Fluoridation of Our Water

Our system is one of the many drinking water systems in New York State that provide drinking water with a controlled, low level of fluoride for consumer dental health protection. According to the CDC, fluoride is very effective in preventing cavities when present in drinking water at a properly controlled level. To ensure that the fluoride supplement in your water provides optimal dental protection, we monitor on a daily basis to make sure fluoride is maintained at a target level of 1.0 part per million (ppm), or 0.7 ppm if a fluoridating system has chosen to use the CDC's interim target level. During the reporting year, our monitoring showed that fluoride levels in your water were within 0.2 ppm of the target level (or 0.1 ppm if using CDC's interim target) for 76% percent of the time.

> "Water is the driving force of all nature."
>
> *-Leonardo da Vinci*

Facts and Figures

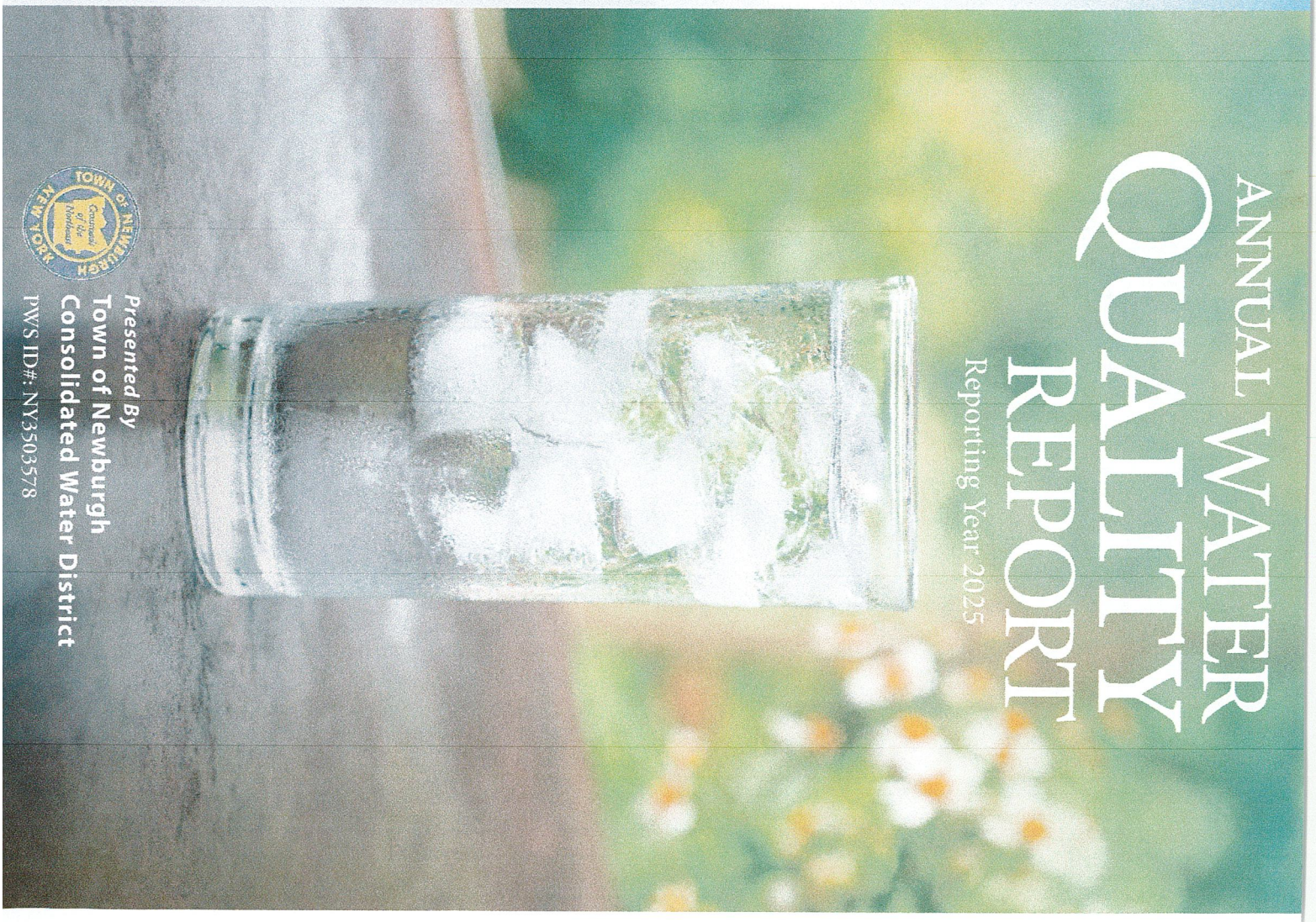
Our water system serves 30,975 customers through 6,600 service connections. The total amount of water produced in 2025 was 1.097 billion gallons. The daily average of water treated and pumped into the distribution system is 2.962 million gallons per day. Approximately 75 percent of the total was billed directly to consumers.

The balance or unaccounted water went to firefighting purposes, hydrants, distribution system leaks, and unauthorized use. The 2025 billing rate was $28 per 100 cubic feet (1,000 gallons). The minimum biannual bill was $56 (from 0 to 2,000 cubic feet).

Substances That Could Be in Water

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.

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. To ensure that tap water is safe to drink, the state and the U.S. EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. New York DOH and U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.



Our Commitment

We are pleased to present to you this year's annual water quality report. This report is a snapshot of last year's water quality covering all testing performed between January 1 and December 31, 2025. 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 water and providing you with this information because informed customers are our best allies.

Where Does My Water Come From?

Chadwick Lake Filter Plant's supply is the Chadwick Lake Reservoir. It has the capacity to treat 3.2 million gallons of water per day. The Delaware Aqueduct Filter Plant's supply is taken from the New York City Department of Environmental Protection's (DEP) Delaware Aqueduct, which is composed of four large reservoirs in the Catskill region and has the capacity to treat six million gallons of water per day.

Source Water Assessment

The DOH has evaluated the Town of Newburgh Consolidated Water District's (TONCWD) susceptibility to contamination under the Source Water Assessment Program (SWAP), and its findings are summarized in the paragraphs below. It is important to stress that these assessments were created using available information and only estimate the potential for source water contamination. Elevated susceptibility ratings do not mean that source water contamination has or will occur for this water district. The TONCWD provides treatment and regular monitoring to ensure the water delivered to consumers meets all applicable standards. A copy of the assessment, including a map of the assessment area, can be obtained by contacting us as noted in this report.

Chadwick Lake Reservoir Assessment Summary

This assessment found an elevated susceptibility to contamination for this source of drinking water. Land cover and its associated activities within the assessment area do not increase the potential for contamination. Nonsanitary wastewater discharges may also contribute to contamination. There are no noteworthy contamination threats associated with other discrete contaminant sources. Additional sources of potential contamination include a roadway.

Delaware Aqueduct Source Water Assessment Summary

The TONCWD also obtains water from the New York City water supply system. Water comes from the Delaware watershed west of the Hudson River. The SWAP methodologies applied to the rest of the state were not applied to the Delaware Aqueduct Source. Additional information on the water quality and protection efforts in these New York City watersheds can be found at the DEP's website at nyc.gov/dep/watershed.

Community Participation

If you would like to learn more about your drinking water, please attend any of our regularly scheduled town board meetings. A schedule of meetings is available from the Town Clerk's Office, 1496 Route 300, or call (845) 564-4554. Information on upcoming meetings can also be found on townofnewburgh.org.

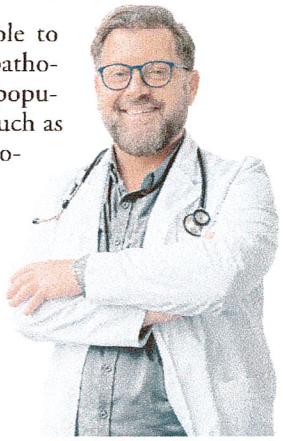
Water Treatment Process

At the Chadwick Lake Filtration Plant, water is drawn from the reservoir, and a chemical is added for coagulation. This process causes small particles to adhere to one another, forming what is called a floc. As this floc grows larger, it becomes heavier and settles into a basin from which sediment is removed. The water is then processed through sand filters, producing a crystal-clear effluent. Chemicals for pH adjustment and corrosion control are added at this point. Finished water can then pass through an additional filtration process for the removal of iron and manganese, as necessary.

The water from our Delaware Aqueduct facility is purchased from New York City DEP. At our new state-of-the-art filtration plant for the Delaware source, water is filtered through a membrane barrier and then chemically treated for pH and corrosion control. Sodium hypochlorite is added to both drinking water sources as a disinfectant.

Typically, both the town's filter plants are online and supply water to the distribution system simultaneously. Consumers in most parts of the town will see a combination of both sources at their tap. In an effort to increase dental health protection for the consumer, our water is fluoridated at both facilities.

Important Health Information



Some people may be more vulnerable to disease-causing microorganisms or pathogens in drinking water than the general population. Immunocompromised 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. U.S. EPA/Centers for Disease Control and Prevention (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.

QUESTIONS?

For more information about this report, contact John P. Egitto, Operations Engineer, at (845) 564-2180 or the Orange County Health Department at (845) 291-2331. You may also contact the New York State Department of Health (DOH) at (800) 458-1158. The U.S. Environmental Protection Agency (U.S. EPA) also provides valuable information at epa.gov/safewater.

Lead in Home Plumbing

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breast-fed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. The Town of Newburgh is responsible for providing high-quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter certified by an American National Standards Institute-accredited certifier to reduce lead is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure it is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling does not remove lead from water.

Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, or doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you are concerned about lead and wish to have your water tested, contact John Egitto at the Town of Newburgh. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at epa.gov/safewater/lead.

Service Line Inventory

A lead service line (LSL) is defined as any portion of pipe that is made of lead that connects the water main to the building inlet. An LSL may be owned by the water system, the property owner, or both. The inventory includes both potable and nonpotable service lines within a system. In accordance with the federal Lead and Copper Rule Revisions (LCRR), our system has prepared an LSL inventory as required. We have found some LSLs, galvanized lines requiring replacement, and services where the line material is unknown.

You can find a summary of these findings on the New York Department of Health website at health.ny.gov/environmental/water/drinking/service_line/. You can sort by system name or county to find this specific water system. General information on the LSL inventory requirements can be found at health.data.ny.gov/Health/New-York-State-Lead-ServiceLine-Inventory/j63k-4n92/about_data. This site also has a link to a map that can be found at health.data.ny.gov/Health/ New-York-State-Lead-Service-Line-Inventory-Map/fkii-zkcq. Please contact John Egitto for more information on how to obtain address-specific service line material or the full LSL inventory.

The table of detected contaminants in this report shows the results of the required lead testing that was conducted by our water system. We are required to report both the 90th percentile value and the range in the table. These values come from testing at the addresses where we are required to sample as per our monitoring plan; we do not test all taps in the distribution system. If you would like further testing results, please contact John Egitto at (845) 564-2180. In addition to the sampling conducted by this water system, schools and childcare facilities are required by the state to collect additional samples for lead testing. Please contact your school or childcare facility for more information regarding this testing.

Water Conservation Tips

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and looking for ways to use less whenever you can. It's not hard to conserve water. Here are a few tips:

- Automatic dishwashers use three to six gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- 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 toilets 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. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

What Are PFAS?

Per- and polyfluoroalkyl substances (PFAS) are a group of manufactured chemicals used worldwide since the 1950s to make fluoropolymer coatings and products that resist heat, oil, stains, grease, and water. During production and use, PFAS can migrate into the soil, water, and air. Most PFAS do not break down; they remain in the environment, ultimately finding their way into drinking water. Because of their widespread use and their persistence in the environment, PFAS are found all over the world at low levels. Some PFAS can build up in people and animals with repeated exposure over time.

The most commonly studied PFAS are perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). PFOA and PFOS have been phased out of production and use in the United States, but other countries may still manufacture and use them.

Some products that may contain PFAS include:

- Some grease-resistant paper, fast food containers/wrappers, microwave popcorn bags, pizza boxes
- Nonstick cookware
- Stain-resistant coatings used on carpets, upholstery, and other fabrics
- Water-resistant clothing
- Personal care products (shampoo, dental floss) and cosmetics (nail polish, eye makeup)
- Cleaning products
- Paints, varnishes, and sealants

Even though recent efforts to remove PFAS have reduced the likelihood of exposure, some products may still contain them. If you have questions or concerns about products you use in your home, contact the Consumer Product Safety Commission at (800) 638-2772. For a more detailed discussion on PFAS, please visit bit.ly/3Z5AMm8.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data is included, along with the year in which the sample was taken.

We participated in the fifth stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR5) program by performing additional tests on our drinking water. UCMR5 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water to determine if it needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data is available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminant Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	MCL [MRDL]	MCLG [MRDLG]	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
1,4-Dioxane (ppb)	1	NA	8/19/2025	0.029	ND–0.029	No	Historically used as a stabilizer for chlorinated solvents (particularly 1,1,1-trichloroethane); used in adhesives, resins, oils, waxes, pharmaceuticals, plastics, and rubber manufacturing; unintended byproduct of surfactants in personal care products, detergents, and cosmetics; enters water from industrial discharges, landfill leachate, and wastewater treatment plant effluent.
2,4-D (ppb)	5	5	2025	0.11	ND–0.11	No	Runoff from herbicide used on row crops
Chloride (ppm)	250	NA	5/20/2025	66.60	13.70–66.60	No	Naturally occurring or indicative of road salt contamination
Cyanide (ppb)	200	200	2025	5	NA	No	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
Dalapon (ppb)	50	NA	2025	0.76	ND–0.76	No	Runoff from herbicide used on rights-of-way
Fluoride (ppm)	2.2	NA	5/20/2025	0.60	0.55–0.60	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA5] (ppb)	60	NA	2025	34.55	13.20–75.60	No	By-product of drinking water disinfection
Manganese (ppb)	300	NA	5/20/2025	13.20	ND–13.20	No	Naturally occurring; Indicative of landfill contamination
Nickel (ppb)	100	100	2025	0.82	ND-0.82	No	Leaching from natural deposits; discharge from metal refining and steel/alloy manufacturing; corrosion of household plumbing and fittings
Nitrates (ppm)	10	10	4/21/2025	0.27	ND–0.27	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Perfluorooctanesulfonic Acid [PFOS] (ppt)	10	NA	2025	1.9	ND–1.90	No	Discharge from industrial sites; use of firefighting foams (AFFF) at airports, military bases, and fire training areas; manufacturing and use of non-stick coatings, stain-resistant fabrics
Perfluorooctanoic Acid [PFOA] (ppt)	10	NA	2025	4.9	ND–4.9	No	Discharge from industrial sites; use of firefighting foams (AFFF) at airports, military bases, and fire training areas; manufacturing and use of non-stick coatings, stain-resistant fabrics
Sodium (ppm)	NS[1]	NA	5/20/2025	37.3	9.35–37.3	No	Naturally occurring; Road salt; Water softeners; Animal waste
Sulfate (ppm)	250	NA	5/20/2025	7.70	ND-7.70	No	Runoff/leaching from natural deposits; industrial wastes
Total Coliform Bacteria[2] (positive samples)	TT=2 or more positive samples	0	2025	2	NA	No	Naturally present in the environment
Total Trihalomethanes [TTHMs: chloroform, bromodichloromethane, dibromochloromethane, and bromoform] (ppb)	80[3]	NA	6/16/2025	31.30	12.50–31.30	No	By-product of drinking water chlorination needed to kill harmful organisms, formed when source water contains large amounts of organic matter
Total Trihalomethanes [TTHMs] (ppb)	80	NA	2025	43.95	17.20–84.50	No	By-product of drinking water disinfection
Turbidity[4] (NTU)	TT	NA	2025	0.29	NA	No	Soil runoff
Turbidity (lowest monthly percent of samples meeting *limit*)	TT	TT = 95% of samples meet the limit	2025	100	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	AL	MCLG	DATE SAMPLED	AMOUNT DETECTED (90TH %ILE)	RANGE LOW-HIGH	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	1.3	1.3	2023	0.26	ND–0.28	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	15	0	2023	1.50	ND–8.80	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits

UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Perfluorobutanesulfonic Acid [PFBS] (ppt)	8/19/2025	1.80	ND–1.80	NA
Perfluorobutanoic Acid [PFBA] (ppt)	8/19/2025	9.70	1.20–9.70	NA
Perfluoroheptanoic Acid [PFHpA] (ppt)	8/19/2025	3.40	ND–3.40	NA
Perfluorohexanesulfonic Acid [PFHxS] (ppt)	8/19/2025	0.55	ND–0.55	NA
Perfluorohexanoic Acid [PFHxA] (ppt)	8/19/2025	5.20	ND–5.20	NA
Perfluorononanoic Acid [PFNA] (ppt)	8/19/2025	0.89	ND–0.89	NA
Perfluoropentanoic Acid [PFPeA] (ppt)	8/19/2025	6.70	ND–6.70	NA

[1] *Water containing more than 20 ppm of sodium should not be used for drinking by people on severely restricted sodium diets. Water* containing more than 270 ppm of sodium should not be used for drinking by people on moderately restricted sodium diets.

[2] Coliform was detected on 4/7/25 and 8/19/25. In both cases all repeat samples were collected and all were negative. These positive samples were never confirmed.

[3] Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system and may have an increased risk of getting cancer.

[4] Turbidity is a measure of the cloudiness of the water. It is tested because it is a good indicator of the effectiveness of the filtration system. Our highest single turbidity measurement for the year occurred as indicated in the table above. 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. (Note that TT is dependent upon filtration method: conventional, 0.3 NTU; slow sand, 1.0 NTU; or diatomaceous earth filtration, 1.0 NTU.) Although the month as indicated in the Date column above was the month when we had the fewest measurements meeting the treatment technique for turbidity, the levels recorded were within the acceptable range allowed and did not constitute a treatment technique violation.

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of 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 lead and copper values detected at your water system.

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

Herbicide: Any chemical(s) used to control undesirable vegetation.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG 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 drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): 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 contaminants.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 *NTU is just noticeable to the average person.*

pCi/L (picocuries per liter): A measure of radioactivity.

Pesticide: Generally, any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

ppt (parts per trillion): One part substance per trillion parts water (or nanograms per liter).

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

Nondetected Contaminants

Following is a list of contaminants that the Town of Newburgh Consolidated Water District tested for but did not find above laboratory detection limits.

1,1,1,2-Tetrachloroethane
1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloro-1,2,2-trifluoroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethylene
1,1-Dichloropropene
1,2,3-Trichlorobenzene
1,2,3-Trichloropropane
1,2,4-Trichlorobenzene
1,2,4-Trimethylbenzene
1,2-Dichlorobenzene
1,2-Dichloroethane
1,2-Dichloropropane
1,3,5-Trimethylbenzene
1,3-Butadiene
1,3-Dichlorobenzene
1,3-Dichloropropane
1,3-Dichloropropene
1,4-Dichlorobenzene
2,2-Dichloropropane
2,4,5-TP (Silvex)
3-Hydroxycarbofuran
Alachlor
Aldicarb
Aldicarb sulfone
Aldicarb sulfoxide
Aldrin
Antimony
Arsenic
Atrazine
Barium
Benzene
Benzo(a)pyrene (PAH)
Beryllium
Bromobenzene
Bromochloromethane
Bromoform
Bromomethane
Butachlor
Cadmium
Carbaryl
Carbofuran
Carbon tetrachloride
Chlordane
Chloroethane
Chloromethane
Chromium, total
DBCP
Dibromochloromethane
Dibromomethane
Dicamba
Dichlorodifluoromethane
Dieldrin
Dinoseb
EDB
Endrin
Ethylbenzene
Heptachlor
Heptachlor epoxide
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclopentadiene
Iron
Isopropylbenzene
Lindane
Mercury, inorganic
Methomyl
Methoxychlor
Methyl tert-butyl ether (MTBE)
Methylene chloride/dichloromethane
Metolachlor
Metribuzin
Odor
Oxamyl (Vydate)
PCBs
Pentachlorophenol
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)
Perfluoro-3-methoxypropanoic acid (PFMPA)
Perfluoro-4-methoxybutanoic acid (PFMBA)
Perfluorodecanoic acid (PFDA)
Perfluorododecanoic acid (PFDoA)
Perfluoroheptanesulfonic acid (PFHpS)
Perfluoropentanesulfonic acid (PFPeS)
Perfluorotetradecanoic acid (PFTA)
Perfluorotridecanoic acid (PFTrDA)
Perfluoroundecanoic acid (PFUnA)
PFAS6
Picloram
Propachlor
Selenium
Silver
Simazine
Styrene
Thallium
Toluene
Toxaphene
Trichloroethylene
Trichlorofluoromethane
Vinyl chloride
Xylenes
Zinc

Benefits of Chlorination

Disinfection, a chemical process used to control disease-causing microorganisms by killing or inactivating them, is unquestionably the most important step in drinking water treatment. By far, the most common method of disinfection in North America is chlorination.

Before communities began routinely treating drinking water with chlorine (starting with Chicago and Jersey City in 1908), cholera, typhoid fever, dysentery, and hepatitis A killed thousands of U.S. residents annually. Drinking water chlorination and filtration have helped to virtually eliminate these diseases in the U.S. Significant strides in public health are directly linked to the adoption of drinking water chlorination. In fact, the filtration of drinking water and the use of chlorine are probably the most significant public health advancements in human history.

How chlorination works:

- Potent Germicide Reduction of many disease-causing microorganisms in drinking water to almost immeasurable levels.
- Taste and Odor Reduction of many disagreeable tastes and odors from foul-smelling algae secretions, sulfides, and decaying vegetation.
- Biological Growth Elimination of slime bacteria, molds, and algae that commonly grow in water supply reservoirs, on the walls of water mains, and in storage tanks.
- Chemical Removal of hydrogen sulfide (which has a rotten egg odor), ammonia, and other nitrogenous compounds that have unpleasant tastes and hinder disinfection. It also helps to remove iron and manganese from raw water.

Disinfection By-Products Explained

Disinfection by-products, commonly called DBPs, form when disinfectants such as chlorine react with naturally occurring organic matter in water. Two of the most commonly monitored DBPs are total trihalomethanes (TTHMs) and five haloacetic acids (HAA5). While disinfectants play a vital role in protecting public health by killing harmful bacteria and viruses, these reactions can produce small amounts of DBPs. Long-term exposure to elevated levels of DBPs has been associated with increased health risks, which is why strict federal standards regulate these substances.

We carefully balance the need for effective disinfection with the control of DBP formation. This includes optimizing treatment processes, managing natural organic matter, maintaining proper disinfectant levels, and adjusting system operations seasonally. Customers can help reduce DBP exposure at home by allowing tap water to run briefly before use, using certified carbon filters, and refrigerating drinking water to allow some DBPs to dissipate.

Disinfection remains one of the most important public health achievements in modern history. Water utilities continuously work to ensure that water is both microbiologically safe and compliant with DBP regulations.