklin Square Water District. State Water System ID#:2902822.

Date distributed: May 3, 2024