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

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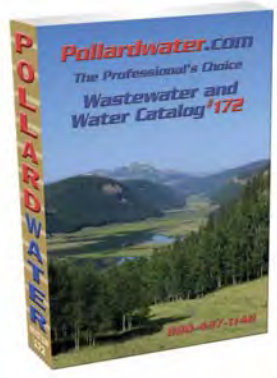

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FEATURES

WATER'S WORTH IT 85th ANNUAL MEETING 21
May 14-17, 2012
Pheasant Run Resort and Convention Center, Saint Charles, IL

DEPARTMENTS

Messages

CSWEA News

Section News

Published by:
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Federal tax# 23-7378788

Central States Water, the official magazine of the Central States Water Environment Association, Inc., is published four times per year. Send comments, news items, gloss photographs or digital images to Eric Lecuyer, *cswea@ymail.com*

Send undeliverable addresses to: CSWEA, 3809 Shenandoah Dr., Crystal Lake, IL 60012

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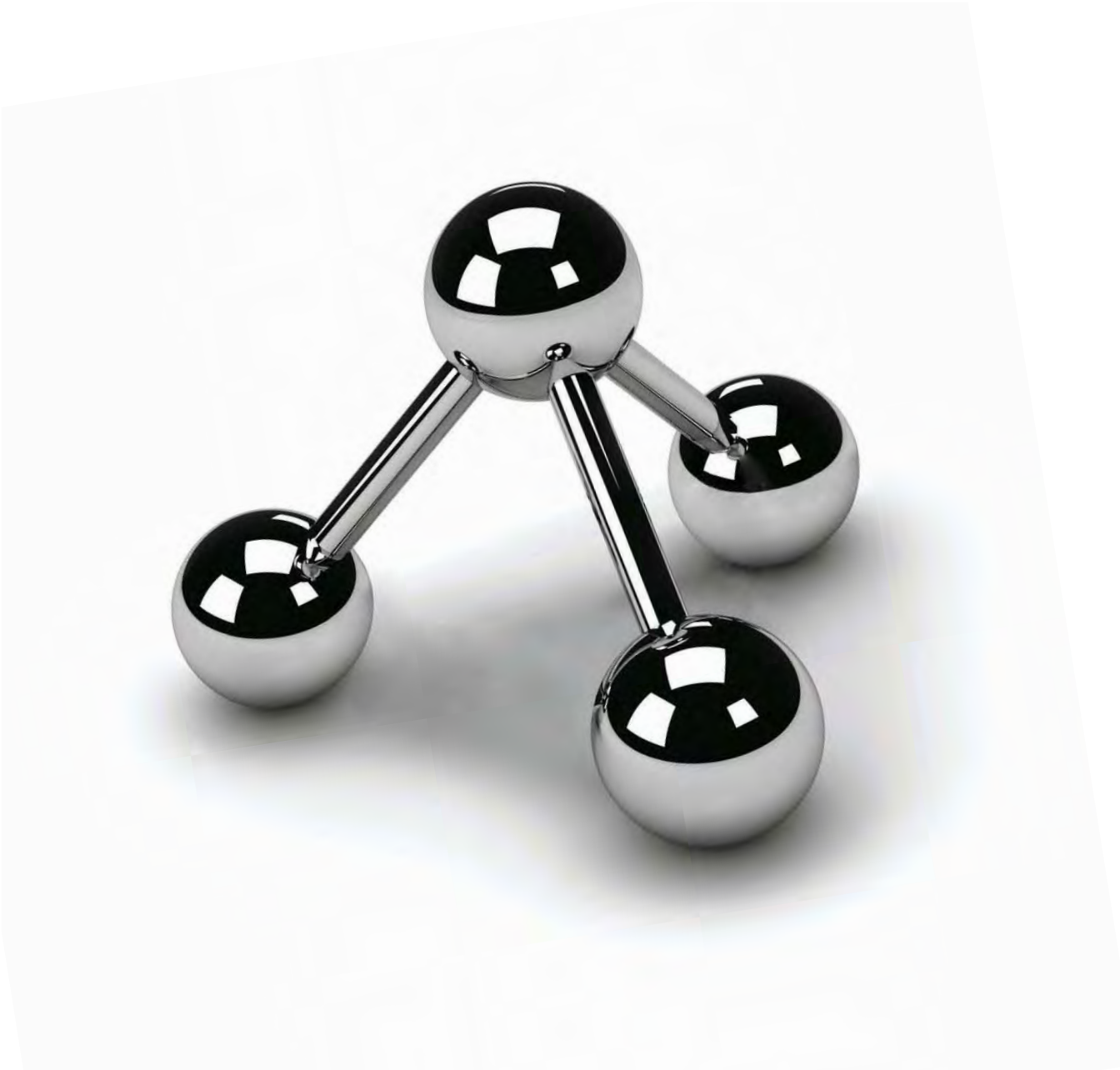

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Hope Springs Eternal

By Beth Vogt

2012 has come and where do we stand? Many economic indicators are showing some steady, albeit slow, progress, an election year with all the associated rhetoric is upon us, and many regulations related to our industry (nutrients, wet weather, watershed approaches, etc.) remain undefined. The history buffs among us will recognize that this isn't uncharted water even if it all seems unsettling to us in the moment.

I see friends and neighbors still struggling to get by. Things may be improving, but there is a long way to go. The arguments from both sides seem to be on an endless replay tape with no real new ideas or willingness to address the tough and politically sensitive issues. The debt continues to climb. As cuts to spending take place, the news will remind us that these changes impact real people. Investment in infrastructure doesn't seem to have made the impact to our industry that was hoped for and we are usually on the back end of a recovery.

This all sounds like a pretty gloomy outlook, but I think positive signs are there. I see people being more aware of the situations of others around them. We are told we are more polarized then ever in our politics, yet when I hear people of different views talking they seem to be listening more to each other. Local coalitions like the Fox River Study Group have been bringing different sides together to study our water systems, employing science to determine where we stand and what will make a positive impact. Watershed planning seems to be moving toward being a real tool to use our limited resources most effectively. Within CSWEA, when a need arises, someone steps up to fill the role and people collaborate in the best interest of the organization.

CSWEA

With all that is going on, I am reminded of the words from the Beatles song, "I get by with a little help from my friends." Those words are a good summary for this year for me as president of CSWEA, and that keeps me hopeful as well. There have been some challenges for the Executive Committee to address. The most major in my mind has been Eric's resignation and the selection of a new executive director. This position has been critical to the success of CSWEA and the duties are many. I believe that the Executive Committee went through a fair and thorough selection process, and together made an excellent choice in Dan Lynch to help CSWEA move forward. Congratulations Dan, and thanks to all involved for your efforts!

As is the case for many organizations, we do not have the financial strength we once had. However, the Executive Committee has been very prudent with spending over the last several years and the course set has kept us stable. A dues increase passed at the last annual meeting will be used prudently to continue to serve the membership and remain financially sound. We have seen some growth in membership, but this could definitely be improved. Please continue to encourage others, especially those new to the industry, to get involved. There are still many

Continued on page 8

"WATER'S WORTH IT™ is our theme this year, consistent with WEF's focus unveiled at WEFTEC last fall. I can't think of a more appropriate concept as we work together to continue protecting the public and environment and look forward to where we need to go."

Continued from page 7

committees that could use help and I think the volunteers get much more back than they put in through their service.

CSWEA continues to provide great opportunities to learn and grow professionally. CSWEA volunteers at all levels plan and present excellent events year round to enrich our membership. Events such as MWIE, the Education Seminar, and other state section events are examples of the many opportunities to learn and network. With nutrient regulations moving forward for many more of our members, the Education Seminar this year will be very on topic and I hope to see many of you there.

85th Annual Meeting

The 85th Annual Meeting May 14-17 at Pheasant Run Resort in St. Charles is coming together and I believe this year will be a great one. The venue provides ample exhibit space to see the latest advances in technology, and a great technical program has been developed. Fun, casual events have been planned at the site so people can relax and focus on learning from one another and having an enjoyable time.

WATER'S WORTH IT™ is our theme this year, consistent with WEF's focus unveiled at WEFTEC last fall. I can't think of a more appropriate concept as we work together to continue protecting the public and environment and look forward to where we need to go. The Fox Valley Operators Association will again partner with us at the meeting. I see this as a great opportunity for all of us to get a better understanding of operational issues.

Thanks to all the local arrangement and technical program committee members for your hard work. I am excited to be part of this meeting and hope to see you all there!

Passing the gavel

Many presidents before me have commented on how fast the year has gone by and that is definitely true for me as well. When it seems that I am finally starting to know what I should do, the time approaches to pass the gavel on. While I hope that I have contributed positively to CSWEA and I have been honored to serve as president. In May, Randy Wirtz from Wisconsin will take the suspenders and Patti Craddock from Minnesota will be the first vice president. I have seen that they are both energetic, responsive individuals with great ideas to move the organization forward and the membership has made great selections in them.

Thanks

So many people have stepped up and helped the organization over the last year and I am indebted to them all. I am glad to say CSWEA is much more than just "getting by" and I think it is a great group to be part of that is enriching both professionally and personally.

My song reference is especially true with respect to Eric, Anne and the whole Lecuyer family. The efforts they put in are incredible and really do keep us on track. Thank you so much for all your help over the last several years! I feel privileged to count you among my friends. I look forward to maintaining these friendships and developing many more through CSWEA in the future. CS

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A Fond Farewell

Eric R. Lecuyer

One of the things I am most proud of having accomplished during my term as executive director is this magazine, *Central States Water*. It transformed our association from having a black and white newsletter, full of typos and blurry photos, to a full color, newsstand-quality magazine that attracts high-quality articles and many high-quality advertisers. I have enjoyed compiling all of the content and trusting it to the great team at Craig Kelman & Associates, the publisher who makes it all shine! In preparing each issue, I begin with a content budget and have greedily kept a thousand-word budget for my message, sometimes rambling, sometimes controversial and sometimes (ok, one time) very popular. I will miss my quarterly opportunity to express my thoughts on the current state of the association, our industry, our people, and our mission of providing training and education to promote improved water quality. Many thanks to the great team at Kelman, including our Managing Editor Cheryl Parisien, Advertising Manager Al Whalen, and Principal Craig Kelman, along with the many others who make CSWEA look so good with every issue.

Our Executive Committee, led by Beth Vogt, working closely with Randy Wirtz and Patti Craddock, undertook a remarkable effort in finding my successor as your executive director. In analyzing the various duties and responsibilities of the executive director and efforts involved, it was stunning to determine that the job takes around 1,600 hours annually, nearly full time. Most of the time commitment occurs between January and June of each year, with most of the association's critical events occurring during this period. The job has grown significantly over the past nine years, with our association following national nonprofit trends where volunteers can no longer commit many hours to the management and success of the group. This is very understandable, due to the change in demographics, the ever-pressing need for our members to do more with less, meet billable hour expectations, and survive a serious downturn in the economy. Dependency on paid staff is the result, and the ongoing success of CSWEA will depend on our next executive director, Dan Lynch. Dan was selected from a group of outstanding finalists, any one of whom would do a great job. Dan's passion for our association, demonstrated by his many years of commitment and effort, was a defining quality leading to his selection. CSWEA will be in excellent hands and Dan and I are working closely to assure a seamless transition. Dan will take CSWEA to the next level and I am excited about the future of our association.

It has been my honor to serve as executive director, first as interim secretary treasurer appointed in September of 2003, through my appointment as executive director in January of 2004, and my pending retirement at the close of the 85th Annual Meeting in May of 2012. My introduction to the job was a leap directly into the deep end, having published my first issue of *WISILLMINN* in November of 2003, a few short weeks after taking over for Russ Susag. I included a caricature drawing of Anne and me that was done at the 74th Annual Meeting, and I had to laugh when I found it while looking through my very first *WISILLMINN* as I put my final issue of *Central States Water* together.

My future plans are to continue to be part of CSWEA and to assist where I can while having more time to pursue my hobbies with some much-needed free time. This has been a team effort, with my wife Anne taking on much of the challenges of setting up online registration for the many CSWEA events, and our daughters Alaine and Emily who have volunteered to help with registration, photography, and wherever else needed at the last several annual meetings. Without the efforts of my family, I would have never been able to meet the growing demands of the position and meet the needs of the association and its sections. My sincere appreciation goes out to my family for the support they have provided and the many hours of work they have contributed. Please join us at the 85th Annual Meeting and help me thank them for their many hours of dedication to the success of the Central States Water Environment Association! CS

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MIDWEST WATER INDUSTRY EXPO REVIEW

Kalahari Resort & Convention Center
Wisconsin Dells, WI – February 7-8, 2012

By Laura Daniels, MWIE Committee Chair

The Midwest Water Industry Expo was held at the Kalahari in the Wisconsin Dells, on February 7-8. The expo was two full days this year, and showcased 80 booths and was attended by 170 vendors and 435 attendees. The classroom sessions and in-booth "Blue Light Special" vendor talks were very informative and well attended. Alpha Terra Science provided a Lock-out Tag-out training course each day. Operators were happy to update their certification while visiting the expo.

New this year, The WWA Distribution Conference was held on Tuesday February 7 in conjunction with the expo. The WWA Distribution Committee provided the 69 attendees with informative talks and a very popular panel discussion of several utilities discussing main repairs from location to street restoration practices. The day was topped off with the Meter Madness competition that drew a large crowd in the exhibit hall with the contest first-place award going to Steve Koss of the Green Bay Water Utility. Congratulations Steve! This was a popular event at MWIE and begs to be supported with CSWEA's Operations Challenge Team's demonstrating their skills at MWIE 2013!

Again this year, the Southern District of the Wisconsin Wastewater Operators Association meeting was held in conjunction with MWIE, with over 70 operators attending and participating in the day's events. Also CSWEA's Digester Foaming Workshop was held

MWIE Committee (L-R) Joe Finn, Jill Duchniak, Ross Brzycki, Maria Klasinski, Dave Wasserburger, Laura Daniels (Chair), Dean Falkner, Carol Strackbein, Reid Snedaker, Eric Lecuyer and Tom Mulcahy.

in conjunction with MWIE, providing for an excellent venue for this popular workshop.

While learning, networking and sharing product information was center stage at the expo, fun events included a scavenger hunt, Wii games, raffle drawings to benefit Water For People and the Young Professionals' bowling party to benefit student scholarships.

Many thanks to the Joint CSWEA and WWA Expo Committee members for their enthusiasm and hard work, the Young Professionals for moderating classroom sessions, and off course to Jill Duchniak, WWA staff, for her detailed organization and unflappable assistance.

Save the date of February 4-5, 2013 for next year's Midwest Water Industry Joint Expo, two full days of information, networking, and fun. CS

Save the dates of February 4-5, 2013 for next year's Midwest Water Industry Joint Expo, two full days of information, networking, and fun.

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CSWEA Officer Nominations

JIM HUCHEL
SECOND VICE PRESIDENT NOMINEE

Jim Huchel has been nominated for the position of 2nd Vice President of the Central States Water Environment Association (CSWEA). He has been an active member of CSWEA since 1990, and has provided service to the organization through a variety of activities. He served on the Illinois section board and is the current chair of the Illinois Operations Committee. He has been an active participant on the CSWEA Ad Hoc Digester Foaming Committee for the past two years and is currently the chair of this group. He worked with the Technical Arrangements sub committee of the Local Arrangements Committee for several of the CSWEA Annual Meetings. He has participated on the Operations Challenge teams, most recently as Captain of the Shovelers, competing at WEFTEC 2011 in Los Angeles. He is on the WEF Membership Committee. He teaches classes to aid operators in obtaining their certifications for his local operators group, Fox Valley Operators Association (FVOA).

Jim's career started out in the U.S. Air Force where his job as an environmental support specialist got him started in the water/wastewater field in 1984. He has worked in both the public and private sectors of the industry. He is currently the Wastewater Superintendent for the City of Crystal Lake, IL with overall responsibility for two wastewater facilities with a combined flow of 6.5 MGD.

TIMOTHY A. TACK, PE
TREASURER NOMINEE

Tim Tack has been nominated for the position of Treasurer for the Central States Water Environment Association. Tim has been a very active member of CSWEA since 2002. He started by co-chairing the Public Education/ WEFTEACH Committee for WEF in Chicago, then chaired the Public Education Committee, the Students & Young Professional Committee, the Nominations Committee, worked on several Local Arrangements and Ad Hoc Committees, and finally served as 2nd VP, 1st VP, president, and past president of the association during 2008 and 2009.

Tim is a licensed professional engineer in the State of Illinois. He graduated from the University of Illinois with BS in civil engineering in 1994. Then worked as a consulting engineer until 1997, and currently works for LAI, Ltd. as a manufacturer's representative assisting consulting engineers and municipalities size, select, and procure all types of water and wastewater equipment throughout Illinois, Wisconsin, and a portion Indiana.

Tim looks forward once again to serving the association on the Executive Committee as treasurer.

ERIC LYNNE
YP REPRESENTATIVE NOMINEE

Eric Lynne has been nominated for the position of YP Representative for the Central States Water Environment Association. Eric has been an active member of CSWEA, starting off attending events, presenting papers, and helping with the Young Professionals Committee. Currently serving as the Wisconsin YP Section Chair, Eric has developed a strong network with the local universities and young professionals and has created a database to keep track of these ever-changing contacts.

Eric received a bachelor's and master's degree in civil and environmental engineering from South Dakota State University. While in college, Eric helped start SDSU's WEF/AWWA student chapter and served as the charter president. After graduation in 2009, Eric joined Donohue & Associates' Sheboygan, Wisconsin office and is primarily involved with municipal wastewater projects throughout the Midwest. CS

DAN LYNCH Selected as CSWEA's Next Executive Director

By Beth Vogt

It is my pleasure to announce the selection of Dan Lynch as our next executive director. Dan will assume the role at the close of Central States' 85th Annual Meeting, May 14-17, 2012 at the Pheasant Run Resort and Convention Center in Saint Charles, Illinois. In selecting Dan over a field of highly qualified candidates, the Executive Committee cited Dan's wealth of experience in leadership, his vast knowledge of Central States and WEF, and his commitment to the continued success and growth of our association. Dan recently retired from the City of Janesville, WI, following a highly successful 25-year career as Director of Utilities.

Dan expressed is sincere appreciation for being selected. "I am thrilled to have been selected, and I want all of the members of Central States to know that I am looking forward to filling this position and will do everything in my power to meet your expectations," stated Lynch.

Please join me in congratulating Dan and offering him your support as he takes on this new role within Central States. CS

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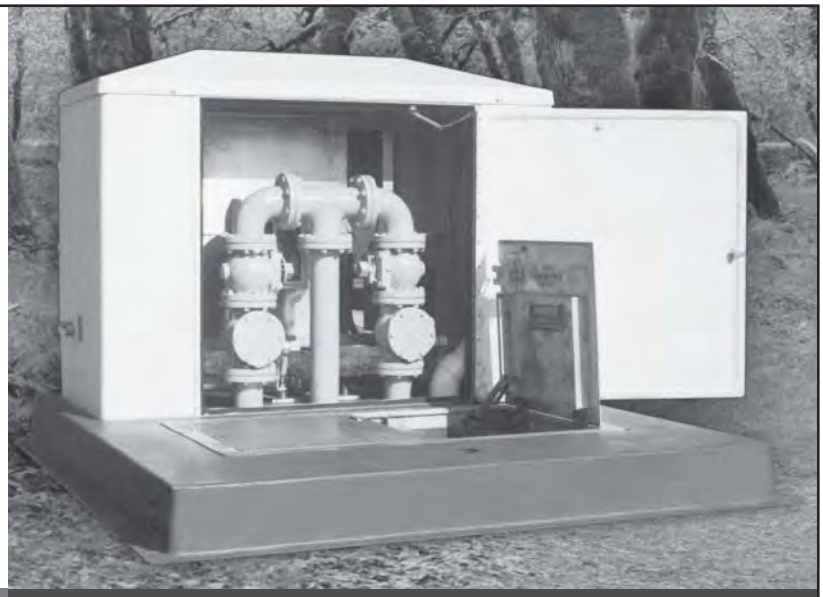

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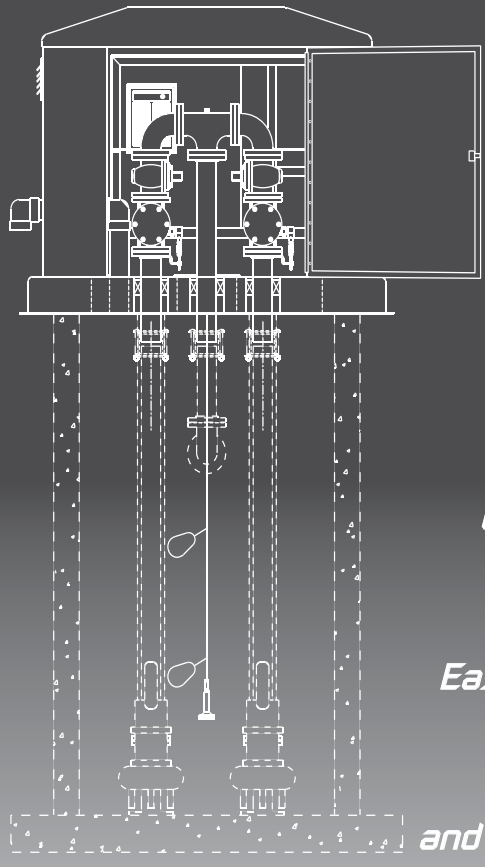

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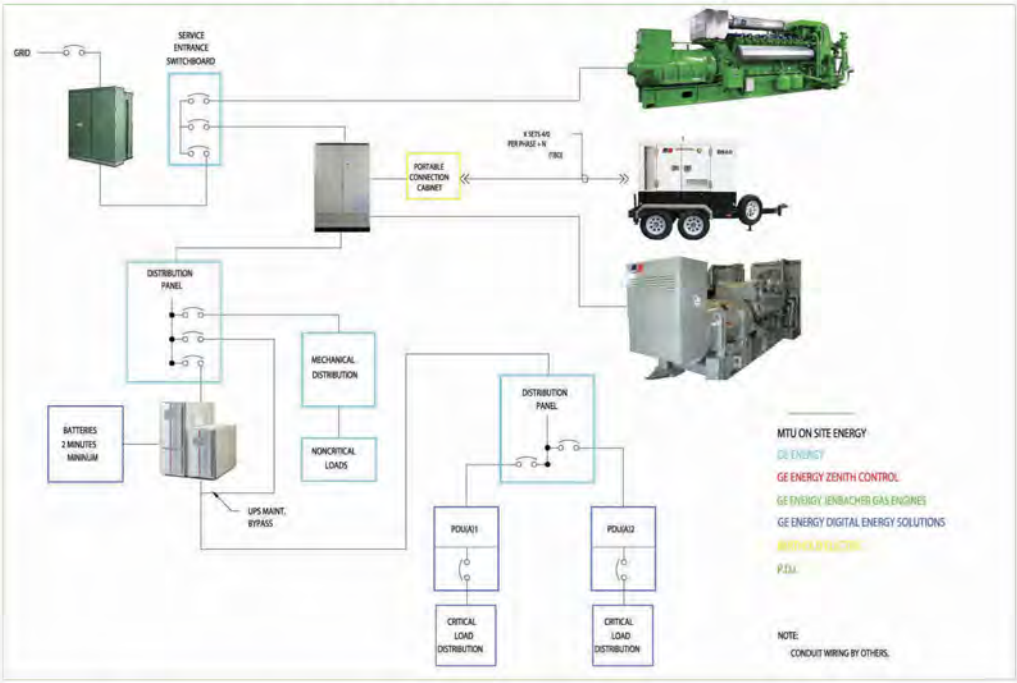

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WELCOME to the 85th Annual Meeting

WATER'S WORTH IT

Welcome to the 85th Annual Meeting of the Central States Water Environment Association. This year we are returning to the Pheasant Run Resort in St. Charles, Illinois. This familiar location provides us with ample exhibit hall space to really investigate new technical and equipment offerings and the convenience of having all events located onsite. Put the car keys in your room, relax, and enjoy everything our events will offer (and learn some things along the way)! The resort offers many amenities for you and your guests to enjoy.

Arranging the annual meeting requires significant efforts by many people. Dean Wiebenga and the entire local arrangements committee have worked hard organizing events, selecting entertainment, and sorting out the many details that go into making the meeting a success. The Technical Program Committee, under the leadership of Rick Manner, has developed a slate of presentations that will prove interesting and educational. We will continue with vendor talks in the Exhibit Hall. Rich Hussey, Exhibits Chair, has worked hard to maximize opportunities to interact as well as have some fun on the exhibit floor. If you haven't registered to exhibit yet, please consider signing up. I think you will be pleased with the arrangements and events.

Our Water For People Silent Auction will be held in the Exhibit Hall. The success of the Water For People Auction hinges on donations from our exhibitors, consultants, and individuals. Please consider donating an item so we can make a significant contribution to this cause.

The Fox Valley Operators Association will hold their meeting at the conference on Tuesday morning. We welcome them back and look forward to talking with them at the Tuesday events.

We have lined up interesting and thought provoking Keynote and Farewell speakers. Recreational options include the golf outing on Monday afternoon and the Tuesday morning walk/run, both at the resort. An optional plant tour at the FRWRD West Water Reclamation Facility is also planned. A relaxed, fun social event is planned for Tuesday night and the Annual Banquet will be held Wednesday night.

Through the development efforts of many people, I believe you will find that an educational and fun meeting awaits your participation. Please come and join us!

Beth Vogt
CSWEA President

CONFERENCE HIGHLIGHTS

Monday, May 14, 2012

Golf Outing
12:30-5:30 p.m.
Pheasant Run Golf Course's 18-hole resort course is a par-72 championship caliber layout, with tree-lined fairways, pristine lakes, and carefully manicured greens. A Maddox design, the course has received top honors and industry recognition for both design and competitive play. The signature hole, the Par 5 first hole, is recognized as among the most challenging in the Midwest. Contact Golf Chair Tim Tack for outing details and sponsorship opportunities at 847-392-0990.

Meet and Greet
6:00- 8:00 p.m.
Poolside, Pheasant Run Resort
Renew old friendships and meet new friends Monday night poolside. Refreshments and light snacks will be available and the golf awards and winners will be announced.

Tuesday, May 15, 2012

5K Run/Walk
6:45-8:30 a.m.
Meet in hotel lobby for fun run/walk around the resort property.

General Opening Session
9:00-9:10 a.m.
Pheasant Run Salon II Conference Welcome, Beth Vogt CSWEA President

Keynote Address
9:10-10:00 a.m.
Jeff Eger, WEF Executive Director will provide a moving introduction of WEF's new WATER'S WORTH IT™ campaign.

Technical Sessions
10:15-11:45 a.m.
1:30-4:30 p.m.
Salons II, V & VI
There will be three concurrent sessions, A, B & C from 10:15 a.m. to 11:45 and D, E & F from 1:30 to 4:30 p.m.

Fox Valley Operators Meeting
10:00-11:00 a.m.
Skybox
The Fox Valley Operators meeting will be held in the Mega Center Skybox.

Exhibits/Sponsors
11:30 a.m.-6:00 p.m.
Mega Center
Exhibits showcasing the latest technology in wastewater, collection systems, treatment and many related items will be on display. Be sure to visit our fine exhibitors and thank them for their support of our association.

Lunch
12:00-1:00 p.m.
Mega Center
Our Exhibitors Luncheon will be provided in the Mega Center.

Vendor Talks and Presentations
1:00-4:00 p.m.
Mega Center
Visit our vendors as they discuss the latest technology they have on offer.

Exhibitor Reception
4:00-6:00 p.m.
Mega Center
Light snacks and refreshments will be provided in the Exhibit Hall. Share some refreshments and visit with our exhibitors.

Tuesday Night Social Event
6:00-9:00 p.m.
Mega Center
The Tuesday night social event will include beer, food, beer, soft drinks, beer, and a cash bar. There will be games played on Wii gaming systems. You will have a chance to win one of the Wii systems at the end of the night. There will be indoor games, bags, ladder golf games with prizes awarded to the winning team. Come and join us for a good old-fashioned back yard picnic. Did I mention the beer?

Wednesday, May 16, 2012

State Section Breakfasts
7:30-9:00 a.m.
Pheasant Run GEM Rooms
Please attend your respective Section's business meeting to be updated on the activities of the section and its committees. Don't miss this opportunity to get involved and find out where you can help your section. A buffet breakfast will be served.

Exhibits/Sponsors
9:00-11:45 a.m.
Mega Center
Exhibits showcasing the latest technology in wastewater, collection systems, treatment and many related items will be on display. Vendor talks will be scheduled during the morning.

Technical Sessions
9:00-11:30 a.m. and 1:45-4:00 p.m.
Again, three concurrent technical sessions will be presented in the morning, Sessions G, H & J from 9:00-11:30 a.m. and Sessions K, L & M from 1:45-4:00 p.m. in Salon Rooms II, V & VI.

CSWEA Association Luncheon
12:00-1:30 p.m.
New Orleans Ballroom
Our WEF Visitor Scott Trotter will discuss the latest news from WEF, including the recent update to the Strategic Plan and WEF's WATER'S WORTH IT™ campaign. Our newest inductees to the Golden Manhole Society and the 7S's will be announced and honored in an appropriately humorous manner.

Student Paper and Design Presentations
3:00-4:00 p.m.
Salon Rooms
Join our Student Design and Paper winners as they present their projects in preparation to compete at WEFTEC 2012 in New Orleans.

CSWEA Annual Business Meeting
4:15-5:00 p.m.
Salon II
The Association Business Meeting will include reports from the Association Committees and Sections and the annual election of officers.

CSWEA Annual Awards Banquet
6:00-6:30 p.m.
Banquet Social Reception, Bourbon Street
Catch up with old friends and enjoy refreshments in advance of the Awards Banquet.

6:30-8:30 p.m.
Banquet and Awards Presentation
Honor this year's award winners for the many WEF and CSWEA Awards presented to the very best of our industry.

8:30-10:00 p.m.
Banquet Entertainment:
A fun, audience-inclusive event is being planned that you will not want to miss!

Thursday, May 17, 2012

Farewell Breakfast
8:30-10:00 a.m.
Marseilles Room
Our Farewell Breakfast Speaker
Cindy Skrukrud, PhD,
Clean Water Advocate

Fox River Study Group: Partnering to protect and improve water quality in the Fox River watershed.

Cindy Skrukrud chairs the Fox River Study Group, on which she represents the Illinois Chapter of the Sierra Club as one of nine directors representing a diversity of environmental and governmental interests from the Fox River watershed. She has worked for the Sierra Club as their Clean Water Advocate for the past 10 years. She lives near by Nippersink Creek in Solon Mills, Illinois. She has a PhD in biochemistry from University of California, Berkeley and a BS in bio-agricultural sciences from Colorado State University.

Plant Tour
10:30 a.m.-12:00 p.m.
Visit the Fox River Water Reclamation District's West Plant to see the implementation of new technologies at the recently upgraded facility.

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WEF VISITOR Scott Trotter

Scott Trotter, PE, BCEE is a member of the 2011-2012 Board of Trustees for the Water Environment Federation (WEF), an international organization of water quality professionals headquartered in Alexandria, Va.

Scott is one of the founding principals of Trotter and Associates, Inc., a municipal engineering firm founded in 1999 and located in St. Charles, Illinois. As president of the firm, Scott has overall responsibility for the civil and environmental projects completed by the firm. While he has a completed a wide range of engineering projects, Scott's expertise is in the planning, design and construction of water and wastewater treatment systems. Scott has over 20 years' experience working on a variety of wastewater infrastructure projects including facility planning, collection system management, pump station rehabilitation, and treatment facility improvements. His experience with public water supply projects includes ground water supply, storage, a variety of treatment processes and distribution system analysis.

A WEF member since 1993, Scott has served as the Local Arrangements Committee (LAC) Chair for WEFTEC 1994 and the LAC Co-Chair for WEFTECs 1997, 2002 and 2008. Scott has been an active member in both the Central States Water Environment Association (CSWEA) and Illinois Water Environment Association (IWEA). Scott has served in several leadership roles on the local level including CSWEA's technical program committee member (2001-2002) and chair (2003), as well as the CSWEA and the Illinois WEA WEFTEC reception chairman from 1997-2010. Scott is the co-founder of the University of Illinois Student Chapter and has been the CSWEA and IWEA liaison to that organization since 2005. Scott has served on the CSWEA Executive Board (from 2004 through 2010). He was president of CSWEA in 2006 and recently completed his term in the WEF House of Delegates (2008 -2010). His other professional affiliations include the Kane County Water Association, American Water Works Association, American Public Works Association, and the Illinois Association of Water Pollution Control Operators.

Scott has been published in the September 2002 issue of WEF's flagship publication, *Water Environment & Technology* (WE&T) and is the recipient of the 1999 Young Engineer Achievement Award from the University of Illinois as well as the WEF Achievement Award for Outstanding Service in 1997 and 2002 and the WEF Arthur Sidney Bedell Award recipient in 2010.

Scott is a registered professional engineer in the state of Illinois and received his certification in water/wastewater engineering from the American Academy of Environmental Engineers. He received a BS in civil engineering from the University of Illinois-Urbana in 1989.

> "Scott has over 20 years' experience working on a variety of wastewater infrastructure projects including facility planning, collection system management, pump station rehabilitation, and treatment facility improvements. His experience with public water supply projects includes ground water supply, storage, a variety of treatment processes and distribution system analysis."

KEYNOTE SPEAKER Jeff Eger, WEF's Executive Director

Jeff Eger, WEF Executive Director will be our 85th Annual Meeting Keynote Speaker and will introduce WEF's new program, WATER'S WORTH IT™. This discussion will be an excellent lead-in to our Annual Meeting, which is themed WATER'S WORTH IT™ as well.

Jeff is the Executive Director of the Water Environment Federation (WEF), an international organization of water quality professionals headquartered in Alexandria, Va.

Prior to joining WEF in January 2011, Jeff held the position of Executive Director of Sanitation District 1 (SD1) in Fort Wright, Kentucky. SD1 is the second largest public sewer utility in Kentucky and maintains $1 billion in physical assets that include more than 1,600 miles of sanitary sewer line, 143 wastewater pumping stations, 15 flood pump stations, eight package treatment plants, two major wastewater treatment plants with a third under construction, more than 250 miles of storm sewer and more than 17,800 sewer structures.

During his 16-year tenure with SD1, Eger developed and implemented a regional stormwater management program to comply with U.S. EPA's regulations, and began taking responsibility of public stormwater collection systems in 2009. He also supervised the regionalization of 30 municipal sanitary sewer systems in response to pending federal environmental regulations and legislative changes.

In addition, Eger has vast experience in working with organizations active on the regional and national levels. He is a member and past chairman of The Ohio River Valley Water Sanitation Commission (the water pollution control agency for the Ohio River and its tributaries) and past chair of the Wet Weather Partnership, a national organization dedicated to seeking environmentally responsible solutions to urban wet weather issues.

Eger earned a communications degree from Northern Kentucky University and is the recipient of numerous honors and awards, including: Outstanding Young Leader Award, Kentucky Jaycees; Northern Kentucky Chamber of Commerce Walter Pieschel Award (2004); Honored member, U.S. Junior Chamber of Commerce; honored by Girl Scouts of America and National Leadership Academy for community service.

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TECHNICAL PROGRAM

Tuesday, May 15, 2012

10:15-11:45 a.m.

Session A:
A Bird's Eye View of Foam

Survey of Causes and Prevention/ Control of Anaerobic Digester Foaming – A WERF Study, *Bhargavi Subramanian, Illinois Institute of Technology*

Quantifying Economic Impacts of Excessive Anaerobic Digester Foaming, *Sean E. O'Dell, Baxter & Woodman, Inc.*

Testing of Commercial Defoamant to Control Anaerobic Digester Foaming, *Robert Sharp, Manhattan College*

Session B:
A Breakfast That Will Sustain You

Public-Private Partnership Results in Sustainable Energy Project at MMSD, *Michael Martin, Milwaukee Metropolitan Sewerage District*

Achieving Net Zero: Sustainable Wastewater Treatment and Resource Recovery, *Terrence K. Boyer, Clark Dietz Inc.*

Sustainable Infrastructure Design, *Steven P. Gress, Donohue & Associates, Inc.*

Session C:
More Talks About Nutrients?

Fermentation Enhanced Nutrient Removal at Janesville WWTP, *Nathan Cassity, AECOM*

Evaluating Nutrient Removal at Nine Springs Wastewater Treatment Plant – A Technology and Cost Evaluation Study, *Tania Datta, CH2M Hill*

Low Level Phosphorus Removal: Case Studies from the Central States Region, *Leon Downing, Donohue & Associates, Inc.*

Tuesday, May 15, 2012

2:00-4:45 p.m. (Break 3:00-3:30)

Session D:
Gassing Things Up

Anaerobic Co-Digestion Increases Net Biogas Production by Increasing Microbial Activity, *Navaneethan Navaratnam, Marquette University*

Bioaugmentation of Anaerobic Digesters can Increase CH4 Production and COD Removal, *Kaushik Venkiteshwaran, Marquette University*

Optimizing Microbial Community Structure in Anaerobic Digesters to Produce More Methane, *Ben Bocher, Marquette University*

Break

Aeration System Automation: Controls Strategies to Maximize Energy Savings at Low Capital Cost, *Amanda L. Poole, Baxter & Woodman, Inc.*

Ammonia Controlled Aeration, *Don Esping, Brown and Caldwell*

Session E:
I&I, Hg, and TOC

A Humorous Look at The Positive and Negative Short and Long Term Effects of a Successful I&I Elimination Program, *Harry Mathos, City of Beloit*

Reducing Inflow and Infiltration through Prioritization: An Innovative Approach in Golden Valley, Minnesota, *Alva Rankin, Short Elliot Hendrickson, Inc.*

Infiltration Reduction – Richmond's 80% Solution, *Ed Coggin, HR Green, Inc.*

Break

Don't Be as Mad as a Hatter – Addressing Mercury in your Plant: Background & Case Study, *Ralph B. "Rusty" Schroedel, Jr.*

Enhancing Environmental Monitoring Using Total Organic Carbon, *Marina Arnaldos Orts, Illinois Institute of Technology*

Session F:
And Even More Talks About Nutrients...

Design Considerations in Using Deep Bed Downflow Denitrification Filters and Moving Bed Biofilm Bioreactor Reactor for Post-Denitrification in achieving Limit of Technology, *Kam Law, AECOM*

TECHNICAL PROGRAM *continued*

Simple, Early Steps Toward Meeting Lower Phosphorus Effluent Limits, *Jane M. Carlson, Strand Associates, Inc.*
Between a Rock, a Hard Place, and a Few Expensive Spots: Chemical Phosphorus Removal Constrained by Toxicity of Iron and Aluminum Chemicals, *Pavel Hajda, Symbiont*

Break

A Technique Measuring Nitrification and Denitrification Rates in an Intermittent Cycle Extended Aeration (ICEAS) System, *John E. Koch, Xylem Inc.*
What can ANAMMOX Deammonification do for you? *Beverley Stinson, AECOM*

Wednesday, May 16, 2012

9:00-11:30 a.m. (Break 10:00-10:30)

Session G:
Energy Production and Efficiency

Janesville WWTP Employs Multiple Uses for Digester Gas, *Jay S. Kemp, AECOM*
LM Digester Mixers and More Microturbines Enhance Sheboygan's Ability to Produce Energy and Go Off the Grid, *Mike Gerbitz, Donohue & Associates*

Break

Plant-Wide Energy Reduction Evaluations at the Thorn Creek Basin Sanitary District, *Randall Wirtz/John McDonnell, Strand Associates, Inc./Thorn Creek Basin Sanitary District*
Coming Full Circle: Moving Wastewater Treatment Plants Towards Energy Neutrality, *Matthew P. Van Horne, Hazen and Sawyer, P.C.*

Session H: Collections

Sanitary Sewer Siphon Rehabilitation in Janesville, WI, *Andrew Craven, Strand Associates, Inc.*
Pumping Downhill can be a Good Solution: Case Study for the City of Indianapolis, *Randy Vanderwerf/Omkar Ghavi, Clark Dietz, Inc.*

Break

The Balance – Impacts of Corrosion Control in the Collection System on a Biological Nutrient Removal Process, *Patrick Shea/Tracy Hodel, City of St. Cloud*
Don't Forget the Force Mains! *Sean W. FitzGerald, Hazen and Sawyer, P.C.*

Session J: Thinking Big

Cleaning the Yahara Chain of Lakes: A Watershed Wide Implementation Plan for Phosphorus Reduction, *Rachel Lee, Strand Associates, Inc.*
Nutrient Criteria: Current Status for the Central States, TMDL Development and New Tools for Nutrient Reduction Evaluation, *Brandon Koltz, Symbiont*

Break

When are Watershed Options Beneficial for Low Level Nutrient Compliance? *Mark Mittag, CH2M Hill*
Advanced Membrane Filtration Technology for Rain Water Reclamation for a Stadium, Target Center Minneapolis MN, *Alex Wang, Pentair Filtration Solutions LLC*

Wednesday, May 16, 2012

1:45-4:00 p.m. (Break 2:45-3:00)

Session K: Management Mix

Pump Station Elimination, Is It Cost Effective? *Christopher J. Tippery, AECOM*
The City of Janesville Water and Wastewater Utility and the RICE MACT, a Case Study, *Megan Corrado, SCS BT Squared*

Break

Capital Funding of Wastewater Infrastructure: Adapting to the New Realities, *Donald F. Roecker, Independent Funding Consultant*
Preparing For New Nutrient Limits: A Recipe for Success, *Eric Lynne, Donohue & Associates*

Session L:
Wet Weather, Combined Flows

Wet Weather Flows Certainly Have Some Different Characters, *Jim Fitzpatrick, Black & Veatch*
CT Setpoint Control for Disinfection of an 8.6 Billion Gallon Per Day Combined Sewer Overflow, *Curtis D. Courter, Hazen and Sawyer, P.C.*

Break

The End of Blending? What Now? *Bill Marten/Randy Videkovich, Donohue and Associates*
A Blending Case Study: The City of Columbus Wastewater Treatment Facility Upgrade, *Dave Arnott, Ruekert/Mielke, Inc.*

Session M:
Industrial and Student Papers

Collaboration of Industry and Local Municipality to Achieve Industrial Expansion Through Wastewater Treatment Modifications, *Chris Wilson, Greeley and Hansen*
Industrial Pretreatment When There is Trouble Downstream: A Case Study Using Complete Mix Fixed Film Biological Treatment, *Ken Neu, Environmental/Health Products and Service*

Break

Student Competition Paper

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FAREWELL BREAKFAST SPEAKER

Cindy Skrukrud, PhD, Clean Water Advocate

Fox River Study Group: Partnering to protect and improve water quality in the Fox River watershed.

Cindy Skrukrud chairs the Fox River Study Group, on which she represents the Illinois Chapter of the Sierra Club as one of nine directors representing a diversity of environmental and governmental interests from the Fox River watershed. She has worked for the Sierra Club as their Clean Water Advocate for the past 10 years. She lives near by Nippersink Creek in Solon Mills, Illinois. She has a PhD in biochemistry from University of California, Berkeley and a BS in bio-agricultural sciences from Colorado State University.

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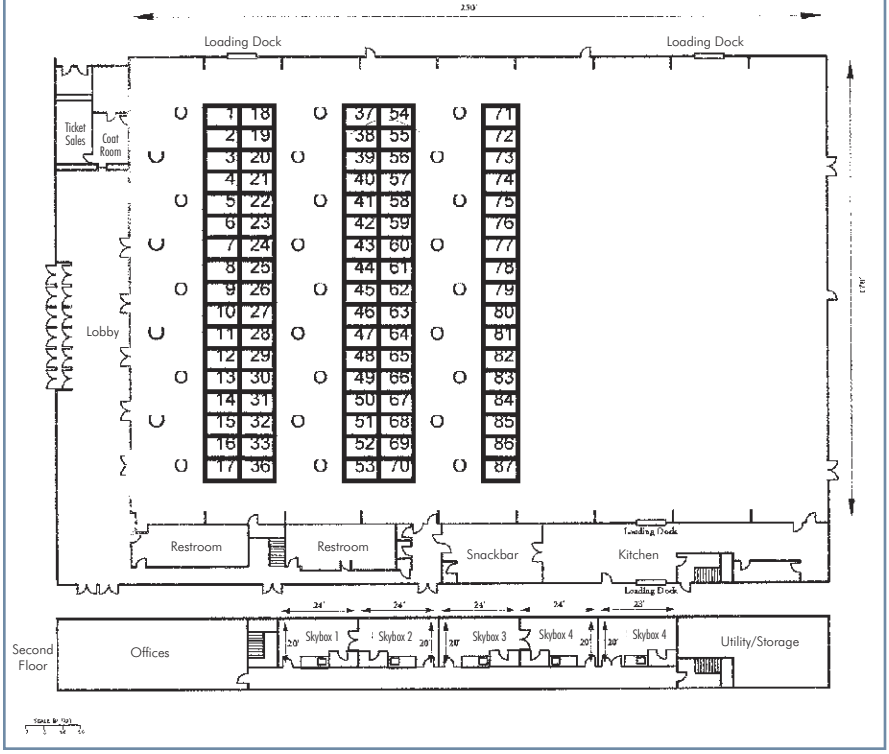

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Midwest Water & Wastewater Technology Conference

Co-sponsored by IL Section CSWEA and the IL Section AWWA

When: Tuesday, June 5, 2012 Where: McHenry County College, 8900 US Highway 14, Crystal Lake, Illinois 60012

About The Conference:

The Midwest Water & Wastewater Technology Conference is the new and improved technology conference for industry professionals hosted by the Illinois Section AWWA Information Management and Technology (IMTech) committee in conjunction with the Central States Water Environment Association. The Technology Conference incorporates multiple learning tracks related to the planning, design, implementation, and operation of water and wastewater-based technologies. The multi-track approach makes the conference ideal for utility managers, IT professionals, as well as operations and field staff. If you can only attend one technology conference this year, this is the one to attend!

Topics:

GPS Data Collection Training
Presenter: Andrew Robb, Autodesk AEC & Trimble MGIS Sales, *arobb@seilerinst.com*

Business Applications for GIS
Presenters: Thomas A. Thomey, MGP Inc., *tthomey@mgpinc.com* & Douglass Strempek, Village of Norridge, *dstrempek@villageofnorridge.com*

GIS Consortium: What Is It and How to Implement It?
Presenter: Thomas A. Thomey, MGP Inc., *thomey@mgpinc.com*

Corrosion of Underground Metallic Structures: Cathodic Protection System for Underground Corrosion Mitigation
Presenter: Rogelio de las Casas, EN Engineering, *rdelascasas@enengineering.com*

Introduction to Wireless Transmitters and Demonstration
Presenter: Jon Hall, Novaspect, Inc., *jhall@novaspect.co*

Smart Phone/Tablet Application for SC ADA and HM I Over City-wide Wi-Fi Network
Presenters: Tom Kirkland, ELAN Technologies, *tkirkland@elantechnologies.net* & Dave Weakley, City of Palos Hills

Google Earth and GIS for Utility Locating
Presenter: Frank Frelka, DuPage Water Commission, *frelka@dpwc.org*

Enterprise GIS
Presenter: Mark Robbins, Esri, *mrobbins@esri.com*

Norridge Cross Connection Tracking Feasibility Study: How Technology can Enhance Your Cross Connection Control Program
Presenter: Daniel Eisenhauer, Backflow Solution Inc. (BSI), *dan@backflow.com*

GE Proficy iFix offers more than Pretty Pictures and Alarms
Presenter: Todd Steege, Industrial Network Systems

Case Study: Secure Remote Access for Asset Management, SC ADA, GIS for the Downers Grove Sanitary District
Presenters: Clay Campbell, Downers Grove Sanitary District & Larry Kravets, B&W Control Systems Integration

Automatic Meter Reading Case Study: The City of Chicago Department of Water Management
Presenter: The City of Chicago Department of Water Management Representative from the Project for the City of Chicago

Excel Training
Presenter: Jim Huchel, City of Crystal Lake, *jhuchel@crystallake.org*

Asset Management Overview
Presenter: Joel Knight, PE, Lucity, *jknight@lucity.com*

Smart Data-Enabled Motor Control Centers
Presenter: Nick Fracasso, Rockwell Automation

Open Source GIS
Presenter: Greg Calcari, mPower Innovations, *gcalcari@mpowerinnovations.com*

SCADA Network Security
Presenter: Thomas Gluzinski, Paladin Consulting

Mobile Utility GIS and Map Use

Table Top Information:

Participants will be able to visit table top exhibits prior to the seminar from 7:30 to 8:30 a.m., during morning and afternoon breaks and lunch.

Full conference and registration information is posted at *www.CSWEA.org*. Contact Jim Huchel at *jhuchel@crystallake.org* or Lisa Hoffhines at *lisa@isawwa.org* for more information. CS

WEF's New Strategic Direction:

A Decade in the Making, But Well Worth the Wait

Matt Bond
2011-2012 WEF President

For those of you who do not know me, I am a detail-oriented, analytical guy. So when I am with some of my expressive Water Environment Federation (WEF; Alexandria, Va.) peers and we start to talk about the excitement of our strategic planning process, I finally understand that it is neither the process nor the analysis that excites most people. The excitement comes from the results, and I can assure you that every one of our members will be excited at the outcome of our year-long odyssey to establish a new strategic direction for WEF's future.

The WEF Board of Trustees and staff worked throughout 2011 to evaluate all facets of WEF; give every WEF member the opportunity to provide input through surveys, focus groups, and interviews; and develop a future direction that responds to the needs of the water sector and WEF members. Our planning was extremely successful due to an enthusiastic, willing, and able Board of Trustees; excellent WEF staff leadership, especially our new Executive Director Jeff Eger; and great data from our consultant-assisted process, which involved obtaining data from our members, external stakeholders, and other nonprofit organizations.

The result of our efforts is a new, bold strategic direction for WEF.

OUR VISION: WEF – essential to water professionals around the world. This captures our aspiration to be an indispensable and vital part of your career.

OUR MISSION STATEMENT: WEF's Mission – to provide bold leadership, champion innovation, connect water professionals, and leverage knowledge to support clean and safe water worldwide. This illustrates how our strengths will be applied to our commitment to protect public health.

OUR CRITICAL OBJECTIVES: Drive innovation in the water sector, enrich the expertise of global water professionals, and increase awareness of the value of water. This will focus WEF on achieving the vision and mission.

> "I can assure you that every one of our members will be excited at the outcome of our year-long odyssey to establish a new strategic direction for WEF's future."

Here are some of the key things we learned from you that helped shape WEF's new direction:

- WEF is the trusted source of unbiased technical and scientific information for our members and stakeholders in the water industry.
- WEF has a great foundation to build upon, with excellent financial strength, a strong professional staff, and a great network of connected volunteers.
- WEFTEC®, as the largest annual water technical conference and exhibition, is highly valuable to the water sector, tremendously successful, and continues to grow in size and influence.
- Our members and member associations:
  - Value our ability to advocate for sound water policy.
  - Appreciate access to technical information and training materials that can be delivered both at the global and local level.
  - Look to WEF to deliver compelling messages about the value of water and the need to invest in water infrastructure.
- Our members and external stakeholders want bold leadership for innovation in the water sector and in water research.
- WEF is well positioned to lead on emerging topics and opportunities in the water sector.
- The WEF Board of Trustees is excited about the future of WEF and of the water sector. We eagerly anticipate your participation in our forward movement, and would like to hear from you. Let me know how our new strategic direction resonates with you, or more importantly, how you would like to get involved.

Read the strategic direction document for more details, send your comments or questions to *WEFPresident@wef.org,* and watch for some exciting announcements in the weeks ahead. Thanks to everyone for your involvement and commitment to WEF. CS

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Wisconsin's Thermal Standard: A Real World Example

By Jon Butt, PE, Symbiont

INTRODUCTION

If you read the article on Wisconsin's new water quality based point source thermal discharge standard found in the 2011 Fall issue of *Central States Water*, you probably had one of two reactions. You either concluded that the thermal standard would not affect you or attempted to follow the steps in the article and got lost in the details. I admit, the standard can be confusing and it is hard to know if and when point sources will have temperature limits on effluent discharges. In Wisconsin, municipal point sources were exempt from any thermal concerns for many years and the majority of municipalities probably assume that any new revisions would not affect them. Most of the meetings I have attended where regulatory representatives have spoken on the subject often imply that municipalities do not have to worry. Is this really true?

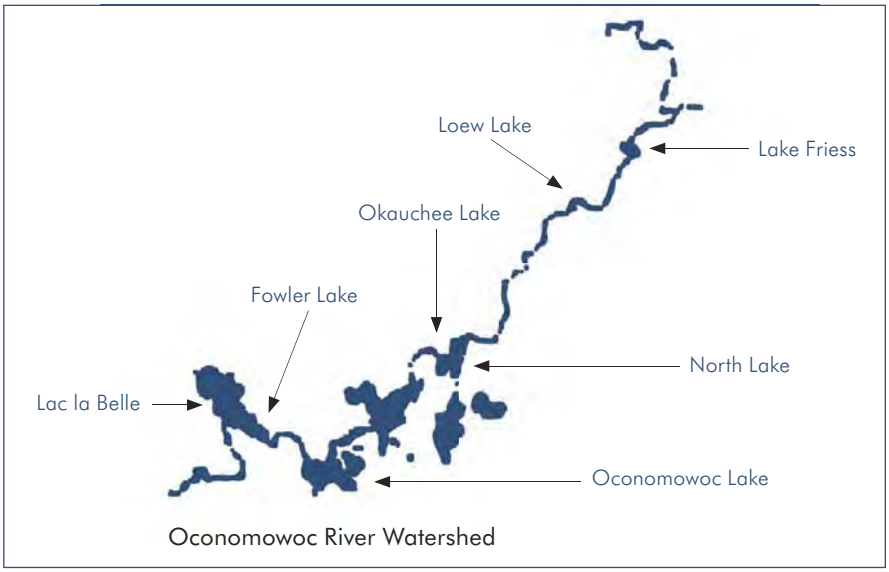
The purpose of this article is to use the information from the 2011 Fall issue and investigate the impact of the new administrative code requirements on a municipality. Such an investigation can serve as an example of how the new requirements are applied, if effluent discharges can be affected, and what options are available to treatment plants. Data from the Oconomowoc WTF is used in this investigation.

The Oconomowoc WTF is fairly typical of treatment plants in Wisconsin. The treatment process uses single stage activated sludge to remove BOD, TSS, and ammonia. Chemical is added to reduce phosphorus. Effluent passes through tertiary filtration before discharge.

The receiving water for the treatment plant is the Oconomowoc River. The river begins near Richfield, WI and flows in a southwesterly direction, passing through a number of lakes including Friess, Little Friess, Loew, North, Oconomowoc, Okauchee, Fowler, and Lac La Belle. Once through the last lake, the river continues until it reaches the Rock River. The outfall for the treatment plant is located downstream of all the lakes. The flow of the river is affected by a series of dams that help regulate water levels within the lakes. During periods of dry weather, the flow of the river can be significantly decreased by the lake dams.

TOOLS TO USE

The 2011 Fall article outlined the procedure used to determine the thermal requirements. The document *Guidance for Implementation of Wisconsin's Thermal Water Quality Standards* (a.k.a. "thermal guidance" document) dated December 22, 2010 will be used as a source for some of the data and also to provide details to help understand how to apply the administrative code requirements. A spreadsheet available in the thermal section of the Wisconsin Department of Natural Resource (WDNR) website will serve as the tool to calculate the various limits.



Oconomowoc River Watershed

WHERE TO BEGIN?

The first step in the process is be completed by WDNR. This step involves a preliminary analysis by WDNR to determine the potential for limits. The main component of this analysis is determining the ratio of the receiving water's uni-directional flow referred to as Q_s divided by the design average plant flow Q_e. For the purposes of this example, data found in Appendix D of the DNR thermal guidance document will be used. The administrative code details the various sources that can be used for both Q_s and Q_e. The spreadsheet from DNR calculates the ratio for you based on the data loaded into it.

The information found in Appendix D for Oconomowoc WTF is as follows:

River Flow:	0.06 MGD
Oconomowoc WTF Design average flow:	6.2 MGD
Ratio Q_s:Q_e	0.01

It is important to note that the information found in Appendix D is intended to be used for estimating purposes and may not be exactly correct. In the case of the Oconomowoc WTF, the permitted design average flow is 4 MGD not 6.2. The resulting ratio should be 0.015. This correction does not change the investigation.

Appendix D also designates the Oconomowoc River as a warm water fish water. This information is needed when limits are being estimated.

NEXT STEP

Step two involves determining the ambient, sub-lethal, and acute water temperatures for the receiving stream. This is also a step normally performed by WDNR. There are two options for determining the relevant water

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temperatures. The first option is to consult with NR 102 and find the table that contains the temperatures for the appropriate receiving water. In the case of the Oconomowoc River, Table 2 from NR 102 contains the necessary monthly temperature information. The second option is to use site-specific ambient temperature data. NR 102.26 contains the requirements for this option and outlines how calculations are to be done. The spreadsheet from WDNR can be helpful. For the purposes of this article, the first option will be used. The temperature data for the receiving stream copied from Table 2 of NR 102 is as follows:

The information found in this table will be used to estimate the Water Quality Based Effluent Limit (WQBEL) for temperature. Using information found in NR 106.55 (see Table or Fall 2011 article for more information), the low Q_s:Q_e ratio means that the maximum weekly temperature limit will be calculated based on the sub-lethal temperature values and the daily maximum temperature will be calculated using the acute values.

NR 106.55(6)(b) details the equation used to calculate the WQBEL values. For the Oconomowoc example it turns out that the WQBEL values are the same as the sub-lethal and acute values listed above. The sub-lethal values establish the weekly average WQBEL limit and the acute values establish the daily maximum limit. This is a result of the extremely low Q_s:Q_e ratio.

TABLE A: Data that appears in section NR 102, Table 2 of the Wisconsin Administrative Code.

Month	Classification: Warm – Small (Flow<200 cfs)		
	T-ambient	Sub-lethal	Acute
January	33	49	76
February	34	50	76
March	38	52	77
April	48	55	79
May	58	65	82
June	66	76	84
July	69	81	85
August	67	81	84
September	60	73	82
October	50	61	80
November	40	49	77
December	35	49	76
All values shown in the table are degrees F.			

TABLE B: Data that appears in section NR 106.55, Table 1 of the Wisconsin Administrative Code highlighting the relevant parts for this investigation.

Table 1 Flow Ratio Categories		
Warm Water and Limited Forage Fish Designated Waters	Cold Water Designated Waters	Effluent Temperature Limitation
Qs:Qe ≥ 20:1	Qs:Qe ≥ 30:1	Relevant to Oconomowoc
20:1 > Qs:Qe > 2:1	30:1 > Qs:Qe > 2.5:1	120°F or the sub-lethal WQBEL as calculated in par. (b), whichever is lower
Qs:Qe ≤ 2:1	Qs:Qe ≤ 2.5:1	Sub-lethal and acute WQBELs as calculated in par. (b)

STEP 3

This step involves determining the effluent discharge temperature by the permit holder. NR 106.54 states the requirements for the temperature data. This data is to be provided by the permit holder. If data is not available, temporary limits will be included in any WPDES permit until such time as data becomes available for a formal determination of the need for limits. NR 106 includes very specific instructions regarding the collection of the data. Explanations of the requirements are found in Chapter 2 of the thermal guidance document. These requirements can be summarized as follows:

- The permit holder shall measure the effluent temperature daily and report the maximum reading.
  - If grab samples are used, then a minimum of six measurements evenly recorded over the period of discharge shall be taken. For a 24-hour continuous discharge, a measurement would be taken every four hours. The value to be reported would be the maximum value of the six measurements.
  - If continuous measurement is used, then a measurement shall be recorded no greater than every 15 minutes. The maximum value is to be reported.

NR 106 also contains specific instructions for organizing the data. Chapter 2 of the thermal guidance document explains the requirements and the thermal spreadsheet from WDNR will automatically organize the data for you.

TABLE C: Temperature data organized in accordance with section NR 106 1 of the Wisconsin Administrative Code for June, 2011.

SUMMARY OF MONTHLY DATA		
Date	Daily Maximum Temperature (°F)	Weekly Average Temperature (°F)
Wednesday, June 01, 2011	59.92	
Thursday, June 02, 2011	59.66	
Friday, June 03, 2011	60.76	
Saturday, June 04, 2011	61.30	
Sunday, June 05, 2011	61.10	
Monday, June 06, 2011	61.62	
Tuesday, June 07, 2011	62.90	
Wednesday, June 08, 2011	62.86	
Thursday, June 09, 2011	62.50	
Friday, June 10, 2011	61.12	
Saturday, June 11, 2011	61.50	61.94
Sunday, June 12, 2011	62.10	
Monday, June 13, 2011	63.52	
Tuesday, June 14, 2011	63.34	
Wednesday, June 15, 2011	62.34	
Thursday, June 16, 2011	62.66	
Friday, June 17, 2011	64.12	
Saturday, June 18, 2011	64.52	63.23
Sunday, June 19, 2011	63.58	
Monday, June 20, 2011	64.18	
Tuesday, June 21, 2011	65.18	
Wednesday, June 22, 2011	64.18	
Thursday, June 23, 2011	63.30	
Friday, June 24, 2011	63.06	
Saturday, June 25, 2011	63.28	63.82
Sunday, June 26, 2011	63.58	
Monday, June 27, 2011	63.44	
Tuesday, June 28, 2011	63.58	
Wednesday, June 29, 2011	63.64	
Thursday, June 30, 2011	63.86	
Maximum Temperature for the Month	65.18	

Weekly Average for Month

Highest Daily Temp for Month

The following information attempts to define the various parameters:

Weekly Average: The average calculated from daily maximum temperature measurements for a calendar week Sunday through Saturday. Depending on the day a month begins and ends, most months will have three weekly average values per calendar month. Some months might have four.

Daily Maximum: The highest measurement within a calendar month of the daily maximum temperature values.

The following table was prepared using the data from Oconomowoc and serves as an example.

For the month of June, a total of 30 data points are reported. The treatment plant continuously monitors effluent temperature so the value shown in Table C is the maximum value measured within a 24-hour period for each day. The data has been arranged based on the days of the month. Each shaded area represents the values used to determine a weekly average value for Sunday through Saturday. For June, a total of three weekly average values can be computed. The largest average of these three values, 63.82°F, is used as the weekly average for the month of June. The highest measured temperature for June is 65.18°F and was recorded on Tuesday, June 21. The data for every month is arranged in this manner. The WDNR spreadsheet will organize and analyze automatically. The treatment plant is responsible for providing the maximum daily temperature values for each day of each month to be transferred to the spreadsheet.

THE FINAL STEP

With the first three steps completed, the final step involves comparing weekly and monthly maximum values from the treatment plant effluent data to the limits computed in step 2 for each month. The following table provides the comparison.

Compliance with thermal limits is determined when the limit value is greater than the data value. This table shows that Oconomowoc can successfully comply with the daily maximum monthly temperature limits. The same is not true for the weekly average limit. A graph illustrates the data a little more clearly.

This figure shows that the weekly temperature limits change much faster than the effluent data for Oconomowoc WTF. In the spring, the dramatic increase in the weekly temperature limit ensures that compliance is not predicted to be an issue. In the fall, the dramatic decrease ensures that compliance will become an issue. In the case of Oconomowoc, the data suggests that compliance with thermal discharge limits will occur during the warmer months of the year but will not occur during the colder months starting with October and potentially extending until the following March.

The purpose of this investigation was to demonstrate how to apply the new thermal requirements found in Wisconsin's administrative code and to determine if municipalities may have trouble complying with effluent thermal limits. The data provided by Oconomowoc WTF was very useful for this investigation and the results of the analysis illustrate that municipalities may not be as immune to thermal issues as once thought. It should be noted that some simplifying assumptions were used for the purposes of this investigation and such assumptions may have contributed to the final results. Some of the assumptions that were used include:

It was assumed that the flow rate of the Oconomowoc River was the same throughout all seasons. If this were the actual analysis, monthly flow values would be used.

It was assumed that the treatment plant effluent flow was the same every month. If this were the actual analysis, daily effluent flow data would be used.

TABLE D: Comparison of Effluent Data to Thermal Limits

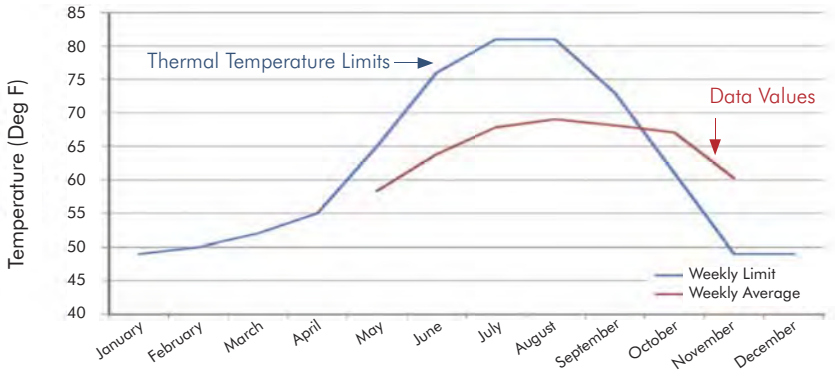
Month	Weekly Limit	Weekly Average	Daily Limit	Daily Max
January	49		76	
February	50		76	
March	52		77	
April	55		79	
May	65	58.31	82	60.28
June	76	63.82	84	65.18
July	81	67.86	85	72.16
August	81	69.05	84	69.44
September	73	68.14	82	69.98
October	61	67.08	80	67.84
November	49	60.23	77	61.94
December	49		76	

All values shown in the table are degrees F.

Compliance problem

"In the case of Oconomowoc, the data suggests that compliance with thermal discharge limits will occur during the warmer months of the year but will not occur during the colder months starting with October and potentially extending until the following March."

FIGURE 1: Plot of weekly permit temperature limits and data values.



NOW WHAT?

Once a treatment plant realizes that they may be facing thermal limits, there are several options including:

1. Installing equipment to cool the effluent
2. Applying for a variance
3. Demonstrating dissipative cooling
4. Alternative mixing zone in accordance with NR 106.55
5. Requesting alternative thermal effluent limits explained in NR 106, subchapter VI
6. Complete detail testing of local condition to determine site-specific thermal criteria. Based on the site-specific conditions, factors that contribute to the calculations can be changed.

It is probably best at this point for a municipality to consult with both the WDNR and an environmental engineer in order to determine which option might be best. Installing equipment involves both capital and operating costs. Applying for a variance has specific data requirements. Dissipative cooling requires recording seasonal temperature data around the outfall. Alternative mixing zones require data, modeling, and engineering. Alternative limits must be supported through data collection, and site-specific criteria also require thorough data collection.

CONCLUSION

Municipalities in the State of Wisconsin are no longer exempt from thermal concerns. Quick calculations can be done to help determine what if any potential compliance issues exist for thermal discharges. As demonstrated using the data from the Oconomowoc WTF, these calculations are fairly straightforward using the tools available from the WDNR. The results of such calculations as shown for the Oconomowoc WTF can predict what if any concerns exist to allow municipalities to be better prepared during the permit renewal cycle.

Acknowledgement

The author wishes to thank Tom Steinbach, Wastewater Superintendent for Oconomowoc WTF, for his support and acknowledge the contributions of the Wisconsin DNR for their review and comments on this article. CS

Janesville Upgrades Waste Treatment Plant

By Marcia Nelesen, Reprinted with permission from the *Janesville Gazette*

Talk about turning lemons into lemonade.

Janesville's utility director will ask the city council Monday to upgrade equipment at the wastewater treatment plant at a cost of $750,000. The equipment would allow the utility to at least double its production of electricity, create natural gas to fuel city vehicles and accept highly concentrated industrial waste.

Dan Lynch, utility director, estimates the investment could return more than $3.5 million to the city in the next decade. Lynch said the technology is the "coolest thing since sliced bread." The projected savings eventually would include $60,000 per year in gasoline and diesel fuel after vehicles are converted to run on natural gas. The $750,000 also would allow the utility to accept highly concentrated waste – such as byproducts from the production of ethanol and cheese – raising $146,000 in revenue.

The utility has created electricity from methane gas since the 1930s. At one point, it also experimented with fuel derived from methane to power vehicles, but the technology wasn't mature. As part of the not-yet-finished, $32-million revamp of the utility, the city installed micro turbines to replace methane-powered internal-combustion engines it had used to generate electricity. "Before, you'd walk into the generator room and you couldn't hear yourself think," Lynch said. "It was noisy and hot. The engines had many moving parts, increasing the potential for needed repairs." The micro turbines that now drive the generators have one moving part. Staff had no idea how efficient the new micro turbines would be, which is why they are coming back to the council asking for additional equipment.

Lynch proposes spending $750,000 to buy:

- Gas conditioning equipment to convert methane into natural gas for vehicles.
- A natural gas vehicle-fueling station.
- An additional micro turbine to increase the production of electricity.
- Equipment to modify vehicles to run on natural gas.
- A station to receive highly concentrated industrial waste.

The plant spends $400,000 a year on electricity and $32,000 on vehicle fuel. Since the upgrade, it is producing $180,000 a year from electricity sales. The additional equipment would double the electricity produced. "In the past, we used the electricity to offset the electricity we purchased from Alliant," Lynch said. "Now, we sell our electricity to Alliant as a biofuel for twice the cost that they sell us their electricity for." The additional electricity is expected to create about $150,000 per year in new revenue.

Vehicle fuel savings would begin at about $8,000 per year but increase annually to about $60,000 per year over the next 10 years as vehicles are replaced with models that can burn natural gas.

Janesville's plans impressed Dave Jenkins of the state Department of Energy. The city is hoping to get a federal grant for the project through the state. "What they're doing is very innovative, but it's also very cost-effective," Jenkins said. A lot of renewable energy projects are expensive. "This one makes a lot of financial sense," Jenkins said. The cost difference between using natural gas and petroleum or diesel is huge, Jenkins said. Petroleum is more than double the cost for the same energy. "We're excited about clean energy, especially if it can save consumers money and save companies and municipalities taxpayer money," he said. "And compressed natural gas – it definitely has the ability to do that."

How it works

How does waste turn into energy? It might sound like magic, but the process just mimics nature. The solids from the wastewater coming into the facility are fed into anaerobic digesters, which are large, airless, sealed concrete tanks with steel covers. The environment stimulates methane-forming bacteria. The bacteria use the sludge as food, and the byproduct is methane gas. The volatile components of the sludge, such as microbes and viruses, are destroyed. "It's basically like a really large digestive track for a mammal," Dan Lynch, utility director, said. "What it does is the same thing that you and I do, only it does it on a much larger scale." The wastewater treatment plant's purpose is to speed that natural process.

Once produced, the methane is cleaned and used to drive the plant's micro turbines that generate electricity. The plan is to buy equipment to convert some of the methane into natural gas that could be used to run vehicles.CS

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Unison Solutions, Inc. comments on the project
Congratulations to Dan Lynch, Joe Zakovec, the City of Janesville, WI and their consulting engineers AECOM, for making the most out of their biogas! Producing a profit stream from electricity produced from biogas in addition to making fuel for city vehicles will help Janesville reduce their overall energy costs and dependence on petroleum products. As the world looks for the best alternative fuels, biogas-based vehicle fuel makes sense from both an environmental and economic viewpoint. The once under valued byproduct of waste produced by households and industry can now be converted to electricity, heat and valuable vehicle fuel.

Janesville, WI is one of the first sites in the country to use their biogas for electrical generation, heat recovery and vehicle fuel. One of the unique features of this site is the use of a 200 KW turbine to reduce the cost of their electrical demand charges by peak shaving. This turbine allows Janesville to optimize on electricity production when they need it most.

Unison Solutions Inc., based in Dubuque, Iowa, is proud to be part of the team at the Janesville biogas project. This unique technology provided to Janesville by Unison will allow them to grow their CNG vehicle fleet and fuel it directly from their biogas. In the past, only large producers of biogas could benefit from this type of conversion. These smaller systems will allow more cities to take advantage of all their biogas has to offer, and save money in the process.

Jan M. Scott, President, Unison Solutions Inc.

CSWEA Signs on to NACWA's Healthy Water Coalition

HEALTHY WATERS COALITION URGES ACTION ON NUTRIENT RUN-OFF

Since passage of the *Clean Water Act* (CWA) in 1972, America's clean water resources have seen dramatic improvement in overall water quality, however, over the past two decades these gains have been threatened by nutrient contamination that the CWA was not originally designed to address. Over this next decade, the critical challenge facing efforts to restore and maintain clean and safe water is whether excessive amounts of nitrogen and phosphorus (nutrients) in our waters can be reduced.

According to state water quality reports, 80,000 miles of rivers and streams, 2.5 million acres of lakes, reservoirs and ponds, 78% of the assessed continental U.S. coastal areas and more than 30% of estuaries are impaired due to excessive levels of nitrogen and phosphorus. In all, the U.S. Environmental Protection Agency attributes excess nutrients as the direct or indirect cause of impairments in over 50% of impaired river and stream miles; over 50% of impaired lake acres; and nearly 60% of impaired bay and estuarine square miles. For the majority of these waters, nutrient run-off from agricultural lands is the dominant source of the nutrient impairments according to studies by the U.S. Geological Survey (USGS). In fact, recent USGS data indicate that despite efforts to reduce nitrate levels in the Mississippi River Basin, concentrations at eight major USGS study sites did not consistently decline from 1980-2008.

America's clean water resources and agricultural practices are inextricably linked. In fact, over the next five years agricultural policies and practices will have the single greatest impact on our lakes, rivers and estuaries. Congress has an opportunity in this next Farm Bill to establish policies to more effectively reduce agricultural nutrient run-off and improve water quality throughout the United States.

Conservation practices designed to reduce agricultural nutrient run-off support multiple agricultural, water quality and ecological goals, many of which are already established policy goals for agricultural investments under the Farm Bill. For example, many practices that control for nitrogen and phosphorus loss also control for erosion and sediment loss thereby avoiding unnecessary loss of fertile farmland and supporting the Highly Erodible Lands policy Congress established in the 1985 Farm Bill. In addition, many effective nutrient-control practices, such as wetlands and other riparian restoration activities, also have significant habitat and wildlife preservation benefits, thereby supporting goals of the Wetlands policy established by the 1985 Farm Bill and the Wetlands Reserve Program and Wildlife Habitat Incentives Program. Thus, many effective strategies for controlling nutrients not only improve water quality, but also can contribute to important benefits related to food security, biodiversity, and habitat and wildlife preservation. The following recommendations are designed to better leverage our agricultural resources to achieve real reductions of nutrient run-off.

1. Conservation programs: The Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP), Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), and Cooperative Conservation Partnership Initiative (CCPI) provide technical and financial assistance for a variety of conservation activities on agricultural lands. While water quality improvement is a goal of these programs, program investments can more effectively achieve reductions of nutrient run-off through the following policy reforms:

- For EQIP, prioritize nutrient control as the primary program goal in watersheds impaired by nutrients and tie these investments to performance standards.
- For CSP, direct participants in nutrient impaired watersheds be assigned nutrient reduction as a required resource concern.
- For CRP (and the CRP enhancement program), ensure that sufficient acres are available for new conservation buffer enrollments and require buffer enrollments ensure nitrogen run-off is reduced.
- For WRP, restore full funding so restoration work continues and the important water quality benefits of wetlands are expanded.
- For CCPI, increase the percentage of funding available for targeted projects and require projects address performance-based nutrient reduction in impaired watersheds.

By incorporating these policies, Congress would ensure that conservation dollars more effectively reduce nutrient run-off in impaired watersheds. Should Congress consolidate these programs, these concepts and approaches should be incorporated into a consolidated framework.

2. Commodity and Crop Insurance Programs: Conservation compliance requirements should apply to all commodity and crop and revenue insurance programs. In addition, federal payments and premium subsidies should be linked in some manner to the goal of avoiding adverse water quality impacts from agricultural operations. Options to consider include expanding conservation compliance requirements to include nutrient reduction activities, particularly in watersheds impaired by nutrients, or providing increased assistance to producers in such watersheds to adopt an adaptive management approach to maximizing nutrient use efficiency and/or other effective and documentable practices and approaches to reduce nutrient losses. In addition, Congress should examine commodity and crop and revenue insurance programs to identify where these programs may create disincentives for effective nutrient management and remove those disincentives.

3. Monitoring and Evaluation: Successful nutrient control programs demonstrate that effective implementation of nutrient management practices by agricultural operations is critically dependent upon monitoring systems which generate timely, precise and accurate data about the environmental pathways of agriculturally applied nutrients. Congress should provide monitoring and evaluation tools and incentives to help farmers gather and evaluate real-time data on the most efficient nutrient management practices for site-specific soil and crop conditions. Congress should also strengthen mechanisms for improved

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collaboration among ongoing state and federal water quality monitoring programs to gather water quality data to determine the effectiveness of on-farm site-specific nutrient management practices and to identify opportunities for more effective practices.

These recommendations are supported by a diverse cross-section of municipal water and wastewater organizations, state clean water officials, conservation and sustainable agricultural organizations who call on Congress to strengthen the links between water quality and agricultural practices, including:

- Alliance for the Great Lakes, IL
- American Fisheries Society, MD
- American Public Works Association
- American Rivers
- American Water Works Association
- Association of Clean Water Administrators
- Association of Metropolitan Water Agencies
- Association of Ohio Metropolitan Wastewater Agencies, OH
- Association of State Drinking Water Administrators
- Beaufort-Jasper Water & Sewer Authority, SC
- Beaver Water District, AR
- California Association of Sanitation Agencies, CA
- Cascade Water Alliance, WA
- Central States Water Environment Association, IL, WI, MN
- Chesapeake Bay Foundation
- City of Pueblo, CO
- City of Springfield, MO
- City of Raleigh, NC
- Colorado Watershed Assembly, CO
- Connecticut River Watershed Council, CT
- Des Moines Water Works, IA
- Endangered Habitats League, CA
- Environmental Defense Fund
- Environmental Law and Policy Center
- Environmental Working Group
- Friends of Wetlands, OH
- Georgia River Network, GA
- Green Bay Metropolitan Sewerage District, WI
- Greenpeace USA
- Gulf Restoration Network, LA
- Indiana Water Environment Association, IN
- Independence Water Pollution Control Department, MO
- Illinois Association of Wastewater Agencies, IL
- Iowa Environmental Council, IA
- Izaak Walton League of America
- Johns Hopkins Center for a Livable Future, MD
- Kansas Water Environment Association, KS
- Las Vegas Valley Water District, NV
- Los Angeles Department of Water And Power, CA
- Madison Metropolitan Sewerage District, WI
- Metropolitan St. Louis Sewer District, MO
- Minnesota Environmental Science and Economic Review Board, MN
- Milwaukee Metropolitan Sewerage District, WI
- Minnesota Center For Environmental Advocacy, MN
- Missouri Coalition For The Environment, MO
- Muskegon River Watershed Assembly, MI
- National Association of Clean Water Agencies
- National Association of Water Companies
- National Sustainable Agriculture Coalition
- Nature Abounds, PA
- Nebraska Sustainable Agriculture Society, NE
- New England Interstate Water Pollution Control Commission
- New York Water Environment Association, NY
- North Carolina Water Quality Association, NC
- Northwest Watershed Institute, WA
- Onondaga County Water Authority, NY
- Pennsylvania Council of Churches, PA
- Prairie Rivers Network, IL
- Providence Water, RI
- Save The Dunes, IN
- South Central Connecticut Regional Water Authority, CT
- Spartanburg Water, SC
- Tulsa Metropolitan Utility Authority/City of Tulsa, OK
- Water Environment Federation
- Western Lake Superior Sanitary District, MN
- Western Virginia Water Authority, WV
- Wilmington Department of Public Works, DE

Digester Foaming Workshop Report

By Prabhushankar Chandrasekeran, PE

Anaerobic digester foaming has been a menace and nuisance in many wastewater treatment plants for over a decade with various impacts on the overall solids handling process including inefficient gas recovery, inverse solids profile, blockage of gas mixing devices, foam binding of recirculation pumps, fouling of gas collection pipes, foam accumulation between cover and walls, and cover tipping. The economic problems that occur as a result of energy loss, manpower overtime to handle foaming issues are a serious concern to the wastewater treatment plants. The CSWEA Anaerobic Digester (AD) Ad-hoc Foaming Committee was formed in 2009 to identify causes of AD foaming, understand knowledge gaps and provide viable solutions to prevent, handle and mitigate foaming.

As part of this continuing effort, the committee organized a workshop at the Midwest Water and Wastewater Industry Expo held at the Kalahari Resort in the Wisconsin Dells on February 8, 2012. About 40 operators, plant staff, and engineers attended the workshop, contributing to the committee's efforts by sharing their experiences and inquiries related to foaming. Jim Huchel, Wastewater Superintendent at City of Crystal Lake, spearheaded the committee and the workshop. The major goals of the workshop were to share findings from the committee's and the WERF foaming surveys, provide operator-focused information on test for foaming potential, share the progress and aims of the WERF project, and share case studies of effective foam prevention and mitigation. In an effort to understand the foaming issues, the committee conducted two foaming surveys, in 2010 and 2011, of wastewater treatment plants in Illinois, Wisconsin and Minnesota. Members of the committee are also involved in a WERF project (INFR1SG10) focused on creating a guidance manual for prevention and control of AD foaming.

Prabhu Chandrasekeran, Civil Engineer at Greeley and Hansen LLC, presented the results and data analysis of the committee's foaming surveys. The data analysis showed some relationships between various parameters including pH, mixing, temperature, organic loading, liquid treatment processes, foaming in the liquid treatment side, and AD foaming. While some commonalities are visible, no single parameter could be directly related to foam initiation or stabilization.

Bhargavi Subramanian, PhD student at Illinois Institute of Technology, provided an overview of the project goals and status of the WERF AD foaming project. She talked about the various foaming cause and contributors in relation to digester feed, geometric design, process design and operation. She mentioned that operational modifications have been incorporated to various degrees of success, including; however, there are knowledge gaps that need to addressed in the coming years to completely understand AD foaming.

Amanda Poole, Environmental Engineer at Baxter & Woodman Inc., presented case studies demonstrating the full scale testing being performed as part of the WERF project. Case studies for the Cities of Marquette, MI, Elmhurst, IL and Crystal Lake, IL were presented at the workshop. The impacts of organic loading rate, primary to secondary sludge feed ratio, digester mixing, and gas pressure on AD foaming are being studied carefully in

these communities and results are expected in fall 2012. The WERF guidance manual is expected to be released in December 2012.

Alan Grooms, Process & Research Engineer at Madison Metropolitan Sewerage District (MMSD), presented information on the experiences with foaming at MSSD. MMSD, in collaboration with University of Wisconsin, is continuing their efforts to understand, control, and prevent foaming in their plant. Alan mentioned that MSSD will be performing a pilot-scale PAX-14 trial soon to determine its effect on foam control. Monty Baker with MMSD gave an interesting and engaging presentation on laboratory tests that would help monitor a stable operation of ADs. Finally, Rusty Schroedel shared his experience with severe foaming issues at an anonymous WWTP. He provided guidance on what to expect during severe foaming and how to be adjust operations for such calamities as an operator or engineer.

The MWIE AD workshop was the final meeting of the committee. Overall, the workshop was a successful event in creating awareness and educating owners, operators and consultants about AD foaming problems, existing knowledge gaps and promising solutions. Operators are encouraged to continue monitoring progress of the WERF study for further developments on the control and prevention of anaerobic digester foaming.

Presentations from the Digester Foaming Workshop at MWIE are posted at *www.CSWEA.org*. CS

Regulatory Update

By Brandon Koltz, Symbiont

USEPA has continued to advance the concept with of integrated planning for Clean Water Act NPDES responsibilities. Communities may have requirements for CSO and SSO control, modified biosolids management, storm water management under the MS4 program, and nutrient removal to meet more stringent water quality criteria. When these requirements are imposed simultaneously, the costs may be unaffordable. Integrated planning is intended to allow communities to examine these requirements, determine which provides the greatest environmental and public health benefits, and then establish a manageable schedule for implementation memorialized either in an integrated NPDES permit or with a judicially enforceable decree.

- A draft Integrated Planning Framework has been made available by USEPA. Proposed planning elements include:
- A description of the water quality, human health and regulatory issues to be addressed in the plan.
- A description of existing wastewater and storm water systems under consideration and summary information describing the systems' current performance.
- A process for involving relevant community stakeholders in the planning and selection process.
- A process for identifying, evaluating, and selecting alternatives and proposing implementation schedules. Measuring success.

The framework encourages sustainable, green solutions as part of the plan.

USEPA announced in the Federal Register (*Federal Register,* Vol. 77, No. 7, Wednesday, January 11, 2012, Notices) that five workshops would be held in regional offices to discuss the proposal and receive questions and comments. The final meeting was held February 17 at the Region 5 office in Chicago. Comments were due by February 29. WEF has had representatives at each of the meetings and the Government Affairs Committee submitted comments. Scott Trotter, Board Member and Alan Vicory, Government Affairs Committee Regulatory Chair, participated on the panel representing WEF. USEPA Headquarters was represented by Deborah Nagle, Office of Water, Permitting Director and Mark Pollin, Office of Water Enforcement and Compliance Activities. The Association of Clean Water Agencies, NACWA, US Conference of Mayors and Environmental groups were represented on the formal discussion panel.

At the February 17 meeting, USEPA expressed the view that both permits and consent decrees or other agreed order mechanisms would be used as implementation tools. Stakeholders also suggested that drinking water costs should also be included in the planning process, since costs for both generally affect a common group of ratepayers. Municipal representatives stressed the cost pressures and hope that the integrated permitting isn't just a scheduling exercise, but will lessen some requirements and allow practical solutions. State agency representatives were concerned that developing integrated permits may prove problematic considering diminished resources within many state agencies.

Stakeholders have expressed a preference for use of the NPDES permit for schedule requirements to the greatest degree possible, rather than consent decrees. There have been comments that drinking water program requirements should also be considered with respect to overall cost to ratepayers. There is a reluctance to incorporate potential violations in the description of regulatory issues due to enforcement considerations. USEPA indicated that they will take the comments and discussion points to redraft the framework and reissue it late March.

Pilot programs are being solicited to serve as models for the broader regulated community. It is anticipated that watershed permitting may be proposed under the integrated planning approach. For more information and links to the federal register announcement and more details regarding proposed plan elements go to: *http://cfpub.epa.gov/npdes/integratedplans.cfm*

Recreational criteria

Draft recreational criteria were published in January with comments due February 21, 2012. Following a multi-year series of technical and epidemiological studies, USEPA is recommending that *Escherichia coli* or *enterococci* be used as indicator organisms for human fecal contamination. Testing for specific pathogens is not recommended. The concentrations recommended in the 1986 criteria document are carried forward. There are three statistical aspects for data collection and analysis. The magnitude recommended is:

- *E. coli* geometric mean of 126 cfu/100 ml
- *E. coli* Statistical Threshold Value (STV) of 235 cfu/100 ml
- *Enterococci* geometric mean 33 cfu/100 ml
- *Enterococci* STV of 61 cfu/100 ml

The duration for calculating the geometric mean and STV is 30 to 90 days.

The frequency of exceedance is zero for the geometric mean value and ≤ 25 percent STV exceedances for the specified duration. During a webinar on January 25, EPA stressed that the STV had been inappropriately applied as a daily maximum in the past. It was also stated that the 1986 Criteria document had different criteria for different use intensities. Different criteria based on use intensity are no longer recommended. The above criteria are based on a risk level of eight illnesses per 1000 swimmers, or the most stringent. Culture methods are recommended for wastewater analysis. A new rapid assessment method, termed qPRC, is considered reliable for beach testing.

Wisconsin and Illinois currently have recreational water quality criteria based on fecal coliform concentration. It is anticipated that USEPA will request that the updated criteria be adopted after the report is published as a final document. For more information, go to: *http://water.epa.gov/scitech/swguidance/standards/criteria/health/recreation/index.cfm*

Stormwater

USEPA has delayed the publication of updated MS4 and storm water permit requirements from the original date of September 15, 2011. EPA has requested additional data and has indicated that they will announce the schedule for publication of draft storm water program modifications by March 16, 2012.

The proposed national rulemaking is considering the following key rulemaking actions:

- Develop performance standards from newly developed and redeveloped sites to better address stormwater management as projects are built.
- Explore options for expanding the protections of the municipal separate storm sewer systems (MS4) program.
- Evaluate options for establishing and implementing a municipal program to reduce discharges from existing development.
- Evaluate establishing a single set of minimum measures requirements for regulated MS4s. However, industrial requirements may only apply to regulated MS4s serving populations of 100,000 or more.
- Explore options for establishing specific requirements for transportation facilities; and
- Evaluating additional provisions specific to the Chesapeake Bay watershed.

For more information on storm water rulemaking, go to: *http://cfpub.epa.gov/npdes/stormwater/rulemaking.cfm*

Another regulatory activity to keep abreast of is lowered ammonia water quality criteria to reflect toxicity to mussels and snails, expected to be published as a final recommendation this spring. Wisconsin and Minnesota have established phosphorus criteria that will be reflected in future NPDES effluent limits. Illinois is examining if a technology-based effluent nutrient limits will be effective and serve as an interim step while science based nutrient water quality criteria are being examined. If you have regulatory questions, or issues that Central States might wish to address, please contact me or one of the other members of the state sections' Government Affairs Committees. CS

Spring Renewal

By Jane Carlson

As I write this message I look out my window at all the beautiful snow melting. A 50-degree temperature in early February is just wrong, in my opinion. By the time you read this, though, spring should be in full swing and will be welcomed. With spring comes renewal: fresh water feeding new flora and fauna, people doing their spring cleaning, and some new faces coming on board at Wisconsin Section and CSWEA.

Wisconsin Section had a busy winter. Following are just some of the activities:

- Our *Policy and Procedure Manual* was updated to give committees more direction on handling finances for conferences and seminars. Updates were approved by the association in January.
- Our Section's Strategic Plan was reviewed and refreshed and is ready for full implementation.
- The Government Affairs Committee continued to actively track and comment on important regulatory initiatives at the state and federal level.
- The Midwest Water Industry Expo was a big hit.
- Planning is complete for the Wisconsin Government Affairs Seminar and the CSWEA YP Leadership Academy and Education Seminar.

The agendas for the Government Affairs Seminar in February and Education Seminar April 3 look outstanding, as was the MWIE agenda. There continues to be a lot of interest in Wisconsin's revised phosphorus rules. The new water quality criteria are very stringent, but the rule revisions allow approaches that are intended to reduce compliance costs and improve water quality and habitat compared to WWTP modifications alone. Options like watershed adaptive management will not be suitable for everyone, and we will likely see other options implemented ranging from variances to innovative treatment technologies. Thanks to our partners including WWA, WWOA, WDNR, Municipal Environmental Group (MEG), and the League of Wisconsin Municipalities for co-sponsoring these events so we can learn and exchange information.

In the spirit of communicating "across the Cheddar Curtain" (a term coined by Minnesota Chair John Friel in his winter article), check out the following link from our 10,000 Lakes neighbors: *www.blueprintminnesota.com*. Their *Liquid Assets MN* documentary is now complete and well worth a watch. This is something we could consider for Wisconsin.

There is a change happening at the association this spring that fits the "renewal" category much more than the "spring cleaning" category. Our Executive Director, Eric Lecuyer, and his dedicated family will be retiring in May. Eric has been our director for almost 10 years and is responsible for bringing us into the electronic age. We now have an up-to-date website, online conference registrations, e-mail blasts, and a full-color association magazine that we can be proud of. Eric has helped us to be more organized, professional, and efficient. The Lecuyer family's esprit de corps is appreciated at association Karaoke events and beyond. We are happy he will remain active in the association in the future (in between car racing and work). Eric, Anne, and family, we sincerely thank you and wish you all the best.

The Association Executive Committee solicited candidates and conducted interviews for the Executive Director position. They selected our own Wisconsin native, Dan Lynch. Dan has been very dedicated to the association throughout his career and has mentored me and many others in CSWEA procedures and history. I hope to have as many interesting lapel pins as Dan someday. Congratulations and welcome, Dan, and we look forward to working with you!

Be sure to attend the Annual Meeting May 14-17 in St. Charles, Illinois. As usual, the meeting will be packed with opportunities for learning and networking through the exhibit hall, technical presentations, section and association meetings, awards, meals, and social events. Please reach out to your colleagues to attend the meeting. Wisconsin Section grew by 10 members in 2011 – let's keep up the momentum! Membership opportunities are listed at *www.cswea.org* under the "Join Now" and "Benefits of Membership" tabs.

This is my last article as Section chair. I've appreciated the opportunity to serve. At the Annual Meeting we will welcome incoming chair Bill Oldenburg, Vice Chair Dave Arnott, and Secretary/Treasurer Joshua Gable. Bill already has a clear vision for the section and I know this team will hit the ground running. Thanks so much to these and all of our active members for making the past year so successful and enjoyable. CS

"Options like watershed adaptive management will not be suitable for everyone, and we will likely see other options implemented ranging from variances to innovative treatment technologies."

2011-12 Highlights

By Dean Wiebenga

As I write my fourth and final Illinois Section Chair message, many thoughts come to mind, most prominent that it has been a very active year. There were highs and lows which saw our section grow by 35 members. The Lab and Industrial Pre-Treatment Seminar grew to one of the largest we have ever hosted.

One of our section's leaders, Steve Fiepke, Operations Chair, unfortunately passed away in December leaving a gaping hole in our committee roster. Steve was a great operator and even better father and friend. Not to mention my daughter's best customer for Girl Scout Cookies. Other members on the Operations Committee have stood tall during this adversity and will continue their role until we find a replacement.

One of the other highs for the year was the Illinois Section/Illinois WEA Government Affairs Seminar held in Willowbrook in January. Committee members Carl Fischer, Tom Lenz, Bob Johnson, Lou Kollias, Jay Patel, Deb Ness and Laurie Riotte did a great job in arranging a great conference and over 150 attendees. Great work by all!

The Local Arrangements Committee is working diligently for the upcoming 85th Annual Meeting in St. Charles. This conference has historically been one of the best technical conferences put together and this year will not disappoint. Rick Manner and the Technical Program Committee have another great program for you to attend. The Fox Valley Operators Association will join us again this year for some increased traffic for the vendors. Don't miss this year's meeting because WATER'S WORTH IT™.

Out next Illinois Section meeting will take place in May at the 85th Annual Meeting in St. Charles, Illinois. I am looking forward to the Annual Meeting for several reasons. The technical presentations and networking opportunities at the conference are certainly beneficial and it is always to catch up with the many friends I have made throughout the years in Central States. I am also looking forward to passing the Section Chair over to Mark Eddington who is our current 2nd Vice Chair. I wish Mark the best.

I will close by expressing my gratitude for all of the time and effort donated by our committee members and officers to keep the Illinois Section headed in a positive direction. I would also like to thank our Secretary/Treasurer, Shelly Cumbow for all the tasks she does preparing the financial statements for all section meetings, managing the finances, preparing the meeting minutes and all of the other unmentioned tasks that make the Illinois Section run smoothly. We are fortunate to have Shelly serve in this capacity for our organization. I have definitely enjoyed the year as Illinois Section Chair. I hope the organization continues to grow and engage our incoming members. Have a good spring and I hope to see you in St. Charles at the 85th Annual Meeting.

"Don't miss this year's meeting because WATER'S WORTH IT™."

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Can't Hardly Wait

By John Friel

What a difference a year makes! At this point, I can't hardly wait for summer, since our winter has been so mild. It is hard to believe how little snow and cold weather we have had compared to last year. Without the ice and snow of winter, there hasn't been much of an opportunity to interact with frozen water and go ice fishing, sledding, skiing or shoveling.

A warm winter in Minnesota is not all that bad and maybe the mild conditions will mean increased attendance in 2012 for wastewater-related events. I hope as you read this, the weather has continued to be warm and has helped more people attend the MPCA Wastewater Operations conference or encouraged people to think again about making plans to attend the annual CSWEA Educational Seminar in Madison.

I'm typing this right after another successful and well-attended joint MWOA & CSWEA MN Section – Innovative Approaches to Operational Problems Conference in St. Cloud. The conference included presentations on a wide range of topics, including updates from current students and future water leaders from Vermillion Community College and St. Cloud Technical College. Mr. Paul Aasen, MPCA Commissioner, gave a very good presentation covering many environmental and wastewater related topics from the statewide mercury TMDL to the issue of burn barrels. Please keep your plastics out of burn barrels. Dan Swanson, MN DNR, gave a stirring presentation about the work being done to protect Minnesota lakes and rivers from exotic invasive species.

It is great to report that the *Liquid Assets Minnesota* documentary is now complete and has been aired on TPT Channel 2. It can still be viewed online at the TP -MN video vault. Please check out the documentary at: *http://www.mnvideovault.org/index.php?id=22934&select_index=0&popup=yes*. This link is also available through the *www.blueprintminnesota.com* website along with additional information on the project.

As my last report as MN Section chair, I would like to thank all the past and present officers and committee members and other volunteers for making the MN Section the great organization it is. These dedicated people are always ready for more help. If you need a new resolution for 2012, please consider volunteering in some capacity with the MN Section or CSWEA. Please check out the CSWEA website *(www.cswea.org)* and Minnesota Section page *(www.cswea.org/minnesota)* or email any of the committee chairs or myself.

I would also like to say a special thank-you to Eric Lecuyer and his family on behalf of the MN Section. They have improved and enhanced the CSWEA organization during their tenure and have set it up for continued future success.

Finally, Rob O'Connell will be my replacement and I think he can't hardly wait to take over as MN Section Chair at the annual conference in May. Additionally Kevin Newman will also become the Vice Chair. The Minnesota Section will be in good hands. CS

APRIL

CSWEA 2nd Annual YP Leadership Academy
April 2, 2012
Monona Terrace, Madison, WI

CSWEA 17th Annual Education Seminar
April 3, 2012
Monona Terrace, Madison, WI

MAY

CSWEA 85th Annual Meeting
May 14-17, 2012
Pheasant Run, St. Charles, IL

JUNE

IL Section CSWEA-ISAWWA
Midwest Water & Wastewater Technology Conference
June 5, 2012
McHenry County College, Crystal Lake, IL

WI Section CSWEA "Classic" Collections System Seminar
June 7, 2012
Watertown, WI

WI Section CSWEA Pretreatment Seminar
June 12, 2012
Oshkosh, WI

IL Section CSWEA Collection System Seminar
June 21, 2012
Aurora University, Aurora, IL

JULY

WI Section CSWEA "Northwoods"
Collections System Seminar
July 26, 2012
Marshfield, WI

CSWEA CSX-2012
July 12-13, 2012
Kalahari Resort and Convention Center, Wisconsin Dells, WI

AUGUST

WI Section CSWEA Management Seminar
August 8, 2012
Richfield, WI

SEPTEMBER

WEFTEC 2012
September 29-October 3, 2012
New Orleans, LA

COMPANY	PAGE	TELEPHONE	WEBSITE
Advanced Engineering and Environmental Services (AE2S)	6	763-463-5036	www.ae2s.com
AECOM	53		www.aecom.com
American Flow Control	15		www.acipco.com
Amwell	58	630-898-6900	www.amwell-inc.com
Baxter & Woodman, Inc	58	815-459-1260	www.baxterwoodman.com
Berryman Equipment Company	45	800-605-0099	www.berrymanequipment.com
Black & Veatch	51	IL 312-346-3775 MN 952-545-6695	www.bv.com
Bolton & Menk, Inc.	25	507-625-4171	www.bolton-menk.com
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Calgon Carbon Corporation	15	800-422-7266	www.calgoncarbon.com
CCI Spectrum, Inc.	58	800-284-2030	www.spectrashield.com
CDM Smith	56		www.cdmsmith.com
Clark Dietz, Inc.	54	262-657-1550	www.clark-dietz.com
Crane Engineering	12	920-733-4425	www.craneengineering.net
Crawford, Murphy & Tilly, Inc.	37	217-787-8050	www.cmtengr.com
Degremont Technologies	16	804-756-7600	www.degremont-technologies.com
Donohue & Associates, Inc.	64	920-208-0296	www.donohue-associates.com
Energenecs	33	800-343-6337	www.energenecs.com
Farnsworth Group	38	309-663-8435	www.f-w.com
Flygt- a Xylem brand	5	IL 800-661-9944 WI 800-232-1417	www.flygtus.com
Force Flow	26	800-893-6723	www.forceflow.com
Foth	3	800-236-8690	www.foth.com
Greeley and Hansen	32	800-837-9779	www.greeley-hansen.com
Hawkins, Inc. (Water Treatment Group)	54	612-331-9100	www.hawkinsinc.com
Howard R Green Company	45	888-368-4389	www.hrgreen.com
Inland Power Group	20	262-781-7100	www.inlandpowergroup.com
John Meunier Inc.	24	208-771-3346	www.johnmeunier.com
KLM Engineering, Inc.	51	888-959-5111	www.klmengineering.com
I.Kruger, Inc.	29	919-677-8310	www.krugerusa.com
LAI, Ltd.	45	847-392-0990	www.LeyAssociates.com
Master Meter	8	817-842-8000	www.mastermeter.com
McMahon Associates, Inc.	30		www.mcmgrp.com
Metropolitan Industries, Inc.	47	800-323-1665	www.metropolitanind.com
M.E. Simpson Co. Inc.	32	800-255-1521	www.mesimpson.com
Mulcahy/Shaw Water, Inc.	57	262-241-1199	www.mulcahyshaw.com
Natgun a division of DN Tanks	59	847-782-0357	www.natgun.com
Oldcastle Precast	32	888-965-3227	www.oldcastleprecast.com/wastewater
pollardwater.com	2	800-437-1146	www.pollardwater.com
Process Equipment Repair Services, Inc.	18	262-629-1059	
PVS Technologies Inc	27	313-903-3397	www.pvstechnologies.com
Sanitaire - a Xylem brand	63		www.sanitaire.com
Sanitherm	47	888-821-5451	www.sanibrane.com
Sealing Systems Inc.	51	800-478-2054	www.ssisealingsystems.com
Shand & Jurs, an L&J Technologies Company	39	708-236-6000	www.shandandjurs.com
Short Elliott Hendrickson (SEH)	59	800-325-2055	www.sehinc.com
Smith & Loveless Inc.	21	800-898-9122	www.smithandloveless.com
Stantec formerly Bonestroo	53	800-880-4700	www.stantec.com
Stewart Spreading	42	815-695-5667	www.stewartspreading.com
Strand Associates, Inc.	34	608-251-4843	www.strand.com
Swanson Flo-Systems Co.	14	800-288-7926	www.swanflo.com
Symbiont	49	800-748-7423	www.symbiontonline.com
TKDA	23	651-292-4400	www.tkda.com
Trojan Technologies	9,11	888 220 6118	www.trojanuv.com
Trotter & Associates Inc.	44	630-587-0470	www.taiengr.com
Unison Solutions, Inc.	47	563-585-0967	www.unisonsolutions.com
University of Wisconsin-Madison	3	800-783-6526	www.epd.engr.wisc.edu
USEMCO	19	608-372-5911	www.usemco.com
Van Bergen & Markson, Inc.	58	800-422-0791	
Varec Biogas	36	866-4-BIOGAS	www.varec-biogas.com
Vogelsang	43	800-984-9400	www.vogelsangusa.com
Walker Process Equipment	54	800-9WALKER	www.walker-process.com

Central States Water would not be possible without the advertising support of these companies and organizations. Please think of them when you require a product or service. We have endeavoured to make it easier for you to contact these suppliers by including their telephone numbers and, where applicable, their websites. You can also go to the electronic version of ***Central States Water*** at *www.cswea.org* and access direct links to any of these companies.

Click HERE to return to Table of Contents

CSWEA Associate Membership Application 2012

Contact Information

Last Name	MI	First Name	(Jr., Sr., etc.)
Business Name (if applicable)			
☐ Business Address ☐ Home Address Street or PO Box			
City	State	Zip	Country
Home Phone Number	Business Phone Number		FAX Number
E-mail Address			

Employment Information

Employer	Job Title
Environmental Focus	Other focus or interest (please specify)
Signature (required for all new memberships)	Date

Associate Membership in Central States Water Environment Association

CSWEA Associate Membership Benefits include: Central States Water Magazine and Member price for CSWEA and Section Events	Dues cover a one year period, and must be renewed annually.	DUES
☐ I am a Young Professional (35 yrs or younger, less than 10 work experience) ☐ Please send me info on YP Events	Renewal notices will be sent one month prior to anniversary date.	$ 25.00

Payment Information

☐ Check/Money Order enclosed. Make check payable to Central States Water Environment Association.

OR Visit www.CSWEA.org to join on-line and pay by credit card.
Visa, Master Card & American Express Accepted.

Mailing Information

Send Form & Payment to: Central States Water Environment Association, 3809 Shenandoah Drive, Crystal Lake, IL 60012
Call 815-954-2714 for additional information or visit www.CSWEA.org

Join CSWEA & WEF Now! Membership Application 2012

Water Environment Federation® Preserving & Enhancing the Global Water Environment

Last Name	MI	First Name	(Jr., Sr., etc.)
Business Name (if applicable) ☐ Business Address ☐ Home Address			
Street or PO Box			
City	State	Zip	Country
Home Phone Number	Business Phone Number	FAX Number	
E-mail Address			

☐ **Please send me information on special offers, discounts, training, and educational events, and new product information to enhance my career.** ☐ **by email /** ☐ **by fax**

Member Association (MA) Choice: Central States Water Environment Association

Employment Information

Employer Code	Other (please specify)	Job Title Code	Other (please specify)
Environmental Focus		Other (please specify)	
Signature (required for all new memberships)		Date	

Sponsorship Information

WEF Sponsor Name & Sponsor ID Number:	ACQ.Code for WEF use Only GENI

Membership Information

Membership Categories *Select one only*	**Member Benefit Subscriptions Include**	DUES
☐ **Professional (Active)**		$ 113.00
Individuals involved in or interested in water quality	✓ *WE&T (including Operations Forum)*	
	✓ *WEF Highlights Online*	
	✓ Central States Water Magazine	
☐ **Young Professionals Package**		$ 67.00
YP=<35 yrs of age, < 10 yrs work experience can receive 50% discount for 1st three years of membership	✓ *WE&T (including Operations Forum)*	
	✓ *WEF Highlights Online*	
	✓ *Central States Water Magazine*	
☐ **Professional WW Operations (PWO)**		$ 72.00
Individuals involved in the day-to-day operation of wastewater collection, treatment or laboratory facility, or for facilities with a daily flow of < 1 mgd or 40 L/sec.	✓ *WE&T (including Operations Forum)*	
	✓ *WEF Highlights Online*	
	✓ *Central States Water Magazine*	
☐ **Student**		$ 40.00
Students enroll for a minimum of six credit hours in an accredited college or university. Must provide written documentation on school letterhead verifying status, signed by an advisor or faculty member.	✓ *WE&T (including Operations Forum)*	
	✓ *WEF Highlights Online*	
	✓ *Central States Water Magazine*	
☐ **Corporate**		$ 370.00
One person is entitled to receive member benefits. Companies engaged in the design, construction, operation or management of water quality systems. Designate one membership contact.	✓ *WE&T (including Operations Forum)*	
	✓ *Water Environment Research (Print)*	
	✓ *Water Environment Regulation Watch*	
	✓ *WEF Highlights Online*	
	✓ *Central States Water Magazine*	
Executive		$ 315.00
Upper level managers interested in an expanded suite of WEF products/services.	✓ *WE&T (including Operations Forum)*	
	✓ *World Water & Environmental Engineering*	
	✓ *Water Environment Research (On-Line)*	
	✓ *Water Environment Regulation Watch*	
	✓ *Utility Executive*	
	✓ *Biosolids Technical Bulletin*	
	✓ *Central States Water Magazine*	

Additional Subscriptions

Consider including additional WEF resources in your membership package! Check the appropriate subscription and include the subscription cost in your payment.
NOTE: Prices listed reflect a substantial member discount!

☐ *WE&T (including Operations Forum)*	$55.00	$
☐ *World Water*	$75.00	$
☐ *World Water (Water Reuse and Desalination*	$55.00	$
☐ *Water Environment Research Online: $75, Print: $100, Both: $125*		$

Payment

☐ **Check/Money Order enclosed**	☐ **Charge**	**Credit Card Number**	TOTAL DUE	$
(Made payable to WEF in US funds)	☐ VISA	Exp. Date		
	☐ American Express	Signature		
	☐ MasterCard	Daytime Phone		

Mailing Information

Send Form & Payment to: Water Environment Federation • Member Service Center • PO Box 18044, Merrifield, VA 22118-0045
For more information, call 1-800-666-0206 (U.S. and Canada) or + 1-703-684-2452 (all other countries) • Fax + 1-703-684-2428 • www.wef.org

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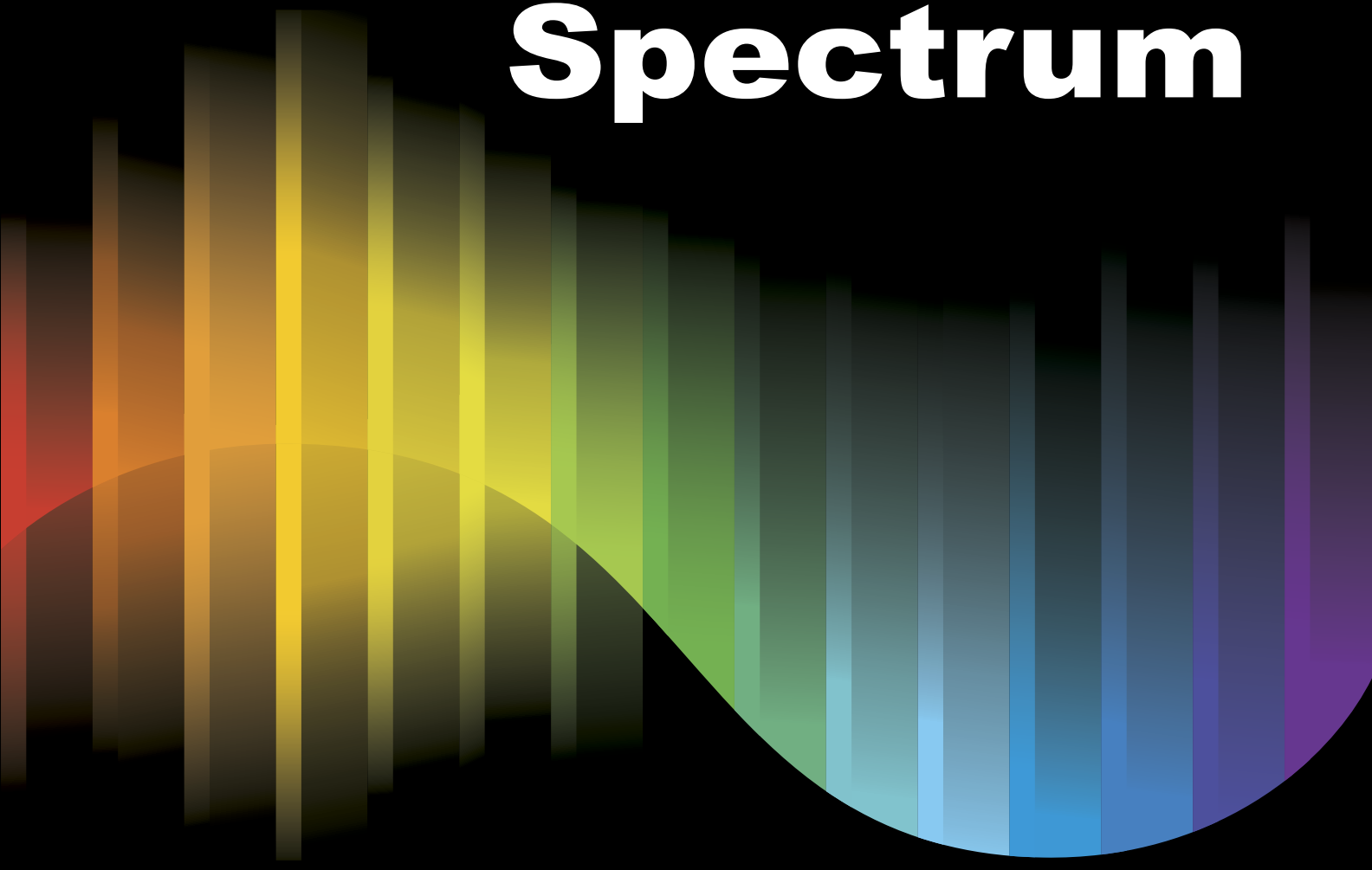

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