



2022 ANNUAL WATER QUALITY REPORT

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Additional copies of the 2022 Annual Water Quality Report are available at the Water Authority's office located at 1580 Union Turnpike, New Hyde Park, or by calling our customer service department at (516) 327-4100.

A Supplement Report, which contains data for each well utilized during 2022, both before and after treatment, is available for review at the following public libraries and at the Water Authority office.

Questions about either report should be directed to Michael Leiner, the Water Authority's Chief Engineer at (516) 327-4100.

Elmont Public Library
700 Hempstead Turnpike, Elmont

Floral Park Library
Tulip Avenue & Caroline Place, Floral Park

Franklin Square Public Library
19 Lincoln Road, Franklin Square

Garden City Public Library
60 Seventh Street, Garden City

Hempstead Public Library
115 Nichols Court, Hempstead

New Hyde Park Public Library
155 Lakeville Road, New Hyde Park

Parkville Library
10 Campbell Street, New Hyde Park

Valley Stream Public Library
160 Verona Place, Valley Stream



NOTIFICATION OF THE AVAILABILITY OF THE
2022 ANNUAL WATER QUALITY REPORT/CONSUMER CONFIDENCE REPORT

New Hyde Park, NY -- Notice is hereby given that the Water Authority of Western Nassau County has completed its Annual Water Quality Report/Consumer Confidence Report for the year ended December 31, 2022 in conformance with Title III sections 1150-1153 of the New York State Public Health Law and the United States Environmental Protection Agency requirements. The notification of availability has been mailed to all bill paying customers, and is available to all non-bill paying customers by contacting the Water Authority of Western Nassau County at (516) 327-4100, or by visiting our website at www.wawnc.org. Copies of the report have also been forwarded to local libraries and municipal buildings within our service territory for posting.

John E. Ryan
Chairman

1580 Union Turnpike, New Hyde Park, New York 11040-1762
(516) 327-4100 ♦ Fax (516) 327-4087

www.wawnc.org



The 2022 Consumer Confidence Report/Annual Water Quality Report was delivered to the following agencies:

NYS Department of Environmental Conservation
Attn: Division of Water
Bureau of Water Resource Management
625 Broadway
Albany, NY 12233

NYS Department of Health
Attn: Roger C. Sokol, Ph.D.
Director, Bureau of Water Supply Protection
Center for Environmental Health
Empire State Plaza-Corning Tower, Room 1110
Albany, New York 12237

Mr. Paul M Young, Sanitarian II
Nassau County Department of Health
200 County Seat Drive
Mineola, New York 11501

Mr. Robert C. Poon
Drinking Water Program
USEPA – Region 2
290 Broadway
New York, New York 10007-1866

Town of North Hempstead
Attn: Village Clerk
220 Plandome Road
Manhasset, New York 11030

Inc. Village of Bellerose
Attn: Village Clerk
50 Superior Road
Bellerose Village, New York 11001

Inc. Village of Floral Park
Attn: Village Clerk
1 Floral Boulevard
Floral Park, New York 11001

Inc. Village of Garden City
Attn: Village Clerk
351 Stewart Avenue
Garden City, New York 11530

Inc. Village of New Hyde Park
Attn: Village Clerk
1420 Jericho Turnpike
New Hyde Park, New York 11040

Inc. Village of South Floral Park
Attn: Village Clerk
383 Roquette Avenue
South Floral Park, New York 11001

Inc. Village of Stewart Manor
Attn: Village Clerk
120 Covert Avenue
Stewart Manor, New York 11530

Town of Hempstead
Attn: Village Clerk
Town Hall, Town Hall Plaza
Hempstead, New York 11550

1580 Union Turnpike, New Hyde Park, New York 11040-1762
(516) 327-4100 ♦ Fax (516) 327-4087

www.wawnc.org

2022 Annual Water Quality Report

Public Water System
Identification No.
NY 2902830

Water Authority of Western Nassau County, 1580 Union Turnpike, New Hyde Park, NY 11040

A Message from the Chairman

We are pleased to provide this year's Annual Water Quality Report. In accordance with New York State Public Health Law and Federal regulations, this report provides information about the quality of your drinking water, including a summary of the laboratory results for all testing performed by our independent laboratory during 2022.

This report is intended to aid your understanding of the source of your drinking water; help you understand the process by which safe drinking water is delivered to your home or commercial place of business; and educate customers about the importance of preventive measures, such as source protection, that ensure a safe drinking water supply. Educated customers are more likely to help protect our drinking water sources and to appreciate the challenges and the true costs of providing safe drinking water.

The annual Chairman's Report to the customers within the Water Authority's service area is also included in this document and can be found on page 7. Each year, I am required to provide each customer with a brief financial account of the operations of the water system, including water rates, total revenues, operating and maintenance expense, interest on bonds, as well as information required to be included in our Annual Water Quality Report.

During calendar year 2022, the Water Authority addressed critical capital improvement projects throughout its service territory. These projects included the design, engineering and installation of new wellhead treatment for the removal of 1,4-dioxane and PFAs (polyfluoroalkyl substances); design and award of distribution system replacement of mains, services, valves and hydrants in South Floral Park and Elmont; completion of distribution assets consisting of mains, services, valves and hydrants along Hempstead Turnpike near the UBS Arena; completion of new wellhead treatment at a station in Floral Park for removal of 1,4-dioxane and PFAs; and commencement of the full rehabilitation of a 1.5 million gallon elevated storage facility in Elmont.

The Water Authority was the recipient of an additional \$31.5 million of four New York State grants to help offset the cost of construction towards installation of new wellhead treatment at four baseload wells throughout its service territory. This is in addition to \$7.9 million in grants awarded in 2021.

This year's Annual Water Quality Report, as well as prior year's reports and other useful information, can be found on our website at www.wawnc.org. Additional copies of this Report, as well as a supplemental package of complete water quality data for both treated and untreated water for each well placed in service during 2022, are available at our business office, located at 1580 Union Turnpike, New Hyde Park, New York, 11040.

The Water Authority always has assured the safety of our customers and employees, as well as the protection of our water system assets. Despite recent economic challenges, we are dedicated to providing a continuous and reliable supply of high quality drinking water. We look forward to serving you in 2023 and beyond.

On behalf of the Water Authority, we hope that you and your families remain safe and well. As always, we welcome your comments and suggestions.

Please contact us at (516) 327-4100 or by email at inquiry@wawnc.org.

Sincerely,
John E. Ryan
Chairman

About the Water Authority

The Water Authority is a corporate governmental agency constituting a public benefit corporation which was organized and exists under and by virtue of the laws of the State of New York. The Water Authority provides the essential services of extraction, treatment, distribution and sale of water for residential, commercial, industrial and public fire protection purposes.

The Water Authority is governed by a Board of Directors consisting of 9 members, appointed by the Towns of Hempstead and North Hempstead and the Villages of Bellerose, Floral Park, Garden City, New Hyde Park, S. Floral Park and Stewart Manor for a 2-year term.

Town of Hempstead
George Bakich
Cherie Zacker

Town of N. Hempstead
Marianna Wohlgenuth

Village of Bellerose
Susan Powderly

Village of Floral Park
Dominick Longobardi

Village of Garden City
David Osborn

Village of New Hyde Park
Laura Robinson

Village of S. Floral Park
Gregory Ifill

Village of Stewart Manor
Steven Giammona

The Water Authority's Board of Directors conducts regularly scheduled meetings which are generally held on the fourth Monday of each month beginning at 7:00 p.m. at our business office in New Hyde Park.

A press release is submitted to the local newspapers each month announcing the time and date of the regular meeting, as well as any specially scheduled meeting. In addition, a notice is posted on our website at www.wawnc.org, generally two weeks prior to the meeting.

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. The Water Authority is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for several minutes before using water for drinking, showering, doing laundry, doing dishes or cooking. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. 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 at (800) 426-4791 or at: <http://www.epa.gov/safewater/lead>.

Communities Served

Bellerose
Elmont
Floral Park
Floral Park Centre
Franklin Square *
Garden City *
New Hyde Park
North Valley Stream *
South Floral Park
Stewart Manor
Valley Stream *

* Partially served communities

Are there contaminants in our drinking water?

As New York State ("State") regulations require, the Water Authority routinely monitors your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiological and synthetic organic compounds.

The table presented on pages 4 and 5 depicts which contaminants were detected in your drinking water. The State allows water systems to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of our data, though representative of the water quality, is 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. You can obtain more information about contaminants and potential health effects by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791 or the Nassau County Department of Health at (516) 227-9692.

Do I need to take special precautions?

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. Environmental Protection Agency (EPA)/Center for Disease Control (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 at (800) 426-4791.

Systems with deferrals:

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 Nassau County Department of Health each calendar quarter on the status of established deadlines. The Department can resume enforcement if the agreed upon deadlines are not met. Information about our deferral and established deadline can be found at the Water Authority's website, located at www.wawnc.org.

What does this information mean?

As you can see by the testing results in the table on pages 4 and 5, our treated water system had no violations, nor have we violated a maximum contaminant level ("MCL") or any other water quality standard. We have learned through our testing that some contaminants have been detected. Our comprehensive water quality monitoring and testing confirmed that there was no need to remove any well from service due to water quality in 2022, nor were there any restrictions of our water source. Wells which have aesthetic problems, such as high iron concentrations, or which have higher electrical or chemical treatment costs, are primarily used only during the summer months when the demand for water is higher.

There were many individual contaminants that were analyzed for but not detected. These non-detected contaminants include the following:

Microbiological contaminants such as *turbidity*;

Principal organic contaminants such as *benzene, bromobenzene, chloromethane, styrene, vinyl chloride*;

Specific organic chemicals and pesticides such as *aldicarb, aldrin, carbofuran, endosulfan, endrin*;

Physical and inorganic contaminants such as *arsenic, cadmium, detergents (MBAs), fluoride, silver, thallium*;

Unregulated contaminants such as *cobalt, testosterone, molybdenum*.

A complete list of non-detected contaminants can be obtained by contacting the Water Authority's Chief Engineer, Michael Leiner, PE at (516) 327-4100.

Water Source

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 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.

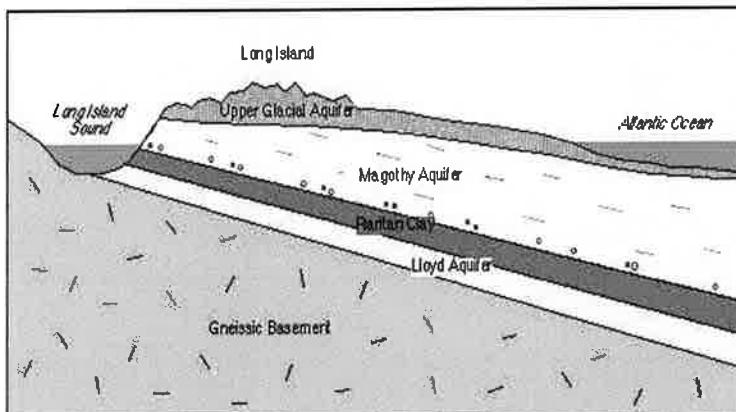
All of the water supplied by the Water Authority comes from groundwater drawn from 24 drilled wells located in the aquifer system beneath the land surface. Our wells are in the Upper Glacial, Magothy and Lloyd aquifers and range in depth from 87 to 722 feet.

Water Treatment

All well water is treated with chlorine (sodium hypochlorite) prior to distribution for disinfection purposes. Disinfection is mandated by the State Sanitary Code to assure that the water, which is free of bacteria as it is pumped from the aquifer, maintains its bacteria-free quality within the distribution system. Other treatment that the water receives before entering the distribution system includes the use of:

- **Caustic soda (sodium hydroxide):** This is used to neutralize the naturally acidic water found in Long Island groundwater. Raising the pH level to a neutral range of approximately 7.5 minimizes the corrosion of water mains, service lines and household plumbing.
- **Zinc orthophosphate:** This is a corrosion inhibitor which coats the interior surfaces of our water mains and service lines and household plumbing thereby reducing corrosion and extending their useful service life.
- **Air-stripper treatment:** These treatment facilities are used to remove Volatile Organic Compounds from the water prior to distribution. These compounds have entered the water supply as a result of improper disposal practices by industries and have been detected in groundwater.
- **Iron removal treatment plants:** These treatment facilities remove high levels of iron and manganese, which are natural occurring minerals in Long Island groundwater.
- **Granular Activated Carbon:** These treatment facilities remove Synthetic Organic Compounds (SOC) and Polyfluoroalkyl substances (PFAS) out of the groundwater.
- **Advanced Oxidation Process:** These treatment facilities remove 1,4-Dioxane out of the groundwater.

These forms of treatment all comply with applicable Federal, State and local drinking water standards.



Source Water Assessment

The Source Water Assessment was carried out by the New York State Department of Health, with assistance from the local health department and CDM, a consulting firm, to identify the vulnerability of individual wells used by public drinking water systems to potential sources of contamination by microbials, nitrates, pesticides and volatile contaminants based on current land uses and water pumping patterns.

The source water assessment for this system has been completed based on available information, evaluating possible and actual threats to this drinking water source. 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 "Table of Detected Contaminants" found on pages 4 and 5 for a complete list of contaminants that have been detected in your drinking water. The source water assessments provide resource managers with additional information for protecting source waters into the future.

Drinking water is derived from 18 wells. The source water assessment has rated most of the wells as having a very high susceptibility to industrial solvents and most of the wells as having a high susceptibility to nitrates. The very high 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 high susceptibility to nitrate contamination is attributable to high density residential and commercial land use and related practices in the assessment area, such as fertilizing lawns.

A copy of the assessment, including a map of the assessment area, can be reviewed upon request by contacting the Water Authority's Chief Engineer, Michael Leiner, PE at (516) 327-4100.

TABLE OF DETECTED CONTAMINANTS

Contaminant	Maximum Detection Sample Date (Month/Year)	Level Detected (Maximum) (Range)	Unit Measurement	Regulatory Limit (MCL, TT or AL)	Violation	MCLG	Sources In Drinking Water
MICROBIOLOGICAL CONTAMINANTS							
Total Coliform Bacteria ¹	6/22	0.97% Samples were positive in the noted months	Present Or Absent	TT = more than 5.0 percent of the total coliform samples are positive in one month	No	Absent	Naturally present in the environment
PHYSICAL CHARACTERISTICS & INORGANIC CONTAMINANTS							
Alkalinity, Total (as CaCO ₃)	8/22	107 ND to 107	mg/l	No Standard	No	N/A	Naturally occurring
Ammonia (as Nitrogen)	1/22	1.6 ND to 1.6	mg/l	No Standard	No	N/A	From fertilizers
Barium	2/22	0.052 ND to 0.052	mg/l	MCL=2	No	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Calcium	6/22	28 1.5 to 28	mg/l	No Standard	No	N/A	N/A
Chloride	5/22	91.5 4.2 to 91.5	mg/l	MCL=250	No	N/A	Naturally occurring or indicative of road salt contamination.
Chlorine Residual	11/22	1.37 0.36 to 1.37	mg/l	MRDL=4 ²	No	N/A	Water additive to control microbes and disinfect the water.
Copper	7/21	0.12 ³ 0.0055 to 0.17	mg/l	AL=1.3	No	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Corrosivity (LSI)	1/22	-5.23 -0.86 to -5.23	SI	No Standard	No	0	N/A
Dissolved Solids, Total	1/22	412 43 to 412	mg/l	No Standard	No	N/A	N/A
Hardness, Total (as CaCO ₃)	5/22	126 8.5 to 126	mg/l	No Standard	No	N/A	N/A
Iron	5/22	390 ND to 390	ug/l	MCL=300 ⁴	No	N/A	Naturally occurring.
Lead	7/21	2.1 ⁵ ND to 21.3	ug/l	AL=15	No	0	Corrosion of household plumbing systems; erosion of natural deposits.
Magnesium	5/22	14.5 0.98 to 14.5	mg/l	No Standard	No	N/A	Naturally occurring.
Manganese	11/22	52 ND to 52	ug/l	MCL=300 ⁴	No	N/A	Naturally occurring; indicative of landfill contamination.
Mercury	4/22	0.61 ND to 0.61	ug/l	MCL=2	No	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; run off from cropland.
Nickel	1/22	11 ND to 11	ug/l	No Standard	No	N/A	Naturally occurring.
Nitrate (as Nitrogen)	10/22	5.4 ND to 5.4	mg/l	MCL=10 ⁶	No	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Odor @ 60 °C	1/22 & 6/22	1 ND to 1	units	MCL=3	No	0	Organic or inorganic pollutants originating from municipal and industrial waste discharges; natural sources.
Perchlorate	1/22	7.8 ND to 7.8	ug/l	MCL=18 ⁷	No	0	Oxygen additive in solid fuel propellant for rockets, missiles, and fireworks.
pH	9/22	8.5 7.0 to 8.5	units	7.5 ≤ pH ≤ 8.5	No	N/A	N/A
Sodium	1/22	48.3 3.2 to 48.3	mg/l	MCL=270 ⁸	No	N/A	Naturally occurring; road salt; animal waste; water softeners.
Sulfate	5/22	52.9 7.5 to 52.9	mg/l	MCL=250	No	N/A	Naturally occurring.
Zinc	1/22	0.48 ND to 0.48	mg/l	MCL=5	No	N/A	Naturally occurring; mining waste.
PRINCIPAL ORGANIC CONTAMINANTS							
Chlorodifluoromethane	11/22	2.3 ND to 2.3	ug/l	MCL=5	No	N/A	Discharge from commercial areas that use propellant and refrigerant.
m&p-Xylene	5/22	0.88 ND to 0.88	ug/l	MCL=5	No	N/A	Leaks from gasoline tanks; Discharge from petroleum factories. Leaching of solvent from lining of potable water tanks.
RADIOACTIVE CONTAMINANTS							
Combined Radium 226/228	7/22	3.900 0.489 to 3.900	pCi/l	MCL=5 ⁹	No	0	Erosion of natural deposits.
Gross Alpha	7/22	4.650 -0.779 to 4.650	pCi/l	MCL=15 ⁹	No	0	Erosion of natural deposits.
Gross Beta	6/22	4.150 0.541 to 4.150	pCi/l	MCL=50	No	0	Decay of natural deposits and man-made emissions.
Uranium	6/22	0.357 ND to 0.357	ug/l	MCL=30 ⁹	No	0	Erosion of natural deposits.
SYNTHETIC ORGANIC CONTAMINANTS AND PESTICIDES							
1,4-Dioxane	9/22	0.88 ND to 0.88	ug/l	MCL=1 ¹⁰	No	N/A	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
Dieldrin	8/22	0.13 ND to 0.13	ug/l	MCL=5	No	0	Pesticide used in agriculture for soil and seed treatment; used in treatment of wood and mothproofing of woolen products.
Heptachlor Epoxide	2/22	0.041 ND to 0.041	ug/l	MCL=0.2	No	0	Breakdown of heptachlor.
Perfluorooctanesulfonic acid (PFOS)	2/22	6.8 ND to 6.8	ng/l	MCL=10 ¹¹	No	N/A	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctanoic acid (PFOA)	9/22	13.3 ND to 13.3	ng/l	MCL=10 ¹¹	No	N/A	

TABLE OF DETECTED CONTAMINANTS (cont'd)

Contaminant	Maximum Detection Sample Date (Month/Year)	Level Detected (Maximum) (Range)	Unit Measurement	Regulatory Limit (MCL, TT or AL)	Violation	MCLG	Sources In Drinking Water
DISINFECTION BYPRODUCTS							
Total Trihalomethanes ¹²	2/22	1.230 ¹³ 0.163 ¹⁴ ND to 2.7	ug/l	MCL=80	No	0	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains organic matter.
UNREGULATED CONTAMINANTS MONITORING RULE 4							
Bromide	6/18 & 12/18	497 88 to 497	ug/l	No Standard	No	N/A	Naturally occurring.
UNREGULATED PERFLUOROALKYL SUBSTANCES							
Perfluorobutanesulfonic acid (PFBS)	2/22	3.7 ND to 3.7	ng/l	MCL=70 ¹¹	No	N/A	PFBS/PFHpA/PFHxS/PFNA have been used to make carpets, leathers, textiles, fabrics for furniture, paper packaging, and other materials that are resistant to water, grease or stains. It is also used in firefighting foams at airfields. Many of these uses have been phased out by its primary U.S. manufacturer, however, there are still some ongoing uses.
Perfluoroheptanoic acid (PFHpA)	9/22	5.6 ND to 5.6	ng/l	MCL=70 ¹¹	No	N/A	
Perfluorohexanesulfonic acid (PFHxS)	9/22	5.6 ND to 5.6	ng/l	MCL=70 ¹¹	No	N/A	
Perfluorononanoic acid (PFNA)	2/22	4.6 ND to 4.6	ng/l	MCL=70 ¹¹	No	N/A	

Table Definitions

90th Percentile Value 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.

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

LRAA (Location Running Annual Average) The average of analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

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 possible.

MCLG (Maximum Contaminant Level Goal) 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.

MRDL (Maximum Residual Disinfectant Level) The highest level of a disinfectant allowed in your drinking water. A certain amount of disinfectant has been shown to help control germs and microbes in the water.

MRDLG (Maximum Residual Disinfectant Level Goal) If the value of "Level Detected" column is below the MRDLG there is no known or expected risk to your health.

N/A Not applicable.

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

SI (Saturation Index) A measurement of the Langelier Saturation Index (LSI). LSI is a calculated number used to predict whether water will precipitate, dissolve or be in equilibrium with calcium carbonate. A negative LSI indicates that water has no scaling potential; a positive LSI indicates that scale has the potential to form.

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

Units

Picocuries per liter (pCi/l) A measure of the radioactivity in water.

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

Micrograms per liter (ug/l) Corresponds to one part of liquid in one billion parts of liquid (parts per billion—ppb).

Milligrams per liter (mg/l) Corresponds to one part of liquid in one million parts of liquid (parts per million—ppm)

Table Notes

<p>1 In June of 2022, total coliforms were detected in one (1) sample of the 100 monthly routine compliance samples collected in our system during those months. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. Three (3) additional samples were subsequently collected that month and total coliforms were not detected in those samples. Since total coliforms were detected in less than 5 percent of the samples collected during that month, the system did not have an MCL violation.</p> <p>2 Value presented represents the Maximum Residual Disinfectant Level (MRDL) which is a level of disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects.</p> <p>3 The value reported for copper represents the 90th percentile. In this case 50 samples were collected at your water system and the 90th percentile value was the sixth highest value (0.12 mg/l). The action level for copper was not exceeded at any of the sites tested.</p> <p>4 If iron and manganese are present, the total concentration of both should not exceed 500 ug/l.</p> <p>5 The value reported for lead represents the 90th percentile. In this case 50 samples were collected at your water system and the 90th percentile value was the sixth highest value was (2.1 ug/l). The Water Authority did receive one (1) sample that exceeded the action level of 15 ug/l for lead.</p> <p>6 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</p>	<p>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.</p> <p>7 An MCL has not been established for this contaminant. The value presented represents a State Guidance level.</p> <p>8 Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.</p> <p>9 A MCL violation occurs when the annual composite of four quarterly samples or the average of the analysis of four quarterly samples exceeds the MCL.</p> <p>10 New York State established a maximum contaminant level (MCL) of 1 part per billion (ppb) for 1,4-Dioxane as of August 26, 2020.</p> <p>11 The U.S. Environmental Protection Agency (EPA) has established a lifetime health advisory (HAL) of 70 parts per trillion (ppt) for PFOA and PFOS combined. New York State established a maximum contaminant level (MCL) of 10 ppt for PFOA and 10 ppt for PFOS as of August 26, 2020.</p> <p>12 Total Trihalomethanes (TTHMs) means the sum of chloroform, bromodichloromethane, dibromochloromethane, and bromoform. The Location Running Annual Average (LRAA) was used in the table.</p> <p>13 The Location Running Annual Average (LRAA) for Site 1.</p> <p>14 The Location Running Annual Average (LRAA) for Site 2.</p>
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Water Conservation Methods

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 storage tanks. It also lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire fighting needs are met.

You can play a role in conserving water and saving yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less water whenever you can. The following suggestions will help you make your home “water efficient” without sacrificing comfort or changing lifestyles:

- Turn off your automatic lawn sprinkler if rain is expected or install a rain sensor.
- Load your automatic dishwasher to its maximum capacity before running it. Dishwashers use approximately 15 gallons for every cycle regardless of how many dishes are loaded.
- Turn off the tap when brushing your teeth or while shaving.
- 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 toilet 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 which will indicate a leak. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. By fixing it, you can save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all faucets and water using appliances, and be sure no one in your family uses water during the testing period. Note the water meter reading and check the meter after 15 minutes. If the dial indicator on the water meter moved, you have a leak.

2022 Statistics At-a-Glance

Wells Closed/Restricted	None
Violations of Standards	None
Number of Service Connections (Customers)	28,446
Population Served	120,000
Total Water Produced (billion gallons) ¹	3.908
Daily Average (million gallons)	10.707
Highest Single Day (million gallons)	19.267
Total Wells in System	24
Active Wells in System	18
Storage Facilities	4 ground, 3 elevated
Storage Capacity (million gallons)	11.8
Miles of Main	234
Fire Hydrants	2,449
Water Obtained or Disbursed through Interconnections With Other Water Suppliers	None
Average Annual Residential Water Rates (based on 102,000 gallons) ²	\$611

¹ Approximately 83.1 percent of the water produced in 2022 was billed directly to customers and 6.4 percent was used for main flushing, hydrant testing and maintenance, and station and tank maintenance. The balance, or unaccounted for water of approximately 10.5 percent, was used for contractor activity, fighting fires, filling street sweepers and sewer cleaning trucks and also includes losses due to leaks, water main breaks and hit hydrants.

² On June 1, 2022 the Water Authority implemented a 2.51% rate increase. The majority of Water Authority customers utilize a 5/8" meter and are charged quarterly \$60.80 for the first 9,000 gallons used. All customers pay \$5.560 per thousand gallons for the next 135,000 gallons, and then pay \$5.699 per thousand gallons for usage over 144,000 gallons.

Customers in violation of the Nassau County watering regulations are subject to the following terms adopted by the Water Authority's Board of Directors on May 27, 2003:

- 1st Violation: Warning
- 2nd Violation: \$50 Service Charge
- 3rd Violation: \$75 Service Charge
- 4th Violation: \$150 Service Charge
- 5th Violation: \$300 Service Charge
- Each Additional: \$300 Service Charge

These service charges will be billed to the customer's water service account.

System Improvements

In addition to the extensive monitoring and testing performed on our water supply, the Water Authority maintains, services and upgrades its water supply facilities and distribution system regularly. In 2022 capital projects completed or underway included the following:

- Completion of new AOP/GAC wellhead treatment for 1,4-Dioxane and PFA's at Station No. 35 (Floral Park). Construction of a permanent building to house the GAC treatment vessels.
- The design of a new treatment facility at Station No. 40 (New Hyde Park) for the removal of 1,4-Dioxane and PFA's is underway. Awarded the demolition of 65 Soma and 69 Soma Street, to provide adequate space for AOP/GAC wellhead treatment.
- Construction of a new treatment facility at Station No. 57 (New Hyde Park). The new facility will provide treatment to remove 1,4 Dioxane and PFA's in 2023. The facility also has a new VOC air stripper, emergency generator and the well pumps were raised to 18-inches above finished grade in accordance with NCDOH Sanitary Survey.
- The design for full site rehabilitation at Station No. 44 (South Floral Park) is under review. This project includes raising the well casing of 4 wells above finished grade, two (2) emergency generators and permanent buildings enclosing GAC treatment vessels.
- Completion of new 16" water main and appurtenances on Hempstead Turnpike to feed the Belmont UBS Arena and Elmont community.
- Completed a 7.2 mile water main and appurtenances replacement design in Floral Park. Design will be submitted to the DOH in early 2023.
- Awarded a 5.4 mile water main and appurtenances replacement contract in South Floral Park and Elmont. The construction will start in the Spring of 2023.
- Full rehabilitation of a 1.5 million gallon elevated storage facility in Elmont.
- Service and hydrant replacements.
- Computer upgrades and replacements.
- Meter replacements.

Planned improvements for 2023 include:

- Demolition of 65 Soma Street and 69 Soma Street to provide adequate space for construction of the new wellhead treatment facility at Station No. 40 in New Hyde Park to treat emerging contaminants.
- Complete design and bid a contract for the wellhead treatment for 1,4-Dioxane and PFA's for Station No. 44 (South Floral Park) including the construction of new buildings, structures, electrical and mechanical upgrades to treat emerging contaminants.
- Complete design and bid a contract for the new wellhead treatment for 1,4-Dioxane and PFA's for Station No. 40 (New Hyde Park) including the construction of new buildings, structures, electrical, emergency generator and mechanical upgrades.
- Service and hydrant replacements;
- Complete full rehabilitation of 1.5 million gallon elevated storage tank facility in Elmont.
- Construction will commence for the South Floral Park and Elmont water main replacement contract.
- Lead/Iron pipe service replacement program.
- Computer upgrades and replacements.
- Meter replacements.
- Vehicle and large equipment replacements.

Unregulated Contaminant Monitoring Rule 4

In 2018, the Water Authority was required to collect and analyze drinking water samples for unregulated contaminants. Unregulated contaminants that were detected are reported in the Table of Detected Contaminants found on page 5 of this report. You may obtain information on the monitoring results by contacting the Water Authority's Chief Engineer, Michael Leiner, PE at (516) 327-4100.

Annual Chairman's Report Fiscal Year June 1, 2021 to May 31, 2022

Total Revenues Earned	\$22,990,501
Operating and Maintenance Expenses	\$9,982,980
Interest Expense on Long-term Debt	\$5,570,521
Interest Income	\$25,816
Miscellaneous Income	\$354,031

Additional expenses during the year included depreciation and amortization of original revenue bond and subsequent refinancing closing costs associated with the original purchase of the water system.

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Business Hours:
Monday through Friday
8:00 a.m. to 5:00 p.m.

ACH & Credit Card payment options now available. Add your contact information for Emergency Notifications. Visit www.wawnc.org for more details.



2022 Annual Water Quality Report

About this Report

To comply with New York State (“State”) regulations, the Water Authority annually issues a report describing the quality of your drinking water. During 2022, our system was in compliance with applicable State drinking water operating, and reporting requirements.

During the 2022 calendar year, the Water Authority conducted more than 39,000 tests for over 163 drinking water contaminants. Last year, as in years past, your tap water met all United States Environmental Protection Agency (“EPA”) and State drinking water health standards.

This report provides an overview of last year’s water quality and includes details about where your water comes from, what it contains and how it compares to EPA and State standards. As in years past, our system was in compliance with all applicable State drinking water operating and reporting requirements as well as notification procedures.

If you have any questions about this report or your drinking water, please contact Michael Leiner, PE our Chief Engineer, at (516) 327-4100.

Share This Report

Landlords, businesses, schools, hospitals and other groups are encouraged to share this important water quality information with water users at their location who are not customers of the Water Authority of Western Nassau County.

Additional copies of this report are available on our website at www.wawnc.org.

Or contact our customer service department at:

(516) 327-4100

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.