

Annual Drinking Water Quality Report for 2017
Consolidated Water District No. 1
Town of Kirkwood
70 Crescent Drive
Kirkwood, New York 13795
(Public Water Supply ID #NY0311206)

INTRODUCTION

To comply with State regulations, Town of Kirkwood Consolidated Water District No. 1, will be annually issuing a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, your tap water met all State drinking water health standards. 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.

If you have any questions about this report or concerning your drinking water, please contact the Town of Kirkwood, phone 607/775-1919. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled Town board meetings.

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 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 source is supplied from two groundwater wells near the Susquehanna River just South of Five Mile Point Plaza. During 2017, our system did not experience any restriction of our water source. The water supplied from the wells is constantly treated by air stripping and chlorination to safeguard against volatile organic contaminants, e-coli and coliform. A connection to the City of Binghamton water system is available for emergency use. No water was used from the City of Binghamton during this reporting period.

A source water assessment has been completed by a private consultant sponsored by the New York State Department of Health. The complete report is available for your review. A summary prepared by the Broome County Health Department has been attached.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, residual chlorine, inorganic compounds, nitrate, lead and copper, volatile organic compounds, and synthetic organic compounds. The table presented below depicts 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.

In addition, the NYSDOH performed special sampling on October 26, 2017. The sample results indicate that extremely low levels of perfluorinated compounds were present in the finished water. Specifically, Perfluorooctanoic Acid (PFOA) was detected at 3.26 ng/l (parts per trillion) and Perfluorooctanesulfonic Acid (PFOS) was detected at 1.98 ng/l. These values are well below the USEPA advisory value of 70 ng/l.

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 Broome County Health Department at 778-2887.

TABLE OF DETECTED CONTAMINANTS 2017

Contaminant	Violation Yes/No	Sample Location	Date of Sample	Level Detected (range)	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants								
Barium	No	Well #1 Well #3	7/11/2016 7/11/2016	0.023 0.022	mg/l	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Lead ²	No	Distribution	9/27/2017	1.48 (ND-2.41)	ug/l	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits.
Copper ²	No	Distribution	9/27/2017	0.146 (0.0256-0.164)	mg/l	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Nitrate (as Nitrogen)	No	Well #1 Well #3	7/24/2017 7/24/2017	0.431 0.441	mg/l	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Sodium ³	No	Well #1 Well #3	7/24/2017 7/24/2017	31.4 26.4	mg/l	N/A	See Health Effects	Naturally occurring; Road salt; Water softeners; Animal waste.
Disinfection Byproducts								
Total Trihalomethanes ⁴	No	Distribution	9/27/2017	20.2	ug/l	N/A	80	Byproduct of drinking water chlorination.
Total Haloacetic Acids ⁵	No	Distribution	9/27/2017	3.97	ug/l	N/A	60	By-product of drinking water chlorination.
Radiological Contaminants								
Gross Beta	No	Well #1 Well #3	7/24/2017 7/24/2017	0.885 0.896	pCi/L	0	50	Decay of natural deposits and man-made emissions.
Radium 226	No	Well #1 Well #3	7/24/2017 7/24/2017	0.409 0.257	pCi/L	0	5	Erosion of natural deposits.
Radium 228	No	Well #1 Well #3	7/24/2017 7/24/2017	0.243 0.393	pCi/L	0	5	Erosion of natural deposits.
Notes:								
2	The level presented represents the 90th percentile of the 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/copper values detected at your water systems.							
3	Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.							
4	This level represents the total levels of the following contaminants: chloroform, bromodichloromethane, dibromochloromethane, bromoform.							
5	This level represents the total levels of the following contaminants: Monochloroacetic Acid, Monobromoacetic Acid, Dichloroacetic Acid, Trichloroacetic Acid, Dibromoacetic Acid.							
Definitions:								
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.								
Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.								
Non-Detects (ND): Laboratory analysis indicates that the constituent is not present.								
Milligrams per liter (mg/l): Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).								
Micrograms per liter (ug/l): Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).								
Picocuries per liter (pCi/L): A measure of the radioactivity in water.								

Kirkwood Consolidated Water District #1
 NY0311206
 AWQR Source Water Assessment Summary

The NYS DOH 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 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 section “Are there contaminants in our drinking water?” for a list of the contaminants that have been detected. While nitrate and other inorganic contaminants were detected in our water, 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 from natural sources. The presence of contaminants does not necessarily indicate that the water poses a health risk.

As mentioned before, our water is derived from two drilled wells. The source water assessment has rated these wells as having a high susceptibility to chemical and microbial contaminants as noted in the table below. These ratings are due primarily to the proximity to the wells of permitted discharge facilities (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state and/or federal government) hazardous waste sites and Toxic Release Inventory sites. In addition, the wells draw from an unconfined aquifer that may not provide adequate protection from potential contamination. Halogenated solvents have been historically documented as impacting the well field. While the source water assessment rates our wells as being highly susceptible to microbials, 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 for microbial contamination.

SUSCEPTIBILITY TABLE		
CONTAMINANT	WELL #1	WELL #3
Cations/Anions (Salts)	High	High
Enteric Bacteria	High	High
Enteric Viruses	High	High
Halogenated Solvents	High	High
Herbicides/Pesticides	High	High
Metals	High	High
Nitrate	High	High
Other Industrial Organics	High	High
Petroleum Products	High	High
Protozoa	High	High

County and state health departments will use this information to direct future source water protection activities. These may include water quality monitoring, resource management, planning, and education programs. A copy of the assessment, including a map of the assessment area, can be obtained by contacting the water supplier.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no violations. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below New York State requirements. It should be noted that the action level for lead was not exceeded in any of the samples collected; however, we are required to present the following information on lead in drinking water:

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. The Kirkwood Consolidated Water District 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) or at <http://www.epa.gov/safewater/lead>.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2017, our system was in compliance with applicable 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:

- 1 Saving water saves energy and some of the costs associated with both of these necessities of life.
- 2 Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers; and
- 3 Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire fighting needs are met.

You can play a role in conserving water by becoming conscious of the amount of water your house holds using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:

- 1 Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- 2 Turn off the tap when brushing your teeth.
- 3 Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it up and you can save almost 6,000 gallons per year.
- 4 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.

CLOSING

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, which are the heart of our community. Please call our office if you have questions.