TRAINING BULLETIN
2011

Michigan Department of Environmental Quality
Environmental Resource Management Division
Septage Waste Program and Continuing Septage Education

Improving Opportunities for Beneficial Use:
An Aerial Perspective

Location: Clarion Hotel, 3600 E. Cork St., Kalamazoo, Michigan 49001  269-385-3922

For information & directions: http://www.uwsp.edu/cnr/cwes/index.aspx or contact MWEA directly by mail at P.O. Box 397, Bath, Michigan 48808 by telephone at 517-641-7377; or by fax at 517-641-7388. (You can also see the agenda from MWEA at the end of this Bulletin.)

Date: September 27 & 28, 2011

Time: Class begins at 9:25 a.m. on Tuesday and 8:30 a.m. on Wednesday

Course: Tuesday, September 27, 2011, Continuing Septage Education (CSE) credit(s) is as follows:

- 9:30 a.m. to 10:10 a.m. - Status of PPCP Research in Biosolids
- 10:10 a.m. to 10:45 a.m. - Michigan Waters & Pharmaceutical Sustainability Initiatives (1.75 hours CSE credit)
- 11:00 to 11:15 a.m. - Municipal/Industrial / Industrial Partnerships in WWTP Expansion
- 11:15 a.m. to 12:00 p.m. - How to Use Local Limits to Attract and Keep Jobs (1.00 hour total CSE credit)
- 12:45 p.m. to 5:15 p.m. - Tours

<table>
<thead>
<tr>
<th>Route 1</th>
<th>Route 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plainwell WWTP (IPP issues that affected Biosolids quality)</td>
<td>Coca Cola Bottling Works (Bottling and WWPT Plants at Coke)</td>
</tr>
<tr>
<td>Bells Brewing Company (Overview of brewing and QC process at Bells)</td>
<td>St. Julian Winery (Wine making process during the &quot;crush.&quot;</td>
</tr>
</tbody>
</table>

(Attending either Tour 1 or Tour 2 is credit of 4 hours CSE credit.)

Instructors: Steve Mahoney, Aaron Vis, Jerry Hate, Dr. Sheridan HAAck, USGS, Duane Hagen, CEA, Energy Systems Optimization, MPI Research, Mike Wetzel, Kalamazoo WWTP, Rich Grant & Carey Bond, Fleis and Vandenbrink

Total CSE Credits for Tuesday, September 27, 2011, is 6.75 hours
Wednesday, September 28, 2011, Continuing Septage Education (CSE) credit(s) is as follows:

- 8:30 a.m. to 9:15 a.m. - Depletion of Global Phosphate Rock Reserves and Resources; & Risk Characterization, Assessment and Management of Organic Pollutants in Beneficially Used Residual Products (1.50 hours total CSE credit)

- Biosolid Breakouts:
  - 10:20 a.m. Struvite Case Study
  - 11:05 a.m. Heavy Metal and Trace Element Chemistry in Residual-Treated Soil: A Review of Impacts on Metal Bioavailability on Sustainable Land Application (1.5 hours total CSE credit)
  - 1:00 p.m. Micro/Macro Nutrient Soil Deficiencies & Biosolids: Marketing Your Product (1.75 hours CSE credit)
  - 2:45 p.m. Arsenic: Municipal Industrial Sources and Biosolids Sinks (.5 hours CSE credit)
  - 3:30 p.m. How to Handle Difficult Situation in the Public Realm (.75 hours CSE credit)

Total CSE Credits for attendance Wednesday, September 28, 2011, 6 hours

Instructors: Dr. Tom Bruulsema, International Plant Nutrient Institute, Rufus Cheney, USDA, Jerry Thaler, FT & H, Dr. Rufus Cheney, USDA, Dr. Matt Clover, USDA, Nick Szabo, Ferthaul Michigan LLC

Credit Hours: The course will count as 12.75 credit hours toward the continuing septage education (CSE) requirements outlined in Section 11703 of part 117. Only the CSE credits earned by the designated “responsible agent” for a given Michigan licensed septage firm will be credited to that firm.

Registration/Fees:
- MWEA/WEF Members:
  - $195.00 on or before August 27, 2011
  - $225.00 after August 27, 2011
- MWEA/WEF Non-Members:
  - $253.00 on or before August 27, 2011
  - $283.00 after August 27, 2011.

Lunch is provided for both days.

COURSE FEE REIMBURSEMENT

Information on CSE course fee reimbursement may be found on the Michigan Department of Environmental Quality (DEQ), Septage Waste Program website at: www.michigan.gov/septage
Course Cancellation/Rescheduling: Some courses may be cancelled or rescheduled due to low enrollment/registration or other reasons. The DEQ is not responsible for any course cancelled or rescheduled by a course sponsor. Course sponsors are strongly encouraged to notify the DEQ and those who have registered for the course in a timely manner when a course is cancelled or rescheduled prior to the date the course is scheduled to be offered. Course attendees from Michigan are encouraged to make adequate consultation with the course sponsor before registering for the course.

For additional information, you may call Mr. Jon Chinnery, DEQ, at 517-241-1452.
MWEA Biosolids & IPP Joint Conference
Improving Opportunities for Beneficial Use: An Aerial Perspective
September 27 & 28, 2011
Clarion Hotel & Air Zoo - Kalamazoo, MI

Wastewater CECs Available:
Technical: 0.6
Managerial: 0.4
Course Code: 1179

Continuing Septage Education - CSEs - 12.75 hours
MWEA Biosolids - IPP Joint Conference - September 27 & 28, 2011

Register online at: www.mi-wea.org  -  Registration is for Conference Only (call Hotel for accommodations)

Name:__________________________________________

Employer:______________________________________

Address:_______________________________________

City, State, Zip:________________________________

Daytime Telephone:______________________________

☐ Check this box for vegetarian meals

Registration confirmations are sent via email only.
Email:__________________________________________

In order to receive CECs for this conference you must attend both days starting at 9:25 a.m. on Tuesday and 8:30 a.m. on Wednesday. If you are more than 30 minutes late or leave early, you will not receive CECs for this conference.

MWEA P.O. Box 397- Bath, MI 48808
Phone: 517.641.7377   Fax: 517.641.7388

☐ MWEA/WEF/MSTA Member. $195.00 on or before Aug. 27, 2011
$225.00 after Aug. 27, 2011

☐ Nonmember $253.00 on or before Aug. 27, 2011
$283.00 after Aug. 27, 2011

(Want a FREE membership? see below)

☐ Check this box to receive a one-year complimentary MWEA Membership with the non-member rate.

Please choose which Tour you will attend:

☐ Route 1 - Plainwell WWTP and Bells Brewing
☐ Route 2 - Coca Cola and St. Julian Winery

☐ $50.00 - Air Zoo Dinner - Spouse - Guest

PAYMENT OPTIONS

Check Enclosed $__________(payable to MWEA)
Charge $__________  Visa  MasterCard  Amer. Exp

Billing Address_____________________________________
Account Number:____________________________________
Expiration Date:____________________
Signature:_______________________________________
**Location:**

**Clarion Hotel**
3600 E. Cork St.
Kalamazoo, MI 49001
269-385-3922

From East or West take I94 to exit 80, E. Cork St. toward Sprinkle Rd., Turn left on E. Cork St.

**Attention:**
To ensure overnight room availability at the Clarion Hotel, please contact the hotel and mention this MWEA seminar for the $79.00 per night rate by August 27, 2011.

**Tuesday Evening**
September 27th

**Air Zoo**
6151 Portage Road
Portage, MI 49002

(Transportation to and from Air Zoo will be provided)

You must be registered for this seminar to attend this event. Spouses or Guests can attend for $50.00 (dinner included)

An evening dinner reception at the Kalamazoo Air Zoo will allow attendees to interact with vendors and learn and explore aviation history. Both Industrial Pretreatment and Biosolids Awards will be presented during the dinner.

**Wastewater CECs available:**
Technical - 0.6  Managerial - 0.4, DEQ Course Code: 1179
Continuing Septage Education - CSEs - 12.75 hours

**Registration Deadline:**
September 20, 2011

---

**Agenda**

**Tuesday, September 27, 2011**

- 8:30 Registration
- 9:25 Opening Remarks - Steve Mahoney, Aaron Vis, Jerry Harte
- 9:30 Status of PPCP Research in Biosolids and Michigan Waters - Dr. Sheridan Haack, USGS
- 10:10 Pharmaceutical Sustainability Initiatives - Duane Hagen, CEA, Energy & Systems Optimization, MPI Research
- 10:45 Break - Visit Vendors
- 11:00 Municipal/Industrial Partnerships in WWTP Expansion - Mike Wetzel, Kalamazoo, WWTP
- 11:15 How to Use Local Limits to Attract and Keep Jobs - Rich Grant & Carey Bond, Fleis and Vandenbrink
- 12:00 Lunch - provided
- 12:45 - 5:15 Tours
  - **Route 1**
    Plainwell WWTP
    Bells Brewing
    Hear and see how Plainwell dealt with several IPP issues that affected biosolids quality, followed by a overview of brewing and QC process at Bells.
  - **Route 2**
    Coca Cola
    St. Julian Winery
    Tour the bottling and wastewater plants at Coke as well as learn about the wine-making process during the “crush” at St. Julians.
- 6:00 - 10:00 Air Zoo Dinner Reception - Award Ceremonies
  - “Red” Baron of Biosolids: presented by Graham Chapman
  - IPP Professional of the Year: presented by Allen Bryant
  - Opening - Dinner Speaker - Kari Saganski, MWEA President

**Wednesday, September 28, 2011**

- 7:30 Registration - Continental Breakfast included with Hotel Stay
- 8:30 Depletion of Global Phosphate Rock Reserves and Resources - Dr. Tom Bruulsema, International Plant Nutrient Institute
- 9:15 Risk Characterization, Assessment and Management of Organic Pollutants in Beneficially Used Residual Products - Rufus Chaney, USDA
### IPP Breakouts

**10:20**
Cloud Computing and Data Management in the 21st Century  
Ben Peters, LINKO

**11:05**
Importance of Emergency Management/Spill Plans  
Bob Babcock, MDEQ

**11:50**  
**Lunch** - provided

**1:00**
How the Results Weighed In: Investigating an Illegal Discharger  
Brian Ross, GCDCWWS  
Jack Keys, SCCMUUA  
Bernie Sheff P.E, UTS Residual Processing

**1:45**
The New Hg Law and Amalgam Separator Grant Process  
Maggie Fields, Grace Scott, DEQ

### Biosolids Breakouts

**10:20**
Struvite Case Study  
Jerry Thaler, FT&H

**11:05**
Heavy Metal and Trace Element Chemistry in Residual-Treated Soil: A Review of Impacts on Metal Bioavailability on Sustainable Land Application  
Dr. Rufus Cheney, USDA

**11:50**  
**Lunch** - provided

**1:00**
Micro/Macro Nutrient Soil Deficiencies  
Dr. Matt Clover  
Agrium Advanced Technologies

**1:45**
Biosolids: Marketing your Product  
Nick Szabo, Ferthaul Michigan LLC

---

Wednesday, September 28, 2011 - continued

**10:00**  
**Break - Vendor Networking - Continental Breakfast**

**2:30**  
**Break - Vendor Networking**

**2:45**
Arsenic: Municipal Industrial Sources and Biosolids Sinks  
Mike Person, MDEQ

**3:15**  
**Break - Vendor Networking**

**3:30**
How to Handle Difficult Situation in the Public Realm  
Charlie Fleetham, Project Innovations

**4:15**
Adjourn - Complete Evaluation - Turn in CEC slips in envelope

---

**Cancellation Policy:**
If MWEA cancels, full refunds will be issued. If registrant cancels 10 days or more before program, a 100% refund will be issued. If cancellation is less than 10 days before program, fees based on expenses will apply. No refunds are made if cancellation is after program date. Registration can be transferred to another person in your organization anytime. All changes must be communicated to the MWEA office at 517-641-7377.
Location:
Clarion Hotel
3600 E. Cork St.
Kalamazoo, MI 49001
269-385-3922

From East or West take I-94 to exit 80, E. Cork St. toward Sprinkle Rd., Turn left on E. Cork St.

Attention:
To ensure overnight room availability at the Clarion Hotel, please contact the hotel and mention this MWEA seminar for the $79.00 per night rate by August 27, 2011.

Tuesday Evening
September 27th
Air Zoo
6151 Portage Road
Portage, MI 49002

(Transportation to and from Air Zoo will be provided)

You must be registered for this seminar to attend this event. Spouses or Guests can attend for $50.00 (dinner included)

An evening dinner reception at the Kalamazoo Air Zoo will allow attendees to interact with vendors and learn and explore aviation history. Both Industrial Pretreatment and Biosolids Awards will be presented during the dinner.

Registration Deadline: September 20, 2011

Wastewater CECs available:
Technical - 0.6  Managerial - 0.4, DEQ Course Code: 1179
Continuing Septage Education - CSEs - 12.75 hours

Agenda
Tuesday, September 27, 2011

8:30  Registration
9:25  Opening Remarks - Steve Mahoney, Aaron Vis, Jerry Harte
9:30  Status of PPCP Research in Biosolids and Michigan Waters
Dr. Sheridan Haack, USGS
10:10  Pharmaceutical Sustainability Initiatives
Duane Hagen, CEA, Energy & Systems Optimization, MPI Research
10:45  Break - Visit Vendors
11:00  Municipal/Industrial Partnerships in WWTP Expansion
Mike Wetzel, Kalamazoo, WWTP
11:15  How to Use Local Limits to Attract and Keep Jobs
Rich Grant & Carey Bond, Fleis and Vandenbrink
12:00  Lunch - provided
12:45 - 5:15 Tours

Route 1
Plainwell WWTP
Bells Brewing
Hear and see how Plainwell dealt with several IPP issues that affected biosolids quality, followed by an overview of brewing and QC process at Bells.

Route 2
Coca Cola
St. Julian Winery
Tour the bottling and wastewater plants at Coke as well as learn about the wine-making process during the "crush" at St. Julians.

6:00 - 10:00  Air Zoo Dinner Reception - Award Ceremonies
"Red" Baron of Biosolids: presented by Graham Chapman
IPP Professional of the Year: presented by Allen Bryant
Opening - Dinner Speaker - Kari Saganski, MWEA President

Wednesday, September 28, 2011

7:30  Registration - Continental Breakfast included with Hotel Stay
8:30  Depletion of Global Phosphate Rock Reserves and Resources
Dr. Tom Bruulsema, International Plant Nutrient Institute
9:15  Risk Characterization, Assessment and Management of Organic Pollutants in Beneficially Used Residual Products
Rufus Chaney, USDA
### IPP Breakouts

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:20</td>
<td>Cloud Computing and Data Management in the 21st Century</td>
<td>Ben Peters, LINKO</td>
</tr>
<tr>
<td>11:05</td>
<td>Importance of Emergency Management/Spill Plans</td>
<td>Bob Babcock, MDEQ</td>
</tr>
<tr>
<td>11:50</td>
<td>Lunch - provided</td>
<td></td>
</tr>
<tr>
<td>1:00</td>
<td>How the Results Weighed In: Investigating an Illegal Discharger</td>
<td>Brian Ross, GCDCWWS; Jack Keys, SCCMUA; Bernie Sheff P.E, UTS Residual Processing</td>
</tr>
<tr>
<td>1:45</td>
<td>The New Hg Law and Amalgam Separator Grant Process</td>
<td>Maggie Fields, Grace Scott, DEQ</td>
</tr>
</tbody>
</table>

### Biosolids Breakouts

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:20</td>
<td>Struvite Case Study</td>
<td>Jerry Thaler, FT&amp;H</td>
</tr>
<tr>
<td>11:05</td>
<td>Heavy Metal and Trace Element Chemistry in Residual-Treated Soil: A Review of Impacts on Metal Bioavailability on Sustainable Land Application</td>
<td>Dr. Rufus Cheney, USDA</td>
</tr>
<tr>
<td>11:50</td>
<td>Lunch - provided</td>
<td></td>
</tr>
<tr>
<td>1:00</td>
<td>Micro/Macro Nutrient Soil Deficiencies</td>
<td>Dr. Matt Clover, Agrium Advanced Technologies</td>
</tr>
<tr>
<td>1:45</td>
<td>Biosolids: Marketing your Product</td>
<td>Nick Szabo, Ferthaul Michigan LLC</td>
</tr>
</tbody>
</table>

---

2:30  Break - Vendor Networking

2:45  Arsenic: Municipal Industrial Sources and Biosolids Sinks
      Mike Person, MDEQ

3:15  Break - Vendor Networking

3:30  How to Handle Difficult Situation in the Public Realm
      Charlie Fleetham, Project Innovations

4:15  Adjourn - Complete Evaluation - Turn in CEC slips in envelope

---

**Cancellation Policy:**

If MWEA cancels, full refunds will be issued. If registrant cancels 10 days or more before program, a 100% refund will be issued. If cancellation is less than 10 days before program, fees based on expenses will apply. No refunds are made if cancellation is after program date. Registration can be transferred to another person in your organization anytime. All changes must be communicated to the MWEA office at 517-641-7377.
About this Conference:
This unique conference provides an opportunity for professionals in both Industrial Pretreatment and Biosolids to interact with one another and recognize the critical relationship that each plays in the wastewater industry. Successful industrial pretreatment programs greatly contribute to successful biosolids programs, which in turn benefit the community at large.

This conference is designed to allow attendees to better understand their role in a larger context by providing topics relevant to both programs. Speakers from the USDA, USGS, MDEQ, International Plant Nutrition Institute as well as consultants and researchers will provide a diverse perspective. In addition, tours will be offered at local facilities showcasing industrial and community wastewater stewardship practices.

Please join us for this exciting, innovative conference!

Who should attend?
This conference is intended for professionals in both the Industrial Pretreatment and Biosolids work arenas, as well as those interested in understanding the relationship between the two groups.

- Engineers, Consultants
- Public and private wastewater professionals
- Managers, policy makers, industrial waste treaters
- Emergency responders and public works personnel

Featured Speaker:
The featured speaker is Dr. Rufus Chaney, renowned research agronomist with the United States Department of Agriculture. Dr. Chaney works in the Animal Manure and By-Product laboratory in Beltsville, MD. He has worked on risk assessments for metals in biosolids, soils and crops, and invented the concept of soil metal phytoextracton. His research has also involved using biosolids to restore ecosystems on phytotoxic (specifically Zn, Pb, Ni) waste sites. Dr. Chaney understands and will discuss the importance of the relationship between industrial pretreatment and biosolids as well as provide insight into organic pollutant risk assessment and impacts/bioavailability of heavy metals on sustainable land application.

MWEA Biosolids - IPP Joint Conference - September 27 & 28, 2011
Register online at: www.mi-waste.org - Registration is for Conference Only (call Hotel for accommodations)

- MWEA/WEF/MSSTA Member $195.00 on or before Aug. 27, 2011
- $225.00 after Aug. 27, 2011
- Nonmember $253.00 on or before Aug. 27, 2011
- $283.00 after Aug. 27, 2011

Payment Options:
- Check Enclosed $________ (payable to MWEA)
- Visa Check this box to receive a one-year complimentary MWEA Membership with the non-member rate.
- MasterCard
- Amer. Exp.

Check this box for vegetarian meals

Registration confirmations are sent via email only.

In order to receive CECs for this conference you must attend both days starting at 9:25 a.m. on Tuesday and 8:30 a.m. on Wednesday. If you are more than 30 minutes late or leave early, you will not receive CECs for this conference.