

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

April 2014

ANNUAL MEETING. EMWC is a cooperative venture. Each “customer” is a member and part owner. Your share of our organization is worth more than \$2,000. NO!!! Since we are a non-profit organization, you cannot cash it in. However, if you are interested in, or want to comment on, what we are doing with your share, here is your chance. The annual meeting for all members will be held at EMWC headquarters on Tuesday, May 13, at 6 PM. Light refreshments will be served. The agenda will include a few words of welcome from the president, the treasurer’s report, discussion of work in progress, election of new board members, and an open forum for comments from attendees. Don’t miss it!!!

ELECTIONS. Our corporation is guided by a nine-member Board of Directors elected from our members. Our by-laws limit terms of members of our Board of Directors to three years. They do not limit the number of successive terms board members may serve. Elections for three members are held each year at the general meeting. Each year, as required, we announce that any member may nominate him/herself for a Board position. The announcement is made on your monthly bill. Nominations closed on March 31. Nominations are not allowed from the floor of the annual meeting. This year the only members nominated are Herb Hoover, Bob Klausmeier, and Sadie Little, all current Board members. Herb is currently President of the Board; Bob, current Treasurer; and Sadie, long-time member.

WORLD WATER DAY. Did you know that March 22 of this year was World Water Day? In some parts of the world, and even in parts of this country, water is an extremely precious commodity. In some areas people may need to walk as much as a mile each day to secure enough water for their family needs. We are so very fortunate to have Lake Monroe available, and that we can get all the water we need by merely turning on the tap.

I thought you may be interested in a few water facts. For instance, last year we sold 68.1 million gallons through our 1370 meters. That averages out to 136 gallons each day through each meter. Without commenting on the sanitary condition of our members, I should note that the national average is 255 gallons per family per day for non-irrigation use. Some usage figures, gleaned for me from various sources, include: a five minute shower, up to 30 gallons; washing machine, 25 to 50 gallons per load; dishwasher, 8 to 16 gallons per load; washing your hands, one to two gallons.

Are we suggesting that you use less water? Should we go back to the ritual of the only Saturday night bath? Or maybe an outhouse? Of course not!!! Just remember, water is indeed a precious commodity. And maybe, when World Water Day rolls around next year, we will drink a glass of water as a toast to Lake Monroe.

WATER LOSS AND OTHER TRIVIA. Our corporation has over sixty miles of pipe in the ground, so as to serve our thirteen- hundred-plus members. These pipes may run along a road, across a pasture, under a creek, through a swamp or across your front yard. Our members may live in an urban-like subdivision, on a bluff overlooking Lake Monroe, or up a narrow rocky lane. Our area of eastern Monroe County is a rugged collection of ridges and valleys. And yet, we provide water to all those locations.

The city of Bloomington Utilities Department sells us the water we distribute to you through meters at five different locations. Last year we bought almost ninety million gallons of water, twenty-four percent of which was “lost.” Not too many years ago the “lost water” amounted to more than half of what we bought. Where does it go? Most of the loss is due to leaks in the lines. Some is corporational maintenance of equipment. Some is probably theft by individuals who have found ways to by-pass their meters. Over the past few years we have improved technology to help us locate areas of leaks. Once found, readily fixed.

How can you help? Firstly, if you note any change in your environment which could indicate a leak, please call the office and let us know. We will check it out, and fix it if it is truly a leak.

Secondly, please do not hide your water meter. Apparently some of you believe a meter in your front yard is ugly. You cover it with dirt or peat moss. You plant lovely flowers around it, or locate a tree beside it. Then, if you have a leak you complain because our crew destroyed your plantings. Our work crews are instructed to be as gentle and careful as possible, but they need to do their job, even at the risk of harming your landscaping.

BOIL ORDERS. Just what is a “Boil Order?” Should we panic? Relax!!!

When making repairs to a water line there is a slight possibility that the repaired section may be contaminated with soil. A pinch of soil contains millions of bacteria. Some of these *could* be disease causing organisms. With current technology many intrusions into current water lines can be done without possibility of contamination by soil. But, if there is even a remote possibility that soil could have contaminated our lines we are required to issue what is known as a “boil order.” This means that we notify all members who receive water through the repaired section that they *should*, for health reasons, boil their drinking and cooking water until the order is lifted. We collect water samples from the affected area daily. These samples are evaluated for microbial contamination of the water by the certified laboratories of the City of Bloomington Utilities. The samples must be contaminant-free for two consecutive days, at which time members will be notified that the “boil order” has been lifted. Members are notified of the boil order and its lifting either by email or by notices on local radio stations or in the local newspaper.

If you are concerned that you might miss the newspaper or radio alert, and you have not provided us with your email address, you might consider doing so. Our staff can then promptly notify you of water shut offs, boil orders, etc. It will also allow you to read this epistle, and to receive your monthly bill, on line.

IRF. East Monroe Water Corporation was established with loans, long since repaid, from the federal government in the 1960s. Some of the pipes and other infrastructure in use today were put into use at that time. Engineering studies by the National Water Works Association and similar groups indicate that the service life of this equipment *may* be less than seventy-five years. The cost of replacing even these older parts of the system is estimated to be several million dollars. In order to defray a portion of that cost, when and if it occurs, the Board of Directors in 2009 decided to establish an Infrastructure Replacement Fund (IRF). A small increment is added to your monthly bill, and, when collected, is placed into the IRF. At the end of 2013 the IRF amounted to \$276,000, and is growing at more than \$30,000 per year.

This Newsletter is written/edited by Bob Klausmeier. He can be reached for questions/comments in our office on Tuesday mornings.

WATER QUALITY. The source of the water we provide is Lake Monroe. The lake's water source is surface water. As water travels over or through the land it can pick up naturally occurring minerals, radioactive materials, and in some cases materials resulting from human or animal activity. This water is treated and decontaminated to insure that it is safe to drink. To insure its safety, the federal Environmental Protection Agency prescribes regulations that limit the amount of certain contaminants in water provided for public consumption. Drinking water may reasonably be expected to contain some low level contaminants. These contaminants do not indicate a health risk.

The quality of water we provided to our members during 2013 exceeded all water quality standards. However, we are required by law to report annually to our users the quality of water we provide. The following constitutes that report. All water we provide is sold to us by the City of Bloomington Utilities (CBU), and many of the analyses listed below are provided by CBU and would not change after passing through our procurement meters.

In addition we ourselves have had some testing performed, as required. These tests are performed by qualified laboratories. Periodically we are required to have the water supplied to our members tested for copper, lead, asbestos and certain halogenated products. All were satisfactory. In addition, each month we collect five samples for testing for microbial contamination. All have proven satisfactory. Each work day we check "in house" to ensure that the chlorine level is adequate. We have never found a level below that prescribed.

The following table provides detailed information about the water we provide and contains data generated by CBU laboratories as well as that collected by our contract laboratories.

2013 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				
Cryptosporidium	Treatment Technique (TT)*	0.1 oocysts*/L	0	Naturally present in the environment
Heterotrophic Plate Count	Treatment Technique	185 CFU/ml	None	Natural lake bacteria, wildlife, septic systems
Total Organic Carbon (TOC)	minimum 35% removal	44.4% removal average ¹	None	Naturally present in the environment
Turbidity	Treatment Technique	0.26 turbidity units ²	None	Soil runoff
Inorganic Contaminants				
Barium	2 ppm*	0.017 ppm	2 ppm	Erosion of natural deposits
Chloramines (as Chlorine)	4.0 ppm (MRDL)*	2.40 ppm	4 ppm (MRDLG)*	Water additive to control microbes
Copper	TT; Action Level* = 1.3 ppm	0.010 ppm ^{(90th Percentile)*}	1.3 ppm	Corrosion of household plumbing systems; erosion of natural deposits
Fluoride	4 ppm	1.09 ppm ³	4 ppm	Water additive which promotes strong teeth
Lead	TT; Action Level = 15 ppb*	0.10 ppb ^(90th Percentile)	0	Corrosion of household plumbing systems; erosion of natural deposits
Organic Contaminants				
Atrazine	3 ppb	0.2 ppb	3 ppb	Runoff from herbicide used on row crops
Haloacetic Acids (HAA5)	60 ppb	43.05 ppb average ⁵	0	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	80 ppb	52.0 ppb average ⁴	0	By-product of drinking water chlorination
LISTED ABOVE are 11 contaminants detected in Bloomington's drinking water during 2013. 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.

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 30.7% to 56.3%.

2 Turbidity levels ranged from 0.09 to 0.26 with an average of 0.14 turbidity units. The lowest level of compliance on a monthly basis was 100%.

3 Fluoride levels ranged from 0.00 to 1.09 with an average of 0.59 ppm.

4 Total trihalomethane levels ranged from 31.9 to 79.0 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 26.0 to 57.0 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.