

Annual
WATER
QUALITY
REPORT

Reporting Year 2013



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

PWS ID#: Riley Road: NY3503580

There When You Need Us

We are once again proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2013. 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 to assist you should you ever have any questions or concerns about your 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).

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 to the distribution system. The water from the well is chlorinated at the well site, then blends with water in the system and supplies water to a small section of the town. 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 website at www.nyc.gov/html/dep/html/drinking_water/index.shtml.

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.

Violation Information

During the period 1/1/2004 - 12/31/2013, we did not monitor for the presence of asbestos in the distribution system. This test is performed once every 9-year period and was overlooked. Upon being notified of this violation by the Environmental Protection Agency, we immediately analyzed our water supply for asbestos. Results of the analysis have been received and 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 so that this oversight will not be repeated.

Our water system recently violated a drinking water requirement. Although this was not an emergency, as our customers, you have a right to know what happened. The Town was issued a notice of violation for exceeding its maximum plant capacity of 3.0 million gallons per day at its Riley Road filtration plant during the months of May, June, July, August, and September 2013. While plant capacity was exceeded for this period, all water quality standards were in compliance.

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 cause 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 (used 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 Well is disinfected with chlorine at the well site and blended with water in the system coming from the Riley Road filtration plant.

How Long Can I Store Drinking Water?

The disinfectant in drinking water will eventually dissipate even in a closed container. If that container housed bacteria prior to filling up with the tap water the bacteria may continue to grow once the disinfectant has dissipated. Some experts believe that water could be stored up to six months before needing to be replaced. Refrigeration will help slow the bacterial growth.

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.

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 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.

Facts and Figures

Our water system serves approximately 22,800 customers through 7,357 service connections. The total amount of water produced in 2013 was approx. 1.1 billion gallons. The daily average of water treated and pumped into the distribution system was 3.2 million gallons per day. The 2013 billing rate was \$6.19 per 100 cubic feet (748 gallons). The minimum quarterly bill was \$37.14.

QUESTIONS?

For more information about this report or for any 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/safewater) can also provide you with additional information regarding your drinking water.

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), 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 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 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. Here are few tips:

- Only wash full loads of laundry and a full dishwasher.
- Turn off the tap when brushing your teeth.
- Fix leaking faucets, pipes, and toilets. Just a slow drip can waste 15 to 20 gallons a day.
- 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.

Non-detected Contaminants

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

Inorganics: Antimony, Arsenic, Asbestos, Beryllium, Cadmium, Chromium, Cyanide, Mercury, Selenium, Thallium.

Volatile Organics: Benzene; Bromobenzene; Bromochloromethane; Bromomethane; n-Butylbenzene; sec-Butylbenzene; tert-Butylbenzene; Carbon tetrachloride; Chlorobenzene; Chloroethane; Chloromethane; 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; Vinyl chloride; 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; m-Xylene; p-Xylene; o-Xylene; Xylenes, total; MTBE.

SOC Group 1 Chemicals: Alachlor; Aldicarb; Aldicarb sulfone; Aldicarb sulfoxide; Atrazine; Carbofuran; Chlorodane (tech); 1,2-Dibromo-3-chloropropane; 1,2-Dibromomethane (EDB); Endrin; Heptachlor; Heptachlor epoxide; Methoxychlor; PCB 1016; PCB 1221; PCB 1232; PCB 1242; PCB 1248; PCB 1254; PCB 1260; Pentachlorophenol; Toxaphene; bis (2-ethylhexyl) adipate; bis (2-ethylhexyl) phthalate; 2,4,5-TP (Silvex).

SOC Group 2 Chemicals: Aldrin; Benzo(a)pyrene; Butachlor; Carbaryl; Dicamba; Dieldrin; Dinoseb; HCH-gamma (Lindane); Hexachlorobenzene; Hexachlorocyclopentadiene; 3-Hydroxycarbofuran; Methomyl; Metolachlor; Oxamyl (Vydate); Pichloram; Propachlor; Simazine; Metribuzin; 2,4-D.

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			St. Annes Well			VIOLATION	TYPICAL SOURCE
			DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH		
Barium (ppm)	2	2	03/25/2013	0.0079	NA	04/18/2013	0.0079	NA	03/13/2013	0.0177	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chloride (ppm)	250	NA	3/15/2011	41.4	NA	5/16/2008	7.49	NA	NA	NA	NA	No	Naturally occurring or indicative of road salt contamination
Combined Radium [226 and 228] (pCi/L)	5	0	NA	NA	NA	NA	NA	NA	11/21/2013	1.86	ND–1.86	No	Erosion of natural deposits
Dalapon (ppm)	0.05	NA	NA	NA	NA	04/18/2013	0.001	NA	NA	NA	NA	No	Runoff from herbicide used on rights of way
Fluoride (ppm)	2.2	NA	NA	NA	NA	NA	NA	NA	03/13/2013	0.37	NA	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Gross Alpha Activity [including radium 226 but excluding radon and uranium] (pCi/L)	15	0	NA	NA	NA	NA	NA	NA	11/21/2013	3.93	1.7–3.93	No	Erosion of natural deposits
Haloacetic Acids [HAAs]–Stage 1¹ (ppb)	60	NA	2013 Quarterly	21.7	2.9–37.3	NA	NA	NA	NA	NA	NA	No	By-product of drinking water disinfection needed to kill harmful organisms
Nitrate (ppm)	10	10	03/25/2013	0.12	NA	04/18/2013	0.06	NA	03/13/2013	1.43	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium² (ppm)	(see footnote)	NA	3/15/2011	38	NA	5/16/2008	6.44	NA	03/13/2013	15	NA	No	Naturally occurring; Road salt; Water softeners; Animal waste
TTHMs [Total Trihalomethanes]–Stage 1¹ (ppb)	80	NA	2013 Quarterly	44.5	22.6–79	NA	NA	NA	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.
Total Coliform Bacteria (# positive samples)	Two or more positive samples	0	08/20/2013	1	NA	NA	NA	NA	NA	NA	NA	No	Naturally present in the environment
Turbidity³ (NTU)	TT	NA	03/16/2013	0.15	0.04–0.15	04/02/2013	0.63	0.16–0.63	NA	NA	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	TT=95% of samples <0.3 NTU	NA	Continuous	100	NA	Continuous	100	NA	NA	NA	NA	No	Soil runoff
Uranium (ppb)	30	0	NA	NA	NA	NA	NA	NA	11/21/2013	2.52	1.75–2.52	No	Erosion of natural deposits

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)		SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
				RANGE	LOW-HIGH			
Copper (ppm)	1.3	1.3	2011	0.0549	0.0216–0.0657	0/31	No	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	15	0	2011	5.7	ND–34.8	1/31	No	Corrosion of household plumbing systems; Erosion of natural deposits

OTHER REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	MCL [MRDL]	MCLG [MRDLG]	Stewart System			St. Annes Well			VIOLATION	TYPICAL SOURCE
			DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH		
Nickel (ppb)	100	0	04/18/2013	0.7	NA	03/13/2013	2.5	NA	No	Erosion of natural deposits

¹During 2013, regulations for TTHMs and HAA5s changed from Stage 1 to Stage 2. The values shown in the table represent Stage 1 compliance monitoring; however, the range of values includes Stage 1, Stage 2, and any Health Department surveillance samples.

²Water 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.

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 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.

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 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.

pCi/L (picocuries per liter): A measure of radioactivity.

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.