

ANNUAL WATER QUALITY REPORT

Reporting Year 2021



Presented By

Town of New Windsor Consolidated Water

(Including Firthcliffe Heights Water District)



George J. Meyers, Supervisor

We've Come a Long Way

Once again, we are proud to present our annual water quality report covering the period between January 1 and December 31, 2021. In a matter of only a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. Our exceptional staff continues to work hard every day—at all hours—to deliver the highest-quality drinking water without interruption. Although the challenges ahead are many, we feel that by relentlessly investing in customer outreach and education, new treatment technologies, system upgrades, and training, the payoff will be reliable, high-quality tap water delivered to you and your family.

Where Does My Water Come From?

During 2021 the Town of New Windsor residents received water from a variety of pristine sources. The Ashokan Reservoir feeds the Catskill Aqueduct, which delivers water to the New York City water supply system. As the aqueduct passes through the town, a tap on the large pipeline delivers water to the Riley Road filtration plant. The town also utilized the Kroll Well in 2021. The water from this well is chlorinated at the well site, then blended with water in the system to supply water to the town. The Butterhill Treatment Plant is supplied by three large production wells located on a protected site on the eastern portion of the Town of New Windsor. Each well can be operated independently or in conjunction with the others to meet the total water demands of the town. The Town of New Windsor also has the capability to obtain water from the City and Town of Newburgh in an emergency or drought conditions.

To learn more about our watershed on the internet, go to the New York City Department of Environmental Protection website at www.nyc.gov/html/dep/html/drinking_water/index.shtml. For more information on water from the Catskill Aqueduct, you can view the water quality report here: nyc.gov/waterqualityreport.

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When the well is dry, we
know the worth of water.

—Benjamin Franklin

Source Water Assessment

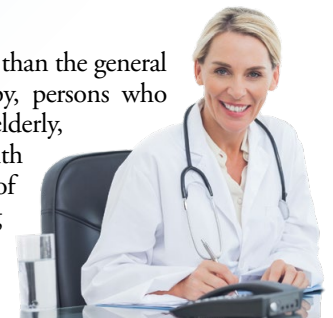
The New York State (NYS) Department of Health (DOH) has evaluated our surface water system's susceptibility to contamination under the Source Water Assessment Program (SWAP). This assessment was created using available information and is only an estimate of the potential for source water contamination. Elevated susceptibility ratings do not mean that source water contamination has occurred or will occur in our water system. We provide treatment and regular monitoring to ensure the water delivered to consumers meets all applicable standards.

The assessment area for this drinking water source contains some medium-rated threats to water quality. First, the watershed contains a large amount of high-density residential land cover, which results in a medium susceptibility for protozoa. Also, there are a number of potential contaminant sources listed in the NYS SWAP database. Of these sources, the most significant threats to drinking water quality are related to a main roadway and its associated businesses.

A copy of the assessment, including a map of the assessment area, can be obtained by contacting John P. Egitto, Operations Engineer, at (845) 561-2550.

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. 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 at (800) 426-4791.



Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. The time and place of regularly scheduled town board meetings may be obtained from Kelly Allegra, the Town Clerk, at New Windsor Town Hall, (845) 563-4611, or online at newwindsor-ny.gov.

QUESTIONS? For more information about this report or for questions relating to your drinking water, please call John P. Egitto, Operations Engineer, at (845) 561-2550, or the Orange County Health Department at (845) 291-2331. You may also contact the New York State Department of Health at (800) 458-1158. The U.S. EPA drinking water website (www.epa.gov/your-drinking-water) can provide you with additional information regarding your drinking water.

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. The State Health Department's and the U.S. FDA's 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.

Lead in Home Plumbing

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 at www.epa.gov/safewater/lead.



Water Conservation

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 whenever you can. It is not hard to conserve water.

Nondetected Contaminants

Following is a list of contaminants that we tested for but did not detect in our water supply.

Inorganics:

Antimony, arsenic, beryllium, cadmium, chromium, cyanide, fluoride, mercury, selenium, thallium

Volatile Organics:

Alachlor; aldicarb; aldicarb sulfone; aldicarb sulfoxide; aldrin; atrazine; benzene; benzo(a)pyrene; bis(2-ethylhexyl)adipate; bis(2-ethylhexyl)phthalate; bromobenzene; bromochloromethane; bromomethane; butachlor; n-butylbenzene; sec-butylbenzene; tert-butylbenzene; carbon tetrachloride; chlorobenzene; chloromethane; carbaryl; carbofuran; chloroethane; 2-chlorotoluene; 4-chlorotoluene; dalapon; dibromomethane; 1,2-dibromo-3-chloropropane (DECP); 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; 1,4 dioxane; ethylbenzene; gamma-BHC (Lindane); heptachlor; heptachlor epoxide; hexachlorobenzene; hexachlorocyclopentadiene; hexachlorobutadiene; isopropylbenzene; 4-isopropyltoluene; methoxychlor; methomyl; metalochlor; methylene chloride; methyl tert-butyl ether; metribuzin; oxamyl; polychlorinated biphenyls, total; perfluorooctanesulfonic acid; perfluorooctanoic acid; propachlor; n-propylbenzene; styrene; simazine; 1,1,1,2-tetrachloroethane; 1,1,2,2-tetrachloroethane; tetrachloroethene; toluene; 1,2,4-trichlorobenzene; 1,1,1-trichloroethane; 1,1,2-trichloroethane; trichloroethane; trichlorofluoromethane; 1,2,3-trichloropropane; 1,2,3-trichlorobenzene; 1,2,4-trimethylbenzene; 1,3,5-trimethylbenzene; vinyl chloride; o-xylene; m-xylene; p-xylene

Organic Chemicals:

Group 1: Chlordane; endrin; 2,4,5-TP (Silvex); 2,4-D; pentachlorophenol

Group 2: Dieldrin; dicamba; dinoseb; picloram; toxaphene

SOCs: Aroclor 1016; aroclor 1221; aroclor 1232; aroclor 1242; aroclor 1248; aroclor 1254; aroclor 1260; 1,2-dibromo-3-chloropropane (DBCP); 1,2-dibromoethane (EDB)

Facts and Figures

Our water system serves approximately 29,500 customers through approximately 5,573 service connections. The total amount of water produced in 2021 was approximately one billion gallons. The daily average of water treated and pumped into the distribution system was three million gallons per day. The 2021 billing rate was \$8.69 per 1,000 gallons. The minimum quarterly bill was \$39.

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. 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]	Town of New Windsor			Riley Road			VIOLATION	TYPICAL SOURCE
			DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH		
Barium (ppm)	2	2	NA	NA	NA	02/25/2021	0.0075	NA	No	Erosion of natural deposits
Chloride (ppm)	250	NA	NA	NA	NA	NA	NA	NA	No	Road salt
Chlorite (ppm)	1	0.8	NA	NA	NA	09/01/2021	0.12	NA	No	By-product of drinking water disinfection at treatment plants using chlorine dioxide
Haloacetic Acids [mono-, di-, and trichloroacetic acid; mono- and dibromoacetic acid]–Stage 2 (ppb)	60	NA	Quarterly 2021	16.7	1.3–41.0	NA	NA	NA	No	By-product of drinking water disinfection needed to kill harmful organisms
Nitrate (ppm)	10	10	NA	NA	NA	02/25/2021	0.086	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (ppm)	NA ¹	NA	NA	NA	NA	03/10/2021	16.2	NA	No	Naturally occurring; Road salt
Sulfate (ppm)	250	NA	NA	NA	NA	NA	NA	NA	No	Naturally occurring
Total Coliform Bacteria (Positive samples)	TT = 2 or more positive samples	0	05/11/2021, 07/07/2021	2 ²	NA	NA	NA	NA	No	Naturally present in the environment
Total Organic Carbon (ppm)	TT ³	NA	NA	NA	NA	08/04/2021	1.92	NA	No	Naturally present in the environment
Total Trihalomethanes [TTHMs; chloroform, bromodichloromethane, dibromochloromethane, bromoform]–Stage 2 (ppb)	80	NA	Quarterly 2021	26.6	6.8–63.7	NA	NA	NA	No	By-product of drinking water chlorination needed to kill harmful organisms; TTHMs are formed when source water contains large amounts of organic matter
Turbidity ⁴ (NTU)	TT	NA	NA	NA	NA	03/30/2021	0.29	0.04–0.29	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	TT = 95% of samples meet the limit	NA	NA	NA	NA	03/30/2021	100	NA	No	Soil runoff
Zinc (ppm)	5	NA	NA	NA	NA	NA	NA	NA	No	Naturally occurring

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		VIOLATION	TYPICAL SOURCE
						ABOVE AL/ TOTAL SITES			
Copper (ppm)	1.3	1.3	1st Half 2021	0.243	ND–0.379	0/31		No	Corrosion of household plumbing systems
			2nd Half 2021	0.305	0.00308-0.443	0/64			
Lead (ppb)	15	0	1st Half 2021	1.21	ND–1.86	0/31		No	Corrosion of household plumbing systems
			2nd Half 2021	1.53	ND–35.1	2/64			

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 in 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).

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

¹Water 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.

²All repeat samples were collected as required, and the positive samples collected on May 11 and July 7, 2021, were never confirmed.

³The value reported under Amount Detected for TOC is the lowest ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than 1 indicates that the water system is in compliance with TOC removal requirements. A value of less than 1 indicates a violation of the TOC removal requirements.

⁴Turbidity 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.

⁵Although not required, we monitor our Butterhill wells for turbidity, which is an indicator of the effectiveness of our iron and manganese filters. Finished water iron and manganese levels have been below the MCL, and distribution turbidities have been less than 5 NTU, as required.

