ANNUALWATER QUALITY REPORT

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Water Testing Performed in 2014



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

Our Mission Continues

We are proud to present once again our annual water quality report covering all testing performed between January 1 and December 31, 2014. Most notably, last year marked the 40th anniversary of the Safe Drinking Water Act (SDWA). This rule was created to protect public health by regulating the nation's drinking water supply. We celebrate this milestone as we continue to manage our water system with a mission to deliver the best-quality drinking water. By striving to meet the requirements of SDWA, we are ensuring a future of healthy, clean drinking water for years to come.

Please let us know if you ever have any questions or concerns about your water.

Important Health Information

Some people may be more vulnerable to diseasecausing 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.

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 our 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.

Facts and Figures

Our water system serves approximately 23,205 customers through 7,423 service connections. The total amount of water produced in 2014 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 2014 billing rate was \$6.50 per 100 cubic feet (748 gallons). The minimum quarterly bill was \$39.00.

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.



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

Best Drinking Water in Orange County

The Town of New Windsor was chosen as having the "Best Drinking Water in Orange County" on June 7, 2014, and was selected to represent Orange County in the New York State Regional Drinking Water contest.

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 and then is blended with water in the system, from which it supplies 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

It is not hard to conserve water. Here are few tips:

- Fill the dishwasher 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 offall taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

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.

Nondetected Contaminants

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

Inorganics: Antimony, Asbestos, Arsenic, 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-Dichloropenzene; 1,1-Dichloropenzene; 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-Trichlorpropane; 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-Dibromethane (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) phthlate; 2,4,5-TP (Silvex).

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

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. State Health Department and U.S. FDA 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.

Violation Notification

The Town of New Windsor 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 October and November 2014. While plant capacity was exceeded for this period, all water quality standards were in compliance.

The Town of New Windsor was issued a notice of violation for failure to submit an EMERGENCY RESPONSE PLAN by March 2013, as required for compliance with the NY State Sanitary Code.

The Emergency Response Plan is being prepared and will be submitted, upon completion, to the Orange County Dept. of Health.

Sampling Results

The table below shows those contaminants that were detected in the water during the past year. The State requires us to monitor 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.

We participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Regulation (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.

REGULATED SUBSTANCES										
			Riley Road System			Stewart System				
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
2,4-Dichlorophenoxyacetic Acid [2,4-D] (ppb)	50	NA	NA	NA	NA	NA	NA	NA	No	Released to the environment by its application as a pesticide used to control broa leaf needs in agriculture and for control of woody plants along roadsides, railways and utility rights-of-way
Arsenic (ppb)	10	NA	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	3/31/2014	0.0087	NA	3/31/2014	0.0096	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natura deposits
Chloride (ppm)	250	NA	NA	NA	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	No	Erosion of natural deposits
Gross Alpha Activity [including radium 226 but excluding radon and uranium] (pCi/L)	15	0	NA	NA	NA	NA	NA	NA	No	Erosion of natural deposits
Haloacetic Acids-Stage 2 (ppb)	60	NA	Quarterly 2014	34.4	1.79–91.5	NA	NA	NA	No	By-product of drinking water disinfection needed to kill harmful organisms
Nitrate (ppm)	10	10	3/31/2014	0.32	NA	3/31/2014	0.31	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium ¹ (ppm)	(see footnote 1)	NA	NA	NA	NA	NA	NA	NA	No	Naturally occurring; Road salt; Water softeners; Animal waste
Sulfate (ppm)	250	NA	NA	NA	NA	NA	NA	NA	No	Naturally occurring
TTHMs [Total Trihalomethanes]– Stage 2 (ppb)	80	NA	Quarterly 2014	42.2	15.0–78.1	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	1 positive sample	06/04/2014	1	NA	NA	NA	NA	No	Naturally present in the environment
Turbidity ² (NTU)	ΤT	NA	10/4/2014	0.55	0.04-0.55	9/8/2014	0.36	0.28-0.36	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	Τ̈́T	NA	10/2014	99.9%	NA	Sept. 2014	99.9%	NA	No	Soil runoff
Uranium (ppb)	30	0	NA	NA	NA	NA	NA	NA	No	Erosion of natural deposits
Zinc (ppm)	5	NA	NA	NA	NA	NA	NA	NA	No	Naturally occurring; Mining waste

REGULATED SUBSTANCES										
			St. Anne's Well Br			rown's Pond				
SUBSTANCE (UNIT OF MEASURE)	MCL [MRDL]	MCLG [MRDLG]			RANGE LOW-HIGH	DATE SAMPLED	AMOUNT D DETECTED		VIOLATION	TYPICAL SOURCE
2,4-Dichlorophenoxyacetic Acid [2,4- D] (ppb)	50	NA	NA	NA	NA	5/14/2014	0.35	NA	No	Released to the environment by its application as a pesticide used to control broad leaf needs in agriculture and for control of woody plants along roadsides, railways, and utility rights-of-way
Arsenic (ppb)	10	NA	NA	NA	NA	5/14/2014	0.6	NA	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	4/08/2014	0.0171	NA	05/14/2014	0.0077	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chloride (ppm)	250	NA	NA	NA	NA	5/14/2014	40.5	NA	No	Naturally occurring or indicative of road salt contamination
Combined Radium [226 and 228] (pCi/L)	5	0	11/21/2013	1.86	ND-1.86	NA	NA	NA	No	Erosion of natural deposits
Gross Alpha Activity [including radium 226 but excluding radon and uranium] (pCi/L)	15	0	11/21/2013	3.93	1.7–3.93	NA	NA	NA	No	Erosion of natural deposits
Haloacetic Acids-Stage 2 (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	4/08/2014	1.36	NA	NA	NA	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium ¹ (ppm)	(see footnote 1)	NA	4/08/2014	20.6	NA	5/14/2014	24.5	NA	No	Naturally occurring; Road salt; Water softeners; Animal waste
Sulfate (ppm)	250	NA	NA	NA	NA	5/14/2014	8.2	NA	No	Naturally occurring
TTHMs [Total Trihalomethanes]– Stage 2 (ppb)	80	NA	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	1 positive sample	NA	NA	NA	NA	NA	NA	No	Naturally present in the environment
Turbidity ² (NTU)	TT	NA	NA	NA	NA	NA	NA	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	ΤT	NA	NA	NA	NA	NA	NA	NA	No	Soil runoff
Uranium (ppb)	30	0	11/21/2013	2.52	1.75–2.52	NA	NA	NA	No	Erosion of natural deposits
Zinc (ppm)	5	NA	NA	NA	NA	5/14/2014	0.006	NA	No	Naturally occurring; Mining waste
Tap water samples were collected for lead and copper analyses from sample sites throughout the community.										

SUBSTANCE (UNIT OF MEASURE)	AL	MCLG		AMOUNT DETECTED (90TH%TILE)	RANGE LOW-HIGH	SITES ABOVE AL/ TOTAL SITES		TYPICAL SOURCE
Copper (ppm)	1.3	1.3	2014	0.311	0.0044-0.473	0/31	No	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	15	0	2014	12.3	ND-220	1/31	No	Corrosion of household plumbing systems; Erosion of natural deposits



UNREGULATED CONTAMINANT MONITORING REGULATION 3 (RILEY ROAD SYSTEM)

SUBSTANCE (UNIT OF MEASURE)	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH				
1,2-Dichlorobenzene-d4 (ppb)	12/11/14	104	NA				
1,4-Dioxane-d8 (ppb)	12/11/14	95	NA				
4-Bromofluorobenzene (ppb)	12/11/14	102	NA				
Chlorate (ppb)	12/17/14	0.0145	NA				
Chromium (ppb)	12/10/14	0.53	NA				
Hexavalent Chromium (ppb)	12/16/14	0.052	NA				
Methyl-t-Butyl ether-d3	12/11/14	106	NA				
Perfluoro-n-[1,2-13c2] decanoic acid (ppb)	12/23/14	102	NA				
Perfluoro-n-[1,2-13c2] hexanoic Acid (ppb)	12/23/14	110	NA				
Perfluoroctanesulfonic Acid (ppb)	12/23/14	0.054	NA				
Perfluoroheptanoic Acid (ppb)	12/23/14	0.018	NA				
Perfluorohexanesulfonic Acid (ppb)	12/23/14	0.13	NA				
Perflurooctanoic Acid (ppb)	12/23/14	0.022	NA				
Strontium, total (ppb)	12/10/14	153	NA				
Vanadium, total (ppb)	12/10/14	1.1	NA				
UNREGULATED SUBSTANCES (BROWNS POND)							

SUBSTANCE (UNIT OF MEASURE)	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
Nickel (ppb)	5/14/2014	1.3	NA

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.) Although the month 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 that 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.