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# ITLA

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## Message from the President

*By Chris Wakefield*

As I sit in Lancaster Ma on the side of a soccer field at the new outdoor soccer complex, I look around and all is great. It is 75 degrees, sunny and slightly breezy. A perfect day not only to play soccer, but also to watch soccer. This is a much different environment than the lab where most of us spend a majority of our time. Which do I prefer, well, I don't know. What I do know is this, environmental chemistry is a large part of my life. It's a good 60-80 hrs per week. I started in environmental chemistry because I enjoyed the outdoors. I enjoyed playing field sports, spending time in the woods and I thought a career in environmental chemistry would be a way to continue my involvement with the environment on a professional level. I guess that was a bit idealistic, but to some degree there is a connection, no matter how small.

I do think we as environmental chemists, biologists, and engineers are all connected to the outdoors and somehow this is why we have

chosen the professions we have. Our intent is to clean up the environment and make it better for future generations.

Turning to my current situation of taking on the role as ITLA president, I ask myself what am I going to do for this organization during my term. My answer at this point is to strive for excellence. I will continue to ask this question of myself as a reminder to not become complacent. In doing so, I want to continue to provide our membership with excellent technical training, up to date regulatory information and state of the art instrumentation presentations. What I would ask of the membership is only to be involved. Attend the meetings and give us your input and support. Your input is important in the functions that ITLA becomes involved in and the direction ITLA proceeds. Your opinion matters. If you have any concerns, please contact myself or any of the executive committee. All will help and bring it to the board for discussion and action. Remember, ITLA is your organization, so use it as an extension of your lab.

## Quarterly Meeting

Wednesday, June 18, 2008, DoubleTree Hotel in Westborough, MA

**Feature Presentation:** "MCP Representativeness Evaluations & Data Usability Assessments (REDUA) Regulatory Overview and CAM Refresher" *Mr. Donald Muldoon, MA DEP See page 5 for agenda*

## MWRA Items

By Mike Delaney, [mdelaney@mwra.state.ma.us](mailto:mdelaney@mwra.state.ma.us)

### Update On MWRA TRAC.IS And LIMS

Inflection Point Solutions continues to work on MWRA's new Pretreatment Information Management System (PIMS), formerly known as TRAC.IS. This commercial, off-the-shelf system is being modified to address MWRA's unique needs for enhanced data management capabilities in the MWRA's Toxic Reduction and Control section. Pilot Testing of TRAC's e-SMART replacement started in April is ongoing. Three contract labs volunteered to test the web application, for both manual entry and data upload. The Go Live date is expected to be in the summer of 2008. MWRA will send further updates to all labs once the pilot test is complete and notify the labs sometime in June of the final cutover date.

MWRA's Lab is working closely with its new LIMS vendor, LabWare ([www.labware.com](http://www.labware.com)). The Go Live date for the new LIMS is expected to be in late 2008 or early 2009. The current LIMS and TRAC.IS have been in use for over fourteen years and are in need of updates due to changes in computer technology.

### The Test Results Are In: No Pharmaceuticals Found In Mwra Water

In early March, the Associated Press broke a story about traces of pharmaceuticals found in some of the nation's water supplies. The AP reporters compiled the results of tests from various water systems around the country and identified 36 pharmaceutical compounds. These compounds are not regulated by the EPA and water suppliers do not normally test for them.

The MWRA did not expect to find any in the water supplied to 50 communities in eastern and central Massachusetts because the source reservoirs are so well protected and because the ozone treatment provided at the Carroll Water Treatment Plant would be effective at destroying many of them if they were present.

"But, just to be sure, we did test," said MWRA executive director Frederick A. Laskey, "and the

results confirmed that there are no traces of pharmaceuticals in the water we deliver to the 2.3 million customers in the MWRA service area."

MWRA used a laboratory that was able to test for a well-rounded selection of 31 pharmaceuticals, hormones, and potential endocrine disrupting compounds. Samples were taken both before treatment (raw water) and after treatment (finished water). All of these compounds were "non-detects" in the finished water samples.

In the raw water sample, minute trace amounts of one compound, Tris (2-Butoxyethyl) Phosphate, or TBEP, was detected. TBEP is a common plasticizer used in rubber gaskets and washers and may have been introduced into the water from the plant's plumbing system. In fact, the National Library of Medicine notes that it is used in "synthetic rubber intended for contact with food or drink." It is also a flame retardant used in floor polishes. MWRA is re-testing the raw water for this compound taking samples directly from the reservoir (i.e. not through the plumbing).

More information is available at [www.mwra.com/press/pr042508nopharm.htm](http://www.mwra.com/press/pr042508nopharm.htm).

### Governor Patrick And Secretary Bowles Showcase Renewable Energy At Deer Island

Governor Deval Patrick and Secretary of Energy and Environmental Affairs Ian A. Bowles attended a ceremony held at MWRA's Deer Island Treatment Plant in Winthrop to announce two initiatives relative to renewable energy in Massachusetts – a second phase of expansion by Marlboro-based Evergreen Solar at its manufacturing facility in Devens, and a year's worth of progress with state agencies adopting renewable energy under the Governor's "Leading By Example" Executive Order.

At the ceremony, Governor Patrick congratulated MWRA for its leadership on renewable energy and showcased a newly installed solar panel array on the roof of one of the facilities' buildings.

"MWRA has been superlative in its efforts to use clean, renewable energy in its operations," said Governor Patrick. "With solar panels today, and wind turbines tomorrow – for all to see, as people fly in

and out of Logan Airport – MWRA is truly leading by example as we create a clean energy economy for Massachusetts.”

The Deer Island solar panel project consists of a 100 kW roof-mounted system sited on the Residual/Odor Control Building. This site was selected because it has large unobstructed roof sections that would easily accommodate photovoltaic arrays, and the roof (resurfaced 3 years ago) is in very good condition with a life expectancy of approximately 20 years. In addition, the power generated will be utilized on-site.

A design/build contract was awarded to Borrego Solar Systems Inc., in September 2007, & completed April 2008. The final connections are being made and the panels should be on-line within a week or two. The \$870,000 solar panel project was funded by the \$310,000 CREBs loan and a grant of \$560,000 from the Division of Energy Resources.

Electricity produced by the solar panels will be used on-site to reduce the amount of electricity purchased by Deer Island. Also, the solar panels will be a qualified Massachusetts RPS renewable generation unit and MWRA can sell the Renewable Energy Certificates as it currently does with the digester-gas.

The energy produced by these solar panels annually will offset the equivalent of 83 metric tons of CO<sub>2</sub>, or the equivalent of: 9,300 gallons of gasoline, 190 barrels of oil, or electricity usage of 12 homes.

### **MWRA Outfall Continues To Benefit Water Quality, Ecosystems: 2006 Monitoring Data Released**

MWRA is pleased to report that test results for 2006 show that the Deer Island Treatment Plant continues to operate as designed, and that discharges through the MWRA Outfall had no unexpected effects on the waters or ecosystems of Massachusetts and Cape Cod Bays. In addition, no impacts of the outfall on the Stellwagen Bank National Marine Sanctuary were detected.

Summaries of effluent results and ambient monitoring results, as well as the full report, “2006 Outfall Monitoring Overview” are available at [www.mwra.com/01news/2008/outfallresults2006.htm](http://www.mwra.com/01news/2008/outfallresults2006.htm).

### **Visit our web page for more information**

Check us out at [www.mwra.com](http://www.mwra.com). We have a wealth of information for both the public and for experts on our water and wastewater activities. This includes monthly updates on drinking water quality testing, information on lead, our most recent Consumer Confidence Report, and many technical reports associated with the Deer Island Treatment Plant and our extensive Harbor and Outfall Monitoring program.

## **Regulatory Update**

*By Bob Bentley, bob@h2otest.net*

### **Lab Certification Program**

Due to one untimely reported perchlorate result which exceeded the MCL, DEP nearly went off the deep end. This work had been subcontracted by the offending lab. The problem was that their client was a school. DEP’s legal team started to suggest that **no** work could be subcontracted... Thank goodness cooler heads in DEP prevailed, but this has caused DEP to talk about changing the regulations in 310CMR42. Members of ITLA worked with the LCO and DEP staff to craft wording which is not as onerous as it could have been but still mandates specific time frames for reporting. Initially there was discussion that this was to be an “emergency” regulation change but as promised, we have not seen a re-write since our meeting in March. It seems that this must not be the emergency it once was....

### **State Oversight**

As I have reported in this column before, Rhode Island has recently promulgated regulations requiring laboratories to submit private well (new or transferred) data to the state, even without the homeowner’s consent. Some of the requirements include certification of samplers, and certification of interpreters. No data has been received to date defining how these requirements will be implemented.

It should be noted that Rhode Island has recently initiated their own eDEP that does not mirror ours in Massachusetts.

### **eDEP**

There is not much new to report on this issue. There

continues to be saber rattling, however, that this is to be mandated sooner, rather than later. In fact, some are now suggesting that it could be ready in 2009. The ITLA has been consistently pushing back, telling the eDEP personnel that they must address the priority projects before this becomes a requirement.

Please stay tuned!!! We will have an update at our upcoming meeting with news from the June Lab Advisory Committee meeting. If you know of other regulatory issues, please contact me or any member of the Executive Committee.

### **ITLA Award at the 2008 Massachusetts State Science and Engineering Fair**

At the 2008 Massachusetts State Science and Engineering Fair ([www.scifair.com](http://www.scifair.com)) the "ITLA Award" was presented to Ms. Hannah Allen of Falmouth Academy for her project "Viability of Fragments of the Invasive Colonial Tunicate *Didemnum v.*". In addition to the ITLA Award, Ms. Allen was awarded a third prize. She received the award at a ceremony that was emceed by WBZ-TV's meteorologist Mish Michaels. There were over 350 projects at the fair representing high schools from across Massachusetts and more than \$425,000 in cash, prizes and scholarships at the 59th annual Massachusetts State Science & Engineering Fair (MSSEF). "Our exhibitors represent a group of highly motivated and talented youth," said Cora Beth Abel, Executive Director of MSSEF. "Through the generosity of our sponsors and donors, we can reward students for their efforts and for the results they've achieved. This inquiry-based, scientific learning process gives students an opportunity to explore topics that interest them, while building key skill sets for careers in the 21st century."

Nobel Prize laureate Dudley Herschbach addressed the MSSEF participants, staff and volunteers at the official opening of the Fair, Friday, May 2. Herschbach won a Nobel Prize in Chemistry in 1986. Looking forward to the Fair, Herschbach said, "I always find it inspiring to witness the work of the students and the many volunteers, especially the judges, who gladly contribute so much effort to enhance the experience for the students."



*Ms. Hannah Allen of Falmouth Academy with her project "Viability of Fragments of the Invasive Colonial Tunicate *Didemnum v.*"*

### ***Food for Thought***

There aren't any rules to success that will work unless you do. Author unknown

calendar

**July 20-22, 2008**  
NY/PaAAEL Annual  
Convention & Exposition  
Syracuse, NY

**July 30, 2008 - Tentative**  
Executive Board Meeting  
Bugaboo Creek Restaurant

**Sept. 17, 2008 - Tentative**  
ITLA Quarterly Meeting  
Sturbridge, MA  
9:00 a.m. - 12:00 p.m.

**Dec. 10, 2008 - Tentative**  
ITLA Quarterly Meeting  
Milford, MA  
9:00 a.m. - 12:00 p.m.

# ITLA Quarterly Meeting

**Wednesday, June 18, 2008**

**DoubleTree Hotel**

**5400 Computer Dr. Westborough, MA 01581**

**Phone: (508) 366-1155**

**For directions: [www.doubletree1.hilton.com](http://www.doubletree1.hilton.com)**

**9:00 a.m. Meeting Begins**

**9:15 a.m. Committee Reports**

Secretary	Technical
Newsletter	Lab Advisory
Election	Membership
Ethics	Treasurer
Regulatory	By-laws

**9:45 am Advanced Automation of SPE Methods**

*Tom Hall, Horizon Technologies*

Many of the EPA Series 8000 methods for the analysis of organics in solid waste water samples involve an extraction procedure. Solid Phase Extraction (SPE) has several clearly demonstrated advantages over the labor intensive Liquid-Liquid Extraction (LLE). Switching from LLE to SPE reduces the solvent consumption and labor required for the sample preparation step. This directly impacts the profitability of the laboratory.

Automating the SPE process adds the additional benefits of further reducing labor, the mostly costly component of the process, and improving the reproducibility of the extraction. Consistency of the extraction process is enhanced and operator to operator variability is eliminated with automation. Automating the SPE process also minimizes the exposure to solvents.

This presentation will focus on the benefits of using automated SPE for 8000 Series wastewater samples. Data, showing precision, accuracy and recovery, from EPA Method 8270 will be presented. A cost analysis comparing manual and automated techniques will be shown.

**10:45 am Break**

**11:00 am MCP Representativeness Evaluations & Data Usability Assessments (REDUA) Regulatory Overview and CAM Refresher**

*By Donald Muldoon, MA DEP*

This presentation is intended to familiarize the laboratory community with the purpose, content and practical application of the Representativeness Evaluation and Data Usability Assessment requirement in support of a Response Action Outcome (pursuant to 310 CMR 40.1056(2)(k)).

The presentation will provide a brief summary of the newly promulgated representativeness Evaluation and Data Usability Assessment regulations under the MCP, a review of MCP laboratory reporting requirements and a CAM Refresher.

The objective of this presentation is to provide participants with a working understanding of the concepts and practical considerations presented and an appreciation of the value of incorporating data quality elements in the laboratory as a standard practice for samples collected and analyzed in support of MCP response actions.