2021

Water Quality Report

CITY OF EAST MOLINE

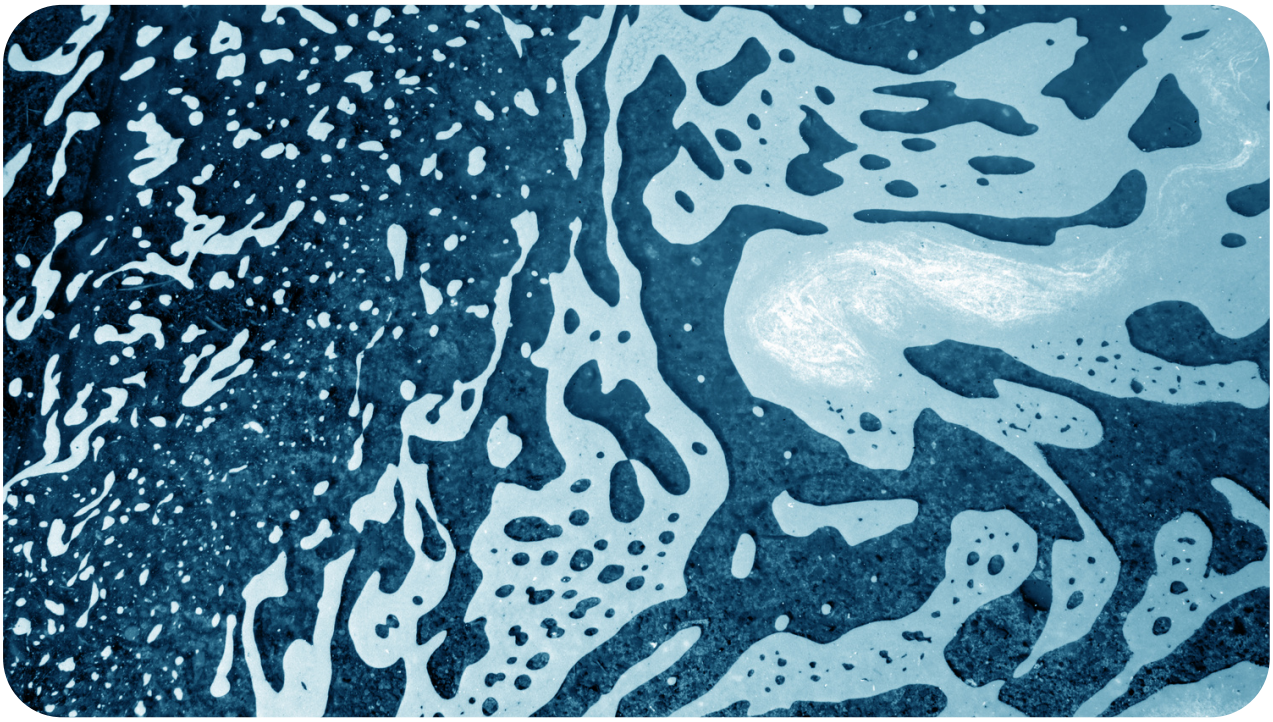
WHAT IS A WATER QUALITY REPORT?

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 (2021) 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

Water providers and regulators are constantly looking for ways to improve the safety of the water we provide. 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.

In response to the lead contamination event in Flint, Michigan, and in an attempt to ensure other communities do not experience a similar situation, water utilities across the country and the Environmental Protection Agency are taking several steps to better understand the source and extent of potential lead in drinking water contamination in their communities.

HOW DOES LEAD GET INTO DRINKING WATER?

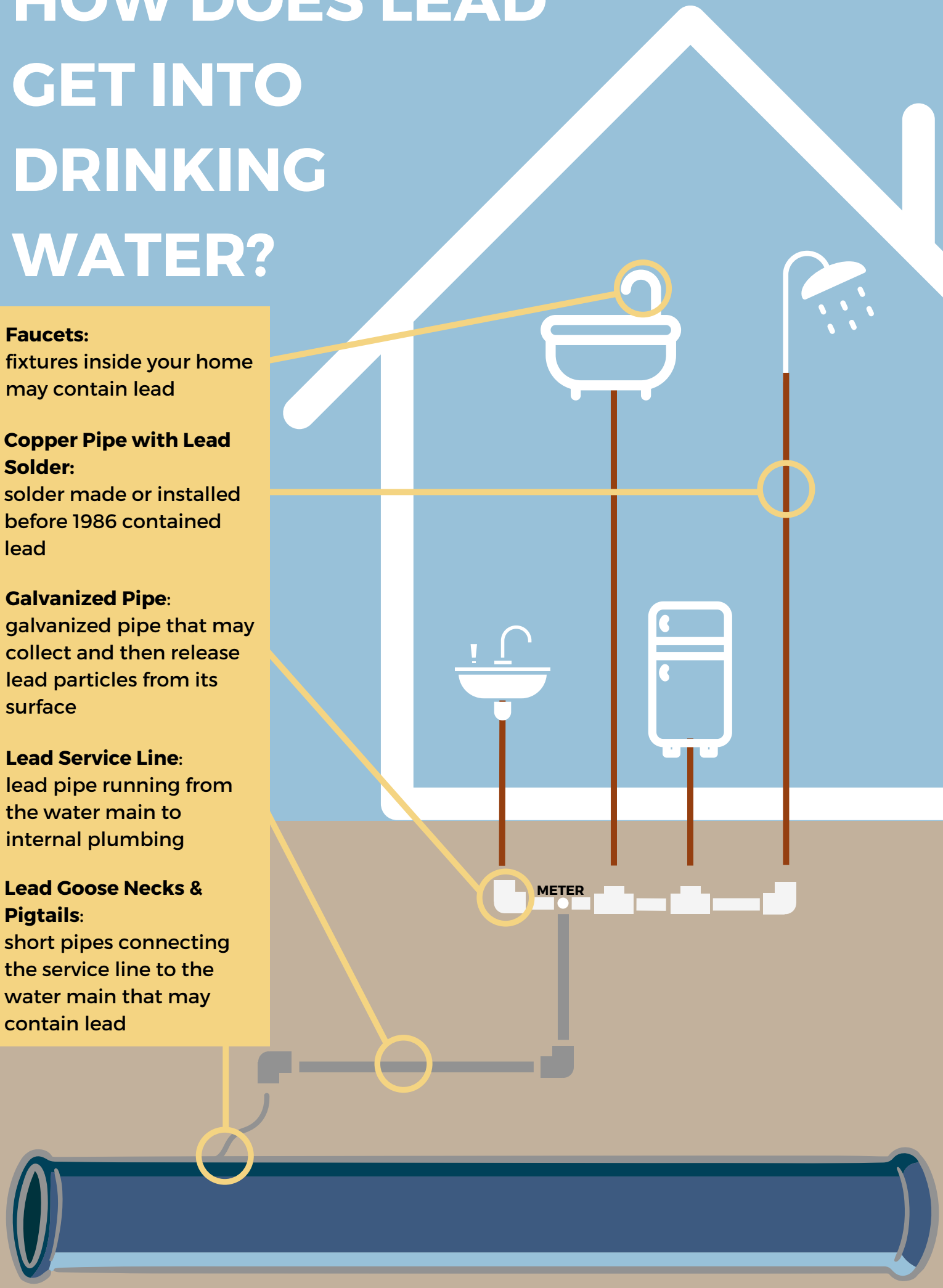
Faucets:
fixtures inside your home may contain lead

Copper Pipe with Lead Solder:
solder made or installed before 1986 contained lead

Galvanized Pipe:
galvanized pipe that may collect and then release lead particles from its surface

Lead Service Line:
lead pipe running from the water main to internal plumbing

Lead Goose Necks & Pigtails:
short pipes connecting the service line to the water main that may contain lead



STEPS WE ARE TAKING TO EVALUATE LEAD AND PROTECT OUR COMMUNITY

Educating our community about sources of lead, health effects of lead and how to reduce your exposure to lead in drinking water

Continuing to test lead in water at select homes

Continuing to optimize our corrosion control treatment

Creating an inventory of the service line materials found throughout our community

Creating a lead service line replacement plan

YOU CAN HELP!

If you know the materials of your service line, please help us by reporting them on our website at https://www.eastmoline.com/182/Water-Filtration-Plant under the 'Report your Service Line Material' link on the right-hand side.

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	2021	2	2	0.04	0.04-0.04	NO	Discharge of drilling wastes Discharge from metal refineries Erosion of naturally occurring deposits
CHLORAMINE	ppm	2021	4	4	3.9	3.5-3.9	NO	Discharge from fertilizer and aluminum factories Erosion of naturally occurring deposits Water additive that promotes strong teeth
FLOURIDE	ppm	2021	4	4	0.673	0.673-0.673	NO	Discharge from fertilizer and aluminum factories Erosion of naturally occurring deposits Water additive that promotes strong teeth
HALOACETIC ACID (HAA)	ppb	2021	60	NA	29	16.35-34.6	NO	Erosion of naturally occurring deposits
NITRATE	ppm	2021	10	10	1.2	1.2-1.2	NO	Erosion of naturally occurring deposits leaching from septic tanks and sewage Runoff from fertilizer use
TOTAL TRIHALOMET-HANE	ppb	2021	80	NA	35	17.3-37.5	NO	Discharge from fertilizer and aluminum factories Erosion of naturally occurring deposits Water additive that promotes strong teeth
TOTAL COLIFORM BACTERIA	% positive samples	2021	> 5% positive samples/ month	0	0%	N/A	NO	Erosion of naturally occurring deposits
TURBIDITY 1	NTU	2021	1	NA	0.27	0.10-0.27	NO	Soil runoff
TURBIDITY	Lowest monthly % of samples meeting limit	2021	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	2021	1.0	NA	<0.010	<0.010-<0.010	NO	Erosion of naturally occurring deposits
MANGANESE	ppb	2021	150	150	<1.0	<1.0-<1.0	NO	Erosion of naturally occurring deposits
SODIUM	ppm	2021	NA	NA	35	35-35	NO	Erosion from naturally occurring deposits Used in water softener regeneration
SELENIUM	ppb	2021	50	50	2.5	2.5-2.5	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	2021	0	15	3.6	0/60	NO	Corrosion of household plumbing systems Erosion of naturally occurring deposits
COPPER	ppm	2021	1.3	1.3	0.074	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 cold water 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. You may also visit https://www.eastmoline.com/182/Water-Filtration-Plant to learn more.

UNREGULATED CONTAMINANTS

SUBSTANCE	UNIT OF MEASURE	YEAR SAMPLED	ADVISORY LEVEL	AMOUNT WE DETECTED	RANGE DETECTED	VIOLATION	
PFOA	ppt	2021	2.0	2.4	2.4-2.4	NO	In 2021, our public water supply was sampled as part of the State of Illinois PFAS Statewide Investigation. Results from this sampling indicated that PFAS were detected in our drinking water above the advisory level. Follow up monitoring is being conducted. For mor information about PFAS health advisories please visit: https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/pfas-healthadvisory.aspx.

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.

ppt (parts per trillion or nanograms per kilogram (ng/kg): one part substance per trillion 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 CLEAN, SAFE 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 2021. 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.

HERE TO HELP!

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.

City of East Moline Water Filtration Plant
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