CITY OF EAST MOLINE WATER FILTRATION PLANT

2020

WATER QUALITY REPORT

ABOUT WATER QUALITY REPORTS

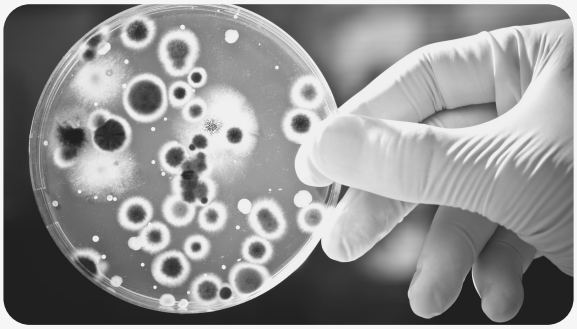
WHAT IS A WATER QUALITY REPORT?

Both the IL and U.S. Environmental Protection Agency's (EPA) regulations require annual reporting describing the quality of your drinking water. The purpose of this report is to provide education to you (the consumer) about the source and quality of your drinking water. This report provides an overview of last year's (2020) water quality, details about where your water comes from, what it contains, and our treatment processes.

WHERE DOES DRINKING WATER COME FROM AND WHAT IS IN IT?

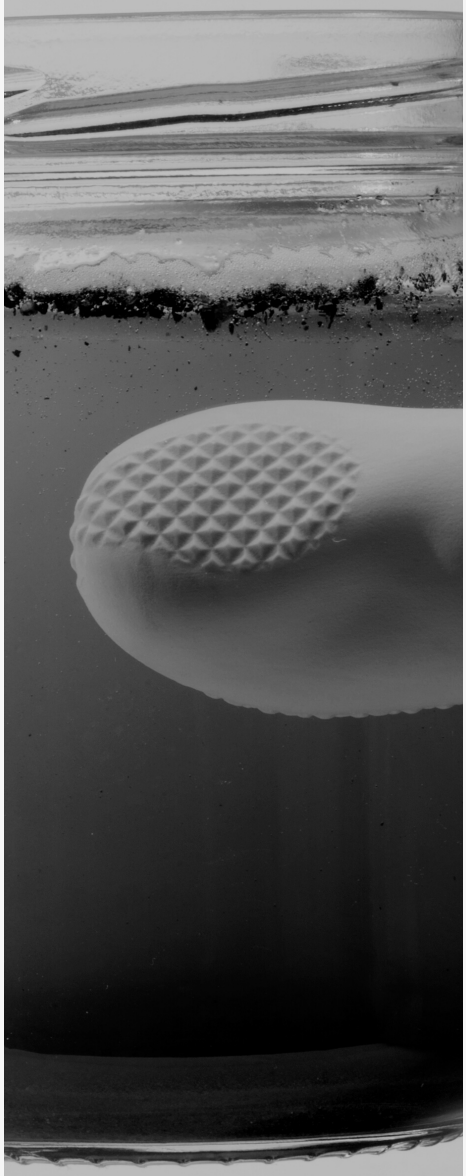
The water that is treated to make drinking water can come from a variety of sources. The City of East Moline takes water from the Mississippi River and treats up to 10 million gallons per day at our Water Filtration Plant. Other drinking water treatment facilities (both tap water and bottled water) may use rivers, lakes, streams, ponds, reservoirs, springs, and wells as their source of water. The United States' drinking water supplies are among the safest in the world, but that does not mean that they cannot be or become contaminated.(1) 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 activity.

1 http://cdc.gov/healthywater/drinking/public/water_treatment.html



CONTAMINANTS THAT MAY BE PRESENT IN WATER BEFORE TREATMENT:

- 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 agriculture, urban storm water runoff, and residential uses
- Organic chemical contaminants—including synthetic and volatile organic chemicals, which are byproducts 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



CONTAMINANTS & POTENTIAL HEALTH EFFECTS

In order to ensure that tap water is safe to drink, USEPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. 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 water poses a health risk. Some people may be more vulnerable to contaminants 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 for infections. These people should seek advice about drinking water from their health care providers. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

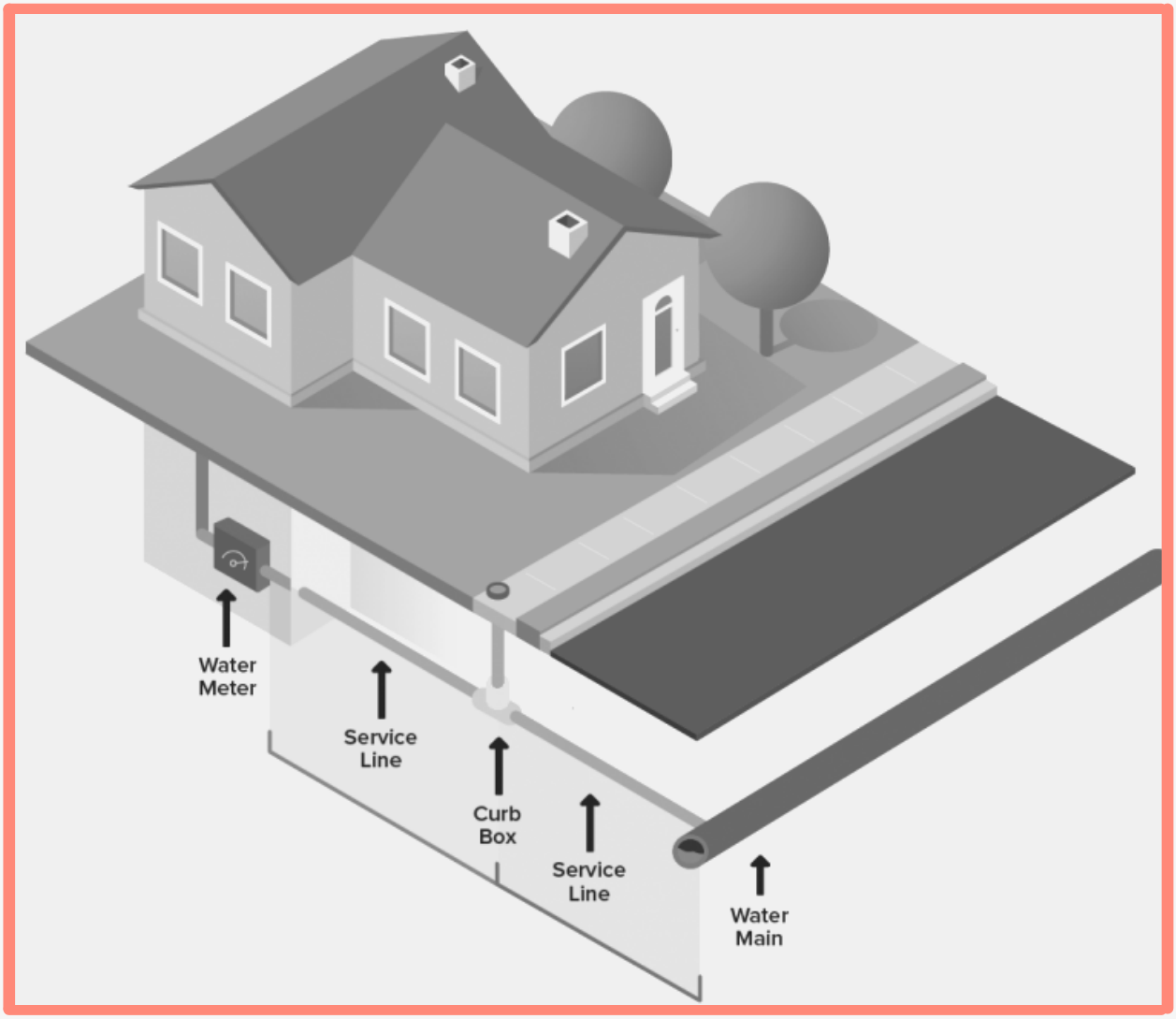
More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

LEAD IN DRINKING WATER

Lead does not naturally occur in drinking water sources. All pipes, tanks and equipment throughout the treatment process within the water plant are lead free, therefore the treated drinking water leaving the water treatment plant and entering the distribution system is lead free. Drinking water enters the city-wide water distribution system composed of pipes varying from 4" to 24" in diameter and made of cast iron, ductile iron, and polyvinyl chloride (PVC). None of the City owned pipes contain lead.

So you may ask how does lead get into the drinking water?
Some of the water service pipes that connect your home to the City's water main and/or the plumbing in your home may be made of lead or contain lead. When corrosive water remains dormant in these pipes for an extended time (6 hours or more), lead can slowly "leach" (absorb) into the water. The City of East Moline treats and distributes drinking water using a process that is NOT corrosive.

WHAT IS A SERVICE LINE



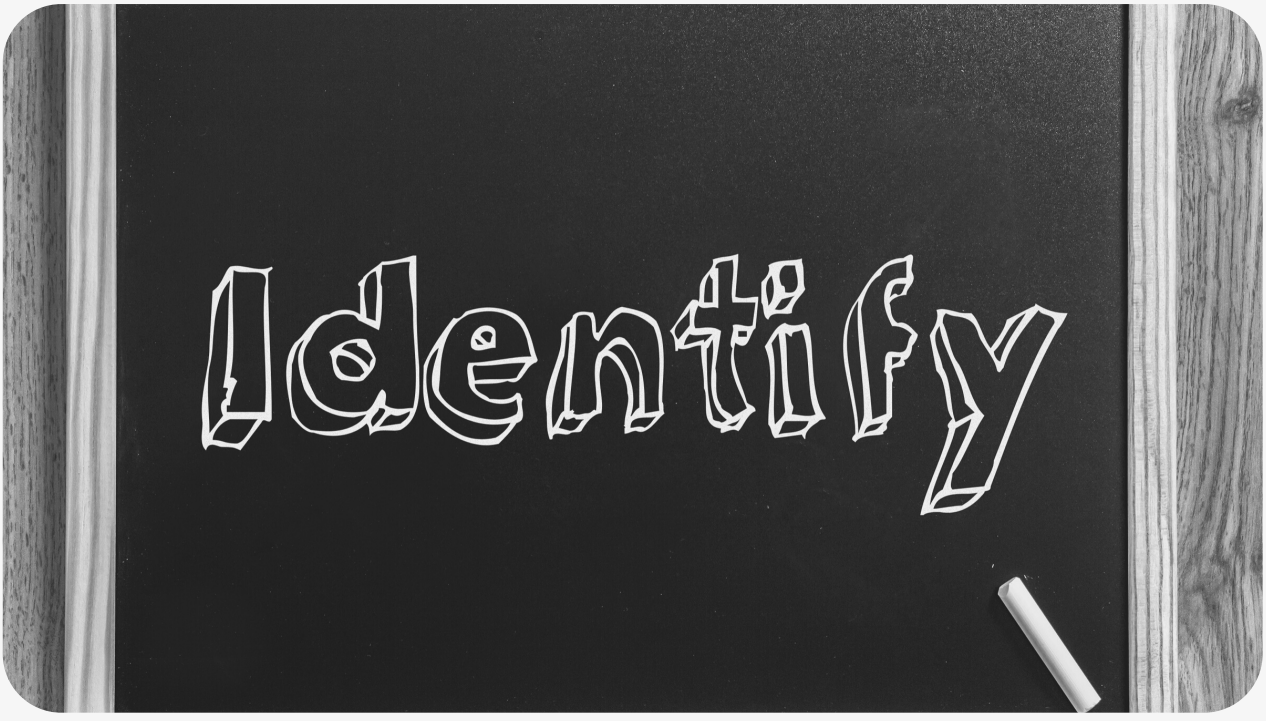
A service line is the pipe that runs underground and connects the City's water main to your home. It comes into your home in your basement. Service lines may be composed of one or more materials, including lead, galvanized, copper, plastic or brass pipe.

WE ARE ON A MISSION! WILL YOU HELP?

CITY WATER DEPARTMENT SEEKS TO IDENTIFY EVERY SERVICE LINE IN THE CITY

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

For this reason, the City is asking your help to identify every service line within our community. Identifying service line materials is usually pretty simple and can usually be done by anyone. We are asking residents to follow the steps below to identify their service line materials and then report them to the City to help us understand where we have lead service lines throughout the City.



1 LOCATE THE WATER SERVICE LINE COMING INTO YOUR HOME

The water service line is typically found in the basement. An 'inlet valve' and the water meter are installed on the pipe after the point of entry.

Identify a test area on the pipe between the point where it comes into the building and the inlet valve. If the pipe is covered or wrapped, expose a small area of metal.

2 SCRATCH THE SURFACE OF THE PIPE

Use the flat edge of a screwdriver or other tool to scratch through any corrosion that may have built up on the outside of the pipe.

3 COMPARE YOUR PIPE TO THE CHART BELOW

Each type of pipe will produce a different type of scratch, react to the magnet differently and produce a unique sound when tapped with a metal coin.

LEAD

COPPER

GALVANIZED

THE SCRATCH TEST

If the scraped area is shiny and silver, your service line is lead.

If the scraped area is copper like a penny, your service line is copper.

If the scraped area remains a dull grey, your service line is galvanized steel.

THE MAGNET TEST

A magnet will not stick to a lead pipe.

A magnet will not stick to a copper pipe.

A magnet sticks to a lead pipe.

THE TAPPING TEST

Tapping a lead pipe with a coin will produce a dull noise.

Tapping a copper pipe with a coin will produce a metallic ringing noise.

Tapping a galvanized pipe with a coin will produce a metallic ringing noise.

4

SHARE YOUR RESULTS WITH THE CITY

Submit your results via the City's website at: https://www.eastmoline.com/182/Water-Filtration-Plant under the 'Report your Service Line Material' link on the right-hand side. If you are unsure of the material, there is an 'I'm unsure, I need help' option that you can select, which will prompt City staff to contact you to help.

SUBSTANCES REGULATED BY THE EPA

SUBSTANCE	UNIT OF MEASURE	YEAR SAMPLED	MCL OR MRDL	MCLG OR MRDLG	AMOUNT DETECTED	RANGE DETECTED	VIOLATION	SOURCE OF CONTAMINATION
COMBINED RADIUM 226/228	pCi/L	2015	5	0	1.52	1.52-1.52	NO	Erosion of naturally occurring deposits
GROSS ALPHA EXCLUDING RADIUM & URANIUM	pCi/L	2015	15	0	0.552	0.552-0.552	NO	Erosion of naturally occurring deposits
BARIUM	ppm	2020	2	2	0.038	0.038-0.038	NO	Discharge of drilling wastes Discharge from metal refineries Erosion of naturally occurring deposits
CHLORAMINE	ppm	2020	4	4	4	3.5-4	NO	Discharge from fertilizer and aluminum factories Erosion of naturally occurring deposits Water additive that promotes strong teeth
FLOURIDE	ppm	2020	4	4	0.664	0.664-0.664	NO	Discharge from fertilizer and aluminum factories Erosion of naturally occurring deposits Water additive that promotes strong teeth
HALOACETIC ACID (HAA)	ppb	2020	60	NA	36	17-42.9	NO	Erosion of naturally occurring deposits
NITRATE	ppm	2020	10	10	1.8	1.8-1.8	NO	Erosion of naturally occurring deposits leaching from septic tanks and sewage Runoff from fertilizer use
TOTAL TRIHALOMET-HANE	ppb	2020	80	NA	37	20.4-56	NO	Discharge from fertilizer and aluminum factories Erosion of naturally occurring deposits Water additive that promotes strong teeth
TOTAL COLIFORM BACTERIA	% positive samples	2020	> 5% positive samples/ month	0	0%	N/A	NO	Erosion of naturally occurring deposits
TURBIDITY 1	NTU	2020	1	NA	0.20	0.08-0.20	NO	Soil runoff
TURBIDITY	Lowest monthly % of samples meeting limit	2020	0.3 NTU	NA	100%	100%	NO	Soil runoff
TOTAL ORGANIC CARBON	The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violation section.						NO	Discharge from fertilizer and aluminum factories Erosion of naturally occurring deposits Water additive that promotes strong teeth

SUBSTANCES REGULATED BY THE STATE OF IL

SUBSTANCE	UNIT OF MEASURE	YEAR SAMPLED	MCL OR MRDL	MCLG OR MRDLG	AMOUNT DETECTED	RANGE DETECTED	VIOLATION	SOURCE OF CONTAMINATION
IRON	ppm	2020	1.0	NA	<0.010	<0.010-0.010	NO	Erosion of naturally occurring deposits
MANGANESE	ppb	2020	150	150	21	21-21	NO	Erosion of naturally occurring deposits
SODIUM	ppm	2020	NA	NA	35	35-35	NO	Erosion from naturally occurring deposits Used in water softener regeneration
SELENIUM	ppb	2020	50	50	2.6	2.6-2.6	NO	Discharge from petroleum and metal refineries Erosion of natural deposits Discharge from mines

LEAD & COPPER TESTING

SUBSTANCE	UNIT OF MEASURE	YEAR SAMPLED	ACTION LEVEL (AL)	MCLG OR MRDLG	AMOUNT DETECTED 90TH PERCENTILE	SITES ABOVE AL	VIOLATION	SOURCE OF CONTAMINATION
LEAD	ppb	2020	0	15	3.6	1/60	NO	Corrosion of household plumbing systems Erosion of naturally occurring deposits
COPPER	ppm	2020	1.3	1.3	0.079	0	NO	Corrosion of household plumbing systems Erosion of naturally occurring deposits Leaching from wood preservatives

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The East Moline Water Filtration Plant 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.

TABLE DEFINITIONS

AL (Action Level): The concentration of a contaminant that triggers treatment or other required actions by the water supply.

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 using the best available treatment technology.

MCLG (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.

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.

NTU (Nephelometric Turbidity Units): measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

NA: not applicable.

ND: none detected.

pCi/L: picocuries per liter.

ppb (parts per billion or micrograms per liter [ug/L]): one part substance per billion parts water.

ppm (parts per million or milligrams per liter [mg/L]: one part substance per million parts water.

Removal ratio: a ratio between the percentage of a substance actually removed to the percentage of the substance required to be removed.

WORKING TO BRING YOU SAFE, CLEAN WATER!

We are excited to announce that East Moline has once again met all U.S. Environmental Protection Agency, Illinois Environmental Protection Agency, and Illinois Department of Public Health drinking water standards for 2020. Employees of the Water Filtration Plant continue to strive for excellence in providing you the best water possible, making water safety and quality our highest priority.

To ensure that we continue to meet and exceed standards, our staff work diligently 24 hours a day monitoring water quality, performing equipment calibrations and controls, and adjusting the treatment process as needed. We will continue to monitor any regulatory changes and how those changes may affect our customers throughout the coming year.

SOURCE WATER ASSESSMENT PLAN

Our Source Water Assessment Plan (SWAP) is now available at our office or on the Illinois EPA's website at http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl. The Source Water Assessment Program was implemented as a result of the 1996 amendments to the Federal Safe Drinking Water Act (SDWA) and requires all states to establish a program to assess potential sources of contamination to public water systems, and further determine their public water system's susceptibility of becoming contaminated by these identified sources. The Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems, hence, the reason for mandatory treatment for all surface supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration, and disinfection. If you would like to review our SWAP or have any questions, please feel free to contact us at the contact information listed at the end of this report.

SPECIAL EXEMPTION PERMIT

A Special Exemption Permit allows a water treatment plant to forego meeting the specific requirements of maximum contaminant levels and/or treatment techniques in certain situations. These permits may be issued by a state or U.S. EPA. On April 16, 2013, the East Moline Water Filtration Plant was issued a special exemption permit for how we disinfect our water and inactivate microorganisms in the water. The U.S. EPA traditionally recognizes chlorination and filtration as the primary ways of achieving disinfection and inactivation of microorganisms. However, after extensive research and testing at our facility, we were granted a permit to receive inactivation credit for a combination of processes including chlorination, filtration, and ultraviolet light disinfection for inactivation of microorganisms.

WE WELCOME COMMENTS & QUESTIONS

We welcome comments and questions regarding this document, our treatment process, and the quality of our water. Please feel free to contact us by telephone, email, or U.S. mail at the contact information provided below. Citizens are also welcome to attend and participate in City Council meetings, held at 6:30 pm the first and third Monday of each month at the East Moline City Hall building located at 915 16th Avenue East Moline, IL 61244.

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