

Maine WasteWater NEWS



November 2013 • Fall

A Publication of the Maine WasteWater Control Association

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MWWCA President Message

By Travis Peaslee, President, MWWCA

It is hard to believe that my year as President is nearly over and that I am now being asked to write an outgoing message. Being forward thinking I rarely stop to look back and conduct an exercise like this but am glad I did as it is gratifying to reflect on all the positive work we accomplished as an association this year. Here's a snapshot of the highlights that quickly come to mind:

- Successful Spring Convention emphasizing storm water management and non- point pollution control. A wonderful Fall Conference with a 2-day operations track. Both shows were well attended, provided excellent technical sessions and abundant networking opportunities.
- Increased Involvement with Maine Water Utilities Association on efforts such as government affairs, training, and public relations. There are more similarities than differences between our groups and we have continued to work collaboratively on efforts such as the legislative breakfast, February trade show, and newspaper inserts to best utilize the resources of our respective associations.
- Continued support of the JETCC Program, Management Candidate School, and the North Country Convention. These programs are critical to expand the knowledge of our operators, allow for state wide opportunities, and are essential to succession planning.
- A Strategic planning session where goals were established to expand outreach programs, increase public relations efforts, enhance our association website, and to find ways to better serve our members.
- Overhaul of the association website to better serve as a resourceful tool and to allow for expansion for future uses.
- Tremendous government affairs efforts that resulted in the establishment of a sustainable funding mechanism within the "Liquor Bill" for the SRF program moving forward, as well as ensuring the release of the 2012 voter approved bond needed for current SRF match. These efforts will hopefully ensure SRF match money is provided for the next 10 years and allow eligible projects to benefit from this program.
- Leading a nationwide effort to minimize the amount of products

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Lewiston, ME

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*For a complete Board Listing,
please visit the MWWCA website at:

www.mwwca.org

Upcoming Board Meeting Dates:

December 20
Augusta-MMA

January 17
Location - TBD

President's Message cont'd

that are deemed "flushable" yet should not be flushed. A tremendous amount of time and effort was made to educate the responsible parties and to develop tools that can be used by operators in Maine and nationwide.

- Change of the association's name to the Maine Water Environment Association (MEWEA) to better reflect not only our mission of operating wastewater treatment facilities but encompassing all efforts to protect and improve water quality in the State of Maine.

As I mentioned, these are just the highlights that jump out at me but could probably fill this entire newsletter describing efforts this year that have improved our industry and association by not only the executive committee members, but also from operators, engineers, and environmentalists from all corners of this State. I am continually encouraged by the enthusiasm and hard work of our entire membership and am confident these efforts will continue to improve human health, the economy, and most importantly water quality. As I write this, I have to take a moment to assure everyone that the core commitment of this association to support the wastewater treatment operator and all people with hands on responsibility for Maine's waters is unshakeable.

In closing, I would like to thank you all for the opportunity to be your president this year and to serve such an amazing group of dedicated professionals. Even though I am moving on as president, I plan and look forward to continuing my support of this group, its missions, and all of its members.



DEP Proposes Odor Standards for Composting and Septage Facilities

The Department of Environmental Protection has proposed changes to 06-096 CMR 409 Solid Waste Management Rules: Processing Facilities. The revisions primarily incorporate odor management standards for facilities that process wastewater treatment sludge from publicly owned treatment works and facilities that process septage. The rules can be viewed at <http://www.maine.gov/dep/rules/>. The comment deadline is 5:00 pm December 6, 2013. The new rules are based upon field measurement of odor intensity using a modified 5 point scale based upon n-butanol. The proposed standards are based upon an ASTM standard number 544- "Standard Practices for Referencing Suprathreshold Odor Intensity." Comments may be directed to Paula M. Clark or Carla J. Hopkins at the Maine DEP.

How MWWCA Works for you

The Public Relations Committee

Most everyone has seen the Clean Water Week Calendars filled with the posters submitted by school children from across Maine. This effort is actually a huge undertaking that takes place over many months, from the sending of packets to Maine teachers, to reminding/requesting and occasionally cajoling teachers to get their students to make posters, to the judging and selection process to the presentation of posters to the Governor to the final presentation of the award at the annual conference, the Clean Water Week Poster contest is a lot of work! Then throw in coordinating a newspaper spread with the Maine Water Utilities Association, working on the Stockholm Junior Water Prize, participating in the legislative breakfast, encouraging treatment plants to open up for tours, and a plethora of other

miscellaneous initiatives and interactions and you have quite a workload. We have been fortunate recently to have Matt Timberlake from the Ted Berry Company chairing this important committee, but like many of our committees, Matt could use some help. The Maine Waste Water Control Association has been a leader in providing effect outreach and public relations for many years. In fact, it is one of the areas that other associations often cite when telling us that we have an exemplary association. Doing a good job of public relations enhances everything we do and helps remind people of the hard work we do each day – despite the fact that we generally labor "out of sight and out of mind". Good public relations can help our rank and file workers get the respect and compensation they so truly deserve. Give it some thought, could you help on the Public Relations committee?

MWWCA E-Mail Database

All current members of MWWCA should receive periodic e-mails, which may include the most recent newsletter, conference and training announcements, or regulatory updates. If you haven't received any e-mails from the organization recently, you may wish to update your information in the distribution list by sending your current e-mail address to Joan Kiszely at jkiszely@memun.org. Don't miss out on the exciting networking and educational opportunities MWWCA provides!

ON MY SOAPBOX: Move the Ball Closer to the Goal

By Mac Richardson, Newsletter Co-Editor

Note: The opinions, positions, and views expressed in any “On My Soapbox” feature are those of the author(s) and do not necessarily reflect the opinions, positions, or views of the Maine WasteWater Control Association.

Lately I have been thinking a bit about how we make things happen or, alternatively, why progress does not seem to be made. It seems that much of the time when people argue that this or that should, or should not, happen based on “principle” or worse yet “right and wrong” they are grasping for ways to make their position viable. But what if standing on principle actually moves you or your organization further away from what you are trying to accomplish? What if by telling someone else what is “right” you actually end up alienating them? This can be a real problem when you need their cooperation down the road.

I want to be quick to state that I am not arguing that “the end justifies the means”. But consider the converse. Clearly the means do not justify the ends! Simply stated, a bad result is not a good thing just because a person’s ethical or moral values were kept pure or to “send a message”. Examples of this thinking are all too common – from the overused excuse “it’s not my job” (so go ahead and discharge poorly treated wastewater) or “I shouldn’t have to tell him what to do” (so the repair work will stop) or even, “He is often late to work and should be punished” (so I will give him all the lousy jobs). Note that all of these share some similarities (assuming that one accepts the original premise that someone was doing the job someone else should rightfully do, or that adequate instruction was given, or that the worker is habitually late without excused cause). First, something has gone wrong in the mind of the person or persons asserting moral or other superiority. Second, a bad outcome is endured for the sake of trying to change someone else’s mind or behavior. Third, the other party generally becomes less, not more, cooperative toward the original goal and future goals as well.

So what? All I am trying to say is that as workers, managers, children, parents, legislators, (AS PEOPLE!) We would do well to stop and consider whether our actions and statements serve our long term goals and make things better. What value is there in being right if in being right you screw up the whole works? The fact is that we need each other, and approaching

things from a team oriented viewpoint is the way to win. Put another way, it does not matter if you are the best player on the team (even by a lot!). Eleven players working together are going to score more often than a team that is dominated by one superstar ball hog! Take a moment to consider the question; will my actions move the ball closer to the goal? ●

Anaerobic Digester Start up in Lewiston

A ribbon cutting and start of operations celebration held on September 9 marked the re-emergence of anaerobic digestion for municipal wastewater treatment in Maine. Since that time the digesters have continued to perform well averaging approximately 51% volatile solids destruction over a 30 day solids retention time. This has led to a 41% reduction in overall biosolids volume. The cake coming off the belt filter presses has been wetter, but we are working with polymer suppliers to improve dewatering performance. Despite the wet cake, the texture and structure of the cake has been surprisingly good from a field stacking perspective and the Authority has been able to eliminate the use of lime to meet pathogen reduction and vector attraction reduction requirements in our farm spreading program. At the time this article was written, we are still working out the many start up and equipment control issues that seem to come with nearly any project of this size and complexity. We have been able to make power most of the time (at about 175 KW), but there are a number of issues and glitches we are still working to resolve. A few project statistics and system features are listed below:

- 2 Conventional (cylindrical) mesophilic digesters 690,000 gallons each
- 1 - 168,000 gal digested solids tank with 33,000 ft³ gas holding membrane
- 2 - 230 KW engine generators running in combined heat and power mode
- Total Construction Cost approximately 12.7 million dollars
- Total Project Cost approximately 15.5 million dollars
- SRLF funded with a 20 year 1% interest bond
- Annual Operations Savings projected at \$640,000
- Efficiency Maine Grant of \$330,000 for a portion of the co-generation engines
- Expected production of 3.3 million KW-hr (50% reduction in utility power)
- Up to 80% reduction in CO₂ emissions from biosolids program
- Anticipated Sale of Renewable Energy Credits up to \$150,000 per year
- Ability to handle brown grease and other high energy “outside” wastes
- No net increase in sewer rates expected from this project.

The LAWPCA staff has embraced the changes and is working to make the needed process modifications and changes to daily routine. We expect the new anaerobic digestion facilities will be a success that our rate payers and community can be proud of. We welcome questions and comments and can arrange tours if desired. ●

SAFETY CORNER

Al Jellison (Bangor Wastewater Treatment Facility),
MWWCA Safety Committee Chair

Safety Committee members are available to help with any safety questions and problems that you may have. Our current members are Al Jellison, City of Bangor- 992-4474, Edward McDonald, MMA- 624-0138 and Paul Rodriguez, Portland Water District- 774-5961.

In the last Safety Corner I wrote about the Bureau of Labor Standards Compliance Directive 12-05, effective 6/20/05 and revised 9/2010. The list is not a complete list of inspection items, but includes the key items to be concerned with. It lists written programs that may be needed, the required training, how long written inspections have to be maintained and what equipment has to have a documented inspection. Lastly, the Directive lists areas of a Facility inspection.

Areas where either initial or annual inspection is potentially required include:

Hazard Communications, Confined Space, Confine Space Simulated Rescue, lock out tag out (LOTO), Hearing Conservation, Emergency Action Plan, Blood Borne Pathogens, Fire Extinguisher, Forklift, Ladders, Work Zone Safety/Flagging, Trenching and Excavation, Personal Protective Equipment, Respiratory Protection, Training Commensurate with Duties, and NFPA -70E.

Last year at this time I had written about the Globally Harmonized System and changes to the Hazard Communication Standard. One of the action dates is fast approaching (by December 01, 2013, all members of your staff have to be trained in the new Hazard Communication Standard). A free power point presentation that can help you meet these requirements is available on the OSHA web site, www.osha.gov/dsg/hazcom/.

For the Plants that have hazardous or extremely hazardous chemicals on site, do not forget to register with the State of Maine. Also, now is the time to give a quick refresher class on working outside in cold environments. If you have a Safety question you would like to see discussed in this corner, please let me know.

This is your newsletter – if you have news you would like to pass along or an opinion to express that would be of interest to the membership of MWWCA we are always interested in receiving material and will make every effort to incorporate your submissions.

WEFTEC 2013

Al Jellison (Bangor Wastewater Treatment Facility),
MWWCA Safety Committee Chair

Most of us have attended a MWWCA Fall Convention where we usually have 50 vendors and 200 plus people (editor's note: if you have not been to a fall convention, it's time to get off your can and check it out). Some of us have been fortunate enough to attend a NEWEA Convention where there are over 200 plus vendors and 2,000 people attending.

This year I was able to attend the 2013 WEFTEC in Chicago. Now you are talking big! The Conference was held October 5-9, at the South Building of McCormick Place. The exhibition hall in the South Building has 840,000 sq. ft of space (approximately 1070 ft by 872 ft). WEF used the meeting rooms on floors four and five for technical training and some of the vendors were able to do workshops in the exhibition hall. There were thousands of vendors/sponsors and over 22,000 attendees at this Convention. Many people had warned me about the exhibition hall and how huge it was, but until you see it, it just doesn't seem that it would take up that much room. McCormick Place is made up of four different buildings with over 1.2 million square feet of exhibit area.

The reasons to attend any of the three conferences are the same:

- Networking with other operators, vendor contacts, regulatory officials, engineers and others can deliver new approaches to old problems, help with strategies to get the most out of current equipment, and determine which technologies can get funding..
- Continuing education credits in one big chunk of time instead of many smaller training courses that take more time away from the "Plant". New processes and innovations are discussed and debated.
- Go to the Conferences with known problems (regulatory, process or equipment or any other concerns) and talk with the appropriate people to get the answer(s) you need. With our main plant built in 1968 and upgraded in 1992, we have many processes that need to be upgraded to keep up with the new requirements and standards of efficiency.
- Be able to bring back important and/or interesting information to review with the rest of the staff .

I was able to attend many of the Operation Challenge events that the ForceMaine participated in. It was very impressive to see the group work as a very close knit team.

I would recommend attending a WEFTEC Convention if you are considering any type of an upgrade or change in process. Even though the initial cost may be high; the amount of personal growth and knowledge obtained is well worth the investment.

Where in the World is Tom Schultz?

Since retiring from running the Mechanic Falls treatment plant and collection system, Tom Schultz bought a 2001 Roadtrek International Class B camp van and hit the road. Armed with his golf clubs, a GPS, and a yearning for adventure, Tom has been sighted in Rhode Island, North and South Carolina mainly on beaches, in parking lots and at libation dispensing establishments. He has been “boon docking” (setting up the camper van where he doesn’t have to pay camping fees) and meeting up with hitchhikers and bar ladies as the mood strikes. Additional pictures can be found on Tom’s facebook site, but beware – it’s a wild ride! Kidding aside we all wish Tom the best adventure wherever the road takes him. 🌐



MWWCA Welcomes

The strength of this Association is derived from its members. We are pleased to welcome the following new 2013 members to the group, and look forward to each of them getting involved in the great work of the organization.

- Justin Adams, LAWPCA (Millwright)
- Zachary Breton, Lisbon Pollution Control Facility (Operator)
- Casey Brooks, Brewer Water Pollution Control Facility (Environmental Technician)
- Eric Cavers, LAWPCA (Compost Technician)
- Steve Clifton, Underwood Engineers, Inc. (Vice President)
- Joshua Cobb, Richmond Utilities District (Superintendent)
- Cody Currier, LAWPCA (Compost Technician)
- Kevin Desjardins, Auburn Water & Sewer District (Sewer Equipment Operator)
- Wade Duplisea, Bangor Wastewater Treatment Facility (Sewer Maintenance)
- Andrew Farris, Auburn Water & Sewer District (Sewer Foreman)
- Bryan Fitch, Kingfield Wastewater (Superintendent)
- Patrick Fox, Saco Water Resource Recovery (Director of Public Works)
- Steven Freedman, AECOM (Vice President)
- James Gourde, Jackman Utility District (Operator)
- Sidney Hazelton, Auburn Water & Sewer District (District Engineer)
- Paul Hunt, Portland Water District (Environmental Manager)
- John Jackson, Town of Bucksport (Operator)
- Susan Jasper, Portland Water District (Environmental Scientist)

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UPCOMING 2014 EVENTS:

February 4, 2014 – Joint MWWCA/ MWUA Meeting and Trade Show
Holiday Inn by the Bay, Portland.

Training sessions, vendors and time for interaction with the drinking water side!

February 27, 2014 – Legislative Breakfast
Senator Inn, Augusta

In cooperation with MWUA and NEWEA this is an important outreach effort to help Maine policy makers understand issues with our infrastructure and other needs.

March 14, 2014 – Annual Ski Day
Saddleback Ski Area, Rangeley
Great skiing, discounted tickets and lunch, all welcome.

April 17, 2014 – Spring Conference
Black Bear Inn, Orono
Strategic planning session on Thursday April 16.

April 7 – 9, 2014 – NEWEA/WEF
Washington Fly In
Washington, DC
A great opportunity to connect with professionals from around the country and meet with our elected representatives.

June 2-4, 2014 – NEWEA Spring Meeting
Samoset Resort, Rockland
Come out and support MWWCA and NEWEA in one shot!

The New Face of Olfactometry (Odor Science)

Part One: Introduction to Odor Analysis, Measurement, and Odor Impact Study

By Yann H. Contratto, Odor Expert and CEO, Olfacto Expert Inc., Montreal PQ (Yann@OlfactoExpert.com)

Introduction by Mary Louise Monahan, Owner, MLM Enterprises, Mary@marylouisemonahan.com

Introduction

A few months ago the manager of a large regional landfill said to me "What wasn't an odor issue 20 years ago, now is. We have had to adapt to meet expectations of our host community and neighbors."

Not only are tolerance levels with respect to odors changing, but there is an increasing need for more facilities that generate odor in their processes. These include anaerobic digesters, waste to energy operations where organic wastes are processed to produce methane gas for energy, sludge composting facilities making fertilizers, to name just a few. Success in securing local approvals to build an operate such facilities and maintaining long term good relations with host communities and neighbors requires a comprehensive odor management program that is well planned and executed.

The Maine Legislature recently passed a law that requires Maine DEP to establish additional odor rules. This law is very specific to operations that process or compost sludge from publicly operated wastewater treatment facilities. According to DEP that's about 18 facilities in the state. The comment period for the new regulations drafted by DEP runs through December 6. The new regulations include frequency, intensity, duration, and offensiveness and attempt to make assessment, management, and compliance predictable for everyone.

Part One

Throughout the world, odors are recognized as a significant environmental issue. The World Health Organization reports that odor complaints represent more than 70% of environmental issues, far exceeding noise and other forms of pollution. The public is not equipped with H₂S gas detectors but

everyone has a nose to smell!

This situation is not confined to developing countries. Throughout North America, potential odor emissions coming from wastewater treatment and composting facilities are facing widespread opposition from the public. New projects are systematically challenged, especially during the public review and local approval processes. Even worse, because of the lack of appropriate legislation, existing plants are experiencing an increasing number of class action suits and other legal actions directly linked to odor annoyances!

For more than fifteen years, Olfacto Expert members have represented owners of many industrial and other odor generating facilities in Europe and Canada at trials and class actions in this specific field of odors. Olfacto Expert has also worked with the public sector and assisted in the establishment of odor regulations for municipalities and governments. From these experiences and through thousands of odor impact studies, Olfacto Expert believes that it is absolutely necessary to establish some appropriate limits in terms of gravity, duration and frequencies of any odor perceptions so that project owners, abutters, host communities, and regulators are all working off the same standards; however, we need to define the tools needed to establish such limitations and evaluations:

Odor Diagnosis

This essential step samples odor at their sources and through olfactometric analysis determines the hierarchy between sources, therefore determining the priority for any future potential reduction.

Olfactometric Analysis

The Olfactometric analysis provides odor quantification of odor concentra-

tion. This analysis is governed by the American standard ASTM E679-91 and European standard CEN13725 which establish laboratory quality conditions and standards for analyses features including air quality used during analyses, certification of individual odor threshold for each panelist during a three week period, ambient air quality control in the lab, cleaning as well as contamination measures, etc.

Odor Impact Study - (OIS)

OIS uses previous odor concentrations (in odor unit per cubic meter: O.U./m³) and odor flow rates (in odor unit per square meter and per second: O.U./m²/s). An OIS produces accurate and objective results that are graphically displayed and mapped. The study provides hard data and information needed to assess and map the olfactory disturbance impacting a population; including odor concentrations (first maxima), duration, and frequency (Percentiles 95, 98 and 99.5). Odor impact studies utilize designs and proposed operations along with real weather data for a proposed site to develop odor mitigation planning into a new facility and assure the public that odor management is important to the project owner.

Odor Measurement

Technology and science have made it possible to quantify odors. Consequently it is possible to establish appropriate objective regulations based on odor perceptions after dispersion rather than odor emissions. To implement an odor management plan at a facility or to validate any odor complaint by municipal or state inspectors, Olfacto Expert's team has developed emetrics® including an ultra-portable Odormeter, which lets owners, regulators, and inspectors measure at the fence line. One odor unit is the perception threshold: 1 O.U./m³.

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Passive Solar Wall & Safety Upgrades at the Sanford Sewerage District

By André Brousseau

Beaten, battered, blistered and torn! After thirty two years of Nor'easters and the beat down from UV, the 2,450 square foot passive solar wall that heats our 10400 square foot process building was replaced. Sounds like a bad day on the beach! The refurbished wall has 34 Kalwall panels attached to the south facing wall of our tertiary process area. The wall is attached to a strut system that has an intercellular space. On the back side of the space is a block wall painted black to absorb all spectra of sunlight. Once the wall sensors hit a predetermined temperature set point, 15 louvers open and allow tempered air to rise thereby pumping 70 plus degree air through the air exchangers and into the building. By utilizing the solar wall, we can cut our energy use by keeping the hot water unit heaters at the minimum 50 degree mark. The only time the hot water units come on is when it's bone chillingly cold-- usually late at night. The project cost of \$47,000 was funded by collecting leaned sewer service accounts that have matured. The district's personnel demoed the existing panels and recouped \$400 in scrape aluminum in the process! Authorized installers were used as recommended by Kalwall for warranty purposes.

Out with the old (Demo)



In with the New



SAFETY MEETINGS PRODUCE!

After years of using a rope and harness attached to a non-rated fixed point, and working in tanks with no permit fall protection or rescue hoist, we had enough. In speaking with Dave Kozlowsky, owner of Safe Approach, we came to understand that our in-house ideas to fix old equipment and retrofit existing systems were going to run thousands of dollars just in engineering specifications. Dave stated he had already done a similar job for the city of Bangor WWTP. The District used our own workforce to install \$8,200 work of new equipment provided by, and under the direction of, Safe Approach. In addition to the new Safe Approach equipment, some of our tanks are fitted with DBI/Sala, a base which allows us to refrain from using a tri-pod system. Tri-pods are bulky when there is a hatch cover nearby, and often cannot be set up on the edge of open tanks. The operators know safety is time consuming but realize they are going home at the end of the day when working safely.

Oxidation ditch anoxic zone entry point



Secondary clarifier entry point



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Fall Convention Another Great Event

The Maine Waste Water Control Association annual fall conference was held on September 19 and 20 at Sugarloaf USA and was, by nearly all accounts, a great time for training, networking and fun with colleagues. The conference itself was preceded by the annual golf tournament held on the challenging and beautiful Sugarloaf Golf course on Wednesday. We

are grateful for the participation of a full slate of fifty seven vendors who agreeably demonstrated some of the most advanced and innovative equipment, services and ideas for our members. Over 227 attendees enjoyed 28 technical sessions covering topics ranging from the latest in odor control science and nutrient control to energy production from algae.

In addition to a well attended "meet and greet" session on Thursday evening the young professionals committee again sponsored a twitter chase and mentoring program for people new to our association. The annual business meeting was kicked off with a keynote from NEWEA President, Mike Bonomo. During the business meeting, Scott Firmin from the Portland Water District was elected to the post of second vice president for 2014, and the winners of the annual clean water week posters were announced by public relations committee chair, Matt Timberlake. Although many of the award winners were not able to attend the meeting, the follow awards were announced: Andre' Brousseau (Sanford Sewer District) received the Roger Gagne

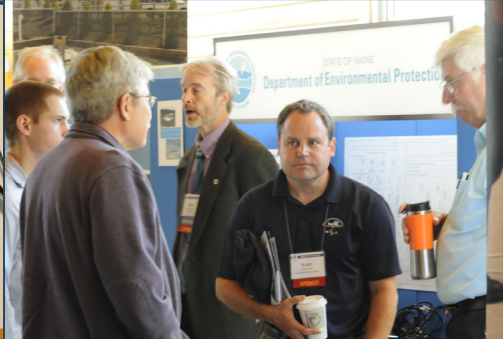
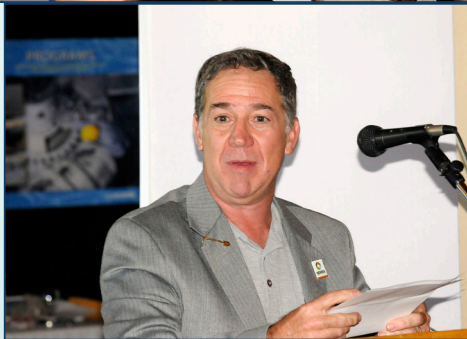


Award for long term service to MW-WCA; Peter Sherwood (Kennebec Sanitary Treatment District) received the David Anderson Award for laboratory excellence; Jeff Boule (Lewiston Public Works) received the Charles Perry Collection Systems Award; The Brunswick Sewer District received the Richard B. Goodenow Award for outstanding

treatment plant operations; Dustin Price (York Sewer District) received the Young Professionals Award; Tom Schultz (retired, Mechanic Falls) received life membership; Brian Kavanah (Maine DEP) received the MWWCA Service Award; and Matt Timberlake (Ted Berry Co) received the President's Service Award. In addition, Maine DEP

certificates of achievement were awarded to Gary Howard (Scarborough Sanitary District) and to Frank Martin (Ashland Water and Sewer).

On a vote of 71 to 16 the members in attendance voted to accept a By-Law change that will change the name of the Association from the Maine Waste Water Control Association to the Maine Water Environment Association.



Management Candidate School Graduates 18 More Professionals

By Leeann Hanson, JETCC Training Coordinator

On September 19, 2013, eighteen water pollution control professionals representing sixteen different water and wastewater treatment facilities received diplomas for completing 4th Maine's Management Candidate School (MCS). The year-long management curriculum is designed to prepare mid-level drinking water and wastewater treatment plant personnel for career advancement in utility management. The curriculum included personnel management, supervisory skills, labor relations, budgeting, engineering basics and an operator exchange. The MCS was coordinated by the Maine Joint Environmental Training Coordinating Committee (JETCC) with support from the Maine Department of Environmental Protection, Maine Department of Health and Human Services (DHHS), Maine Wastewater Control Association (MWWCA) and Maine Water Utilities Association (MWUA). Graduation ceremonies were held during the MWWCA annual convention in September at Sugarloaf in Carrabassett Valley. Brunswick Sewer District will host sixteen new students who began Management Candidate School on October 16. This program, which is about to begin its 5th year, is a marvelous example of collaboration between various state agencies and the trade associations who help make it possible. 🌐



Back Row L to R: Tom Wiley – So. Portland Water Resource Protection; Andrew Whitaker – City of Saco Water Resource Recovery Facility; Jeffrey Moulton – City of South Portland Water Resource Protection; Tom Mason – Brunswick Sewer District; Alex Buechner – City of Biddeford Wastewater Treatment Facility; Michael Cummons - Maine Water Company – Rockport; Stanley Doughty Jr. – Brunswick & Topsham Water District; Justin Futia – City of Portland; Jeffrey Hatch – Great Augusta Utility District; Andy Bryant- Ted Berry Company; Chris Curtis – Yarmouth Water District;

Front Row L to R: Benjamin LaPlante – Kennebec Water District; Keefe Cyr- Bangor Wastewater Treatment Facility; Peter Godfrey - Great Augusta Utility District; Marissa Carr – Maine Water Company Biddeford & Saco; Chelsea Elliot – Alfred Water District; Eric Altwater – Machias Wastewater Treatment Plant

Missing: Chris Remick – Maine Water Company - Bucksport

MWWCA Welcomes cont'd

- Steven Johnson, Town of Yarmouth (Town Engineer)
- Erin Keeton, Great Salt Bay Sanitary and Water District (Operator)
- David Kew, Horizon Solutions (Automation Specialist)
- Scot Lausier, Portland Water District (Operator)
- Eric Lemont, AECOM (Project Engineer)
- Jonathan McCabe, Freeport Sewer District (Operator/Maintenance)
- Blaine McLaughlin, Town of East Millinocket (Utilities Supervisor)
- Craig Millett, Auburn Water & Sewer District (Sewer Equipment Operator)
- Kevin Niland, Baker Corporation (Outside Sales Representative)
- Abram Patenaude, Portland Water District (Environmental Scientist)
- Brandon Riva, Bath Water Pollution Control Facility (Operator)
- Peter Rush, Portland Water District (Environmental Scientist)
- Christopher Rynne, South Portland Water Resource Protection (Maintenance Supervisor)
- Ryan Scott, Freeport Sewer District (Operator/Maintenance)
- Ryan Sheldon, Houlton Water District (Operator)
- Cody Smith, Guilford-Sangerville Sanitary District (Operator)
- Anthony Soucy, Lisbon Pollution Control Facility (Operator/Maintenance)
- William Stritch, Town of Yarmouth (Operator/Electrician)
- Frederick Terison, Town of Yarmouth (Plant Electrician Operator)
- Norton True, Hoyle Tanner & Associates (Client Representative)
- Earle Varney, LAWPCA (Assistant Operator)
- Anthony Young, Bangor Wastewater Treatment Facility (Sewer Maintenance)
- John Zachary, Bangor Wastewater Treatment Facility (Mechanic/Operator) 🌐

Update on MWWCA's Name Change Process and Timeline

By Aubrey Strause (Verdant Water), MWWCA Vice President

At its Fall Convention on September 19, 2013, members present voted to change the Association's name to the Maine Water Environment Association (MEWEA). This vote was taken by the Association for a practical reason and after using two surveys to gauge how strongly members felt about the concept and proposed name.

The Mission and structure of the Association will remain the same, as will the Committees. The Association's founding date will not change, and the Association logos will have the same appearance as the current logos, with only the words and acronym revised. Information and materials on the Association website will be moved to a new URL, but the appearance will stay the same.

An Ad-Hoc Name Change Committee

formed in October with the objective of implementing the name change in a timely and consistent way to:

- Inform our members, legislators, regulators, the general public, and other member associations; and
- Maintain the excellent reputation that has been clearly established over the nearly five-decade existence of the organization.

This Ad Hoc Name Change Committee has developed an approach, timeline, and budget for implementing the name change, and made these recommendations to the Association's Executive Board at its November 15, 2013 meeting.

The Association's goal is to formally make the name change effective at the 2014 Spring Conference on April 18

at the Black Bear Inn in Orono, ME. This plan will allow us time to confirm that all legal and administrative components have been approved and are in place. Until that time, all correspondence and communications will continue to be from MWWCA.

We will depend on the support and networks of Association members, NEWEA, JETCC, the Maine Water Utilities Association, the Maine Municipal Association, WEF, and other New England member associations to help us provide outreach during this undertaking in order to be effective and successful.

We will keep Membership updated on plans for implementing the name change via the website (www.mwwca.org) and our newsletter.

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Tom Pike from Sanford Participates in 2013 Operator Exchange

My name is Tom Pike and I am an equipment operator with the Sanford Sewerage District in Sanford, Maine. I recently participated in the operator exchange through New England Water Environment Association (NEWEA) on September 16th through the 19th; I attended tours at several Massachusetts based wastewater treatment facilities. Sunday evening I met with Vinnie Melendez, Education Coordinator with the Massachusetts Water Pollution Control Association (MWPCA), and talked about my itinerary for the next few days. Monday, I met with Ray Willis, MWPCA President and Vice President of Onsite Engineering, Inc., for a tour of different package plants surrounding the Upper Blackstone Wastewater Treatment Plant (UBWTP). One of the package plants was a housing complex with several tanks, UV disinfection, and a sugar water system utilizing a leaching field to mitigate high nitrate concentrations. The second plant contained clarifiers, used chlorine disinfection and sand bed for settling and the third plant used a five disc rotating biological chains (RBC) system with a chemical feed to a leaching field.

The next stop was the UBWTP where I met with Mike Foisy, Second Vice President of MWPCA. UBWTP has a staff of 52 employees and has a very well-run large facility that can handle flow rates of fifty-six million gallons per day (MGD). UBWTP uses primary clarifiers for treatment along with a bio reactor and final settling tanks for nutrient removal along with Sodium Hypochlorite. The dewatering process consist of flotation thickeners to reduce water content of the activated sludge, belt presses along with the addition of polymer to reduce water content even further to a sludge content of 20-25% cake. The dewatered sludge is than incinerated in multiple hearth furnaces to an inert ash which is disposed of in an onsite landfill.

Tuesday I met with Marcel Tremblay of MCI Concord, who gave me a ride

to the Massachusetts Water Resources Authority Deer Island Treatment Plant (DITP) where we met with MWRA's Charlie Tyler who gave me a tour of the facility. DITP began its secondary treatment operations in 1995 at a cost of 3.8 billion dollars, there are 250 employees at the facility and it is the second largest plant in the United States. DITP takes in 350 million gallons a day with a maximum of 1.27 billion per day and serves forty three communities in the greater Boston area. The island is 185 acres- the treatment plant takes up two-thirds of it and the other third is park land surrounding the plant for recreational activities.

Influent arrives at the plant through four underground tunnels. Pumps then lift the influent approximately 150 feet to the head end of the plant. At the pump station I was shown, it consisted of ten 3500 hp pumps and six 600 hp pumps, there are three separate pump stations. Primary treatment consist of forty-eight clarifiers which are 186 feet long by 41 feet wide and 24 feet deep, these clarifiers are stacked in order to save space. Secondary treatment raises the level of pollution removal to over 85%. Sludge from the primary treatment is thickened in gravity thickeners; secondary treatment is thickened in centrifuges with the additions of polymer.

Digestion then occurs in twelve egg shaped anaerobic digesters, each of these digesters are 140 feet high and 90 feet in diameter. The byproduct of the digestion process is 70% methane gas which is used to heat buildings onsite and they also use windmills and solar power for alternative energy generation.

Digested sludge leaves DITP through an inter-island tunnel to a pelletizing facility where it is further processed into fertilizer. Air scrubbers and carbon absorbers are used for odor control. The wastewater is disinfected using sodium hypochlorite with stor-

age of a million gallons. The outfall pipe goes down 450 feet, then 9.5 miles out into the ocean through a 24-foot diameter pipe where there are 150 diffusers 100 feet below the surface of the water. They have their own metal shop, wood shop and electrical shop. The main building is at least four stories high and their lab takes up two of the floors. History was preserved by utilizing an outbuilding as a museum. Wednesday I went to a trade show which was arranged by Lynn Foisy, Secretary/Treasurer with the MWPCA, and it was very useful for learning new technology. In closing I would like to thank the MWPCA and NEWEA for this opportunity to be a part of this operator exchange. It was a very enjoyable and worthwhile trip. 🌊

Odor Science cont'd

- 3 O.U./m³ is considered the "recognition threshold", meaning 3 persons out of 6 (50%) will be able to identify the source of odors but none of them would likely complain at such level;
- 5 O.U./m³ concentration, also named "frank recognition", meaning 6 persons will be able to identify the odor, and, depending on aggressiveness, one of them would likely complain at that level;
- 11 O.U./m³ concentration is internationally recognized as the first complaint level.

Owners and operators of WWTPs, compost facilities, waste to energy operations, as well as host communities, abutters, and regulators respect the science and technology behind this ability to accurately measure odor, including the frequency and gravity of the emissions. Sensible concentration levels can be appropriately chosen, taking into account important features including local topography, odor aggressiveness and above all distance to the first neighbors ... but this will be addressed in Part 2. 🌊

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NOVEMBER 2013 ISSUE

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