

Annual
**WATER
QUALITY
REPORT**

Reporting Year 2012



*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, 2012. 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.

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 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.

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.

About Our Violations

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 plant capacity of 3.0 MGD at its Riley Road filtration plant during the months of May, June, July, and August 2012. While plant capacity was exceeded for this time period, all water quality standards were in compliance.

WHAT SHOULD YOU DO?

This is not an emergency. If it had been, you would have been notified within 24 hours.

There is nothing you need to do. You DO NOT need to boil your water or take any other action. We do not know of any contamination and none of our testing has shown disease-causing organisms in the drinking water.

WHAT IS BEING DONE?

The addition of the St. Anne's Well to the distribution system will help reduce the demand on the Riley Road filtration plant.

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.

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).

Missed Monitoring

In December of 2011, the Town was issued a violation notice for failure to collect required 15 minute individual turbidity readings as required for compliance with the Surface Water Treatment Rule (SWTR). The Town was given until March 5, 2012, to rectify this issue. Unfortunately, we were unable to comply with this deadline.

The Town is taking steps to obtain the equipment necessary to ensure that adequate monitoring and reporting will be performed in the future.

Also, the Town failed to do required 4th quarterly testing for Combined Radium (226 & 228), Uranium, and Gross Alpha, for the St. Anne's Well site.

This was an oversight due to the well being shut down during last half of the 4th quarter.

To correct this, the well was put back online and samples were taken in the 1st quarter of 2013.

Water Conservation Tips

- Wash only full loads of laundry and a full dishwasher.
- Turn off the tap when brushing your teeth.
- Fix leaking faucets, pipes, toilets, and so on.
- 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.

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.

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.

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, Barium, Beryllium, Cadmium, Chromium, Cyanide, Diquat, Endothall, Fluoride, Glyphosate, Mercury, Nickel, Selenium, Silver, Thallium

Volatile Organics: Benzene; Bromobenzene; Bromochloromethane; Bromomethane; n-Butylbenzene; sec-Butylbenzene; tert-Butylbenzene; Carbon Tetrachloride; Chlorobenzene; Chloroethane; Chloromethane; 2-Chlorotoluene; 4-Chlorotoluene; Cumene; 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; Hexachlorobutadiene; Isopropylbenzene; 4-Isopropyltoluene; p-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; Trichloroethane; 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; Dalapon; Dicamba; Dieldrin; Dinoseb; HCH-gamma (Lindane); Hexachlorobenzene; Hexachlorocyclopentadine; 3-Hydroxycarbofuran; Methomyl; Metolachlor; Oxamyl (Vydate); Pichloram; Propachlor; Simazine; Metribuzin; 2,4-D

You may not be aware of it, but every time you pour fat, oil, or grease (FOG) down your sink (e.g., bacon grease), you are contributing to a costly problem in the sewer collection system.



FOG coats the inner walls of the plumbing in your house as well as the walls of underground piping throughout the community. Over time, these greasy materials build up and form blockages in pipes, which can lead to wastewater backing up into parks, yards, streets, and storm drains. These backups allow FOG to contaminate local waters, including drinking water. Exposure to untreated

wastewater is a public health hazard. FOG discharged into septic systems and drain fields can also cause malfunctions, resulting in more frequent tank pump-outs and other expenses.

Communities spend billions of dollars every year to unplug or replace grease-blocked pipes, repair pump stations, and clean up costly and illegal wastewater spills. Here are some tips that you and your family can follow to help maintain a well-run system now and in the future:

NEVER:

- Pour fats, oil, or grease down the house or storm drains.
- Dispose of food scraps by flushing them.
- Use the toilet as a waste basket.

ALWAYS:

- Scrape and collect fat, oil, and grease into a waste container such as an empty coffee can, and dispose of it with your garbage.
- Place food scraps in waste containers or garbage bags for disposal with solid wastes.
- Place a wastebasket in each bathroom for solid wastes like disposable diapers, creams and lotions, and personal hygiene products including nonbiodegradable wipes.

Facts and Figures

Our water system serves approximately 30,000 customers through 7,302 service connections. The total amount of water produced in 2012 was approx. 1.1 billion gallons. The daily average of water treated and pumped into the distribution system was 3 million gallons per day. The 2012 billing rate was \$5.53 per 100 cubic feet (748 gallons). The minimum quarterly bill was \$33.18.

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 (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.

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. Anne's 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	4/19/2012	0.0053	NA	12/13/2012	0.0076	NA	NA	NA	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	4/19/2012	1.05	NA	NA	NA	NA	9/27/2012	4.29	NA	No	Erosion of natural deposits
Haloacetic Acids (ppb)	60	NA	2012 (quarterly)	37.5	4.4–109.4	NA	NA	NA	NA	NA	NA	No	By-product of drinking water disinfection needed to kill harmful organisms
Nitrate (ppm)	10	10	4/19/2012	0.08	NA	7/20/2012	0.28	NA	NA	NA	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium ¹ (ppm)	(see footnote)	NA	3/15/2011	38	NA	5/16/2008	6.44	NA	NA	NA	NA	No	Naturally occurring; Road salt; Water softeners; Animal waste
Total Trihalomethanes [TTHMs]–Stage 1 (ppb)	80	NA	2012 (quarterly)	67.4	24.7–110	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
Turbidity ² (NTU)	(see footnote)	NA	4/5/2012	0.99	0.04–0.99	8/28/2012	0.86	0.10–0.86	NA	NA	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	(see footnote)	NA	Continuous	100%	NA	Continuous	100%	NA	NA	NA	NA	No	Soil runoff
Uranium (ppb)	30	0	NA	NA	NA	NA	NA	NA	9/27/2012	1.8	NA	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)	RANGE LOW-HIGH	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE					
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					

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 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.)

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.