

Annual Drinking Water Quality Report for 2007
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 Laurence Hebler Jr., 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 6:30pm.

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 is purchased from Erie County Water Authority. 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 2007, 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 2007 was 226 million gallons. The amount of water delivered to customers was 189 million gallons. This leaves an unaccounted for total of 37 million gallons. This water was used to flush mains, fight fires and lost due leakage. In 2007, water customers were charged on average \$ 3.26 per 100 cubic feet 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, nitrite, lead and copper, volatile organic compounds, total trihalomethanes. 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 716-858-7671

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.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2006, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

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 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 2008, NYS DOT is planning a complete reconstruction of Main Street, which will include new water mains and fire hydrants.

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. (East Aurora Water Dept 652-6057)



ERIE COUNTY WATER AUTHORITY

2007 WATER QUALITY MONITORING REPORT ANNUAL WATER QUALITY REPORT SUPPLEMENT



DETECTED CONTAMINANTS

Metals, Inorganics, Physical Tests	Violation Yes/No	MCL	MCLG	Level Detected	Sources in Drinking Water
Arsenic	No	10 ug/liter	NE	0.62 - 0.72 ug/liter, Average = 0.67	Erosion of natural deposits; orchard runoff, glass and electronic production waste
Asbestos	No	7 MFL	7 MFL	ND - 0.2 MFL, Average = ND	Erosion of natural deposits; decay of asbestos cement water mains
Barium	No	2 mg/liter	NE	0.021 mg/liter	Erosion of natural deposits; drilling and metal wastes
Chloride	No	250 mg/liter	NE	18 - 26 mg/liter ; Average = 19	Naturally occurring in source water
Chlorine	No	MRDL = 4.0 mg/liter	MRDLG = 4 mg/liter	<0.20 to 2.2 mg/liter; Average = 0.76	Added for disinfection
Fluoride	No	2.2 mg/liter	2.2 mg/liter	0.04 - 1.27 mg/liter; Average = 0.77	Added to water to prevent tooth decay
Lead ¹	No	15 ug/liter	0 ug/liter	ND-38 ug/liter, 90th percentile 4 ug/liter, 1 of 97 above AL	Home plumbing corrosion; natural erosion
Nitrate	No	10 mg/liter	10 mg/liter	0.21 to 0.24 mg/liter ; Average = 0.22	Runoff from fertilizer use
pH	No	NR	NE	6.8-8.8 SU; Average = 8.0	Naturally occurring; adjusted for corrosion control
Turbidity ²	No	TT	NE	0.42 NTU highest detected; 97.3% was lowest monthly % < 0.30 NTU	Soil runoff

1 Lead is not present in the drinking water that is treated and delivered to your home. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. The Erie County Water Authority 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 (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

2 Turbidity is a measure of the cloudiness of water. ECWA monitors turbidity because it is a good indicator of the effectiveness of our filtration system. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for bacterial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

On 8/09/07 the Van de Water Treatment Plant encountered a treatment upset which caused the combined effluent turbidity to exceed 0.3 ntu for a period of time. Corrective actions were taken throughout the day and into 8/10/07 until the plant turbidities were below the 0.3 ntu MCL. At no time did the plant readings exceed the maximum allowable treatment technique MCL. The combined filter turbidities were < 0.3 ntu 97.3% of the time for the month of August 2007.

Organic Compounds	Violation Yes/No	MCL (ug/liter)	MCLG (ug/liter)	Level Detected (ug/liter)	Sources in Drinking Water
Total Trihalomethanes	No	RAA<80	NE	13-96 ug/liter ; RAA = 41.0	By-product of water disinfection (chlorination)
Total Haloacetic Acids	No	RAA<60	NE	5 - 54 ug/liter ; RAA = 19.9	By-product of water disinfection (chlorination)
Chloromethane ³	No	5	NE	ND - 0.58 ug/liter; Average ND	Used in organic chemistry as an extractant and in industry as a solvent
1,2-Dichloroethane ³	No	5	NE	ND - 0.61 ug/liter; Average ND	Discharge from industrial chemical factories
MIB and Geosmin	No	NR	NE	ND-4.5 ng/liter; Average < 2 (ND)	Taste and odor compounds from algae decomposition

3 Low levels of these compounds were detected in a sample taken 12/19/07 at the Sturgeon Point Treatment Plant. The low levels detected are not a violation of the MCL. Follow-up testing did not detect these compounds in the water. Some people who drink water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.

Radioactive Parameters	Violation Yes/No	MCL	MCLG	Level Detected	Sources in Drinking Water
Gross Alpha	No	15.0 pCi/liter	0 pCi/liter	ND-1.7 pCi/liter	Erosion of natural deposits
Gross Beta	No	50** pCi/liter	0 pCi/liter	ND-2.2 pCi/liter	Decay of natural and man-made deposits
Combined Radium 226/Radium 228	No	5.0 pCi/liter	0 pCi/liter	ND	Erosion of natural deposits
Radon-222	No	NR	300 pCi/liter	3 pCi/liter	Natural radioactive gas
Total Uranium	No	30 ug/liter	0 ug/liter	ND-0.48 ug/liter	Erosion of natural deposits

** New York State Department of Health considers 50 pCi/liter to be the level of concern for beta particles.

Microbiological Parameters	Violation Yes/No	MCL	MCLG	Level Detected	Sources in Drinking Water
Total Coliform Bacteria	No ⁴	Any positive sample	0	0.47% = highest percentage of monthly positives	Naturally present in environment
E. coli Bacteria	No ⁵	Any positive sample	0	2 ^{5,7}	Human and animal fecal waste

4 A violation occurs when more than 5% of the total coliform samples collected per month are positive.

5 A violation occurs when a total coliform positive sample is positive for *E. coli* and a repeat total coliform sample is positive or when a total coliform positive sample is negative for *E. coli* but a repeat total coliform sample is positive and the sample is also positive for *E. coli*.

6 A water sample taken on 1/16/07 at the Dodge Rd Elementary School was suspected of being positive for *E. coli*. Follow-up sampling and testing was performed and the results were negative for both total coliform & *E. coli*. No MCL violation occurred.

7 On 4/04/07 the Erie County Water Authority was issued a reporting violation for failing to report a suspected positive *E. coli* result within the required time frame. The organism was detected in a water sample taken 3/31/07 at the Van de Water Treatment Plant. Follow-up sampling and testing were performed and the results were negative for both total coliform & *E. coli*. No MCL violation occurred.

GIARDIA AND CRYPTOSPORIDIUM	Violation Yes/No	Number of Samples Testing Positive		Number of Samples Tested
		Giardia	Cryptosporidium	
Source Water	No	5	1	24
Treated Drinking Water	No	0	0	24

Cryptosporidium is a microscopic pathogen found in surface waters throughout the United States, as a result of animal waste runoff. It can cause abdominal infection, diarrhea, nausea, and abdominal cramps if ingested. Our filtration process effectively removes *Cryptosporidium*. *Cryptosporidium* was not detected in any treated water samples taken in 2007.

Giardia is a microbial pathogen present in varying concentrations in many surface waters. In 2007 *Giardia* was detected in 5 of 24 raw source water samples but was not detected in any treated drinking water samples. *Giardia* is removed/inactivated through a combination of filtration and disinfection or by disinfection alone.

Contaminants that may be present in source water before we treat it include:

**Microbial Contaminants*, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

**Inorganic Contaminants*, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

**Pesticides and Herbicides*, which may come from a variety of sources such as urban storm water runoff, agricultural and residential uses.

**Organic Chemical Contaminants*, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

**Radioactive Contaminants*, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Compounds or Elements Tested For But Not Detected

2-Chlorotoluene	1,1,2-Trichloroethane	DCPA Monoacid degradate	Nitrite
4-Chlorotoluene	1,2,3-Trichloropropane	Dalapon	Nitrobenzene
2,4-D	1,1,2-Trichlorotrifluoroethane	Di(2-ethylhexyl) adipate	Oxamyl (Vydate)
4,4'-DDE	1,2,4-Trimethylbenzene	Di(2-ethylhexyl) phthalate	PCB 1016
DCPA monoacid degradate	1,3,5-Trimethylbenzene	Dibromomethane	PCB 1221
1,2-Dibromo-3-Chloropropane	Acetochlor	Dicamba	PCB 1232
DCPA monoacid degradate	Aldicarb	Dieldrin	PCB 1242
1,2-Dibromoethane	Aldicarb Sulfone	Dinoseb	PCB 1248
1,2-Dichlorobenzene	Aldicarb Sulfoxide	Diquat	PCB 1254
1,3-Dichlorobenzene	Aldrin	EPTC	PCB 1260
1,4-Dichlorobenzene	Antimony	Endothall	Pentachlorophenol
1,1-Dichloroethane	Atrazine	Endrin	Perchlorate
1,1,1-Dichloroethylene	Benzene	Ethylbenzene	Phosphate
cis-1,2-Dichloroethylene	Benzo(a)pyrene	Free Ammonia	Pichloram
trans-1,2-Dichloroethylene	Beryllium	Glyphosate	Propacchlor
1,2-Dichloropropane	Bromobenzene	Heptachlor	Propoxur
1,3-Dichloropropane	Bromochloromethane	Heptachlor Epoxide	n-Propylbenzene
2,2-Dichloropropane	Bromomethane	Hexachlorobenzene	Selenium
1,1-Dichloropropene	Butachlor	Hexachlorobutadiene	Silver
cis-1,3-Dichloropropene	n-Butylbenzene	Hexachlorocyclopentadiene	Simazine
trans-1,3-Dichloropropene	sec-Butylbenzene	Isopropylbenzene	Styrene
2,4-Dinitrotoluene	t-Butylbenzene	p-Isopropyltoluene	Terbacil
2,6-Dinitrotoluene	Cadmium	Lindane	Tetrachloroethylene
3-Hydroxycarbofuran	Carbaryl	Manganese	Thallium
1-Napthol	Carbofuran	Mercury	Toluene
2,3,7,8-TCDD (Dioxin)	Carbon Tetrachloride	Methiocarb	Toxaphene
2,4,5-TP (Silvex)	Chlordane	Methomyl	Trichloroethylene
1,1,1,2-Tetrachloroethane	Chlorobenzene	Methoxychlor	Trichlorofluoromethane
1,1,2,2-Tetrachloroethane	Chloroethane	Methyl t-butyl ether (MTBE)	Vinyl Chloride
1,2,3-Trichlorobenzene	Chromium	Methylene Chloride	Xylenes
1,2,4-Trichlorobenzene	Copper	Metolachlor	Zinc
1,1,1-Trichloroethane	Cyanide	Metribuzin	
1,1,2-Trichloroethane	DCPA Diacid degradate	Molinate	
Alachlor	Dichlorodifluoromethane	Napthalene	

ABBREVIATIONS AND TERMS:

AL = Action Level: the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

CFU/100 ml = Colony Forming Units per 100 milliliters

MCL= Maximum Contaminant Level: the highest level of a contaminant allowed in drinking water.

MCLG = Maximum Contaminant Level Goal: the level of a contaminant in drinking water below which there is no known or expected risk.

MFL = Million fibers/liter (Asbestos)

mg/liter = milligrams per liter (parts per million)

MRDL = Maximum Residual Disinfectant Level : 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.

MRDLG = Maximum Residual Disinfectant Level Goal: 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

mrem/yr = millirems per year

ND = Not Detected: absent or present at less than testing method detection limit.

ng/liter = nanograms per liter = parts per trillion

NE = Not Established

NR = Not Regulated

NTU = Nephelometric Turbidity Units

pCi/liter = picocuries per liter

RAA = Running Annual Average

SU = Standard Units (pH measurement)

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

ug/liter = micrograms per liter (parts per billion)

Variances and Exemptions= State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

< = Less Than

≤ = Less Than or Equal To

Results are from 2007 analyses or from the most recent year that tests were conducted in accordance with regulatory requirements. Some tests are not required to be performed on an annual basis.

Information can be obtained upon request from the ECWA Water Quality Laboratory (716) 685-8570 or on the Internet at www.ecwa.org.