EMWC NEWS

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

April 2018

ANNUAL MEETING. You are cordially invited to attend the annual meeting to be held at our headquarters at 6:00 PM on Tuesday, May 8, 2017. As a member of EMWC you own an equal share in our non-profit water corporation. The annual meeting is a chance for you to hear from the president and treasurer about the current status and financial health, with a look to our future. We will also hold elections for the Board of Directors. Light refreshments will be served. Hope to see you there!

ELECTIONS AND BOARD MEMBER VACANCIES. Our corporation is guided by a nine-member Board of Directors elected from the membership. Directors volunteer their time and perform a valuable service to the corporation while serving three-year terms. This year we have three open positions. A request for nominations is posted on your water bill every February, along with the closing date for acceptance (March 8th, this year). Nominations received this year include returning directors Ingrid Beery and Damon Cappy. Our by-laws do not allow for nominations from the floor of the annual meeting. Next year we anticipate having at least two vacancies on the Board. To fill these slots, we ask that you please consider serving on your water corporation's Board of Directors. Many find it to be an interesting and rewarding opportunity to serve the community. We meet for about a half-hour at 6 PM on the third Thursday of every other month (six regular meetings per year). Stop by the office if you have any questions and let us know by March 15 of next year if you'd like to apply.

IN MEMORY OF HERB HOOVER, EMWC PRESIDENT. The EMWC family is saddened by the recent passing of our president, Herb Hoover. Herb served on the Board of Directors for over twenty years, most of those as President. Under his leadership, EWMC quickly turned the corner on deficit spending and has sustained a balanced operating budget while building cash reserves for emergencies and water system upgrades. During his tenure EMWC modernized their operations, meter reading and billing systems, and reduced their non-revenue water losses by over 50%. Herb used his management expertise in running efficient and productive board meetings, and was very diplomatic in dealing with member issues and outside agencies. He will be greatly missed.

WATER RATES. Beginning in January of this year, water rates increased by $0.15 per 1000 gallons. This resulted in a minimum monthly bill of $29.86 (based on 3000 gallons). The largest contributor to the higher rate was a $0.40 per 1000 gallons increase in the cost of water purchased from the City of Bloomington Utilities (CBU). We were able to keep our increase well below CBU's by offsetting the higher costs with a budget projection benefitting from improved efficiency in overall operations (see news item about Water Loss at emwc.us/news.htm). More information on rates and the 2018 Tariff can be found at emwc.us/member.htm.

USING TECHNOLOGY TO BETTER SERVE YOU.
E-mail Registration: By registering your e-mail address with us we can send you timely alerts and notices regarding service outages, boil orders, and the lifting of boil orders. Members may also opt to use their e-mail to receive "paperless" bills and newsletters.

EMWC Website (emwc.us): Check out our website, where you'll find information on many aspects of your water company including news items, membership, rules, and answers to frequently asked questions. Most importantly, we have an "alerts" box on the front page that will give up-to-date information on service outages and boil orders.

Radio-read meters: This new technology allows for more timely and accurate monthly meter reading. It also lets us know when someone's meter has been running continuously for the 24 hour period just prior to the day that we read it. We let you know when this happens so that you can check on a possible leak in your home. Perhaps there is a leaky flapper in the toilet tank. Sometimes a hose was left running overnight. If you get a notice, check all toilets and faucets. Leaky toilets and faucets are the biggest cause of wasted water, resulting in large water bills. To check for a toilet leak, place a few drops of food coloring in the tank and wait about 45 minutes. If dye shows up in the bowl, the toilet has a leak.

A continuous leak from a hole this size at an average household water pressure of 60 psi would over a month period, result in the water usage listed at right.

Diameter of Stream	Gallons / Month
1/4"	393,833
1/8"	98,667
1/16"	25,000

METERS AND MEMBER RESPONSIBILITIES. 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, rock or other obstruction. Even with the use of GPS locating, a pit that is covered or overgrown can be very difficult to find. Our field staff periodically checks and performs maintenance on your meter pit and meter. If they are unable to locate the meter with conventional methods, you may incur a shut-off notice and service charge if the area requires debris removal or excavation.

BACKFLOW PREVENTION. Indiana state regulations require that all public drinking water customers have approved backflow prevention devices installed to protect the public water system from potential contamination. Under certain conditions, water from private plumbing can flow into the public water distribution system by means of a cross connection. This is referred to as "backflow". For a number of applications, such as residential irrigation systems, the regulations further require that the backflow devices be inspected by licensed inspectors on an annual basis to ensure proper function. For more information, please refer to EMWC's Rules and Regulations, which can be found on the "Member Info" page of our website (emwc.us/member.htm).

YOUR WATER QUALITY. EMWC buys all of the water we sell to our members from the City of Bloomington Utilities (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, HAA5 and trihalomethanes, THM) that may pose a health risk when consumed over long periods of time.

2017 WATER QUALITY RESULTS. The following table (back of this page) lists water quality testing results for 2017 as conducted by CBU. EMWC conducted its own testing in 2017 for chlorine and for disinfectant byproducts (THM and HAA5). We also tested for copper and lead in 2016. Our results were as follows (all were within the EPA's highest acceptable levels):

Copper	0.016 ppm	(90th percentile)	
Lead	1.0 ppb	(90th percentile)	
Chloramines (as chlorine)	3.90 ppm	(highest value recorded)	
Total THM	42.75 ppb	(average)	range 28.3 to 65.7 ppb
Total HAA5	30.63 ppb	(average)	range 22.7 to 37.6 ppb

A NOTE ABOUT WATER CONTAMINANTS. 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				
Total Coliform Bacteria	5 percent	1.2 percent	0	Naturally present in the environment
Heterotrophic Plate Count	Treatment Technique (TT)*	85 CFU/ml	None	Natural lake bacteria, wildlife, septic systems
Total Organic Carbon (TOC)	minimum 35% removal	35.7% removal average[1]	None	Naturally present in the environment
Turbidity	Treatment Technique	0.17 turbidity units[2]	None	Soil runoff
Inorganic Contaminants				
Barium	2 ppm*	0.017 ppm	2 ppm	Erosion of natural deposits
Copper	TT; Action Level* = 1.3 ppm	0.026 ppm (90th Percentile)*	1.3 ppm	Corrosion of household plumbing systems; erosion of natural deposits
Chloramines (as Chlorine)	4.0 ppm (MRDL)*	3.00 ppm	4 ppm (MRDLG)*	Water additive to control microbes
Fluoride	4 ppm	0.95 ppm[3]	4 ppm	Water additive which promotes strong teeth
Lead	TT; Action Level = 15 ppb*	5.5 ppb (90th Percentile)	0	Corrosion of household plumbing systems; erosion of natural deposits
Nitrate (as Nitrogen)	10 ppm	0.1 ppm	10 ppm	Runoff from fertilizer use; leachate from septic systems, sewage; erosion of natural deposits
Organic Contaminants				
Total Trihalomethanes (TTHM)	80 ppb	41.6 ppb average[4]	0	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	60 ppb	31.3 ppb average[5]	0	By-product of drinking water disinfection
Atrazine	3 ppb	0.2 ppb	3 ppb	Runoff from herbicide used on row crops
Hexachlorocyclopentadiene	50 ppb	0.1 ppb	50 ppb	Discharge from chemical factories

LISTED ABOVE are 14 contaminants detected in Bloomington's drinking water during 2017. All are within allowable levels. Not listed are the over 60 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.

Locational Running Annual Average (LRAA) - Average of sample data at a given sampling site over the four most recent quarters of sampling.

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 28.3% to 38.4%.

2 Turbidity levels ranged from 0.02 to 0.17 with an average of 0.06 turbidity units. The lowest level of compliance on a monthly basis was 100**%**.

3 Fluoride levels ranged from 0.48 to 0.95 with an average of 0.74 ppm.

4 Total trihalomethane levels ranged from 23.3 to 69.6 ppb. The highest Locational Running Annual Average for any sampling site was 41.6 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.

5 Haloacetic acids (HAA5) levels ranged from 16.0 to 75.9 ppb. The highest Locational Running Annual Average for any sampling site was 31.3 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.