

ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2018

Presented By

**Town of New Windsor
Consolidated Water**

**George A. Green,
Supervisor**



Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2018. Over the years, we have dedicated ourselves to producing drinking water that meets all State and Federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please remember that we are always available should you ever have any questions or concerns about your water.

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 Web site (www.epa.gov/your-drinking-water) can also provide you with additional information regarding your drinking water.

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 those with cancer undergoing chemotherapy, those 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 providers 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.

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 we 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 (800) 426-4791 or at www.epa.gov/safewater/lead.



Where Does My Water Come From?

During the calendar year 2018, 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, two taps on the large pipeline deliver water to two individual filtration plants. Also, in 2012, the town added the St. Anne's Well. The water from this well is chlorinated at the well site, and then blends with water in the system and supplies water to a small section of the town when needed. The water source to the Butterhill Treatment Plant, the Town's new main water source, 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 each other to meet the total water demands of the Town. When these supplies are not available, the Silver Stream Reservoir can be used as an emergency source. The Town of New Windsor also has the ability to obtain water from the City and the Town of Newburgh in an emergency or drought condition. To learn more about our watershed on the Internet, go to the New York City Dept. of Environmental Protection Web site at www.nyc.gov/html/dep/html/drinking_water/index.shtml.



Nondetected Contaminants

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

Inorganics:

Antimony, 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; Bromomethene; Butachlor; n-Butylbenzene; sec-Butylbenzene; tert-Butylbenzene; Carbon Tetrachloride; Chlorobenzene; Carbaryl; Carbofuran; Chloroethane; 2-Chlorotoluene; 4-Chlorotoluene; Dibromomethane; 1,2-Dibromomethane; 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; Ethylbenzene; gamma-BHC (Lindane); Heptachlor; Heptachlor Epoxide; Hexachlorobenzene; Hexachlorocyclopentadiene; Hexachlorobutadiene; Isopropylbenzene; 4-Isopropyltoluene; Methoxychlor; Methomyl; Metalochlor; Methylene Chloride; Metribuzin; Oxamyl; PCB, total; Propachlor; n-Propylbenzene; Styrene; Simazine; 1,1,1,2-Tetrachloroethane; 1,1,2,2-Tetrachloroethane; Tetrachloroethene; 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; o-Xylene; m-Xylene; p-Xylene; MTBE; Vinyl Chloride

Organic Chemicals:

Group 1: Chlordane; Endrin, 2,4,5-TP (Silvex); 2,4-D; Pentachlorophenol

Group 2: Dieldrin; Dicamba; Dinoseb; Picloram

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); PCBs

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), and their findings are summarized in the paragraph below. These assessments were created using available information. They estimate only the potential for source water contamination. Elevated susceptibility ratings do not mean that source water contamination has or will occur in our water system. We provide treatment and regular monitoring to ensure that 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.

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 by looking for ways to use less whenever you can. It is not hard to conserve water. Here are few tips:

- Automatic dishwashers use 15 gallons for every cycle, load it to capacity before running it.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks.
- 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.
- 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.

We remain vigilant in delivering the best-quality drinking water

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 the Town Clerk, Deborah Green, at New Windsor Town Hall, (845) 563-4611.

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 show only 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 often 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		
Arsenic (ppb)	10	0	NA	NA	NA	NA	NA	NA	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	NA	NA	NA	05/30/2018	0.0084	NA	No	Erosion of natural deposits
Chloride (ppm)	250	NA	NA	NA	NA	05/14/14	40.5	NA	No	Naturally occurring or indicative of road salt contamination
Dalapon (ppb)	50	NA	NA	NA	NA	NA	NA	NA	No	Runoff from herbicide used on rights of way
Haloacetic Acids [mono-, di-, and trichloroacetic acid, and mono- and dibromoacetic acid] (ppb)	60	NA	Quarterly 2018	40.8	3.6–54.6	NA	NA	NA	No	By-product of drinking water disinfection needed to kill harmful organisms
Nitrate (ppm)	10	10	NA	NA	NA	04/26/2018	0.0962	NA	No	Erosion of natural deposits
Sodium ¹ (ppm)	see footnote 1	NA	NA	NA	NA	05/30/2018	17.1	NA	No	Naturally occurring; Road salt
Total Coliform Bacteria ² (Positive samples)	TT=2 or more positive samples	0	December 2018	1	NA	NA	NA	NA	No	Naturally present in the environment
Total Trihalomethanes [TTHMs – chloroform, bromodichloromethane, dibromochloromethane, and bromoform] (ppb)	80	NA	Quarterly 2018	52	12.9–76.7	NA	NA	NA	No	By-product of drinking water chlorination needed to kill harmful organisms; Formed when source water contains large amounts of organic matter
Turbidity (NTU)	TT	NA	NA	NA	NA	02/28/2018	0.65 ³	0.04–0.65	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	TT = 95% of samples meet the limit	NA	NA	NA	NA	02/28/2018	100	NA	No	Soil runoff

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	MCL [MRDL]	MCLG [MRDLG]	Stewart System			St Anne's Well			VIOLATION	TYPICAL SOURCE
			DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH		
Arsenic (ppb)	10	0	NA	NA	NA	NA	NA	NA	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	05/30/2018	0.0075	NA	04/25/2018	0.00779	NA	No	Erosion of natural deposits
Chloride (ppm)	250	NA	NA	NA	NA	04/21/2016	60.2	NA	No	Naturally occurring or indicative of road salt contamination
Dalapon (ppb)	50	NA	NA	NA	NA	04/25/2018	1.23	NA	No	Runoff from herbicide used on rights of way
Haloacetic Acids [mono-, di-, and trichloroacetic acid, and mono- and dibromoacetic acid] (ppb)	60	NA	NA	NA	NA	NA	NA	NA	No	By-product of drinking water disinfection needed to kill harmful organisms
Nitrate (ppm)	10	10	04/25/2018	0.319	NA	04/25/2018	0.140	NA	No	Erosion of natural deposits
Sodium ¹ (ppm)	see footnote 1	NA	05/30/2018	21.3	NA	12/13/2018	14.6	NA	No	Naturally occurring; Road salt
Total Coliform Bacteria ² (Positive samples)	TT=2 or more positive samples	0	NA	NA	NA	NA	NA	NA	No	Naturally present in the environment
Total Trihalomethanes [TTHMs – chloroform, bromodichloromethane, dibromochloromethane, and bromoform] (ppb)	80	NA	NA	NA	NA	NA	NA	NA	No	By-product of drinking water chlorination needed to kill harmful organisms; Formed when source water contains large amounts of organic matter
Turbidity (NTU)	TT	NA	02/20/2018	0.36 ³	0.07–0.36	NA	NA	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	TT = 95% of samples meet the limit	NA	02/20/2018	100	NA	NA	NA	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 that, if exceeded, triggers treatment or other requirements that a water system must follow.

Level 1 Assessment: A Level 1 assessment is an evaluation of the water system to identify potential problems and determine, if possible, why total coliform bacteria have been found in our water system.

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.

REGULATED SUBSTANCES

			Butterhill Wells				
SUBSTANCE (UNIT OF MEASURE)	MCL [MRDL]	MCLG [MRDLG]	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	10	0	12/03/2018	1.1	NA	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	12/03/2018	0.0346	NA	No	Erosion of natural deposits
Chloride (ppm)	250	NA	NA	NA	NA	No	Naturally occurring or indicative of road salt contamination
Dalapon (ppb)	50	NA	NA	NA	NA	No	Runoff from herbicide used on rights of way
Haloacetic Acids [mono-, di-, and trichloroacetic acid, and mono- and dibromoacetic acid] (ppb)	60	NA	NA	NA	NA	No	By-product of drinking water disinfection needed to kill harmful organisms
Nitrate (ppm)	10	10	NA	NA	NA	No	Erosion of natural deposits
Sodium ¹ (ppm)	see footnote 1	NA	12/03/2018	37.6	30.8–43.3	No	Naturally occurring; Road salt
Total Coliform Bacteria ² (Positive samples)	TT=2 or more positive samples	0	NA	NA	NA	No	Naturally present in the environment
Total Trihalomethanes [TTHMs – chloroform, bromodichloromethane, dibromochloromethane, and bromoform] (ppb)	80	NA	NA	NA	NA	No	By-product of drinking water chlorination needed to kill harmful organisms; Formed when source water contains large amounts of organic matter
Turbidity (NTU)	TT	NA	NA	NA	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	TT = 95% of samples meet the limit	NA	NA	NA	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	08/2017	0.323	0.0317–0.364	0/31	No	Corrosion of household plumbing systems
Lead (ppb)	15	0	08/2017	2.9	ND–3.86	0/31	No	Corrosion of household plumbing systems

UNREGULATED SUBSTANCES (BUTTERHILL WELLS)

SUBSTANCE (UNIT OF MEASURE)	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Nickel (ppb)	12/03/2018	1.1	NA	Natural element of the Earth's crust, so small amounts are found in food, water, soil, and air

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.

²Positive sample was never confirmed, all required repeat samples came back negative.

³Turbidity 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. 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 for turbidity 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.

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 that 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 that 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.

Facility Modification and System Improvements

In October 2018, in conjunction with a 12-week shutdown of the Catskill Aqueduct, the Town initiated start-up of its Butterhill Water Treatment Plant. The Facility treats water from 3 large production wells to remove iron and manganese prior to distribution. As part of this project, a new 2 million gallon water storage tank was constructed on Riley Road to add to the Town's overall water storage and fire protection. Seven pressure-reducing stations were also rebuilt in the distribution system to provide consistent water pressures and aid in water conservation. Two new water interconnections were constructed to allow for water sharing between the Town of Newburgh and the Town of New Windsor.

Facts and Figures

Our water system serves approximately 27,770 customers through approximately 5,428 service connections. The total amount of water produced in 2018 was approximately 1.1 billion gallons. The daily average of water treated and pumped into the distribution system was 3 million gallons per day. The 2018 billing rate was \$6.65 per 100 cubic feet (748 gallons). The minimum quarterly bill was \$39.90.

