Annual Water Quality Report for 2012

Cairo Water District
P.O. Box 728, Cairo, New York 12413
Public Water Supply # 1900025

To comply with State regulations, the Cairo Water District annually issues a report describing the quality of your drinking water. The purpose of the report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. The 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. We are happy to report that our system did not violate a maximum contaminant level or any other water quality standard.

Should you have any questions or concerns about this report, please contact Kathy Jurgens, Water Administrator at 622-0052. The Cairo Town Board meets the fourth Wednesday of each month at 7:00 p.m. to conduct normal town business.

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 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, radioactive contaminants, and organic chemical 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 main water source is ground water drawn from the well located at the Cairo Town Park. Our water is treated with chlorine and soda ash prior to distribution. Chlorine is used to help control organic bacteria. Soda Ash raises the ph to reduce corrosion of lead, copper and galvanized piping. Our system serves approximately 300+ service connections. Well #3 located at the old reservoir property is operational as a reserve source.

Are there contaminants in our water?
As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiological and synthetic organic compounds.

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. It should be noted that all drinking water, including bottled water, might reasonably be expected to contain at least small amounts of some contaminants. A copy of the Detected Contaminants is attached. We were not required to test for lead and copper during 2012; however, our next testing will be during 2014. Our Radiological monitoring was completed in 2008, and the parameters were less than the associated Maximum Contaminant Levels listed in the N.Y.S. Sanitary Code. Our next samples will not be due until 12/31/2017.

The presence of contaminants does not necessarily mean that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling EPA'S Safe Drinking Water Hotline (800) 426-4791 or the New York State Dept. of Health, Oneonta District Office at (607) 432-3911.

Is our water safe for everyone?
Some people may be more vulnerable to contaminants 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 about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

The NYSDOH has completed a source water assessment for this system, based on available information. Possible and actual threats to the drinking water sources 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. While nitrates (and other inorganic contaminants) were detected in our water, it should be noted that all drinking water, including bottled drinking water, might 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. The nitrate levels in our sources are not considered high in comparison with other sources in this area. See section "Are there contaminants in our drinking water?" for a list of the contaminants that have been detected.

As mentioned above, our main water supply is from one drilled well. The source water assessment has rated this well as having a very high susceptibility to microbials and nitrates and a high susceptibility to industrial solvents, and other industrial contaminants. These ratings are due primarily to the close proximity of permitted discharge facilities (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state and/or federal government), low intensity residential activities and manure piles within the assessment area. In addition, the well draws from an unconfined aquifer of unknown hydraulic conductivity. While the source water assessment rates our well as being 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.

During 2012, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements. Our water is monitored daily by Department personnel and is tested monthly by JH Consulting Group Inc. Plans are moving forward to drill an additional well near the vicinity of the current well located at the Town Park property.

WHY SAVE WATER AND HOW TO AVOID WASTING IT?

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

- Saving water saves energy and some of the costs associated with both of these necessities of life.
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- 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
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- 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.
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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:

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- 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.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. **Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.**
- Check 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.**
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, and then check the meter after 15 minutes. If it moved, you have a leak.

Thank you for allowing us to continue providing your family with quality drinking water. In order to maintain a safe and dependable water supply, we sometimes need to make improvements that will benefit all of our customers. The cost of these improvements may be reflected in the rate structure. Rate adjustments have been necessary in order to address these improvements. We ask that all of our customers help us to protect our water sources. If you are a landlord, please share this information with your tenants. Additional copies of this report may be obtained from the Town Clerk's office located in the Town Hall. Please feel free to call if you have any questions.

Table of Detected Contaminants for the year 2012

For Well #1 (Distribution)

Substance	Highest level Allowed (MCL)	Our System Range	Our System Average Level	EPA MCLG	Source of Contaminant
Lead			90% of results		corrosion of household
7/18/2011	15ppb	.001mgl-.015mgl	were less than	0	plumbing systems
			0.004 mg/1		
Copper			90% of results		corrosion of household plumbing
7/18/2011	1.3ppm	0.25-1.48mg/l	0.97 mg/1	1.3	erosion of natural deposits
					leaching from wood preservatives
Nitrate					
3/7/2012			0.200		natural occuring
Sulfate					
4/12/2011			6.18		
Barium					
4/12/2011			0.0129		
Nickel					
4/12/2011			0.0009		
THM					
8/9/2010		0.012			
Sodium					
6/4/2008			13.4		
Manganese					
6/4/2008			0.01		
Chloride					
6/4/2008			20 mg/l		
Radium 226					
average			0.315 pCi/l		
Radium 228					
average			0.0.67 pCi/l		
Alpha					
average			0.665 pCi/l		

a) 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 using the best available treatment technology.

b) Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there there is no known or expected risk to health. MCLGs allow for a margin of safety.

C) Action Level (AL) - The concentration of a contaminant, which if exceeded, triggers treatment, or other requirements, which a water system must follow.

d) Treatment Technique (TT) - A required process intended to reduce the level of a contaminant in drinking water.

e) Variances and Exemptions - State or EPA permission not to meet an MCL or treatment technique under certain circumstances.

f) ppm - parts per million or milligrams per liter (mg/1)

g) ppb - parts per billion or micrograms per liter (mcg/1)

h) NTU - Nephelometric Turbidity Units (a measure of turbidity)

i) THM - Trihalomethanes

j) pCi/l - picocuries per liter

Mathematical Conversions * 1 mg/l = 1 ppm * mcg/l = 1 ppb * 1 ppm X 1000 = 1 ppb

The amounts of a contaminant allowed in drinking water are so small they are measured in ppm-equivalent to one penny in $ 1 0,000; or ppb - equivalent to one penny in $ 1 0,000,000.

*The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data though representative of the water quality, may be more than one year old.

* *Water containing more than 20 mg/l of sodium should not be used for drinking by persons on severely restricted sodium diets.

Table of Detected Contaminants for the year 2012

For Well #3 Reserve Supply

Substance	Highest level Allowed (MCL)	Our System Range	Our System Result (mg/l)	EPA MCLG	Source of Contaminant
Nitrate					
4/9/2012			<0.23		
Nickel					
3/9/2010			0.0017		
Iron					
3/9/2010			0.470		
Sodium					
3/9/2010			63.2		
Zinc					
3/9/2010			0.260		
Chloride					
3/9/2010			44.0		
manganese					
3/9/2010			0.190		
Sulfate					
3/9/2010			18		
Arsenic					
3/9/2010			0.006		
Barium					
3/9/2010			0.191		
Fluoride					
11/8/2007			0.16		
Radium 226					
average			0.235 pCi/l		
Radium 228					
average			0.537 pCi/l		
Alpha					
average			1.27 pCi/l		

a) average - equals an average of collections in April and November 2008