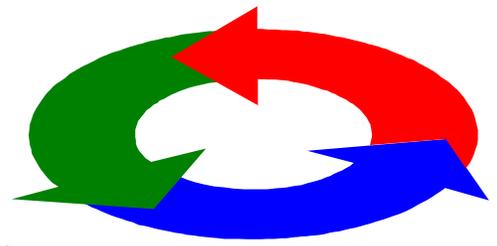


Amendments



Improving Awareness & Advocacy of the Michigan Biosolids Program

Volume 16, Fourth Quarter

October, 2012

Biosolids Program Update

Program Fees

The following is a summary of the last Biosolids Fee Workgroup:

There was a discussion on the proposed transfer of the MDEQ biosolids program from the Resource Management Division (RMD) to the Water Resources Division (WRD) under consideration by the Director. No final decision has been made yet on the proposal. The effective date would be 10/1/12. Some concern was expressed regarding potential impacts to the workgroup. A WRD representative was present at the meeting to ensure a smooth transition should the transfer occur.

The Michigan Department of Agriculture and Rural Development presented a summary of their activities in the biosolids program. (Summary on Page 2)

Several Biosolids Program Summary tables were presented. A table demonstrating the annual calculated Biosolids fund based on the consumer price index from FY 04 through an estimated amount to be collected for FY 13 was presented. Separate biosolids program summary tables demonstrating the actual and anticipated amounts for total program revenues and expenditures from FY 10 through FY 14 were reviewed. Tables were presented assuming either 4.5 FTEs in FYs 13 / 14 or 5 FTEs in FYs 13 / 14. Anticipated expenditures exceeded anticipated revenues in both FY 13 and FY 14 with 5 FTEs.

A DEQ Biosolids staffing and workload analysis was presented which discussed the potential impacts to the program with a reduced FTE Biosolids program presence. Most likely a reduced program would emphasize using existing field staff to cover a larger geographic area to every extent possible. The department would try to maintain around $\frac{3}{4}$ FTE for

administration and approximately a $\frac{1}{2}$ FTE coordinator $\frac{1}{2}$ FTE field position. Approximately $\frac{1}{4}$ FTE would likely cover the UP and the remaining FTEs would cover the 7 remaining districts.

Biosolids program priorities with a reduced FTE field presence, would be to first maintain the EPA program delegation commitments and then to minimize impacts in other target areas. EPA commitments involve certain data collection responsibilities and a commitment to conduct a comprehensive inspection (audit) every 5 years at each active land applying facility.

The potential impact of a reduced program would likely see a significant reduction in number of yearly facility inspections and slight reductions in site inspections, complaint response, and educational efforts. The potential impacts of conducting less facility inspections were discussed such as more frequent administrative compliance issues and less one on one contact with district biosolids field staff.

A table and a chart were presented that demonstrated the number of total biosolids inspections conducted from FY 07 to FY 11 and the anticipated impact for FY 13 based on the average from the previous 5 fiscal years. The 2013 estimates assume maintaining 100% Biosolids Audits (EPA Commitment) and a 75% reduction in the number of facility inspections and a 20% reduction in site inspections.

There was an open discussion on the funding formula for the program and the perceived flaws of the statutory language that creates issues with providing a sustainable funding source year after year.

Some representatives advocated initiating a legislative fix to the funding formula. Other representatives were not in favor of a legislative fix at this time.

Since there was not overwhelming support for legislatively fixing the funding formula at this time, the department will proceed with reducing FTEs in biosolids program to best match the anticipated CPI adjusted biosolids fund amount for FY 13 and 14.

The decision was made to no longer host the biosolids funding workgroup until such time as there is more interest from the regulated community to initiate a legislative fix to the biosolids funding formula.

Biosolids Conference

The Conference Subcommittee of the MBT met at Lakeside Charlies in Cadillac on September 20, 2012, to plan a two day conference. It will be held on **March 6 and 7, 2013**. The City of Detroit Water and Sewer District (DWSD) has agreed to provide a presentation of the facility and a tour of the WWTP. Thus the group decided on the Double Tree Hotel in Dearborn as the conference location. Our Theme for the conference is ***Biosolids Management Trends and Marketing***. Topics include Pharmaceuticals, management trends, Indiana and Ohio Biosolids Programs, Co-Digestion, Land Application vs. Landfilling, among others. Feel free to contact Steve Mahoney at mahoneys@michigan.gov or 517-241-2508 if you have any questions, comments, or suggestions.

MSU Agricultural Exposition

The soybeans plot at the MSU Ag Expo was decimated by spider mites, thus we could not obtain yield data.



For 2013, we will be growing wheat. Delta Township provided the biosolids. The Biosolids were applied on October 1 and the Plot was planted on October 2.



Michigan Department of Agriculture and Rural Development Contribution

The following is MDARDs contribution to the Michigan Biosolids Program:

PA 29 of 1997 states in Sec 3132 (5): *Ten percent of the fund shall be allocated to the department of agriculture to provide persons involved in or affected by land application of sewage sludge or sewage sludge derivatives with education and technical assistance relating to land application of sewage sludge or sewage sludge derivatives.*

MDARD activities:

Stakeholders Meetings: Participate in bi-monthly Michigan Water Environment Association (MWEA) Biosolids Committee meetings. MDARD staff updates the Committee on activities and projects relating to the Biosolids Program.

Biosolids Coordinating Committee: Participate in quarterly meeting/conference call hosted by MDEQ State Biosolids Coordinator.

State Biosolids Publication Discussion: MDARD staff participates in a bi-monthly conference call with Biosolids Program representatives from Indiana and Ohio to discuss biosolids program education, promotion, and media articles. The focus of this group is to share ideas and information to collectively further biosolids programs.

Annual Conference: MDARD staff work with the MWEA 501c3 status to conduct an annual two-day conference focusing mainly for sewage sludge generators, contractors, consultants, engineers, and government. MDARD staff chair the conference planning committee which meets monthly, and coordinates the securing of a conference facility, topics, speakers, meals, guest rooms, vendor and sponsor participation, tours and tour transportation, printing of conference brochures, and all other associated tasks. This event has an annual attendance of about 80 participants with 15 vendors and sponsors.

Michigan State University Agricultural Expo: An Annual event where the agricultural community can observe the latest equipment, technology, and services to the agriculture. In 2012, approximately 18,000 attended this 3

day event. MDARD staff coordinates the Michigan Biosolids Team's (MDEQ, MWEA, MSU, and MDARD) participation in this event. Tasks include assisting MDEQ with securing of the two outdoor lots, coordinate with MSU on the tillage, biosolids application, preparation, planting, maintenance, and presentation of the demonstration plot, rental of a tent, coordinate with MWEA members and MDEQ Biosolids Program staff to obtain display materials, samples, popcorn popping supplies, educational information, worker scheduling, set-up and tear down. After the expo, MDARD staff coordinates with MSU staff on the maintenance of plot up to and including harvesting for yield data.

Michigan Township Association (MTA) Annual Conference:

MDARD staff coordinates with MDEQ Biosolids Program staff to display at this annual event to provide information and answer questions from Michigan Township Officials who are on the front line of citizen inquiries.

MWEA/AWWA Joint Expo: MDARD staff coordinates with MDEQ Biosolids Program staff to display at this annual two day event. This event's audience is individuals working in the water and wastewater industries, along with superintendents, consultants, and engineers. Tasks include securing booth space, bringing in display materials and popcorn popping supplies, and coordinating work schedules. This event is attended by over 2,000 water and wastewater professionals.

Earth Day: MDARD staff coordinates with MDEQ Biosolids Staff to display at this one day event. The audience is school aged children with grades ranging from 2 to 7. Tasks include securing the meeting room in the Atrium of Constitution Hall, securing samples, popcorn popper and supplies, display materials, audio visual equipment, set-up and tear down. In 2012, this display was visited by over 1,200 students.

Biosolids Information Folders: with folders provided by MDEQ, MDARD staff implements the securing, printing, and filling of the folders with biosolids information including an MSU Extension Bulletin, a USEPA pamphlet, demonstration plot results, wastewater treatment, and Biosolids Staff Contact information. These folders are used at all events where the MBT has a display, to Conservation District

Offices, for Biosolids Generators upon request, among others.

Quarterly Newsletter: This newsletter, titled "Amendments", provides information primarily to MBT members and Land Applying Biosolids Generators. MDARD staff writes articles, researches for news and information on the biosolids industry in Michigan as well as other Great Lakes States and Ontario, obtains and records dates for future meetings and events, and the distribution of the newsletter via email and regular mail.

Other: Biosolids page on MDARDs web site, Biosolids 101 e-mail to Michigan Association of Conservation District (MACD) list server, Presentations to various audiences, and an Ornamental Corn Plot fundraiser.

Veolia Water Releases Study on Process to Remove Pharmaceuticals, Phosphorus from Wastewater

By *amcintosh*
Created 4 Oct 2012 - 09:52

Veolia Water North America
New technology removes 75% of pharmaceuticals in wastewater

Veolia Water North America announced study findings that showed the successful removal of pharmaceuticals and phosphorus from wastewater using its Actiflo Carb technology. Over the course of an eight-week study, the presence of phosphorus and a variety of pharmaceuticals and personal care products (PPCPs), ranging from ointments to medications, were monitored after adding Actiflo Carb to the traditional wastewater treatment process. With the use of Actiflo Carb, 75% of the selected PPCPs were removed from the wastewater. Additionally, phosphorus was reduced to a concentration of 0.05 mg/L or less, well below the U.S. Environmental Protection Agency's regulatory limit set at 1.0 mg/L.

As part of a multi-year partnership with a team of scientists from the University of Wisconsin-Milwaukee (UWM), the Actiflo Carb study was conducted by process engineers from Veolia Water and its subsidiary Kruger Inc., with the support of the Milwaukee Metropolitan Sewerage District (MMSD)

and the Water Environment Research Foundation. The study was released at the annual WEFTEC conference and coincides with the 40th anniversary of the Clean Water Act.

"There is mounting concern across the U.S. about the impact of trace organics, such as hormones and pharmaceuticals, in our water systems and the potential threats they pose on human health, wildlife and the environment," said Dr. Rebecca Klaper, the lead scientist from UWM who worked on the study. "This research showed that when Actiflo Carb is added to a wastewater treatment process, it removes a significant portion of the pharmaceuticals tested."

By examining water samples collected at different times over the course of a one-year period between 2009 and 2010, the first phase of the project concluded that a significant concentration of several trace organic compounds (TOrcs) were still present in the wastewater even after a secondary treatment process had been completed. Since treated wastewater effluent discharged into the environment must be safe for all other water uses—including fishing, swimming, recreation and municipal drinking water supply—minimizing the discharge of TOrcs is critical.

Results from the first phase prompted Veolia Water and MMSD to launch a pilot study to apply a new technology, Actiflo Carb, to treat the secondary effluent. Actiflo Carb is a high-rate clarification technology that relies on powdered activated carbon, which is known for its ability to remove pesticides, taste-and-odor-causing compounds, natural organic matter and many types of TOrcs from water and wastewater.

"Actiflo Carb goes beyond conventional processes in its ability to remove phosphorous, pharmaceuticals and other trace organics found in ever-larger quantities in our water supply," explained Jim Hurst, Veolia Water North America's chief technical officer. "We believe it will give wastewater facilities a way to stretch their treatment dollars while dramatically reducing pollution levels and achieving better water quality. The Clean Water Act initiated efforts to reduce water pollution in the U.S., and now this technology can take those efforts even further by addressing one of today's emerging water pollution issues."

After the second phase of the project was completed in late 2011, research findings revealed the average TOrcs removal rate across all compounds using Actiflo Carb reached 75%, thus acting as an efficient barrier for tertiary wastewater treatment. Results exceeded initial estimates in terms of the product's ability to target phosphorous removal at the same time as TOrcs. Additionally, its relatively small footprint and reasonable cost for tertiary treatment allows the technology to be readily integrated into many existing wastewater treatment facilities. The pilot program results are indicative of how Actiflo Carb can help a facility comply with even the most rigorous environmental standards without a significant impact to ratepayers.

Published on *Water & Wastes Digest*
(<http://www.wwdmag.com>)

Calendar of Events

MBT Meetings

Thursday, December 13, 2012, 10:00 a.m.
Location: Frankenmuth, MI

Meeting Schedule for 2013:

- a. **January 17, 2013: Delta Township**
- b. **March 6-7, 2013 is the Conference**
- c. **May 16, 2013, Grandville**
- d. **July 18, 2013, MSU (Ag Expo)**
- e. **September 19, 2013, Cadillac, Johnson Wildlife Center**
- f. **December 12, 2013: Frankenmuth**

