



2016 Annual Water Quality Report

**Dykeer Water System
(The Willows)**

PWS ID: NY5920065



INTRODUCTION:

New York American Water (NYAW) is issuing this report describing the quality of drinking water supplied to customers of the Dykeer Water System. The report summarizes the quality of water NYAW provided in 2016 - Including details about water sources, what the water at your tap contains, and how it compares to standards set by regulatory agencies. Last year, your water met all State drinking water standards, and we are proud to report that our system did not violate a maximum contaminant level or any other water quality standard. Although the report lists only those regulated substances that were detected in your water, we test for more than what is reported. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

Please share this information with all the other people who drink this water especially those who may not have received this notification directly (for example people in apartments, nursing homes, school, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

If you have any questions about this report or concerning your drinking water, please contact our customer call center at 877-426-6999, or at amwater.com. We want you to be informed about your drinking water.

A Message from the New York American Water President

To Our Valued Customer:

New York American Water is proud to be your local water service provider, and I am pleased to share some very good news about the quality of your drinking water. As you read through our Annual Water Quality Report, you will see that we continue to supply water that meets or surpasses all state and federal water quality standards. **Better yet, the price you pay for this high-quality water service remains about a penny per gallon.**

This is an exceptional value when you consider the facilities and technology needed to draw water from the source and treat it, along with miles and miles of pipeline hidden below the ground to bring water to your tap. What's more, our plant operators, water quality experts, engineers and maintenance crews work around the clock to make sure that quality water is always there when you need it.

Delivering reliable, high-quality water service also requires significant investment to maintain and upgrade aging facilities. **In 2016 alone, we invested approximately \$44 million in system improvements across the state; and plan on investing another \$40 million in 2017.**

Because water is essential for public health, fire protection, economic development and overall quality of life, New York American Water's employees are committed to ensuring that quality water keeps flowing not only today but well into the future. We hope you agree that your water service is worth every penny.

Please take the time to review this report. It provides details about the source and quality of your drinking water using the data from water quality testing conducted for your local system between January and December 2016.

Thanks for allowing us to serve you.

Sincerely,

Brian K. Bruce
President, New York American Water



Where does our water come from?

In general, 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. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water system serves 480 people through 120 service connections. Our water source is four groundwater wells under the direct influence of surface water (GWUDI) located near the Willow's tennis courts. Treatment for these wells includes iron sequestration using zinc orthophosphate, UV disinfection, and the water is chlorinated prior to distribution.

The New York State Department of Health has completed a source water assessment for this system, based on available information. Possible and actual threats to this drinking water source were evaluated. The state's source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move through the subsurface to the wells. The susceptibility rating is an estimate of the potential for contamination of the source water, it does not mean that the water delivered to consumers is, or will become contaminated. See the section, "Are there contaminants in our drinking water?" for a list of the contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters in the future.

As mentioned before, our water is derived from 4 drilled wells. The source water assessment has rated these wells as having a medium to high susceptibility to microbial matter and nitrates. These ratings are primarily due to wells drawing from an unconfined aquifer, and the hydraulic conductivity is unknown. In addition, the wells draw from fractured bedrock and the overlying soils are not known to provide adequate protection from potential contamination. While the source water assessment rates our wells as being susceptible to microbial matter and nitrates, please note that our water is disinfected to ensure that the finished water delivered into your home meets New York State's drinking water standards. A copy of the assessment, including a map of the assessment area, can be obtained

by contacting us at the telephone number provided in this report.

Are there contaminants in our drinking water?

As NY State regulations require, we routinely test your drinking water for numerous contaminants. The contaminants include: Total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiologicals and synthetic organic compounds. The tables presented on the next page show which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old. Please refer to the "Water Quality Results" chart for more information.

It should be noted that all drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791) or the Westchester County Department of Health Department at 1-914-813-5000.

Definitions:

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers requirements which a water system must follow.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.

Maximum Contaminant Level Goal (MCLG): 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.

Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

Milligrams per liter (mg/l): Corresponds to one part of liquid in one million parts of liquid (parts per million- ppm).

Micrograms per liter ($\mu\text{g}/\text{l}$): Corresponds to one part of liquid in one billion parts of liquid (parts per billion- ppb).

N/A: Not Applicable.

Non-Detects (ND): Laboratory analysis indicates that the constituent is not present.

picoCuries per liter (pCi/L): A measure of radioactivity in water.

Water Quality Results

Table of Detected Contaminants

Contaminant and Unit of Measurement	Date of Sample (mo/yr)	Violation Y/N	Level Detected	Range (low - high)	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants							
Barium, mg/l	10/16	N	0.296	N/A	2	2	Erosion of natural deposits
Chloride, mg/l	10/16	N	209	N/A	N/A	250	Natural occurring or indicative of road salt contamination
Fluoride, mg/L	10/16	N	0.630	N/A	N/A	2.2	Erosion of natural deposits (Not added as treatment by New York American Water)
Nickel, ug/l	10/16	N	5.97	N/A	N/A	N/A	N/A
Selenium, ug/l	10/16	N	2.78	N/A	50	50	Erosion of natural deposits; discharge from mines
Sodium, mg/l	10/16	N	60.2	N/A	N/A	See Health Effects ¹	Naturally occurring; Road salt; Water softeners
Sulfate, mg/l	10/16	N	29.7	N/A	N/A	250	Naturally occurring
Nitrates, mg/l	10/16	N	1.56		10	10	Erosion of natural deposits, fertilizers, sanitary waste systems.
Zinc, mg/l	10/16	N	0.060	N/A	N/A	5	Naturally occurring
Radioactive Contaminants (2)							
Combined Well Results (2)							
Gross Alpha, pCi/L	02/11	N	5.3	ND – 5.3	0	15	Erosion of natural deposits
Combined Radium- 226 and 228, pCi/L	02/11	N	3.1	2.0 – 3.1	0	5	

¹ Sodium (mg/l): Water containing more than 20 mg/l of sodium should not be used for drinking by people on a severely restricted sodium diet. Water in excess of 270 mg/l of sodium should not be used for drinking by people on a moderately restricted diet.

2 Radiological levels listed above are for testing results on individual well samples as per health department requirements, and do not reflect the water quality at the point of entry into the distribution system. Well results were summarized in a combined fashion.

Disinfectant/ Disinfection By-product (D/DBP) Parameters							
Contaminant and Unit of Measurement	Date of Sample (mo/yr)	Violation Y/N	Average Level Detected	Range	MCLG	MCL	Likely Source of Contamination
Haloacetic Acids (HAA5), ug/l	08/16	N	16.82	7.47- 16.82	N/A	60	By-product of drinking water disinfection needed to kill harmful organisms
TTHM [Total Trihalomethanes], ug/l	08/16	N	27.7	12.5 – 27.7	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms; TTHMs are formed when source water contains large amounts of organic matter.
Disinfectants							
Chlorine, mg/l *	2016	N	0.87	0.3 – 2.1	N/A	MRDL = 4	Water additive used to control microbes

* Chlorine residual results in the table above represent averages of samples taken at the treatment plant Point-of-Entry location to the distribution system.

Volatile Organic Constituents (VOC's) *							
Contaminant and Unit of Measurement	Date of Samples (mo/yr)	Violation Y/N	Highest Level Detected	Range	MCLG	MCL	Likely Source of Contamination *
Ethylbenzene, ug/l *	10/16 11/16	N	4.72 ND	ND – 4.72	N/A	5	Discharge from petroleum refineries; leaks from gasoline tanks
1,2,4-trimethylbenzene ug/l *	10/16 11/16	N	1.27 ND	ND – 1.27	N/A	5	In coal tar and crude oil; by-product of oil refinery process and added to gasoline
m-&p-Xylenes, ug/l *	10/16 11/16	N	21.5 ND	ND – 21.5	N/A	5	Leaks from gasoline tanks; discharge from petroleum factories
o-Xylene, ug/l	10/16 11/16	N	5.90 ND	ND – 5.90	N/A	5	Leaks from gasoline tanks; discharge from petroleum factories

* Initial VOC samples sampled on raw water well sources on 10/26/16 were taken at the same time as an active painting project in the well house facility. Resamples taken on 11/9/16 analyzed as "none detected" (no painting during sampling).

	Lead and Copper (Tap water at homeowners premise) *							
Contaminant and Unit of Measurement	Date of Sample (mo/yr)	AL Violation Y/N	90 th Percentile Result *	Range (Low - High)	# of samples exceeding AL	MCLG	EPA's Action Level (AL)	Likely Source of Contamination
Copper, mg/l	09/14	N	0.302 mg/L	0.113 – 0.304	0	1.3	1.3	Corrosion of household plumbing
Lead, µg/l	09/14	N	1.65 ug/L	ND – 1.88	0	0	15	

* The level presented represents the 90th percentile of the 5 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. In this case, ten samples were collected at your water system and the 90th percentile value was the average of the two highest values. The action level for lead and copper was not exceeded at any of the sites tested.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. It is possible that lead levels in your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. NYAW is 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 ([1-800-426-4791](tel:1-800-426-4791)) or at <http://www.epa.gov/safewater/lead>.

What does this information mean?

As you can see by the Water Quality Results table, our system had no violations in 2016. Initial sampling for m-&o- &p-Xylenes indicated that their levels were above the MCL. Confirmation samples were collected and analyzed for these constituents, as per protocol, and the levels were found to be "non-detected". Therefore, an MCL violation did not occur. We believe that painting performed in the well facility during the initial sampling could have contributed to the VOC detections. We have learned through our testing that some other contaminants have been detected; however, these contaminants were detected below New York State requirements.

Is our water system meeting other rules that govern operations?

During 2016, our system was in compliance with all applicable New York State drinking water operating, monitoring, and reporting requirements.

Do I Need to Take Special Precautions?

Although our drinking water met or exceeded state and federal regulations, 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 (800-426-4791).

Why Save Water and How to Avoid Wasting It?

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- Saving water saves energy and water resources;
- Saving water reduces the cost of energy for pumping water and can avoid costs for developing new sources of supply; and
- Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions to ensure supply for essential uses.

You can play a role in conserving water 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. Conservation tips include:

- Washing machines can use up to 15 gallons for every cycle, regardless of the size of the load. Try to always run full loads.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. A slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- 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. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.

New York American Water is offering a free 'leak detection kit' for home use. If desired, please call our 24-hour customer call center at 877-426-6999 and request one.

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all our customers help us protect our water sources. For questions concerning this report or your water quality, please contact Michael Nofi, Water Quality Manager, at 516-632-2215; or New York American Water's customer call center at 1-877-426-6999; or on the web at newyorkamwater.com.

