### WATER CONSERVATION TIPS

The ECWA encourages water conservation. Although Lake Erie and the Niagara River are a vast source of high quality fresh water, it must not be wasted. A few simple steps will preserve this precious resource for future generations:

- Use low flow shower heads and faucets.
- Repair all leaks in your plumbing system.
- Water your lawn sparingly in early morning or late evening.
- Do only full loads of laundry and dishes.
- Wash your car with a bucket and hose with a nozzle.
- Don't cut the lawn too short; longer grass saves water.

### **CRYPTOSPORIDIUM & GIARDIA ANALYSIS**

Cryptosporidium and Giardia are microscopic protozoa that are widely present in the environment and to some degree in most surface water sources throughout the United States. They can cause intestinal illnesses if ingested. Symptoms of infection include nausea, diarrhea and abdominal cramps. Most healthy individuals can overcome the illnesses within a couple of weeks. However, both can be serious for people with weak immune systems. Although filtration removes Cryptosporidium, even the most commonly used filtration methods cannot guarantee 100 percent removal. Giardia is removed by a combination of filtration and disinfection.

In 2017, the ECWA analyzed a total of 6 source water samples for *Cryptosporidium* and *Giardia* taken from Lake Erie and the Niagara River as part of EPA's Long Term 2 Enhanced Surface Water Treatment Rule. No *Cryptosporidium* were detected in any samples. *Giardia* were detected in each of the source water samples in January. In our treatment process *Giardia* is removed by a combination of filtration and disinfection.

The ECWA encourages immune compromised individuals to consult their physicians regarding appropriate precautions to avoid infection. Both protozoa must be ingested to cause disease, and they may spread through means others than drinking water. For additional information on Cryptosporidiosis or Giardiasis, please contact the Erie County Health Department at (716) 961-6800.

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 at (800) 426-4791.

# 2018

### **Water Quality Report**



PUBLIC WATER SYSTEM IDENTIFICATION NUMBERS							
PWSID NAME	PWSID NAME						
NY1400399 ECWA AMHERST	NY1400488 ECWA HAMBURG (T)						
NY1450033 ECWA AURORA	NY1400515 ECWA HAMBURG (V)						
NY1421897 ECWA BOSTON	NY1400421 ECWA LANCASTER						
NY1400443 ECWA DIRECT	NY1422651 ECWA NEWSTEAD						
NY1400435 ECWA EDEN	NY1421762 ECWA ORCHARD PARK						
NY1400445 ECWA EVANS	NY1404543 ECWA WEST SENECA						

If you would like additional copies of this report, please contact Customer Service at (716) 849-8444 or e-mail questionscomments@ecwa.org.



Erie County Water Authority
Administrative Offices
295 Main Street, Room 350
Buffalo, New York 14203

### FREQUENTLY ASKED QUESTIONS

### Who sets and enforces drinking water standards?

The Safe Drinking Water Act (SDWA) is the main federal law that ensures the quality of your drinking water. Under the SDWA, the United States Environmental Protection Agency (EPA) sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards. In New York, the State Health Department enforces the EPA's regulations and often makes them even more stringent.

The EPA sets standards for approximately 150 regulated contaminants in drinking water. For each of these contaminants, EPA sets a legal limit, called a maximum contaminant level (MCL). EPA regulations specify strict testing and reporting requirements for each contaminant. Water suppliers may not provide water that doesn't meet these standards. Water that does meet these standards is safe to drink. In Erie County, the Erie County Health Department is the agency that administers and enforces these standards. Their phone number is (716) 961-6800.

### Where does my water come from?

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 New York State Department of Health (NYSDOH) and the EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The NYSDOH and the Food and Drug Administration (FDA) set regulations that limit contaminants in bottled water, which must provide the same protection for public health.

Your water comes from two sources. The ECWA's Sturgeon Point Treatment Plant in the Town of Evans draws water from Lake Erie to supply the southern part of Erie County and some communities in Chautauqua and Cattaraugus Counties. The Van de Water Treatment Plant in Tonawanda draws water from the Niagara River and services municipalities in northern Erie County as well as some in Genesee and Wyoming Counties. These two plants serve more than 500,000 consumers in Western New York.

### How is my water treated?

Both ECWA treatment facilities use the conventional filtration method. First, raw water flows by gravity through a large intake tunnel to the raw water building. Pumps draw the water through traveling screens to prevent large objects such as driftwood and fish from entering the system. A chemical, polyaluminum chloride, is added to the water, which causes suspended particles in the water to clump together to form floc. Floc particles then settle to the bottom of large sedimentation basins. The water is filtered through layers of anthracite, sand, and gravel, to remove any remaining particles. Chlorine is added for disinfection to kill pathogens. Small amounts of fluoride are added to help prevent tooth decay. Caustic soda is added to stabilize the alkalinity of the water and prevent corrosion in home plumbing. Powdered activated carbon may be added in summer months to help remove unpleasant tastes and odors. Water is temporarily stored in clearwells or storage tanks before it is pumped to the public. High service pumps deliver the clean water through more than 3,653 miles of water mains to homes and businesses. The ECWA closely monitors its 38 pump stations and 38 water storage tanks to assist in the distribution process. On average, the ECWA delivered 72.8 million gallons a day in 2018 to serve more than 500.000 consumers in Western New York.

### Are there contaminants in our water? Do I need to take special precautions?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Safe Drinking Water Hotline at (800) 426-4791 or the Erie County Health Department at (716) 961-6800.

Although our drinking water met or exceeded all state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immunocompromised 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 at (800) 426-4791.

### How will I know if my water is not safe to drink?

In the unlikely event that water becomes unsafe to drink, the EPA mandates the ECWA notify its customers. Water is not safe to drink when testing reveals that contaminants in the water exceed federal or state limits for contaminant levels. If the water is not safe to drink, ECWA will alert the public through proper media channels and electronic communications that a "boil water order" has been issued, along with advice regarding measures that should be taken to protect your health.

### Does ECWA add fluoride to drinking water?

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. According to the United States Centers for Disease Control, fluoride is very effective in preventing cavities when present in drinking water. ECWA's target fluoride level is 0.7 mg/L. To ensure that the fluoride supplement in your water provides optimal dental protection, the NYSDOH requires that the ECWA monitor fluoride levels on a daily basis. In 2018, fluoride was added to the drinking water January to mid-February & August to December at the Sturgeon Point facility, and January to Mid-March & August to December at the Van de Water facility, due to construction of new storage tanks. During those periods, monitoring showed fluoride levels in your water were in the optimal range 95% of the time. None of the monitoring results during fluoride addition showed fluoride at levels that approached the 2.2 mg/l maximum contaminant level (MCL).

### Why does my water smell like a swimming pool?

The smell of bleach or a pool is caused by chlorine. This odor is more noticeable in the cold winter months when the water temperatures are low. As required by the EPA, chlorine is added to the water as a disninfectant to protect against microbial growth. Levels of free chlorine in the distribution system average 1.0 ppm. Odors resulting from chlorine addition usually go away when the water is exposed to air for several minutes.

### How can I participate in decisions that affect drinking water quality?

Any member of the public may participate in decisions affecting their water quality. The ECWA's Board of Commissioners ultimately makes those decisions on behalf of our customers. Board meetings take place in the board meeting room, Erie County Water Authority, 295 Main Street, Room 350, Buffalo, New York 14203. Call (716) 849-8444 or visit www.ecwa.org for updated board meeting information.

## In 2018, your tap water met all federal and state drinking water standards for quality and safety.

### **ABOUT THE ERIE COUNTY WATER AUTHORITY**

The ECWA was created in 1949 by a special act of the New York State Legislature to ensure that the people and industry of Erie County would have a safe, plentiful supply of water for the future. Since 1953, the ECWA has produced and reliably delivered water of the highest quality to its customers at an affordable rate.

As an independent public-benefit corporation, ECWA is not an agency of New York State and is totally independent of Erie County government. ECWA operates as a financially self-sustaining public utility and pays all operating expenses from revenues generated by the sale of water to its 170,648 customers.

In 2018, the ECWA produced approximately 26.6 billion gallons of high-quality water for residential, commercial, and industrial use in 35 municipalities throughout Western New York. Some of this was unmetered water (35.9%) used for flushing water mains, fighting fires, training firefighters, filter backwashing, plant processes, equipment and hydrant testing and lost to leaks. Approximately 17.0 billion gallons were sold to our customers.

The ECWA owns and operates two water treatment plants, a nationally recognized Department of Water Quality, 38 pump stations, 38 water storage tanks and maintains 3,653 miles of water mains, 19,265 fire hydrants, 36,720 valves and numerous appurtenances.

The cost per thousand gallons of water for residential customers was \$3.23 in 2018. The average residential customer who used 18,750 gallons of water per quarter paid a total of \$320.85 in 2018, or about 88 cents per day, to be provided with a plentiful supply of safe, high quality drinking water.

### **IMPROVEMENTS TO YOUR WATER SYSTEM**

In 2018 the Authority invested more than \$26.0 million in system-wide infrastructure upgrades, including;

- \$11 million on water mains, hydrants, and service connection replacements in Cheektowaga, Lackawanna, Blasdell, Hamburg, West Seneca, Amherst, Tonawanda, and Clarence.
- \$1.1 million on system-wide water meter replacements.
- Continued ongoing inspections of water storage tanks.
- Refurbishing and painting of the Ward Road Tank and Benning Road Tank.
   Foundation repairs and overflow weir box improvements were perfromed at Pine Hill Tank.
- \$2.5 million was spent on construction of a new electrical substation for Ball Tank Station. Ball Pump Station provides finished water for the northern section of ECWA's service area.
- The \$4 million rehabilitation of the Raw Water Pumping Station at Sturgeon Point was completed in 2018.



The seal of the Partnership for Safewater as seen on this document indicates that we are part of a select group of water systems nationwide who have voluntarily committed themselves toward a proactive approach to strengthen the safety of drinking water for our customers above and beyond the current regulatory requirements. For additiona information on the Partnership for Safewater visit www.awwa.org/science/partnership.

#### Dear Customer.

We are pleased to provide you with the ECWA's 2018 Annual Water Quality Report (AWQR). Included are details about where your water comes from, how your water is treated and tested, and how it compares to the various standards set by our regulatory agencies. This report fulfills the United States Environmental Protection Agency's (EPA) requirement to prepare and deliver a Consumer Confidence Report (CCR), as well as the New York State Department of Health's (NYSDOH) requirement to prepare and deliver an Annual Water Quality Report.

ECWA remains focused on our promise to deliver safe, high quality drinking water and professional service that our customers deserve. To ensure that we meet our commitments, we maintain a rigorous quality control program, constant monitoring and testing, and continue to invest substantial financial resources to improve our two treatment plants, distribution system infrastructure, our nationally recognized department of water quality and laboratory facilities.

ECWA continues to position itself to achieve our mission of providing a plentiful supply of safe, high quality, affordable drinking water through a reliable infrastructure to the more than 500,000 consumers that rely on us 24 hours a day, 365 days a year.

Thank you for allowing the Erie County Water Authority (ECWA) to supply you with the high quality drinking water that you deserve. We are committed to providing you with an excellent product, reliable service, and detailed information about the drinking water you consume and use every time you turn on your tap.

We appreciate you taking the time to learn about your water supply. We believe that well-informed customers are our best allies in supporting the improvements necessary to maintain high quality drinking water. You can learn more about the quality of your water and ECWA's mission at www.ecwa.org.

If you have comments or questions about your 2018 Annual Water Quality Report, please submit them by e-mail to questionscomments@ecwa.org.

### Sincerely,

BOARD OF COMMISSIONERS
Jerome D. Schad, Chairman
Mark S. Carney, Vice-Chairman
E. Thomas Jones, Treasurer

### **ECWA'S TEST RESULTS FOR 2018**

The ECWA's water system operated under "NO VARIANCE OR EXEMPTION" from any federal or state regulatory requirements. To comply with EPA mandated requirements, water quality data tables of detected regulated and unregulated contaminants are detailed in this report. The tables summarize test results for the past year or from the most recent year that tests were conducted in accordance with regulatory requirements. They also list the maximum contaminant levels (MCL). The EPA is responsible for establishing the MCL standards. Some tests are not required to be performed on an annual basis. For your convenience, important terms and abbreviations are defined throughout this document More information regarding all substances tested for, but not detected, can be obtained upon request from the ECWA Department of Water Quality by calling (716) 685-8580 or at www.ecwa.org.

### **ERIE COUNTY WATER AUTHORITY** 2018 Annual Water Quality Report

DETECTED CONTAMINANTS								
Metals, Inorganics, Physical Tests	Violation Yes/No	Sample Date (or date of highest detection)	MCL	MCLG	Level Detected	Sources in Drinking Water		
Barium	No	8/18	2 mg/liter	2 mg/liter	0.0174 - 0.0200 mg/liter; Average = 0.0374	Erosion of natural deposits; drilling and metal wastes		
Chloride	No	1/18	250 mg/liter	NE	16 - 33 mg/liter; Average = 21	Naturally occurring in source water		
Chlorine	No	2/18	MRDL = 4.0 mg/liter	NE	0.0 - 2.13 mg/liter; Average = 1.0	Added for disinfection		
Copper	No	8/16	1300 ug/liter (AL)	1300 ug/liter (AL)	ND - 88 ug/liter, 90th percentile = 40 ug/liter, 0 of 52 above AL	Home plumbing corrosion; natural erosion		
Fluoride <sup>1</sup>	No	10/18	2.2 mg/liter	NE	0.61 - 0.78 mg/liter; Average = 0.70	Added to water to prevent tooth decay		
Lead <sup>2</sup>	No	8/16	15 ug/liter (AL)	0 ug/liter (AL)	ND - 29 ug/liter; 90th percentile =7.8 ug/liter, 2 of 52 above AL	Home plumbing corrosion; natural erosion		
Nitrate	No	3/18	10 mg/liter	10 mg/liter	0.17 - 0.24 mg/liter; Average = 0.21	Runoff from fertilizer use		
Manganese	No	8/18	NR	NE	0.89 - 6.2 ug/L; Average = 2.1	Naturally occurring, indicative of landfill contamination		
рН	No	11/18	NR	NE	6.75 - 8.49; Average = 8.18 SU	Naturally occurring; adjusted for corrosion control		
Distribution Turbidity <sup>3</sup>	No	5/18	TT - 5 NTU	NE	0.02 - 0.92; Average = 0.25 NTU	Soil runoff		
Entry Point Turbidity <sup>3</sup>	No	2/18	TT - 0.3 NTU	NE	0.184 NTU highest detected; Lowest monthly % < 0.30 NTU = 100%	Soil runoff		

1 Our system is one of the many water systems in New York State that provides drinking water with a controlled, low level of fluoride for consumer dental health protection. According to the United States Centers for Disease Control, the addition of fluoride is a very effective means of 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 we monitor fluoride levels on a daily basis to make sure fluoride is maintained at a target value of 0.7 mg/L. During 2018, fluoride was only added to the drinking water in January to mid-February is in August to December at the Sturgeon Point WTP and in January to Mid-Marchi and August to December at the Van de Water WTP due to the addition of new storage tanks at each of the treatment facilities. During those periods monitoring showed fluoride levels in you water were within 0.2 mg/L of the target level 95% of

<sup>2</sup>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. If your home contains lead pipes and 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 be minimize exposure is available from the Safe Drinking Water Hotline (800-426-4791) concerned about lead in your water, you may wish in have your water tested. Information on lead in drinking water, lessing memories, and steps by ucan take to minimize exposure is available from the Sale interference of a distribution that is equal to or below. The 90th percentile of the 52 sites tested. A percentile is a value on a scale of 100 that indicates a percent of a distribution that is equal to or below. The 90th percentile is equal to or greater than 90% of the lead or copper values detected in the water system. In this case, 52 samples were collected in the water system and the 90th percentile value for lead was the eighth highest value (7.8 ug/L).

3 Turbidity is a measure of the cloudiness of water. ECVM amonitors turbidity because it is a good indication of the effectiveness of our liftration system. Turbidity has on belaith effects. However, turbidity can interfere with disinfection and provide a medium for bacterial growth. State regulations require that the delivered water turbidity must always be below 1 NTU in the combined filter effluent. The regulations also require that 95% of the turbidity samples collected from that point have

Organic Compounds	Violation Yes/No	Sample Date (or date of high- est detection)	MCL (ug/liter)	MCLG (ug/liter)	Level Detected (ug/liter)	Sources in Drinking Water
Total Trihalomethanes <sup>4,6</sup>	No	8/18	LRAA = 80	NE	16 - 103 ug/liter; LRAA = 64	By-product of water disinfection (chlorination)
Total Haloacetic Acids <sup>5,6</sup>	No	8/18	LRAA = 60	NE	7 - 45 ug/liter; LRAA = 36	By-product of water disinfection (chlorination)

Trihalomethanes are byproducts of the water disinfection process that occur when natural organic compounds react with the chlorine required to kill harmful organisms in the water. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer. The level detected is the highest single location's running annual average (64 ug/1). Haloacetic acids are byproducts of the water disinfection process required to kill harmful organisms. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. The level detected represents the system's highest single location's running annual average (36 ug/L)

Radiological Parameters	Violation Yes/No	Sample Date (or date of high- est detection)	MCL (pCi/liter)	MCLG (pCi/ liter)	Level Detected (pCi/liter)	Sources in Drinking Water
Radium 228	No	4/13	NE	NE	0.99 - 1.10 pCi/liter; Average = 1.05	Erosion of Natural Deposits
Combined Radium 226/228	No	4/13	5.0	0	1.15 - 1.25 pCi/liter; Average = 1.2	Erosion of Natural Deposits

Microbiological Parameters	Violation Yes/No	Sample Date (or date of high- est detection)	MCL	MCLG	Level Detected	Sources in Drinking Water
Total Coliform Bacteria	No <sup>7</sup>	None	5% of samples positive	0	0% = highest percentage of monthly positives (None Detected)	Naturally present in the environment

<sup>7</sup>A violation occurs when more than 5% of the total coliform samples collected per month are positive. No MCL violation occurred. New York State Department of Health Source Water Assessment

	Cryptosporidium and Giardia		Sample Date (or date of highest	Number of Testing	Number of Samples	
		Yes/No	detection)	Giardia	Cryptosporidium	Tested
Sc	ource Water	No	1/17	2	0	6

measurements below 0.3 NTU. The maximum turbidity allowed in the distribution system is 5 NTU.

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. No Cryptosporidium was detected in any samples taken in 2017.

Giardia is a microbial pathogen present in varying concentrations in many surface waters. Giardia was detected in 2 source water samples taken in 2017. In our treatment process Giardia is removed/inactivated through a combination of filtration and disinfection or by disinfection alone.

DETECTED UNREGULATED CONTAMINANTS								
Parameter MCL MCLG Average Level Detected (mg/liter or as noted) Range								
Calcium Hardness (as mg/l CaCO3)	NR	NE	90	74 - 109				
Conductivity (uS/cm)	NR	NE	290	236 - 392				
Alkalinity (as mg/l CaCO3)	NR	NE	94	79 - 100				

The New York State Department of Health completed a draft Source Water Assessment of the supply's raw water sources under the state's Source Water Assessment Program (SWAP). The purpose of this program is to compile, organize, and evaluate information regarding possible and actual threats to the quality of public water supply (PWS) sources. It is important to note that source water assessment reports estimate the potential for untreated drinking water sources to be impacted by contamination. These reports do not address the safety or quality of treated finished potable tap water. The Great Lakes' watershed is exceptionally large and too big for a detailed evaluation in the SWAP. General drinking water concerns for public water supplies, which use these sources include: storm generated turbidity, wastewater, toxic sediments, shipping related spills, and problems associated with exotic species (e.g. zebra mussels - intake 2,2-Dichloropropane clogging and taste and odor problems). The SWAP is based on the analysis of the contaminant inventory compiled for the drainage areas deemed most likely to impact drinking water quality at this public water supply's raw water intakes. Separate assessments were completed for the Lake Erie source and the Niagara River source. The assessment found a moderate susceptibility to contamination for the Lake Erie source. The amount of agricultural land in the assessment area results in elevated potential of disinfection byproduct precursors and pesticides contamination. While there are some facilities present, permitted discharges do not likely represent an important threat to source water quality based on their density in the assessment area. There is also noteworthy contamination susceptibility associated with other discrete contaminant sources, and these facility types include: landfills. The assessment found an elevated susceptibility to contamination for the Niagara River source. The amount of agricultural (and to a lesser extent residential) lands in the assessment area results in elevated potential for microbials disinfection byproduct precursors, and pesticides contamination. There is also a high density of sanitary wastewater discharges, which results in elevated susceptibility for all contaminant categories. Non-sanitary wastewater discharges may also contribute to contamination. There is also 1,3,5-Trimethylbenzene considerable contamination susceptibility associated with other discrete contaminant sources, and these facility types include: chemical bulk storage, inactive hazardous waste sites, landfills, Resource Conservation and Recovery Act facilities and Toxics Release Inventory facilities. If you have any questions about New York State's Source Water Assessment Program, please contact the Director of Environmental Health, Erie County Health Department at (716) 961-

tected: however, these contaminants were detected below the levels allowed in accordance with regulatory requirements. Some tests are not required to be performed on an annual basis. Further information can be obtained upon request from the ECWA Water Quality Laboratory at (716) 685-8580 or on the Internet at www.ecwa.org.

#### **ABBREVIATIONS AND TERMS**

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

LRAA = Locational Running Annual Average MCL= Maximum Contaminant Level: The highest level

of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible

MCI G = Maximum Contaminant Level Goal: 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

MFL= Million Fibers per Liter (Asbestos)

control microbial contamination

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 disinfec tant 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

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

NE = Not Established

NR = Not Regulated

NTU = Nephelometric Turbidity Units pCi/liter = Picocuries per liter

SU = Standard Units (pH measurement)

TT = Treatment Technique: a required process intended to reduce the level of a contaminant in drinking water. ug/liter (ug/L) = micrograms per liter = parts per

uS/cm = Microsiemens per centimeter (a measure of conductivity)

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

< = Denotes Less Than

≤ = Denotes Less Than or Equal To

#### TYPES OF CONTAMINANTS

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 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, agricul tural 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 sentic systems

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

Water, including bottled water, may reasonably be expected to contain at least small amounts of some contami nants. The presence of contaminants does not necessarily indicate that the water poses a health risk

#### **COMPOUNDS TESTED FOR BUT NOT DETECTED** 4-Androstene-3.17-dione Aldrin Dicamba PCB 1242 2-Chlorotoluene alpha-BHC Dichlorodifluoromethane PCB 1248 4-Chlorotoluene Anatoxin-a Dieldrin PCB 1254 17-beta-Estradiol Antimony Dimethipir PCB 1260 17-alpha-Ethynyl estradiol Arsenic Dinoseb Pentachlorophenol Perfluorobutanesulfonic acid Asbestos Diguat 1,3 Butadiene Endothall Perfluoroheptanoic acid Atrazine 1,2-Dichlorobenzene Benzene Endrin Perfluorohexanesulfonic acid 1,3-Dichlorobenzene Benzo(a)pyrene Fauillin Perfluoronanoic acid 1.4-Dichlorobenzene Bervllium Estriol Perfluorooctane sulfonate 1.1-Dichloroethane Bromide Estrone Perfluorooctanoic acid 1.2-Dichloroethane Bromobenzene Ethoprop Permethrin 1.1-Dichloroethylene Bromochloromethane Ethylbenzene Pichloram cis-1.2-Dichloroethylene Ethylene Dibromide (EDB) Bromomethane Profenofos trans-1,2-Dichloroethylene Butachlor Glyphosate Propachlor 1,2-Dichloropropane Butylated hydroxyanisole Gross Alpha Particles n-Propylbenzene 1,3-Dichloropropane n-Butylbenzene Gross Beta Particles Quinoline sec-Butylbenzene Heptachlo Radium 226 1,1-Dichloropropene t-Butylbenzene Heptachlor Epoxide Selenium cis-1,3-Dichloropropene Cadmium Hexachlorobenzene Simazine trans-1,3-Dichloropropene Carbaryl Hexachlorobutadiene Styrene Carbofurar Hexachlorocyclopentadiene Tebuconazole 3-Hydroxycarbofurar Carbon Tetrachloride Isopropylbenzene Tetrachloroethylene 2,3,7,8-TCDD (Dioxin) Chlordane -lsopropyltoluene Thallium 2.4.5-TP (Silvex) Chlorobenzene Lindane Toluene Mercury 1.1.1.2-Tetrachloroethane Chlorodifluoromethane o-Toluidine Methomyl 1.1.2.2-Tetrachloroethane Chloroethane Total Microcystin 1.2.3-Trichlorobenzene Chloromethane Methoxychlor Toxaphene 1.2.4-Trichlorobenzene Chloropyrifos Methyl t-butyl ether (MTBF) Tribufos 1.1.1-Trichloroethane Chromium.Total Methylene Chloride Trichloroethylene 1.1.2-Trichloroethane Cohalt Metolachlor Trichlorofluoromethane 1,2,3-Trichloropropane Cyanide Metribuzin Vinyl Chloride 1,2,4-Trimethylbenzene Cylindrospermopsin Xylenes (o,m and p) Nickel Dalapon Oxamyl (Vydate) Alachlor Di(2-ethylhexyl) adipate Oxyfluorfin Aldicarb Di(2-ethylhexyl) phthalate PCB 1016 Aldicarb Sulfone Dibromochloropropane PCB 1221 Aldicarb Sulfoxide

For a large-print copy of ECWA's 2018 Water Quality Report, please visit www.ecwa.org or email your request to questionscomments@ecwa.org