Letter from the Chair

by Laura Cummings

As my year as Chair is coming to an end, I want to offer my sincere appreciation to all of our volunteers whose contributions supported the Section’s goals, as well as my initiatives as Chair. The support provided from our sponsors is also appreciated and recognized as an important component of our section. Serving our members has been an incredible experience for me from both a personal and professional perspective. Our Section accomplishments are only possible due to the dedication and commitment of the individual contributions, including those from each member of the Board of Trustees, our committee chairs, co-chairs and vice-chairs and all of the other volunteers.

A final update regarding our progress on this year’s initiatives:

“Value of Active Membership in AWWA” Initiative

Several very important initiatives were implemented during the past year and these initiatives continue to demonstrate the value of active membership to both our members and employers. I mentioned in the last edition of Pipeline one such initiative; our Section’s Water Utility Council’s (WUC) formation of several ad-hoc committees to review regulatory topics in response to formal requests for comments issued by the EPA. The WUC is now in the process of forming an ad-hoc committee that will focus on the upcoming revisions to the Lead and Copper Rule and possibly an additional ad-hoc committee that will focus on the recent issues regarding Chromium 6. Please contact Steve Tambini, Chair of the WUC, for additional information.

“Work for Water Campaign” and “Membership Discipline-Diversity” Initiatives

A “Work for Water” public outreach exhibit will be organized for a local event in the Township of Nutley. The Women’s Initiative of Nutley (WIN), led by Mayor Joanne Cocchiola, will host a “Women’s Work!” forum during the month of March, which is Women’s History Month. The goal of this forum will be to provide an opportunity for women to network regarding career opportunities and career resources. Please contact me if you, or your company, would be interested in participating in this event.

“Section Vision” Initiative

The 2nd Annual Section Vision Planning Meeting, to be attended by the Board of Trustees and Committee Chairs, will be held on February 17. The Board of Trustees will also meet with representatives from NJDEP and key associations such as NJ Water, AEA, WEA and others. This “Inter-Association Summit” is being planned to discuss event coordination and possible options for partnering in the future. These meetings will be utilized to plan for the Section’s upcoming 2011-2012 fiscal year. If you would like to contribute any thoughts or ideas for events or seminars for the next fiscal year, please forward these comments to our section manager, Mona Cavalcoli.

“Keep Up the Good Work!”

I am truly fortunate for having had this opportunity in support of our overall mission of protecting public health and public safety.

At the end of the upcoming annual conference, we welcome Carol Storms as our incoming Chair for 2011-2012. I can hardly wait to hear what Carol has in her plans for our Section, but I can only expect that her vision will continue to “Shift our Section Forward”!

Laura Cummings is the plant superintendent at Passaic Valley Water Commission and chair of the NJ Section.
Licensed operators are responsible for the operation, maintenance, and effectiveness of a public water system. The NJDEP believes that licensed operators are vital to protecting public health and ensuring the long-term sustainability of our public water systems. An aging workforce, an insufficient number of replacement operators entering the field, and a greater need for qualified personnel due to increasingly sophisticated and technology-driven treatment processes have all contributed to the likelihood that utilities will face a dangerous operator shortage in the near future. The AWWA and other professional associations estimate that nearly half of water utility workers could retire in the next ten years. Budgetary shortfalls amidst a harsh economic climate have only further hindered systems’ ability to recruit, hire, train, and retain qualified persons to serve as operators. In New Jersey, we are beginning to witness the departure of many talented individuals and quite often there is no one readily available to fill those vacancies. In response to a potential workforce shortage, the AWWA New Jersey Section has initiated steps to promote the water sector as a career choice and to attract young people to the profession.

The NJDEP believes there is a critical need for utilities to employ adequate succession planning measures to ensure the transfer of operators’ knowledge and expertise to the next generation so that there is no potential interruption in public health protection for the citizens of New Jersey. Therefore, by means of a USEPA grant, NJDEP has developed an internship program in an effort to recruit operators for New Jersey’s public water systems. The program requires the assistance of water utilities to serve as host agencies to train and provide a work environment for individuals to serve in one-year internship positions so that they may obtain the experience needed to become New Jersey licensed Water Treatment (T) and/or Water Distribution (W) operators. The program would serve to defray personnel costs incurred by participating utilities.

NJDEP is awaiting final USEPA approval to launch this program. We hope to be able to reimburse water systems for personnel costs up to $35,000 per position. The goal is to provide for as many as sixty positions, for a period of one year from July 1, 2011 to June 30, 2012. Applicants must possess a high school diploma or equivalent. As part of their internship, applicants will be required to take and pass an introductory or advanced water course at an approved New Jersey educational institution. Individuals who successfully complete the training course and one year of employment will qualify to take a state examination for a T and/or W license. For utilities to serve as host agencies, preference will be given to 1) those systems that require a full-time operator, 2) systems that can demonstrate need for an intern position in order to achieve adequate succession planning, 3) more complex treatment systems with an increased level of sophistication, as indicated by their license classification, 4) publicly owned water systems, and 5) systems with a training program in place for operators. NJDEP also reserves the right to deny participation to those systems that are in significant noncompliance with the Safe Drinking Water Act.

More information regarding this program will be available shortly. We are pleased to be able to make this opportunity available and we welcome your interest to participate in this program. If you represent a utility that is interested in serving as a host agency, please contact me at (609) 292-5550 or by email at joseph.durocher@dep.state.nj.us.

Joseph duRocher is a principal environmental specialist with NJDEP’s Bureau of Safe Drinking Water Technical Assistance and a member of the Small Systems and Operators Committee.

California State University Correspondence Courses are Approved for Operator Certification by Joseph duRocher

For nearly forty years, California State University-Sacramento’s (CSUS) training manuals and accompanying correspondence courses have been available to members of the water and wastewater licensed operator community and have become among the most widely recognized operator training resources in the industry. CSUS’s Office of Water Programs reports over one million manuals sold and over 250,000 course enrollments. The training manuals have long served as the required textbooks for New Jersey’s introductory and advanced courses. In 2007, New Jersey approved the correspondence courses to meet initial certification requirements needed to qualify for water/wastewater operator examinations. They are also accepted for continuing education credit for license renewal. We recognize the growing demand to promote distance learning as a viable alternative to the traditional classroom setting and hope that this option affords more individuals the ability to pursue educational opportunities within the water and wastewater field. Please refer to the chart to the right to see which course(s) are needed to qualify to take an exam. Also, each course is valid for 90 TCHs (9.0 CEUs), as appropriate for water or wastewater, except for Utility Management, which is valid for 20 TCHs (2.0 CEUs). If you would like to order these materials visit CSUS’s website at www.owp.csus.edu. Be sure to submit your completion certificate to DEP’s Examinations & Licensing Unit to receive TCHs.

Joseph duRocher is a principal environmental specialist with NJDEP’s Bureau of Safe Drinking Water Technical Assistance and a member of the Small Systems and Operators Committee.

### Correspondence Courses

| **T-1** | 1) Water Treatment Plant Operation, Volume I |
| **W-1** | 2) Water Distribution System Operation & Maintenance |
| **S-1** | 3) Operation of Wastewater Treatment Plants, Volume I |
| **C-1** | 4) Operation & Maintenance of Wastewater Collection Systems Volume I |
| **T-2** | 1) Water Treatment Plant Operation, Volume I |
| **W-2** | 2) Water Distribution Plant Operation, Volume II |
| **S-2** | 3) Utility Management |
| **C-2** | 4) Utility Management |
| **N (all levels)** | 1) Industrial Waste Treatment, Volume I |
| | 2) Industrial Waste Treatment, Volume II |
| | 3) Utility Management |
In 2009, the Delaware River Basin Commission amended its rules that mandate water suppliers to implement an updated water audit approach, by 2012, to identify and control water loss in the Basin. The new reporting format must be consistent with the International Water Association (IWA) and American Water Works Association (AWWA) Water Audit Methodology.

In order to support water suppliers during this transition period, DRBC is conducting a workshop introducing water utility staff to the new Audit Methodology and the free water audit software recommended for the annual water audit, on Wednesday, April 13, 2011 at the Rutgers EcoComplex in Bordentown, NJ (http://ecocomplex.rutgers.edu).

Designed for professional staff actually conducting their systems’ water audits, the workshops will address:

- Overview of DRBC and DRBC Rule Change
- Basis and Development of the IWA/AWWA Water Audit Methodology,
- Water Audits and Loss Control Framework,
- Conducting a Water Audit,
- Controlling Real Losses,
- Water Loss Control Programs, and
- Special Considerations for Small Systems.

To learn more about DRBC water audit requirements and workshop information, go to the DRBC’s Water Audit and Loss Control webpage, at http://www.nj.gov/drbc/water-audits.htm. This website also includes a link to AWWA's free, downloadable Water Audit Software that is consistent with the new methodology and the DRBC rule.

Please contact David Sayers with any questions regarding the changes to the Commission’s rules or require further information about the upcoming workshops at david.sayers@drbc.state.nj.us or 609.883.9500 x 236.
The ninth annual interfaith prayer breakfast will be held at this year’s Annual Conference. The prayer breakfast will begin at 7:00 AM on Thursday March 24. Prayer breakfasts are regular events for many organizations. The U.S. Senate and the House of Representatives each continue to hold their own weekly breakfast to discuss problems, both personal and national, in the spirit of fellowship and prayer. Members of Congress meet in the spirit of peace and faith. All members of Congress are welcome at their breakfast, regardless of their political or religious affiliation. Sincere seekers, as well as the deeply devoted, all on a common journey, gather to try understand the place of faith in their lives and to discover how to love God and one’s fellow man.

The AWWA NJ interfaith prayer breakfast is open to people of all faiths. The breakfast will open with a non-denominational prayer thanking God for his blessings and his bounty. We will also ask God to provide our members with the courage and wisdom to continue to protect our environment. Rick Zahnow will be the keynote speaker and the title of his presentation will be “Faith, Hope and Healing Through Water Treatment.” He will discuss a recent mission trip to the Dominican Republic. Finally we will provide a forum for people to introduce themselves and share experiences or comments they may have. The breakfast will adjourn with a closing prayer. A continental breakfast inside the gathering area will be provided.

All members and their families are welcome to attend the breakfast.

For more information about the breakfast please contact John Civardi at 973-912-2418 or john.civardi@hatchmott.com. Additional information will be available at conference registration desk.

John Civardi is a vice president with Hatch Mott MacDonald and vice-chair of the Retired Professionals Committee and Interfaith Breakfast Liaison to the Conference Committee.

Registration Updates for 2011 Annual Conference!

by Michael Piemontesi

Many of us at this time of the new year often make resolutions to improve upon bad habits, accomplish personal goals, and set higher expectations for ourselves. At AWWA NJ we are continually looking for new ways to improve our program to bring our members the best possible experience we can offer and that is no exception this year.

The exhibitor and individual registration forms and fees for the 2011 Annual Conference have both been updated to reflect recent changes which we think you will be pleased to hear about.

This year the section offered new “super saver” discounted rates for all registrants who registered prior to February 11, 2011. We thank everyone who participated in the early registration process. Participants will have their badges mailed to them in advance of the conference. Please keep your badge in a safe place and remember to bring it with you to the conference. As always, badges are required for entry into conference activities!

Exhibitors may be pleased to see that the Standard Exhibit Fee now includes two (2) full registrations, up from one (1) in previous years. To accommodate this change the base rate for exhibitor members/non-members has been increased by $50 and is now $875/$1000 respectively. Considering a minimum cost of $1,025 for two (2) full registrations in previous years, these changes represent a real opportunity by making it more affordable for all exhibitors to have additional members attend the conference.

This year, we have eliminated the Non-exhibitor Fee – formerly known as the Club Room Fee. For those of you who do not know about the Club Room, the fee was collected by those individuals who were engaged in the sale of products, services, and/or equipment to the water industry. Any member on the Registration Committee can testify that we have been asked more questions about the Non-Exhibitor Fee than Brett Favre has been asked about retirement! Incorrect payments and misunderstandings surrounding this fee caused much confusion and delay and has been addressed to improve our member experience.

This year we are introducing a discount of $50 for individuals who work for a utility, regulatory agency, educational institution, or government agency. Please note that registrations for students, retired professionals, and spouse/guest registrants will not be eligible for the discount due to their already discounted rates.

Finally, we have taken your suggestions and our committee is looking forward to implementing on-site enhancements to improve our on-site registration process and customer service. These changes may not seem significant at first glance, however we expect they will greatly improve our ability to process registrations, minimize payment issues, and provide you with improved customer service. Thank you and we look forward to greeting you at this year’s annual conference!

If anyone is interested in getting involved with AWWA NJ, participating on the Registration Committee is a great place to start. We are always looking for volunteers to help at the conference. For more information, please contact Michael Piemontesi at 201-767-3111 or mjp@bsjinc.com.

Michael Piemontesi works for Buck, Seifert & Jost, Inc. and is co-chair of the Registration Committee.
The 5th Annual Turning Wine Into Water Fundraising Event was held on October 15, 2010 at SoHo on George in New Brunswick, New Jersey. The event was hosted by the Water For People Committees of the New Jersey Sections of the American Water Works Association (AWWA NJ) and the Water Environment Association (NJWEA) to raise money and awareness for Water For People, a nonprofit organization that works to improve quality of life by supporting the development of locally sustainable drinking water resources, sanitation facilities and hygiene education programs. The evening commenced with a champagne greet, passed hors d’oeuvres and a presentation by Joe Goodwill (Black & Veatch) who has traveled to Malawi twice to assist with monitoring the effectiveness of Water For People’s projects that have been installed for over five (5) years. The evening continued with four additional courses and wine selections paired by the chef. A silent auction was held throughout the evening with 33 donated prizes that raised over $4,500. Participation in the 2010 Turning Wine Into Water Fundraising Event was 140 attendees with fourteen (14) sponsorships resulting in $15,700 of funds raised for Water For People. Additionally, this year’s event coincided with a matching program, the Rosenthal Match, which matched every dollar raised. Water For People will therefore receive a total of $31,400 as a result of the 2010 Turning Wine Into Water Fundraising Event. The Water For People Committees would like to thank everyone who donated an auction item, sponsored a table or attended the event. Your support will make an impact in someone’s quality of life. A special thank you to our table sponsors who continue to make this event a very special evening:


Connoisseur Level – CDM and United Water

Aficionado Level – Cozen O’Connor, J. Fletcher Creamer, and Riker Danzig Scherer Hyland & Perretti LLP

In October 2010, Water For People unveiled FLOW, an exciting new development that will be used to assess the effectiveness of its work overseas. FLOW, Field Level Operations Watch, is an application that runs on handheld smart phones that enables users to document the condition of Water For People funded infrastructure and instantly post those results to Google Earth. This baseline and monitoring tool allows Water For People to get a clear view of what’s working, what’s on the verge of disrepair, and what’s broken. Not only will Water For People use the data to make better programming decisions, but governments, partners, donors and the public can also easily monitor projects and take action when necessary. This allows for full transparency between Water For People and all stakeholders; now all donors can see exactly how successful Water For People has been at deploying their resources. Plus, the data is easy to gather, share and understand allowing us to build better solutions for a lasting impact. Currently, FLOW is a one-of-a-kind application which is rapidly changing the concept of accountability in the non-profit development sector. For those interested in learning more about FLOW, including reviewing recent results from Malawi, can visit http://www.waterforpeople.org/programs/field-level-operations-watch.html.

Joe Goodwill is a project engineer with Black & Veatch and vice-chair of the Water For People Committee.
An exciting and informative conference is planned for March 22 through 25, 2011 at Trump Taj Mahal, Atlantic City, NJ. With the international observance of World Water Day on March 22nd this year, the conference events on Tuesday take on special meaning. The Conference has been held every year for more than 70 years and is an opportunity for education, technology transfer, networking, and socializing.

Our 2011 theme is “Strategic Framework for Shifting Forward” and the conference will focus on effective utility management and strategic planning for our future. Concern about the economy, loss of jobs, security, shortage of personnel and resources can occupy our thoughts each day. This conference will provide an opportunity to “shift” our thoughts “forward” with informative and practical discussion on planning differently with today's challenges and opportunities.

The Conference kicks off at 1 pm on Tuesday, March 22 with the preconference workshop, “Effective Utility Management.” Our opening speaker for the workshop will be Mr. Jim Horne, Effective Utility Management Project Manager with the USEPA Office of Water. The preconference workshop will include presentations, focus area overviews, and a panel discussion by industry leaders including Messrs. James Horne, Dennis Ciemniecki, Alan Dillon, William Hutchinson, Andy Kricun, Kathryn Mallon, Howard Woods, and John Young.

The Opening Session at 4:45 pm will be lead by a welcome and introduction by our NJ Section Chair, Ms. Laura Cummings. Our Keynote Speaker is the honorable Assemblyman Upendra J. Chivukula, Chair of the Telecommunications and Utilities Committee, member of the Appropriations Committee, and Special Committee on Economic Development. The Vendor Exhibits will be open following the Opening Session with a special event by Water For People called Walk for Water. The Meet & Greet Reception will be held from 5:30 pm to 7:15 pm.

The full program for the conference follows with presentations on regulatory issues, supply and source water, groundwater, operations, modeling, strategic planning, management, water supply and treatment, storage, treatment and cost optimization, disinfection, and construction. See program on the following pages.

It is not all work at the AWWA NJ Section Conference, remember there will be a 3K Run on Wednesday morning, followed by a special breakfast for young professionals, retired professionals, and new members of the Section, breakfast and lunch between technical sessions at the Vendor Exhibits, and the Operator’s Bowl in the afternoon. On Thursday is the Interfaith Prayer Breakfast, breakfast at the Vendor Exhibits, the Past Chair—Secretary/Treasurer Luncheon, and in the evening the Annual Banquet and Awards. The NJ Section Breakfast will be held on Friday morning.

The 2011 Annual Conference offers learning opportunities, a chance to take a breath and catch up with friends and colleagues, and to meet people with similar interests. The Operations track on Wednesday was specially selected to assist operators in preparing for licensing exams. We are looking forward to meeting you at the conference.

Ron von Autenried is president of Buck, Seifert & Jost, Inc. and chair of the Technical Program Committee.

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**Notes from the SSOC**

*by Max Huber*

The AWWA NJ Section is once again leading the way in new ways to educate our members. We all know how difficult it is to get away for our valuable “Total Contact Hours.” The water business is a 365/24/7 business that needs our service on a daily basis, so we all know how it is difficult to travel away from the job.

To deal with this issue, the Small Systems and Operator Committee (SSOC) have once again come up with a brilliant idea (it happens occasionally!) Instead of bringing people out to a seminar in a remote area of New Jersey (from reading ‘Weird NJ’ we all know there are these spots!!), we have decided to bring the seminar to your backyard.

During the 2011 year, we are planning to host seminars throughout NJ, at various water related businesses and utilities. As licensed operators we are well aware how difficult it is to pass that NJDEP license exam. Also, operators can often ‘get caught up’ in the daily grind of providing the same treatment without getting exposed to various innovative technologies that are available in the industry.

The SSOC has contacted various utilities and will be providing half day seminars on various current topics of interest to industry professionals. The seminar will be followed up with a tour of the host facility. The tour is designed for those individuals who may not be exposed to these sometimes complex types of treatment. “Hands on” exposure, acts like a visual picture, and can truly be worth a thousand words compared to a standard lecture setting.

If you are a utility or business who is interested in lending your facility out to this wonderful initiative, please contact Ken Ern or Max Huber or our co-chairs of the SSOC. You can also reach out to the SSOC if you are interested in attending and we will provide the schedule and a map with all the details. Look out for it on the AWWA NJ website throughout the busy 2011 year.

The SSOC sponsors many events such as the Top Operator Bowl, the Tank Building Contest, and the Sporting Clays Sharp Shooting Social (say that a few times!!) as well as many other events.

If you are interested in helping out by joining the group in their mission to reach the very valuable licensed operator professional, contact Max Huber at muber@agra.us or Ken Ern at kern@gordonscornerwater.com.

Max Huber works at Agra Environmental and Laboratory Services and is co-chair of the Small Systems and Operator Committee.
# AWWA NJ 2011 ANNUAL CONFERENCE

**Trump Taj Mahal, Atlantic City**

**Tuesday, March 22, 2011**

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>10:00 AM – 5:00 PM</td>
<td>Registration</td>
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<tr>
<td>11:00 AM – 12:55 PM</td>
<td>Check-In</td>
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<tr>
<td><strong>Workshop</strong></td>
<td>EFFECTIVE UTILITY MANAGEMENT</td>
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<tr>
<td>12:55 – 1:00 PM</td>
<td>Welcome and Introduction</td>
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<tr>
<td>1:00 PM – 2:00 PM</td>
<td>Opening Speaker</td>
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<tr>
<td></td>
<td>Jim Horne, USEPA – Effective Utility Management: Past, Present and Future</td>
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<td></td>
<td>John Young, American Water Company – Attributes of Effective Utility Management</td>
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<tr>
<td></td>
<td>Dennis Ciemniecki, United Water – Change Leadership</td>
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<tr>
<td>2:00 PM – 2:15 PM</td>
<td>Break</td>
</tr>
<tr>
<td><strong>Workshop, Continued</strong></td>
<td>EFFECTIVE UTILITY MANAGEMENT</td>
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<tr>
<td>2:15 PM – 3:15 PM</td>
<td>Focus area overviews</td>
</tr>
<tr>
<td></td>
<td>Andy Kricun, CCMUA – How CCMUA maintained/lowered rates and improved service over time</td>
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<td></td>
<td>Alan Dillon – Long Term Utility Viability and Asset Management</td>
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<td>William Hutchinson, SMCMUA – Funding Challenges for Public Sector Utilities to Implement Asset Management and Capacity Development Programs</td>
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<td></td>
<td>Kathryn Mallon, NYCDEP – Optimizing Capital Program Delivery</td>
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<tr>
<td>3:15 PM – 4:15 PM</td>
<td>Facilitated panel discussion</td>
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<tr>
<td></td>
<td>Facilitator – Howard Woods</td>
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<tr>
<td></td>
<td>Participants – J. Horne, J. Young, D. Ciemniecki, A. Kricun, W. Hutchinson, A. Dillon, K. Mallon</td>
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<tr>
<td>4:15 PM – 4:45 PM</td>
<td>Break</td>
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<tr>
<td>4:45 PM – 5:45 PM</td>
<td>Opening Session – Laura Cummings, Welcome &amp; Introduction</td>
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<td></td>
<td>Special Guest Speaker – Joseph Mantua, President AWWA</td>
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<td></td>
<td>Keynote Speaker – Assemblyman Upendra J. Chivukula, Telecommunications and Utilities Chair</td>
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<td>Water For People – Walk for Water &amp; Exhibit Opening</td>
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<tr>
<td>5:45 PM – 7:45 PM</td>
<td>Meet and Greet (Cocktail Reception)</td>
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</table>

**REGISTRATION DESK HOURS**

- **Tuesday:** 10:00 AM – 5:00 PM
- **Wednesday:** 7:30 AM – 5:00 PM
- **Thursday:** 8:00 AM – 5:00 PM

**VENDEOR EXHIBIT AREA HOURS**

- **Wednesday:** 8:00 AM – 5:00 PM
- **Thursday:** 8:00 AM – 1:00 PM

Note: This program is preliminary and is subject to change. Check your registration mailing and the AWWA NJ website at [www.njawa.org](http://www.njawa.org) for the latest information.

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**First-ever Delaware River Basin Forum**

More than 15 million people draw their drinking water from the Delaware River Basin. Join us on March 10, 2011, for a free one-day forum on preserving the quality and quantity of the Basin’s drinking water.

**When:** March 10, 2011

**Where:** Eight linked locations and via live webcast

**Who:** Municipal, community, and business leaders, and water professionals

**Registration:** [http://www.DelawareBasinDrinkingWater.org](http://www.DelawareBasinDrinkingWater.org)

The forum is sponsored by the Source Water Collaborative ([www.protectdrinkingwater.org](http://www.protectdrinkingwater.org)) and the Forum Planning Team (United States Environmental Protection Agency, Delaware Department of Health and Human Services, Delaware Department of Natural Resources and Environmental Control, Delaware River Basin Commission, New Jersey Department of Environmental Protection, New York State Department of Health and Pennsylvania Department of Environmental Protection).

For more information, visit our website at [http://www.DelawareBasinDrinkingWater.org](http://www.DelawareBasinDrinkingWater.org) or email us at info@delawarebasindrinkingwater.org.
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>6:00 AM – 7:00 AM</td>
<td>3K Run</td>
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<tr>
<td>7:30 AM – 8:15 PM</td>
<td>Something Old Something New First Time Attendees Breakfast</td>
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<tr>
<td>8:00 AM – 5:00 PM</td>
<td>Registration</td>
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<tr>
<td>8:00 AM – 8:45 AM</td>
<td>Continental Breakfast</td>
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<tr>
<td>8:00 AM – 5:00 PM</td>
<td>Vendor Exhibit Area</td>
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<td>8:00 AM – 4:00 PM</td>
<td>Speaker Ready Room Open</td>
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<tr>
<td>10:30 AM – 3:00 PM</td>
<td>Student Poster Exhibit</td>
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<tr>
<td>Concurrent Technical Sessions</td>
<td>REGULATORY</td>
</tr>
<tr>
<td>8:45 AM – 9:15 AM</td>
<td>The Water Supply Plan – An Overview</td>
</tr>
<tr>
<td>10:15 AM – 10:30 AM</td>
<td>Break (Coffee &amp; Soda Provided in the Vendors Exhibit Area)</td>
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<tr>
<td>Concurrent Technical Sessions</td>
<td>REGULATORY</td>
</tr>
<tr>
<td>10:30 AM – 11:00 AM</td>
<td>The Water Supply Plan – Panel Discussion</td>
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<tr>
<td>11:00 AM – 11:30 AM</td>
<td>Ground Water Rule – Lessons Learned</td>
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<td>11:30 AM – 12:00 NOON</td>
<td>Water Watch, SDWIS &amp; E-Reporting</td>
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<tr>
<td>12:00 NOON – 1:30 PM</td>
<td>Lunch (Provided in the Vendors Exhibit Area)</td>
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<tr>
<td>Concurrent Technical Sessions</td>
<td>REGULATORY</td>
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<tr>
<td>2:00 PM – 2:30 PM</td>
<td>American Recovery and Reinvestment Act Projects</td>
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<tr>
<td>2:30 PM – 2:45 PM</td>
<td>Break (Coffee &amp; Soda Provided in the Vendors Exhibit Area)</td>
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<tr>
<td>Concurrent Technical Sessions</td>
<td>SUPPLY / SOURCE WATER</td>
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<tr>
<td>2:45 PM – 3:15 PM</td>
<td>Developing a Vision and Roadmap for Source Water Protection for U.S. Drinking Water Utilities</td>
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<tr>
<td>3:45 PM – 4:00 PM</td>
<td>Break (Coffee &amp; Soda Provided in the Vendors Exhibit Area)</td>
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<tr>
<td>4:00 PM – 5:00 PM</td>
<td>Annual Business Meeting and OPERATORS’ BOWL</td>
</tr>
</tbody>
</table>

Note: This program is preliminary and is subject to change. Check your registration mailing and the AWWA NJ website at www.njawwa.org for the latest information.
Thursday, March 24, 2011

7:00 AM – 8:00 AM  Interfaith Prayer Breakfast
8:00 AM – 5:00 PM  Registration
8:00 AM – 1:00 PM  Vendor Exhibit Area
8:00 AM – 8:45 AM  Continental Breakfast
8:00 AM – 2:00 PM  Speaker Ready Room
8:00 AM – 12:00 NOON  Vendor Lounge

Concurrent Technical Sessions

<table>
<thead>
<tr>
<th>Time</th>
<th>WATER SUPPLY/TREATMENT</th>
<th>RISK MANAGEMENT</th>
<th>DISINFECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:45 AM – 9:15 AM</td>
<td>Upgrades Lower Costs and Improve Water Quality at Haworth WTP</td>
<td>Identifying and Reporting Suspicious Acts</td>
<td>Disinfection with a Grain of Salt: CJO's Innovative Chlorination Conversion</td>
</tr>
<tr>
<td>9:45 AM – 10:30 AM</td>
<td>Breakfast Provided in the Vendor Exhibit Area</td>
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</tbody>
</table>

Concurrent Technical Sessions

<table>
<thead>
<tr>
<th>Time</th>
<th>STORAGE</th>
<th>GROUNDWATER</th>
<th>DISINFECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:30 AM – 11:00 AM</td>
<td>Types of Water Tank Evaluations Drained… Dive… ROV – What's the Right Choice for YOU?</td>
<td>Planning and Design for Reactivating Groundwater Systems in Urban Areas</td>
<td>Airing it Out: Design Considerations for UV Disinfection Installations</td>
</tr>
<tr>
<td>11:30 AM – 12:00 NOON</td>
<td>Sustaining and Improving Water Quality in Water Storage Tanks</td>
<td>Implementing Method 334.0 (Online Chlorine Monitoring) at your utility</td>
<td>Role of Ozone in Water Treatment</td>
</tr>
</tbody>
</table>

12:00 NOON – 1:30 PM  Lunch (On Your Own)

12:00 NOON – 1:30 PM  Past Chair and Secretary Treasurer Luncheon (Invitation Only)

Concurrent Technical Sessions

<table>
<thead>
<tr>
<th>Time</th>
<th>TREATMENT/ COST OPTIMIZATION</th>
<th>STRATEGIC PLANNING</th>
<th>KNOWLEDGE SHARING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:30 PM – 2:00 PM</td>
<td>Reducing Water Treatment Plant Operational Costs Through Energy/Chemical Optimization</td>
<td>Master Planning for NJ American Water's Largest Treatment Facility</td>
<td>A Great Project! How to Achieve it... A Utility Perspective</td>
</tr>
<tr>
<td>2:00 PM – 2:30 PM</td>
<td>Optimizing Filter O&amp;M at Little Falls WTP to Reduce Costs and Water Loss</td>
<td>Two-Step Optimization Yields Hugh Savings for a Large Municipal Water Distribution System</td>
<td>A Great Project! How to Achieve it... An Engineer's Perspective</td>
</tr>
<tr>
<td>2:30 PM – 2:45 PM</td>
<td>Break</td>
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</tbody>
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Concurrent Technical Sessions

<table>
<thead>
<tr>
<th>Time</th>
<th>SUSTAINABILITY</th>
<th>MANAGEMENT</th>
<th>COST CONTROL</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:15 PM – 3:45 PM</td>
<td>Incorporating Climate Change into Water System Planning</td>
<td>Case Study: New York City Asset Priority and Risk Assessment</td>
<td>Understanding Treatment Chemical Costs and Improving Acquisition</td>
</tr>
<tr>
<td>3:45 PM – 4:15 PM</td>
<td>NBMA's Green Environmentally Friendly WTP</td>
<td>Recession Response and other Research – the 3 R's</td>
<td>The Water Audit: An Essential Self Assessment Tool</td>
</tr>
</tbody>
</table>

6:00 PM – 10:00 PM  Reception, Annual Banquet, and Awards

Friday, March 25, 2011

8:00 AM – 10:00 AM  Section Breakfast and Presentation
New Recommendations for Water Utility Asset Management and Accounting by Daniel J. Van Abs and Jessica Rittler Sanchez

The New Jersey Clean Water Council (NJCWC) has the statutory function of advising the commissioner of the Department of Environmental Protection regarding issues related to clean water. It is comprised of public members appointed by the governor and representatives of state and interstate agencies. One statutory responsibility is an annual public hearing, which the NJCWC has frequently used to address far-reaching and major topics. A long-standing focus has been the viability of water infrastructure. Recent public hearings (2007, 2008) focused on infrastructure management for wastewater, water supply and stormwater (“water utilities”). One critical issue identified through these hearings is the need for more attention to asset management, including adequate financing. The Council’s initial recommendations were provided to the Commissioner early in 2009. See http://www.state.nj.us/dep/cleanwatercouncil/pdf/NJCWC_Recommendations_Water_Infrastructure_Financing.pdf.

AWWA NJ members are no strangers to infrastructure management issues, and understand the challenges. It is clear that New Jersey’s water infrastructure – water supply, wastewater, stormwater – is aging, with failures being all too common news. The New Jersey Section of the American Society of Civil Engineers (ASCE) in 2007 gave grades of D to wastewater utilities and C to drinking water utilities in New Jersey, stating that “the existing infrastructure is in need of critical repairs.” (The NJ-ASCE report didn’t grade stormwater utilities, which in New Jersey are not rate-based.) NJCWC members have heard from professionals in the field that the enormous pressure on keeping rates low is often detrimental to asset quality. Constantly deferred maintenance can lead to greatly increased emergency repair costs and rate shocks.

Enormous sums have been spent designing and constructing water supply systems. These systems are owned and operated by municipalities, municipal utility authorities, regional and state agencies, private companies and investor-owned corporations. Regardless of their ownership, with the construction of these systems comes a responsibility for ensuring that they work – that the services they provide are dependable, make efficient use of resources, and meet regulatory standards to protect public health and the environment – at the lowest cost that is sustainable over time.

On November 9, 2010, the New Jersey Clean Water Council approved recommendations regarding water utility asset management and accounting, following its public hearing on October 12. The council concludes that New Jersey can maintain a viable economy with a sound environment only if it ensures that its water supply, wastewater and stormwater infrastructure is effectively maintained in a manner that produces the lowest life-cycle cost. The conclusion is that proactive asset management, utility rates and utility accounting should be used to achieve sustainable public utility functions and resilient finances that minimize long-term costs. Some utilities are doing so, but far too many are not.

In its adopted recommendations, the NJCWC recommends legislative and regulatory action to ensure proper water infrastructure management regarding water supply, wastewater and stormwater utility functions including:

1. Implementation of asset management principles that ensure a sound understanding of asset inventory and value, as well as maintenance and replacement needs, and allow for cost-effective management;
2. Implementation of standardized approaches to utility accounting so that all utilities, regardless of ownership, fully account for asset management costs, with sufficient capital expenditures and reserves; and
3. Ensuring sufficient institutional capacity in municipalities, utilities and state agencies to support effective implementation of these asset management and utility accounting principles.

Asset management and utility accounting should build on existing approaches and recognize the major differences among the various functions, sizes and ownership of water utilities, while also ensuring that no artificial incentives exist for preference of one type of ownership over another. A level playing field is essential, but a “one size fits all” approach would be harmful.

Asset management is information intensive to ensure cost-effective actions. Some utilities in New Jersey and elsewhere have managed to reprogram their budgets to emphasize (continued on page 11)

AWWA NJ Holds a “Luau” at KatManDu! by Lisa Kelly

Membership does have its privileges. Just ask Tim Fortner of Pumping Services, Inc.; he attended the Annual AWWA NJ Membership Appreciation Party on December 2nd at KatManDu.

As a new member of the Association, Tim was just hoping to meet new people and have a good time. Turns out, he met a lot of new people, had a great dinner, and took home the evenings’ Grand Prize – an Amazon Kindle! Not bad for just showing up to a party which he attended for free – a privilege extended to new members of the Association.

The 2010 Membership Appreciation Party, a “Hawaiian Luau” was a great mix of new members, Section Chairs, Committee Chairs, 10-year members, Lifetime Honorary members, and some people who didn’t even know if they were members! No one was made to feel “out of place” because they didn’t know anyone. Upon entering the room, everyone received a lei (thanks, Hetal!). We all sat together at one big table where we dined on traditional Hawaiian cuisine including: Aloha chicken; pulled pork; “Island” fries; salmon; and pineapples – lots of pineapples! We had some interesting banter about ourselves (someone even admitted “GLEE” was his favorite TV show!), and dished out multiple gift card prizes. Since all were having such a great time, and everyone was involved, most stayed the full 3 hours and enjoyed the fabulous desserts! Did anyone try the fried banana cheesecake? Yummy!

Lisa Kelly is the Marketing Manager with CME Associates and a member of the Membership Services and Social Media Committees.

Grand prize winner Tim Fortner holding his new Kindle!

Group photo taken just prior to the end of the festivities.
New Recommendations for Water Utility Asset Management and Accounting (continued from page 10)

“programmed and preventive maintenance” (PPM) programs that, over time, actually have reduced rates, as shown in one of two case studies in the final recommendations. While not every system may be able to achieve such results, all systems should be able to reduce lifecycle costs below what they will be if deferred maintenance is the norm.

New Jersey puts its economy and environment at risk when it ignores infrastructure asset management. We waste scarce natural resources, infrastructure capacity and money that could be put to more productive economic use. Poor infrastructure management also imposes environmental costs that New Jersey cannot afford. Effective asset management can protect water resources and save money, with lower lifetime costs. It can also open up utility capacity that will be critical to the growth of our urban areas.

The key question is how New Jersey should achieve proper asset management for water utilities across all forms of utility ownership, at the lowest sustainable costs. The NJ Clean Water Council invites AWWA NJ members to review our final recommendations on this topic at http://www.state.nj.us/dep/cleanwatercouncil/ and to take action individually and through AWWA NJ to help implement them.

Dr. Van Abs is a member of the staff of the Highlands Water Protection and Planning Council and a public member and second vice chair of the NJ Clean Water Council.
Fire Hydrant Confabulation  
by Bill Pearce

My various engineering assignments introduced me to several “Old School” waterworks operators and managers. All had their unique way of managing the water system they were assigned. Their personality showed in the operation they managed.

None had a manager who took their distribution system and fire hydrants more seriously than Ken Wragg. A second generation water system manager, he was in charge of the system along the Delaware River in Burlington County. No system had better operating or looking hydrants, or as up to date valve records and maps. He was an absolute fanatic for accuracy of records and adequacy of hydrants for fire protection. Each year after crews completed the hydrant and valve maintenance work he would review them against previous year’s records and whoa be the foreman or supervisor that had not noticed a change and brought it to his attention. The “counseling” was never pleasant, nor polite.

One winter night, sitting in his office he found a hydrant in Beverly that had flowed almost 50% less than previously. He had the crew leader and supervisor at his desk the next morning. A repeat of the flow test was number one task order that day. The new test showed the hydrant was back to normal flows. Ken was focused on only one thing, flow to be exactly what the historical records showed. Yes, there was a what was it that caused “his” hydrant to vary so much in flow.

All his years of experience and the seasoned men with him could not come up with anything rational. A frustrated manager went home that night. Not sleeping a wink, Ken had decided to run through the records and a series of valve tests to see if it was some strange valve problem. After a few tests they had replicated the two flows at the same hydrant. Yet no test or theory of valve failure could explain the high / low nature of the flows.

Records showed no anomaly in the pipes, but after years of working on old systems he thought maybe the records in this very old section, might be inaccurate. A few test holes were dug, each further from the hydrant in each direction. An offset was soon found in one direction, but no explanation of why the change in flow occurred. Ken ordered more digging, all without a backhoe. As they dug a 4th or 5th hole in the opposite direction they found a tee and valve where the maps indicated, but also an unmapped offset as well. As the sun rose on a new day, a hole was opened at the tee and offset and after shutting down the lines, the old cast iron was cut. Something had to be wrong with the valve, maybe the gate was broken and depending on the direction of flow, it could be acting like a check valve. As the section of pipe was removed they saw an old piece of cast iron pipe and a valve in pretty good shape. There is no recording of the conversation that followed but you can be certain it was animated. Ken was about to order removal of every length of pipe until they figured out what was happening when the supervisor yelled, “Look at this!” He had looked up the pipe away from the tee and valve and saw something blocking the line. Reaching in, he pulled out a pick handle. The handle looked like it had just come from the factory. It had been trapped there nearly a century. As the direction of flow in the line changed it would slide to one of the offset fittings, not quite cutting the flow any more than before. However if it stopped across the tee, the flow was cut nearly in half.

Ken was asked by the president of the company, in jest, if the handle was retired properly from the assets of the company. Ken said he was waiting on engineering for an estimate of original cost and year of service to complete the retirement.

I never did get him the information he requested.

William Pearce is retired from American Water and a member of the association.

The Flash Frozen Red Corvette  
by Bill Pearce

My career with American Water began in 1975. The following winters, particularly that of 1977 was disastrous for most of the middle Atlantic and Midwest water systems. Many stories can be related but one is just too unbelievable, except to those who have worked in a water utility.

By the mid 70’s the American systems had eliminated nearly all their open distribution tanks and reservoirs. A few still remained and would have been replaced had the severe economic crisis that befell all utilities in the middle 70’s with rampant inflation and exploding expenses not stopped all construction. In Monmouth County the water system had consolidated several old water utilities in the 20’s into what was called Monmouth Consolidated Water. One of the systems was the Water Witch system in Monmouth Hills. The system had been built in the 1880’s for about 100 large private homes in the highest elevation of ocean front between Maine and Florida. The homes look over the bay to New York City today as they have for over a century. The water system had a 50,000 gallon riveted wrought iron standpipe, with no roof. Water was pumped into this higher elevation with the pumps controlled by a pressure sensor at the base of the standpipe and carried over phone lines. The winds, falling trees and ice interrupted the signals routinely. The standpipe stood alongside homes of a tiny easement. The wooded area around it and narrow gravel roads made parking a premium even for residents.

One winter night the ice storm took down the phone lines and the pumps continue to run. The wind blew across the Highlands and the top of the standpipe all night. A steady 40 or 50 mph with gusts near 90 had blown across the bay into Monmouth Hills. A homeowner had taken to parking one of his cars at the base of the standpipe. Particularly if it snowed, he could dig out easier since it was next to the gravel road. The production operations supervisor’s phone was ringing as he walked in at dawn. It was the Middletown police. They needed him and a crew immediately because the tank was overflowing and the icing of the roads was awful. Without any remote control the pumps were still running, and the wind was still blowing. This had happened before but no one was prepared for the sight as they rounded a corner near the standpipe. The wind had created a ski slope of ice from the top on the standpipe to the ground that was nearly as long as high. The entire area was one huge skating rink as well. But through the crystal clear wall of ice the sun was gleaming off a bright red Chevy Corvette. Nicely “Preserved” like a prehistoric creature. The owner was not amused (late for work too). The company insurance adjuster had to wait for several days to get to the car as the wall of ice slowly melted.

Today the Water Witch High Service has Radio monitored and controlled pumps and a new tank, with roof of course.

William Pearce is retired from American Water and a member of the association.
AWWA NJ Bowling Night – Too Much Fun to Miss!

by Lisa Kelly

me; I figured we would all have a fun
time together, even if we had no idea
how to bowl.

When I pulled up to Brunswick
Zone in North Brunswick, I was
lucky to find a parking spot. It was
a Wednesday night in October, so
I figured it must have been another
senior league. Upon entering, it
looked like there was one big party
going on. The place was packed,
primarily with young people! Lucky
for me it didn’t smell like smoke (they
must have a non-smoking policy).

Since I had never been there before,
I asked the gentlemen at the first
desk which lanes the AWWA NJ
were on. It was something like
73-78. The lanes in front of me were
numbers 3-4. It turns out, there were
82 lanes, and ALL were occupied!
There were four more desks like the
one I approached, and you can get
your “bowling shoes” at any one of
them. I continued walking about
what seemed like another half-mile,
and I finally found the assigned lanes.
There were tables reserved for our
group when I got there. Piping hot
pizzas (which were pretty good!),
soda, and chips were provided by the
associate. Food, three games of
bowling, shoe rental, prizes, and
meeting some new friends for ten
dollars – what a bargain! There was
also a bar and clean restrooms right
across the hall (Kudos).

Once I figured out how to set up the
lane for bowling using the computer,
I had to go find a bowling ball. This
was not an easy task! Since every lane
was taken, so were most of the good
bowling balls. I searched for 20
minutes for a ball I can not only
lift with one hand, but put my two
fingers through the holes; NOT an
easy task! I finally found a 7-pound
ball. Yes, I think it was a kid ball!
But I couldn’t fit my fingers in it.
Nonetheless, I had fun palming the
ball and throwing it underhanded
down the lane! Mona Cavalcoli, the
section manager, was a true sport. She
had cut open her finger the day prior
to the event and still participated, at
least for one game. I don’t know who
caused more laughs, me or her. There
were about 30-40 bowlers. OK, most
were non-bowlers like me, who came
out for the evening. To my surprise,
the place seemed very modern
compared to what I expected. The
TV’s overhead that recorded the
scoring were nice 42” flat screens. I
was expecting “bubble” TV’s from the
80’s. The table and chairs were a bit
small for an adult; nonetheless, they
were new and clean. The service was
unfaltering, and friendly enough,
just wish she was able to get the bar
orders. Turns out, I spent half my
time at the bar getting pitchers of
beer for my group. Congratulations
to the two top scorers of the evening,
Jim Dovel of Raritan Supply Co.,
who won a $75 Visa Gift Card, with
a score of 187 and John Kriskowski
from CME Associates, whose second
place score of 185 earned him a $50
Visa gift card. It would have been
fun to watch them bowl, but the server
wasn’t authorized to serve beer.

My how things have changed in
the past 20 years; not only have the
crowds gotten younger, and lanes
trendier, but doesn’t the waitress
realize all the tips she’s losing out on?

Lisa Kelly is the marketing manager
with CME Associates and a member
of the Membership Services and
Social Media Committee.
Are you certified for ICS 100 and IS 700? Do you know what ICS means? Executive Order #50 was issued by Acting Governor Richard Codey on August 5, 2005. It requires every “First Responder” in the state to be trained in the National Incident Management System (NIMS) and the Incident Command System (ICS). “First Responders” include public works and utility employees who are called out for utility emergencies. Main breaks, pump and well failures, SCADA alarms and off-hour customer service calls are all “emergencies”. If you go out on these calls you are a “first responder” and must be certified.

This past October the Operational Risk Committee hosted workshops for the basic ICS 100 and the IS 700 for water and wastewater certification. An additional training session was held for supervisory personnel. We were surprised that the attendance at these sessions was much less than expected. Is it possible that every water utility “first responder” already holds a FEMA certificate?

We would like to help insure that all who need certification receive it. Please contact Operational Risk Committee co-chairs Scott Para or Paul Kozakiewicz. You can also attend the upcoming NIMS workshops. If you would like to attend a future NIMS workshop, please contact Paul Kozakiewicz (pkozakiewicz@srmcmua.org) or Scott Para (scott.para@amwater.com).

**Security Sessions at the Spring Conference**

by Paul Kozakiewicz

If you are planning on attending the Section’s Annual Conference the Operational Risk Committee invites you to attend any or all of the very informative sessions that we have scheduled.

Matt Maffei of NJDEP and Scott Para, manager of security for NJ American Water will be discussing guidelines for basic and advanced features for the protection of finished water storage tanks. These guidelines were developed by the NJ Domestic Security Preparedness Task Force – Water Sector Working Group.

Also planned is a discussion on identifying and reporting suspicious acts. Maureen Lancaster from the NJ Office of Homeland Security and Preparedness is the scheduled presenter along with Scott Para. This session will cover how to identify suspicious acts, what the reporting requirements are, why the need to report and what help the information can be to protect the state’s critical infrastructure.

Paul Kozakiewicz is superintendent for the Southeast Morris County MUA and co-chair of the Operational Risk Committee.

**National Incident Management System**

by Paul Kozakiewicz

The Design-Build Institute of America (DBIA) recently recognized United Water New Jersey’s Haworth Water Treatment Plant (WTP) Upgrade with a National Design-Build Excellence Award. The DBIA awards program recognizes the most successful design-build projects in the United States. United Water partnered with CDM to design and build the Haworth Plant upgrade to the 200-MGD plant. This complex project was successfully completed ahead of schedule, under budget, and without interrupting service to 800,000 people in Bergen and Hudson counties. The Haworth Plant is now one of the most technologically advanced surface water treatment plants in the United States.

Prior to 2009 the Haworth WTP was a direct filtration plant with pre-ozoneation. In 2007, construction began to upgrade the ozone generation system, add new ozone contactors, add clarification using high-rate dissolved air flotation (DAF), make improvements to the disinfection process, and upgrade the residuals handling and treatment system. The ozone improvements and the DAF process went on-line in early 2009, and improvements to the chlorination process were finished in January 2010 to complete the new plant upgrade. The new final plant processes now include pre-ozoneation, coagulation/flocculation, DAF, primary disinfection with chlorine, filtration, and secondary disinfection with chloramines. The new residuals facilities include backwash settling, recycle of the settled backwash to the head of the plant, thickening, and disposal to the sanitary sewerage system.

The new facilities have been operating extremely well, producing high quality water that is reported by United Water customers to be better than before the upgrade. The new process has worked very well under all raw water operating conditions, including periods of high algae levels in the spring. Also, operating costs have been reduced relative to backwash water and power for the ozone generation system.

Richard Henning is a senior vice president at United Water.

**DBIA Recognizes Haworth Water Treatment Plant with National Award**

by Richard Henning

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Richard Henning is a senior vice president at United Water.

**Safety Awards Announced**

by Paul Kozakiewicz

The AWWA national recently announced the recipients of the 2009 Safety Awards. The awards are based on the response to the annual safety survey that was issued in 2010. The survey was sent to 1146 utilities across the United States but only 188 utilities replied. Seventy two utilities, including two from New Jersey received awards.

Congratulations to the Florence Township Water & Sewer Department and United Water Jersey City as the section’s Safety Award recipients. They were selected from the seven New Jersey utilities that responded to the annual survey.

The Operational Risk Committee urges all section members to respond to the survey regardless of your utilities safety record. The information gathered allows the association to determine the areas where we need to improve our training efforts. Remember that a safe water utility is no accident.

Paul Kozakiewicz is superintendent for the Southeast Morris County MUA and co-chair of the Operational Risk Committee.
Collaborating to Inspire the Next Generation of Environmental Problem Solvers by Albert J. Capuzzi

Thirteen CH2M HILL employees and thirteen GMA high school students volunteered at the CCSP to give the elementary school students a glimpse into the wonders of engineering.

Anyone who finds themselves in the U.S. engineering industry today knows that we face an urgent and enduring challenge—to attract and retain a diverse and highly qualified workforce. There is no better way to develop our future generation of problem solvers and innovators than by engaging our communities’ youth in the world of science, technology, engineering, and math. With this in mind, and in the spirit of giving back to the Paterson, New Jersey community in which we work and live. In June of this year, CH2M Hill’s New Jersey office teamed up with New Jersey Community Development Corporation and our client Passaic Valley Water Commission (PVWC), for a fun, engaging and educational engineering outreach event with the students from Garret Morgan Academy (GMA) and the Community Charter School of Paterson (CCSP).

The outreach consisted of two main events. First, PVWC provided an informative and interactive guided tour to explain the various process steps of its state-of-the-art water treatment facility in Little Falls to twenty high school students from GMA. Second, the GMA students helped the CH2M Hill volunteers present the wonders of engineering to 200 third and fourth graders at the charter school the following week.

PVWC Little Falls Water Treatment Plant Tour

Edgar Alicea and Drew Saskowitz from PVWC provided informative and interactive tours of the Little Falls Water Treatment Plant to the interested high school participants from GMA. PVWC explained the various process steps in water treatment, answering questions along the way. It was an eye-opening experience for all of the students, for many had never considered how the water they drink and use at home and at school becomes the clean, safe, and oh-so-refreshing water they take for granted. At the end of the tour, the GMA students met with the CH2M Hill team leaders to review the plan for the engineering outreach with the CCSP elementary school students that would occur the following week. The GMA students would be an integral part of the teams presenting to the third and fourth graders, and their own excitement over their own field trip to the water treatment facility would carry through to their wonders of engineering presentations.

Engineering Outreach at the Community Charter School of Paterson

The focus of the vibrant presentations and hands-on demonstrations for the CCSP students was on environmental and water engineering. Twenty-six volunteers, thirteen each from CH2M Hill and GMA, split into four teams, two focusing on water and two focusing on the environment, in order to provide back-to-back one-hour presentations on the two topics to multiple classrooms. The water teams described the value of water, where water comes from, how it is treated, and how much it costs. The teams also discussed the treatment technologies PVWC uses to treat Paterson’s water. Each class broke up into small groups to add coagulant to dirty water and apply the treated water to homemade filters made of sand and anthracite. The student groups each used different coagulant dosages to find the optimal dose. Before-and-after comparisons of water quality were displayed and discussed. The teams reviewed how much water a person uses per day and simple ways in which water can be conserved. When asked if the students would like the CH2M Hill group to come back again next year, one student exclaimed “Next year! We want you to come back tomorrow!”

The environmental teams described how our air, land, and water can be polluted and the ways in which environmental engineers clean it up. The 2010 oil spill in the Gulf of Mexico was discussed to demonstrate the potential environmental damage and the remedial methods being used. The students were particularly sensitive to the animals affected by the oil, either by swimming in the contaminated water or being unable to get their food. One student insightfully observed, “There will be no more fish for the fishermen to fish because all the fish will die…and then the fishermen won’t have a job…and the shrimp in the supermarket will be expensive because we won’t have a lot of shrimp to eat.”

The teams also provided a demonstration of an oil spill, using a Tupperware container with water, food coloring, and olive oil, and showed how spills can be remediated with booms. They showed examples of personal protective equipment and stressed that safety in all field work always comes first. One of the fifth grade students asked, “Why don’t they make Tyvek suits in kids’ sizes so that I can go down to the Gulf to help clean up the oil spill?”

Another discussion was about how engineers study groundwater and how they measure potential contamination. As an example, the teams used a bailer to collect water samples from the simulated oil spill. The groups also discussed key environmental topics.

(continued on back page)

Attention Licensed Operators

You can now pay your license renewal bill online. Go to http://www.nj.gov/dep/online and select Pay for a License (under Non-Registered Services). You must have your invoice number, license number, and credit card or checking account information available.

Check out the NJDEP’s Exams & Licensing website at www.nj.gov/dep/exams to get forms, exam applications, and find out information on training courses, licensing exams, license renewal requirements, tuition reimbursement, and more.
Collaborating to Inspire the Next Generation of Environmental Problem Solvers  

(continued from page 15)

such as pollution, and the important role engineers play in balancing the interests of industry and the environment. When asked if they liked science, most of the students responded with passion and excitement. One student exclaimed, “I love science!” and repeated that sentiment at the end of our presentation. Many students volunteered to help with the demonstration and were very interested in how they could help to ensure a better environment in the future. 

A New Generation of Environmental Problem Solvers is Born

Overall, the PVWC Little Falls tour and the CCSP engineering outreach were a few hours of action-packed fun, combined with learning that will hopefully stay with the students as they continue their education and begin to think about future career paths. The high school students grasped the importance and excitement that can come along with an engineering degree and the elementary school students understood the value of water and the environment and the importance of their personal and collective stewardship in protecting it. We all had a great time planning the events, working with the helpful GMA high school students, and interacting with the inquisitive third and fourth graders at the CCSP.

Students were given a glimpse into the wonders of engineering and how engineers can and do change the world for the better every day. We all walked away feeling very proud of our profession and very excited to have shared it with the next generation of problem solvers.

Albert J. Capuzzi is a Senior Project Manager, CH2M HILL Water Business Group.

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New Jersey American Water

We encourage and support varied and differing viewpoints that stimulate thought and discussion.

PIPELINE is the official publication of the New Jersey Section of the American Water Works Association. It is published three times a year.

Next Issue: Spring 2011
Deadline: April 30, 2011
Editor and Publications Committee Chair
Christopher Olson
New Jersey American Water
213 Carriage Lane, Delran, NJ 08075
Telephone: 856-824-2588
Email: Christopher.Olson@amwater.com
For address corrections please contact AWWA Customer Service at 6666 W. Quincy Ave., Denver, CO 80235, phone (303) 794-7711 or (800) 926-7337, email custsvc@awwa.org.