EMWC NEWS

East Monroe Water Corporation
3428 S. Knightridge Road
Bloomington, Indiana 47401

April 2017

ANNUAL MEETING. As a mutual owner of the corporation, you are cordially invited to attend the annual meeting to be held at our headquarters at 6:00 PM on Tuesday, May 9, 2017. We won't discuss I-69, Obamacare, or city planning ventures, but we will have reports by the president and treasurer, a look to our future, and election of board members. Light refreshments will be served. Hope to see you there!

ELECTIONS. Our corporation is guided by a nine-member Board of Directors elected from our membership. The directors volunteer their time and perform a valuable service to the corporation while serving three-year terms. This year we have the usual three open positions, but also have an additional two positions opened up due to directors having moved away this past year (thank you for your service, Mike Lorton and Alex McDonnell!). The latter two positions are for the remaining two years on terms that end in 2019. A request for nominations is posted on your water bill every February, along with the closing date for acceptance (March 10th, this year). Nominations received this year include returning directors Herb Hoover, Sadie Little, and Joan Hall. Margaret Clements and Jerry Myerson have also applied for election to the board. Our by-laws do not allow for nominations from the floor of the annual meeting.

HOW HEALTHY IS YOUR WATER COMPANY? There have been a number of reports in the media lately about the aging infrastructure in the United States. A major concern is the deteriorating public water systems and lack of financial means to improve them. Issues such as lead leaching into drinking water, contaminants resulting from treatment chemicals, and major water loss from old, leaky pipes are some of the biggest problems. EMWC has been addressing these issues in a very proactive way over the past 10 years. We have upgraded old water mains, installed water-loss monitoring devices, conducted extensive water quality tests, and perhaps most importantly, improved our financial standing through a stringent budgeting and cost control process. We recognize that many of you have had to put up with water outages and boil orders as an unfortunate part of these new installations. However, the results of these efforts are now coming into focus. We have reduced our water losses by nearly 75% while at the same time improving water flow to several low-pressure areas. Through this and additional operational efficiencies, we have more than doubled our financial reserves. Extensive analysis and testing for lead has revealed that only very small amounts of lead exist in the water system, most commonly in the form of lead solder used in residential plumbing. None of our lead tests have ever exceeded the EPA limits for safe levels. As for contaminants caused from chlorination/disinfection, the City of Bloomington seems to have made major improvements in their water treatment procedures during the past year. This is great news for us, since we purchase our water from CBU and rely on them for

contaminant-free treatment! More system upgrades and improvements are slated for the next few years, with the goal of further efficiencies and better service for our members.

UTILITY EASEMENTS AND MEMBER RESPONIBILITIES. Utility easements are strips of land used by utility companies to construct and maintain overhead electric, telephone and cable television lines and underground electric, water, sewer, telephone and cable television lines. The property owner owns all of the land including the utility easements. However, Utilities have a right to access that portion of land which has been designated a utility easement. Keeping utility easements clear helps utility companies perform routine maintenance (e.g. replace a pole), conduct improvement projects (e.g. install a new water main), and repair utility lines during emergencies. We encourage decorative landscaping within the utility right-of-way with the understanding that any materials placed within the boundaries of the utility easement are subject to damage and are not the responsibility of EMWC. Please remember that our members have a responsibility to maintain a clear access path to their meter pits. The meter lid should always be clearly visible. There have been several instances when a homeowner's plumbing failure caused extensive water damage, in part because EMWC personnel were not able to quickly locate and shut off water at a meter that was covered in mulch or landscape rock. **Do you know where your house shut-off is located?** Most homes have a water shut-off, usually near the point where the water line enters through the foundation. If a pipe or fitting bursts within your home, using the shut-off valve could save you considerable damage.

YOUR WATER QUALITY. EMWC buys all of the water we sell to our members from the City of Bloomington Utilities Department (CBU). CBU pumps all of its water from Monroe Reservoir and treats it before releasing it to its customers. Federal guidelines require the state of Indiana to issue Source Water Assessments (SWA) in order to identify significant or possible sources of contamination. Information concerning Monroe Reservoir's SWA is available by contacting City of Bloomington Water Quality Office.

All of Monroe Reservoir's water is sourced from rainfall which has traveled either over or through the ground to the reservoir. On its transit to the reservoir, the water dissolves naturally occurring minerals, and possibly radioactive materials, as well as substances resulting from animal or human activity. Contaminants that may possibly be found in surface water include: microbial contaminants derived from biological wastes or from soil activity; inorganic contaminants (i.e. salts and minerals that can be naturally occurring or the result of industrial or agricultural activity); pesticides and herbicides from agricultural or residential usage; organic chemical products resulting from industry, septic systems, and runoff water from such commercial as gas stations; and naturally occurring radioactive materials. Treated water may also contain contaminants resulting from the disinfection process. Chlorine and other compounds used as disinfectants also interact with organic materials to produce small amounts of byproducts (haloacetic acids and trihalomethanes) that may pose a health risk when consumed over long periods of time.

DISINFECTANT BYPRODUCTS (DBP) NON-COMPLIANCE. Water tests taken by EMWC, CBU and other water companies throughout Monroe County in October, 2015 exceeded the Maximum Contaminant Level (MCL) for haloacetic acids (60.0 ug/L is the cutoff), one of two DBP's that are tested each quarter. EMWC's result was 90.8 ug/L. Since then, all of our quarterly tests have shown levels of haloacetic acids well below the MCL. The Indiana Department of Environmental Management (IDEM) requires that we use a running annual average calculation (LRAA) for determining if and when a public notice is required. The October, 2015 value caused this average to exceed the 60.0 ug/L cutoff for the second and third quarters of 2016. EMWC issued a public notice in the Bloomington newspaper for the third quarter result (10/7/2016) but did not issue a notice for the second quarter due to procedural miscommunication. Once again, the haloacetic contaminant levels have been well within acceptable limits since CBU changed their water treatment process early in 2016. We don't anticipate future spikes such as the one seen in October, 2015, but will continue to carefully monitor this and all other contaminants as required by the EPA and IDEM.

Public notices are required whenever the maximum contaminant level is exceeded for disinfectant byproducts. The notice will contain information about specific test results and the corresponding contaminant that exceeded the MCL standard. The October, 2016 public notice also gave the following information. “You do not need to use an alternative (e.g., bottled) water supply, However, if you have specific health concerns, consult your doctor. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.”

2016 WATER QUALITY RESULTS. The following table (back of this page) lists results for EMWC’s water quality testing for 2016 as conducted by both EMWC and by CBU. All detected contaminants were within allowable levels.

2016 EMWC Water Quality Report

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 from infections. These people should seek advice about drinking water from their health care providers. U.S. Environmental Protection Agency and Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

Detected Contaminants Table

Substance	Highest Level Allowed (EPA's MCL*)	Highest Level Detected	Ideal Goals (EPA's MCLG's*)	Sources of Contamination
Microbiological Contaminants				
Heterotrophic Plate Count	Treatment Technique (TT)*	> 200 CFU/ml	None	Natural lake bacteria, wildlife, septic systems
Total Coliform Bacteria	5 percent	2.1 percent	0	Naturally present in the environment
Total Organic Carbon (TOC)	minimum 35% removal	38.1% removal average[1]	None	Naturally present in the environment
Turbidity	Treatment Technique	0.16 turbidity units[2]	None	Soil runoff
Inorganic Contaminants				
Barium	2 ppm*	0.018 ppm	2 ppm	Erosion of natural deposits
Copper	TT; Action Level* = 1.3 ppm	0.016 ppm (90th Percentile)*	1.3 ppm	Corrosion of household plumbing systems; erosion of natural deposits
Chloramines (as Chlorine)	4.0 ppm (MRDL)*	3.90 ppm	4 ppm (MRDLG)*	Water additive to control microbes
Fluoride	4 ppm	0.78 ppm[3]	4 ppm	Water additive which promotes strong teeth
Lead	TT; Action Level = 15 ppb*	1.0 ppb (90th Percentile)	0	Corrosion of household plumbing systems; erosion of natural deposits
Organic Contaminants				
Haloacetic Acids (HAA5)	60 ppb	40.8 ppb average[4]	0	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	80 ppb	45.2 ppb average[5]	0	By-product of drinking water chlorination

LISTED ABOVE are 11 contaminants detected in Bloomington's and EMWC's drinking water during 2016. All are within allowable levels. Not listed are the over 70 primary contaminants for which we tested that were not detected.

*DEFINITIONS:

90th Percentile - Ninety percent of samples had lower values than the value indicated.

Action Level - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

CFU/ml - Colony forming units per milliliter.

Colony Forming Unit - An area of visually distinct bacterial growth which may result from a single bacterium or pairs, clusters or chains of bacteria.

Maximum Contaminant Level (MCL) - 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.

Maximum Contaminant Level Goal (MCLG) - The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence tthat addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) - 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.

pCi/l - Picocuries per liter is a measure of radioactivity in water. A picocurie is 10^{-12} curies and is the quantity of radioactive material producing 2.22 nuclear transformations per minute.

ppm - parts per million. Equivalent to milligrams per liter (mg/l).

ppb - parts per billion. Equivalent to micrograms per liter (ug/l).

Total Organic Carbon (TOC) - a measurement of natural and man-made organic material in the water. TOC reacts with disinfectants to form disinfection by-products.

Treatment Technique (TT)- A required process intended to reduce the level of a contaminant in drinking water.

ADDITIONAL INFORMATION:

1 Total Organic Carbon (TOC) removal percentages ranged from 27.3% to 48.9%.

2 Turbidity levels ranged from 0.04 to 0.16 with an average of 0.08 turbidity units. The lowest level of compliance on a monthly basis was 100**%**.

3 Fluoride levels ranged from 0.51 to 0.96 with an average of 0.78 ppm.

4 Haloacetic acids (HAA5) levels ranged from 26.0 to 53.0 ppb. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

5 Total trihalomethane levels ranged from 33.0 to 55.1 ppb. Some people who drink water containing trihalomethanes in excess of the MCL over many years could experience problems with their liver, kidneys, or central nervous systems, and may have increased risk of getting cancer.