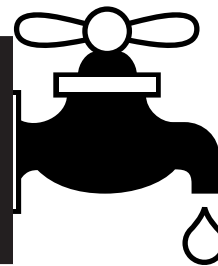


THE VILLAGE OF NYACK WATER DEPARTMENT

9 NORTH BROADWAY • NYACK, NEW YORK 10960
Public Water System Identification Number (PWS ID# 4303666)



“ANNUAL DRINKING WATER QUALITY REPORT FOR 2022”

INTRODUCTION

To comply with State and Federal regulations, the Village of Nyack Water Department issues an annual report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year (2022), we conducted tests on dozens of contaminants. We detected 31 of those contaminants (See Detected Contaminants Table), and only found one of these at a level higher than the State allows. We are currently working with our engineering consultant to rectify this issue in the affected area. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your drinking water.

If you have any questions about this report or concerning your drinking water, please contact Water Superintendent Thomas Lynch, at (845) 358-3734. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled Village water board meetings. The meetings are held on the second Thursday of each month, at 4:30 pm in the Nyack Village Hall.

ABOUT THE DEPARTMENT

The Village of Nyack Water Department is a self-supporting, public benefit department. It is without taxing powers. Five Water Commissioners are appointed by Nyack's Village Board for five-year staggered terms. The only revenue the Department receives is obtained from the sale of water. The Department is nonprofit. All revenue is used for operating expenses, outstanding debt and construction purposes. The Department was established to provide the Village of Nyack's service area, with a safe and abundant supply of water. The Water Treatment Plant is located in West Nyack, New York, 10994. Our business office is located at 9 North Broadway, Nyack, New York, 10960.

WATER SUPPLY SOURCE

The Village of Nyack Water Department draws water from the Hackensack River. This river begins at the Lake Deforest Reservoir, located approximately one mile north of our treatment plant. The reservoir has a capacity of five billion gallons of water and, in times of drought, is used to maintain minimum stream flow. The quality of the raw water is considered good and has the following average characteristics.

- Hardness: 131 parts per million
- pH: 7.8
- Turbidity: 7.0 NTU (Nephelometric Turbidity Units)
- Alkalinity: 92 parts per million

When required, due to emergencies, the Water Department may use interconnections with Veolia Water New York. Unfortunately, this year we were forced to use the interconnection on various occasions: On April 8th, 9th, 10th, and 11th, due to a flooding event from a Tropical Storm, over five inches of rain caused excessive flooding in and around the treatment plant. For public safety as well as our own this was a necessary step. Also, on December 13th the interconnection was utilized for an emergency repair on our transmission line outside the treatment plant.

The New York State Department of Health 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 state source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move to the surface water source. The susceptibility rating is an estimate of the potential for contamination of the source water, it does not mean that the water delivered to consumers is or will become contaminated. See section; “Are there contaminants in our drinking water?” for a list of the contaminants that have been detected. The source water assessments provide managers with additional information for protecting source waters into the future.

As mentioned before, our water is derived from the Hackensack River. The source water assessment found an elevated susceptibility to contamination for the Hackensack River. Due to the amount of residential land in the assessment area, there is an elevated potential for microbial, turbidity, Disinfection By-Products (DBP) precursors, and pesticides contamination. Non-sanitary wastewater discharges may also contribute to contamination. There is also noteworthy susceptibility to contamination from other sources including Chemical Bulk Storage (CBS) facilities, Inactive Hazardous Waste Sites (IHWS), Mines, Resources Conservation, CSX Railroad, New York State Thruway, Recovery Act (RCRA) facilities, and Toxic Release Inventory (TRI) sites. It should be noted that relatively high flow velocities make river drinking water supplies highly sensitive to existing and new sources of microbial contamination.

While the source water assessment rates the source water as being susceptible to microbial and other contaminants, please note that our water is disinfected and treated to ensure that the finished water delivered into your home meets New York State's drinking water standards. If you have any questions or need additional information regarding this source water assessment you may contact the Rockland County Department of Health at (845-364-2595).

WATER USAGE

The Water Department serves approximately 14,700 people with 3,300 service connections in the Villages of Nyack, South Nyack and portions of the unincorporated Clarkstown communities of Central Nyack, and West Nyack. Water usage for 2022 was as follows:

	Gallons
Total amount of raw water withdrawn.....	635,967,000
Total amount of water delivered.....	565,802,000
Total amount of water used for flushing program.....	12,000,000
Metered (not billed) Treatment Plant water use.....	20,159,000
Total amount of water billed or accounted for.....	382,646,667
Unaccounted-for water.....	253,320,333
Average Day (Production).....	1,600,000
Maximum Day (Production)	1,847,000

Unaccounted for water includes water taken for:

- Hydrant flow tests • Fire Department training • Fires
- Emergency flushing of sewer mains during fuel spills • Main breaks
- Illegal taking of water from hydrants and services • Undetected leaks in the distribution system



HOW THE WATER IS TREATED

Water is pumped from the Hackensack River into the treatment plant and Potassium Permanganate is added to oxidize organic compounds, both naturally occurring and man-made. The permanganate also reacts with iron, and manganese and sulfide compounds to aid in their oxidation in the aeration process. A powdered activated carbon is also added to the raw water to help with taste and odor removal. Water is then pumped to the aerator, which sprays the water into the air. Aeration acts to oxidize ferrous iron, reduce carbon dioxide and hydrogen sulfide, and helps remove tastes and odors. The water then flows into the raw water chamber where a coagulant is added. The coagulant is a chemical that helps suspended and colloidal particles to stick together. The water then enters the flocculation basin where the water and coagulant are mixed together. From there, it enters the sedimentation basins where the larger coagulated particles settle out. The water then continues to the filters, which consist of layers of fine filter sand and anthracite coal, which remove any remaining particles in the water. Filtered water is discharged to a 110,000 gallon "clear well". Sodium hypochlorite (liquid chlorine) is then added at two separate points during the process to provide disinfection. In winter months the free chlorine residual is increased to meet the CT (contact time) necessary to inactivate certain viruses and organisms, based on the temperature and pH of the water. This is a mandated regulation by New York State Department of Health, Rockland County Department of Health and the U.S.E.P.A. Soda ash (if needed) is added to the finished water just before leaving the plant to raise the pH of the water to 7.8. A 250-horsepower pump lifts the finished water to the distribution system for delivery to homes and businesses in our service area and to fill our 2.5-million-gallon reservoir.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

In compliance with State regulations, the Village of Nyack Water Department routinely monitors your drinking water for various contaminants. Your water is tested for inorganic contaminants, nitrate, nitrite, lead and copper, volatile organic contaminants, synthetic organic contaminants, total trihalomethanes, haloacetic acids and TOC (Total Organic Carbon). Additionally, your water is tested for coliform bacteria fifteen times a month. The contaminants detected in your drinking water are included in the Table of Detected Contaminants.

Drinking water, including bottled 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 NY. States EPA's Safe Drinking Water Hotline (1-800-426-4791) or the Rockland County Department of Health at (845-364-2595).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Departments and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium*, *Giardia* and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).



TABLE OF DETECTED CONTAMINATES

Contaminant	Violation Yes/No	Date of Sample	Level Detected (results) (Maximum) (Range)	Unit Measurement	MCLG	Regulatory MCL Limit	Likely Source of Contamination
MICROBIOLOGICAL CONTAMINANTS							
Total Coliform ¹	No	4/25/22 5/11/22 8/1/22 8/4/22	1 Positive sample 1 Positive sample 1 Positive sample 1 Positive sample	N/A	N/A	TT = 2 or more positive samples; MCL = 2 or more positive samples before April 1, 2016	Naturally present in the environment
Turbidity ² (Highest recorded reading for 2022)	No	4/12/22 11/12/22 12/14/22	0.13 0.13 0.13	NTU	N/A	TT ≤ 1.0 NTU	Soil runoff
Turbidity ²	No	April/2022 November/2022 December/2022	99% ≤ 0.3	NTU	N/A	TT = 95% of samples ≤ 0.3 NTU	Soil runoff
INORGANIC CONTAMINANTS							
Barium	No	6/13/22	60	ug/L	2.0	2.0	Discharge of drilling wastes, Discharge from metal refineries, Erosion of natural deposits.
Chloride	No	6/13/22	81	mg/L	N/A	250	Naturally occurring or indicative of Road salt contamination.
Copper 30 samples	No	6/10/22 to 8/8/22	0.5103 0.067 – 1.000	mg/L	1.3	AL-1.3	Corrosion of household plumbing systems, Erosion of natural deposits, leaching from wood preservatives.
Lead 30 samples	No	6/10/22 to 8/8/22	6.14 < 1.0 – 16.0	ug/L	15.0	AL- 15.0	Corrosion of household plumbing systems; Erosion of natural deposits
Nickel	No	6/13/22	0.96	ug/L	N/A	N.A	Metal alloys batteries
Nitrate	No	6/14/22	0.37	mg/L	10	10	Runoff from fertilizer use; leaching from septic tanks. Sewage; erosion of natural deposits
Sodium	No	6/13/22	41.000	mg/L	N/A5	N/A5	Naturally occurring, road salt, water softeners, animal waste.
Sulfate	No	6/13/22	6.8	mg/L	N/A	250	Naturally occurring
SYNTHETIC ORGANIC CONTAMINANTS⁶							
Perfluorooctanoic Acid (PFOA)	No	2/14/22 5/20/22 8/29/22 11/16/22	7.3 10.0 7.4 8.3	ng/L	N/A	10	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctanesulfonic Acid (PFOS)	No	2/14/22 5/20/22 8/29/22 11/16/22	4.0 6.8 4.2 6.4	ng/L	N/A	10	Released into the environment from widespread use in commercial and industrial applications
1,4-Dioxane ⁷	No	2/14/22 5/20/22 8/29/22 11/16/22	U-0.48	ug/L	1.0	1.0	An industrial solvent and common impurity in cosmetics and household cleaners
DISINFECTION BYPRODUCTS							
Total trihalomethanes thms-chloroform, Bromodichloromethane, Dibromochloromethane And bromo form	Yes	2/14/22 5/16/22 8/8/22 11/7/22	98.3 ⁸ (51.0) to (145.5)	ug/L	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms.
Halo acetic acids (monodi-, and trichloroacetic acid, and mono-and dibromoacetic acid)	No	2/14/22 5/16/22 8/8/22 11/7/22	28.7 ⁸ (23.0) to (43.1)	ug/L	N/A	60	By-product of drinking water chlorination.
UNREGULATED CONTAMINANTS							
Dibromoacetic acid	No	2022	1.0-1.7	ug/L	N/A	N/A	By-product of disinfection UCMR4
Dichloroacetic acid	No	2022	5.7-19.0	ug/L	N/A	N/A	By-product of disinfection UCMR4
Monobromoacetic acid	No	2022	U-1.0	ug/L	N/A	N/A	By-product of disinfection UCMR4
Trichloroacetic acid	No	2022	9.8-23.0	ug/L	N/A	N/A	By-product of disinfection UCMR4



FOOTNOTES:

- ¹ The table shows that we triggered a Level 1 assessment for total coliform. On August 4th, 2022 two of the 15 monthly samples collected indicated the presence of total coliform. The required repeat sampling was done and in conjunction with Rockland County Health Department it was determined to be triggered by unsanitary conditions hence no violation. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking distribution system.
- ² Turbidity is a measure of the cloudiness of the water. We test it because it is a good indicator of the effectiveness of our filtration system. Our highest single turbidity measurement for the year (0.13 NTU) occurred on (4/12/22, 11/12/22, 12/14/22). State regulations require that turbidity must always be below 1 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.3 NTU. There were no recordings that exceeded the treatment technique for turbidity, all levels recorded were within the acceptable range allowed and did not constitute a treatment technique violation.
- ³ The Copper level presented represents the 90th percentile of the 30 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, 30 samples were collected at your water system and the 90th percentile value was the fourth highest value (0.51 mg/L) that was on (6/10/22). The action level for copper was not exceeded at any of the sites tested.
- ⁴ The Lead level presented represents the 90th percentile of the 30 sites tested. In this case, 30 samples were collected in our water system and the 90th percentile value was the fourth highest value (6.1 ug/L) that was on (6/16/22). The action level for lead was exceeded at one of the sites tested.
- ⁵ 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 by people on moderately restricted sodium diets.
- ⁶ Perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) are per- and polyfluoroalkyl substances (PFAS), previously referred to as perfluorinated compounds, or PFCs, that are man-made and used in industrial and commercial applications. PFOA was used as a processing aid in the manufacture of fluoropolymers used in non-stick cookware and other products, as well as other commercial and industrial uses based on its resistance to harsh chemicals and high temperatures. PFOS is used in metal plating and finishing as well as in various commercial products. PFOS was previously used as a major ingredient in aqueous film forming foams for firefighting and training, and PFOA and PFOS are found in consumer products such as stain resistant coatings for upholstery and carpets, water resistant outdoor clothing, and grease proof food packaging. Although the use of PFOA and PFOS has decreased substantially, contamination is expected to continue indefinitely because these substances are extremely persistent in the environment and are soluble and mobile in water.
- ⁷ 1,4-Dioxane is classified by the EPA as a likely human carcinogen. It is a by-product present in many goods, including paint strippers, dyes, greases, antifreeze and aircraft deicing fluids and in some consumer products (deodorants, shampoos and cosmetics). It is associated with inactive and hazardous waste sites.
- ⁸ This level represents the highest locational running annual average calculated from data collected.
- ⁹ The standard for TTHM is 80 ug/L. It is determined by averaging all the samples collected at each sampling location for the prior 12 months. The level of TTHM averaged at one of our system's sample locations for October 2021 through September 2022 was 81 ug/L, for January 2022 through December 2022 was 98 ug/L, and for April 2022 through March 2023 was 103 ug/L.

The Water Department believes this condition resulted from several concurrent and related factors. First, overall water demand in the affected area was impacted by reduced consumption at typically higher usage institutional facilities, and drought restrictions. Drought restrictions also resulted in the Water Department cancelling its routine flushing program, which further reduces overall demand in the area. These factors impact the age of the water in the system, which is a contributory factor in TTHM formation. This appears to have been coupled with an increase in chlorine application dosage for disinfection, caused by algae blooms in the source water during parts of the periods in question. This can similarly adversely impact TTHM formation. Collectively, it is believed that these conditions resulted in the higher sample data represented above.

Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit Measurement	MCLG or Health Advisory Level ^{1,2}
UNREGULATED PERFLUOROALKYL SUBSTANCES					
Perfluorobutanesulfonic Acid (PFBS)	No	2/14/22 5/20/22 8/29/22 11/16/22	2.5 3.1 2.3 2.9	ng/L	2,000
Perfluoroheptanoic Acid	No	2/14/22 5/20/22 8/29/22 11/16/22	3.0 3.8 3.1 3.1	ng/L	N/A
Perfluorohexanesulfonic Acid	No	2/14/22 5/20/22 8/29/22 11/16/22	2.0 3.4 1.5 4.8	ng/L	N/A
Perfluorohexanoic Acid	No	2/14/22 5/20/22 8/29/22 11/16/22	3.7 5.0 3.8 3.9	ng/L	N/A
Perfluorononanoic Acid	No	2/14/22 5/20/22 8/29/22 11/16/22	1.4 2.0 1.3 1.5	ng/L	N/A

¹ USEPA Health Advisory Levels identify the concentration of a contaminant in drinking water at which adverse health effects and/or aesthetic effects are not anticipated to occur over specific exposure durations. Health Advisory Levels are not to be construed as legally enforceable federal standards and are subject to change as new information becomes available.

² All perfluoroalkyl substances, besides PFOA and PFOS, are considered Unspecified Organic Contaminants (UOC) which have an MCL = 0.05 mg/L

***No sampling done for Asbestos in 2022- Please see our section: Is Our System Meeting Other Rules That Govern Operations**

****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 Rockland 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 www.nyack-ny.gov.

Systems with interconnects with deferral PWSs:

We have an interconnection that allows us to take water from a PWS that is also currently operating under a deferral. Information about that system's deferral and established deadline can be found at <https://nywq.veolianorthamerica.com>. The activation of that interconnection is reserved for emergencies and the activation process includes immediate communication with the Rockland County Department of Health

DEFINITIONS:

The table above contains terms and abbreviations you might not be familiar with. To help you better understand these terms we have provided the following definitions:

Maximum Contaminant Level - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG as possible.

Maximum Contaminant Level Goal - The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

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

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) or Nanograms per Liter (ng/L) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.

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)

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

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

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

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.

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

Safe Drinking Water Standards are usually expressed as milligrams per liter (mg/L) or micrograms per liter (ug/L). These units are more commonly referred to as parts per million (ppm) or parts per billion (ppb). For the non-scientific person, the following may be helpful in understanding these units:

- Part per million: One foot in 189 miles
One ounce in 62,500 pounds
- Part per billion: One cent in \$10,000,000
One second in 32 years
- Part per trillion: One grain of sand in an Olympic size swimming pool

The United States Environmental Protection Agency and The New York State Department of Health have established limits on the contaminants that may be present in drinking water. These are called MCL's: Maximum Contaminant Levels.

FOURTH UNREGULATED MONITORING RULE- UCMR4

The 1996 Safe Drinking Water Act (SDWA) amendments require that once every five years EPA issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems (PWSs).

The fourth Unregulated Contaminant Monitoring Rule (UCMR 4) was published in the Federal Register on December 20, 2016. UCMR 4 requires monitoring for 30 chemical contaminants between 2018 and 2020 using analytical methods developed by EPA and consensus organizations. This monitoring provides a basis for future regulatory actions to protect public health.

WHAT DOES THIS INFORMATION MEAN?

TRIHALOMETHANES:

The table shows that our system uncovered some problems this year. At one sample location, the level of trihalomethanes was above the MCL for the 3rd and 4th Quarters of 2022. There are several factors that the Water Department believes lead to this condition. There was a change in use at facilities in the affected area which led to reduced water demand. Drought restrictions also resulted in the Water Department cancelling its routine flushing program. Both of these factors impact the age of the water. Water age is a contributory factor in trihalomethane formation. In addition to these factors, algal blooms in the source water resulted in an increase in chlorine application dosage for disinfection for part of the periods in question. The water department is working with its engineering consultant to identify the root causes and providing future recommendations addressing this issue.

Trihalomethanes are disinfection byproducts formed during treatment of drinking water by chlorine, the most commonly used disinfectant in New York State. Drinking water is disinfected by public water suppliers to kill bacteria and viruses that could cause serious illnesses. For this reason, disinfection of drinking water by chlorination is beneficial to public health. The amount of trihalomethanes in drinking water can change from day to day, depending on the temperature, the amount of organic material in the source water, the amount of chlorine added, and a variety of other factors. All public water systems that use chlorine as a disinfectant contain trihalomethanes to some degree.

The following paragraph summarizes and characterizes the available studies on human populations exposed to trihalomethanes, and provides a general summary of the health effects of trihalomethanes in animals, which occur at exposure levels much higher than exposures that could result through normal use of the water.

Some studies suggest that people who drank water containing trihalomethanes for long periods of time (e.g., 20 to 30 years) have an increased risk of certain health effects. These include an increased risk for cancer and for low birth weights, miscarriages and birth defects. The methods used by these studies could not rule out the role of other factors that could have resulted in the observed increased risks. In addition, other similar studies do not show an increased risk for these health effects. Therefore, the evidence from these studies is not strong enough to conclude that the observed increased risk for health effects is due to trihalomethanes, other disinfection by-products, or some other factor. Studies of laboratory animals show that some trihalomethanes can cause cancer and adverse reproductive and developmental effects after high levels of exposure. The risks for adverse health effects from trihalomethanes in drinking water are small compared to the risks for illness from drinking inadequately disinfected water.

LEAD AND COPPER:

The table reveals that the water level for lead did not exceed the action level of 15 ug/L in more than 10 percent of the homes tested. 30 homes were tested. 0.03% (or 1) of the 30 homes tested exceeded the state action level of 15ug/L. 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 Village of Nyack Water Department 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 MCL was not exceeded in the testing for copper.

BACTERIOLOGICAL TESTING:

Bacteriological samples are taken from several different locations in our system each week and sent to a certified independent lab (Pace Laboratories, Inc.) for analysis. The Water Department also takes one sample each day from a different location and tests for free chlorine residual and turbidity.

While the treatment plant is in operation, New York State D.O.H. licensed plant operators continuously monitor the turbidity and free chlorine levels. The number of Bacteriological tests that we are required to conduct based on the size of our water system is: 15 tests per month; 180 tests per year.

TURBIDITY SAMPLING:

Turbidity is a measure of the cloudiness of the water. We continuously monitor it because it is a good indicator of the effectiveness of our filtration system. Our highest single turbidity measurement for the year occurred on April 12, 2022, November 12, 2022, December 14, 2022 (0.13 NTU). NY. State regulations require that turbidity must always be below 1.0 NTU. The regulations also require that 95% of the turbidity samples collected have a measurement below 0.3 NTU. Samples in all months in 2022 met the turbidity standard.

OTHER TESTS CONDUCTED EVERY DAY

The following tests are conducted on the raw, settled, and finished waters every day for process control and monitoring purposes:

- Free and total chlorine residual
- Turbidity
- pH
- Zeta potential
- Specific conductance
- Alkalinity
- Hardness
- Color
- Time of filtration
- Manganese

All test results are monitored by and reported to the Rockland County Department of Health

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. Testing for asbestos is done every 9 years 2013-2021. We must note testing for asbestos was inadvertently not performed in 2022. To comply with the monitoring violation we tested for asbestos on 3/6/23 and it was nondetectable.

In response to violations of the drinking water standard for trihalomethanes in 2022, customers were not notified within the required 30 days for the violations that occurred last year. In addition, we failed to conduct operational evaluations and submit reports to regulators when water quality was approaching the drinking water standards in 2022. Although these incidents were not an emergency, as our customers, you have a right to know what happened and what has been done to correct this situation. Along with its engineering consultant, The Water Department is performing an operational evaluation focused on identifying root causes and providing recommendations for future operations to address these issues.

CRYPTOSPORIDIUM AND GIARDIA INFORMATION

While there is no evidence of illness related to the Village of Nyack water supply, New York State Law requires all water suppliers to notify their customers about the potential risks. Cryptosporidium and Giardia are intestinal illnesses caused by microscopic pathogens which can be waterborne. They can be very serious for people with weak immune systems, such as chemotherapy, dialysis, or transplant patients, and people with Crohn's Disease and HIV infection. People with weakened immune systems should discuss with their health care provider the need to take extra precautions, such as boiling water, using certified bottled water, or a specially approved home filter.

WHAT IS BEING DONE TO CONTROL CRYPTOSPORIDIUM AND GIARDIA

Federal, State, and local efforts are underway in your community. Your local water utility is taking steps such as:

- Testing of Raw Water for Cryptosporidium (Tested from April 2008-March 2010).
- Improving quality control
- Working with Rockland County Department of Health
- Educating the public
- Systematic flushing of the water mains
- Making timely repairs
- Most importantly, improving water treatment methods, including:
 - Pretreatment - Sedimentation - Filtration - Disinfection / increasing the free chlorine residual, based on temperature and pH of the water to meet CT (contact time requirement) necessary to inactivate certain viruses and organisms. This will more than likely be a seasonal adjustment. (Winter months).

These steps greatly reduce any risks of water contamination.

WORKING TOGETHER, WE CAN KEEP OUR WATER SAFE

Take basic steps to stay safe from these intestinal diseases. Support National, State, and local efforts to keep our water supplies safe. Learn as much as you can about Cryptosporidium and Giardia.

WHERE CAN I GET MORE INFORMATION?

- N.Y. State Department of Health
- N.Y. State Department of Environmental Conservation
- Personal Health Care Provider
- U.S. Environmental Protection Agency Drinking Water Hotline (800-426-4791)
- Rockland County Department of Health (845-364-2595)





2022 SYSTEM IMPROVEMENTS

- Repaired various old fire hydrants
- Replaced 4 old hydrants with 4 new Sigelock hydrants
- Repaired various leaks system wide
- Phase A System Improvements completed

PROPOSED IMPROVEMENTS FOR 2023

- Replace 2 main transmission lines leaving the plant
- Continue to work with H2M Engineering Firm in the design of upgrading the treatment plant using granular activated carbon (GAC) for removal of Per and Polyfluoroalkyl Substances (PFAS). The current project plans have been submitted to the Rockland County Department of Health for review and approval. Updates can be found on the Village website at www.nyack-ny.gov.
- Various instrumentation for the treatment plant
- Begin Phase B System Improvements

YEAR ROUND WATER RATES (effective...6/1/19)

USAGE/QUARTER	INSIDE NYACK	OUTSIDE NYACK
Minimum Bill (<400CF)	\$26.40/Quarter	\$31.68/Quarter
0-50,000 CF	\$66.00/1,000 CF	\$79.20/1,000 CF
Over 50,000 CF	\$52.76/1,000 CF	\$63.31/1,000 CF

cf = Cubic Feet

One cf = 7.48 Gallons.

For additional information, the NY State Department of Health's web site is:
(www.health.state.ny.us)

And the EPA's drinking water website is:
(www.epa.gov/safewater/)

CONSERVE AND SAVE MONEY

Repair Leaks

A leak of one drop per second wastes 2,400 gallons per year. Most leaks are easy to repair with some basic know-how and a few simple tools.

PIPE LEAK SIZE	GALLONS LOST	
	PER DAY	PER MONTH
	360	11,160
	3,096	95,976
	8,424	261,144
	14,952	463,512

Install Water Saving Devices

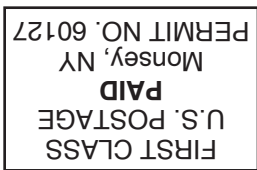
There are many inexpensive devices you can buy, such as aerators, flow regulators (to reduce flow of water), or displacement devices (to reduce the amount of water stored in older toilets).

Economize

Flush only when necessary. Don't use the toilet for cigarette butts, disposable diapers, etc. Use your sink wisely. Fill up the sink instead of letting the water run when you wash or brush your teeth. Check overflow pipes to be sure water isn't draining. Add food color to the toilet tank and check the water in the bowl in 15 minutes. If there's color in the bowl, it means there probably is a leak. Repair all drips as soon as possible. Take short showers and half tubs of water when you bathe.

continued on next page





WATER COMMISSIONERS
9 North Broadway
Nyack, N.Y. 10960-2695
Address Service Requested



CONSERVE AND SAVE MONEY continued **Dishwashers and Washing Machines**

The same rules apply to both of these water-hungry appliances. Only use them with full loads. Use the watersaving devices that come with both of these machines.

Outside

Repair all leaking hoses. Use a broom to sweep the driveway and walks, not the hose. Use a bucket to wash your car. Don't allow the hose to run while you wash.

If you have any questions about this report or concerning you water utility, please contact Superintendent Tom Lynch or, Asst. Superintendent Gilbert Francois at (845-358-3734). We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of the regularly scheduled Water Board meetings. They are held on the second Thursday of the month, 4:30 p.m., at Village Hall, 9 North Broadway, Nyack, New York. Please call Barbara Kunar, office manager at (845-358-0641) for exact dates of meetings.

24 Hour Emergency Phone Number:
(845-358-3734) or (358-0444)

We ask that all our customers help us protect our water sources,
which are the heart of our community and our way of life.