Annual Drinking Water Quality Report for 2024
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 1st 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 337 service connections, providing water to approximately 1,500 people. Our water source is groundwater drawn from two wells (Well #1 & Well #4 (NPTP)) located at Cairo Town Park. It is treated with chlorine and sodium hydroxide. Chlorine is used as a disinfectant, protecting us from harmful bacteria, and sodium hydroxide is used for corrosion control of lead, copper, and galvanized plumbing. We have a reserve well, Well #3, located at the old reservoir property. It is used mainly for emergencies. The New Park Treatment Plant (NPTP, Well #4) is our newest well and treatment facility in Angelo Canna Park (Cairo Town Park); it was put into service in 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, 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 Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measure-ment	Regulatory Limit (MCL, TT, or AL)	MCLG	Likely Source of Contamination
Nitrate	NO	9/19/24 @ NPTP	0.22	mg/L	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Barium	NO	7/15/21 @ Well #1 10/25/22 @ Well #3 9/5/24 @ NPTP 9/19/24 @ NPTP	0.016 0.013 0.013 0.012	mg/L	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Nickel	NO	7/12/21 @ Well #1 10/25/22 @ Well #3 9/5/24 @ NPTP	0.0011 0.0012 0.0006	mg/l	N/A	N/A	Naturally Occurring
Lead[2]	NO	6 months 5/4/2022 @ Distribution System 6 months 12/31/2022 @ Distribution Systems	90% = 2.8 Range= (ND – 4.7) 90% = ND Range= (ND - ND)	ug/l	AL = 15	0	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper[1]	NO	6 months 5/4/2022 @ Distribution System 6 months 12/31/2022 @ Distribution Systems	90% = 0.414 Range= (0.049 – 0.460) 90% = 0.176 Range= (0.041 - 0.331)	mg/l	AL = 1.3	1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Copper, Free	NO	6/21/22 @ Well #3	0.092	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	8/29/24 @ Distribution System	23.6	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 di-bromoacetic acid)	NO	8/29/2024 @ Distribution System	15.4	ug/L	60	N/A	By-product of drinking water disinfection needed to kill harmful organisms.
Perfluorooctanesulfonic Acid (PFOS)	NO	Yearly @ NPTP 6/28/24	5.35	ng/l	10	N/A	Released into the environment from widespread use in commercial and industrial applications.

Perfluorooctanesulfonic Acid (PFOS)	NO	Quarterly @ Well #1 2/15/2021 4/14/2021 8/30/2021 11/29/2021	2.9 4.0 2.95 2.87	ng/l	10	N/A	Released into the environment from widespread use in commercial and industrial applications.

Footnotes:
1) The level presented represents the 90th percentile of the 10 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 copper values detected in your water system. In this case, 10 samples were collected at your water system, and the 90th percentile value (0.414) is the second highest value. The action level for copper was not exceeded at any of the sites tested.
2) The level presented represents the 90th percentile of the 10 sites tested. In this case, 10 samples were collected at your water system, and the 90th percentile value (2.8) is the second highest value. The action level for lead was not exceeded at any of the sites tested.

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.

Maximum residual disinfectant level (MRDL): means a level of disinfectant measured at a consumer's tap, above which the possibility of unacceptable health effects exists.

Maximum Residual Disinfectant Level Goal (MRDLG): 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 contamination.

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.

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

Table of Unregulated Perfluoroalkyl Substances

Contaminant	Violation Yes/No	Location	Date of Sample	Level Detected	Unit of Measurement	MCLG or Health Advisory Level
Perfluorohexane Sulfonic Acid (PFHxS)	No	Well, house #1	02/15/2021 04/14/2021 08/30/2021 11/29/2021	ND ND 3.63 ND	ng/L	Health Advisory Level
Perfluorohexane Sulfonic Acid (PFHXS)	No	New Park Well House # 4	Yearly 7/25/2023	2.02	ng/L	Health Advisory Level

Note:
1- USEPA Health Advisory Levels identify the concentration of a contaminant in drinking water at which adverse health effects and/or aesthetic effects are not anticipated to occur over specific exposure durations. Health Advisory Levels are not to be construed as legally enforceable federal standards and are subject to change as new information becomes available.
2- All perfluoroalkyl substances, besides PFOA and PFOS, are considered Unspecified Organic Contaminants (UOC) which have an MCL = 0.05 mg/L = 50,000 ng/L.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no water quality violations for 2024. 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.

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. The Cairo Water District is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you are concerned about lead in your water and wish to have your water tested, contact the Water Department at 518-622-3120 ext. 254. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at https://www.epa.gov/safewater/lead.

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).

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

We constantly test for various contaminants in the water supply to comply with regulatory requirements. We were in violation for not meeting required filing deadlines for the 2023 Annual Water Quality Report and the corresponding 2023 AWQR Certification Form and the Lead Service Line Inventory. This does not pose a threat to the quality of our water supply.

INFORMATION ON LEAD SERVICE LINE INVENTORY

A Lead Service Line (LSL) is defined as any portion of pipe that is made of lead which connects the water main to the building inlet. An LSL may be owned by the water system, owned by the property owner, or both. The inventory includes both potable and non-potable SLs within a system. The Cairo Water District is in violation of federal Lead and Copper Rule Revisions (LCRR) requirements for failing to provide a publicly accessible lead service line inventory.

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 several 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 firefighting 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 on 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 2024, our system was in compliance with applicable State drinking water quality operating, monitoring, and reporting requirements. With the exception that we were in violation for not meeting required filing deadlines for the 2023 Annual Water Quality Report and the corresponding 2023 AWQR Certification Form and the Lead Service Line Inventory. This does not pose a threat to the quality of our water supply. Our water is monitored and tested daily by North Dome Operations personnel and is tested monthly by J Myers Water Services, Inc. In 2022 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, installing a new metering system, building a new water tower, and replacing 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 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. The New York State Department of Health - Oneonta District Office can be reached at (607) 432-3911.