Annual Drinking Water Quality Report for 2022
East Aurora Water Dept
571 Main St. East Aurora, NY 14052
(Public Water Supply ID# 1400433)

INTRODUCTION

To comply with State regulations, East Aurora Water Dept. 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. We are proud to report that our system did not violate a maximum contaminant level or any other water quality standard. 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 Brian Halt, Water Dept. Foreman at 652-6057. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled village board meetings on the 1st and 3rd Monday of the month. The meetings are held at the Village Hall Board room at 7:00pm.

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 Departments and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water is purchased from Erie County Water Authority where it undergoes disinfection, pH adjustment and fluoridation. The Water is stored in two 1-million-gallon tanks, one is located on Center Street and the other is located on Castle Hill. During 2022, our system did not experience any restriction of our water source.

FACTS AND FIGURES

Our water system serves 6610 people through 2700 connections. The total water purchased in 2022 was 234 million gallons. The amount of water delivered to customers was 160 million gallons. This leaves an unaccounted-for total of 74 million gallons or 28% of the total. This water was used to flush mains, fight fires and lost due leakage. In 2022, water customers were charged on average $ 5.17 per 1000 gallons of water.

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, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiological and synthetic organic compounds. The table that follows and the attached report from The Erie County Water Authority 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 Erie County Health Department at 716-961-6800.

Table of Detected Contaminants

Violation	Contaminant	Date of Sample	Level Detected (Ave/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit	Likely Source of Contamination
Inorganic Contaminants							
NO	Copper	7/23/2019 - 8/28/2019	0.048 [1] ND – 0.052	mg/l	1.3	AL = 1.3	Corrosion of household plumbing systems; erosion of natural deposits.

Table of Detected Contaminants, continued							
Violation	Contaminant	Date of Sample	Level Detected (Ave/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit	Likely Source of Contamination
NO	Lead	7/23/2019 - 8/28/2019	2.9 [2] ND – 4.0	ug/l	0	AL = 15	Corrosion of household plumbing systems; erosion of natural deposits
Disinfection By Products							
NO	Haloacetic Acids (HAA5)	1st quarter 2020	22.8 [3]	ug/l	N/A	60	By-product of drinking water disinfection needed to kill harmful organisms.
NO	Total Trihalomethanes TTHMs)	1st quarter 2020	57.4 [3]	ug/l	N/A	80	By-product of drinking water disinfection needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Disinfectant							
NO	Chlorine Residual	2022	1.09 0.59 – 1.80	mg/l	N/A	MRDL = 4	Water additive used to control microbes.

Notes:

1 – The level presented represents the 90th percentile of the 16 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 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, 16 samples were collected at your water system and the 90th percentile value was the second highest value (0.048 mg/l). The action level for copper was not exceeded at any of the sites tested.

2 – The level presented represents the 90th percentile of the 16 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 90th percentile is equal to or greater than 90% of the lead values detected at your water system. In this case, 16 samples were collected at your water system and the 90th percentile value was the second highest value (2.9 ug/l). The action level for lead was not exceeded at any of the sites tested.

3 – This level represents the highest level from the data collected because sampling was only performed in the first quarter 2022.

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): The highest level of a 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 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).

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

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 the level allowed by the State.

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 Village of East Aurora Water Department 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?
In 2022 we received three violations from the Erie County Department of Health (ECDOH):

- The October operations report was late.
- The Emergency Response Plan report was late. (NYSDOH violation).

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. Immune-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).

INFORMATION ON FLUORIDE ADDITION
Our system is one of the many drinking water systems in New York State that provides drinking water with a controlled, low level of fluoride for consumer dental health protection. Fluoride is added to your water by the Erie County Water Authority (ECWA) before it is delivered to us. According to the United States Centers for Disease Control, fluoride is very effective in preventing cavities when present in drinking water at a properly controlled level. To ensure that the fluoride supplement in your water provides optimal dental protection, ECWA monitors fluoride levels on a daily basis to make sure fluoride is maintained at a target level of 0.7 mg/l. During 2022 monitoring showed that fluoride levels in your water were within 0.2 mg/l of the target level for 95% of the time. None of the monitoring results showed fluoride at levels that approach the 2.2 mg/l MCL for fluoride.

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.
- 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 up 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.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, then check the meter after 15 minutes, if it moved, you have a leak.

SYSTEM IMPROVEMENTS
In 2022 there were no system Improvements.

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 is the heart of our community. Please call our office if you have questions. (East Aurora Water Dept. 652-6057)

ERIE COUNTY WATER AUTHORITY
2022 ANNUAL WATER QUALITY REPORT

DETECTED CONTAMINANTS

CONTAMINANT	VIOLATION YES/NO	DATE OF SAMPLE	LEVEL DETECTED (Avg/Max); (Range)	UNIT MEASUREMENT	MCLG	REGULATORY LIMIT (MCL, TT OR AL)	LIKELY SOURCE OF CONTAMINATION
Inorganic Contaminants & Physical Tests							
Barium	No	10/22	0.0185-0.0197 mg/L; Average=0.019mg/L	mg/L	2.0 mg/L	2.0 mg/L	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries.
Chloride	No	4/22	15.4-27.7 mg/L; Average=19.5 mg/L	mg/L	NE	250 mg/L	Naturally occurring or indicative of road salt contamination
Chlorine	No	8/22	0.80-2.08 mg/L; Average=1.51 mg/L	mg/L	NA	MRDL=4.0 mg/L	Added for disinfection.
Copper[2]	No	6/22	ND-162 ug/L; 90th percentile=43 ug/L, 0 of 100 above AL	ug/L	1300 ug/L	AL=1300 ug/L	Corrosions of home plumbing systems; natural erosion; leaching from wood preservatives
Fluoride	No	12/22	0.09-1.03 mg/L; Average=0.65 mg/L	mg/L	NA	2.2 mg/L	Erosion of natural deposits; water additive that promotes strong teeth; discharge from aluminum and fertilizer facilities.
Lead[3]	No	6/22	ND-46 ug/L; 90th percentile =9.8 ug/L, 7 of 100 above AL	ug/L	0 ug/L	AL=15 ug/L	Home plumbing corrosion; natural erosion.
Nickel	No	10/22	0.83-0.85 ug/L; Average=0.84 ug/L	ug/L	NE	NR	Nickel enters ground water and surface water by dissolution of rocks and soils, from atmospheric fall out; from biological decay and from waste disposal.
Manganese	No	2/22	0.0-12.6 ug/L; Average=2.32 ug/L	ug/L	NE	NR	Naturally occurring, indication of landfill contamination.
pH	No	3/22	7.41-8.42; Average=7.95	SU	NE	NR	Naturally occurring; adjusted for corrosion control.
Distribution System Turbidity	No	5/22	0.05-0.73 NTU; Average=0.17 NTU	NTU	NA	TT =/<5 NTU	Soil runoff
Entry Point Turbidity[1]	No	5/22	0.513 NTU highest level detected; Lowest monthly % <0.30 NTU=100%	NTU	NA	TT=95% of samples </= 0.30 NTU	Soil runoff
Total Organic Carbon	No	5/22	1.45-2.28 mg/L; Average =1.86 mg/L	mg/L	NA	TT	Naturally occurring in the environment
Synthetic Organic Contaminants							
Bis(2-ethylhexyl) phthalate	No	11/21	0.74 – 1.0 ug/L; Average=0.87 ug/L	ug/L	0 ug/L	6 ug/L	Used in plastic products such as PVC, plastic toys, vinyl upholstery, adhesives, and coatings. Compound likely to be released to the environment during production & waste disposal of these products. Also used in inks, pesticides, cosmetics and vacuum oil.
Disinfection By-products							
Total Trihalomethanes	No	8/22	15-80 ug/L; LRAA = 63[4]	ug/L	NE	LRAA = 80	By-product of water disinfection (chlorination)
Total Haloaetic Acids	No	8/22	6-54 ug/L; LRAA = 40[4]	ug/L	NE	LRAA = 60	By-product of water disinfection (chlorination)
Radiological Contaminants							
Radium 228	No	7/19	ND	pCi/L	NE	NE	Erosion of natural deposits.
Combined Radium 226/228	No	7/19	ND	pCi/L	0	5.0	Erosion of natural deposits.

ERIE COUNTY WATER AUTHORITY
2022 ANNUAL WATER QUALITY REPORT

Microbiological Contaminants							
Total Coliform Bacteria	No	9/22	1 CFU	NA	0	TT =/< 2 positive	Naturally occurring in the environment

1 – Turbidity is a measure of the cloudiness of the water. We test it because it is a good indicator of the effectiveness of our filtration system. State regulations require that turbidity must always be below 1 NTU in the combined filter effluent. The regulations require that 95% of the entry point turbidity samples collected have measurements below 0.3 NTU. Our highest single system turbidity measurement, 0.513 NTU, for the year occurred in November 2022.

2 – The level presented represents the 90th percentile of the 100 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 at your water system. In this case, 100 samples were collected at your water system and the 90th percentile value was the eleventh highest sample at 43 ug/L. The second highest sample from 90th percentile was the ninth highest with a value of 48 ug/L. The action level for copper was not exceeded at any of the sites tested.

3 - The 90th percentile value was the eleventh highest sample at 9.8 ug/L. The second highest sample from the 90th percentile was the ninth highest with a value of 11.5 ug/L. The action limit for lead was exceeded at 7 of the 100 sites tested.

4 – This level represents the highest locational running annual average calculated from data collected.

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

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

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

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity more than 5 NTU is just noticeable to the average person.

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 in one trillion parts of liquid (parts per trillion - ppt).

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

AL = Action Level: The concentration of the highest contaminant

LRAA = Locational Running Annual Average

ND = Not Detected: Laboratory analysis indicates the constituent is not present

NE = Not Established ***NR*** =Not Regulated

NA = Not Applicable ***SU*** = Standard Units

ERIE COUNTY WATER AUTHORITY
2022 ANNUAL WATER QUALITY REPORT

INFORMATION ON UNREGULATED CONTAMINANTS

COMPOUNDS TESTED FOR BUT NOT DETECTED				
Arsenic	Alachlor	Di-n-butyl phthalate	Metribuzin	Radium 226
4-Androstene-3,17-dione	Aldicarb	Di(2-ethylhexyl) adipate	Oxamyl (Vydate)	1,1-Dichloroethylene
Baygon	Aldicarb Sulfone	1,2-Dibromo-3-chloropropane	Oxyfluorfin	cis-1,2-Dichloroethylene
2-Chlorotoluene	Aldicarb Sulfoxide	Dibromomethane	PCB 1016	trans-1,2-Dichloroethylene
4-Chlorotoluene	Aldrin	Dicamba	PFDA	1,2-Dichloropropane
17beta-Estradiol	alpha -BHC	Dichlorodifluoromethane	PFDoA	1,3-Dichloropropane
17alpha-Ethynyl estradiol	Anatoxin-a	Dieldrin	PFHxA	2,2-Dichloropropane
2,4-D	Asbestos	Isopropylbenzene	PFTA	1,1-Dichloropropene
1,3 Butadiene	Atrazine	p-Isopropyltoluene	PFTrDA	cis-1,3-Dichloropropene
1,2-Dichlorobenzene	Benzene	Lindane	PFUnA	trans-1,3-Dichloropropene
1,3-Dichlorobenzene	Benzo(a)pyrene	Mercury	Permethrin	1,4-Dioxane
1,4-Dichlorobenzene	Chlorpyrifos	Methiocarb	Pichloram	3-Hydroxycarbofuran
1,1-Dichloroethane	Chromium, Total	Methomyl	Profenofos	2,3,7,8-TCDD (Dioxin)
1,2-Dichloroethane	Cobalt	Methoxychlor	Propachlor	2,4,5-TP (Silvex)
1,2,3-Trichloropropane	Cyanide	MTBE	Propylene Glycol	1,1,1,2-Tetrachloroethane
1,2,4-Trimethylbenzene	Cylindrospermopsin	Methylene Chloride	n-Propylbenzene	1,1,2,2-Tetrachloroethane
1,3,5-Trimethylbenzene	Dalapon	Metolachlor	Quinoline	1,2,3-Trichlorobenzene
Chlordane	Heptachlor	9CL-PF30NS	Xylenes (o,m and p)	Chlorobenzene
1,2,4-Trichlorobenzene	Di-Chlorodifluoromethane	Hexachlorobenzene	N-E-t-FOSAA	Heptachlor Epoxide
1,1,1-Trichloroethane	Chloroethane	Hexachlorobutadiene	N-MeFOSAA	ADONA

ERIE COUNTY WATER AUTHORITY
2022 ANNUAL WATER QUALITY REPORT

COMPOUNDS TESTED BUT NOT DETECTED				
1,1,2-Trichloroethane	Chloromethane	Hexachlorocyclopentadiene	HFPO-DA	
Beryllium	Dimethipin	PCB 1221	Selenium	
Bromide	Dinoseb	PCB 1232	Simazine	
Bromobenzene	Diquat	PCB 1242	Styrene	
Bromochloromethane	Endothall	PCB 1248	Tebuconazole	
Bromomethane	Endrin	PCB 1254	Tetrachloroethylene	
Butachlor	Equillin	PCB 1260	Thallium	
Butylated hydroxyanisole	Estriol	Pentachlorophenol	Toluene	
n-Butylbenzene	Estrone	Perfluorobutanesulfonic acid	o-Toluidine	
sec-Butylbenzene	Ethoprop	Perfluoroheptanoic acid	Total Mircocystin	
t-Butylbenzene	Ethylbenzene	Perfluorohexanesulfonic acid	Toxaphene	
Cadmium	Ethylene Dibromide (EDB)	Perfluorononanoic acid	Tribufos	
Carbaryl	Glyphosate	Perfluorooctane sulfonate	Trichloroethylene	
Carbofuran	Gross Alpha Particles	Perfluorooctanoic acid	Trichlorofluoromethane	
Carbon Tetrachloride	Gross Beta Particles	11Cl-PF3OUDS	Vinyl Chloride	

WHY SAVE WATER AND HOW TO AVOID WASTING IT

The Erie County Water Authority encourages water conservation. Although the Lake Erie and the Niagara River are unlimited sources of a good supply of water, it must not be wasted. 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 firefighting needs are met.

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- Turn off the tap when brushing your teeth.