

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

April 2016

ANNUAL MEETING. The annual meeting for all members of our Corporation will be held at our headquarters at 6:00 PM on Tuesday, May 10. Agenda items include reports by the president and treasurer, a look to our future, and election of board members. Refreshments will be served.

ELECTIONS. There are three vacant positions on the Board of Directors for the corporation, and two nominees to fill these three-year positions. They are: Mike Lorton, currently serving as vice-president to the Board; and Roger Stewart, currently serving as treasurer. According to our constitution, nominations will not be accepted from the floor.

50th ANNIVERSARY!! EMWC hit this major milestone shortly after the last annual meeting. After incorporating in 1965, the roughly 250 members obtained a special FHA loan to pay for the installation of water mains and associated connections. Construction began in 1967 and by the summer of 1969, there were approximately 326 homes connected to the new distribution system. Prior to this time, our residents got their water from springs, wells, ponds, and cisterns. EMWC now has over 80 miles of water mains and serves nearly 1400 members. The FHA loan was paid in full several years ago and we are now able to self-fund most major repairs and system upgrades.

GOODBYE AND GOOD LUCK. After more than 15 years of dedicated service, Bob Klausmeier retired from the corporation in 2015. Bob served as Board Member, Treasurer, and Safety Officer during his tenure, a period during which EMWC experienced significant improvements in its financial operations and overall fiscal health. Bob was also the author of our annual Newsletter. Alex McDonnell announced his retirement from the board effective May 10th of this year. Alex's 15 plus years of service to EMWC are greatly appreciated. He served as Vice-President and was active in assisting with equipment purchases and guidance on fiscal and operational matters. Many thanks to both Bob and Alex and best wishes in the future!

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 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 ground water collected from rainfall which has traveled either over or through the ground to the reservoir. As water travels over or through the ground it 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.

LEAD AND COPPER. Recent events in Flint, Michigan have resulted in a renewed focus on lead and copper contamination of public water supplies. Many of the older homes in Flint are connected to their meter with lead water pipes, and a change to a more acidic water supply was the apparent cause for some of this lead to be "leached" into the water. EMWC is not aware of any homes on our system that use lead pipes for their water supply. However, we are only responsible for our side of the meter, and do not have

detailed information about pipes running from the meter to the house. Many of our members do have copper plumbing, and sometimes the solder used contains small amounts of lead. Because of this, we do test for lead and copper at a number of homes throughout our system every three years. Please note that our lead and copper test results have never exceeded the EPA standards for safe drinking water.

DISINFECTION BYPRODUCTS (DBP's). CBU's treatment plant ensures that our water supply has been disinfected before entering the system (primarily by using chlorine compounds). One negative side effect of this process is the presence of DBP's, which are compounds formed from the reaction of the disinfectant with organic and inorganic compounds in the water distribution system. EMWC, along with CBU and all of the other connected rural water companies, has experienced slightly elevated levels of one of these contaminants in recent months (Haloacetic Acids). Although there is no immediate health risk, CBU is working hard to improve problems with the treatment process so that the maximum contaminant levels (MCL), as prescribed by the EPA, are not exceeded in the future. EMWC is doing its part by regularly flushing our lines to lower the age of the water in the system. Individuals may choose to use carbon water filters (e.g. Brita, Pur, or Waterpik) which have been reported to be effective in removing disinfection byproducts from drinking water. If used, these filters should be changed frequently to avoid microbial growth within the filter cartridge.

2015 WATER QUALITY RESULTS. The following table (back of this page) lists results for EMWC's water quality testing for 2015 as conducted by both EMWC and by CBU. With the exception of Haloacetic Acid (a DBP compound), all detected contaminants were within allowable levels. The Haloacetic Acid level exceeded the MCL in December of 2015, but has since tested within the allowable range.

2015 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				
Total Coliform Bacteria	5 percent	1.1 percent	0	Naturally present in the environment
Heterotrophic Plate Count	Treatment Technique (TT)*	78 CFU/ml	None	Natural lake bacteria, wildlife, septic systems
Total Organic Carbon (TOC)	minimum 35% removal	42.0% removal average ¹	None	Naturally present in the environment
Turbidity	Treatment Technique	0.20 turbidity units ²	None	Soil runoff
Inorganic Contaminants				
Barium	2 ppm*	0.017 ppm	2 ppm	Erosion of natural deposits
Copper ³	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)*	2.90 ppm	4 ppm (MRDLG)*	Water additive to control microbes
Fluoride	4 ppm	0.82 ppm ⁴	4 ppm	Water additive which promotes strong teeth
Lead ³	TT; Action Level = 15 ppb*	1.0 ppb (90th Percentile)	0	Corrosion of household plumbing systems; erosion of natural deposits
Organic Contaminants				
Total Trihalomethanes (TTHM)	80 ppb	58.7 ppb average ⁵	0	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	60 ppb	61.2 ppb average ⁶	0	By-product of drinking water disinfection
Di(2-ethylhexyl)phthalate	6 ppb	1.4 ppb	0	Discharge from rubber and chemical factories
Hexachlorocyclopentadiene	50 ppb	0.1 ppb	50 ppb	Discharge from chemical factories

LISTED ABOVE are 13 contaminants detected in Bloomington's and EMWC's drinking water during 2015. All are within allowable levels except for Haloacetic Acid, which exceeded the MCL in December but has since returned to 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.

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 that 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.

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 31.4% to 49.1%.

2 Turbidity levels ranged from 0.04 to 0.20 with an average of 0.09 turbidity units. The level of compliance on a monthly basis was 100%.

3 Data listed are from 2015 and are the most recent testing done in accordance with regulations. None of the samples tested exceeded the action level for copper or lead. The next sampling period is in 2018.

4 Fluoride levels ranged from 0.54 to 0.98 with an average of 0.82 ppm.

5 Total trihalomethane levels ranged from 34.6 to 82.2 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.

6 Haloacetic acids (HAA5) levels ranged from 42.0 to 90.8 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.