46th Annual W.W.O.A. Conference
October 9-12, 2012
Wisconsin Dells, Kalahari Resort
The Clarifier is the publication of the Wisconsin Wastewater Operators’ Association and is intended to inform and educate the membership on issues related to the treatment and control of wastewater. The Clarifier is produced five (5) times each year: February, April, June, September, and December. All members are encouraged to contribute to the mission of the Clarifier.

The Wisconsin Wastewater Operators’ Association is a non-profit organization dedicated to educating, informing, and advancing the wastewater profession. WWOA has approximately 2,000 members divided throughout six regions: Southeast, Southern, Lake Michigan, North Central, Northwest, and West Central.
President’s message: Conference recap and future events

I’m sitting here inside on a lovely fall Sunday. Nice as it is outside, I’m in here feeding my sports fanatic bug. NASCAR going on right now with the Brewers just about ready to start their NLDS game one that will (See, I’m really an optimist!) start them toward their second World Series. And our beloved Packers go for a 5 – 0 start later.

Sitting here, decompressing from an enjoyable but hectic week at the just-concluded state conference and thinking about what transpired.

WWOA business first and last – and some in the middle, too. Monday’s board meeting includes the usual round of committee reports. Conference planning all set and ready to go, of course. Too late if not! Wade Peterson, et.al. did a lot of groundwork so we can enjoy our time in LaCrosse.

Planning for the Government Affairs Seminar and Spring Biosolids Symposium are coming up shortly, and the events themselves are only a couple months away by the time you read this. While registration materials are likely not ready yet, you might at least find teaser articles further back in this issue. Be sure to check the web site and watch for the mailings for these always informative days.

Then there are the financial items. Year-to-date financial and voucher payment reports. And the first draft of the 2012 budget prepared by our executive secretary, Richard McKee. While the 2010 financial report that was presented to the members at the annual meeting later in the week again showed a negative balance, the membership fee increase approved by the members in 2010 and the increase in conference fees to keep that self-sustaining are bearing fruit. Barring some sudden catastrophic occurrence, 2011 should end in the black, and the 2012 budget should project a positive balance as well. I know fee increases can be painful but we do our best to maximize your “bang-for-buck” factor.

Tuesday is the meeting with the regional officers and the board. The regions submit their annual reports. These all reflect regions that are doing a great job putting on three or four one-day meetings, with the help of the host communities, that meet our organization’s primary goal of providing educational opportunities to the membership. By now, I think everyone knows my feelings about the regions. While the state organization and its board is the titular senior partner, the regions are the heart and soul of WWOA. There are about 2000 WWOA members, and in a given year only about 700 – 900 are able to attend the annual conference. This means that for over half the membership, the regions are their primary contact.

(Sport update 1, Wisconsin’s Matt Kenseth finishes fourth, moving two places up in the standings to fifth and twelve points out of the lead. Was hoping for better, but will settle.)

Thursday was the annual meeting. Besides the financial report mentioned above, highlights were the salute to Leo Templeton (Happy Ninetieth, Leo!) and the election of officers. Kevin Freber is your new Vice-President. After working with Kevin on the board and on Government Affairs planning for these last three years, I have confidence Kevin will do a great job putting together the 2012 conference. I look forward to working with the directors, hold-overs Kelly Zimmer and Lyle Lutz and newcomers Sharon Thieszen, Jim Bergles, and Jeff Bratz. This led to my first mad scramble and difficult task as President, deciding (in less than 24 hours!) which committee assignments best suited each of these talented individuals.

The core of the conference is the technical program. Two pre-conference workshop sessions Tuesday preceded the conference proper. The Keynote Address Wednesday morning by Scott Friedman got things off to a flying start. Despite my wife’s assertion that I have the lovable curmudgeon bit only half down, I am a firm believer in the need for humor in work and life.

Thirty-five talks filled the fourteen technical sessions on Wednesday and Thursday. This included an entire day in one room of three sessions and seven talks on the hot issue of nutrient regulations and removal. I don’t know about you but my biggest problem during the conference was deciding which of the talks to attend in any given time slot.

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(Sport update 2, Brewers 9, Cards 6. A great start but it is a 7 game series! And even time to take an early evening walk with my dachshund Otto and enjoy the remains of the day.)

Of course, I managed to find time to cruise the exhibition area. I got to visit with many people I already knew and met some that I didn’t. Got a few leads for alternate suppliers and such as well. These exhibits are just as important a part of the WWOA educational experience as the technical talks, just in a different format. And many of these representatives from the manufacturers, suppliers, laboratory, engineers, and consultant communities are the ones that provide their expertise to the technical program. In addition, the exhibit fees they pay help us keep the registration fees for the individual members to the low levels we enjoy compared to many other events available to us all.

So a large thank you to all these people and firms.

We finished up with the farewell breakfast Friday morning where I had the privilege of introducing DNR Secretary Kathy Stepp. Secretary Stepp gave a short address, then stayed to take over a half hour of questions from the audience on a wide range of topics.

I know some of you may not have warm and fuzzy feelings about the current administration, especially the policies and attitudes toward public employees. However, I thought the Secretary was honest and straight-forward in her views that while the department is a regulator that must enforce the statutes and rules, that the way this is done was just as important. She emphasized the need for working with both the regulated community and the environmental activist with a goal of reaching consensus on the best, most practical, and least expensive routes to achieve the goals. I am committed to doing my best in the next year to see that we do our part in this process, within the mandate of our bylaws as an educational, and not a lobbying organization.

(Sport update 3, Packers 25 – Falcons 14. This is a great time to be a Wisconsin sports fan.)

What I didn’t expect was the friendships I would make in these 23 years since. And that is perhaps the most enjoyable part of the conference experience. As much as I learned and accomplished last week, I also got to see all my friends, some that I get to see a few times in between and some I might only see this one time every year. Some I get to have a good long chat with and some I might only have a chance to give that Scott Friedman “head-bob” to. I’m not going to start naming names because I don’t have the space and wouldn’t want to leave anyone out. But they come from all corners of the state, from Prairie Farm to Pleasant Prairie, and from Dickeyville to Marinette.

I hope all of you that attended had as good a time as I did. I hope to see many of you this next year, as I fulfill my goal to attend a meeting in each region. As I said in my President’s Address, “This is a great organization, and I am honored to serve as your President.” (…and) “I want to thank all you members of WWOA for putting your trust in me to be the steward for WWOA this next year.”

Epilogue:

Well, it’s a couple weeks later as I polish this message and get it off to press. Our Brewers went down in flames in game seven of the NLCS, and I have to listen to my Missouri relatives crow about their world champion Cards. There is always next year. Matt Kenseth won at Charlotte and sits second in the standings. And the Pack continues to roll, as the only undefeated team at 7 – 0.

Meanwhile, the Government Affairs planning group met in late October. I’ve seen the tentative agenda and it looks like another good mix of both subjects and speakers. I leave the details for final confirmation and publication, but phosphorus, thermal and stormwater rules and user rates are planned topics, along with DNR and EPA updates. The Spring Biosolids Symposium is also progressing with their planning work. Our other work proceeds apace as well. We are working to improve the web based conference registration, something we realize has been a problem area. Once, we can get that straightened away, we hope to be able to offer that option for other meetings as well.

So until February, may your effluent flow to discharge and your biosolids get spread without a hitch! ☺

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The City of Watertown, a community built on the Rock River, has a population of 23,936. The Watertown Wastewater Treatment Plant serves approximately 11 square miles and 8000 customers. There are 110 miles of sanitary sewers and 18 lift stations maintained by the staff. The staffing at the Wastewater Treatment Plant is managed by Paul Lange, Water Systems Manager. Paul manages a staff of 9 wastewater employees and 10 water department employees.

The community, located half way between Milwaukee and Madison, built its first sewers in 1895 and its first wastewater treatment plant in 1933 to address public health and nuisance conditions in the river. It was expanded in 1955 and 1980.

A new state of the art wastewater treatment plant was designed by Applied Technologies Inc., Brookfield, WI, and teamed up with the wastewater plant staff. The plant construction started in 2002 with 2 ½ miles of interceptor sewer work that increased pipe size from 24 inch pipe to 48 inch running into 60 inch pipe leading into the plant. The plant was built in two phases. The liquid treatment facilities were built on a new site which allowed the existing plant to run during construction. In September of 2003 the new liquid plant was put into service and the existing plant was demolished. After demolition the solids handling facilities were constructed with completion in 2004.

The treatment plant was designed for 5.2 MGD flow and maximum daily flow of 27 MGD. Design BOD, TSS, TKN and Phosphorus annual average loadings are 6,600 lbs/day, 5,300 lbs/day, 1,015 lbs/day and 215 lbs/day (Table 1 shows influent annual averages from 2005 to present)

<table>
<thead>
<tr>
<th>Year</th>
<th>Flow</th>
<th>BOD</th>
<th>TSS</th>
<th>NH3</th>
<th>T-P</th>
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<td>5103.8</td>
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<td>5725.3</td>
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<td>707.0</td>
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<tr>
<td>2010</td>
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<td>5509.8</td>
<td>4974.5</td>
<td>702.1</td>
<td>163.7</td>
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<tr>
<td>2011</td>
<td>3.28</td>
<td>5249.3</td>
<td>4565.8</td>
<td>705.4</td>
<td>131.2</td>
</tr>
</tbody>
</table>

Influent Pumping, Preliminary and Primary Treatment

The wastewater collection system flows to the influent pumping station wet-well. Five submersible Flygt pumps with a maximum capacity of 27 MGD pump the raw wastewater through two 21 inch force mains with mag meters to record daily flow. The wastewater then flows through two Parkson ¼ inch width barscreens with a capacity of 13.5 MGD each. From there the flow goes through two Grit Kings for grit removal, then on to two primary clarifiers that are 85’ diameter and 12’ deep. The sludge removed from the clarifiers averages 3.3% total solids (the low solids number is due to co-settling waste activated sludge in the primaries).

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Secondary Treatment

Primary effluent is mixed with return activated sludge in a splitter box and then flows into the three aeration basins units with a capacity of 700,000 gallons each. Each basin is equipped with an anoxic selector that is used to select against nocardia. Air for the aeration basin is supplied by five Roots blowers located in the primary building; with one running usually at a time. The air is distributed through Sanitare fine bubble diffusers; each basin has over 700 diffusers. The aeration basin sludge age is run on a constant sludge age technique, which means the aeration basin mixed liquor suspended solids increases and decreases by itself according to the available influent food. We set a sludge age using the aeration basin volume and set the wasting pumps to pump that amount out to the secondary clarifiers and then let it alone. This technique works wonderfully and amazes everyone who comes here. The flow from the aeration basin goes to two effluent clarifiers with a diameter of 90' and a depth of 16'. Return activated sludge is pumped from the clarifier suction header at roughly 40% (fraction of forward flow) back to the splitter box and waste activated sludge is pumped off the same header at a sludge age of 5 to 6 days or 241gpm.

Phosphorus Removal

Phosphorus is removed chemically using ferric chloride that is pumped into the end of aeration basins. The ferric chloride is stored in an 11,000 gallon tank in the secondary building. This is approximately a two and half month's supply. The ferric is pumped to the aeration by variable speed chemical metering pumps.

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Disinfection and Post-aeration

The final clarifier’s effluent is disinfected by a Trojan UV 4000 located in the secondary building. The unit is designed for 27 MGD. There is an A and B side to the unit with a control panel that allows you to increase or decrease the UV light intensity to continuously keep the plant with the WPDES limit. Disinfected wastewater is metered in a Parshall flume and discharges to step aeration then out of plant to the Rock River.

Biosolids Management

Raw sludge from the primary clarifiers is pumped to the anaerobic digesters. The plant has two digesters that can be run as primaries but sludge production at this time doesn’t require us to, so we run them as a primary/secondary. The primary digester is run in the mesothilic range of 95 to 98 degrees Fahrenheit.

The methane gas from the digester runs the boiler that heats the sludge in a spiral heat exchanger in the solids handling building. Digested sludge is pumped to two Westphalia 458 centrifuges that were designed to run 10 hours a week, which helps keep labor costs down. The plant produces approximately 1400 cubic yards of 27 to 30% biosolids solids per year, which is spread on farm fields for beneficial reuse.

Administration Building

Billing for the approximately 8000 customers is done at the wastewater treatment plant since it was built. Two

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water department employees moved their offices to the administration building of the new wastewater plant. Since that time a Badger Meter automatic read system is being put in that will make manual meter reads a thing of the past. The administration building houses the plant laboratory that monitors influent, effluent and process control parameters.

The laboratory also works with the billing department for industrial cost recovery. This is used to charge industries for BOD, TSS and TP for anything above residential averages. The entire plant and 18 lift stations are run by the plant SCADA system. The SCADA system has redundant servers and 5 nodes. All information collected by the SCADA system is historicized in the I-Historian and the lab WIMS software.

**Maintenance Building**
The maintenance building houses all vehicles and collection system vehicles. The plant personnel use Accela software for the plant maintenance program and create and close around 400 -600 preventative maintenance work orders a month.

<table>
<thead>
<tr>
<th>Year</th>
<th>BOD</th>
<th>TSS</th>
<th>NH3</th>
<th>Total P</th>
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<tbody>
<tr>
<td>2005</td>
<td>97.2%</td>
<td>97.6%</td>
<td>95.9%</td>
<td>92.9%</td>
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<tr>
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<td>96.7%</td>
<td>97.7%</td>
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<tr>
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<td>97.9%</td>
<td>97.9%</td>
<td>96.2%</td>
<td>94.3%</td>
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<tr>
<td>2009</td>
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<td>97.3%</td>
<td>94.7%</td>
<td>94.0%</td>
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<tr>
<td>2010</td>
<td>97.0%</td>
<td>97.1%</td>
<td>99.8%</td>
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<td>2011</td>
<td>96.7%</td>
<td>97.8%</td>
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<td>94.4%</td>
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**Plant Average Effluent**

<table>
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<tr>
<th>Year</th>
<th>Effluent Flow (MGD)</th>
<th>BOD mg/L</th>
<th>TSS mg/L</th>
<th>NH3 mg/L</th>
<th>Total P mg/L</th>
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<td>4.0</td>
<td>0.48</td>
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<td>20 1.0</td>
<td>1.0</td>
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</table>
WWOA Southern District Meeting Hosted by Sun Prairie

On August 18 at the Roundtree in Sun Prairie, there were 65 people in attendance and 7 vendors. Mayor John Murray welcomed everyone to the meeting and to the city of Sun Prairie.

Bernie Beemster for ASA Analytics presented a very informative talk about on-line analyzers for process monitoring and control. Some of the new technology discussed was Chem Scan Technology, Pattern Recognition Software and UV Spectrometry Analyzers.

The next speakers were Debra Lee and Kevin Ripp of Aqua Fix. Debra gave an in-depth presentation on identifying filamentos organisms in sludge and also talked about the nitrification and de-nitrification process.

Doris Thiele and Dave Carper from WDNR gave us an update on the backlogged WPDES permit process and informed us of the latest developments on the new phosphorus and temperature regulations.

Vice Chair, Jim Johnson opened the business meeting. After the minutes and treasurer’s report were approved, we elected new officers. Jon Butt was elected Secretary and Ryszard Zolnik was elected Vice Chairman. President elect, Randy Thater gave us a brief update on the state convention in October.

After lunch, John Langhans of MSA gave a very interesting presentation on a Sewer Rehabilitation Bidding process and options pertaining to open trench vs. reline/pipebursting.

Jan Scott of Unison Solutions talked about the exciting new technology in Bio-Gas and the vehicles that use it.

Mike Pearsall of MSA was the last speaker. He gave insight into Sun Prairie’s WWTP.

A plant tour followed.

Prepared by Scott Stimart, WWOA Secretary
The Wisconsin Department of Natural Resources will be forming a workgroup of operators and trainers in January 2012 to review and rewrite the objectives, key knowledges and Q & A for the Ponds & Lagoons operator certification study guide and exam, and is seeking interested and knowledgeable operators who would like to participate in the workgroup.

Candidates should have a good overall knowledge of pond/lagoon operations, testing, and management principles. The workgroup will meet monthly in 2012.

Participation in the workgroup by lagoon/pond operators is very much needed and appreciated. Participation will help ensure a practical, well-written and technically sound certification study guide and exam.

Workgroup members will find this a very educational and rewarding experience. The workgroup brings together a brain trust of knowledge in which everyone learns in the process.

Please contact Jack Saltes, WDNR-Madison by telephone at (608) 264-6045 or by e-mail at jack.saltes@wisconsin.gov by January 6, 2012 if you are interested.

### 2012 Clarifier deadlines

- **February 2012 deadline is January 13**
- **April 2012 deadline is March 9**
- **June 2012 deadline is May 11**
- **September 2012 deadline is August 10**
- **December 2012 deadline is November 9**

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Lake Michigan District WWOA Regional Meeting in Green Bay

Chair person Kris August kicked off the meeting with a quick welcome address that led into the directions for the Fox River Cleanup Facility run by Tetra Tech EC, Inc. The first agenda item was a division of attendees with half the group going on a tour of the cleanup facility and other half participating in vendor talks on new and innovative products.

Break was sponsored by Robert E. Lee & Associates, Inc. The LMD business meeting was brought to order following the tour by Chair Kris August. The first item was approval of the May 26th 2011 meeting minutes held in Coleman Wisconsin. A motion was brought to the floor by John Schoen and seconded by David Casebeer. The motion was approved. Secretary/ Treasurer Bernie Hengels presented the treasurer report. No comments or questions were raised on the report & the report was placed on file. There was no old business to discuss. The Stadium View was recognized for their facility under new business along with applications open for the regional operator of the year 2012. Kris August highlighted that persons wishing to nominate operator of the year candidates for 2012 should contact incoming vice chair Aaron Patefield of Coleman.

Dick Sachs from the WDNR spoke briefly on the upcoming operator certification exams and impact of the Governors’ budget bill on Phosphorus limits for WPDES permits.

Announcements of the upcoming Annual WWOA Conference in Lacrosse on Oct. 4-7, 2011. Chair Kris August asked for a motion to adjourn the meeting. Kevin Skogman presented the motion to adjourn. Cory Hudson seconded. The meeting was adjourned.

First up for presentations was “Infiltration/Inflow Reduction Planning Overview” presented by Brad Werner & Matt Greely, both of McMAHON & Associates. The second presentation “GIS for everyone” was presented by Sam Pociask of McMAHON & Associates.
After lunch our last presenter spoke. Scott Stein from Leonard & Finco Public Relations, Inc. gave a presentation on “Stakeholders Relations: What You DO Does Matter!”

As in the morning the attendees split into two groups following the presentations with half partaking in the second tour of the Fox River Cleanup Facility and the remainder participating in the vendor talks.

The meeting was dismissed and credit slips issued.

Scott Stein - Leonard and Finco PR

Next meeting: November 10th 2011 in Hortonville.

Submitted by
Bernie Hengels – WWOA – LMD Secretary and Treasurer
45th Annual WWOA Conference Highlights
By: Wade Peterson, Technical Program Committee Chair

This year’s conference is now in the rear view window. It was a great conference. The attendance was 725. The Pre-Conference Workshop sessions on Tuesday were well attended and we received good, positive feedback. The Golf outing and the Sporting Clays events enjoyed the great weather. The evening concluded with the Meet and Greet.

The Conference opened on Wednesday morning with welcome speeches from President Dave Carlson and La Crosse Mayor Mathias Harter. Then Scott Trotter from the Water Environmental Federation (WEF) Board spoke about WEF and Central States. The inspiring and light-hearted Keynote Address from Scott Friedman was titled “The Best Way to Predict the Future is to Create It”.

On Wednesday and Thursday, there were 35 technical sessions provided with a significant portion devoted to Phosphorus. The Operator’s tours were to the Holmen WWTP and Davy Lab/La Crosse Weather Station. On Thursday we had the Luncheon and Annual Business Meeting. Election results are as follows: Kevin Freber was elected Vice President, Kelly Zimmer, Jeff Bratz, Sharon Thieszen, and Jim Bergles were elected as Directors.

On Thursday night, Dave Carlson passed the gavel to our new President Randy Thater. At the awards banquet, the Crane Scholarship went to Katherine Gokey, the Service award went to Jack Saltes, the Koby Crabtree went to Chris Groh, the George Bernauer went to Lamont Albers, the Honorary Member went to Carol Strackbein, and the region of the year went to Lake Michigan. The entertainment for the evening was the band “Highway 16”.

On Friday morning at the farewell Breakfast, DNR Secretary Kathy Stepp spoke about the changes in the Department of Natural Resources and fielded questions from the floor.

On behalf of the WWOA, thank you to the technical Program Committee, the Local Arrangements Committee, **continued on page 19**

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the Spouse/Guest Committee, the Exhibit & Consultant Committee, all the Vendors who exhibited, all those who planned and organized the Golf Outing and the Sporting Clays event, all the speakers and moderators, the companies that supplied the signage, abstracts, and evaluations, and those who provided technical assistance during the workshops and conference presentations.

We look forward to seeing everyone again in October 2012 at the Kalahari!!

2011 Spouse/Guest Highlights
By Wade Peterson, Tech. Program Committee Chair

The program kicked off with Tuesday night’s Meet & Greet.

Wednesday morning started with the Continental Breakfast provided by Peterson and Mautz. The Welcome Address and the Keynote Speaker were next. The group then headed outside for boarding the Mississippi Explorer for an Eco-Cruise. After the walk around lunch, the group set out for visiting the downtown area and squeezing in a session at the Relaxation stations.

Thursday morning started with the Continental Breakfast provided by MSA Professional Services. Then it was on to the coach bus for a day filled with adventure. The group stopped at Granddad Bluff, the Chapels of St. Rose and had lunch at the Westby Victorian Inn. The afternoon tour stopped at Vernon Vineyards for a tour and wine tasting event. The weather was great and I hope the group had a great time!

Special thanks go to the La Crosse Area Visitors Bureau, Greg Paul, and Tim Holzer.

Save The Date!

WWOA-SED Meeting
Thursday, Feb. 9, 2012
Brookfield
All of us here at Dorner Company wish to extend our sincere thanks to each of our valued customers, contractors and engineers as we celebrate this milestone.

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2011 Operators of the Year Award

Lake Michigan Region

Jeff Smudde, (left) presents Lake Michigan award to Dave Hartmann, (right) from the Wolf Treatment Plant.

North Central Region

NC Steering Committee members Katie Gruber (left) and Ron Dickrell (right) presented the North Central award to Chris Helgestad, (center) from Spencer. Chris’s son Sam is holding the certificate. The award was presented at the Village Board meeting.

Northwest Region

Wally Thom, (left) presents Northwest award to Mike Romsos, (right) from Barron/Cameron WWTP.

West Central Region

Rick Weikel, (right) presents West Central award to Greg Paul, (left) from the City of LaCrosse WWTP (retired).
2011 Operators of the Year Award

Southeast Region

David Bogie, (left) presents Southeast award to Doug York, (right) from Fontana/Walworth.

Southern Region

Bernie Robertson, (left) presents Southern award to Dorothy Genz, (right) from Ixoniz S. District 1.

Honorary Member

Dan Busch, (left) presents Carol Strackbein, (right) the Honorary Member award.

Membership Award

Dave Carlson, (left) presents Dale Doerr, (right) the Membership award. Not pictured: Ray Hartmann.
Lifetime Members


Region of the Year Award

Kelly Zimmer (left), presents the Region of the Year award to Jeff Smudde (right), of the Lake Michigan District.

Koby Crabtree Award

Rick Mealy, (left) presents the Koby Crabtree award to Chris Groh (right).

George Bernauer Award

Ken Johnson (left) presents the George Bernauer award to Lamont Albers (right).

Future Conference Dates

2012 Wisconsin Dells – Kalahari
10-9 thru 10-12, 2012

2013 Stevens Point-Holiday Inn
10-22 thru 10-25, 2013

2014 Green Bay – Sierra/KI Center
10-7 thru 10-10, 2014

2015 Wisconsin Dells – Kalahari
10-6 thru 10-9, 2015
New Board Members: Sharon Thieszen, Jim Bergles and Jeff Bratz

Sharon has 17 years of wastewater experience in the laboratory, pretreatment, engineering, and regulatory/environmental compliance divisions. She has served on the Midwest Water Analysts Association Board for eight years, including two years as president. Ms. Thieszen has also served on several technical subcommittees for the Illinois Association of Wastewater agencies for six years. Her expertise is highlighted with her B.A. Degree with double majors in Natural Science and Environmental Studies from Bethel College in North Newton, Kansas.

Jim Bergles

Jim Bergles is the Superintendent of the Eagle Lake Sewer Utility. He acquired his Associate Degree in Water Quality from Moraine Park in Fon du Lac, WI. Along with his Grade 4 wastewater licensing he holds groundwater and distribution certifications from the Wisconsin Department of Natural Resources and also a restricted Master Plumber Service license. Jim has been on the WWOA South East regional board for the last four years in which he has held the Chairman and Vice Chairman positions.

Jeff Bratz

Jeff is the Wastewater Treatment Facility Manager at the Western Racine County Sewerage District. He has been a member of the Kansasville Fire & Rescue Dept. for 29 years being an officer for 25 years including Chief for 10 years. His training in wastewater came through the Sacramento Course. He is a Grade 4 wastewater operator and has been in the field for 25 years. Jeff has participated in the WWOA operator’s competition since 1988 missing only two years. He has also competed in the WEFTEC Operator Challenge 6 times. Additionally he was selected for Operator of the Year for the Southeast District.
2011 Past WWOA Award Recipients

Past Bernauer Award

(l to r) Wally Thom, Ken Johnson, Leo Tempelton, Pete Albers, Dan Busch, Lamont Albers, John Leohnard, Dean Falkner.

Past Service

(l to r) Gary Hanson, Randy Herwig, Leo Templeton, Georgia Paul, Dale Nies, Carol Strackbein, Lamont Albers, Kay Curtin.

Past Crabtree

(l to r) Paul Lange, Ken Sedmak, Roy Lembcke, Chris Groh, Dan Busch, Rick Mealy, Kay Curtin.

UPCOMING EVENTS:

February 23, 2012
Government Affairs, Madison Marriot West

March 21, 2012
Annual Spring Biosolids Symposium, Stevens Point

March 27-30, 2012
WRWA Annual Conference, Green Bay

October 9-12, 2012
Annual WWOA conference, Kalahari Resort, Wisconsin Dells

Past Presidents

(l to r) Randy Herwig, Pete Albers, Wally Thom, Tom Kruzick, Jim Thalke, Carol Strackbein, John Bond, Dan Busch, Dale Nies, Leo Tempelton, Dave Carlson, Kay Curtin, Tim Ninning, Lamont Albers, Dean Falkner, John Leohnard.
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WWOA Board Meeting August 31, 2011 LaCrosse

Radisson Hotel and La Crosse Center, La Crosse

1. Call to order, Roll call. President Carlson called the meeting to order at 10:00 a.m. on Wednesday August 31, 2011 at the Radisson Hotel, La Crosse Wisconsin. Roll call was taken. All board members were present. Also present: Troy Larson & Randy Herwig.

2. Agenda changes and addition and Correspondence- K. Freber update of the WWOA Micro class. Web Site update.

3. Approval of the minutes, of April 28-29, 2011. After review B. Bartel made a motion to approve the minutes as presented, R. Thater seconded the motion. Motion carried. Financial report and expenditure list- McKee presented the Financial Statement for Board review and approval. McKee stated that as of August 10, 2011 the WWOA had Revenues totaling $65,982.79 and expenditures of $61,989.61 with excess revenues over expenditures of $3,993.18. After discussion R. Thater made a motion to approve the Financial Statement as presented, D. Doerr seconded the motion. Motion carried.

4. COMMITTEE REPORTS
   a. Nominations- B. Bartel reported that there is one nomination for Vice President Kevin Freber. He also reported that there will be 3 Board of Directors position open this year. Kelly Zimmer (incumbent) will run again this year. B. Bartel state he has received nomination papers from Jeff Simpson. He is running for the Board.
   b. Promotional Items- L. Lutz reported that the promotional items for the conference have been ordered. The North Central region will purchase $100.00 worth items from this inventory.
   c. Scholarship- D. Egge reported that he has one request for the $1,000.00 Crane scholarship. The person is Katherine Gokey sponsored by her father Brad Gokey. After discussion D. Doerr made a motion to award the Crane scholarship to Katherine Gokey. L. Lutz seconded the motion. Motion carried.
   d. Awards- R. Thater reported the following: There is 1 nomination for Honorary Member, 2 nominations for the Bernauer Award, 1 nomination for Crabtree Award, 2 nominations for the Service award, no nomination for the Newcomer award. R. Thater reported that each Region has a nomination for the Regional Operator of the year. After discussion B. Bartel made a motion to accept the nominations for the awards, K. Zimmer seconded the motion. Motion carried.
   e. Publicity- L. Lutz reported that every thing is ready for the conference. He will contact local news media about the conference.
   f. Technical Program- W. Peterson reported that the keynote speaker is Scott Friedman. He will arrive Tuesday night. The secretary of the DNR has confirmed for the farewell breakfast. The band after the banquet is “Highway 16” which is a local band. They play a variety of music. The La Crosse Center floor plan has been completed. And the Village of Holman has submitted their plant bio and photos. AECOM will again print and provide the technical abstracts. McKee stated that he now has the DNR credit slips for both the pre-conference and conference and Becker Hoppe will again tabulate the evaluations and McKee has the evaluation sheet ready.
   g. Exhibit Committee - C. Strackbein reported that we have room for 125 booths and have approximately 113 booths so far. The Committee will meet on Sept. 2 to assign the booths. C. Strackbein indicated that she has had numerous complaints from exhibitors who tried to use the website to register for their booths. The system needs to be improved for next year.

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h. Local Arrangements - W. Peterson reported that the operator tours are the Holmen WWTP and the NOAA Weather Station/Davy Labs. Busing for the hotel shuttles and operator tours has been confirmed.

i. Spouse Program - W. Peterson has confirmed the Spouse Program. The events are: Continental breakfast, Keynote speaker, Eco-Cruise, walk around lunch, shopping and relaxation stations, social hour, Rivertown discovery tour, Chapel of St. Rose, lunch at Westby House, Westby creamery, Vernon Vineyards tour and tasting. MSA Professional Services and Peterson and Matz will provide the continental breakfast.

j. Golf Outing – Randy Herwig reported that everything is set for the golf outing at Forest Hills Golf Course and R. McKee has paid the deposit for the outing. The cost per golfer is $55.00 which includes 2 drink tickets, a box lunch and use of golf cart. Mona Johnson from Bytec volunteered to run the registration table the morning of the event. Bruce Municipal Equipment will sponsor the snacks after the golf outing. MSA professional Services has offered to print the placards. R. Herwig has solicited sponsors for the all holes and door prizes.

k. Sporting Clays- No report

l. Signage- Troy Larson from Strand will once again provide the signage for the conference. He went through each sign and the needs for the conference. The Board thanked Strand and Troy Larson for all their work that they put in to make our conference better.

A motion was made by R. Thater, and seconded by D. Egge to accept the Committee Reports as presented. Motion carried.

5. OLD BUSINESS- NO OLD BUSINESS

6. NEW BUSINESS
a. B. Bartel gave a report on the web site and update.

b. The function sheets were reviewed.

7. ADJOURNMENT- There being no further business L. Lutz made a motion to adjourn, K. Freber seconded the motion. Motion carried. Meeting adjourned at 10:05 Thursday September 1, 2011.
Controlling Aeration with Ammonium Sensors
How one Arizona treatment plant optimized energy consumption and avoided an upgrade

By: Robert Garcia, Plant Superintendent, City of Peoria
Bob Dabkowski, Wastewater Specialist, Hach Company
Chad Bertram, Application Development Manager, Hach Company

The City of Peoria’s Beardsley Water Reclamation Facility was facing several challenges. Energy costs were excessive by running the aeration system using only a dissolved oxygen setpoint to maintain the system Nitrogen requirements; their original ammonium sensors installed with their aeration upgrade were not working; and the plant required an upgrade of the facility to add an additional clarifier and filter to ensure water quality standards.

Instead of sending their original ammonium sensors back to the manufacturer in Europe for repair, the staff decided to try another instrument manufacturer, replacing the original ammonium sensor with the Hach NH4D sc ammonium probe. The NH4D sc proved to be not only reliable as an ammonium sensor, but it also enabled them to solve their energy costs and avoided the costly upgrade.

With the sensor performing correctly, the operators were able to automate the aeration system. The system is designed to control the inlet guide vanes on the blowers to meet a target ammonia value which was user-entered. The sensor is installed in the aeration tank, about a quarter of the length of the tank.

After profiling the tank, it was determined that at this point in the flow, nitrification was mostly complete, which allowed the staff to use a dynamic setpoint of 1.5mg/L to 4.0 mg/L NH4-N, dependent upon demand. The control algorithm used adjusts the blowers every 20 minutes, making the appropriate change to the inlet guide vanes to meet the ammonia setpoint. To ensure adequate mixing energy, 0.7mg/L of dissolved oxygen is used as the minimum operating condition; 2.4mg/L is the maximum, as measured with the Hach LDO® probes installed.

Controlling aeration based upon ammonia numbers allows for further optimization of the aeration system, if the wastewater plant has to perform nitrification. In order to grow the proper groups of bacteria to perform nitrification, the average sludge age has to be older than four days (dependent upon temperature and the type of treatment system).

At this age, the organisms which remove BOD are already well established. Therefore in an aeration basin environment, by the time ammonia begins to be removed, most of the BOD has already been removed. Thus, controlling aeration based upon the ammonia concentration means providing just enough air to get the job done—and not one bit more.

Operating under these parameters, staff found another area of the system which could optimize their energy consumption: the sequence of the blowers. The aeration system has five blowers, two 150hp and three 250hp blowers, and under the original sequence during times of low ammonia concentration a 250hp blower would provide the air and sometimes two 250 hp blowers would be needed during high winter seasonal weekend flows.

The staff reconfigured the sequence, beginning with a single 150hp blower, progressing to two 150hp, a 150hp and 250hp, and ending with both 250hp blowers during times of high ammonia concentration, leaving an additional 250 hp blower as a standby in case a blower fails.

The ammonium setpoint is confirmed daily, through plant effluent analysis using the Hach Simplified TKN procedure, where total nitrogen is measured in one vial, and nitrate/nitrite are measured in another. The Hach DR/2800 spectrophotometer measures both vials and displays the total nitrogen, TKN, and nitrate/nitrite concentrations in one test.

The effects of the improvements made to the aeration control system were easy to identify. First, the energy consumption dropped from a range of 9,500 to 12,000 kwh/day to 8,000 to 9,000 kwh/day. The average daily savings is approximately 21%, which is an annual savings of $90,000. The cost of the sensors was $21,000, which equates to a return on investment of about three months.

After operating the system automatically for some time, another improvement became “clear”—settleability improved and the clarifier effluent remained below

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2.0 NTU. Due to the improvement in sludge quality and optimization of the filter system with continuous measurement of the turbidity of the clarifier weir overflow and combined influent turbidity entering the filters, it was clear that the $3,000,000 clarifier and filter upgrade was unnecessary.

The project became an improvement project instead of an upgrade. The plant added several turbidity, total suspended solids, and chlorine analyzers along with other control system improvements which continue to improve and optimize plant operations enabling effective lab and maintenance projects to be proactive instead of reactive.

Recognizing the value of the improvements, the Arizona Water Association honored the Beardsley plant with the “Large Treatment Plant of the Year” award at the annual conference, and city managers asked staff to implement the same optimization system at the city’s Butler Advanced Wastewater Treatment Plant.

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2011 Exhibitors and Sponsors

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2011 WWOA Sporting Clays at Waters and Wood

Eighty degrees and sunny, what a day to walk through the fall colors at “Waters and Wood,” site of the 5th Annual WWOA Sporting Clays event on Oct. 4. That is what 36 shooters witnessed at the ten station sporting clays shooting range. In the five year history of the event this is by far the finest weather we had for the sporting clays shoot. This year’s Top Gun is Rob Brillhart with a score of 38 out of 50.

If you would like to see the winning teams please access our web site at wwoa.org. Here are photos of after the shoot as the groups are enjoying some adult beverages and eating lunch while waiting for the scoring and prize drawing.

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### 2012 Regional Meeting Schedule As of November 3, 2011

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<td>Hortonville</td>
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<td>Kewaunee</td>
<td>Winneconne</td>
<td>Cleveland</td>
<td>Shawano Wolf Treatment November 2012</td>
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<td><strong>North Central</strong></td>
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<td>Nekoosa/ Port Edwards</td>
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<td>Nekoosa Senior Center</td>
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<td><strong>Northwest</strong></td>
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<td>Hayward (Lumberjack Steakhouse)</td>
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<td><strong>Southeast</strong></td>
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<td>Kewaskum</td>
<td>Mukwonago Annual Pig Roast</td>
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<td><strong>Southern</strong></td>
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<td>Midwest Water Feb. 7 or 8 Wisconsin Dells</td>
<td>Meeting with DNR May 2012</td>
<td>Janesville August</td>
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<td><strong>West Central</strong></td>
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<td>West Salem</td>
<td>Black River Falls</td>
<td>Hammond August, 2012</td>
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<td>Feb. 15, 2012</td>
<td>May 16, 2012</td>
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[Image: Mulcahy/Shaw Water, Inc. process equipment & instrumentation]
North Central Regional WWOA Meeting at Nekoosa

The summer meeting of the North Central Region of the WWOA was held on September 14, 2011. The City of Nekoosa and the Village of Port Edwards hosted the meeting. The meeting was held at the Nekoosa Senior Community Center. There were 50 attendees and 8 vendor displays.

Emmet Peterson opened the meeting at 8:30 am. He led the group in the pledge of allegiance and requested the group to observe a moment of silence in respect of the 9/11 victims and service men and women that lost their live in service to our country. Emmet welcomed attendees and introduced Nekoosa Mayor Gordie Freeman.

Mayor Freeman welcomed those in attendance to Nekoosa. He briefly mentioned the history and highlights of the community. He complimented Emmet and the Public Works staff. He proudly noted that the Nekoosa community constructed the Senior Community Center with no tax dollars. The community raised nearly half the cost of the project through donations and received a grant for the balance. He also noted that the City donated the use of the building for the WWOA meeting.

Emmet introduced John Langhans, MSA, who gave the first presentation of the day. His topic was integrating GIS in the use and reporting of televised sewer inspections. John explained that Integrating GIS into an inspection project could yield significant added value to the project. He explained what GIS data can be used, how it is integrated in the bidding and completion of the project and how it enhances the final inspection reports. He also explained how project data could be stored in the GIS system and how the use of new technology could make the data more accessible in the field.

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Brad Stuczynski, MSA and Ed Makaryk, Village of Plainfield, teamed up to present the case study of the upgrade of the Plainfield Wastewater Treatment Facility. They discussed the background and impetus for the project. This project uses facility effluent to irrigate 160 acres of agricultural land owned by the Village and rented to a local farmer. Plant effluent provides 64% of the irrigation needs of the crop. The balance of the water is from a well.

Brad and Ed presented the project concept, design issues, project financing, and construction issues. They related facility performance and operation and maintenance issues. They also noted the energy saving aspects of the project.

The break was sponsored by MSA.

Dave Bluhm and Nick from MSA presented a case study of the City of Marshfield interceptor extension project to serve area near the relocated HWY 10.

They explained project design parameters and challenges. The discussed the DOT coordination issues and listed the various permits required. This was followed by a in depth discussion of the construction aspects of the project.

Dan Greve, MSA, wrapped up the morning presentations with a case study of the Port Edwards wastewater treatment facility upgrade. He introduced the staff of the facility and gave a short history of the facility. He shared the upgrade concept and detailed the design and construction challenges. The also discussed the financial impacts of the project, the operational challenges, and noted the operational performance of the facility.

Eric Donaldson, DNR, updated the crowd on the organizational and staffing changes being implemented in DNR. He updated the status of the phosphorus regulations, discussed the implementation of the rules in permits and noted some of the options available to permittees.

Terry Vanden Heuvel called the business meeting to order at 11:50 am.
1. He thanked everyone for attending today's meeting. He thanked the speakers for their presentations.
2. He thanked Emmet Peterson for coordinating the meeting and Village of Port Edwards and the City of Nekoosa for hosting the meeting. He also thanks MSA for sponsoring the morning break.

3. Vanden Heuvel called for any questions, comments, and or changes to meeting minutes from the May meeting in Whiting as posted on the WWOA website. Hearing none, the minutes were accepted as printed.
4. The Treasurer's report was presented and accepted.
5. Vanden Heuvel announced the Steering Committee election results. Vanden Heuvel was re-elected and Katie Gruber was elected to her first term.
6. Vanden Heuvel announced several upcoming events.
7. There are several new promotional items. Members are encouraged to check out the samples at the meeting or go to the web site to shop and order items.
8. Tuition reimbursements- Six for $150 each academic year, credit courses or advanced non-credit seminars.
9. No one has volunteered to host a meeting in 2012. Anyone interested in having your community host a future meeting should contact a steering committee member for details. The Steering Committee members are available to provide you with as little or as much help, as you need. It is a great way to showcase your community and your facilities.
10. There was no new business. The meeting was adjourned.
Lunch was served, followed by a raffle of donated items. A 50-50 raffle also was held with the proceeds to be donated to the State WWOA organization. continued on page 37
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Brian Akason, Energenecs described various applications of instrumentation in small wastewater and water facilities. He listed several new technologies that are being implemented. He talked about the use of instrumentation in energy conservation and noted trends in site communications.

Tom Robarge, Energenecs, followed with examples of problems and issues that arise in the field with the installation or upgrade of instrumentation. He discussed network architecture changes that improve performance and new communication technologies.

Dan Greve, MSA returned to make the final presentation of the day, a septage receiving evaluation for Osceola, Wisconsin. This interesting presentation detailed how the feasibility study for receiving septage was conceived and implemented.

Ben Martinson, Village of Port Edwards, closed the meeting by thanking everyone for attending and invited everyone to tour the Port Edwards WWTF.

Ben Martinson, operator and Joe Terry, village administrator, Port Edwards

Submitted by Rich Boden, Secretary, North Central Region

What’s Your Back-up Plan?

Do you know when your next sewer system crisis will rise up? If not, then you should know...

• Visu-Sewer offers complete sewer maintenance programs designed to eliminate back-ups!

• We employ trenchless methods for cleaning, inspecting and even repairing sewer systems, so you can avoid costly road repairs and excavation!

• Visu-Sewer is the oldest and largest full service sewer inspection, maintenance and rehabilitation contractor in the Midwest, having inspected, cleaned or repaired over 15,000,000 feet of sanitary sewers and storm drains since 1975!

What should your back-up plan be? Call Visu-Sewer today!
October 24, 2011

Dear Fellow WWOA Member:

The WWOA Technical Program Committee is requesting your assistance in developing the Technical Program for our 46th Annual Conference to be held October 9 - October 12, 2012. The Kalahari Resort Convention Center in Wisconsin Dells, WI will be our conference site.

Technical papers are being solicited at this time for the Technical Program. The Committee is especially encouraging members actively involved in the day-to-day operations of a wastewater facility to prepare and present technical papers at the Conference. The following are major subject areas that presentations may cover. Papers dealing with other topics will also receive consideration by the Committee.

1. Activated Sludge
2. Biosolids Handling
3. Nutrient Removal
4. Process Control and Automation
5. Design Concepts and Implementation
6. Staff Training and Development
7. Utility Management Skills
8. Computerization & Internet
9. Industrial Waste Issues
10. Maintenance Practices & Methods
11. Safety & Health Issues, Personnel & Process
12. Regulations, Watershed Issues
13. Laboratory Practices
14. Plant / Process Upgrades
15. Utility Benchmarking
16. Receiving Water Quality Issues
17. Collection System O&M / Programs Management
18. Operator Ingenuity and Everyday Problem Solving

Submit your outline(s) on the 2012 Conference Submittal Form (via e-mail - preferred, fax or mail) by January 7, 2012 to:

Kevin L Freber
City of Watertown WWTP
P.O. Box 477
Watertown, WI 53094
Phone: 920-262-4085
Fax: 920-262-4087
Email: kevin.freber@ci.watertown.wi.us
(Word file for e-submission at wwoa.org)

Please consider responding to this request or forwarding it on to someone who may be interested in participating. The strength of the WWOA is in the sharing of ideas and information. The success of this organization is dependent upon you the individual member. Please consider making a difference!

Sincerely,

Kevin L Freber

2012 Technical Program Committee Chair
46th Annual WWOA Conference
2012 Conference Submittal Form
October 9 – October 12, 2012

Technical Presentation Subject

Author(s) / Presenter(s)

Employer / Affiliation

Address

Email Address________ Phone #________ Fax#________

Author is actively involved in the day-to-day operation of a WWTP? Yes_______ No_______

Author is an active member of WWOA? Yes_______ No_______

**Brief Description of Presentation** (please type or print clearly; continue on back or attach additional pages if necessary):

Submit your outline(s) on the 2012 Conference Submittal Form (via e-mail - preferred, fax or mail) by **January 7, 2012** to:

Kevin L. Freber
City of Watertown WWTP
P.O. Box 477
Watertown, WI 53094

Phone: 920-262-4085
Fax: 920-262-4087
Email: kevin.freber@ci.watertown.wi.us

(Word file for e-submission at wwoa.org)
The Radisson Hotel and La Crosse Center, La Crosse Wisconsin

President Carlson called the meeting to order at 12:00 p.m. on October 6, 2011 at the La Crosse Center, La Crosse Wisconsin. Roll call was taken, all Officers and Directors were present and approximately 180 members were present. President Carlson asked for a moment of silence for all the members who have passed away in the past year.

Minutes of the October 21, 2010 meeting were presented for approval. A motion was made by John Leonhard, and seconded by LaMont Albers to dispense with the reading of the minutes and approve the minutes as written and published. Motion carried.

Executive Secretary R. McKee distributed copies of the Financial Report. McKee reminded the membership that this is an audited statement and is as of December 31, 2010. McKee reported the revenues for this fiscal year ending December 31, 2010 are $156,547.62. Expenditures totaled $169,772.47, with excess expenditure over revenue of $13,224.85. Paul Lange made a motion to approve the Financial Statement as presented, Dean Falkner seconded the motion. Motion carried.

NOMINATIONS-ELECTION OF VICE PRESIDENT AND DIRECTORS.
Nomination Chairperson, Bruce Bartel placed into nomination the name of Kevin Freber for the office of Vice President. President Carlson called three times for nominations from the floor. There being none John Leonhard made a motion the nomination be closed and a unanimous ballot be cast electing Kevin Freber to the office of Vice President. LaMont Albers seconded motion. Motion carried.

President Carlson informed the membership that there are three 2- year directorships open and one 1-year directorship open. The 1-year position is to fill the remaining year left on Kevin Freber's directorship. Nomination Chairperson, Bruce Bartel placed into nomination the names of Kelly Zimmer, Jeff Simpson, Jim Bergles, and Sharon Thieszen. President Carlson called three times from the floor John Leonhard made a motion to place into nomination the name of Jeff Bratz for the office of director. LaMont Albers seconded the motion. Motion carried. LaMont Albers made a motion the nominations be closed, Dean Falkner seconded the motion. Motion carried. President Carlson reminded the attendees that only WWOA members can vote and that they should vote for four people. The three nominees' with the most votes will be given the 2-year directorship positions; the fourth person will be given the 1-year directorship position. Each nominee was given time to speak to the membership. The election proceeded. President Carlson appointed past Presidents as ballot clerks. They were Carol Strackbein, Kay Curtin, John Leonhard, Randy Herwig, LaMont Albers, John Bond, Dale Neis, Wally Thom, Rich Boden, Jim Thalke and Dean Falkner.

President Carlson announced the winners of the three 2-years directorships as Kelly Zimmer, Jim Bergles and Jeff Bratz. The one year directorship will be filled by Sharon Thieszen. John Leonhard made a motion to destroy the ballots, Dean Falkner seconded the motion. Motion carried.

COMMITTEE REPORTS
Technical Committee- Wade Peterson thanked all of the people that help with the Technical Committee, Local Arrangement, Spouses Program, and the Exhibit Committee. He reminded the membership that the buses for the tours will leave after the Business meeting.

OLD BUSINESS
No old business

NEW BUSINESS
President Carlson announced that the Board has had one nomination for Honorary Membership from Dan Bush. The nomination is for Carol Strackbein. The Board has approved the nomination for the membership in attendance to vote on. Georgia Paul made a motion to award Carol Strackbein an honorary membership, seconded by Ken Johnson. Motion carried.

President Carlson recognized Georgia Paul from the floor. Georgia requested the Board recommend to the Biosolids Committee that Paul Schlecht be recognized for all the hard work he has done for the Biosolid Symposium. The Board will pass the information along to the Biosolids Committee.

ADJOURNMENT- There being no further business Randy Herwig made a motion to adjourn, LaMont Albers seconded the motion. Motion carried. The Meeting adjourned at 1:10 p.m. on October 6, 2011.
Mr. Dave Carlson
President, WWOA
Fond du Lac WPCF
700 Doty St.,
Fond du Lac, WI 54935

Dear Dave,

I would like to comment on how proud I am to be a member of WWOA organization. Generally speaking, most folks are not recognized until they are gone in some form or another. That was not the case with Leo Templeton. WWOA did a wonderful thing for its most senior member.

Our organization took the time to wish Leo a happy 90th birthday at its business meeting. Just think, most “treatment” facilities were not even considered let alone built when Leo was born. I just look at Racine’s plant which was christened in 1935. Leo grew up in a time when “dilution was the best solution to pollution”. Pumping stations/lift stations was the treatment plant and the optimum way to handle wastewater. We all know the saying, “out of sight out of mind”.

If my math is correct, Leo started his career at in 1954 at the experienced age 32. Manitowoc, Wisconsin was looking for someone with his particular skills and talents. I’m positive the interviewer recognized something special about Leo because he was promoted to Superintendent a short time later.

What a great time to get started in the industry. Leo has witnessed the evolution of the wastewater industry as we know and work with today. Leo retired after 33 years of service to Manitowoc in 1987.

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Consider this, Leo was born 4 years after WW I, grew up during the depression, was an 18 year old young man just in time for WW II. More than likely participated in the industrial revolution that made this country what it is today. Leo was around for the vast majority of inventions that has made our lives better, seen medical science soar, crippling diseases cured, a computer revolution, space travel, and communication without hard wires. WOW!!!

During Leo’s tour of duty, he was a member of the Wisconsin Sewerage Work Operators for 13 years. He participated in long hours of planning for the reorganization of the WWOC which took place at the Bigger’s Motel in Appleton in 1967.

He has been an active member of WWOC and WWOA for over 45 years with missing only one meeting and served as President of WWOC from 1980-81. Leo’s dedication was apparent by serving in every capacity of the Board. Now that’s impressive.

Leo also participated in the organization of the Historical Committee of the WWOC. Over the years, Leo’s visual documentation of the Awards Presentation and banquet is now part of the WWOC Historical collection.

Some of Leo’s accomplishments include:

- Bernawer Award 1976
- Service Award 1992
- Honorary Member 2005
- Lifetime Member

Over his long and impressive career, Leo has made many lifelong friends. I say that because nothing is more evident. This organization, WWOA, is a “class operation” made of people who come from different disciplines in the industries; operators, governmental, manufacturing, sells firms, engineering, and contractors, all of which make up this family. As competitive as we are in nature, we are still friends when the day is done. Leo’s personality exemplifies those qualities.

Thank you WWOA for recognizing Leo Templeton on his 90th birthday.

Well Done!

Bob Bradley, Mulcahy Shaw Water Racine Wastewater Utility (Retired)
Energy is one of the largest expenses for Wisconsin’s water and wastewater facilities. Fortunately, it’s also one of the most manageable.

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- Identify energy-saving opportunities
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