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The Official Magazine of the Central States Water Environment Association, Inc.



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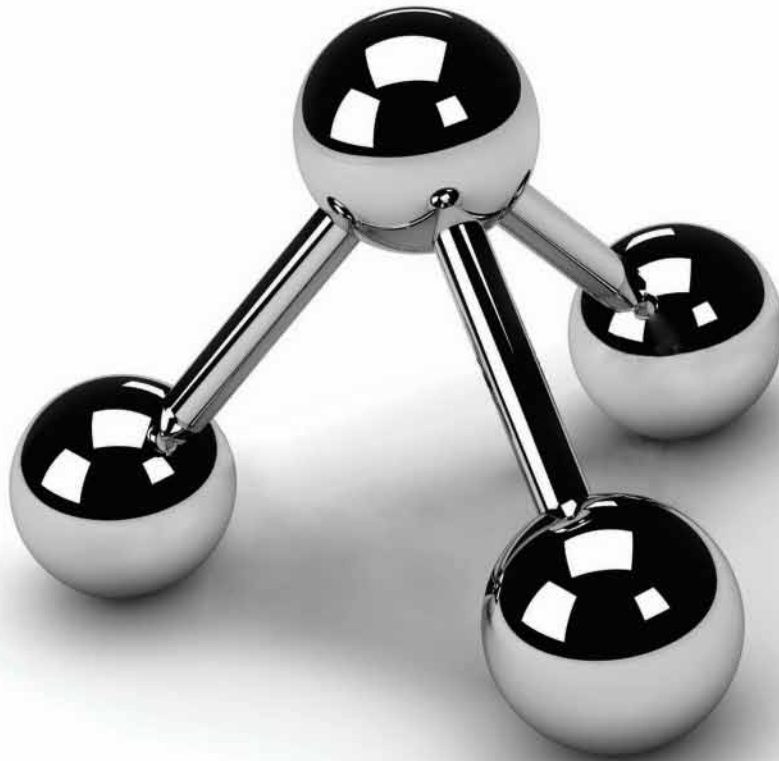
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What a Great Meeting!

By Ralph B. (Rusty) Schroedel

When I started coming to Central States meetings in the 1970s, I could not help but be impressed by the knowledge exchange and networking opportunities presented through this wonderful association. To be counted among so many distinguished and outstanding professionals who have served as president of Central States is truly humbling. I promise to work hard to maintain the quality and excellence that has been the hallmark of our association for all of these years.

As the 82nd Annual Meeting closed on May 21, I could not help but think about how the meeting seems to just get better and better each year. It will again require diligent effort by next year's Local Arrangements Committee to match or exceed this year's event. Congratulations to Dean Wiebenga, Chair, and Deb Ness, Co-Chair, and the entire Local Arrangements Committee (Gary Scott, Rich Hussey, Laurie Riotte, Gregg Buchner, Sue Baert, Adrian Pino,

“Our success will be based upon ensuring our committees are active and connected at the state section, association, and federation level.”

Steve Pieptke, Eric Lecuyer, Tim Tack, and Ron Johnson). The Lincolnshire Marriott was an excellent venue and the weather cooperated for essentially the entire week.

The convenience of the golf course on site was beneficial, but not to my golf game. A great time was had by 64 golfers who enjoyed a fun course. Gary Scott did an outstanding job with all of the arrangements including golf, lunch, and gratuities. Thank goodness it included a sleeve of balls! Despite a brief very light sprinkle, the golf event was a complete success.

The Technical Program Committee once again assembled an outstanding series of presentations on relevant, important topics. Thirty-eight presentations were given under topic headings such as aeration systems, hydraulics/instrumentation and control, collections

and storm water management, solids processing, nutrient removal, nitrification and nitrogen removal, wet weather storage and treatment and management. I personally found several of the presentations particularly unique and interesting. I am also pleased we were again able to get the student presentations into our program. I continue to be impressed with these young people and their efforts. Thanks to Dan Busch for his efforts with the students. It gives me great confidence in the future of our profession with these future participants in our industry (and hopefully our association). Thank you to Beth Vogt and the rest of the Technical Program Committee (Steve Ruesser, Bill Boyle, Pavel Hajda, Jason Benson, and Scott Fronek) for maintaining the excellence



of this critical element to the success of the conference.

The exhibit area was in a unique setting that worked out incredibly well. Rich Hussey did an outstanding job of working with all of the exhibitors to assure they received all they needed to make their investment worthwhile. With 66 exhibitors, the space was sold out. Please remember, the exhibit fees support a substantial portion of the annual meeting costs, so be sure to thank those who exhibited and encourage them to continue their support

of Central States. The short talks at specific booths added to the opportunities to learn at the meeting. Please also be sure to thank our sponsors for both the golf and for the conference itself. This source of revenue helps support the conference and shows great support for our organization.

The Tuesday night social event was very enjoyable. (And, no, I did not request bowling.) Several levels of skill were on display with plenty of food and beverages to make the evening complete. The banquet on Wednesday

was also thoroughly enjoyable. If anyone had told me I'd be arm-in-arm with other members, on stage, singing "Hey Jude", I would have told them they were crazy. But, a great number of us did just that. After a nice cocktail hour and superb dinner, entertainment was provided by Glo-Glee Music's Dueling Piano Show. They thoroughly engaged the audience who enjoyed the music, humor, and sang along, again at varying levels of skill. What memorable entertainment!

I must particularly thank our Executive Director, now appearing to be the entire Lecuyer family. Only when you are on the board do you begin to appreciate the tireless and exceptionally well organized efforts of Eric. His wife Anne is not just support but takes notes at many of our meetings and helped at the registration desk. Their wonderful daughters helped throughout the conference. Our heartfelt thanks go to all of them for a job well done. We are an efficient and effective organization providing great benefits to our members in great part due to Eric Lecuyer. Thanks.

All committee members at the state section and association level are invited to participate in our annual CSX event, to be held on July 16 and 17 at the Kalahari in the Wisconsin Dells. Many of the improvements in our organization are the rest of the brainstorming done at past CSX meetings.

We will continue to succeed and grow through active committees and active new members. Two years ago, then President Dennis Lindeke encouraged everyone to get just one new member. Last year, Tim Tack suggested growing our students and Young Professionals Committees. As I suggested at the banquet, our success will be based upon ensuring our committees are active and connected at the state section, association, and federation level. I plan to work with the committees, as well as the students and Young Professionals, to improve and enhance communication, cooperation, and action. This will encourage our future leaders to become even more active and engaged.

With your help, we can continue to serve our members and grow with active members. I am honored to serve as your president and look forward to working with you to improve and advance our already exceptional association. [CS](#)

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Stimulus Funds

Eric R. Lecuyer




Congratulations to all involved in presenting our 82nd Annual Meeting. It was a wonderful and memorable annual meeting reflective of our outstanding association, Central States. Please be sure to thank our many sponsors and exhibitors and return the support they have consistently provided for our association, with your patronage.

One of the outcomes of the 82nd Annual Meeting was the realization by folks who attended several of the technical sessions that digester foaming has become more of a problem in recent years. Through the interaction and sharing of information that can only occur at an event such as our annual meeting, facility managers and operators came to understand that the problems they may be facing with digester foaming are not unique and are much more widespread than previously understood. Jeff Brochtrup has taken the lead in starting a working group of interested facility operators and managers, engineers and academics to study this concern, with the hope of coming to understand the causes of digester foaming and ultimately prevent this severe operational problem. More information will be available via e-blasts with the intention being that this working group will meet in the near future to begin identifying common traits that may be causative to the problem. CSWEA will facilitate this working group by communicating progress, research needs and providing meeting information to those interested. Please feel free to drop me an email at cswea@gmail.com if you would like to be included in this workgroup.



Perhaps the most timely speaker at our 82nd Annual Meeting was our Farewell Breakfast speaker from USEPA Region Five, discussing the process, rules and procedures for the distribution of stimulus funds. Julie Henning is a financial analyst with Region Five and her presentation titled "Understanding ARRA Requirements in the State Revolving Fund" focused on the many intricacies of the program, including the goals of the American Recovery and Reinvestment Act and the many obstacles created within the act. This funding program sounds like a windfall and the beginning to putting folks back to work and renewing our critical water and wastewater (sorry "Clean Water" and "Drinking Water") infrastructure. For perspective, in Illinois alone, IEPA Revolving Fund administration office has been inundated with over 1,500 applications for ARRA funds, with projects totaling over \$6 billion, \$2 billion more than the ARRA program has in funding nationwide! Wisconsin and Minnesota share similar experiences, with thousands of applications for limited funds.

There is no doubt that each of those 1,500 Illinois projects for which applications were submitted is an important project for the applicant. In fact, many of those projects are critical to the sustainability of the utility that applied for funding. It is unlikely that agency officials working under the pressure of getting projects funded, under contract or in construction by the February 17, 2010 deadline, will be able to review 1,500 applications, let alone rank those projects as they best meet the goals of the program. Hopefully your project receives funding and you will be able to successfully navigate the many requirements of the program. We are even more hopeful that the objectives of the stimulus program take effect, getting people back to work and our economy on the road to recovery. 



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82nd Annual Meeting Award Winners

Laboratory Analyst Excellence Award

This award recognizes individuals for outstanding performance, professionalism and contributions to the water quality analysis profession. This award was established in 1993 and our winner this year is:

- **Mark R. Zimmerman**,
City of Janesville, WI

William D. Hatfield Award

The William D. Hatfield Award is presented to operators of wastewater treatment plants for outstanding performance and professionalism. The award was established in honor of Dr. William D. Hatfield, superintendent of the Decatur, IL, Sanitary District, who was president of the Central States Sewage Works Association in 1944-46 and served as president of the Federation of Sewage & Industrial Wastes Associations in 1958-59. From 1946 to 1954 this was a Central States award presented to recognize the best annual treatment plant operating report and now is awarded in recognition of outstanding professional service in both facility operations and public education.

This year's winner is:

- **Dan Busch**,
Green Bay Metropolitan Sewerage Dist.

George W. Burke, Jr. Facility Safety Award

Recognizes an active and effective safety program in municipal and industrial wastewater facilities. This year's winner is the:

- **Western Lake**
Superior Sanitary District

Arthur Sidney Bedell Award

Acknowledges extraordinary personal service to a member association.

This year's Bedell Award Winner has served in many roles as a leader in CSWEA and within the Minnesota Session, including serving as president in 2004-2005. He has continued to serve the association beyond his presidency as committee chair and as a mentor to those who have followed him. Your Bedell winner is: **Jim Roth**

Quarter Century Operators Club

Acknowledges a quarter century of service and dedication to the water environment profession.

- **Rick D. Pace**, Racine, WI

WEF Service Awards

Presented to CSWEA members who have served as a past director to the federation, as a director at large, or as a committee chair, or MA president.

- **Robert Clavel**, WEF Delegate '04-'07
- **Tim Tack**, CSWEA President, '08-'09

CSWEA Service Awards

Ken Sedmak (WI Trustee, '07-'09),
Howard Jacobson (PWO '07-'09),
Jay Kemp (Education Seminar Chair, '07-'09), **Dan Busch** (Student Committee Chair '06-'09)

Operations Award

The Operations Award is given in recognition of outstanding wastewater treatment plant operation (one operator per year for each of the member states of the Central States WEA).

- Minnesota Section: **Darsey Thoen**
City of Moorhead, MN
- Wisconsin Section: **Paul Christensen**
City of Fort Atkinson, WI
- Illinois Section: **Ralph Pfister**
Yorkville-Bristol Sanitary District, IL



Mark Zimmerman



Dan Busch



Rick Pace



Tim Tack



Howard Jacobson



Jim Roth



Ken Sedmak



Darsey Thoen

Collection System Award

The Collection System award is presented to an association member from each section in recognition of outstanding contributions in advancing collection system knowledge and direct or indirect improvement in water quality.

- WI Section: **Ron Dickrell**
Marshfield Wastewater Utility, WI
- MN Section: **Todd Carlson**
City of Duluth, MN

Industrial Environmental Achievement Award

This award is presented to an industry in recognition of outstanding contributions in waste minimization, pollution prevention, environmental compliance and environmental stewardship.

- **SunOpta Ingredients, Inc.**
Cambridge, MN
(Accepting is Loren Larson)

Young Professional of the Year Award

Established in 2007, this award recognizes the contributions of young water environment professionals for significant contributions to CSWEA and to the wastewater collection and treatment industry. This year's winner is: **Rachel M. Lee, PE**

Bill Boyle Educator of the Year Award

Established in 2007, this award recognizes accomplishments in the education and development of future water environment professionals by educators at all levels, from primary grades through graduate students. This award honors Professor William C. Boyle, a Professor Emeritus of Environment Engineering at the University of Wisconsin, Madison where he served as mentor to many CSWEA members. Beyond his role as educator, researcher and mentor, Bill Boyle has served the Central States Water Environment Association throughout his career as a tireless promoter of ongoing education and training and a facilitator of many successful technical programs and events. We are pleased to present this year's Educator of the Year award to:

- **Professor Max Anderson**
University of Wisconsin, Platteville

Academic Excellence Award

This award is presented to an annual meeting host state college or university student selected by their professor for having exhibited outstanding academic career. This year's winners have been

judged to be outstanding students in the water environment field. In addition to this plaque, CSWEA awards a \$250 cash scholarship award, one-year paid student membership and complimentary registration to this annual meeting.

- **Petia Tontcheva**
University of Illinois,
Urbana-Champaign
- **Kathryn Weissman**
Illinois Institute of Technology

Student Design Competition

The design competition is intended to promote "real world and hands-on design experience" for students interested in pursuing an education or career in water or wastewater engineering. Teams select a design problem with judges choosing the best overall design concepts and presentation of a solution. This is our Third Annual Student Design competition and the winning team will be sponsored by CSWEA and complete at the WEF Design Competition at WEFTEC '09 in Orlando, FL. In addition to award certificates, the winning teams receive a cash scholarship of \$300 for the students and a matching \$300 to the student chapter.



Paul Christensen



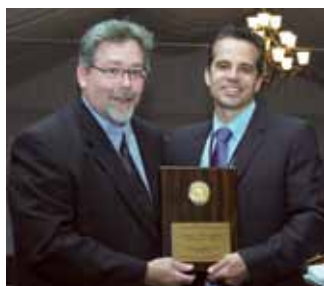
Ralph Pfister



Ron Dickrell



Todd Carlson



Loren Larson



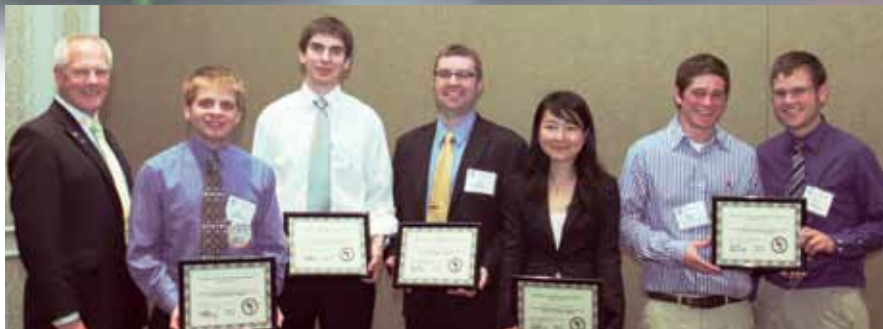
Rachel Lee



Max Anderson



Kathryn Weissman



U of W Madison Team



U of M Engineers Without Borders Team

University of Wisconsin, Madison:

Joshua Gable, Nick Bartolerio, Daniel Bauknetch, Michael Sargent, Kevin Ziolo and Hiroko Yoshida

Advisor: **Jae (Jim) Park**

Project: **The Application of Co-digestion in Madison, WI**

New in 2009, CSWEA has established a second category for the Student Design Competition for "Humanitarian Projects" that focus more on bringing safe drinking water and sanitation to people around the world. We are pleased that WEF has added a similar category as well, allowing our Humanitarian Winner to compete at WEFTEC in Orlando and receive scholarship awards from CSWEA as well:

University of Minnesota,

Engineers Without Borders:

• **Adam Both, Eric Hettler, Steve Hankey and Grete Schmale**

Project: **Water Supply in Rural Uganda**

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Daniel A. Busch Central States Water Environment Association's William D. Hatfield Award Winner for 2009

Submitted by Thomas W. Sigmund, PE, Executive Director GBMSD

Dan has been a long-term and valued employee at the Green Bay Metropolitan Sewerage District (GBMSD) in the area of operations. Dan's demonstrated passion for excellence at GBMSD and in the wastewater profession resulted in him winning the Hatfield award for 2009. Dan has been a very active leader in his 34 years of service with GBMSD and with professional organizations such as the Central States Water Environment Association (CSWEA) and the Wisconsin Wastewater Operators' Association (WWOA).

Dan has hired the best staff in treatment and maintenance and has encouraged that staff to strive for excellence. Dan promotes active involvement in professional organizations and continuing education of his staff to better develop their leadership skills; providing great benefit to the effectiveness and efficiency of operation at GBMSD. A measure of those efforts was receipt by GBMSD in 2008 of the National Association of Clean Water Agencies Platinum Peak Performance Award recognizing



Adam Zabinski presents Dan Busch with the Hatfield Award at the 82nd Annual Meeting.

five years of 100% compliance with all parameters in GBMSD's various permits.


Borrowing from an article in the WWOA Clarifier discussing his recent honorary membership in WWOA, Dan is described as someone who is willing and able to explain the scientific portions of our business in very practical terms for all to understand. Dan has served as a coach to not only employees with GBMSD, but also to individuals in Wisconsin and beyond. There are always positive and

complimentary words that come out when Dan's name is mentioned. There are only five others who have attained the status of honorary membership in the 43 years of WWOA.

Dan has been an esteemed employee of the Green Bay Metropolitan Sewerage District (GBMSD) since 1974, when he became a plant operator. Dan furthered his career at GBMSD by accepting new challenges with several leadership positions, and currently, as director of operations. Dan approached every role with enthusiasm, professionalism, and leadership. Prior to his career in the wastewater industry, Dan served on active duty in the United States Navy.

With Dan's leadership over the past 34 years, the GBMSD has been recognized at both the state and national levels as an efficient, well-run operation. This has been confirmed by competitive rates and numerous awards.

Dan has served on numerous committees concerned with wastewater treatment operation and regulation at the local and state level alike. In addition, he has participated in and has been the leader of both professional organizations and environmental groups. For over five years Dan held the position of Environmental Projects Manager, who was responsible for aspects of environmental compliance in the areas of air emissions, hazardous waste, solid waste, and WPDES permits. Dan also managed construction projects related to environmental compliance, developed pollution prevention programs for mercury, and led efforts to develop an EMS program for the National Biosolids Partnership.

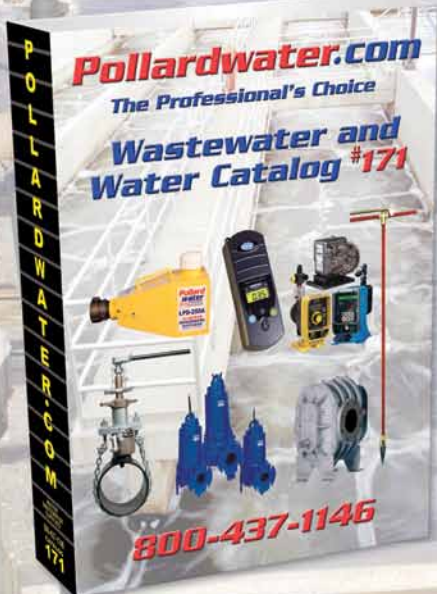
Dan is an operations professional who manages the operations and maintenance of the GBMSD with vision, allegiance, and pride. GBMSD is fortunate to have Dan as their director of operations. Dan graduated with a Natural Resource degree with emphasis in soil science from the University of Wisconsin-Stevens Point. He worked 1.5 years as a soil scientist with the Department of Agriculture before finding his professional home at GBMSD. 



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2009

Student

DESIGN COMPETITION

CSWEA will be sponsoring two teams to compete in the Student Design Competition at WEFTEC '09 in Orlando, Florida this October. CSWEA has created a two-category competition for the Student Design Competition, the "Classic Engineering" category and the newly introduced "Humanitarian Project" category. WEF has also adopted a second design competition category, allowing CSWEA to sponsor two teams again this year. Winners of the CSWEA Design Competition were able to re-present their projects at the 82nd Annual Meeting and be recognized for their excellent projects.

Winners of the "Classic Design" Competition is the team from the University of Wisconsin, Madison, comprised of Nick Bartelerio, Daniel Bauknecht, Joshua Gable, Michael Sargent, Hiroko Yoshida and Kevin Ziolo for their project titled: The Application of Co Digestion in Madison, Wisconsin and Its Surrounding Communities. Following is a summary of the project.

The City of Madison, Wisconsin is home to one of the largest and cleanest university campuses in the United States. Unfortunately, the iconic university comes at a high price. The large beautiful

academic buildings demand lots of energy; the operational and environmental costs of the Charter Street Coal Plant are on the rise. Waste collected on the pristine campus has to go somewhere; the Dane County Landfill is rapidly filling its available real estate. Unfortunately, these are two problems the university and city can no longer ignore. However, there is a feasible solution. Much of the current land filled waste is composed of organic matter. This organic fraction of the municipal solid waste (OFMSW) happens to have a great potential for biogas generation. The biogas can be used to generate heat and electrical energy.

For this reason we are proposing the implementation of a large scale collection and digestion system. We plan to assist the Madison Metropolitan Sewer District (MMSD) with the design of additional anaerobic digesters. These digesters will operate at the Nine Springs Wastewater Treatment Plant. OFMSW can be diverted from the Dane County Landfill and brought to Nine Springs. The OFMSW will be mixed and anaerobically digested with Nine Springs' sewage sludge. Energy generated will sustain plant operations. Additional energy generated will be

returned to the city of Madison. Nine Springs will effectively double as a both a wastewater treatment plant and a dependable energy source for the city. This will offset many of the rising costs of living in the Madison area. The final design and report will include an upgraded residential solid waste collection system and methods for accommodating high strength industrial organic waste. It will also detail methods of pre digester storage and treatment of waste. All designs will be made to interface with current systems at Nine Springs and will take into account the expansion of the MMSD service area and community participation in waste separation from the present time until year 2030.

Winners of CSWEA's new "Humanitarian Project" Category is the Engineers without Borders team from the University of Minnesota, consisting of Adam Both, Steve Hankey, Grete Schmalte for their project titled: Water Supply in Rural Uganda. Following is a summary of that project:

The Hope Integrated Academy (HIA) is supported by the Uganda Rural Fund, a registered 501 © (3) non-profit in Mulobere, Uganda. The Uganda Rural Fund is an all volunteer organization whose

mission is to develop productive and sustainable communities by empowering children who are orphaned, needy, or marginalized. The Hope Integrated Academy currently serves students from the nearby community but would like to expand its facilities. Currently the school houses 125 students, 12 teachers and a handful of international volunteers. In addition to the school, HIA hosts 100+ students for afterschool program and 160+ women involved in local women's groups. Capacity at HIA is limited by their ability to provide water and sanitation services. To fulfill their vision, HIA plans to expand to serve as a secondary school, vocational school, computer center, and health clinic and will provide education to over 500 children and community members during the day. It will serve as an overnight residence for 300 of the students, mainly AIDS orphans, as well as for school staff within the next two to five years

The only water sources near the school are stagnant ponds that fluctuate with the seasons. Testing during initial assessment trips have shown the ponds to be biologically contaminated. In June 2008, the Engineers Without Borders chapter at the University of Minnesota (EWB-UMN) provided a rainwater harvesting system for the school as an initial water solution addressing the immediate water needs. This system provides 5L of water per day to 250 people throughout the year. In order for the school to operate properly as a learning facility and orphanage, an expanded clean water supply must be available to students, staff, and community members.

Local sanitation practice is using pit latrines which are both unsustainable and an ecological threat to the local groundwater. During the June 2008 implementation trip, EWB-UMN constructed a pilot scale 2-stall dry composting toilet with hand washing station which could be expanded to adequately serve the school and protect the environment while enhancing soil fertility through safe composting. The toilets were met with moderate success but also encountered problems with the younger users. To be a realistic solution, the system has to be modified and expanded.

The University of Minnesota chapter of Engineers Without Borders is partnering with the Uganda Rural Fund to design

and implement a locally sustainable water supply for the Hope Integrated Academy and the Mulobere community and a sustainable alternative to the current sanitation practices. The systems will not only meet the existing needs of HIA but will also be designed to sustain the school when it is built to capacity. Overall, the design objectives for this water project are: **1)** A sustainable water system to provide for up to 500 people. **2)** The necessary water treatment. **3)** A distribution system to provide access to water throughout

the school grounds. **4)** A sustainable sanitation system to serve up to 500 people.

Each winning team was presented with award certificates as well as cash scholarship awards totaling \$300 to each team with a matching \$300 awarded to the Student Chapters, as well as expenses paid attendance to the 82nd Annual Meeting and WEFTEC '09. Be sure to follow the progress of our Student Design teams as they compete at WEFTEC '09 in Orlando this October. [CS](#)

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Thinking Differently

By Bill Bertera,
WEF Executive Director

No one is talking any longer about whether we have a recession or even when it is going to end. We have one and no one knows when it is going to end. That means that we are in for a prolonged period of turmoil and uncertainty and that is always unsettling. Getting through hard times requires a different mindset than skating along when the sailing is easy. Although water and wastewater constitute essential services that no one can do without, we are not and will not be immune from the vagaries of the marketplace.

It is often said that everything is about politics, and it may be, but everything is also about economics. The downturn in the economy with its implications for



Lots of fine models have gone by the wayside over the years simply because there were too many choices for the market to sustain.

consumption and tax and fee generation reverberate directly on the utility community. Even when utility revenues remain strong, they are not politically separate from the politics of weakening municipal budgets and so get caught up in the maelstrom.

There are things we in the water and sanitation association community can do to ease the pressure on our members, but it requires thinking differently about the sometimes unthinkable. A market which has historically tolerated duplication, inefficiencies and even mindless competition among multiple overlapping associations is about, one suspects, to become considerably less forgiving. We need to think differently.

A place to begin thinking differently in the water sector is to examine the growing number of membership choices offered to a marketplace that is not growing and which does not have limitless resources. In short, there are too many associations ministering to and depending upon the same membership bases and corporate support to be perpetually sustainable. In good times, specialization is a luxury the market can and does support, even if unenthusiastically, but in difficult times, it

causes members and supporters to make choices among associations competing for their scarce resources.

In good times, multiple and duplicative memberships may be rationalized or even justified by a myriad of non-financial considerations, but in hard times, those soft arguments hit the hard reality of dollars and cents economics. It is true for individual members, utilities, governments, exhibitors, advertisers, sponsors and the list goes on. In truth, in the water community, there have been rumblings for years at the plethora of associations serving the same membership base, the inefficiencies of duplicative meetings and publications and the mixed public policy messages of organizations representing the same interests.

Naturally, each of us hopes that our association will be the one that our members choose to stick with as they, by necessity, limit their memberships and support. And those associations that have paid attention to their mission, their management and their marketplace will be the ones that will most likely survive. But good management and service alone does not guarantee endurance. Look at the auto industry. Lots of fine and even extraordinary

models and even companies have gone by the wayside over the years simply because there were too many choices for the market to sustain. We are there now in the water community.

In the last six months, at least three new national water-related associations have been founded here in the United States. Each of them has identified a market for their existence, but in each instance that market is not a new or bigger pie but a piece of an existing pie. Water and wastewater and all the technologies and interests in between continue to insist upon unique and separate identities to tell the same stories (with variations on a theme) and the result is more associations, unclear and conflicting messages, inefficiencies and public policies that encourage underfunded infrastructures.

It is time for the water association community to come together in the interests of our members, the utilities and corporations we serve, and the publics our members serve. If we do not, those publics, members and markets are going to decide for us and their choices may or may not be reasoned. Things could get ugly. [CS](#)

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Voluntary Plant Maintenance Technologist Certification Program

By Gary Scott

Effective plant maintenance is a key component to every treatment facility's commitment to compliance, and this program is designed to cover all facets of treatment plant maintenance



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The Water Environment Federation (WEF), in cooperation with the Association of Boards and Certification (ABC), has developed a *Voluntary Plant Maintenance Technologist Certification Program* for drinking water and wastewater plant maintenance personnel. Central States Water Environment Association (CSWEA) is excited at having been accepted as a Charter ABC member in this new program.

This new maintenance certification program was created to offer multi-level technical certification for individuals

employed in the water quality field, whose work functions specialize in disciplines other than plant operations. Effective plant maintenance is a key component to every treatment facility's commitment to compliance, and this program is designed to cover all facets of treatment plant maintenance from entry-level (Class I) competence, to supervisory-level (Class IV) personnel involved in maintenance, electrical, instrumentation, and equipment system selection and design. CSWEA as an ABC member has the opportunity to offer Voluntary Plant Maintenance Technologist certification in its WEF Member Association Sections of Illinois, Minnesota, and Wisconsin.

Participation from plant maintenance personnel is essential for CSWEA to maintain a quality, valid certification program. In this regard, CSWEA is seeking volunteers to participate on sub-committees which will administer the certification program, review and certify applications for testing eligibility, and will develop and administer educational seminars as a preparation for future certification testing. We hope to place volunteer nominees from Wisconsin, Illinois and Minnesota Sections into these key positions.

For information on the *Voluntary Plant Maintenance Technologist Certification Program* contact me directly. Gary B. Scott, CPMM, Sr. Plant Mechanic
Glenbard Wastewater Authority,
gscott@gbww.org

Frequently Asked Questions

What is this program?

A voluntary certification program for drinking water and wastewater plant maintenance personnel which offers multi-level technical certification for individuals employed in the water quality field, whose work functions specialize in disciplines other than plant operations. It provides an additional means for professional development and staff retention.

What happens next?

CSWEA is currently working to complete candidate information and program management documentation. We are also seeking volunteers for sub-committees which will administer the certification program, review and certify applications

for testing eligibility, and will develop and administer educational seminars as a preparation for certification testing. We hope to place volunteer nominees from Wisconsin, Illinois and Minnesota Sections into these key positions.

When will information be available?

CSWEA would like to start offering testing this summer or fall, perhaps as part of the Fall Maintenance Seminar.

What is still to be done?

Continue working with ABC to finalize program standards, fill the Certification and Education Sub-Committees, and develop educational instructor resource listing.

How do I get involved?

Contact one of your State Section Officers, or give the Certification Coordinator a call. [CS](#)



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The Influence of Fish Communities on Diurnal Horizontal Migration of *Daphnia* Species in Deep Prairie Wetlands

Megan Miller,
Lincoln High School
Thief River Falls, MN

Introduction

Daphnia species comprise an important link in lake food webs. Not only do *Daphnia* graze phytoplankton populations (at high population levels they can clear the water), but they also serve as an important food resource for fish (Herwig, 2004). Both aquatic insects predators and vertebrates predators, such as fish, prey upon and structure *Daphnia* communities (Herwig, 1995). To avoid predators, and in response to spatial variability in foods resources, *Daphnia* species have shown to exhibit vertical migration behaviors. However, in Deep Prairie Wetlands, *Daphnia* species has also exhibited diel horizontal migration to avoid predation (Burks, 2002).

Since aquatic invertebrates are an important food resource for nesting ducks, shore birds and other vertebrate



Megan Miller of Lincoln High School in Thief River Falls, MN is the Minnesota Section's winner of the Stockholm Junior Water Prize competition and will compete in the national competition in Anchorage Alaska on June 25-27. Below are the abstract and introduction of Megan's project, with the full project posted at www.cswea.org

animals, and because *Daphnia* can strongly influence wetland water quality, understanding factors that influence their migration patterns in wetlands is important (Zimmer, 1999). Of particular importance is understanding how fish communities influence migration of the

Daphnia population. Little is known and understood about this interaction and how it invariably affects the wetland ecosystem (Burks, 2002).

In the Prairie Pothole Region (PPR) of Minnesota, fathead minnows are most likely the fish species with the greatest potential to influence *Daphnia* communities (Zimmer, 1999). Fathead minnows may alter the abundance, production, and community structure of *Daphnia*. Since these fish are able to flourish due to their ability to withstand adverse conditions, they can be found in large quantities in many wetlands (Euliss, 1999). The dispersion and colonization of the fathead minnows into other wetlands has also increased as watersheds integrate through the installation of ditches, culverts, and drainage tile. Fish predation by Planktivores, such as Fathead minnows, often cause the size and structure of a *Daphnia* community to shift to small individuals and species (Herwig, 2006). However, lakes with large Piscivory fish keep smaller, Planktivory fish in check, thus releasing predation pressure on *Daphnia* (Burks, 2002). One benefit of this type of fish community, is that *Daphnia* are able to swim out of the weed beds and into the wetland to feed on algae.

Since the density and complexity of weed beds can directly interfere with the foraging efficiency of both fish and invertebrate predators (Rennie, 2005), the migration patterns in and out of the weed beds must be studied. Many fish species prefer to feed in aquatic weed beds since this is where they can best see and access their prey (Rennie, 2005). With this type of fish behavior, *Daphnia* have been forced to alter their migration patterns into other areas of the wetlands. The objective of this study is to examine the influence of fish communities on the diurnal horizontal migration of the *Daphnia* species in deep prairie wetlands.

The experimental hypothesis in this project is if *Daphnia* species exhibit diurnal horizontal migration then *Daphnia* will be found near-shore in the weed beds during the daytime hours, and off-shore during the nighttime hours. [CS](#)



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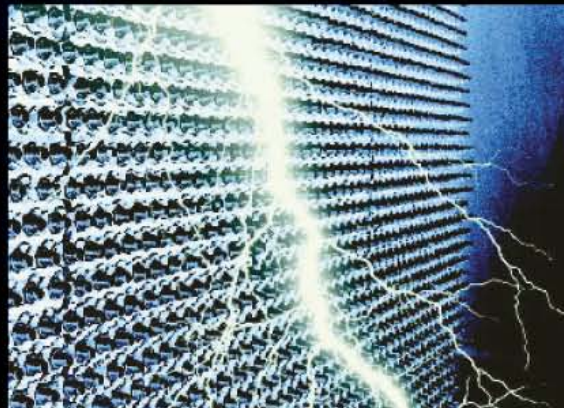
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The Effect of Nano Metal Oxides on Sentinel Organisms in the Aquatic Environment

Jamie Molloy

Divine Savior Holy Angels High School
Milwaukee, Wisconsin

Abstract

Nanomaterials are becoming an increasingly integral part of a variety of products, especially sunscreens. Sunscreens easily make their way into water sources. This project examines the effect of two metal oxides, titanium dioxide (TiO₂) and zinc oxide (ZnO), frequently used in sunscreens, on the sentinel aquatic organism *Daphnia magna* and on representative plant life, *Lactuca sativa* L. var. *Buttercrunch*. Sunscreens that appear clear on skin use a nano-form of the metal oxides. To study the difference in particle size, both nano and regular forms of each oxide were tested at a variety of concentrations.

In Phase One of the experiment, the metal oxides ZnO nano, ZnO regular, TiO₂ nano, and TiO₂ regular, along with a control, were each mixed into a 500 mL beaker of water holding 30 *Daphnia* each. After 48 hours, the live *Daphnia* were counted in each of the five beakers. Concentrations from two parts per million (ppm) to 50 ppm were used. While there is no statistical difference between the nano and regular-sized forms, both oxides killed significantly, especially zinc oxide. In Phase Two, the same oxides were mixed with 2 mL of water and poured on unbleached filters in five Petri dishes (one was a control). Five lettuce seeds were placed on each filter; the radicles of the germinated seeds were measured after 120 hours. Concentrations from 500 ppm to 12500 ppm were used. Zinc oxide stunted growth, but particle size made no difference with either oxide.

Introduction

Nanomaterials are becoming an increasingly common part of a great variety of products due to their size-dependent properties. However, at this time, nanomaterials are not controlled separately from their regularly-sized materials. Many chemicals are graded by the United States Pharmacopeia (USP) for quality, purity,



Jamie Molloy of the Divine Savior Holy Angels High School in Milwaukee is the Wisconsin Section's winner of the Stockholm Junior Water Prize competition and will compete in the national competition in Anchorage Alaska on June 25-27. Below are the abstract and introduction of Jamie's project, with the full project posted at www.cswea.org

strength, and consistency. Currently, the US Food and Drug Administration regulates "products based on their statutory classification rather than the technology they employ."¹

Despite this lack of regulation (or perhaps because of it), nanomaterials are found in products such as sunscreens, anti-aging cosmetics, wrinkle- and stain-resistant fabrics, paints, and surface coatings. Many of these materials find their way into our water sources either during manufacturing or as a direct result of their intended uses. Sunscreen comes off in water when we swim or wash; we

wash our faces free of cosmetics which then travel through sewers; fabric coatings wash off when they are laundered, and rain washes surface coatings into lakes and streams. Identification of nano-sized material in products is voluntary. I began my project simply interested in sunscreens. Two metal oxides, titanium dioxide (TiO₂) and zinc oxide (ZnO), are frequently found in sunscreens. Any sunscreen that applies to the skin clearly instead of in a white form uses the nano forms of TiO₂ or ZnO.² Currently the FDA is examining the skin absorption and phototoxicity of nano-sized TiO₂ and ZnO preparations used in sunscreens.³ However, what about the toxicity of these products to the freshwater ecosystem? We should be aware of the effects of this new technology on our environment.

My project was designed to test the effects of nano-sized TiO₂ and ZnO on the aquatic environment by using *Daphnia magna* and *Lactuca sativa* L. var. *Buttercrunch* as examples. Due to their smaller particle size, I hypothesized that the nano forms would have a negative effect by increasing the mortality of the *Daphnia*, which are filter feeders. I hypothesized that nano-versions of the chemicals would not be different from the regular-versions in their effect on stunting root growth in the Buttercrunch lettuce seeds. To compare the particle size, I also tested the regular-sized form of each oxide on these organisms. A control with no oxide in it was prepared for each trial as well. I hypothesized no effect on mortality in *Daphnia* for either of the regular-sized oxides and predicted an adverse effect from the nano-forms. I also hypothesized negative effect on growth for the lettuce seeds in all of the oxides, even the regular forms. [CS](#)

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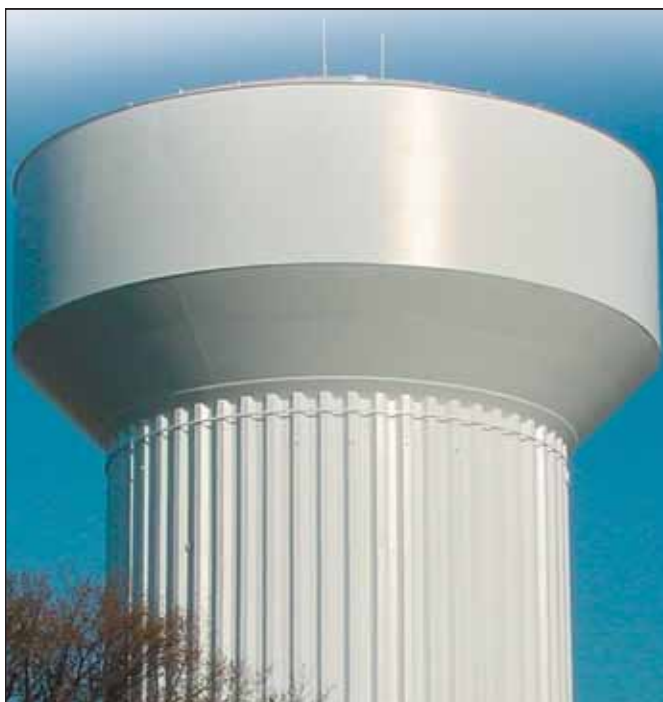
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A Young Professional's Experience at WEFMAX and the YP Summit

By Trevor Ghylin

The WEF Young Professional Summit and WEFMAX were great events. I came back with several new friendships and a rejuvenated passion for my work and YP concerns in our industry.

At the YP Summit I was able to meet several senior WEF leaders as well as the up and coming leaders of WEF YPs. I spent significant time speaking with Jim Clark (former WEF president) who was able to give me some very insightful career advice. I was also able to meet the current executive director of WEF Bill Bertera.

At the YP Summit we learned about generational differences in the workplace (focused mostly on motivating and retaining the Millennial Generation, which is what I am). It is always interesting to hear characteristics about yourself. I didn't realize some of my traits until I learned more about my generation. I have begun

to truly understand the generational differences; they really cannot be overlooked.

There was also a two-hour presentation from a Dale Carnegie trainer on leadership and working in a team setting. This was a very informative and inspirational presentation. Jim Clark also gave a very practical but also engaging presentation on his knowledge of project management.

Ned Breslin (current CEO of Water for People) gave us an inspired talk about the work that Water for People is doing around the world. I have done fundraising for them for two years, but I am now interested in expanding that and potentially going on a volunteer assessment trip for them.

We spent the afternoon hearing from the various regional chapters' YP activities. There were about a dozen

member associations represented and approximately 80 young professionals attended this YP Summit. There are some great groups out there.

Georgia has a great outreach website with links for all ages. This website has information on career paths, a scholarship program, job bank, and even a comedy skit video with YP environmental engineers. Ontario has a Facebook site and a video on YouTube for outreach.


Arizona made a short comedy skit to promote their group. They also spent a lot of money to revamp their website. They currently have monthly networking luncheons for YPs. They had a Bowl-a-thon fundraiser and BBQ raffle at the annual conference. They provide speakers and mentors to their student chapters as needed.

California has a Google group for outreach and communication. They also have an internship/jobs database on the website. They held an YP mixer event recently and also a "Water treatment from your kitchen and beyond" competition.

Rachel Lee and I also gave a 10-minute presentation on YP activities in CSWEA (student chapters, social events, educational events, etc.).

All presentations at the YP Summit are available at: <http://www.wef.org/MembershipCareers/MembershipInformation/MAResourceCtr/YoungProfessionalsSummit.htm>


Rachel and I now have some good ideas for YP activities in CSWEA and Wisconsin in particular. Our first goal is to recruit more YPs into our committee so we have more help. Two people can only do so much! The annual conference and education seminar would be great places to do this. Also, senior professionals should be encouraged to actively recruit YP co-workers.

I had a great time in Las Vegas and met a lot of great people. Thanks for giving me the opportunity to improve myself and to bring back good ideas and connections for CSWEA. 



If you are a young professional and you are interested in getting more involved and meeting other young professionals in the water environment industry, please contact:

Trevor Ghylin at Trevor.Ghylin@ch2m.com or Rachel Lee at rachel.lee@strand.com

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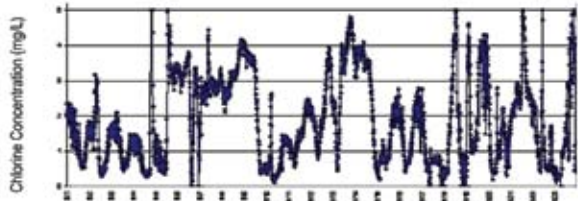
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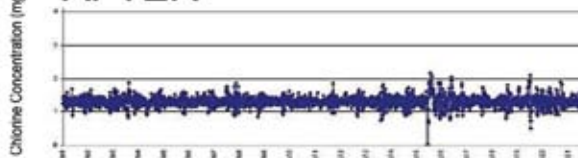
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CSWEA CSX&YPX '09, July 16-17, 2009

(Committee & Section Exchange and Young Professional Exchange)

All Central States leaders, CSWEA officers, Section officers and committee chairs and members, as well as any interested or involved members should plan to attend our fifth annual Committee and Section Exchange and Young Professional Exchange, CSWEA CSX&YPX '09. The dates are July 16-17 2009 and will once again be held at the Kalahari Resort in the Wisconsin Dells. The event is designed to provide for the informal exchange of ideas between Sections and committees over two half-days, beginning at noon on Thursday and ending at noon on Friday. The focus of the agenda will be on attracting public sector facility operators and managers as well as issues of concern identified by those in attendance. In addition to the working sessions, ample time is set aside for networking and social time. The meeting is arranged so that family members can take advantage of the water park while mom or dad attends to CSWEA business. Central States provides a pizza party for everyone on Thursday evening. Make your plans to attend now, and feel free to contact Executive Director Eric Lecuyer for additional information.

Again this year, CSWEA will also be hosting YPX '09, (Young Professionals Exchange) which will run concurrently on Friday, July 17. YP Leaders, including Rachel Lee, Trevor Ghylin, and Rich Hussey are planning an excellent Young Professional Exchange. Contact Rachel Lee for additional information. [CS](#)



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By Gary B. Scott, CPMM, Illinois Section Safety Chair

Plastic Drinking Water Bottles

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I was on a walk with my yellow lab Cooper the other day, enjoying the beauty of our local Forest Preserve trail, when I came upon an empty plastic water bottle someone had just dropped along the trail. I thought, well I'm an environmentalist, so I picked up the bottle and on our way we went again. Less than 20 paces later, same thing. Well, to make a long story short, I should have brought a garbage bag along for the walk, as before I got two miles, I had all the empty water bottles I could carry.

Think about how often we see someone carrying around a plastic water bottle. In the car, walking outside, in the office, on a plane, at home. They have proven to be a convenient means of quenching that never-ending thirst that comes over us in America. I never realized, but Americans buy over \$22 billion of plastic water bottles per year. That translates to over 70 million bottles of water consumed daily. Since only 17% are recycled, there are environmental concerns with the 58.1 million empty water bottles disposed of every day into landfills. Despite demand for the resin from beverage companies like Coca-Cola and Pepsi which have pledged to use 10% recycled resin in their bottles, few states have deposit programs which have been shown to increase recycle



[Click HERE to return to Table of Contents](#)

rates. In addition, only about 50% of all Americans have curbside pickup of recyclables. While becoming more common, less than 10% of public spaces have water bottle recycle bins next to the outdoor trash cans.

Recent reports have many consumers confused as to whether it is even safe to drink from plastic water bottles. There have been federal investigations into the latest plastic bottle content reports which talk about "Bisphenol" (BPA) in plastics. These are not generally found in the single-use plastic water bottles purchased by most consumers at their local grocery or big box store. When the bottle displays a resin recycle code #1 on the bottom of the bottle, it uses "PET", which is generally considered safe. The resin code that can indicate the presence of unhealthy BPA is #7, although not all code #7 bottles contain BPA.

BPA is often present in many of the reusable plastic water bottles sold through chains and outlet stores across the country under the guise of sporting or walking convenience. If you have a reusable plastic bottle please check for the recycling identification #1 vs. the #7. If it displays #7, consider replacing it. Even though most plastic water bottles DO NOT contain BPA, those labeled with the #7 BPA can and will leach harmful chemicals into the drinking water contained within your plastic bottle. Under certain circumstances all plastic bottles may leach non-harmful levels of chemical into your drinking water. To

Americans buy over \$22 billion of plastic water bottles per year. That translates to over 70 million bottles of water consumed daily.

minimize this risk, keep your water bottles out of extreme heat, which can accelerate the leaching process. Internet rumors about freeze risks are false, however, since water expands when frozen, drink a little before freezing to allow room for the expansion.


Plastic water bottles can be reused, but you must make sure to wash thoroughly with soap and water to eliminate bacteria. Allow to dry before refilling. I recycle mine after several uses, if it gets exposed to heat, or the water develops a bit of a funny taste.

I was amazed to see the statistics on the cost of bottled water. It can cost 2,500 times MORE than tap water. Many brands of bottled water, including leading brands, are simply filtered tap water. Bottled water costs about

\$3.00 to \$5.00 per gallon. Regular tap water produced round the clock by many of our members for their residents is perfectly safe and tested regularly, and costs about \$2.00 per 1,000 gallons. If you prefer, you can buy a faucet filter and make your own filtered water for about \$0.10 per gallon, use a tabletop filtration model like Brita for about \$0.25 per gallon, or use a Reverse Osmosis household system to produce filtered water for about \$0.42 per gallon. To eliminate chlorine without a filter, you can use a trick I learned when I worked in my youth for a greenhouse about removing chlorine in irrigation water for delicate plants: leave the water uncovered overnight to allow the chlorine to dissipate.



Plastic bottles certainly have their use, and there are places where it can be impractical to bring a permanent reusable water bottle, but whenever possible, it is always best to use a stainless steel or aluminum reusable water bottle. These materials will not absorb, or leach any chemicals into your drinking water under any conditions or circumstances if properly cleaned

The bottom line is that plastic water bottles are safe, yet can be harmful to the environment. The responsible choice is to use a reusable water bottle whenever possible, and make all efforts to recycle the plastic water bottles when a reusable water bottle is impractical.

Have a safe and healthy water quenched summer. 

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Plant Profile Submitted by Ralph Phister

YORKVILLE-BRISTOL SANITARY DISTRICT

The Yorkville-Bristol Sanitary District received the Illinois Treatment Facility Operations Award at the 82nd CSWEA Annual Meeting.

The Yorkville-Bristol Sanitary District (YBSD) provides wastewater transportation and treatment services for the City of Yorkville, Illinois the county seat of Kendall County. The present service area is approximately 10 square miles with a population of 16,700. The current facility planning area is 33.8 square miles. The ultimate build-out of the service area is projected to be 50 square miles serving an approximated population of 100,000. The YBSD currently owns and maintains 13.63 miles of interceptor sewers ranging in diameter from 12" to 42".

Wastewater Treatment Plant Operations and Maintenance

The YBSD operates a single Wastewater Treatment Plant (WWTP), designed to treat 3.62 million gallons per day (MGD),

with a peak flow of 6.14 MGD. The WWTP is an activated sludge facility designed to provide secondary treatment. The wastewater flows through 6 mm screening and then is pumped through 1 mm screening. The wastewater proceeds to flow through 10 aeration basins, on to final clarification, and finally through an ultraviolet light disinfection (UV) system before entering the Fox River. The WWTP is currently operating at 70% of its designed capacity. The YBSD has six full-time employees, three certified operators, one laboratory technician, one secretary, and a director. A supervisory control and data acquisition (SCADA) system is used to monitor the equipment and processes. Information is networked using a modified Excel spreadsheet between operations, laboratory and the director's office. A monthly report is produced by each department and filed. The maintenance and house-keeping of the WWTP has been superb

for many years. The laboratory technician splits a sample every month with a certified outside laboratory to assure accurate analysis quality control.

Digestion

The YBSD uses autothermal thermophilic aerobic digestion (ATAD) that produces a class A biosolids.

This was the state of Illinois's first second-generation ATAD system supplied by Thermal Process Systems in 2003. The high rate digestion system uses thermophilic microorganisms which thrive at high temperatures (131-170F) to provide rapid aerobic digestion. Waste activated sludge (WAS) is thickened via a gravity belt thickener to approximately 6% total solids just before it is transferred into one of two digesters. The thickening step removes

excess water to allow the sludge to heat up on its own (self-heating) thereby eliminating any boiler operation and gas handling requirements and also reduces the size of the digester required for treatment. After the thickened material is fed into the digester, the hot reactor contents lyse the cells releasing the internal material for consumption by the hemophilic bacteria. During this stage of the operation the high temperature conditions also destroy pathogenic microorganisms providing for an EPA defined 503 Class A materials for liquid or solids processing. Volatile solids reduction (VSR) in the ATAD system is on the order of 70% which equates to about a 55% total solids reduction. The virtually pathogen-free material is further treated in the aerated storage nitrification/gentrification reactor (SNDR) to reduce the concentration of ammonia and precondition prior to dewatering operations. The SNDR also contributes 10%-15% additional VSR and more importantly reduces the polymer required to achieve between 25%- 30% cake solids in the centrifuge dewatering operation, reducing the total mass transported and disposed of off-site by about 75%.

Growth Challenges

Since the year 2000 the YBSD has experienced tremendous growth challenges. An article and picture of the City of Yorkville downtown area appeared in the newspaper *USA Today* March 25, 2008 declaring Kendall County the fastest growing county in the nation. The YBSD completed a wastewater treatment expansion and upgrade in 2003 at a cost of \$11,200,000. The WWTP capacity was increased from 0.993 MGD to 3.62 MGD. Within the last five years the district has accepted ownership of 12.61 miles of interceptor sewers ranging in size between 18" and 42" in diameter at a cost of \$20,503,724.44.

Industrial, Commerical Pretreatment Program

Due to the tremendous growth, customers requiring grease interceptors increased to



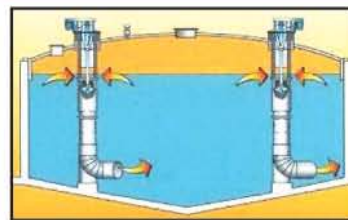
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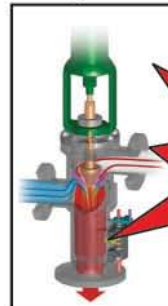


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almost 60 between 2004-2008. August of 2007 the YBSD passed a comprehensive fats oils and grease ordinance regulating these customers. The YBSD has become very aggressive in the enforcement of this ordinance and has actually decreased the loading on the WWTP during the high growth years. Also the YBSD has a company that discharges ice cream waste. The discharge strength of this waste has at times exceeded 50,000 mg/l BOD. Through the enforcement of the YBSD Excessive Strength Waste ordinance this company pays for its excessive strength waste and through pretreatment

regulation normally the BOD is less than 800 mg/l. Additionally the YBSD serves a company that discharges food grade oils that make up salad dressings. This company now removes these oils and transfers them to an oil reclamation facility.

Capital Projects

The YBSD recently completed installation of an additional centrifuge to dewater its biosolids. This was a design build project with most of the work being performed at the oversight of YBSD employees. The construction project of building a bridge across the Blackberry Creek was

completed in May 2009 at a cost of approximately \$600,000. The bridge will provide access to nearly 20 acres that will accommodate a new sequencing batch reactor (SBR) and a membrane (MBR) process. The YBSD has awarded a contract to Walter E. Deuchler & Associates to design a 2.3 MGD SBR followed by a MBR process. The facility will also include fine screening and an additional ATAD digestion system.

This design will be completed in October of 2009 and the estimated cost to build the facility is \$25,000,000.

YBSD Website

The YBSD has a website (ybsd.org) containing ordinance specifications regulating the sanitary sewer collection system and waste discharges. Connection, annexation, infrastructure, review, and user fee costs are described and explained. Pictures of the WWTP processes and capacities are also shown. [CS](#)



Water & Wastewater

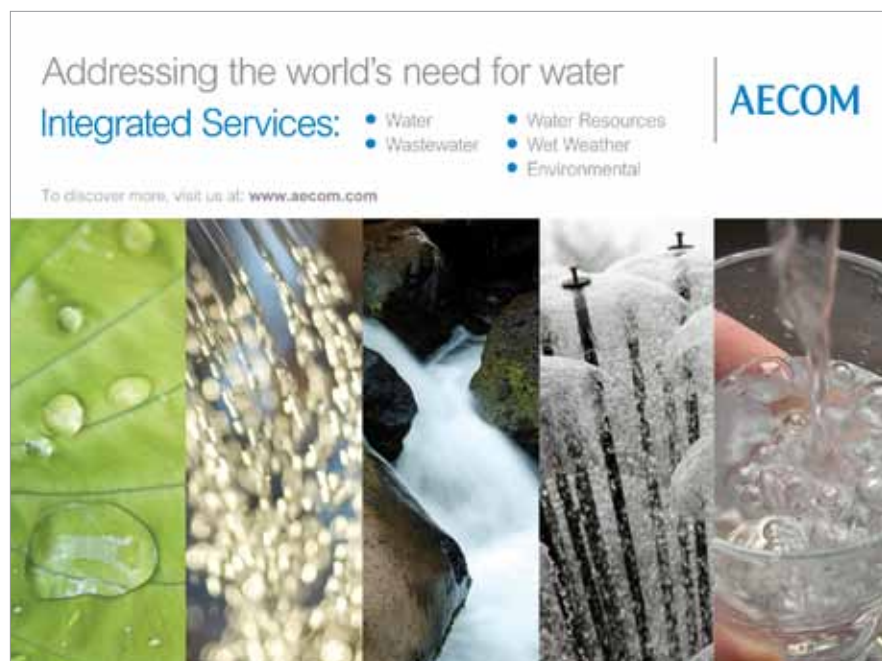
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MY EXPERIENCE IN RWANDA, LAND OF A THOUSAND HILLS

World Water Corps Trip volunteering for Water For People

By Kiri Kroner

Many people asked me, why go to Rwanda? You will find, as I found, that it is a little country with a big heart.

Flying into Kigali International Airport, I had no idea what was awaiting me. All the research and talking to people I had done while getting ready for my trip could not prepare me for the destitution; and yet at the same time, there was a modern capital city rebuilt and thriving some 14 years after the genocide that devastated the country. Rwandans truly are amazing people. They have overcome so much hardship in their lives, but everyone I met was very laid back and easygoing, and very, very friendly. When asked if Water For People should work in Rwanda, they would all respond "Yes, yes, we want you to come to Rwanda!"

Rwanda is a small country in central Africa, about the size of Massachusetts. It is bordered by Uganda, Congo, Burundi, and Tanzania. The headwaters of the Nile River start in Rwanda (but according to Ugandans, it starts there; and according to Tanzanians, it starts there; you begin to get the picture). With 9 million people, it is the most densely populated country in Africa, although less than 15% live in cities, which makes it one of the lowest percentages of urbanized population in the world. Kigali is the capital city, with a population of approximately 1 million. Major exports from Rwanda are coffee and tea; I guess they keep all the banana beer for themselves.

Although a world away, I found many similarities. A Hummer whizzed past us down the crowded street full of cars, motorbikes, people, and animals, and the Rwandan in the car with us pointed and said, "That is a rich person's car." I laughed and told him it was the same in the U.S. However, driving down that same road, we saw several women at a public





4



5



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1. Men collect water in jerry-cans from a small surface water pond, while school children learn in outdoor classrooms amongst the cattle (East Province).

2. The village water tap in rural Bisate, Rwanda (North Province). Water piped from a mountain spring several miles away. Note the woman drinking directly out of the dirty jerrycan.

3. One of several public water taps in Kigali, Rwanda. Note the laundry in the grassy areas.

4. Household latrine in a rural village, made with banana leaf walls and the top half of a black clay pot to sit on. This latrine would not meet adequate sanitation standards.

5. New ECOSAN environmentally friendly composting latrines located at a school in the South Province. These were part of a government pilot project.

6. Recently constructed storage tank for rainwater harvesting at a school in the East Province. Unfortunately, this is the dry portion of the country where it rains only a few months of the year.

water tap washing their family's clothes while young children filled up yellow jerry-cans with water to prepare that evening's dinner. That is not something you see in the U.S.

I was in Rwanda for two weeks in April 2007 with a colleague, Helene Baribeau, to conduct a scoping study on behalf of Water For People, as one of the inaugural Water Corps trips. With Water For People's goal to expand into five new countries by 2012, they needed people on the ground in each country to check out the situation, see if/where the needs are, meet with the government to determine what Water For People's role would be, and find local groups to partner with. We met with government officials, as high as the equivalent to cabinet members here in the US; heads of the water divisions of the World Bank and the African Development Bank, who are the major players in water

and sanitation in Rwanda; other non-profit organizations such as Food for the Hungry and CRS; developmental organizations from countries all over the world – U.S., Italy, England, France, Belgium, Sweden, Japan; UN agencies; and a few local groups that specialized in water, sanitation, and hygiene.

We gathered as much information as we could, prepared a report, which was presented to the board of Water For People, and of course our conclusion was for Water For People to begin working in Rwanda ASAP. The Rwandan government already had a fairly elaborate plan in place for their water system, and at the time they were working on a national sanitation policy to plan for the wastewater system. We found that Rwanda has progressed so much since the genocide because of the great leadership in place and everyone's support of the president. Their plan, a

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report called Vision 2020, stated their goal for all Rwandans to have access to safe drinking water and adequate sanitation by 2020, far exceeding the UN's Millennium Development Goals. It was estimated that about 60% of the population already has access to safe drinking water; however, only 8% have access to adequate sanitation, and a hygiene education program was just about non-existent. Therefore, we recommended that Water For People try to focus work primarily in the sanitation area where it is most needed, and that UNICEF was developing a hygiene

education program which Water For People could assist with as well. A benefit of working in Rwanda is that since it is such a small country, and they are already well on their way to meeting their goal, Water For People could possibly test an exit strategy once their work there was done.

As you now probably know, and I am happy to report, Rwanda was selected as one of those five new expansion countries. My colleague, Helene Baribeau, will be the Country Coordinator, and has opened an office in Kigali and completed the registration

process so Water For People can begin working there later this year.

So if you are ever considering a Water For People Country Tour or a World Water Corps Trip, I highly recommend Rwanda. It is a beautiful country with wonderful people, and you cannot beat the amazing experience hiking into the jungle to spend an hour with the infamous mountain gorillas!

If you have any additional questions about Rwanda, or taking a World Water Corps trip, you can contact Kiri at kakroner@gmail.com. [CS](#)

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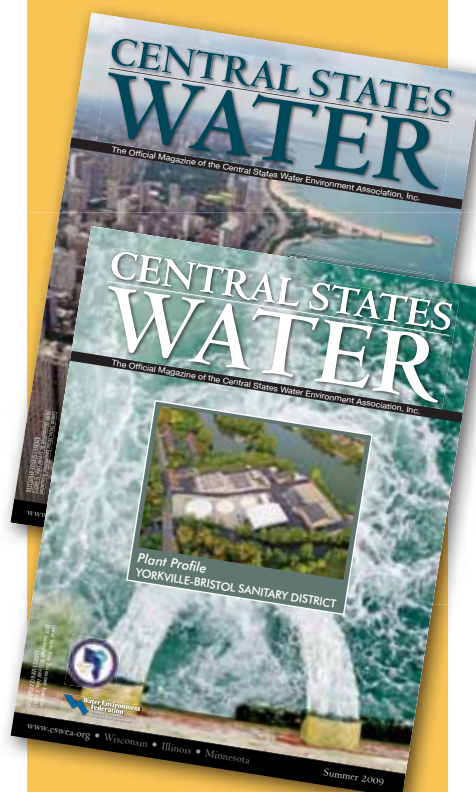
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CSWEA/IWEA to host 14th Annual WEFTEC Welcome Reception at WEFTEC '09

CSWEA and IWEA members are invited to join us for this year's WEFTEC '09 CSWEA/IWEA Reception, Sunday, October 11, 2009. The reception will be held from 6:00 to 8:00 p.m. at the Peabody Orlando Hotel. Our joint WEFTEC Welcome Reception has become a not-to-miss event for members and friends attending WEFTEC and offers an outstanding kick-off each year. The reception will be held in the Plaza F&G rooms of the WEFTEC '09 Headquarters hotel in Orlando Florida.



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Working Hard

By Jim Beier

My first chair message! Let me begin by announcing that I am honored to be the 2009-2010 Central States WEA Wisconsin Section Chair. Our Section is comprised of so many hard-working and dedicated operators, engineers and professionals in the water reclamation business, and I am very excited to be its chairperson. I was humbled to have been nominated two years ago, and now I look forward to moving our Section forward with the guidance of our past leadership and the bright ideas of our newest members.

I have been affiliated with this organization since 2001, when I was first encouraged by a mentor to participate. Membership in WEF and CSWEA has allowed me to become a better engineer while expanding my network of personal and professional contacts in this business. I have made many wonderful friends since I've been an active member and I look forward to this year being my best yet. I challenge each and every one of you to be a mentor and recommend membership in our organization to someone new.

Summer seems to finally be upon us, but a glance out the window this weekend is telling me not to get too excited about sunny weather just yet. Even with today's cold and rain, this time of year always re-energizes me as it heralds the beginning of the busy construction season. We will finally get to see how all of those wonderfully designed municipal projects will get constructed. I'm hoping for a very busy and productive summer bidding season for all of our contractor friends – that will certainly be a harbinger of good things to come for everyone. And I am hoping that the Federal ARRA Stimulus program gives more projects the opportunity to become realities.

The annual meeting in Lincolnshire was again an excellent event. Congratulations on a job well done to the local



arrangements committee. I was officially introduced as the Section chair at the state breakfast in front of dozens wonderful peers and friends. We had a productive meeting and set a full schedule with many goals for the coming year. A big thank-you goes out to our out-going chairperson, Steve Godfrey. Steve was an outstanding leader for the Section this past year and is certainly a fine steward for our organization's mission. And I echo Steve's thank-you to our secretary/treasurer, Dave Arnott. Dave keeps this Section ticking and I am glad to be

working with him.

I just participated in the 22nd Annual "Classic" Collection System Seminar in Watertown, WI – the joint event our Section sponsors with the Wisconsin Wastewater Operators Association. It was another record-setting seminar in terms of attendance and exhibiting. Kudos go out to Todd Stelmacher and Andy Craven for continuing to set the bar higher and higher for this well-received professional event. The Collection System Committee is one of the most active groups in the State Section and is hoping that their "Northwoods" Collection System Seminar becomes as popular as the "Classic" Seminar. Mark your calendar – the "Northwoods" Seminar is August 6, in Marshfield, WI.

The CSWEA CSX-YPX event is scheduled for July 16 and 17 in the Wisconsin Dells at the Kalahari Resort – set the date and we'll see you at the waterpark. Our Section Summer Board meeting is set for August 12 at the offices of Ruekert-Mielke in Waukesha, WI. After the meeting, the Student and Young Professional Brewer Outing is again planned at Miller Park. I hope you are able to make participate in the tailgate and game to cheer the Brewers over the San Diego Padres. I look forward to working with all of you this year. Thank you again for this opportunity. [CS](#)

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Never Too Busy

By Jason Benson

As we all look forward to enjoying another great summer in Minnesota I am very excited about the upcoming year and serving as chair of the Minnesota Section. Life always seems to be too busy but I was recently reminded while attending an award ceremony for our Stockholm Junior Water Prize runner-up that involvement in a great organization such as ours is an essential part of our profession. The excitement of the students and faculty at Breck School was invigorating and should be a reminder to all of us that the only way to promote our message is by getting involved. We should never be too busy to volunteer some time.

I would like to thank past chair Doug Henrichsen for a great job this past year and his help and guidance in organizing the upcoming events in 2009-2010.

Last month a number of us attended the CSWEA 82nd Annual Meeting at the Marriott Lincolnshire Resort in Illinois. The event was a success and as a member of the technical program committee I know we had a variety of interesting papers and topics creating another excellent opportunity to share knowledge and insight with our peers. The University of Minnesota's Engineers Without Borders (EWB) chapter presented their project on Water Supply for Hope Integrated Academy, Mulobure, India and will be presenting their project at WEFTEC this year in the Humanitarian Project Category.

There are several positions open in the Minnesota Section, but one I would like to highlight is the **Stockholm**



Junior Water Prize Committee Chair.

This is an immediate and important need. In 2008 the MN Section acknowledged three students for the Stockholm Junior Water Prize. The winner goes on to Alaska this year for the national competition.

- Winner: Megan Miller, Lincoln High School, Thief River Falls, MN. "The Influence of Fish Communities on the Diurnal Horizontal Migration of *Daphnia* Species in Deep Prairie Wetlands"

- 1st Runner-Up: Lanre Adekola, Breck

School, Minneapolis, MN. "Effects of Soil Compaction and Macrospores on Water Infiltration Rates"

- 2nd Runner-Up: Logan Pallin, Cloquet Senior High School, Cloquet, MN. "The Use of a Rain Garden to Control Road Run-Off in Scanlon Creek and an Assessment of Rain Gardens as the Best Storm Water Management Practice, Phase III"

Patti Craddock has done a great job with this committee and filling her shoes will be difficult for anyone, but providing mentoring and guidance for our young people is probably as important a mission as any for the future of our profession so please volunteer to fill this position. Other important positions include Government Affairs and Membership as well as the Vice-Chair for the Minnesota Section. To learn more about these opportunities or to join a committee, please visit our website <http://www.cswea.org/minnesota>. This site also includes a listing of all current committees and chairs and upcoming events in the MN Section. CS

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Working Hard for your Section

By Gary B. Scott, Chair CSWEA Illinois Section

It has been a couple weeks now since Roger Gyger passed on the gavel to me at the 82nd Annual Meeting in Lincolnshire, IL. Thank Roger for his dedication when you see him, his efforts were large on our behalf. It was a first-class conference, and many thanks to Dean Wiebenga, Deb Ness, Beth Vogt, Rich Hussey, Laurie Riotte, all the rest who were involved in making the event such a great success. This year's combined meetings with AWWA and Fox Valley Operators proved a good fit which benefit everyone in environmental efforts. Special thanks to the "Lecuyer Management Company" for all the amazing details they manage for our organization. Without them I often wonder where we'd be.

What a pleasure to have heard from WEF Past President Adam Zabinski. His insights concerning our preservation and support of clean water issues as an organization really hit home. I'll bet it's not every conference he goes to that has such exciting and classy social events as this year's eSkape bowling event. And what about those dueling pianos after the Annual Banquet? The "Lecuyer Party Machine" was at full throttle!

Your State Section is working hard to improve our organization. Vice-Chair Eddie McCall reports initiatives are being developed in support of membership opportunities. At our Annual State Section Meeting, Scott Trotter volunteered to chair the Student Committee. Scott has the right combination of energy, experience, and a dedication to help our Section explore ways to better communicate with and involve students in our YP Chapters. Combine this with Rich Hussey's enthusiasm for the young professionals, and we are sure to further develop these important programs for the future of our Section.

At the Annual Meeting the CSWEA Executive Committee approved, and the Section adopted a change in our Section Bylaws which established the position of 2nd Vice-Chair. This position should give us a bit more continuity from year to year, and you should be considering who you would nominate for



this important position. Pass this information along to any of the chairs or me. Look for an announcement for the next Section meeting in July where we will elect a 2nd Vice-Chair.

We continue to provide high-quality seminars for our membership, and this year we reach out to other IAWPCO member organizations with each of our seminars. Perhaps these gestures will prove fruitful in future cooperative endeavors. As of this writing, the Collection Systems and Joint CSWEA/IWEA Lab Seminars should be well behind us. Collections Chair

Mark Eddington reports Fox Valley Operators and Miss-Rock WPCO had replied with seminar registrations. CEUs were approved by IEPA on this seminar, a habit we hope to get into on all Illinois seminars. The Section also sent the announcement along to the other IAWPCO member organizations with the same open hand. I'm sure we have plenty of common interests we can discuss. Laboratory Chair Mary Dressel has the Joint CSWEA/IWEA event well in hand, and discussions are beginning on how the Section can improve our involvement in the World Water Monitoring Day program. This program was a big success under Sue Baert last year, and some new ideas are being discussed to further promote the success of this program in Illinois. Operations Vice-Chair Steve Bollweg is feverishly working on the Operations Seminar tentatively set for September 17, location to be determined. Safety and Maintenance Seminar Chair "Doc" Burke has this program well in hand, and speakers are nearly set for the November 18 seminar at the Naperville Safety Training Facility. More news to follow in the upcoming months, so keep an eye on the website at <http://www.cswea.org/events/events-all.shtml>.

Finally, I want to say just how grateful I am for all the talented people we have in our CSWEA and State Section organizations. We award few with the honors they so rightly deserve. Many contribute with time and talents that go unnoticed, for that I sincerely apologize. If you give of yourself for our organization, I will do all I can to recognize your efforts. CS



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IL Section Business Meeting

July 14, 2009
Glenbard Wastewater Authority
Glen Ellyn, IL

CSWEA CSX-YPX '09

July 16-17, 2009
Kalahari Resort and Convention Center
Wisconsin Dells, WI

IL Section Young Professional Event

Location TBA
July, 2009

MWOA 33rd Annual Conference

July 28-31, 2009
Grand Rapids, MN

AUGUST

WI Section CSWEA "Northwoods" Collection System Seminar

August 6, 2009
Clearwater Hotel & Convention Center
Marshfield, WI

TMDL 2009 Combining Science and Management to Restore Impaired Waters

August 9-12, 2009
www.wef.org/TMDL
Hilton, Minneapolis, MN

WI Section SP-YP Tailgate

August 12, 2009
Brewers v. Padres
Milwaukee, WI

WI Section Management Seminar

August 12, 2009
Cabela's
Richfield, WI

SEPTEMBER

IL Section Operations Seminar

September 17, 2009
Location TBA

OCTOBER

WEFTEC '09

October 10-14, 2009
Orlando, FL

CSWEA-IWEA WEFTEC '09

Welcome Reception
October 11, 2009
Peabody Orlando Hotel,
Orlando, FL

NOVEMBER

MN Section CSWEA/A&WMA Conference on the Environment

November 12, 2009
Earl Brown Heritage Center
Brooklyn Center, MN

IL Section Maintenance and Safety Seminar

November 18, 2009
Naperville Safety & Training Facility
Naperville, IL

MN Section CSWEA/MWOA Collection System Workshop

Fall 2009
Location TBA



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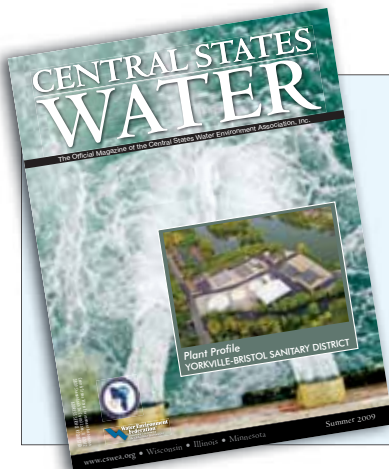
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