



Your Environment

A collaborative information resource for the Muskegon County Community

October - 2017

After a bit of a break in regularly scheduled meetings, the guest speaker at the October 2017 meeting was Steve Barnard, Safety and Technical Coordinator for Muskegon County Wastewater Management. Steve's presentation on the lab activities at the Wastewater facility was not a waste; in fact it was very interesting. Did you know that the system is so innovative that, at the time (built in the 70's) it was the first of its kind in the world? It may seem like a simple-stormwater-garden-variety idea to use farming techniques to filter wastewater; but Muskegon was the first to put it into widespread municipal use.

Some may think that the facility is only for customers who have city water and sewer, but they serve everyone. Even though they have just 16 customers, those 16 municipalities provide a vast array of waste: rural residential septic pump out service; restaurant grease tanks; agricultural juice and byproducts... just to name a few.

It may seem incredible that this waste is cleaned up, irrigated onto farm crops, filtered into the ground, and released into the Muskegon River, which eventually flows to Lake Michigan and the world. But that is how it works. And it takes a lot of work; a dozen county employees work in the facility's lab to test, treat, and analyze the hauled waste and ensure it is DEQ compliant with NPDES permitting. National Pollutant Discharge Elimination System is a provision of the EPA Clean Water Act. Plus, it's the right thing to do; and happily, Steve reports that customers seem to want to follow the environmental rules.

Lab analysis is extensive. Samples from treatment cells, storage lagoons, wells, irrigation lines, industry, hauled waste, and more are tested using expensive lab equipment. Sampling is conducted to test for bacteria like e-coli; and for nutrients from ammonia to sulfate; metals from arsenic to zinc; even DNA tests to differentiate human from animal waste; sampling analysis is conducted at the lab in the thousands. When they are confident the wastewater is environmentally compliant, it is used to irrigate 5,200 acres of farmland; this innovation adds another level of filtration to the wastewater before it flows to the river. Corn and soybeans are sold on the open market and alfalfa is sold by bid for dairy feed. Soil sampling of the farmland is out-sourced.

The total possible capacity of the facility is 42 million gallons; but current capacity is only about 12 million gallons. The highest gallonage was reached in the 1980's, at around 30 million; but the loss of the paper mill and other industries is responsible for the reduced volume. If anyone has an extra \$10 million for an industrial investment in Muskegon County, that'd be great!

IN OTHER NEWS...

Brenda Moore, County Drain Commissioner, has an active petition to get funding to investigate the high levels of e-coli, both equine and human in nature, at the Black Creek Consolidated Drain location.

While we're on the subject of elevated levels of bacteria, MCECC has offered to potentially be the non-profit fiduciary-sponsor for the Little Flower Creek watershed project, in collaboration with AWRI through Freshwater Future Grant Proposals; as requested by Glenn Eaton.

We hope to see everyone at the December meeting!

Good Websites Good Information

EPA CARE Program
www.epa.gov/care

EPA Lead Safety
www.epa.gov/lead

E-Waste Recycling
www.reconnectpartnership.com

County-wide Health Concerns
www.muskegonhealth.net

Link from National Wildlife
Federation

GARDENER'S GUIDE TO
GLOBAL WARMING
Challenges and Solutions:
[www.nwf.org/gardenersguide/
Gardeners_Guide.pdf](http://www.nwf.org/gardenersguide/Gardeners_Guide.pdf)