

## LETTER FROM THE CHAIR *By Stephen Blankenship*

“The Summit”

Over the last few years, I’ve had the privilege of attending AWWA’s summer workshops whose themes revolved around mountain climbing. The themes for the 2010 and 2011 Workshops were “Basecamp” and “The Ascent” respectively. This summer’s theme, as you may have already guessed, is “The Summit.” The workshop’s keynote speaker was Chris Warner, the founder and director of Earth Treks, Inc. (full service climbing centers specializing in rock and ice climbing instruction and international mountaineering expeditions). Mr. Warner is also the author of *High Altitude Leadership – What the World’s Most Forbidding Peaks Teach Us About Success* and a film maker.



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## IN THIS ISSUE

[LETTER FROM THE CHAIR](#)

[SUMMER 2012 RECAP](#)

[SCHOLARSHIP WINNERS!](#)

[“ORGANIZATION OF THE YEAR” AWARD!](#)

[7TH ANNUAL TURNING WINE INTO WATER EVENT](#)

[EMPLOYER SUPPORT AWARD](#)

[TRIUMPH BREWERY FOR A NIGHT!](#)

[PEOPLE HELPING PEOPLE](#)

[UNREGULATED ORGANIC CHEMICALS IN DRINKING WATER TREATMENT PROCESSES](#)

[RESIDENTIAL BACKFLOW](#)

[EPA RELEASES MEMO TO OK ELECTRONIC CCRS](#)

[78TH ANNUAL CONFERENCE](#)

[EVENTS FOR WATER FOR PEOPLE](#)

[VOLUNTEERS FOR HIGH SCHOOL OUTREACH PROGRAM](#)

[PART 2: “ENERGY EFFICIENCY – CHEAPER IN THE LONG RUN”](#)

[WELCOME NEW MEMBERS!](#)

[TIME FLIES](#)



## AWWA NJ Section – Water For People Committee – Summer 2012 Recap

*By Jane Kunka*

AWWA NJ’s 4th Annual “Run for Water” which included a 5K, one-half mile fun run/walk and toddler dash to benefit “Water For People,” was held on Saturday morning, July 28, 2012. The main event featured a 3.1 mile course, with a few challenging uphill areas, at the scenic Monmouth Battlefield State Park in Manalapan, NJ. The family-friendly event was open to all ages and fitness abilities.

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## The AWWA NJ Section Raises Over \$20,000 for Water For People at the 7th Annual Turning Wine Into Water Event

*By Sandra Kutzing*

The Water For People Committee of the AWWA NJ section hosted the 7th Annual Turning Wine Into Water event on September 14, 2012, at Laurita Winery to raise money for Water For People. The evening was a tremendous success and over \$20,000 was raised for Water For People!

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## AWWA and NJWEA YP’s Descend on Triumph Brewery for a Night!

*By Jordan Spitzer-London*

No water, no beer! A very solid premise, to be sure. And also the beginnings of the first AWWA/NJWEA Young Professional mixer. YP’s from all over the state converged on Triumph Brewery for a casual night of networking and a brewery tour, led by Triumph’s own master brewer.

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## UPCOMING EVENTS

**AWWA NJ INVITES YOU TO THE 78TH ANNUAL CONFERENCE**

March 19-21, 2013  
Trump Taj Mahal Hotel & Casino  
Atlantic City, NJ



## Letter from the Chair *(continued from page 1)*

I, like the other Section leaders at the workshop, looked forward to Mr. Warner's perspective on leadership and success. What I didn't expect was just how unique his perspective from the top of the world would be to those of us that live and work a lot closer to sea level!

Whether you work for a utility, consultant, vendor or a related organization you are part of the water industry. How does your organization define success or the "summit"? How does our industry?

Mr. Warner noted that mountaineering, like most businesses and organizations, defines success by results (i.e., did you make it to the summit?). He noted that after World War I, eight British teams attempted to summit Mt. Everest but were unsuccessful. In 1952, Swiss climbers came within 600 feet of the summit before turning back. In 1953, with 50 percent more climbers than the Swiss, the British were able to reach the summit.

So how does that feat relate to the challenges facing today's organizations? Mr. Warner contends that the early successes in making it to the summit of Mt. Everest revolved around the tools and resources utilized by each successive group making the attempt. In the case of the British in 1953, it was the ability to apply more resources. That is, an organization that can muster more resources or develop and/or engineer better tools can get a leg up on their competition.

Mr. Warner went on to discuss how better tools and engineering allowed for the commercialization of climbing Mt. Everest. With the right technology and resources, ordinary people could climb to the summit of Mt. Everest and return. With so many people now reaching the summit of Mt. Everest, the mountaineering community started to look for a more challenging alternate.

K2 became that alternate. In order to climb K2, the mountaineering community had to move to the next phase – a focus on core business processes. After all, in climbing Mt. Everest the community had already utilized "more resources, better tools and/or engineering." Now it needed to develop better business (or climbing techniques). An organization with knowledge of its core business processes can develop better business techniques (i.e., Kaizen methodologies, TQM, Balance Score-Card, etc.) and can "combine the right tool with the best technique to create value for its customers (or in this case mountain climbers)."

In 2007, after a two unsuccessful attempts to make the summit of K2, Mr. Warner set out once again as part of a 3-man team. At the same time, four other groups (28 total) and two individuals were also hoping to make the summit of K2. In climbing K2, the death to summit ratio is 35% (compared to 1.8% for Mt. Everest). In real terms, that meant that Mr. Warner and his companions had a one in three chance in not returning alive.

As the climb progressed, many obstacles and setbacks arose and the teams needed to overcome them. The groups, even though they were all technically capable, realized that in order to reach the summit, they needed to work together. After a lot of effort and teamwork, most reached the summit and "success" was achieved! But as conditions changed, Mr. Warner and his team realized that while they had a plan to reach the summit, they and the other teams didn't necessarily have a plan to get back down. The crucial teamwork and combined efforts utilized in reaching the summit quickly deteriorated on the descent. In the end, Mr. Warner made it back, but two people from the other teams died.

What happened? How did the elite climbing groups with the best tools and techniques unite to make it to the top of the summit but not stay together for everyone to make it back down safely? What changed the climbers' behaviors?

Mr. Warner argues that strong organizations need to focus on bringing out their team's best behaviors. He argues that organizations that focus on behaviors will succeed where others will fail. How organizations deal with behavior issues will in the end define their success or failure.

In his book, Mr. Warner discusses how the following "behaviors" can impede an organization's results:

**Fear of Death:** *Anxiety about fatal danger which causes someone to stop taking action.*

- Stops people from acting, taking risks or challenging the status quo
- Lack of decision making, inability to accept change

**Selfishness:** *Concern chiefly or only for oneself with a disregard for others.*

- Kills performance and projects, puts personal goals ahead of team goals
- Lack of support for others, me first or entitlement attitude

**Tool Seduction:** *Being seduced by the illusion that tools produce results instead of people.*

- Focus on tools instead of vital issues or processes
- Tools using the team instead of the team using the tools, failure to produce results

**Arrogance:** *Offensive display of superiority or self-importance, overbearing pride, overinflated worth or treating others as inferiors.*

- Team members that forget who their customers are or assume they know what is best for the customer
- Blind to emerging competition or processes
- Dominating, disrespectful or is above the rules

**Lone Heroism:** *A condition where someone thinks they have to do it alone, or save the day because no one else can or would do it right.*

- Glory seeker
- Person who thinks it is a sign of weakness to ask for help
- Creates problems that they can fix

**Cowardice:** *Lack of courage to face danger, difficulty, opposition or pain.*

- Team members that don't challenge the status quo of the group
- Not holding others accountable
- Not exposing weaknesses in the team or company
- Not telling the truth about how things are

**Comfort:** *A state of ease and satisfaction with wants, or seeking freedom from pain and anxiety.*

- False commitments to action
- Aversion, denial or silence with regards to real issues

So what is the lesson we need to take away from this? In theory, all organizations strive to reach the "summit" but that should not be the "only" step. The real goal should not just be reaching the "summit" (i.e., being the best in your field), but having a plan and team in place to ensure that your organization stays there. Reaching the summit takes a lot of hard work (planning, resources, tools and human effort); staying on top takes a lot more. An organization that addresses the behaviors noted above head on has a greater chance of reaching its goals and staying on top.

[MORE](#)

# AWWA NJ Section – Water For People Committee – Summer 2012 Recap

(continued from page 1)



**Start of the race at Monmouth Battlefield State Park**

Race day weather was overcast with bearable summer temperatures, slightly humid with predicted possibility of rain. It was a welcomed change compared to the two previous years when runners “baked” under the late July sun in 95 plus degree heat. Over 150 people participated to support the Water For People charity event, with some eager to attain new personal records. Runners and walkers were comprised of all different ages, shapes, sizes and speeds, but everyone toeing the start lines had a great time. A few wore highlighter neon kicks, some with matching, customized family tees and others sporting their favorite summer running wear.

Committee volunteers arrived early, set up water stops, tents and refreshments, prepared start/finish lines – complete with lane judges for accurate results, registered runners and kept participants encouraged and on time for the start of the races. Other volunteers worked behind the scenes, also setting up for pre and post-race activities. A DJ rocked the keyed-up crowd and kept onlookers current with racers and statistics.

Because of the generosity of participants and sponsors, the AWWA NJ Water For People Committee exceeded their fundraising goal, raising approximately \$4,300, which sets a record for this event and allows the committee to continue its important Water For People message – Everyone/Forever. Everyone means every family, every school and every clinic in a defined geographic region has access to improved water supplies. Forever means that a high level of water service is maintained for generations.



**Race participants show off their awards**

AWWA NJ also hosted the 4th Annual “Water For People” night at the Trenton Thunder Waterfront Park on Friday, July 20. Despite the weather’s attempt to play spoiler, several AWWA members and their families braved the rain and were treated to an 8 to 3 victory by the Reading Phillies over the AA Yankees Affiliate, the Trenton Thunder. Whether the outcome of the battle between rival cities suited your rooting preference, those who participated in the event helped to raise almost \$2,000 for Water For People, a huge success! Special thanks to our Home Run Sponsors, Aqua New Jersey & New Jersey American Water, as well

as to our Triple Sponsor, Howard J. Woods Jr. & Associates, LLC.

*Jane Kunka is the Public Affairs Manager for United Water Toms River and a member of the Water For People Committee.*



**Awards table**

## Letter from the Chair *(continued from page 2)*

How many people, companies and associations, including AWWA and our very own Section, strive to make “*The Summit*,” but don’t address what it takes to stay there (or get back down safely)? The future of your organization and our Section depends on all of us honestly answering these questions with an open mind.

For more information on Chris Warner’s book, *High Altitude Leadership* and his presentation, please visit the following links:

[www.ChrisBWarner.com](http://www.ChrisBWarner.com) and <http://www.vimeo.com/27866452>

*Stephen Blankenship is the Executive Director of the Hamilton Township MUA, the Director of Public Works for the Township of Hamilton and the Chair of the NJ Section.*

## AWWA NJ Section Congratulates its 2012-2013 Scholarship Winners! *ByCarolynn Zebrowski*

In May, the Student Affairs Committee reviewed applications and selected three very qualified recipients to receive \$2,500 scholarships for their interest in the water industry. These three bright young students were recognized at the Fall Conference awards luncheon on September 27.

### **Drinking Water Careers Scholarship**

Sarah Bauer is the winner of the 2012 Drinking Water Careers Scholarship, awarded to a full-time undergraduate student entering sophomore, junior or senior year at a New Jersey College or University or a New Jersey resident enrolled in an out-of-state school. Sarah is currently attending Rowan University and pursuing Civil and Environmental Engineering degree. She is expected to graduate in May of 2013. She is very interested in the environment, and has been working as a research assistant with a professor in the environmental engineering department since her freshman year. Her research has included growing microalgae for use as biofuel feed stock and microalgae enhanced nutrient removal from wastewater. She is also an assistant for the Engineers on Wheels Program and Attracting Women into Engineering Program at Rowan University. She is a member of the Society of Women Engineers, American Society of Civil Engineers, and Engineers Without Borders. In the future, Sarah would like to pursue a master's degree and doctorate in Environmental Engineering.

### **Drinking Water Family Scholarship**

Brandon Scott Goldfine is the winner of the 2012 Drinking Water Family Scholarship, awarded to a full-time undergraduate or graduate student enrolled in a New Jersey College or University or a New Jersey Resident enrolled in an out-of-state school, whose parent has an active AWWA New Jersey Section Membership. Brandon is currently attending the University of Delaware and pursuing a Civil Engineering Degree. He is expected to graduate in May 2013. Brandon began his college career as an accounting major, but soon realized that he was more interested in the science and math of making physical changes to the world, like building water and wastewater treatment plants. He attributes his interest in the water industry

to his upbringing in a household where protecting the environment was a regular discussion. He recently joined the American Society of Civil Engineers Student Chapter, and was intrigued by the variety of decisions that needed to be made for each project that was undertaken. As a result of his experiences with working as a project team, he has decided to pursue the University of Delaware's MBA program after he finishes his engineering degree to enhance his qualifications and provide greater understanding of what makes a project a reality.

### **Continuing Education Scholarship**

Christopher Walczyk is the winner of the 2012 Continuing Education Scholarship, awarded to a New Jersey high school student in his or her senior year that plans to attend a 2-year or 4-year college or other vocational/technical or trade school. Christopher is in his first year of undergraduate study at Rutgers University. He plans to pursue a degree in Civil Engineering with a focus on water supply. Christopher's interest in the water industry was inspired from a young age, through his mother's work as a consulting engineer in the water industry. His first hands-on experience with water treatment came when he was the head lifeguard at Minisink Pool Club, where he was responsible for regulating the pool chlorinators and maintaining the pools' pH levels. His interest in the water industry grew even more when he attended a summer engineering program at the University of Connecticut this past year. In one of his laboratory sessions, Christopher was given a murky, green-colored water sample, and cups of sand, gravel, pebbles and chemicals to use for treatment. The goal was to achieve the cleanest water possible in ten minutes. Christopher's water was the clearest of the group. During his college career, Christopher plans to become involved with groups like Water For People and Engineers Without Borders, where he hopes to use his skills to help people in poverty have accessibility to clean water.

*Carolynn Zebrowski is an engineer at Hatch Mott MacDonald and the Chair of the Student Affairs Committee.*

## United Water Toms River Received "Organization of the Year" Award! *ByJane Kunka*

United Water Toms River received the prestigious "Organization of the Year" award recently from the Toms River – Ocean County Chamber of Commerce. The award was made at the Chamber's 2012 Awards Reception at The View Restaurant at Eagle Ridge Golf Club. The annual event, which also marks the installation of new officers and directors, recognizes most significant people and organizations throughout Ocean County each year.

United Water Toms River was awarded in 2012 for being actively involved in the Chamber for many years, building lasting partnerships,

demonstrating leadership in corporate social responsibility, and being passionate about making a difference in the community it serves.

The Toms River – Ocean County Chamber of Commerce is located on Hooper Avenue, Toms River and operates a full-service information and referral center. One of the Chamber's primary goals is building a strong business future in Ocean County along with providing a full menu of services and benefits to over 850 members.

# The AWWA NJ Section Raises Over \$20,000 for Water For People at the 7th Annual Turning Wine Into Water Event

(continued from page 1)

New Jersey supporters of Water For People and the AWWA NJ Section did it again. The event sold out 3 weeks early this year with 195 people registered to attend and 21 sponsors! The Friday evening dinner involved a cocktail hour in the Tasting Room followed by a 4 course dinner with wine pairings in the Dining Room. The keynote speaker this year was Doug Spencer from Water For People who spoke about real impact and results from Water For People's work and the organic spread of Water For People's approach. Thanks to donations mainly from AWWA NJ Section members, the New Jersey Water For People Committee "won" a visit from a Water For People representative by raising the most money and "friends" during the Crowdrise Challenge back in March/April 2011. Doug was highly impressed with the Section's event and attendance. He noted that he thought it was the "nicest fundraising event" put on by a Section that he has attended.

As the attendance and support from Section members increases every year, so does the quality of the silent auction items. This year we had 50 silent auction items including some donated items and some items on consignment. The donated silent auction items included items such as wine baskets, jewelry, autographed books, football and hockey tickets, a box at



**Bird's eye view of the event**

the Monmouth Park Racetrack, a weekend at a beach house, a 32" LCD TV, and much more. Special consignment items included signed album covers by Bruce Springsteen and the E-Street Band and Frank Sinatra and a Sylvester Stallone signed boxing glove just to name a few. A total of \$6,200 was raised from the silent auction alone.

A special thank you to all of our 21 sponsors who are listed on our website [www.waterforpeople.org/nj](http://www.waterforpeople.org/nj).

To see all photos from this event, please visit [www.waterforpeople.org/nj](http://www.waterforpeople.org/nj).

We are very interested in hearing feedback and ideas for next year. Please contact Erika Taylor at [Erika.Taylor@amwater.com](mailto:Erika.Taylor@amwater.com) or Sandra Kutzing at [kutzingsl@cdmsmith.com](mailto:kutzingsl@cdmsmith.com) with any feedback or questions regarding the Turning Wine Into Water event.

*Sandra Kutzing is a Project Manager at CDM Smith and the Past Chair of the Water For People Committee.*



**Silent auction table**

## HMM Wins the Employer Support Award By Carol T. Walczyk

At the Fall Conference this year, Hatch Mott MacDonald was awarded the 2012 Young Professional Employer Support Award. The award recognizes employers that support their employees' growth and development process through continuing education, involvement in National and New Jersey Section AWWA activities, participation in AWWA NJ committees, and encouraging publications in professional and technical journals and presentations at conferences. This is the fourth time that HMM has received this award.

*Carol Walczyk is a Senior Project Manager at Hatch Mott MacDonald and the Secretary-Treasurer of the NJ Section.*

**Section Chair Steve Blankenship and Membership Services Committee Past Chair Hetal Mistry Award HMM's Paul Paparella with the Employer Support Award.**



## AWWA and NJWEA YP's Descend on Triumph Brewery for a Night!

(continued from page 1)

After the tour, all were gathered for some light eating and good conversation. The goal of all of this, of course, was to bring all sides of a vital, but relatively invisible industry together. Sharing knowledge, sharing laughs were all part of the game plan, as will be a repeat performance.

Throughout the evening, conversations ranged from post-superstorm Sandy recovery efforts to which carbonated beverage was best. Business cards were exchanged, new connections made, and a good time was had by all. Both the NJWEA and AWWA YP's have plans to promote more networking mixers like these in the future. There was a palpable sense of camaraderie and community by the end of the evening, everyone leaving with a bit more knowledge and a few more business cards.



AWWA and NJWEA YP's enjoying themselves at Triumph Brewery

## Volunteer and Make a Difference – “People Helping People”

By Mike Furrey

On January 4, 2013, Agra Environmental and Laboratory Services closed the business for a day and volunteered to help out with Hurricane Sandy Relief at the Jersey Shore. With our fifteen employees and a few close associates, we were able to lend a hand to the Ortlely Police Station, providing demolition to an extremely damaged municipal building. Some of us helped remove sand and debris from a homeowner's front yard in Lavallette, NJ, and we finished the day by removing debris in the hardest hit area of Seaside Heights.

It was surreal seeing first-hand the scope and magnitude of the devastation caused by Superstorm Sandy. We all walked away shaking your head in disbelief and a broken heart for those impacted by the storm. Although all of us needed to take a few Advil that night to recover from a hard day of work, everyone left that day with a sense of pride knowing that they helped out in a small, but meaningful way.

The NJ Section of AWWA is planning a Volunteer Day, and I am urging all of you to volunteer your time and efforts to helping out the fellow citizens of our great state of NJ. The NJ Section AWWA is looking to set up a day in April 2013. More details will be available at the Annual Conference so look out for word about this great event.

If you are interested in lending your time to this cause, please reach out to me at [mfurrey@agra.us](mailto:mfurrey@agra.us) or pick up the phone and call me at (973) 989-0010 to learn more about this Section effort. I will get you in contact with the right people to make a difference. I will guarantee you that this will be a rewarding experience and will help promote our great water industry in the State that we love...JERSEY!!!!

*Mike Furrey is an AWWA NJ Trustee and President of Agra Environmental and Laboratory Services*

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# Research Update – The Fate of Unregulated Organic Chemicals in Drinking Water Treatment Processes

By John Rouse (Brick Township MUA), John Dyksen (United Water), Laura Cummings (PVWC), Dr. Judy Louis (NJDEP), Dr. Lee Lippencott (NJDEP), Catherine Spencer (Black & Veatch)

## Introduction

Unregulated organic chemicals, some of which may be potentially harmful to human health, are used every day in New Jersey (NJ) for residential, commercial, and industrial purposes. Based on occurrence studies, a number of these man-made chemicals have been detected in wastewater treatment facilities, receiving waters, aquifers and drinking water treatment facilities. Various organic chemicals detected in raw waters include pesticides, pharmaceuticals and personal care products (PPCPs), flame retardants, and other industrial and household use chemicals. Many of these chemicals have been found to be endocrine-disrupting compounds (EDCs). State and Federal agencies, environmental groups, and the public are raising concerns regarding these trace organic chemicals in water as emerging contaminants of interest.

The New Jersey Department of Environmental Protection (NJDEP), in conjunction with the New Jersey Drinking Water Quality Institute (NJDWQI) is considering potential options for addressing these emerging contaminants (such as EDCs, PPCPs, and others) in drinking water. In 2005, NJDEP funded a literature review which was conducted by Black & Veatch to review and summarize existing information on the efficacy of treatment technologies for reducing concentration levels of emerging contaminants and to identify the most efficient technologies for treating contaminants of interest from both surface and ground water sources used for drinking water supplies throughout NJ. As a result of this literature review project, funding was requested through the Water Research Foundation's (WaterRF) tailored collaboration program to determine the fate of emerging contaminants through full-scale drinking water treatment facilities that partnered with the **State and US Geological Survey (USGS) New Jersey Water Science Center**. This full-scale project also was funded by the NJDEP and by several water utilities in NJ who participated in the sampling program.

This collaborative research effort was coordinated by Black & Veatch beginning in 2009. The primary objective was to obtain full-scale unit operation performance data for the removal of unregulated contaminants (PPCPs, flame retardants, pesticides, and antibiotics) at ambient levels identified in drinking water supplies from a variety of full scale conventional and advanced water treatment processes used by the participating utilities. A secondary objective, characterization of the relationship between upstream inputs and the detection of contaminants, evolved as the project progressed. The presence of National Pollutant Discharge Elimination System (NPDES) permitted surface water discharges and other non-point source anthropogenic influences on raw water had a significant effect on the number of compounds detected in raw waters. The more wastewater inputs per square mile (upstream of drinking water intakes) of watershed, the greater the detection of compounds in the raw water in this study.

The project design included the following tasks:

- Obtain watershed (POTW discharges) and process data from four surface water treatment plants in NJ that utilize a variety of water sources and treatment processes.
- Model each plant hydraulically to permit sampling at appropriate residence/detention times for each sequential process in the treatment train at that facility.
- Conduct four sampling events at each plant over the course of the project duration;
  - Two sampling events were conducted during wet weather events with sources well above mean annual discharge or full reservoir elevation.
  - Two sampling events were conducted during extended dry weather periods when sources were well below mean annual discharge or full reservoir elevation.
- Determine treatment process contaminant removal/degradation efficiencies at each facility by collecting samples from the raw water, each unit treatment process, and finished water, at the appropriate detention time interval to track the compounds' fate through each water treatment plant.
- Evaluate the removal capabilities of treatment processes for the 105 compounds analyzed using three different United States Geological Survey (USGS) methods which were conducted at the national water quality laboratory.
- Analyze, discuss, and summarize the preliminary laboratory results to determine how each unit treatment process performed at each of the four facilities and if the unregulated compounds of similar chemistry responded to the treatment process with predictable fate and transport mechanisms.

## Watershed Influence

The unregulated contaminants observed in the raw source waters included a broad spectrum of synthetic organic chemicals. The contribution of wastewater influence within the watershed correlated with the number of unregulated contaminants identified. Table 1 presents a summary of synthetic organic chemicals detected in each water source through each sampling event as well as the number of wastewater treatment facilities and permitted discharges per square mile of delineated watershed.

| Source | POTW/<br>sq. mile | NPDES/<br>sq. mile | May<br>2010    | August<br>2010 | March<br>2011 | July<br>2011 |
|--------|-------------------|--------------------|----------------|----------------|---------------|--------------|
| A      | 0.055             | 0.39               | 8 <sup>1</sup> | 5              | NA            | NA           |
| B      | 0.29              | 2.04               | 8              | 5              | 9             | 18           |
| C      | 0                 | 0                  | 1              | 0              | 1             | 2            |
| D      | 0.0068            | 0.24               | 1              | 1              | 3             | 8            |

<sup>1</sup>Numbers for sampling date represents the number of compounds detected at that source on that date.

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## Research Update – The Fate of Unregulated Organic Chemicals in Drinking Water Treatment Processes *(continued from page 7)*

### Treatment Results and Discussion

For the majority of these unregulated contaminants, negligible removal efficiencies for the coagulation/flocculation and filtration unit operations were observed at all participating facilities. Of the thirty seven (37) compounds detected during sampling, only two (2) were appreciably (>75%) removed during coagulation while twenty (20) were removed at less than twenty five percent (<25%). Of the thirty two compounds (32) detected during sampling, only four (4) were appreciably (>75%) removed by filtration.

The Ozone oxidation/disinfection unit operation was an effective treatment for removal, degradation, or transformation of many of the unregulated organic compounds. The twelve (12) compounds which were transformed by ozone at greater than 90% efficiency, are in the chemical class/group of heterocyclic (ring structure containing elements other than carbon, e.g. Pyridine) or aromatic (ring structure containing unsaturated conjugated double carbon bonds, e.g. Benzene) compounds. Only two compounds, both chlorinated phosphate esters, resisted some reaction with ozone.

Of the twenty eight (28) compounds detected prior to activated carbon adsorption, eight were consistently removed at 75% efficiency or greater, they included; anthracene, pyrene, fluoranthene, isophorone, 9, 10 anthraquinone, indole, bromacil, triphenyl phosphate and camphor. Nine (9) unregulated compounds were not well removed by activated carbon, threshold was 25% or less removal efficiency. Three poorly adsorbed compounds were aliphatic compounds (long chain hydrocarbons) with carboxylic acid, alcohol, or halogen functional groups – tributyl phosphate, tris (2-chloroethyl) phosphate and tris (dichloroisopropyl) phosphate. Post filter GAC adsorption exhibited better removal than filters with activated carbon (GAC filter adsorbers).

Most of the compounds are removed during treatment, but there are some compounds that resist transformation or removal and are often present in the finished water, these include; caffeine, DEET, and flame retardants tris (2-chloroethyl) phosphate, tris (dichloroisopropyl) phosphate, and tris (2-butoxyethyl) phosphate. While these compounds were found in the finished water of the participating utilities, the sum concentration of these compounds typically was less than 300 nanograms/liter (parts-per-trillion). While ozone, advanced oxidation, and GAC type processes are generally effective for many of the compounds as well as in other research reported in the literature, it is important to note that there are a few specific compounds that are not efficiently removed by these processes. Specifically, the highly oxidized phosphate ester flame retardant compounds and the skin applied insect repellent DEET resist oxidation or adsorption unit processes.

The full scale operational observations from the plant profiles that were assessed in this research provide support to observations in numerous bench and pilot scale studies regarding the efficacy of ozonation and GAC

for removing most of the unregulated organic chemicals of concern. Results also suggested a potential role of biological filtration as a supplement to these processes. Observations in the literature that biological filtration can remove compounds with biodegradable properties (ozonation byproducts), support this suggestion.

### Conclusions

Both point source discharge and non-point source watershed influences determine the presence of unregulated organic chemicals in surface water that is treated for potable use. The two river water sources were influenced by upstream NPDES inputs and POTW effluents and had three to nine times more raw water compounds detected than the raw surface water sources which had few or no direct NPDES permitted inputs. The land use classification within the watershed is also a risk factor – the more highly urbanized watersheds typically demonstrated a greater number of unregulated chemicals in the raw sources.

Water utilities presently face a dilemma when trying to proceed with planning for treatment of these types of compounds. Drinking water treatment systems are designed for the effective disinfection of delivered product and gross removal of precursory material and byproducts of this process. Engineering unit operations that can effectively reduce ultra trace levels of polar organic synthetic chemicals was never a requirement of the design consideration at these participating facilities. Only advanced analytical techniques are capable of detecting these compounds in the source water and they serve as sentinals or indicators of the overall health and vulnerability of the watershed as a whole. While a general public awareness of organic contaminants has emerged, the levels found in drinking water are very low (in the parts per trillion range), and it is unclear at this time what the public health implications are at these concentrations. From a regulatory perspective, evaluations of the need for regulation have been initiated, but have not advanced to the point where a clear intent can be deduced. Therefore, while there is a general concern on the part of the public, definitive scientific and regulatory direction is lacking.





# Determining Vulnerability and Occurrence of Residential Backflow

By Orren D. Schneider, Zia Bukhari, David Hughes, Kala Fleming, Mark W. LeChevallier, Paul Schwartz, Patrick Sylvester, and J.J. Lee

The following brief discusses a project focused on residential backflow prevention.

## OBJECTIVES:

The primary objective of this project was to identify the most effective technologies available for rapidly detecting residential backflow events. A secondary objective was to recommend placement of monitoring devices for backflow.



## BACKGROUND:

Design and operation of drinking water distribution systems typically requires that pressure of >20 psi be maintained in all locations under all flow conditions including fire flow events. At this pressure, the risk of backflow is low. Even as these requirements are met, events can produce abrupt changes in flow conditions causing low or negative pressures for brief periods of time (transient surges), thereby increasing the risk of backflow. Pumps turning off, sudden changes in demand (for example hydrant opening and closing), and changes in valve position are all examples of events that can alter the flow conditions producing low or negative pressure surges. Increased susceptibility to low or negative pressures is considered an indication of increased susceptibility to backflow. System size, operating pressure, source water, system configuration, pump operation, and the number of distribution system storage facilities have all been shown to have some impact on the susceptibility of a distribution system to pressure transients.

Utilities generally deal with backflow by requiring customers that have the potential for introducing contaminants into the distribution system to install cross connection control devices concomitant with the degree of hazard. However, for typical residential customers, no cross connection control devices are required. At present, the occurrence of backflow from residences is unknown.

## APPROACH:

Several different approaches were examined to determine vulnerability and occurrence of residential backflow in distribution systems. The first step was to determine what operational variables and physical characteristics make distribution systems vulnerable to pressure transients that can allow backflow to occur. Next, available technologies that can be used to detect backflow were screened and the selected technologies were evaluated in field and pilot testing. Based on the results of the second step, the third step was to evaluate how these different types of sensors can be placed most

effectively in a distributions system. The fourth step was to provide some general approaches for responding to backflow.

## RESULTS/CONCLUSIONS:

Several examples of commercially available hydraulic and water quality monitors were found. Hydraulic monitors were classified as either direct or indirect. Direct hydraulic monitors are capable of detecting actual flow reversals while indirect hydraulic monitors detect the possibility of backflow. Water quality monitors were investigated for their ability to detect the possibility of backflow. Direct hydraulic monitors and water quality monitors were tested.

### Indirect Hydraulic Monitors

Several types of indirect hydraulic monitors were identified, including high speed pressure monitors that can detect pressure transients that may lead to backflow, and acoustic leak detection systems that can detect where groundwater may intrude into the distribution system under negative pressure transients. These monitors were not tested for this project because they have been tested as part of Foundation projects “Continuous System Acoustic Monitoring – From Start to Repair” (project #3183, ongoing) and *Susceptibility of Distribution Systems to Negative Pressure Transients* (order #91148, 2006)

### Direct Hydraulic Monitors

At the start of this project, only one example of a direct hydraulic monitor was located. This was a standard water meter, referred to as a backflow sensing meter that had been equipped with an electronic feature that determined if the net flow of water over a given time period was negative. The meter stores negative readings until retrieval by an Automatic Meter Reading (AMR) system.

Data were analyzed from backflow sensing meters installed at residential accounts in four distribution systems. Meter placement was made based on several approaches – blanket, random, and strategic. The blanket approach placed meters at every service connection. The random approach scattered meters throughout the distribution system. The strategic approach placed meters at locations identified by hydraulic surge modeling that are susceptible to low or negative pressure transients and some meters were also placed in locations not identified by the surge models. One system used the blanket approach, one used the random approach, and two used the strategic approach.

**MORE**



## Determining Vulnerability and Occurrence of Residential Backflow *(continued from page 9)*

Data were collected from the meters over several months. On average, backflow of at least 1 gallon (over a 15-minute period) had an occurrence rate of 1.6% each month (698 occurrences in 42,735 monthly meter reads); approximately 5% of the meters recorded at least one backflow during the testing period (518 of 10,313 meters installed).

Backflow measurements were not consistently correlated to locations predicted to be vulnerable to low or negative pressures. Furthermore, backflow incidents were often detected in locations thought to be less vulnerable.

### Water Quality Monitors

Pilot tests were conducted using a pipe loop outfitted with a variety of online water quality monitors. Three platform types (panels, probes, and sondes) were tested with eight different parameters (pH, Oxidation Reduction Potential [ORP], free chlorine, temperature, pressure, conductivity, turbidity, and total organic carbon). The monitors tested were capable of detecting very small changes in water quality due to surrogate contaminant spikes. Free chlorine and ORP had the greatest responses to the spiked compounds; TOC was very responsive to organic matter, while conductivity was only marginally responsive to inorganic compounds. Turbidity and pH showed only marginal responses to the spiked compounds.

### Conclusions

The original premise of the research was that surge models would assist in identifying many locations susceptible to backflow caused by planned (e.g., pump operations) and unplanned (power failures and main breaks) distribution system operations. The project's main finding from the backflow detecting meter data is that backflow events occur in many areas other than those thought to be vulnerable to surges.

Pilot testing of online water quality monitors showed these monitors are capable of detecting very small changes in water quality. However, at present, data analysis techniques may not be powerful enough to allow differentiation of small changes in water quality due to backflow from the normal variations in water quality.

Backflow of water from residences into distribution systems is probably more widespread than currently thought and is thus a potential public health concern for the water industry. Analysis of data from backflow sensing water meters has shown that backflow events occurred at a rate of 1.6% of residential services each month, with 5% of homes registering a backflow each year. Due to the enormous number of service connections in the United States, it is not practical to install backflow prevention devices on every connection due to the economic and administrative hurdles of inspection and reporting each device on a yearly basis as is required for commercial/industrial service connections. Instead, the installation of backflow prevention devices should be limited to those service connections where backflow could present a potential public health hazard as determined by a sanitary survey for cross connection control.

### APPLICATIONS/RECOMMENDATIONS:

The use of backflow sensing meters is probably the best available technology for determining residential backflow occurrence. Backflow sensing water meters could easily be used across the distribution system as they are only marginally more expensive than standard water meters. If circumstances prevent installing all of these meters at a single time, random placement of the meters can still give good indications of backflow events. While surge modeling can detect areas of distribution systems that are vulnerable to low or negative pressure transients, field testing has shown that backflow can occur in areas that are thought to be less vulnerable to these transients.

Online water quality meters are very sensitive to small changes in water quality. However, because baseline distribution system water quality can have wide variations (operational, seasonal), current data analysis techniques cannot differentiate small changes in water quality caused by backflow from normal water quality variations. Nonetheless, these online water quality monitors are still very useful for understanding variations in distribution system water quality and for early warning systems at sensitive locations (hospitals, schools, government installations, etc.).

Based on the analysis of backflow sensing meter data, it is apparent that residential backflow occurs on an infrequent but regular basis (1.6% per month). Thus, utilities need some guidance on how and when to respond to customer meters that record a backflow. A sample response protocol is given in Chapter 6. It should be noted that during this project the researchers received anecdotal reports of meter tampering, including customers removing meter heads, using magnets to alter readings, and even reversing meters. Thus, it would be prudent to thoroughly investigate the possible causes of a recorded backflow before confronting customers with accusations of tampering.

While this research has found that residential backflow does occur on a regular basis, it was still only performed in four distribution systems. Thus, it found that a potential problem exists for the water industry, but a more thorough survey should be performed to get a broader sense of how often backflow occurs and, if possible, determine the volumes of water that interchange between residences and the distribution system.

### RESEARCH PARTNER:

U.S. Environmental Protection Agency

### PARTICIPANTS:

Golden State Water, Contra Costa Water, and The Neptune Technology Group participated in this project.  
<http://www.waterrf.org/PublicReportLibrary/3022.pdf>



## EPA Releases Memo to OK Electronic CCRs By Kevin Watsey

The U.S. Environmental Protection Agency (EPA) recently released a memorandum explaining how a drinking water utility's annual Consumer Confidence Reports (CCRs) may be sent to customers electronically or how customers could request that they be sent electronically. Under the new rules, paper CCRs must still be sent to customers to request them or if a utility is aware of a customer's inability to receive the CCR electronically.

Acceptable delivery methods are as follows:

- Traditional land mail: the utility mails a hard copy of the Consumer Confidence Report to each bill-paying customer.
- Traditional land mail, but with a notice that the CCR is available on a website: such a mail notice must have a clearly marked URL that goes directly to the complete CCR.
- Utility e-mails web address to its CCR: the utility e-mails to each bill-paying customer a notice that the CCR is available and provides a URL that goes directly to the CCR on a publicly available website. A URL that goes to a site where a customer has to search for the CCR or enter additional information is not acceptable.
- E-mail CCR as an attachment to an e-mail: the utility e-mails the CCR as an electronic file attachment in pdf, for example.
- E-mail with the CCR as an embedded image or text: the utility e-mails the CCR text and tables inserted into the body of an e-mail.
- Additional electronic delivery that meets the "otherwise directly deliver" requirement of the Safe Drinking Water Act.

The memo also discusses other important considerations that utilities and primacy agencies must consider, such as how to organize opt-in and opt-out lists. In all instances, paper copies must be provided to those who request them, and a phone number provided to facilitate such requests.

The regulatory oversight of electronic delivery will occur at the primacy agency level. Therefore, utilities should contact their primacy agencies for information on how they will be implementing this interpretative memo, as there will likely be some variability state to state. AWWA-sponsored research has indicated that up to 44,000 trees and \$20 million will be saved nationally per year through electronic delivery, resulting from reduced paper use and reduced printing and postage costs.

Small-system waivers and good faith requirements to reach consumers who do not receive a bill are not affected by this memo, although it is possible that primacy agencies may modify their use of these tools as electronic delivery is implemented.

AWWA will be hosting a webcast Feb. 20 on CCR electronic delivery to discuss the details of the interpretative memo and two examples of how utilities will be implementing electronic delivery. Please visit the AWWA website for more information.

*Kevin Watsey is the Government Affairs Manager for New Jersey American Water*

## Have an Idea for Research?

Let us know and we will help get it to the Water Research Foundation. Just fill out this short form and e-mail it to the section manager, [mona@njawwa.org](mailto:mona@njawwa.org). A member of the Research and Technical Transfer Committee will contact you for more details.

Name \_\_\_\_\_

Phone Number \_\_\_\_\_

E-mail Address \_\_\_\_\_

Issue/Research Idea \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

May someone from the Research and Technical Transfer Committee contact you?  Yes  No

**SUBMIT**

Name \_\_\_\_\_

Phone Number \_\_\_\_\_

E-mail Address \_\_\_\_\_

Issue/Research Idea \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

May someone from the Research and Technical Transfer Committee contact you?  Yes  No

**SUBMIT**

# AWWA NJ Invites You to the 78th Annual Conference

## March 19-22, 2013

### Trump Taj Mahal Hotel & Casino

### Atlantic City, NJ

#### Information. Knowledge. Networking. Fun!

AWWA NJ's 78th Annual Conference will take place March 19-22, 2013 at Trump Taj Mahal Hotel & Casino in Atlantic City. This is the event where you can earn credits toward your NJ water operator's license and NJ or NY PE licenses, get the latest look at products and services for the water industry, network with colleagues and friends about what's happening around the New Jersey water community, and have fun while you're at it!

#### "Revitalizing Our Assets, Planning for Our Future"

This year's theme is all about asset management and how we can and should be planning for the financial and operational viability of our water systems and the communities we serve. It's also about one of our most valuable assets – PEOPLE. It is essential to AWWA NJ to continually invest in our most valuable assets, our members, so we hope you will join us for more than 60 technical sessions, a pre-conference workshop, tradeshow, and other networking and knowledge-sharing opportunities.

## TECHNICAL PROGRAM OVERVIEW

The full and detailed technical program will be posted on our website after January 15, 2013. Approved TCHs, CPCs and PDHs will be posted on our website after February 1.

### TUESDAY, March 19, 2013

|                    |   |
|--------------------|---|
| 12:55 pm – 4:15 pm | Pre-Conference Workshop: "Asset Management" |
|--------------------|---|

### WEDNESDAY, March 20, 2013

|                     |  |
|---------------------|--|
| 8:45 am – 10:15 am  | Three Concurrent Sessions: Regulatory Issues, Treatment, Asset Management        |
| 10:30 am – 12:00 pm | Three Concurrent Sessions: Regulatory Issues, Treatment, Distribution            |
| 1:30 pm – 2:30 pm   | Three Concurrent Sessions: Post-Sandy Operations, Groundwater, Regulatory Issues |
| 2:45 pm – 3:45 pm   | Three Concurrent Sessions: Jersey Strong, Storage, Design/BIM                    |

### THURSDAY, March 21, 2013

|                     |  |
|---------------------|--|
| 8:45 am – 10:15 am  | Three Concurrent Sessions: Asset Management & IT, Treatment, Knowledge Sharing |
| 10:30 am – 12:00 pm | Three Concurrent Sessions: Asset Management, Disinfection, Safety              |
| 1:30 pm – 2:30 pm   | Three Concurrent Sessions: Distribution, Treatment, Small Systems              |
| 2:45 pm – 3:45 pm   | Three Concurrent Sessions: Distribution, Modeling, Storage                     |

Detailed information about the 78th Annual Conference is available on our website at [www.njawwa.org](http://www.njawwa.org).

## IMPORTANT DEADLINES

#### February 8: SUPER-SAVER Registration

- Registrations must be completed online or postmarked by February 8th to take advantage of SUPER-SAVER rates.

#### February 8: Exhibitor Pre-Registration

- After February 8th exhibit space will be subject to availability

#### February 26: Hotel Reservations

- Make hotel reservations at Trump Taj Mahal by February 26th to get special conference rates of \$79/night sgl/dbl. Go online at <http://www.njawwa.org/conference/hotel> to book through our website, or call Trump Taj Mahal at 1-800-825-8888 and be sure to use group code: ANJWW13.

#### March 1: Early Registration

- Register by March 1 to save before LATE registration fees go into effect!

[MORE](#)

# AWWA NJ Invites You to the 78th Annual Conference *(continued from page 12)*

## CONFERENCE AT A GLANCE

| TUESDAY, March 19   | WEDNESDAY, March 20                                   | THURSDAY, March 21                                     | REGULAR FEATURES GOING ON DURING THE CONFERENCE   |
|---|---|--|---|
| Exhibitor Setup<br>(10:00 am – 4:00 pm)                       | 5K Fun Run/Walk<br>(6:00 am – 7:00 am)                | Interfaith Breakfast<br>(7:00 am – 8:00 am)            | <b>Conference Monopoly!</b> Complete tasks at the conference, earn ‘monopoly’ dollars to spend in the Bookstore   |
| Pre-Conference Workshop<br>(12:55 pm – 4:15 pm)               | Exhibits Open<br>(8:00 am – 4:00 pm)                  | Exhibits Open<br>(8:00 am – 1:30 pm)                   |   |
| Opening Session & Keynote Address<br>(4:45 pm – 5:45 pm)      | Concurrent Technical Sessions<br>(8:45 am – 12:00 pm) | Concurrent Technical Sessions<br>(8:45 am – 9:45 am)   | <b>Section Bookstore</b> – buy some of AWWA’s top selling publications and Section-branded novelties  |
| Meet & Greet Reception in Exhibit Area<br>(5:45 pm – 7:45 pm) | Student Poster Sessions<br>(8:45 am – 12:45 pm)       | Vendor Appreciation Coffee<br>(9:45 am – 10:30 am)     |   |
|   | Lunch & Tank Building Contest<br>(12:00 pm – 1:30 pm) | Concurrent Technical Sessions<br>(10:30 pm – 12:00 pm) | <b>Water For People Drop in the Bucket Auction</b>  |
|   | Concurrent Technical Sessions<br>(1:30 pm – 3:45 pm)  | Lunch in Exhibit Area<br>(12:00 pm – 1:30 pm)          |   |
|   | Operators Bowl<br>(4:00 pm – 5:30 pm)                 | Concurrent Technical Sessions<br>(1:30 pm – 4:15 pm)   | <b>Membership Booth:</b> check your membership status, or join AWWA and start tapping into the value of membership!   |
|   | YP Speed Networking Event<br>(5:30 pm – 6:30 pm)      | Annual Awards Reception<br>(6:00 pm – 10:00 pm)        |   |
|   | Hangin’ at the Signature Club<br>(9:00 pm –)          |  | Additional details, including the full technical program, speakers, room locations and more, is available at <a href="http://www.njawwa.org/conference/program">www.njawwa.org/conference/program</a> |
|   |   |  | <b>PLUS – Don’t hit the road on an empty stomach... join us for the Farewell Breakfast on FRIDAY MARCH 22 from 8:00 am – 9:30 am.</b>   |

## CONFERENCE SPONSORS & EXHIBITORS TO DATE

Support from our Conference Sponsors and Exhibitors is what helps to make the Annual Conference a success! AWWA NJ is pleased to announce, and thank, the following companies for signing up to be Sponsors and Exhibitors for the 78th Annual Conference! There is still time to sign up as an Exhibitor – please visit [www.njawwa.org/conference/exhibitor](http://www.njawwa.org/conference/exhibitor) for details and to download a registration form.

### CONFERENCE SPONSORS (as of January 7)

|                              |                                  |   |
|------------------------------|----------------------------------|---|
| Aqua New Jersey*             | H2M Water*                       | Pyrz Water Co                                 |
| Buck Seifert & Jost**        | Hatch Mott MacDonald**           | Raritan Group                                 |
| Birdsall Services Group*     | Hazen & Sawyer PC*               | Tasco Associates-A Koester Associates Company |
| CDM Smith*                   | Middlesex Water Company          | United Water*                                 |
| CH2M Hill*                   | Mueller Co.                      | Van Note-Harvey Associates*                   |
| CME Associates               | National Metering Services, Inc. |   |
| Coyne Environmental Services | New Jersey American Water**      |   |

### EXHIBITORS TO DATE (as of January 7)

|                                 |                             |   |
|---------------------------------|-----------------------------|---|
| Aqua New Jersey*                | GP Jager/Lonza              | Primary Flow Signal, Inc                          |
| Avante International Technology | H2M Water*                  | Pyrz Water Co                                     |
| Birdsall Services Group         | Hach                        | Raritan Group                                     |
| CME Associates                  | J.T. Seeley & Co, Inc       | Riordan Materials Corp                            |
| Coastal Technical Sales, Inc    | Lowell Corp                 | Suburban Consulting Engineers                     |
| Coyne Environmental Services    | Maser Consulting            | Tank Industry Consultants                         |
| Fleet Pump                      | Mueller Co                  | Tasco Associates-A Koester Associates Company     |
| Garden State Laboratories, Inc  | Mueller Systems             | Underwriters Laboratories Utility Service Co, Inc |
| GP Jager/SolarBee               | Municipal Maintenance Co    | Van Note-Harvey Associates*                       |
| GP Jager/H2O Controls           | New Jersey American Water** | Water Remediation Technology, LLC                 |

# New Year and Upcoming Events for Water For People By Michael Johnson



Happy New Year everyone! What a year it has been. As everyone recovers from the challenges of 2012 that some are still feeling, our hearts and thoughts go out to those affected. During this time, I think we all can agree that the reliability of our resources is important, not just power but also water. Being able to access safe reliable water is a core goal for Water For People. It is not something that Water For

People says, it is what we do and want to provide transparency to all those that support or would support Water For People's goal. Field Level Operations Watch (aka FLOW), uses Google Earth software to display the real time status of water and sanitation points. It shows our proof of progress, our successes, and even our setbacks. At anytime, you can visit FLOW and see the status of a project, this is our way of meeting our sustainable goals and transparency to our supporters. Try it out, <http://watermapmonitordev.appspot.com/>



It may still be winter but it doesn't stop us from looking ahead to spring. And it is time once again for Water For People to turn its efforts to the American Water Works Association (AWWA) – New Jersey Annual Conference to be held in Atlantic City, NJ on March 19-22, 2013. As in past years, Water For People will be hosting a Drop in the Bucket Auction held during the conference. Vendors donate items that are displayed at the conference and Water For People sells raffle tickets to patrons who can win some great prizes. If you would like to participate and donate an item, whether you attend the conference or not, the only requirements are that the item be worth more than \$75 and you notify us by Friday, March 8. If you would like to participate or have additional questions, you can contact Mike Weller ([MWeller@USPIPE.com](mailto:MWeller@USPIPE.com)).



To get you into the mood for warmer weather, Water For People will be putting on various events that you can participate or sponsor at. If golf is your thing, then consider attending or sponsoring at the May 6, 2013 Golf outing to be held at the Royce Brook Golf Club, Hillsborough, NJ. For attending or sponsoring, you can contact Carmen Tierno ([carmen.tierno@amwater.com](mailto:carmen.tierno@amwater.com)).

Kick-start your new year's resolution off by planning to run the fifth annual Run For Water 5K, Manalapan, NJ. The date and time are being confirmed but look for it at the end of July. The 2012 version was our best fundraising effort for this annual event and the 2013 version is shaping up to be a great one. If you would like more information about attending or sponsoring, you can contact Michael Johnson ([msj@bsjinc.com](mailto:msj@bsjinc.com)).

Voluntary spring training for pitchers and catchers is February 12. This means baseball season is around the corner. Consider attending or sponsoring at the Trenton Thunder Water for People night on August 2. For more information about attending or sponsoring, you can contact Nick DeVecchis ([nicholas.devecchis@amwater.com](mailto:nicholas.devecchis@amwater.com)).

# Student Affairs Committee Seeks Volunteers for High School Outreach Program By Carolyn Zebrowski

The Student Affairs Committee is starting a new initiative to introduce and excite New Jersey high school students about careers in the water industry. This outreach program will include school visits for one-hour presentations that include a power point, a short video, personal stories about the water industry from the presenter, and questions from the audience. A flyer is currently being developed to advertise this program to high schools throughout the state of New Jersey. Guidance counselors, science teachers, and program coordinators will be able to contact the Committee to schedule presentations for their students.

The Committee would like to prepare a list of volunteers who would be willing to speak at local high schools, should they request a presentation. If you are interested in being included on the "High School Outreach Program" Volunteer list, please contact Carolyn Zebrowski at [carolynn.zebrowski@hatchmott.com](mailto:carolynn.zebrowski@hatchmott.com) or (732) 333-3267.

## Part 2: Effective Utility Management “Energy Efficiency – Cheaper in the Long Run” Conducted at the Middlesex Fire Academy February 13, 2012

Spurred by sustainability and budget goals, many in the water industry have embraced implementing a variety of operational improvements and capital modifications to reduce energy costs. Some have resisted these efforts due to the initial capital investment required. This seminar provides an in depth look at the energy efficiency measures that water systems are implementing and what the results have been. Participants will hear from the USEPA, municipalities and professionals in the field of energy optimization to provide information you can apply to your utility. A breakout session will be held to allow participants to work in groups to apply the knowledge gained to a case utility; findings will be shared among seminar attendees.

Find out more and register at: [www.njawwa.org](http://www.njawwa.org)

### Presentations:

- **Energy Efficiency Best Practices for Utilities** – Vanessa Leiby, Cadmus Group
- **Utility Case Study of Energy Use and Savings** – Mike McDonald, American Water
- **Energy Saving from Process Optimization** – Russell Ford, CH2MHILL
- **Energy Savings – A Water Utility Perspective** – John Dyksen, United Water
- **Planning and Executing Your Energy Audit** – Joe Cantwell, SAIC
- **Creating New Revenue with Grid Balance at Treatment Plants** – Daryl Letto, ENBALA
- **Bidding Energy Supplies for Cost Savings**
  - **Private Water Utility Perspective** – Brett Bower, American Water
  - **A Public Water Utility Case Study** – Brandon Fowler, Enstrat Analytics
- **Ensuring a Sustainable Future: EPA’s Energy Management Guidebook for Water Utilities** – Andy Kricun, Camden County Utilities Authority, and Juan Gutierrez, USEPA
- **Group Exercise** – Identify Energy Saving Measures at A Utility, facilitated by Andy Kricun and Juan Gutierrez

### Who Should Attend?

Superintendents, managers, capital/operations budget planners, operators, engineers, consultants, municipal or regional government officials, and anyone interested in making their facilities more energy efficient. Don’t miss out!

### Registration Fee:

\$45.00 per person for AWWA members, \$55.00 for nonmembers, and is free for full-time, university-matriculated students. Registration fee includes continental breakfast, lunch and any handouts or proceedings. Register online at [www.njawwa.org](http://www.njawwa.org)

### Continuing Education Credits:

#### GET YOUR TCH’s and PE Credits

This course is approved for 5.5 TCH’s for the following licenses (S,C,T, W and VSWS); Professional Engineer Credits (NJ PE, NY PE)

## Welcome New Members!

AWWA NJ is pleased to welcome the following new members, who joined AWWA between August 1, 2012 and December 31, 2012.

If you know these folks, please extend an additional ‘hello’ and welcome them to AWWA – the world’s largest association for water professionals!

|                   |                   |                   |                  |                      |
|-------------------|-------------------|-------------------|------------------|----------------------|
| Harry Aber        | James Carson      | Michael Fischbach | Jim McGivern     | Chitra Raghav        |
| Ronald Anastasio  | Sean Casey        | Jonathan Glennon  | David Melnick    | Johnny Rodriguez     |
| Linda Berridge    | Thomas Coates     | Frederick Gross   | Firuz Mir        | Steve Rowles         |
| Stiven Bissainthe | Anthony DeCicco   | Veronica Kero     | Edward Nace      | William Ryden        |
| Barry Braunstein  | Angelo Dell’Amrmo | LANXESS Sybron    | Stephen Nardelli | John Shockley        |
| Emil Bravo        | Danilo Diaz       | Chemicals Inc.    | Paul Neumann     | Salvatore Signorelli |
| Stephen Brescia   | Dan Dietz         | James Little      | Anthony Petecca  | Zafar Syed           |
| Ronald Busacco    | Andrew Doyle      | Thomas Lombardi   | Kevin Pope       | Daniel Watters       |
| Raffaele Carchia  | Daniel Esser      | Jaime Lowrey      | Steve Przybylski | Anthony Zampella     |
| Joseph Carr       | David Fackler     | Cassandra Malone  | Joseph Psota     |                      |

## Time Flies..... *By Stephen Blankenship*

By the time this issue of *Pipeline* is released, there will only be a few months left in my reign of terror...I mean as Chair of the Section. It doesn't seem that long ago that I was joining the Board as a Trustee. However, I would be remiss if I didn't take a moment to thank all of the Trustees and Chairs I've had the pleasure of serving with over the last few years, especially the members of this year's Board of Trustees.

To **Kevin Watsey**, I've enjoyed your feedback and "public relations" perspectives on the issues we've discussed and debated. A special thanks for inviting me out for a great round of golf in Denver last summer. Hopefully, we'll make it back out in the future and get a few rounds in.

To **Dave Tanzi**, you are someone the Chair can always count on, and I counted on you a lot. I think of you as a "stealth" Trustee, a bedrock and someone who is very methodical and thorough.

To **Howard Woods**, the ultimate statesman, a Trustee that always gives a thoughtful opinion on issues facing the Board and Section. When Howard speaks, people listen.

To **Mike Furrey**, someone who brings a free spirit and breath of fresh air to every board meeting. As the Section's "counter culture", keep on truckin'!

To **Carol Walzyck**, another very organized and methodical person – great traits for a Secretary-Treasurer. Carol brings a lot of historical knowledge to our meetings. I'm not sure if there is a committee that she hasn't served on or provided support to.

To **Dave Scheibner**, a great whitewater rafting partner. Dave, if you make it out to Denver for ACE this year, we'll have to try another river and see if we

can get in a few baseball games. Good luck on your move up to Secretary-Treasurer.

To **Frank Moritz**, who else am I going to commiserate with on local government operations? Frank, thanks for all of your hard work as Director and for helping to stock the Chair's room at the annual conference over the past few years.

To **Carol Storms**, you left a tough act to follow and big shoes to fill. Thank you for all of your guidance and suggestions over the past year. I can only hope my term went as well as yours.

To **Dennis Ciemniecki**, the jazz man, hopefully the next time you get to Montreal you find a decent jazz club and one that takes debit or credit cards – I'm glad you came back with the cash! Thanks for all of your assistance over the past year. You've done a great job working with the Conference Committee to prepare for this year's conference. I have supreme confidence in your abilities and look forward to your leadership next year.

To **Mona Cavalcoli**, you are the Section Manager extraordinaire! I've enjoyed working with you during my time on the Board, especially this past year as Chair. The Section is lucky to have someone with your background and experience in AWWA. I look forward to working with you in the future.

### ....WHEN YOU ARE HAVING FUN!

I definitely had a lot of fun over the past year. As I, and those before me, have said many times, the NJ Section of AWWA is a great organization and great place to develop both personal and professional relationships. Once again, I would like to thank you for the honor of allowing me to serve as the Section's Chair over this past year and to interact with all of our wonderful members.

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