



Presented By
Town of New Windsor
George A. Green,
Supervisor

ANNUAL
**WATER
QUALITY
REPORT**

WATER TESTING PERFORMED IN 2017



Quality First

Once again we are pleased to present our annual water quality report. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all of our water users. Thank you for allowing us the opportunity to serve you and your family.

We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

Facts and Figures

Our water system serves approximately 27,007 customers through approximately 5,393 service connections. The total amount of water produced in 2017 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 2017 billing rate was \$6.65 per 100 cubic feet (748 gallons). The minimum quarterly bill was \$39.90.

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.

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. U.S. 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.

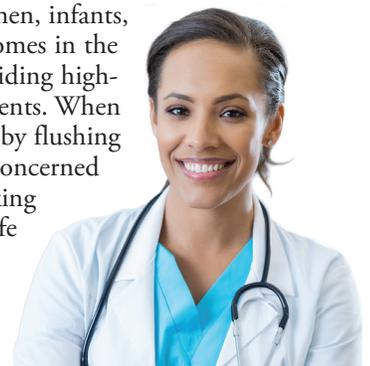
Where Does My Water Come From?

The Town of New Windsor residents receive their water from a pristine source located in the Catskill Region. The Ashokan Reservoir feeds the Catskill Aqueduct, which delivers water to the New York City water supply system. As the aqueduct passes through our town, two taps on the large pipeline deliver water to two individual filtration plants. In 2012, the town added the St. Anne's Well, and in 2015, the Kroll Well, to the distribution system. The water from these wells is chlorinated at the well sites, and then is blended with water in the system. These wells supply water to a small section of the town when needed. When these supplies are not available, the Silver Stream Reservoir is used as an emergency source. The Town of New Windsor also has the capability 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.

Level 1 Assessment

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 water distribution system. In our testing, we found coliforms, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct any problems that were found during these assessments.

During the past year, we were required to conduct one Level 1 assessment. This Level 1 assessment was completed. As a result, we were not required to take any corrective actions.



Source Water Assessment

The New York State (NYS) Department of Health (DOH) has evaluated our water system's susceptibility to contamination under the Source Water Assessment Program (SWAP); their findings are summarized in the next paragraph. 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 treatment is a complex, time-consuming process.

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.

Water Conservation Tips

- Load your dishwasher 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.



How Is My Water Treated and Purified?

The treatment process consists of a series of steps. First, raw water is drawn from the Ashokan Reservoir via the Catskill Aqueduct, or from the Silver Stream Reservoir during times of aqueduct shutdown. The raw water can then enter one of two filtration plants located at either Riley Road or Stewart Field, where chemicals are added for coagulation and pH adjustment. At the Riley Road Filter Plant, the addition of these substances causes small particles

to adhere to one another (called floc), making them large enough to be captured in sand filters. At this point, the water is filtered through layers of fine coal and silicate sand. At the Stewart Field Filter Plant, the large floc particles are captured in a different type of filter that uses diatomaceous earth (similar to the type of filters used in swimming pools). As smaller suspended particles are removed, turbidity disappears and clear water emerges. Chlorine is then added at both facilities as a precaution against any bacteria that may still be present. (We carefully monitor the amount of chlorine, adding the smallest quantity necessary to protect the safety of your water without compromising taste.) Finally, caustic soda (to adjust the final pH and alkalinity) is added at both facilities before the water is pumped to sanitized above-ground storage towers or surface reservoirs and into your home or business. The water from the St. Anne's and Kroll Wells is disinfected with chlorine at each well site and blended with water in the system coming from the Riley Road filtration plant.



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

Kroll Well

On February 15, 2017, one of our water sources, the Kroll Well was taken offline.

During October of 2016, NYS DOH tested the Kroll Well for Perfluorinated Chemicals (PFCs). Finished water results are as follows, giving the highest level detected for each contaminant:

- Perfluorobutanesulfonic Acid (PFBS) was detected at 4.24 ng/l (MRL = 1.77 ng/l).
- Perfluorohexanesulfonic Acid (PFHxS) was detected at 2.17 ng/l (MRL = 1.89 ng/l).
- Perfluoroheptanesulfonic acid (PFHpS)* was detected at 5.09 ng/l (MRL = 2 ng/l).
- Perfluorooctanoic Acid (PFOA)* was detected at 13.1 ng/l (MRL = 2 ng/l).
- Perfluorooctanesulfonic acid (PFOS) was detected at 13.4 ng/l (MRL = 1.91 ng/l).
- Perfluorononanoic Acid (PFNA)* was detected at 3.63 ng/l (MRL = 2 ng/l).

Even though some of these results (indicated with *) were in doubt, due to detections in the trip blanks, and even though all of these results were well below the U.S. EPA's established health advisory levels, as an abundance of caution the well was taken offline as soon as we received the test results from NYS DOH. Currently, treatment options are being considered before we place this well back into service. Also, additional testing has taken place during 2017 to monitor PFC levels while the well was running to waste.

Nondetected Contaminants

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

Inorganics:

Antimony, Arsenic, Beryllium, Cadmium, Chromium, Cyanide, Mercury, Nickel, 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-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; 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; 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; Dalapon; Dicamba; Dinoseb; Picloram

SOCs: 1,2-Dibromo-3-chloropropane (DBCP); 1,2-Dibromoethane (EDB); PCBs



Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. The information in the data tables shows only those substances that were detected between January 1 and December 31, 2017. Remember that detecting a substance does not necessarily 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										
			Town of New Windsor			Riley Road				
SUBSTANCE (UNIT OF MEASURE)	MCL [MRDL]	MCLG [MRDLG]	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2	2	NA	NA	NA	8/23/2017	0.0086	NA	No	Erosion of natural deposits
Fluoride (ppm)	2.2	NA	NA	NA	NA	NA	NA	NA	No	Erosion of natural deposits
Haloacetic Acids (ppb)	60	NA	Quarterly 2017	40.98	23–71	NA	NA	NA	No	By-product of drinking water disinfection needed to kill harmful organisms
Nitrate (ppm)	10	10	NA	NA	NA	8/2/2017	0.0671	NA	No	Erosion of natural deposits
Sodium ¹ (ppm)	(see footnote 1)	NA	NA	NA	NA	NA	NA	NA	No	Naturally occurring
TTHMs [Total Trihalomethanes] (ppb)	80	NA	Quarterly 2017	45.18	25.0–74.1	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
Total Coliform Bacteria (Positive samples)	TT	NA	July 2017	10	NA	NA	NA	NA	No	Naturally present in the environment
Turbidity ² (NTU)	TT	NA	NA	NA	NA	3/10/2017	0.27	0.04–0.27	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	TT = 95% of samples meet the limit	NA	NA	NA	NA	3/10/2017	100	NA	No	Soil runoff

REGULATED SUBSTANCES										
			Stewart System			St Anne's Well				
SUBSTANCE (UNIT OF MEASURE)	MCL [MRDL]	MCLG [MRDLG]	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2	2	8/23/2017	0.0087	NA	NA	NA	NA	No	Erosion of natural deposits
Fluoride (ppm)	2.2	NA	NA	NA	NA	8/2/2017	0.978	NA	No	Erosion of natural deposits
Haloacetic Acids (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	8/2/2017	0.0718	NA	8/2/2017	0.396	NA	No	Erosion of natural deposits
Sodium ¹ (ppm)	(see footnote 1)	NA	NA	NA	NA	8/23/2017	16.1	NA	No	Naturally occurring
TTHMs [Total Trihalomethanes] (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
Total Coliform Bacteria (Positive samples)	TT	NA	NA	NA	NA	NA	NA	NA	No	Naturally present in the environment
Turbidity ² (NTU)	TT	NA	3/26/2017	0.46	0.13–0.46	NA	NA	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	TT = 95% of samples meet the limit	NA	3/26/2017	100	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%TILE)	RANGE LOW-HIGH	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	1.3	1.3	08/2017	0.323	0.00675–0.364	0/31	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	15	0	08/2017	2.9	<0.001–3.86	0/31	No	Corrosion of household plumbing systems; Erosion of natural deposits

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.

²Turbidity 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 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 percentile: 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.

MRL (Method Reporting Limit): The minimum concentration of a contaminant that can be reported with a specified degree of confidence.

NA: Not applicable

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

Nanograms per liter: Corresponds to one part of liquid to one trillion parts of liquid (parts per trillion - ppt).

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.