ANNUAL WATER QUALITY REPORT

Reporting Year 2023

Presented By

Town of Newburgh
Consolidated Water District

PWS ID#: NY3503578

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, 2023. Included are details about your sources of water, what it contains, and how it compares to standards set by regulatory agencies. 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.

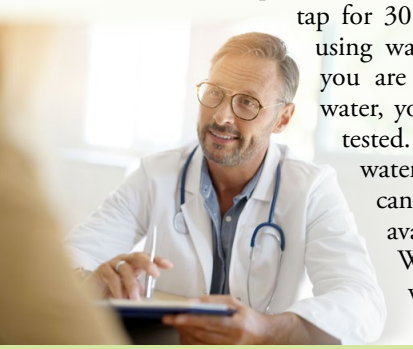
Facts and Figures

Our water system serves around 23,300 customers through 6,763 service connections. The total amount of water produced in 2023 was 927 million gallons. The daily average of water treated and pumped into the distribution system was 2.5 million gallons. The 2023 billing rate was $24 for the first 7,500 gallons used, $4.72 per 1,000 gallons for the next 10,000 gallons, $5.40 per 1,000 gallons for the next 82,500 gallons, and $6.40 per 1,000 gallons thereafter. The minimum quarterly bill was $24.

Important Health Information

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. 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.

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. We are 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 two 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 (800) 426-4791 or www.epa.gov/safewater/lead.



About Our Violation

During first quarter 2023, we failed to collect a system sample for water quality parameters and a plant sample for the presence of total organic carbon (TOC) in March. Subsequent samples were collected, and results of the analysis have been properly recorded as required by state and federal law. We do not believe that missing this monitoring requirement had any impact on public health and safety. We have already taken steps to ensure that adequate monitoring and reporting will be performed in the future.

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.

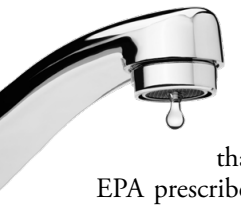
Typically, both the town's filtration plants are online and supply water to the distribution system simultaneously. Residents in most parts of the town will see a combination of these sources at their tap. In an effort to increase dental health protection for the consumer, our water is fluoridated at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

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's (U.S. EPA) drinking water website (www.epa.gov/safewater) also provides valuable information.

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. In order to ensure that tap water is safe to drink, the state and the U.S. EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. 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 U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Fluoridation of Our Water

Our system is one of the many drinking water systems in New York state that provides 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 fluoride levels on a daily basis to make sure it 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) 100 percent of the time.

Where Does My Water Come From?

The town utilizes two sources of water. Chadwick Lake filtration 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 filtration plant's supply is taken from New York City Department of Environmental Protection's (DEP) Delaware Aqueduct, which is comprised of four large reservoirs in the Catskill region. This water comes from the Delaware watershed west of the Hudson River. The plant has the capacity to treat six million gallons of water per day.

Source Water Assessment

DOH has evaluated the Town of Newburgh Consolidated Water District's (TONCWD) susceptibility to contamination under the Source Water Assessment Program (SWAP). Its findings are summarized 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 in this water district. 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

The 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 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

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 www.nyc.gov/dep/watershed.

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 is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use four 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.

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 are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	MCL [MRDL]	MCLG [MRDLG]	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2	2	08-15-23	0.018	0.011–0.018	No	Erosion of natural deposits
Chloride (ppm)	250	NA	08-08-23	86	14–86	No	Naturally occurring
Dalapon (ppb)	50	NA	08-23-23	0.62	ND–0.62	No	Naturally occurring
Fluoride (ppm)	2.2	NA	08-15-23	0.60	0.60–0.60	No	Water additive that promotes strong teeth
Haloacetic Acids [mono-, di-, and trichloroacetic acid and mono- and dibromoacetic acid]–Stage 1 (ppb)	60	NA	Quarterly 2023	32.4[1]	18–54[1]	No	By-product of drinking water disinfection needed to kill harmful organisms
Perfluorooctanesulfonic Acid [PFOS] (ppt)	10	NA	2023	2.3	ND–2.3	No	Released into the environment from widespread use in commercial and industrial applications
Perfluorooctanoic Acid [PFOA] (ppt)	10	NA	2023	6.0	3.0–6.0	No	Released into the environment from widespread use in commercial and industrial applications
Sodium (ppm)	See footnote[2]	NA	08-08-23	51	15–51	No	Naturally occurring
Sulfate (ppm)	250	NA	08-08-23	6.5	ND–6.5	No	Naturally occurring
Total Coliform Bacteria (positive samples)	TT = 2 or more positive samples	0	09-28-23	1[3]	NA	No	Naturally present in the environment
Total Trihalomethanes [TTHMs; chloroform, bromodichloromethane, dibromochloromethane, and bromoform]–Stage 2 (ppb)	80[4]	NA	Quarterly 2023	55.1[1]	28.5–120[1]	No	By-product of drinking water chlorination needed to kill harmful organisms, formed when source water contains large amounts of organic matter
Turbidity [distribution system][5] (NTU)	TT	NA	April 2023	0.19	NA	No	Soil runoff
Turbidity[5] (NTU)	TT	NA	09-08-23	0.18[6]	NA	No	Soil runoff
Turbidity (lowest monthly percent of samples meeting limit)	TT	TT = 95% of samples meet the limit	09-08-23	100	NA	No	Soil runoff

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.

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.

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.

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.

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	June–September 2023	0.280	ND–0.280	0/30	No	Corrosion of household plumbing systems
Lead (ppb)	15	0	June–September 2023	1.5	ND–8.8	0/30	No	Corrosion of household plumbing systems

UNREGULATED SUBSTANCES				
SUBSTANCE (UNIT OF MEASURE)	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Chlorodibromomethane (ppm)	09-12-23	0.00064	ND–0.00064	Released into the environment from widespread use in commercial and industrial applications
Chloroform (ppm)	09-12-23	0.019	0.0098–0.019	Released into the environment from widespread use in commercial and industrial applications
Dichlorobromomethane (ppm)	09-12-23	0.0043	0.0011–0.0043	Released into the environment from widespread use in commercial and industrial applications
Nickel (ppb)	08-15-23	0.9	ND–0.9	Naturally occurring

[1] Represents the highest locational running annual average for the year and the range of all individual samples collected throughout the year.

[2] 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.

[3] Required repeat samples were collected based on this positive sample. All repeat samples were negative for coliform; therefore, this positive sample was never confirmed.

[4] 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.

[5] 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. The Amount Detected value is the highest measurement of the monthly average distribution results for the year.

[6] Highest single turbidity measurement for the year. State regulations require that turbidity must always be below 1 NTU and 95% of samples must be below 0.3 NTU. (Note that TT is dependent upon filtration method: conventional, 0.3 NTU; slow sand, 1.0 NTU; diatomaceous earth filtration, 1.0 NTU.) Although the month indicated in the Date column had the fewest measurements meeting the treatment technique for turbidity, the levels recorded were within the acceptable range and did not constitute a treatment technique violation.

Nondetected Contaminants

Following is a list of contaminants that we tested for but did not detect above the laboratory equipment limits in our water supply.

Inorganics:

Antimony, arsenic, asbestos, beryllium, bromate, cadmium, chlorite, cyanide, iron, mercury, selenium, silver, thallium, uranium, zinc

Volatile Organics:

Alachlor, aldicarb, aldicarb sulfone, aldicarb sulfoxide, aldrin, atrazine, benzene, benzo(a)pyrene, bis(2-ethylhexyl)adipate, bis(2-ethylhexyl) phthalate, bromobenzene, bromomethane, butachlor, n-butylbenzene, sec-butylbenzene, tert-butylbenzene, bromochloromethane, carbon tetrachloride, carbaryl, carbofuran, 3-hydrocarbofuran, chlordane, chloroethane, chloromethane, 1,2-dibromo-3-chloropropane,1,2-dibromoethane, 2-chlorotoluene, 4-chlorotoluene, Dalapon, dibromomethane, dicamba, dinoseb, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, dichlorodifluoromethane, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,2-dichloropropane, 1,3-dichloropropane, 2,2-dichloropropane, 1,1-dichloropropene, cis-1,3-dichloropropene, trans-1,3-dichloropropene, dieldrin, endrin, ethylbenzene, gamma-BHC (Lindane), heptachlor, heptachlor epoxide, hexachlorobenzene, hexachlorocyclopentadiene, hexachlorobutadiene, isopropylbenzene, p-isopropyltoluene, methoxychlor, methomyl, metalochlor, methylene chloride, metribuzin, oxamyl, total PCB, pentachlorophenol, picloram, propachlor, n-propylbenzene, styrene, simazine, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, 2,4,5-TP (Silvex), tetrachloroethene, toluene, toxaphene, 1,2,4-trichlorobenzene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethane, trichlorofluoromethane, 1,2,3-trichloropropane, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, m-xylene, o-xylene, p-xylene, total xylene, MTBE, vinyl chloride

Unregulated Contaminant Monitoring

In 2020 we were required to collect and analyze drinking water samples for the following unregulated contaminants:

Total microcystins, microcystin-(LA, RR, LF, YR, LR, LY), nodularin, cylindrospermopsin, anatoxin-a, germanium, manganese, alpha-hexachlorocyclohexane, profenofos, chlorpyrifos, tebuconazole, dimethipin, total permethrin (cis- and trans-), ethoprop, tribufos, oxyfluorfen, HAA5 (dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, and trichloroacetic acid), HAA6Br (bromochloroacetic acid, bromodichloroacetic acid, dibromoacetic acid, chlorodibromoacetic acid, monobromoacetic acid, and tribromoacetic acid), HAA9 (bromochloroacetic acid, bromodichloroacetic acid, chlorodibromoacetic acid, dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, tribromoacetic acid, and trichloroacetic acid),1-butanol, 2-propen-1-ol, 2-methoxyethanol, butylated hydroxyanisole, o-toluidine, and quinoline.

You may obtain the monitoring results by calling Daniel Bertola at (845) 564-2180.