



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



ANNUAL
WATER
QUALITY
REPORT

WATER TESTING PERFORMED IN 2015

Meeting the Challenge

Once again we are proud to present our annual drinking water report, covering all drinking water testing performed between January 1 and December 31, 2015. 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 your homes and businesses. 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 of our water users.

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.

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.

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.

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.



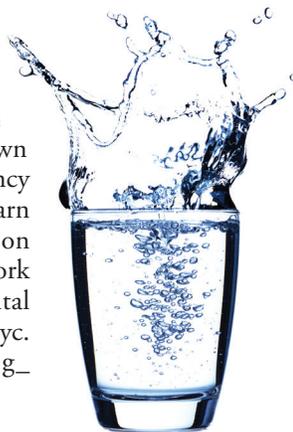
System Information

In March, July, and November of 2015, Boil Water Advisories were issued due to water main break repairs. These were precautionary Boil Water Advisories and all testing indicated the water was safe for consumption and everyday use.

The Town received a Notice Of Violation for 'allowing construction and use of a water main extension (Reddings Development Corp) without approval from the Orange County Dept of Health.' The water main extension has not, and is not, in use. Notification has been made to Reddings Dev. Corp. to provide appropriate information to the Dept. of Health, and obtaining all necessary approvals, prior to the Town accepting this extension for the Town.

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 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, and, in 2015, the Kroll Well, to the distribution system. The water from these wells is chlorinated at the well sites and then blended with water in the system to 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.



Water Conservation Tips:

- Wait until your dishwasher is FULL to run 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 then 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 using 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 the well site and blended with water in the system coming from the Riley Road filtration plant.

Facts and Figures

Our water system serves approximately 25,947 customers through 7,300 service connections. The total amount of water produced in 2015 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 2015 billing rate was \$6.86 per 100 cubic feet (748 gallons). The minimum quarterly bill was \$41.16.

Water Main Flushing

Distribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not themselves pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen and disinfectant levels, and an acceptable taste and smell.

During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. You should avoid tap water for household uses at such times. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use, and avoid using hot water, to prevent sediment accumulation in your hot water tank.

Please contact us if you have any questions or if you would like more information on our water main flushing schedule.

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 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 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, a number of potential contaminant sources are 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.

Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. The state requires us to monitor 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]	Riley Road System			Stewart System			VIOLATION	TYPICAL SOURCE
			DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH		
Barium (ppm)	2	2	4/23/2015	0.00988	NA	4/23/2015	0.103	NA	No	Erosion of natural deposits.
Chloride (ppm)	250	NA	05/14/2014	40.5	NA	NA	NA	NA	No	Naturally occurring.
Nitrate ¹ (ppm)	10	10	4/23/2015	0.195	NA	4/23/2015	0.211	NA	No	Runoff from fertilizer use.
Sodium (ppm)	See footnote #2	NA	NA	NA	NA	NA	NA	NA	No	Naturally occurring.
Turbidity ³ (NTU)	TT	NA	01/16/2015	0.92	0.05–0.92	1/23/2015	0.49	0.23–0.49	No	Soil runoff.
Turbidity (Lowest monthly percent of samples meeting limit)	TT = 95% of samples < 0.3 NTU	NA	01/2015	99.9%	NA	01/2015	99.9%	NA	No	Soil runoff.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	MCL [MRDL]	MCLG [MRDLG]	St. Anne's Well			Kroll Well			VIOLATION	TYPICAL SOURCE
			DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH		
Barium (ppm)	2	2	4/23/2015	0.00962	NA	7/29/2015	0.0231	NA	No	Erosion of natural deposits.
Chloride (ppm)	250	NA	NA	NA	NA	NA	NA	NA	No	Naturally occurring.
Nitrate ¹ (ppm)	10	10	4/23/2015	0.499	NA	7/29/2015	4.31	4.31–5.23	No	Runoff from fertilizer use.
Sodium (ppm)	See footnote #2	NA	4/23/2015	15.3	NA	1/27/2015	61	NA	No	Naturally occurring.
Turbidity ³ (NTU)	TT	NA	NA	NA	NA	NA	NA	NA	No	Soil runoff.
Turbidity (Lowest monthly percent of samples meeting limit)	TT = 95% of samples < 0.3 NTU	NA	NA	NA	NA	NA	NA	NA	No	Soil runoff.

Distribution System

SUBSTANCE (UNIT OF MEASURE)	MCL [MRDL]	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Haloacetic Acids ⁴ (ppb)	60	2015 (quarterly)	26.5	12.8–40.6	No	By-product of drinking water disinfection needed to kill harmful organisms.
TTHMs [Total Trihalomethanes] ⁴ (ppb)	80	2015 (quarterly)	32.5	20.2–48.5	No	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.

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	2014	0.311	0.0044–0.473	0/31	No	Corrosion of household plumbing systems.
Lead (ppb)	15	0	2014	12.3	ND–220	1/31	No	Corrosion of household plumbing systems.

**UNREGULATED CONTAMINANT MONITORING RULE
PART 3 (UCMR3) - RILEY ROAD SYSTEM⁵**

SUBSTANCE (UNIT OF MEASURE)	DATE SAMPLED	AMOUNT DETECTED
1,2-Dichlorobenzene-d4 (ppb)	12/5/2015	104
4-Bromofluorobenzene (ppb)	12/5/2015	102
Methyl-t-Butyl ether-d3 (ppb)	12/5/2015	106
1,4-Dioxane-d8 (ppb)	12/5/2015	95
Chlorate (ppb)	12/5/2015	145
Hexavalent Chromium (ppb)	12/5/2015	0.052
Chromium, Total (ppb)	12/5/2015	0.53
Strontium, Total (ppb)	12/5/2015	153
Vanadium, Total (ppb) (ppb)	12/5/2015	1.1
Perfluoroheptanoic Acid (ppb)	12/5/2015	0.018
Perfluorohexanesulfonic Acid (ppb)	12/5/2015	0.054
Perfluorooctanesulfonic Acid (ppb)	12/5/2015	0.13
Perfluorooctanoic Acid (ppb)	12/5/2015	0.022

¹ Nitrate in drinking water at levels above 10 mg/l is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

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 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. 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.

⁴ TTHM's and HAA5's values as indicated, represent the highest Locational Running Annual Average (LRAA) for 2015 and show the range of all individual samples collected throughout the year.

⁵ We participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Rule (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality. Contact us for more information on this program.

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, Nickel, Selenium, Thallium.

Volatile Organics: Benzene; Bromobenzene; Bromochloromethane; n-Butylbenzene; sec-Butylbenzene; tert-Butylbenzene; Carbon Tetrachloride; Chlorobenzene; 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; Hexachlorobutadiene; Isopropylbenzene; 4-Isopropyltoluene; Methylene Chloride; Methyl bromide; n-Propylbenzene; Styrene; 1,1,1,2-Tetrachloroethane; 1,1,2,2-Tetrachloroethane; Tetrachloroethene; Toluene; 1,2,3-Trichlorobenzene; 1,2,4-Trichlorobenzene; 1,1,1-Trichloroethane; 1,1,2-Trichloroethane; Trichloroethene; Trichlorofluoromethane; 1,2,3-Trichloropropane; 1,2,4-Trimethylbenzene; 1,3,5-Trimethylbenzene; vinyl chloride; m-Xylene; p-Xylene; o-Xylene; Xylenes,total; MT.

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 which, if exceeded, triggers treatment or other requirements that a water system must follow.

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as LRAAs.

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.