

**Annual Drinking Water Quality Report for 2021**  
**Cairo Water District**  
**P.O. Box 728, Cairo, New York 12413**  
**(Public Water Supply ID# NY1900025)**

**INTRODUCTION**

To comply with State regulations, Cairo Water District, 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. 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 Water Department at 518-622-3120 ext. 254. 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. The meetings are held the 1<sup>st</sup> Monday of each month at 7:00PM in the Town Hall located at 512 Main Street.

**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 both commercial and residential consumers. We have 330 service connections providing water to approximately 1,400 people. Our water source is ground water drawn from the well located at the Cairo Town Park and is treated with Chlorine and Sodium hydroxide. Chlorine is used as a disinfectant which protects us from harmful bacteria and Sodium hydroxide is used for corrosion control of lead, copper and galvanized plumbing.

We have a reserve well that is used mainly for emergencies and is identified as Well #3. Well #3 is located at the old reservoir property. We have recently constructed an additional well and pump-house also located at the Cairo Town Park. This new well source was put into service in September of 2021.

**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, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiological 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.

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 New York State Department of Health, Oneonta District Office at (607)432-3911.

**Table of Detected Contaminants**

Contaminant	Violation	Date of Sample	Level Detected	Unit	Regulatory Limit (MCL, TT or AL)	MCLG	Likely Source of Contamination
	Yes/No		(Avg/Max)	Measurement			
			(Range)				
Nitrate - Well 1	NO	2/4/21	0.3	mg/L	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Nitrate - Well 3	NO	12/18/20	0.02	mg/L	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Barium - Well #1 Barium- New Well	NO NO	7/15/21 4/14/21	.016 .015	mg/L	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Arsenic - Well #3	NO	3/29/18	2.7	ug/L	10	n/a	Erosion of natural deposits; runoff from orchards, runoff from glass and electronics production wastes.
Nickel (New Well)	NO	7/15/21	.0011	mg/l	n/a	n/a	
Lead	NO	8/29/21- 9/29/21	3.7 <sup>1</sup>	ug/L	AL = 15	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	YES	8/29/21- 9/29/21	1.6 <sup>1,4,5</sup>	mg/L	AL = 1.3	1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Total Trihalomethanes (TTHMs – chloroform, bromodichloromethane, dibromochloromethane, and bromoform)	NO	7/13/21	20.7	ug/L	80	n/a	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains organic matter.
Haloacetic Acids (mono-, di-, and trichloroacetic acid, and mono- and dibromoacetic acid)	NO	7/13/21	16.9	ug/L	60	n/a	By-product of drinking water chlorination needed to kill harmful organisms.
Perfluorohexane Sulfonic Acid (PFHXS)	NO NO	8/30/21 4/14/21	3.63 (EP) 3 (New Well)	ng/l			
Perfluorooctane-sulfonic Acid (PFOS) Well #1	NO	2/15/21 4/14/21  8/30/21 11/29/21	3 4 (EP) 6 (New Well) 3 3	ng/l	10 ppt	N/A	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctanoic Acid (PFOA) Well #1	NO	Quarterly	ND	ng/l	10 ppt	N/A	Released into the environment from widespread use in commercial and industrial applications.
1,4-Dioxane Well #1	NO	Quarterly	ND	ug/l	1 ug/l	N/A	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
M-Xylene	NO	4/14/21	.94	ug/l	5	n/a	Leaks from gasoline tanks; Discharge from petroleum factories. Leaching of solvent from lining of potable water tanks.
Beta particle - Well #1	NO	6/6/17	1.17	pCi/L	50	0	Decay of natural deposits and man-made emissions.

Beta particle - Well #3	NO	6/6/17	1.93	pCi/L	50	0	Decay of natural deposits and man-made emissions.
Gross Alpha Activity - Well #3	NO	6/6/17	1	pCi/L	15	0	erosion of natural deposits
Chloride - Well #3	NO	4/19/17	81.5	mg/L	250	n/a	Naturally occurring or indicative of road salt contamination
Sulfate - Well #3	NO	4/19/17	18.2	mg/L	250	n/a	Naturally occurring
Calcium - Well #3	NO	4/19/17	40.7	mg/L	none	n/a	Naturally occurring
Iron - Well #3	NO	4/19/17	105	ug/L	300	n/a	Naturally occurring
Magnesium - Well #3	NO	4/19/17	6.2	mg/L	none	n/a	Naturally occurring
Manganese - Well #3	NO	4/19/17	161	ug/L	300	n/a	Naturally occurring; Indicative of landfill contamination
Sodium - Well #3	NO	4/19/17	69.4 <sup>3</sup>	mg/L	none	n/a	Naturally occurring; Road salt; Water softeners; Animal waste

1- During 2021 we collected and analyzed 20 samples for lead and copper. The level included in the table represents the 90<sup>th</sup> percentile of the samples collected. 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 90<sup>th</sup> percentile is equal to or greater than 90% of the values detected at your water system. The action levels for lead and copper were not exceeded at any of sites tested.

2- During 2021 we collected and analyzed 1 sample each quarter for PFOA, PFOS and 1,4-Dioxane. To provide consumers, including the most sensitive populations, with a margin of protection from a lifetime of exposure to PFOA and PFOS from drinking water, NYS has established the maximum contaminant levels at 10 parts per trillion for PFOA & PFOS, and 1 parts per billion for 1,4-Dioxane.

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- Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor

5- Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

6- Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution.

**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.

**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).

**Nanograms per liter (ng/l):** Corresponds to one part of liquid to one trillion parts of liquid (parts per trillion - ppt).

**Picocuries per liter (pCi/L):** A measure of the radioactivity in water.

**WHAT DOES THIS INFORMATION MEAN?**

As you can see by the table, our system had 1 violation for Copper. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below current federal drinking water requirements except for copper. We are currently changing our treatment process in an effort to lower our copper levels at consumer taps. It should be noted that Well#3 is not our primary source and is used for reserve only.

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 Town of Cairo 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>.

### **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 some of the costs associated with both of these necessities of life;
- ◆ 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
- ◆ 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 household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:

- ◆ 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 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.

### **NYSDOH - SOURCE WATER ASSESSMENT**

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 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.

## **CLOSING**

During 2021, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements. Our water is monitored and tested daily by North Dome Operations personnel and is tested monthly by J Myers Water Services, Inc. Recently the Cairo Water District has accepted an interest free loan of approximately \$3.8 million, of that \$3.8, \$2.2 million will be paid from a grant. The funds acquired will finance necessary improvements including providing an additional water source, and has installed a new metering system, built a new water tower, and replaced the water mains of Railroad Avenue and Bross Street.

Thank you for allowing us to continue to provide your family with quality drinking water this year. To maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary to address these improvements. We ask that all our customers help us protect our water sources, which are the heart of our community.

**Please call: NYSDOH, Oneonta District Office at (607) 432-3911.**