

Annual Drinking Water Quality Report for 2017
Elma Water Department
5730 Seneca St
(Public Water Supply ID# 1420549)

INTRODUCTION

To comply with State regulations, Elma Water Department, 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. The Town of Elma has NO lead services in any part of our water system.

If you have any questions about this report or concerning your drinking water, please contact Eugene F. Stevenson, the Elma Water Department Superintendent, at 674-8855. 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 first and third Wednesdays of the month at the Elma Town Hall located at 1600 Bowen Road, Elma, New York at 7:00 P.M. The Board of Commissioners at the Erie County Water Authority ultimately makes the decisions on behalf of our customers. Board meetings take place every other Thursday at 4:00 P.M. in the board room of the Erie County Water Authority, 350 Ellicott Square Building, 295 Main St, Buffalo, New York, 14203. Occasionally a board meeting is rescheduled. Call 849-8484 in advance for updated board meeting information.

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.

The Elma Water Department is a special district in the Town of Elma, which was formed in 1964 to distribute potable water to its residents. Elma purchases 100% of its water from Erie County Water Authority (ECWA). Our objective and goals are to give our water customers good quality water, available for fire protection, maintain our distribution system and give good service to the residents of the Town of Elma. Our water source comes from two sources. The Authority's Sturgeon Point Plant in the town of Evans draws water from Lake Erie to supply southern Erie County and the communities in Cattaraugus County. The Van De Water Treatment Plant in Tonawanda draws water from the

“mighty” Niagara River and services municipalities in northern Erie County. These two plants deliver an average of 65 million gallons a day to more than a half million people in the distribution system where it arrives at a tap, fresh, pure, and ready to enjoy. The water is solely treated by the Authority prior to distribution. During 2017, our system did not experience any restriction of our water source. The Elma Water Department does no treating of the water of our system. With an active backflow program and regular sample testing we work to maintain the integrity of the water we supply to our customers.

FACTS AND FIGURES

Our water system serves 5010 active water accounts through 4,991 service connections to serve the 11,317 population of the Town of Elma plus some out of district customers in the neighboring towns. The total water purchased in 2017 was 665,133,000 gallons of water from Erie County Water Authority. The daily average of water pumped into the distribution system was 1,822,282 gallons per day. Our highest single day was 2,721,000 gallons. The amount of water delivered to customers was 626,052,000 gallons. In 2017 we used 5,000,000 gallons of water for our flushing program. This leaves an unaccounted total of 39,076,000 gallons or 5.2% of the total amount purchased. Unaccountable water loss is water used for flushing mains during construction and breaks, fire training, fire calls, water used by the highway department, both town parks, the senior center, historical center, any water leaks in our system, and the accuracy of our about 5010 water meters verses the three annually tested master meters of Erie County Water Authority. In 2017, water customers were charged \$ 4.45 per 1,000 gallons of water and the annual average water charge per user was \$124.60 figured at 7000 gallons of water per period with 4 billings per year.

Size of meter	Elma Water Minimum* 2017	ECWA minimum 2017
¾"	\$20.70/quarter	\$48.18/quarter
1"	\$20.70/quarter	\$48.18/quarter
1 ½"	\$20.70/month	\$47.76/month
2"	\$20.70/month	\$73.12/month

*This includes general maintenance and fire hydrant maintenance/rental. The ECWA minimum bill includes the infrastructure charge of \$6.55 per month that is on every bill at ECWA. There are also additional fees on certain services that Elma Water Department does for free. All the above rates and charges changed in 2018.

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. None of the compounds ECWA analyzed for were detected in your drinking water.

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 Erie County Health Department at 716-961-6800.

Table of 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
INORGANICS							
Copper	No	2017	63.7*1	ug/l	0	AL=1300	Corrosion of galvanized pipes; erosion of natural deposits
Lead	No	2017	1.6*1	ug/l	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits
DISINFECTION BYPRODUCTS							
<u>Total Trihalomethanes</u> Chloroform Bromoform Bromodichloromethane Dibromochloromethane	No	02/07/17 05/09/17 08/08/17 11/08/17	45.5*3 34.1-53.3	ug/l	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
<u>Total Haloacetic Acids</u> Monochloroacetic Dichloroacetic Trichloroacetic Monobromoacetic Dibromoacetic	No	02/07/17 05/09/17 08/08/17 11/08/17	26.5*3 21.3-31.8	ug/l	N/A	60	By-product of drinking water disinfection needed to kill harmful organisms
DISINFECTANTS							
Chlorine Residual	No	Everyday	1.11*2 .78-1.44	mg/l	N/A	4.0	Water additive used to control microbes

Notes:

*1 - In 2017, the Elma Water Department concluded a lead and copper survey and had No sample over the Action Level. A percentile is a value on a scale of 100 that indicates the percent of distribution that is equal or below it. The level presented represents the 90th percentile of the sites tested. The 90th percentile is equal or greater than 90% of the copper and lead detected at your water system. In this case 30 samples were collected and the 90th percentile for lead was 1.6 ug/l with the highest level at 2.7 ug/l and for copper the 90th percentile was 63.7 ug/l with the highest level at 245 ug/l. The action level from lead is 15 micrograms per liter and 1300 micrograms per liter for copper.

2 - Chlorine Residual- The values noted are the range for the entire year of sampling. The range varies depending on the amount originally injected by the Erie County Water Authority.

3 - Disinfection Byproducts- Highest annual average based on the current and three previous quarters of test results from the following sampling sites: Elma Meadow STP, Briggswood STP, 5730 Seneca St and 881 N Blossom Rd. Range is given below.

Abbreviations and terms can be found in the charts from ECWA

INFORMATION ON UNREGULATED CONTAMINANTS

The EPA mandated we perform a series of four contaminant monitoring tests to provide them a basis for future regulatory action. The table for unregulated contaminants were detected in our water but do not have established safe amounts in water. If you have any health concerns regarding the levels please discuss them with your health provider.

UNREGULATED CONTAMINATES-DATES TESTED

CONTAMINATE	7/2014	10/2014	1/2015	4/2015
Chromium (total)	.32 ug/l	<0.2 ug/l	.29 ug/l	.23 ug/l
Molybdenum	1.2 ug/l	1.2 ug/l	1.2 ug/l	1.1 ug/l
Strontium	158 ug/l	160 ug/l	160 ug/l	149 ug/l
Vanadium	.21 ug/l	<0.2 ug/l	<0.2 ug/l	<0.2 ug/l
Chromium-6	.064 ug/l	.12 ug/l	.092 ug/l	.062 ug/l

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.

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 Elma 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?

During 2017, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

INFORMATION ON CRYPTOSPORIDIUM

Cryptosporidium is a microbial pathogen found in surface water and groundwater under the influence of surface water. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. During 2017, as part of ECWA's routine sampling, 6

samples were collected and analyzed for *Cryptosporidium* oocysts. Of these samples, no samples of the source water tested positive. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, a gastrointestinal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their health care provider regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

INFORMATION ON GIARDIA

Giardia is a microbial pathogen present in varying concentrations in many surface waters and groundwater under the influence of surface water. *Giardia* is removed/inactivated through a combination of filtration and disinfection or by disinfection. During 2017, as part of ECWA's routine sampling, 6 samples were collected and analyzed for *Giardia* cysts. Of these samples, 2 samples of the source water tested positive. Ingestion of *Giardia* may cause giardiasis, an intestinal illness. People exposed to *Giardia* may experience mild or severe diarrhea, or in some instances no symptoms at all. Fever is rarely present. Occasionally, some individuals will have chronic diarrhea over several weeks or a month, with significant weight loss. Giardiasis can be treated with anti-parasitic medication. Individuals with weakened immune systems should consult with their health care providers about what steps would best reduce their risks of becoming infected with Giardiasis. Individuals who think that they may have been exposed to Giardiasis should contact their health care providers immediately. The *Giardia* parasite is passed in the feces of an infected person or animal and may contaminate water or food. Person to person transmission may also occur in day care centers or other settings where hand washing practices are poor.

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).

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 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 monitor fluoride levels on a daily basis to make sure fluoride is maintained at a target level of 0.7 mg/l. During 2017 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 above the 2.2 mg/l MCL for fluoride.

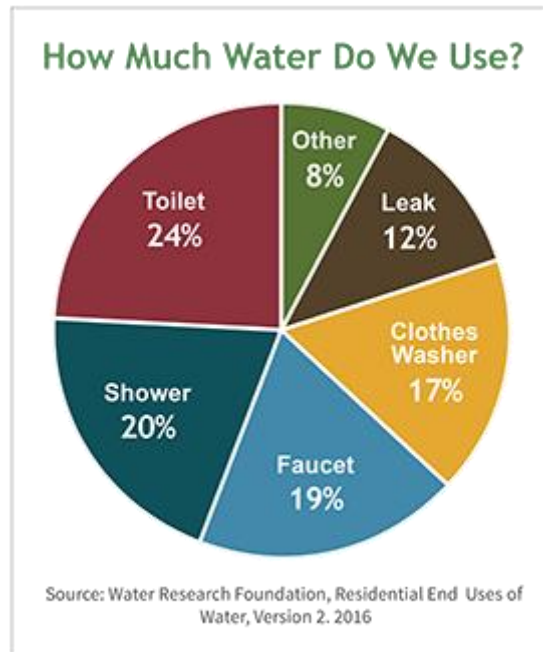
WHY SAVE WATER AND HOW TO AVOID WASTING IT?

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; 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.
- ◆ 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.



SYSTEM IMPROVEMENTS

In 2017 the Elma Water department crew replaced an additional 300 feet of water main on Treehaven Lane. This area has been prone to numerous water leaks in the past.

Work is continuing for getting another water storage tank placed in the system. This will lower our vulnerability and provide for the growing businesses and residences in the town.

We instituted a new online payment system for our customers to view their accounts for free and be emailed notification as soon as the bills are prepared. This eliminated customers losing the discount due to bills being lost in the mail or not be delivered while customers were away. Customers were asked to provide a valid email address. For a small convenience fee, which goes directly to the bank, customers can pay their bills on line by electronic credit card or electronic check. The convenience fee of \$2.25 is always less than losing the discount.

We continue to expand our Facebook account with weekly posts with either helpful water facts or details about events going on in town. We also post updates on any water breaks as they become available. We ask all customers to like our page so they can stay informed.

We try to notify customers as soon as possible when we feel they may have a water leak to help minimize high bills. We asked that customers provide a valid telephone number so they can be contacted as soon as possible about an incorrect reading or a computer indication of a potential leak. As phone numbers can sometimes change we ask our customers to make sure we have a current and valid phone number. We also use emails to contact customers so we also ask customers to provide a current email address. We never give out or sell this information.

The town of Elma uses the Code Red system to inform town residents of town wide information and in emergencies. The Elma Water Department uses this system to inform customers when there is a water emergency or break. We ask all customers to sign up for this service. Code Red information is address specific so anyone who has moved within the town needs to sign up for their current address.

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.

COMPOUNDS TESTED FOR BUT NOT DETECTED

4-Androstene-3,17-dione	1,3,5-Trimethylbenzene	Di(2-ethylhexyl) adipate	Metrubuzin
2-Chlorotoluene	Alachlor	Di(2-ethylhexyl) phthalate	Nickel
4-Chlorotoluene	Aldicarb	Dibromochloropropane	Oxamyl (Vydate)
17beta-Estradiol	Aldicarb Sulfone	Dibromomethane	PCB 1016
17alpha-Ethinyl estradiol	Aldicarb Sulfoxide	Dicamba	PCB 1221
2,4-D	Aldrin	Dichlorodifluoromethane	PCB 1232
1,3 Butadiene	Antimony	Dieldrin	PCB 1242
1,2-Dichlorobenzene	Arsenic	Dinoseb	PCB 1248
1,3-Dichlorobenzene	Asbestos	Diquat	PCB 1254
1,4-Dichlorobenzene	Atrazine	Endothall	PCB 1260
1,1-Dichloroethane	Benzene	Endrin	Pentachlorophenol
1,2-Dichloroethane	Benz(o)a)pyrene	Equilin	Perfluorobutanesulfonic acid
1,1-Dichloroethylene	Beryllium	Estrol	Perfluoroheptanoic acid
cis-1,2-Dichloroethylene	Bromobenzene	Estrone	Perfluorohexane sulfonic acid
trans-1,2-Dichloroethylene	Bromochloromethane	Ethylbenzene	Perfluorooctanoic acid
1,2-Dichloropropane	Bromomethane	Ethylene Dibromide (EDB)	Perfluorooctane sulfonate
1,3-Dichloropropane	Butachlor	Glyphosate	Perfluorooctanoic acid
2,2-Dichloropropane	n-Butylbenzene	Gross Alpha Particles	Pichloram
1,1-Dichloropropene	sec-Butylbenzene	Gross Beta Particles	Propachlor
cis-1,3-Dichloropropene	t-Butylbenzene	Hepachlor	n-Propylbenzene
trans-1,3-Dichloropropene	Cadmium	Hepachlor Epoxide	Radium 226
1,4-Dioxane	Carbaryl	Hexachlorobenzene	Selenium
3-Hydroxycarbofuran	Carbofuran	Hexachlorobutadiene	Simazine
2,3,7,8-TCDD (Dioxin)	Carb on Tetrachloride	Hexachlorocyclopentadiene	Styrene
2,4,5-TP (Silvex)	Chlordane	Isopropylbenzene	Tetrachloroethylene
1,1,1,2-Tetrachloroethane	Chlorobenzene	p-Isopropyltoluene	Thallium
1,1,2,2-Tetrachloroethane	Chlorodifluoromethane	Lindane	Toluene
1,2,3-Trichlorobenzene	Chloroethane	Mercury	Toxaphene
1,2,4-Trichlorobenzene	Chloromethane	Methoxyfl	Trichloroethylene
1,1,1-Trichloroethane	Chromium, Total	Methoxychlor	Trichlorofluoromethane
1,1,2-Trichloroethane	Cobalt	Methyl t-butyl ether (MTBE)	Vinyl Chloride
1,2,3-Trichloropropane	Cyanide	Methylene Chloride	Xylenes (o,m and p)
1,2,4-Trimethylbenzene	Dalapon	Metolachlor	