



Buckeye Bulletin

Ohio Water Environment Association | Volume 84:2 | Issue 2 2011



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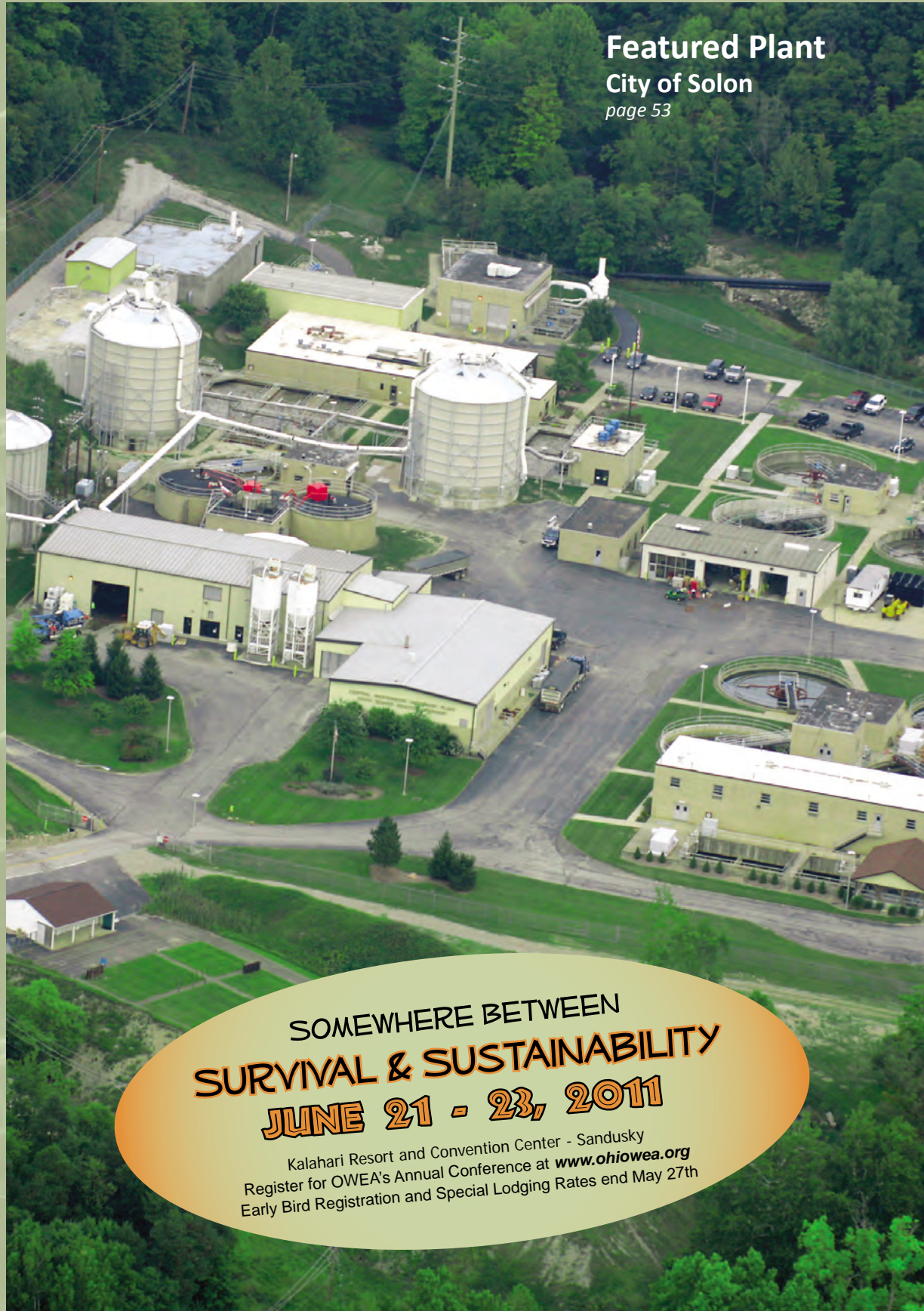
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The *Buckeye Bulletin (BB)* is the official publication of the Ohio Water Environment Association, Inc., a not-for-profit corporation founded in 1926, dedicated to the improvement of water quality in Ohio and the continuing education of water professionals. It is one of the top five member associations of the Water Environment Federation.

The ideas, opinions, concepts, and procedures expressed in this publication are those of the individual authors and not necessarily those of the Ohio Water Environment Association, its officers, general membership, or staff.

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Check out OWEA's website ohiowea.org for a complete listing of OWEA approved training.

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Get Involved

Join a Committee Today

The Ohio Water Environment Association has 25 committees with focus on various aspects of the water quality field and association operations.

OWEA needs your skill, experience, and energy. Contact OWEA at info@ohioweia.org or the chair of a committee that interests you for more information.

OWEA ASSOCIATION NEWS

OWEA Exhibits at Ohio's Opiate Summit

The Ohio Water Environment Association shared information regarding the proper disposal of medications to keep them out of Ohio's water supply. The Opiate Summit, held April 5th in Columbus, drew close to 1000 attendees, many of whom were very receptive to OWEA's message. You can view samples of information shared at http://www.ohiowea.org/keep_ohio_waters_clean.php



OWEA Leadership Attends WEFMAX in Louisville

OWEA Officers, Staff, and Delegates attended the Water Environment Federation's Member Association Exchange (WEFMAX) in Louisville, KY April 14-15.



(Clockwise from upper right): President Dale Kocarek, WEF Delegate-at-Large Dianne Sumego, NW Delegate Elizabeth Wick, Junior WEF Delegate Kim Riddell, SW Delegate Dan Sullivan, Past President Mark Livengood, Secretary/Treasurer Jane Winkler, Executive Manager Judi Henrich, and President-Elect, Doug Clark.

OWEA Office Assistant Position Available

OWEA is accepting applications for a part-time office assistant to help with event management, website maintenance, bookkeeping, Buckeye Bulletin preparation, and association administration. View the job posting at http://www.ohiowea.org/career_opportunities.php. Keith Justice, OWEA's winter term intern, who graduated in March 2011, is filling this position on an interim basis.

2011 Calendar of Events

May 2011

- 13 NESOWEA LAC Free Training Session
- 17 NESOWEA Section Meeting
- 17 SEOWEA Section Meeting
- 18 NWOWEA Section Meeting and Golf Outing
- 19 SWOWEA Section Meeting
- 24 2011 Ohio Operations Challenge and Hands-On Operator Training Day
- 26 SWOWEA Green Infrastructure Tour

June 2011

- 2 Plant Operations Seminar
- 12-15 WEF Collection Systems 2011
- 20 OWEA Annual Golf Event
- 20 Executive Committee Meeting
- 21-23 Annual Conference and Exhibit Expo

July 2011

- 15 LAC Meeting
- 28 OWEA Webinar

August 2011

- 5 NWOWEA Section Meeting
- 25 OWEA Webinar

September 2011

- 20-22 Farm Science Review (Biosolids Booth)
- 23 Lab Certification Exam Applications Due
- 28-29 Plant Ops/Lab Analysts Workshop
- 29 OWEA Webinar

October 2011

- 14 Operator Education Day
- 22 Lab Certification Exams

November 2011

- 17 Plant Operations Seminar and Section Meeting

December 2011

- 8 Biosolids Workshop

Please send all calendar updates to info@ohiowea.org. Your event will be noted in the Buckeye Bulletin and on OWEA's online calendar at www.ohiowea.org.



Dale Kocarek
OWEA President

As President of the Ohio Water Environment Association, I have come to learn this year what it means to be the leader of a Member Association of the Water Environment Federation. Prior to becoming President, I felt that I had six good years of prior training and came into my term with a plan of what I wanted to accomplish.

On becoming President, I was surprised to the degree to which this position makes one something

of a public figure. Interestingly, little of my prior training on the Executive Committee prepared me for this. As a consulting engineer most comfortable with books, calculations, and technical discussions I am accustomed to making decisions quickly and independently. Hence, when I became President, I had the mistaken belief that I was the Chief Executive Officer of OWEA, where I was supposed to set the direction of the organization, much like a CEO leads a company. In truth, being OWEA President is much different. I found that the role of OWEA President requires one to function in a collegial team atmosphere. Hence, the role of OWEA President can be described as the “first among equals,” which is a term borrowed from the presidency of U.S. President Woodrow Wilson (1913-1921). In his two terms as president, President Wilson sought to create a collegial environment in his cabinet, where everyone was a peer and all worked as a team to “seek agreement.” This is the management style that he learned and practiced as the former President of Princeton University.

To quote a concept from the book *“From Good to Great”* by Jim Collins called the Stockdale Principle, I had to face the brutal fact, to quote Admiral Stockdale, that one of my greatest shortcomings is that I can be impatient and driven to achieve results too quickly. To some degree this is understandable as the OWEA President’s term lasts for only one year and it is important to get as much done as time, energy, and human will permits. This year, I had to learn that, often, better results come from practicing patience and culturing the art of listening and seeking the opinions of others in the team atmosphere akin to that followed by President Wilson in consultation with his “team of equals.” Fortunately over the past few months, I have come to appreciate this approach and have committed these lessons into action.

Over the last year, I learned that my primary purpose as President is to serve as a conduit to promote community within the organization, serve as a diplomat to our members and others, and most importantly, be a cheerleader to illuminate our accomplishments as a body and individually, through our Awards Program. These are all concepts that involve “putting others first,” which I believe makes our organization – and others like it – special.

Also, while the OWEA Executive Committee may be the “nervous system” of our “OWEA body,” it is you, our valued members, who

serve as the bone, sinew, muscle, heart, and soul that make things happen and create the excellence that you see in our programs and functions. For I have learned in recent years that OWEA is largely a “bottom up” rather than “top down” organization. Those who have been regular attendees at section meetings or workshops understand what I mean. The strength comes from you, our members – much like Luke Skywalker – who discovered the “Force” on Star Wars, came to eventually understand that the force was within him all of the time. The “force” is also with you too!

In addition to being OWEA President, I have had the privilege of serving as the Chair of the Government Affairs Committee for the past three years. I have the good fortune of having a great committee that works with me. Our recent workshop on March 10, 2011 at the NorthPointe Conference Center drew 173 attendees, which is testimony to the excellence of our committee and our presenters. This attendance is a record for our workshop and close to a record for any other workshop in the history of OWEA. Also, I received many personal compliments on being at the Conference Center at NorthPointe, which really should be directed to Judi Henrich and others on the Executive Committee who made the choice to go there. Personally, I like the Conference Center at NorthPointe for the sheer reason that it can accommodate groups greater than 125 with ease and has a number of amenities, which help elevate the profile of the Ohio Water Environment Association into an organization of esteemed water professionals. I had many people come up to me and tell me how much they liked this venue.

Since June 2010 I have begun an internal improvement process to make OWEA a better organization by invoking a process of self examination through the Governance Committee and the practical application of business case analysis, strategic planning, and sustainability concepts tailored to nonprofit organizations run by volunteers. One improvement was made to show greater appreciation to our conference speakers to encourage greater participation. Many incur personal expense and some have to take time off from work. As a gesture of our appreciation, and starting with this workshop, OWEA is now offering a \$50 discount for workshop speakers who wish to attend the full workshop and derive benefits of accruing contact hours. This is our first step in saying thank you to our speakers and our heartfelt gesture of appreciation to those of you who help make OWEA great.

One of the things that I like best as President is to help other organizations promote their programs. One of the groups that we have the pleasure to work with from time to time is the Ohio EPA. We had the pleasure of having the new Ohio EPA Director, Scott J. Nally, speak at our recent Government Affairs Workshop. One of the programs that the Ohio EPA offers organizations to reduce pollution at the source is through its Office of Compliance Assistance and Pollution Prevention. OCAPP is an independent office within Ohio EPA which provides free resources to help businesses achieve compliance with environmental regulations. There is an article on the services that OCAPP offers on page 64 of this issue of the Buckeye Bulletin.

continued on page 7

As the late Beatle George Harrison said in his famous song "Here Comes the Sun," it has been a long, cold, lonely winter. But, now that spring has arrived; there are great things ahead this year for OWEA and its members. OWEA is entering our busy season with a great offering of events and training opportunities.

Recent events were:

- ◆ USEPA/WEF/OWEA Disinfection 2011 Conference, which was sponsored by USEPA, WEF, and OWEA on April 10-12, 2011 at the Hyatt Regency Hotel in Cincinnati.
- ◆ OWEA Collections Workshop was held at the Conference Center at NorthPointe on May 5, 2011.

Upcoming events are:

- ◆ OWEA Operations Challenge/Operator Hands-On Training Day will be at Columbus Jackson Pike WWTP on May 28, 2011. This is where OWEA fields teams to compete at WEFTEC and offers hands-on training opportunities.
- ◆ OWEA 2011 Annual Conference will be at Kalahari on June 21-23, 2011. Since 2008, OWEA has gone back to rotating its annual conference location. This event promised to be a "can't miss." Make your conference arrangements soon as Early Bird registration and lodging rates end May 27th!

On a final note, OWEA has taken steps to hire a part time Office Assistant to assist Judi Henrich, the Executive Committee, our Sections, and our Committees with the growing work of the Association. We anticipate that this new position will allow OWEA to keep up with our increasing work demands and help us achieve greater institutional sustainability. More specifically, we view this position as one that will help us increase our member services and provide OWEA with added tools to do more effective member outreach and publicity, which are essential to our well being and vitality for the future. The Office Assistant position is a part time (20 hour per week) position with an hourly rate of \$15/hour and no benefits. If you know of anyone who may be interested in this position, please refer them to the Career Opportunities tab at www.ohiowea.org.

WEF Fly-In Update

Doug Clark and I participated in a successful AWWA-WEF Fly In to our Washington D.C. on April 5-6 to meet with Ohio's U.S. Congressional representatives. I was involved with 5 meetings and Doug was involved in 6 with congressional offices on Monday and Tuesday. I believe that it is the most meaningful thing that I have ever done for WEF in the past 28 years.

This is the first year where WEF and AWWA did the Fly In jointly. AWWA's lead was their Water Utilities Council, and WEF's was their Government Affairs Committee. Together, we represented 70,000 members from across the United States, and both groups determined that it was a brilliant strategic move. The Presidents and Executive Directors of both AWWA and WEF were in attendance. I had the opportunity to spend time with Jeff Eger, WEF Executive Director and Jeannette Brown, WEF President, which was an added bonus.

The synergy between both groups was absolutely incredible. In Ohio, the skill and dedication of the Ohio AWWA Section Representative David Weihrauch, Marlay Price, Cliff Shive, and Bob Davis of Warren (my "president" counterpart in Ohio AWWA) were impressive. We were treated well in Washington by Congress, and I believe that we got our message of "Water Matters" across in an appropriate way. Bob Davis and I were paired together in all of our congressional meetings, and I thought that we made an excellent team (both Presidents of our respective organizations in Ohio).

Dale Kocarek, PE, BCEE

OWEA President

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WEF DELEGATE REPORT



Phil Anderson, Sr. WEF Delegate



Kim Riddell, Jr. WEF Delegate

WEF Delegate Report

The workgroups and committees have been busy since the last issue of the Buckeye Bulletin. The Ways and Means Workgroup proposed a few modifications to the House of Delegates Policies and Procedures, Section 4, HOD Committee and Work Group Structure. The HOD discussed these proposed changes and voted on them using our newly approved email voting process to vote on these proposed changes.

WEF Board of Trustees Launches Strategic Planning Initiative

This past January, the WEF Board contracted with TCC Group, Philadelphia, PA, to begin an initiative to evaluate and update the WEF strategic plan. Both internal and external water professionals will be involved, to ensure a broad approach to understanding and planning for the current and future professional needs and opportunities. WEF members and volunteers are an integral part of the evaluation process, providing the Board with data needed to ensure development of a sound plan. If you have any concerns or comments to pass on to the BOT, please contact either of your House Delegates.

WEF and AWWA Wish to Work Together for Public's Best Interests in Water Issues

Please see below a joint resolution expressing WEF's and the American Water Works Association's (AWWA's) intent to more closely coordinate on programs, services, and major policy issues. As you are aware, the water industry has changed in recent years, and our work is no longer easily defined as either "water" or "wastewater." WEF and AWWA recognize that, now more than ever, increased collaboration will benefit both organizations' members and improve our collective effectiveness.

The spirit of the resolution is reflected in many WEF-AWWA initiatives already underway. Examples include the joint AWWA-WEF Fly-In this past April 2011, the Work for Water website and outreach campaign, and our cooperation in programs such as the Utility Management Conference, the annual Young Professional's Summit, and the Partnership for Safe Water.

Resolution

WHEREAS; AWWA and WEF understand that a thoughtful, integrated and coordinated approach to the important public health, environmental, financial and societal challenges associated with clean and safe water is in the public interest;

WHEREAS; AWWA and WEF recognize that effective collaboration will advance the science of water and positively influence the development of sound water policy;

WHEREAS; AWWA and WEF acknowledge our responsibility to develop consensus on the major water challenges facing society;

NOW THEREFORE; AWWA and WEF resolve to support and lead as necessary an effort to develop a cohesive voice for the water community by encouraging collaboration between our members, coordinating programs and services, and developing consensus on major water policy issues.

Operator Outreach Work Group

As reported to you in the previous Buckeye Bulletin, the House of Delegates made seven formal recommendations to the Board of Trustees regarding Operator Outreach. The Board voted "to consider the recommendations presented by the Operator Outreach work group, in the larger context of the WEF Operator Initiative to address training and certification needs of operations personnel. The House Operator Outreach work group, the Board of Trustees Operator Initiative task force, relevant WEF committees, and WEF staff will collaborate on the desired path forward for the WEF Operator Initiative. This is an important topic for WEF and its Member Associations, and especially for the operations members of our profession, and the Board and the staff look forward to defining and implementing sustainable programs that add value. The staff is working closely with the House work group and will be distributing an overall communication to MA leaders, the House and others in the next few weeks that defines the work and the immediate path forward."

A full evaluation of the recommendations was conducted by the WEF staff directly involved with and responsible for operator programs and services (see chart on page 9). The Board voted to accept the evaluation as presented.

If you have any questions or input, please contact an OWEA WEF Delegate.

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House Recommendations November 2010	WEF Activities/Plans
<p>Item 1. Consider the development a training business model that provides; training materials, course contents, exams and trainer tips, to the MAs at a reasonable price such that MAs can conduct local face to face training.</p>	<p>The model described is currently in development. In 2010, with BOT approval, the WEF Distance Learning program partnered with the Michigan Water Environment Association (MWEA) to develop and update 14 face-to-face training courses. WEF provided MWEA with online course materials and supplemental course materials for the 8 fundamental courses currently offered via the WEF training website, http://training.wef.org. MWEA will update the courses and course materials with relevant technical content, graphics, tables and exam questions. MWEA will also develop 6 original courses based on the face-to-face courses it offered to its membership. Expected Completion: Fall 2011</p> <p>Upon completion of the 14 courses and materials WEF will package a number of the courses as “Train the Trainer” products and make them available for member associations (MAs) and instructors who wish to conduct local face-to-face operator training. WEF will also convert these courses into online training courses for the Distance Learning program.</p> <p>The Distance Learning program is reviewing a number of requests from MAs interested in partnering with WEF to develop courses as well as to convert face-to-face courses being offered locally into online training products. Expected Completion: To be considered in FY 12 budget</p>
<p>Item 2. Evaluate resources necessary to develop more varied and topic specific training programs.</p>	<p>WEF’s Education and Training Program staff are currently reviewing the technical content currently offered through WEFTEC, conferences, seminars, and online training and the mechanisms used for delivery.</p> <p>Based on recent discussions, Program Managers will begin developing processes and procedures to determine what products based on specific topics are performing best and how best to transition those that are under performing into other types of training products. For example, the seminar Program Manager will review a seminar that WEF has held for a number of years in a row and determine based on the number of attendees, revenue, expenses, content proposed and content delivered; whether the seminar on that specific topic is still relevant, and if so, does the seminar need to be offered every year or can it be offered every other year. If the topic is not as relevant as it has been in the past, is there an opportunity to move the technical content from a seminar to a face-to-face course, online training course, or cover through some other delivery mechanism. Expected Completion: Ongoing</p>
<p>Item 3. Evaluate technology improvements to reduce the cost and improve the quality of internet based training such that it more resembles “face to face” training programs</p>	<p>WEF is currently researching vendors capable of providing a service with the ability to accommodate all technical programs and provide a user-friendly interface and comprehensive learning environment for its members. The learning environment will be a “one-stop shop” for members to view webcasts, download online courses, listen to podcasts, download papers presented at conferences, seminars and WEFTEC, and review their training history as well as track CEUs and PDHs. The evolution of WEF’s technical programs and our transition to internet based delivery is inevitable and staff is working to develop an end product that will meet the operational needs of the organization as well as the educational needs of the membership. Expected Completion: Evaluation to be Completed July 2011</p>
<p>Item 4. Take the lead in establishing a national standardized certification for Operators in the Water Environment Profession</p>	<p>WEF will lead an Operator Certification Summit in 2011, to bring together representatives from key stakeholders such as the states/provinces (MAs and/or certification agencies), EPA, AWWA, ABC, to work towards a sector-wide position on water quality certification including standardization. One outcome could be to develop the national criteria and body of knowledge for wastewater operators while working in partnership with associations such as our MAs and/or ABC. Expected Completion: Summit to be Held by July 2011</p>
<p>Item 5. Investigate the establishment, development and implementation of a designation of a “Certified Water Professional (CWP)” similar to the BCEE program.</p>	<p>WEF is not currently in the business of actually certifying individuals. However, there is clearly interest in establishing such a credential and WEF could support the concept. The credential will be a topic of discussion during the Summit. Expected Completion: See #4 Above</p>
<p>Item 6. Request that the Program Committee of each Specialty Conference and WEFTEC identify the six (6) to eight (8) most operations focused paper/presentations and develop a “Best of XXX Conference” to be delivered to operators via Webcast.</p>	<p>WEF has begun offering the “Best of WEFTEC” via webcasts. The first “Best of WEFTEC 2011 – Energy Management and Conservation Practices,” was offered on January 19, 2011. Staff and volunteers will determine which papers/sessions focused on operations would be best. This will also be part of item #3. above. Expected Completion: Ongoing</p>
<p>Item 7. Request the Membership Committee to review the PWO Membership Category and the implementation of the Municipal Partner program based upon the results of the attached Operator Surveys.</p>	<p>WEF’s Membership Committee is evaluating the PWO membership category. Expected Completion: Late 2011</p>

THE GIFTS OF TIME AND PASSION

by Dale E. Kocarek, P.E., BCEE - OWEA President

There are many types of gifts that one can bestow and receive in life. Some of these are physical in nature, while others are less tangible and may include gifts of hospitality, encouragement, emotional support, wisdom, and understanding. One of the most frequently unappreciated are the gifts given by the OWEA Executive Committee - which are the gifts of time, passion, and administration. When we are doing what we love, giving of ourselves and our time comes naturally. But in saying this, the true and unsung heroes of the organization are not us – the members of the OWEA Executive Committee - but our employers who support us and our involvement in the organization. For without their support, OWEA would not exist.

This article is a last minute substitution for one that I had already largely written. But, following the most recent Executive Committee meeting on March 23rd, I was prompted to write a different article to capture some of the sentiments expressed in our discussion on our newly adopted Sponsorship Policy, which is in a working draft form.

As a matter of historical context, I have always been concerned that the Ohio Water Environment Association (OWEA) does not express its gratitude for the volunteers who make the organization the premier water environment in Ohio, along with the Ohio AWWA. This is the proximate change in our policy towards Sponsor recognition.

The thing that motivated me to make this last minute change was a comment made by a former OWEA Board member. Her comment made me recognize that our new Policy is silent on the time and intangible contributions of our employers with regard to the work that we do on the Executive Committee, which are the life blood of OWEA. Many of our volunteers sacrifice great time and energy to do that which they love, which is to serve the noble cause of clean water. It is true that our volunteers get name recognition for themselves and their companies, but after many years on the Southeast Section Board and the OWEA Board, I can safely attest that the time and expense put forth by the volunteers and their employers, which support them, does not directly translate to business opportunity and will never pay for the time and energy put forth.

Despite its evolution over the past 85 years, OWEA remains an organization led a dedicated core group of volunteers. A little known fact is that those on the Executive Committee spend an enormous amount of time leading the organization, which may go unnoticed and unappreciated. An active OWEA President can spend as much as 20 hours per week, which is the equivalent of a half time job. Other weeks, which are dominated by meetings and events, turn this part time job into a second full time position. Based on personal experience, I would note that to a similar degree, other positions on the Executive Committee, especially those of Vice President and President-Elect, can be nearly as rigorous.

Using me as an example, the donation that my employer, Stantec, provides OWEA for my services is substantial. For the purpose of illustration and an assumed hourly rate of \$25/hour and 10 hours per week (which is one half the time actually spent) Stantec

donates the equivalent of \$13,000 to OWEA for me to be your president. By any and all accounts, this is extremely generous! On behalf of myself and OWEA, **I wish to thank Stantec Consulting Services for providing me with the support to serve as the OWEA President.**

I am not alone in this endeavor. I am joined on the OWEA Executive Committee by fine and talented individuals with a variety of impressive gifting and talents. Together we create a diverse, well rounded, and capable body. Contributions of others on the OWEA Executive Committee are highlighted below.

Doug Clark is the President-Elect of OWEA and is the Superintendent of the City of Bowling Green WWTP. I have gotten to know Doug since we first met in 2001 at a conference in Cincinnati. Doug and I share many of the same beliefs on OWEA, and I have spent much time in helping him prepare for being president next year. As my immediate successor I feel that it is important to maintain continuity in the organization. It has been a pleasure to work with Doug and see him rise and develop into an engaging, wise, and capable leader who will provide solid leadership to OWEA next year. In addition to serving as the OWEA President Elect, Doug is also the Chair of the Utilities Enhancement Committee. **OWEA wishes to thank the City of Bowling Green for Doug's service to OWEA.**

Tom Angelo is the OWEA Vice President and is the Director of Wastewater for the City of Warren. Tom is an engaging, passionate, and incredibly versatile board member with a quick mind and a “can do” attitude. I have learned the value in soliciting Tom's council in my role as President, his contributions and advice have helped shape my thoughts in several critical areas. Tom has served OWEA in countless ways including committees, conferences, and as a frequent speaker in workshops and conferences. In addition to serving as OWEA's Vice President, Tom is the Chair of the Publications Committee. **OWEA wishes to thank the City of Warren for Tom's service to OWEA.**

Mark Livengood is the Past President of OWEA and works as a Manager for Montgomery County Water Services (MCWS). It is difficult for me to think about OWEA without first thinking of Mark Livengood. Mark's longevity, interest, wisdom, engagement, and subtle dry wit have set the standard for service and dedication to our organization for those who enter our ranks in the future. Mark and I share a passion for US history and the founding fathers of America, which we often discuss. Mark is an active member of the Governance Committee – served as the Committee lead for the OWEA and working with the Sections' Rules and Regulations. Mark also serves on the Publications Committee, and is the Master Integrator for the 5S Society – a role that he received from Gary Johnson several years ago. **OWEA wishes to thank MCWS for Mark's service to OWEA.**

Dan Sullivan is the Senior OWEA Delegate and represents the Southwest Section of OWEA. Dan works for Sullivan Environmental as a manufacturer's representative for a number of prominent equipment lines. Dan has ably served the organization as Co-Chair of the 2009 Annual Conference Committee. Dan has provided OWEA with critical insight and direction on many

matters pertaining to the “business management” side of our organization and how OWEA may work in better harmony with equipment manufacturers and vendors. **OWEA wishes to thank Sullivan Environment for Dan’s service to OWEA.**

Michael Frommer is a Third Year OWEA Delegate and represents the Southeast Section of OWEA. Michael is a Project Manager for URS Corporation in Columbus, Ohio. I first met Michael when he was the General Manager of the Southwest Licking Community Water and Sewer District in 2002. For the last few years, he has served as an effective Delegate to the Southeast Section and provided guidance, gentle coaching and advice on many matters. I am greatly appreciative of Michael’s contributions to OWEA as an Annual Conference Co-Chair (2006 and 2010). One of Michael’s gifts is in the area of diplomacy in how we present our organization to ourselves, our members, guests, and the outside world. **OWEA thanks URS Corporation for Michael’s service to OWEA.**

Elizabeth Wick is a Second Year OWEA Delegate and represents the Northwest Section of OWEA. Elizabeth is employed as a Water Quality Engineer in the Ohio EPA Northwest District Office in Bowling Green, Ohio. I have known Elizabeth since 1995 when my company was working with the City of Kenton on its wastewater improvements program. Elizabeth provides steady and effective assistance and influence on a number of endeavors, including the 2011 Annual Conference Committee and Government Affairs where she has written articles for the Buckeye Bulletin. **OWEA thanks the Ohio EPA for Elizabeth’s service to OWEA.**

Ted Baker is a First Year OWEA Delegate and represents the Northeast Section of OWEA and is the President of Baker and Associates. I have known Ted since 2001 and had the pleasure of traveling with him to Japan in 2002 to learn about the Kubota flat plate MBR. Although he has only been on the OWEA Executive Committee for less than one year, Ted has dug into our budgeting process as few have ever before with the end result of creating more precision and accuracy to our budgeting process. Recently, he is working with me to revamp the way OWEA generates money through sponsorship by working on the creating of a new Sponsorship Policy. **OWEA thanks Baker and Associates for Ted’s service to OWEA.**

Jane Winkler is the Secretary-Treasurer of OWEA and is retired from the City of Hamilton where she worked as a Laboratory Supervisor. Jane has served capably as our Secretary Treasurer since 2002. Although Jane is retired from her former position as Laboratory Supervisor, I often think that she is busier than before with travel and her work in her local theater group. For the time spent prior to retirement, **OWEA thanks the City of Hamilton for Jane’s service to OWEA.**

Phil Anderson is the Senior WEF Delegate, representing OWEA. Phil is employed by ARCADIS-US in Toledo, Ohio as an Operations Specialist. It has been my pleasure to work closely with Phil when he was OWEA President in 2007-2008, when I was a member on the Governance Committee. There are few people in our organization whose opinions matter more to me than Phil’s. His thoughtful insight and ability to serve as a sounding board have been invaluable to me this year. As President, I often consulted him to help benchmark many of my own thoughts

and ideas. **OWEA thanks ARCADIS-US for Phil’s service to OWEA and WEF.**

At this juncture, I think that it is also important to note that ARCADIS has also provided OWEA with many other capable leaders in the past including Gary Johnson and Dianne Sumego. Gary served OWEA as President in the 1990s and served twice in the role of WEF Delegate. Dianne Sumego is currently serving WEF as an At-Large member in the WEF House of Delegates and on the WEF Collections Committee. Dianne is also a member of the OWEA Government Affairs Committee. OWEA thanks ARCADIS for Gary’s and Dianne’s past and current service to OWEA and WEF.

Kim Riddell is the Junior WEF Delegate representing OWEA. Since June 2010, Kim is employed by Smith Environmental, and prior to that she was Superintendent of the City of Delphos Wastewater Treatment Plant. I met Kim when she was with Delphos and became acquainted with her over our common interest in membrane treatment technology. This year, I have found Kim to be an incredible advisor to me on a number of matters. Kim is often the first to respond to my (many) emails, and she and I have followed up with regular conversations on a variety of topics. I am very pleased to have Kim on the OWEA Executive Committee this year. Her vivacity and level of interest and engagement has been inspirational to me. In addition to serving as our WEF Junior Delegate in the House of Delegates, Kim is also the President of the Northwest Section, Chair of the WEF Plant Operations and Maintenance Committee, and is the Co-Chair of the OWEA Plant Operations Committee with Jim Borton. **OWEA thanks Smith Environmental for Kim’s service to OWEA and WEF.**

Last but not least, I would like to thank Deborah Houdeshell for her service to OWEA and WEF for the last decade. Deb works for Hazen and Sawyer in Akron, and she is currently serving WEF on their governing body – the Board of Trustees. Deb is active on the OWEA Awards Committee and the Publications Committee. **OWEA thanks Hazen and Sawyer for Deb’s service to OWEA and WEF.**

Unfortunately, time and space does not allow me to thank each OWEA’s Section Leaders and Chairs, Co-Chairs, and Vice Chairs of OWEA’s 23 committees. Each person is incredibly important to OWEA in his or her own way. Without you, our organization would not be possible, and the world would be a poorer and sadder place. As your President, you have my utmost and sincere appreciation for the work that you do.

About the Author:

Dale E. Kocarek is an Associate with Stantec Consulting Services, Inc. in Columbus, Ohio, the President of OWEA, and Chair of the Government Affairs Committee.

Dale may be reached at dale.kocarek@stantec.com

OWEA’S ANNUAL MEETING

The Annual Meeting of the Ohio Water Environment Association will be held Tuesday, June 21, 2011 at 1:30 p.m.

The meeting will be held in the Mangrove Room at the Kalahari Convention Center, during OWEA’s 2011 Annual Conference.

All members are encouraged to attend.

THANK YOU TO THE EMPLOYERS WHO SUPPORT OWEA VOLUNTEERS

The members of the Executive Committee of the Ohio Water Environment Association work many long hours on behalf of the organization. OWEA would like to thank their employers for their support of their service and the mission of preserving and enhancing Ohio's water environment.

 <p>Stantec Dale Kocarek P.E., President <i>Stantec Consulting Services, Inc.</i></p>	 <p>Kim Riddell, Junior WEF Delegate <i>Sales Associate, Smith Environmental</i></p>
 <p>Douglas Clark, President-Elect <i>WPC Superintendent, City of Bowling Green Ohio</i></p>	 <p>Dan Sullivan, SW Delegate <i>President, Sullivan Environmental Technologies, Inc.</i></p>
 <p>Tom Angelo, Vice President <i>Director Water Pollution Control, City of Warren Ohio</i></p>	 <p>Mike Frommer P.E., SE Delegate <i>URS Corporation</i></p>
 <p>Mark Livengood, Past President <i>Manager Water Reclamation Service Group - Montgomery County</i></p>	 <p>Elizabeth Wick P.E., NW Delegate <i>Water Quality Engineer, Ohio EPA, NWDO</i></p>
 <p>Jane Winkler, Secretary/Treasurer <i>City of Hamilton (Retired)</i></p>	 <p>Ted Baker, NE Delegate <i>President, Baker & Associates</i></p>
 <p>Phil Anderson, Senior WEF Delegate <i>Senior Operations Specialist, ARCADIS U.S., Inc.</i></p>	<p>The Ohio Water Environment Association is a volunteer-based organization and is very appreciative of the companies who encourage their employees to participate on OWEA Committees, Sections, Workgroups, and at OWEA Events with the goal of preserving and enhancing Ohio's water quality environment.</p>

OWEA ONLINE SURVEY

The Ohio Water Environment Association conducted an informal online survey of water quality professionals, asking for a list of the “Top Ten Things Not to Flush.” Survey participants were given ten blank fields to complete so as not to predispose people to any particular answer.

107 people participated in the survey. Answers were assigned to general categories (see the top ten categories list to the right) with the #1 category receiving the most entries and #10 receiving the least in the rank of 10. Thank you to all who took the time to help OWEA with this survey.

In addition to the top ten questions, comments below were received via the survey’s comments field:

- ◆ As an applications engineer for a sewage pump manufacturer, the rampant use of treated and untreated cleaning cloths, which are flushed, has caused a skyrocketing occurrence of pump plugging. The 10 States Standards call for the ability to pass a 3” sphere, not a long stringy cloth. The majority of these cleaning items are not biodegradable.
- ◆ About 90% of my pumps are clogged with a conglomeration of dental floss. This stuff is very strong and difficult to cut, especially after it collects into a concentrated wad. Thank you for doing this!!!
- ◆ Hypodermic needles are a particular concern! Flammable chemicals are a particular concern!
- ◆ I hope this list doesn’t get into the wrong hands . . . Some people will flush this stuff just to mess things up!
- ◆ Some items listed due to collection/pumping problems. Others listed for safety/environmental issues.
- ◆ Just because they say “flushable” doesn’t mean they are.
- ◆ If you didn’t eat it, don’t flush it.
- ◆ The wipe and flush cleaning rags are our difficult item that has changed our business. Even though some of the pump companies are improving their de-ragging ability, we still have to check the trouble stations once every two weeks. It would be of great benefit if OWEA would approach the companies that make these rags to at least put a label on their product NOT TO FLUSH DOWN THE TOILET.
- ◆ “Disposable” wipes have become a significant problem with pumps, floats, and smaller sewers. They should be outlawed.

Here are a few of the more interesting “Not to Flush” entries:

- ◆ Your car keys
- ◆ False teeth
- ◆ Your homework
- ◆ Bowling balls
- ◆ Your spouse
- ◆ Your wallet
- ◆ That diamond ring, just wait, he’ll apologize!
- ◆ Your smart phone
- ◆ O&M manuals

TOP TEN THINGS NOT TO FLUSH



1. Medications

Prescription, over-the-counter, vitamins, illegal drugs, patches, and hypodermic needles

2. Cloth

Cleaning rags, nylon stockings, underwear, shop towels, mop heads, dental floss

3. Feminine Products

Sanitary pads, tampons, applicators

4. Plastic

Plastic bags, plastic cotton swabs, disposable lighters, hotel shampoo bottles

5. Chemicals

Cleaning products, herbicides, insecticides, solvents

6. Grease

Auto, industrial

7. Wipes

Baby wipes, “disposable/flushable” wipes, personal hygiene wipes, and cleaning wipes

8. Cooking Oil/Grease

Fats, oils, cooking grease - used or unused

9. Condoms

Condoms and condom wrappers

10. Diapers

Paper or cloth, no matter how dirty, please dispose of in trash

Ohio’s Water Quality People

[ohiowea.org](http://www.ohiowea.org) 614.488.5800



OWEA’s “Top Ten Things Not to Flush” is available as a pdf document at http://www.ohiowea.org/keep_ohio_waters_clean.php

Contact OWEA at 614.488.5800 or info@ohiowea.org for more information

NE SECTION

The Northeast Section has been very busy the first several months of the year, starting off with our Operation Seminar held, on January 27 in Richfield. There were 225 attendees who received 6.5 contact hours for the event. This event was successful due to the great lineup of speakers and the hands-on portion which highlighted several of the Ops Challenge events. One of the challenges was getting the pump for the ops event into the room. Thanks go out to the Operations Challenge teams for assisting in that effort. There were over 20 people who did the hands-on portion and of that, a few were interested in signing up for Ops Challenge. I would like to thank all who helped make this event so successful.

On February 24, the section held its Industrial Waste Seminar in Richfield. There were 249 attendees who received 6.25 contact hours. Once again, the Industrial Waste committee put together a great lineup of speakers. I would like to thank them for their great efforts in putting this seminar together. At both of the seminars we changed the room and used three screens with a sound system (thanks Tom) so that everyone could see and hear the presentations.

The Section held its March meeting in Twinsburg. 136 people toured the Twinsburg Wastewater Treatment Plant and also did a tour of

Metaldyne Industry. This was a very interesting industrial tour. We were able to see how they made valve bodies for transmissions. Some also were able to see a large ladle of molten aluminum get loaded into their furnace and finally, we toured their pretreatment facility which uses MBRs. In the afternoon, contact hour sessions were held at Twin Haven Hall where attendees saw several good presentations. Attendees received 4 contact hours for this event. I would like to thank John Adams and his staff for all their hard work and dedication in making this meeting possible; as well as, the staff at Metaldyne for allowing us to tour their facility.

The Northeast Watershed committee held a seminar on April 28 in Richfield at the Furnace Run Metro Park – Brushwood Pavilion. This event offered 3 contact hours and was free to attend. Bill Zawiski gave the presentation and took attendees up close to the watershed. Thanks Bill.

The section will hold an annual business meeting, including the awards luncheon, elections, tours, and contact hour sessions on May 17 in Wooster. The morning will start with tours of the Wooster Water Pollution Control Plant.

Mike Welke, President, mwelke@warren.org



NESOWEA January Meeting - Hands-On with Wilo Pump



NESOWEA Members Tour the Twinsburg WWTP

SW SECTION

Our Lab Analysts meetings and Operator Education days continue to be well attended events at low/no cost to our members. Our next Operator Education Day is October 14th at Montgomery County and is a low-cost opportunity for operators preparing to take the OEPA Wastewater Class 1, 2, 3, or Collection exam to work through a sample exam with instructor provided solutions.

Continuing our tradition of having an annual joint section meeting with a neighboring section, on March 22nd, the SW Section and the SE Section traveled to Peebles for a tour and presentation of the GE Aircraft Engine Test Facility zero discharge system. In addition to learning about their zero discharge facility, they showed us a video demonstrating the rigorous testing of engines to ensure that a

catastrophic failure of an engine in flight will not damage an aircraft. As always, thanks to the firms that donated door prizes. During the business meeting, we presented our nominations for the 2011-2012 term and a vote will be taken at the May Section Meeting:

Dan Martin, President	Roger Rardain, 2nd Year Director
Barb Wagner, Vice President	Jason Tincu, 3rd Year Director
Bob Beyer, Treasurer	Jeff Olsen, Past President
Kelli Jamison, Secretary	Jamie Gellner, OWEA SW Delegate
Tom Brankamp, 1st Year Director	Dan Sullivan, OWEA Vice President

In addition, the draft proposed Rules and Regulations for governing the SW Section to replace the current set were available for attending members.

The WEF Disinfection 2011 Conference came to Cincinnati in April and the SW Section stepped to the plate to assist with room monitoring activities and other volunteer opportunities. Special thanks to the YP group for their involvement.

Although still two years away, the SW Section will be host of the 2013 Annual Conference. Jeff Olsen and Marc Nusser are serving as co-chairs and are currently putting together the conference committee and reviewing potential sites to hold the conference.

For details about these and other upcoming meetings, please visit the SWOWEA website at www.swowea.org, as well as view our latest Southwest WAVE.

Jeff Olsen, President, JeffOlsen@hdrinc.com



Mel Meng presents at March 22 SWOWEA Joint Meeting

NW SECTION

The Northwest Section Spring Meeting was hosted by the City of St. Marys on March 16, 2011. Attendees were able to tour the WWTP and the AAP of St. Marys (aluminum wheel manufacturer) facilities in the morning. Lunch, technical sessions and a short business meeting were held at the plant in the maintenance garage in the afternoon. The attendees learned about the AAP pretreatment process from Dan Danaher, the Environmental Health and Safety Coordinator for AAP; a 100 year history of wastewater treatment in St. Marys from Dave Sprague, St. Marys Water and Wastewater Superintendent; why operators should be involved in the construction of new facilities from Stan Davis, St. Marys retiree; and the operations of the newly constructed St. Marys WWTP including BNR via their new oxidation ditch and solids reduction with the Cannibal system. A special thanks goes out to Dave Sprague and his staff for their willingness to host our section meeting and the great job they did accommodating us at the plant! Approximately 91 people attended the St. Marys meeting.

The Plant Operations and Maintenance, Safety and Personnel Education committees held a training seminar on April 13, 2011 in Archbold, Ohio. This seminar was free to all attendees! Speakers included Dan Miller of Jones and Henry (New Technologies), Paul Matrk with Smith Environmental (Centrifuge Basics) and Jim Kennedy of Henkel Locktite Corp. (Maintenance workshop – MRO Best Practices). The NW Section wants to continue this type



A full house at the St. Marys Wastewater Treatment Plant

of workshop so please feel free to pass along any training session ideas and suggestions to any Executive Committee members. Your input is appreciated!!

The NWOWEA also held our semi-annual Operator Education Day workshop in preparation for the wastewater treatment and collections system exams on May 6, 2011 at the OEPA Northwest District Office. Special thanks again to coordinator Frank D'Ambrosia and all of his instructors for providing this great service to our treatment and collections operators!

Other upcoming events include: 2011 Ohio Operations Challenge and Hands-on Operator Education Day which will be held on May 24, 2011 at the Jackson Pike WWTP in Columbus, Ohio and the May NWOWEA Section meeting and annual golf outing scheduled for May 18, 2011 in Delphos, Ohio. Please consider attending these great events or putting a team together for the Ops Challenge Competition . . . a trip to Los Angeles is on the line for the D1 and D2 winning teams – it could be you!

I would also like to encourage everyone to attend the OWEA Annual Conference, hosted by the Northwest Section, June 20 – 24, 2011 at the Kalahari Resort in Sandusky. Our section has many volunteers involved in the planning for this conference and it is sure to be a wild success! Check out all of the details for this and other meetings on the OWEA website at www.ohiowea.org.

Kim Riddell, kim@go-smith.com



NWOWEA March 16, 2011 Meeting at St. Marys WWTP

Visit ohiowea.org to register online for your section's meetings and events

SE SECTION

The SEOWEA Executive Committee has been meeting regularly to discuss and revise the section's rules and regulations as required by OWEA. A draft submittal has been submitted to OWEA for approval. Our goal is to complete this process prior to the May 17, 2011 Section Meeting. The work to date on the proposed changes to the section Rules and Regulations may be reviewed on the OWEA website.



We are currently attempting to reduce costs associated with mailing publications and meeting notices by switching to an electronic mailing system and web page posting system. There have been some issues recently identified that the Executive Committee addressed at its meeting

in early April 2011. In the meantime meeting announcements can be found by going to the OWEA web page, www.ohiowea.org.

There are currently two vacant positions on the SEOWEA Executive Committee. We are accepting nominations or volunteers to fill these vacancies at our May 2011 Section Meeting. If you are interested in volunteering or know of someone who may be interested please contact one of the current Executive Committee members. The positions that will be open are those of 1st Year Director and 2nd Year Director.

The last two Section Meetings have been joint meetings with other sections. The May Section Meeting will return back to the SE Section and we are planning to have it at the City of Newark WWTP. More information will be forthcoming.

Steve Elliott, President, steveelliott@mariettaoh.net



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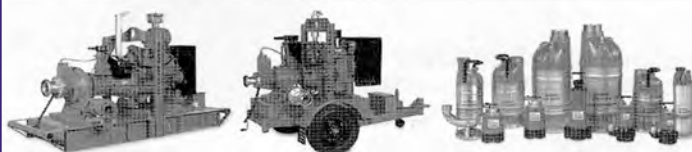


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Update Your Membership Profile**

Maintain an accurate mail and email address so you receive timely communications from OWEA regarding upcoming events, important news affecting water environment issues, and your copy of the Buckeye Bulletin.

Please check your member profile at: www.wef.org by clicking on the Membership link. You may also update your OWEA/WEF membership account by contacting WEF at 800.666.0206 / csc@wef.org or OWEA at 614.488.5800 / info@ohioweaa.org.

YOUNG PROFESSIONALS COMMITTEE

by Dan Martin, Chair

YP Summit

The OWEA YP Committee's first annual Summit was held in Clinton Township, Columbus, Ohio on Saturday, May 7, 2011. The YP summit was a learning experience and volunteer activity in a partnership with Franklin Soil and Water Conservation District (FSWCD). This year we helped FSWCD with their demonstration rain garden installation project at the Clinton Township Facilities at 3820 Cleveland Avenue.

Local community members were invited to attend and for those community members interested, there are grant monies available through FSWCD to install rain gardens on private properties this year. The morning started with a presentation and hands-on training by FSWCD. This program is to help educate local residents and others on the theory behind, benefits of, and installation techniques for rain gardens. OWEA YP's will then assisted with Clinton Township's onsite installation. Following the installation and planting activities, lunch was sponsored by the OWEA Executive Committee.

OEPA contact hours were requested for the morning educational presentation. Please contact to Kris Ruggles, kris.ruggles@strand.com for more information about this event..

OWEA State Conference

YPs are again looking forward to supporting the State Conference by assisting as room monitors and moderators. A listing of the tasks and time commitment required are posted on the OWEA website under the conference page. Contact Walter Ariss, walter.ariss@epa.state.oh.us for more information. The four winners of the Young Professional/System Operator Award will be presenting at the State Conference (Joe Tillison, Ashley Elber, Ting Lu, and Mel Meng). Be sure to check out their presentations which cover current and interesting topics in our industry.

Notable Happenings

- ◆ OWEA YPs participated in WEF's 2011 Disinfection Seminar April 10-12 in Cincinnati. It was a spectacular opportunity to put the skills of OWEA on display in the coordination of this event with WEF and USEPA. Special thanks to our YP volunteers who acted as room monitors:

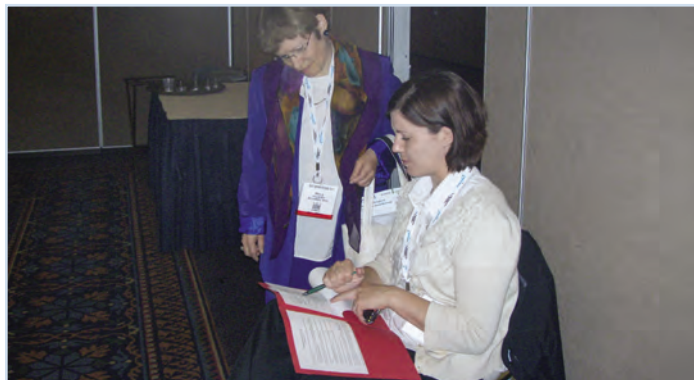
Justin Bolender, *HDR*

Katie Jamriska, *Greater Cincinnati Waterworks*

Adam Korn, *Woolpert Consultants*

Ian Laseke, *MSD of Greater Cincinnati*

Lisa Melton, *Hazen & Sawyer*



- ◆ Several YPs from Ohio, including our YP Watershed Co-Chair Anil Tangirala (Stantec), attended WEFMAX in Louisville, Kentucky (April 14-16). Louisville WEFMAX included WEF's 2011 YP Summit. The WEF YP Summit was a great opportunity for Ohio YPs to dialogue with YPs from around the country and for YPs to provide feedback to the WEF Board of Trustees.
- ◆ The Southwest Section is hosting a tour on Thursday, May 26, of a recent green infrastructure project designed to separate storm water from the combined sewer system in the area of Cincinnati's Oakley Square. This project features 1,670 square feet of pervious concrete sidewalks, eight urban storm water planters to collect runoff from Madison Road, and a 130 square foot urban rain garden. The Oakley Square project features one of the first green streets in Cincinnati, and showcases how a variety of green infrastructure features can function together to improve water quality and reduce stormwater runoff volumes. If you would like to join us for the tour, please meet at 4:45 in front of Oakley Pub and Grill just South of Madison Road. We have applied for one contact hour in conjunction with the event. Professionals of all ages are welcome to attend (not just young professionals). The informative tour will be followed by an obligatory social gathering at Oakley Pub and Grill. Contact Kelly Kuhbander for more information, kelly.kuhbander@strand.com.

Contact your Section YP representative to become more involved in the Young Professionals Committee:

SW - Dan Martin

dmartin@raconsultantsllc.com

SE - Brandon Fox

bfox@co.fairfield.oh.us

NW - Walter Ariss

Walter.Ariss@epa.state.oh.us

NE - Nick Bucurel

NBucurel@pirnie.com

Special thanks to all the committee volunteers who make the YP committee vibrant! As always, if you have any suggestions or questions, please contact:

Dan Martin

513.469.6600

dmartin@raconsultantsllc.com

Kris Ruggles

614.835.0460

kris.ruggles@strand.com

Career Opportunities

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Are you looking for a position?

Visit www.ohiowea.org and select Career Opportunities.

Or contact OWEA 614.488.5800 or info@ohiowea.org



LABORATORY ANALYST COMMITTEE

by Chairs Eva Hatvani and Denise Seman

Hello Everyone! Please remember to use the new email address for any communication with the State Lab Committee or WW Lab Analyst Certification. The email address is oweastatelac@yahoo.com.

We will be participating in the Operations Challenge by judging the lab event. The lab event this year is the HACH mColiBlue 24 method for E. Coli. Ops Challenge will take place on May 24, 2011 in Columbus at the Jackson Pike Wastewater Treatment Facility. If anyone is interested in helping judge the event, please contact us. If anyone is interested in entering the event . . . please sign up at www.ohiowea.org.

We would like to thank Diana Liston for all of her hard work in leading the SE Section LAC. She has decided to give someone else an opportunity to continue in her footsteps. Thanks Diana. If anyone is interested please contact your SE Section President. Kathy Richards from the NE section has graciously offered to share speaker contact info to help get you started, and we're sure you can talk her into a joint section lab event to get the ball rolling.

Save the Date

Remember to save the date for the Plant Operations/LAC Joint Meeting September 28-29, 2011. The lab sessions will be on Thursday, September 29. (Note this date is a week later than previously announced.)

Tentative Topics Include: (6.0 contact hours)

- ◆ E. Coli from A to Z – Jen Alexander, OEPA
- ◆ Microscopic Evaluation of Mixed Liquor: The Care and Feeding of Your Bugs - Jon VanDommelen OEPA
- ◆ BOD/CBOD from A to Z - Amy Starkey, Stark County
- ◆ An Introduction to the State of Ohio General Lab Criteria Audit. - Steve Roberts, OEPA
- ◆ Laboratory Game – Eva Hatvani, Retired, NEORS and Nancy Taylor, City of Newark
- ◆ Training Through Utilization of On-line Courses - Mark Citriglia, NEORS

RENEWAL OF CERTIFICATES FOR 2012-2013

The current certificates are valid until December 31, 2011. Renewals are on a two year cycle. The mailing for the next round of certificate renewals will be in the FALL 2011. If you do not get one, you may not have notified us about a possible move, retirement, or other situation. Download forms from www.ohiowea.org. Please email any changes of information to oweastatelac@yahoo.com. The cost will remain at \$25.00.

NOTE: Print applications from the OWEA website as the mailing address has changed to the OWEA Office.

Southwest LAC - Roger Rardain and Jim Davis

On January 27, 2011, the SW Section Laboratory Analysis Committee held a meeting at YSI, Inc in Yellow Springs OH. Attendance was outstanding with 59 people and 6 presenters/hosts from YSI and North Central Labs.

Technical sessions included the following presentations:

- ◆ Update on US EPA approval of Optical DO technology (Tim Grooms - WQS Business Development Manager, YSI Inc.)
- ◆ BOD Basics; sampling requirements and pretreatment, measuring initial DO, incubation, measuring final DO (Mike Raynovic – North Central Labs)
- ◆ How to insure good DO cal/data, troubleshooting errors and maintenance - hands on calibration session (Tim Grooms)
- ◆ Lunch provided by YSI
- ◆ Solving blank & GGA problems & Putting it all together (Mike Raynovic)
- ◆ Facility Tour of YSI

5.5 contact hours were approved for the seminars and 1.0 contact hour was approved for the tour YSI.

Lunch was provided by YSI as a buffet from Young's Golden Jersey Inn. Young's ice cream was also available during the afternoon break.

Save the date for the next SW LAC event:

Summer LAC Meeting

15 July 2011, 12-4 pm - Fairfield OH

To inquire about being added to our email list or to receive information about attending, hosting, sponsoring, or presenting at a future LAC meeting please contact:

Roger Rardain roger.rardain@ci.fairborn.oh.us

Jim Davis davisji@mcOhio.org

Northeast LAC- Kathy Richards

The Northeast Section LAC held its first event for 2011 on March 18th at Lake County's brand new training facility. What a beautiful venue! Thank you Susan Brochak from the Madison Waste Water plant for facilitating this training session. We will likely abuse your hospitality again. 31 attendees enjoyed 2 wonderful presentations (and a small intermission featuring a taste of statistical analysis as a "bonus"). Gil Dichter from IDEXX explained the history and applications for the Quanti-Tray system and Shaun Beauchesne of Hach fame led a discussion of ORP and disinfection. There has been a lot of positive feedback and I know we all learned something from each of these very knowledgeable speakers.

Our next session is scheduled for May 13, in Columbiana. For this event we will be welcoming Larry Anderson from Analytical Sciences, Inc. to teach us about Automated Discrete Chemical Analysis and John Hoffman from Alloway to speak about Laboratory Information Management Systems. Registration is open to the first 40 registrants at www.ohiowea.org. We will also

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be planning August & October events. Details will be announced in future Buckeye Bulletin articles, Sparkling Waters newsletters, and online at www.ohiowea.org and www.nesowea.org.

While you are visiting these websites, please consider responding to the NESOWEA LAC Questionnaire. The information we compile will go a long way towards building a networking database that will enable analysts to better connect with each other and share experiences and support.

If you would like to be added to our NES membership directory and receive automatic updates for training events and other news, please send your contact information to me at nesowealac@gmail.com. All our training events are free and open to everyone, regardless of which section you may call home.

We are actively seeking venues, topics & speakers for our LAC section meetings! If you have suggestions or would like to volunteer yourself or a "special coworker", please get in touch with any of the NES committee members:

Kathy Richards	krichards@akronohio.gov
Dale Holmes	daleh@mclw.com
Lisa Feigle	lisaf@gcdwr.org
Amy Starkey	ajstarkey@co.stark.oh.us
Marie Wenzel	marie@northcoastlabs.net
Melanie Rangel	mrangel@lakecountyohio.org

LAB CERTIFICATION EXAMS

Fall exam date: October 22, 2011.
Application Deadline: September 23, 2011

Print applications from the OWEA website as the mailing address has changed to the OWEA Office.

COMMITTEE CONTACT INFORMATION

State Chairs

Eva Hatvani, 440.846.8220, oweastatelac@yahoo.com
Denise Seman, 330.742.8820, dseman@cityofyoungstownoh.com

Northeast Chair

Kathy Richards, 330.928.1164, NESOWEALAC@gmail.com

Northwest Chair

Kevin Hughes, 419.488.5440, watertreatment@tiffinohio.gov

Southwest Chairs

Roger Rardain, 937.754.3075, roger.rardain@ci.fairborn.oh.us
Jim Davis, 937.496.7051, davisji@mcchio.org

Southeast Chair

Open - please contact a State Chair if you would be interested in serving as the SE Lab Chair



Gil Dichter at NESOWEA March 18 event



Shaun Beauchesne at NESOWEA March 18 event



Susan Brochak at NESOWEA March 18 event



Mark Your Calendars

OWEA's 2011 Event Schedule



May 5 **Collection Systems Workshop**

May 24 **Ohio Operations Challenge & Hands-On Operator Training Day**

June 21-23 **Annual Conference and Exhibit Expo**

September 28-29 **Plant Operations and Laboratory Analysts Workshop**

December 8..... **Biosolids Workshop**

Visit ohiowea.org for more information and registration

GOVERNMENT AFFAIRS COMMITTEE

by John Owen, Vice-Chair

On March 10th, OWEA held its 2011 Government Affairs Specialty Workshop. 173 attendees participated in this year's workshop, the highest attendance to date for a Government Affairs Workshop.

At this year's event, Ohio EPA Director Scott J. Nally provided an update on Ohio EPA. Division of Surface Water Chief, George Elmaraghy provided the annual Division of Surface Water update and Amanda Payton, of the OEPA Director's Office, gave a presentation of on how Ohio EPA develops its rules. Also presenting this year was the new Executive Director of the Water Environment Federation, Jeff Eger, who presented a Water Environment Federation update.



George Elmaraghy, John Owen, Scott J. Nally, and Dale Kocarek

Should anyone wish to see review this years' presentations, electronic copies are available at http://www.ohiowea.org/presentations_2011.php.

This years workshop was held at a new location, The Conference Center at NorthPointe, located along US Route 23 in Lewis Center just north of Columbus in Delaware County. The Conference Center at NorthPointe offered ergonomic seating, a continuous coffee break station with all day refreshments, a large lunch buffet in conference Dining Room, plus lots of free parking. This year, all four OWEA state specialty workshops will be held here as well.

John Owen
john.owen@epa.state.oh.us



John Owen, Jeff Eger, Dianne Sumego, and Dale Kocarek

"WATER MATTERS!"

by Dale Kocarek, OWEA President & Government Affairs Committee Chair

The term "Water Matters" was the battle cry of the 200 representatives of the AWWA-WEF 2011 Fly In to Washington DC on April 3-5, 2011. President Elect Doug Clark and I had the good fortune to be invited by the Ohio AWWA to participate with them in this event, where we had meetings with Congressional representatives.

Much of the credit for organizing our participation in the Ohio Fly In goes to David Weihrauch, Water Treatment Plant Manager from the City of Oxford. David's knowledge of the people and processes in our Nation's capital was impressive. David was assisted by other Ohio AWWA representatives

The synergy between both groups was absolutely incredible. In Ohio, the skill and dedication of the Ohio AWWA Section Representative David Weihrauch, Marlay Price, Melinda Raimann, Mike Gradoville, Cliff Shive, and Bob Davis of Warren (my "president" counterpart in Ohio AWWA) were impressive. We were treated well in Washington by Congress, and I believe that we got our message of "Water Matters" across in an appropriate way. Bob Davis, Ohio AWWA President, and I were paired together in all of our congressional meetings, and I thought that we made an excellent team. Other WEF members who rounded out the Ohio Delegation included Alan Vicory and Steve Wordelman

I was involved in 5 meetings and Doug was involved in 6 with congressional offices in Ohio on Monday and Tuesday. Without

exaggerating, I believe that it is the most meaningful thing that I have ever done for WEF in the past 28 years.

This is the first year where WEF and AWWA did the Fly In jointly. AWWA's lead was their Water Utilities Council, and WEF's was their Government Affairs Committee. Together, we represent 70,000 members across the United States, and both groups determined that it was a brilliant strategic move. The Presidents and Executive Directors of both AWWA and WEF were both there, and I had a lot of face to face time with Jeff Eger and Jeannette Brown, which was an added bonus.

Our time on Capitol Hill was tightly scripted. Our topics:

- ◆ A new funding program called WIFIA (Water Infrastructure Financing Innovation Authority)
- ◆ Reauthorization of the State Revolving Loan Fund Program
- ◆ Reauthorization of the Clean Water Act
- ◆ Chemical Facility Security
- ◆ Legislation regarding Drinking Water Standards

The discussion on WIFIA was very well received by both Republicans and Democrats. WIFIA is essentially a "budget neutral" program that would create a bank of funds to work in tandem with the SRF- (1) by allowing direct loans for large projects, which are often outside of the ability of the existing SRF to fund,

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RESIDUALS COMMITTEE

by Jamie Gellner, Chair

The OWEA Residuals Management Committee continues to remain active in the monitoring of issues related to biosolids management and to seek opportunities to serve the membership of OWEA. Since our last update, we have remained active in several main focus areas, including the following:

- ◆ **Farm Science Review:** The 2011 Farm Science Review will be held September 20 - 22. The Residuals Committee provides manpower and educational materials on the benefits of biosolids land application at the OWEA sponsored booth. A large number of attendees typically visit the booth. Promotional items are normally given away as an enticement to visit the booth and learn about biosolids. We will definitely continue to use the “wheel of trivia” to spur conversation, curiosity, and hopefully a little “BS” . . . in a good way!
- ◆ **Biosolids Workshop:** The 2011 workshop is scheduled for December 8, 2011. If you have an idea or topic you would like to present, please contact me.

This year, we are also working on a few additional areas, including the following:

- ◆ **New venues for booth/information/PR:** Members are exploring other events where we can showcase the information that we normally present at the Farm Science Review. If you have any ideas related to good locations for a display or information related to biosolids, please let me know.
- ◆ **Verify member list/update contacts:** If you haven't received any correspondence from me lately and were previously on the committee email list, that probably means that we need to update your information. Drop me an email if you'd like to be included on our mailing list or if your contact information has recently changed.
- ◆ **Reach out to neighbor associations:** We are in the process of reaching out to our neighboring associations in Indiana and Michigan. We hope to develop a dialogue with these groups and find ways to work together to provide information on biosolids issues.

There are a few noteworthy “current events” that readers should take notice on:

- ◆ **Revisions to OEPA Biosolids Rules:** Modifications to Biosolids Rules (OAC 3745-40) were officially adopted by OEPA Director's order on January 4, 2011. These rules will go into effect on July 1, 2011. More information on the specific rules can be found on OEPA's Division of Surface Water website at www.epa.ohio.gov/dsw. A summary of major topics is also included in this publication on page 62.
- ◆ **Final Rulemaking on Sewage Sludge Incinerator Emission Guidelines and Definition of Solid Waste:** EPA has published the final rules for emission guidelines for existing sewage sludge incineration units. EPA determined that biosolids were considered as material that is discarded in sewage sludge incinerators (SSIs), and thus a solid waste, prompting the Section 129 CAA rulemaking. This final rule sets limits for nine pollutants under section 129 of the Clean Air Act: cadmium, carbon monoxide, hydrogen chloride, lead, mercury, nitrogen oxides, particulate matter, polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans, and sulfur dioxide. EPA has also finalized rulemaking on the definition of solid waste. For more information on the sewage sludge incinerator emission guidelines, readers can access information on EPA's website at www.epa.gov/ttn/atw/129/ssi/ssipg.html. More information on the rulemaking for definition of solid waste, readers can access information on EPA's website at www.epa.gov/epawaste/nonhaz/define/index.htm. Additional information is also available through WEF and through other wastewater agencies, including NACWA.

We would love your involvement in these initiatives and others throughout the year. The Residuals Management Committee is focused on serving the OWEA membership through education, promotion of effective biosolids management, technical information on biosolids, and interface with OEPA on regulatory issues. We always welcome new membership and invite you to attend our next meeting. If you are interested in getting involved or if you have any questions, please contact me.

Jamie Gellner
513.317.0337
jgellner@hazenandsawyer.com

and (2) by allowing lower interest loans to be granted through the SRF to other communities.

Members of the delegation visiting the Hill were paired together to ensure maximum diversity – examples of this included engineers with operators, municipalities with equipment sales professionals, etc. For example, my Capitol Hill partner Bob Davis is a utilities manager and I am a consulting engineer.

The Fly In scheduled for next year will be on March 7-8, 2011. Unfortunately, this will be before the cherry blossoms are out as they were for the 2011 Fly In.

Dale Kocarek
OWEA President
dale.kocarek@stantec.com

Register Online

for Your Next OWEA Event

Most OWEA Events are listed in the Featured Events Section at www.ohiowea.org. Save time and postage by registering online for upcoming OWEA state, section, or committee workshops, meetings, and training sessions. You will receive immediate confirmation of your registration and can indicate your choice of payment options for each particular event.

Why should I attend the **Hands-On Operator Training Day** held in conjunction with OWEA's 2011 Operations Challenge?

- ◆ Earn up to 5 Contact Hours
- ◆ Network with other operations professionals
- ◆ Morning training session and plant tour (2.5 CH)
- ◆ Afternoon hands-on practice sessions (2.5 CH)
- ◆ Includes lunch and Operations Challenge Award Ceremony
- ◆ All for just \$50.00

The morning session will include 2.5 contact hours in a classroom/plant tour setting and the afternoon will include up to an additional 2.5 contact hours in a hands-on setting where attendees will put to practice what you learned about in the morning sessions. For those of you not ready yet to be part of a team, or you need up to 5 contact hours, come to the Hands-On Operator Training Day to watch and learn. Contact hours, good food and the opportunity to network with other operations professionals all for the low price of \$50.

In between contact hours, attendees will be able to watch the Ops Challenge teams that are competing for a free trip to the national WEFTEC event in Los Angeles in the fall!



Register a Team and Earn up to 12 Contact Hours

Compete to represent OWEA
in Los Angeles at WEFTEC October 2011



2011 HANDS-ON OPERATOR TRAINING DAY SCHEDULE

Tuesday, May 24, 2011

City of Columbus
Jackson Pike Wastewater Treatment Plant
2104 Jackson Pike
Columbus, Ohio 43223

Register Online at ohiowea.org

If unable to register online, form available at www.ohiowea.org
or register by calling 614.488.5800.

Morning Session - 2.5 Contact Hours

8:30-9:00 Registration

9:00-9:30 Operations Challenge Overview
Process Control, Laboratory, Maintenance, Collection, and Safety

9:30-11:30 Tour of Jackson Pike Wastewater Treatment Plant - City of Columbus

11:30-12:30 Lunch - included

Afternoon Session - 2.5 Contact Hours

12:30-4:30 Five (5) half hour hands-on training sessions where attendees can put into practice what you learned in the morning sessions. Groups will be made up of 8-10 persons.

12:30-4:30 *In between Contact Hours you will be able to watch Operations Challenge teams compete to see which team will earn the right to represent Ohio at the national WEFTEC event in Los Angeles in October 2011.*

4:30-5:00 Award Ceremony

For more info, contact Kim Riddell, Chairperson
kim@go-smith.com, 419.234.4507



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PUBLIC EDUCATION COMMITTEE

by Nancy Taylor, Chair

After my first committee report appeared in the Buckeye Bulletin, I did get responses from some of you willing to help with OWEA's project of providing clean water educational resources to teachers. For those of you who contacted me, thank you . . .

Michael Carson, City of Toledo
PowerPoint of Water Reclamation Facility

Gregg Mitchell, City of Sidney
PowerPoint of plant and willing to speak in SW Section

Dr. John Marks, retired from Zane State
Willing to speak in SE Section

Brian McKee, City of Circleville
Willing to speak in SW Section

John Zeiher, retired from City of Columbus
Movies of Southerly and Jackson Pike WWTPs

John Gonzalez, NEORSD
Link to the NEORSD Public Education website

Ed Haller, NEORSD
Children's book illustrating the WWTP process

Lorien Walsh, WEF
Pdf copies of WEF children's books "The Water Down Under" and "A Waterproof Case" both written for World Water Monitoring Day and the link to the World Water Monitoring Day website

By posting these resources together on an OWEA public access website, we can help school teachers gain a little insight to our work and use this as a bridge to spread the word of why our "clean water" jobs are vitally important to the health of the planet. After all, the best information comes from people who are experts in the field. But no matter how well educational resources are written, questions come up that teachers may not be able to answer. That is where YOU come in. Teachers are always looking for a way to bring real-life professionals into the classroom, and there are several Ohio science curriculum requirements you can fulfill by either speaking in the classroom or giving a tour of your plant. These requirements are:

- ◆ Explain how humans are connected to and impact natural systems
- ◆ Give examples of how technological advances, influenced by scientific knowledge, affect the quality of life.
- ◆ Analyze data on the availability of fresh water that is essential for life and for most industrial and agricultural processes. Describe how rivers, lakes, and groundwater can be depleted or polluted, becoming less hospitable to life and even becoming unavailable or unsuitable for life
- ◆ Describe Earth's resources including rocks, soil, water, air, animals, and plants and the ways in which they can be conserved
- ◆ Investigate ways Earth's renewable resources (e.g., freshwater, air, wildlife, and trees) can be maintained.

Your willingness to sign up for the OWEA Speakers List will help teachers to fulfill these requirements and, at the same time, you get the chance to inform people in your community about the importance of your facility.

For those of you who want to be a part of public education, but your bosses can't "justify" paying personnel to do it . . . you are already supposed to be getting the word out. If your community has stormwater that drains directly into the waterways (bypassing the WWTP), then you already have a requirement to educate your citizens on how to keep pollution out of stormwater runoff. If you are operating under the Stormwater Phase II Final Rule from USEPA, "Public Education and Outreach" and "Public Participation/Involvement" are listed as the first two of six Minimum Controls you have to comply with to satisfy this regulation. USEPA is requiring all of us to inform our citizens about the dangers of non-point source pollution because Public Ed is an important tool used to gain community support and change passive polluting behaviors.

Why not use this requirement for Public Ed as an opportunity to inform your citizens about the drinking water and wastewater treatment plants in your community? After all, not everything that ends up in the sewer can be treated. Tell your community how treatment at your plant works and what types of things "pass through", contaminating the waterways we are working to protect. Explain that one city's wastewater is another city's drinking water. Many people think that there is a segregated water source "someplace" containing pristine drinking water; uncontaminated and eternally available. They do not understand that all water is RECYCLED, either by Nature or at your POTW. Whether pollution is from stormwater runoff or something untreatable that went down the drain, it could still end up in the drinking water. Opening up communication with your citizens (both children and adults) is an important step in the protection of both the POTW itself as well as the water bodies in our communities.

I know many of our OWEA members are already actively participating in Water Days in their communities, setting up booths at the county fair, giving presentations in the schools, or letting the public tour the POTWs. For those of you willing to help, I ask that you share your written materials with me to post on the

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Teacher Resources website I am building. Written materials can be anything related to water quality/quantity conservation; Power Points of your facility, crossword puzzles or word finds with environmental terminology, a coloring book you have created, etc. If you are submitting material copyrighted by another person I will need a copy of the permission statement before I can post it on the web. I would also like to build a LONG list of Wastewater Professionals from OWEA that are willing to speak to the public on Clean Water topics such as how your plant works and why protecting the watershed means protecting the drinking water that enters our homes.

If you are willing to speak or have materials to post, please email me at ntaylor@newarkohio.net, with OWEA Public Ed listed in the subject line. Thanks for your support on this project, and thanks to ALL of you for the work you do every day in maintaining and improving the Water Environment. Together we make a difference; let's spread the word about what we do!

Nancy Taylor
ntaylor@newarkohio.net



ROLL CALL



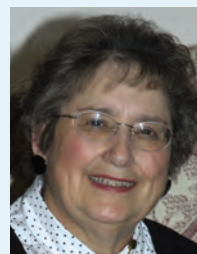
Patrick Turnbull, PE started as Director of Montgomery County Environmental Services on April 18, 2011 where he will oversee the operations of Water Services and the Solid Waste District. Patrick previously served as Miami County's Sanitary Engineer since 2006. Prior to that, he was Project Manager for CESO in Dayton and Project Engineer for GCG Engineers, Inc., Gahanna, Ohio. Patrick served four years in the US Navy as a Gas Turbine System Mechanic at Pearl Harbor, Hawaii. Patrick received a BSCE from The Ohio State University and is currently pursuing a master's degree in Public Administration from Wright State University. He is a member of WEF, AWWA, and has served in leadership roles in the County Sanitary Engineer's Association of Ohio.



Brad S. Clark, PE, has joined Stantec's Cincinnati, Ohio office as a senior project engineer in the Water practice area. A registered professional engineer, Clark has more than seven years of experience in design, project management and regulatory compliance consulting for the private and public sector. His project experience includes sanitary and stormwater collection systems, land development, roadway design and water distribution modeling, wastewater treatment plants, and infrastructure rehabilitation.

Clark is a graduate of Ohio University in Athens, Ohio with a Bachelor of Science degree in Civil Engineering.

OWEA Members may submit brief announcements with photo to info@ohioweat.org for publication in the Buckeye Bulletin. Please include your OWEA/WEF member number. All requests subject to editorial review.



Kathleen Cook has been honored with the 2011 *Harris F. Seidel Lifetime Achievement Award* by the Association of Boards of Certification (ABC), in recognition of her numerous contributions to advancing the cause of certifying environmental professionals.

Cook manages the Ohio Water Environment Association's Voluntary Certification Program of Lab Analysts, Industrial Waste Operators, and Industrial Waste Inspectors. Kathy retired from her position as Superintendent of the Class IV Fairborn Water Reclamation Center, where she was the first women superintendent in the state of Ohio. She also previously served as Laboratory Manager for the City of Fairborn. Throughout her career she has been dedicated to advancing the cause for which ABC was established.

Active in the industry, Cook founded and established both the Water Environment Federation Laboratory Practices Committee and the OWEA Laboratory Analysts Committee and she served a chair of ABC's Laboratory Analysts Validation & Examination Committee for 20 years.

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- Flexibility through pipework



FALL PROTECTION - A PAIN IN THE NECK THAT MAY SAVE YOUR NECK

by James Graham, Northwest Safety Representative

As we near another busy spring and summer work season we all need to remember that an extra few minutes of preparation just may save your life. We have all experienced the situation where we have a job or a piece of equipment that needs “just a quick repair” and, we don’t want to drag out that heavy scaffolding or go get that heavy ladder and suit up with our harness and lanyard. All too often we just climb up on something or tell a co-worker “hey buddy give me a boost” and before you know it you are on your way to the emergency room. I have heard and seen these situations happen. It only takes a couple of minutes of preparation to spare you from a lifetime of pain.

When looking for things to do on cold, snowy, or rainy days; try and remember to inspect all of your fall protection related tools and equipment to make sure that it is ready for you when you get ready for it. Make sure your scaffolding is in good repair. Wheels should be checked and lubricated to make sure bearings are rolling freely. Platforms should be inspected to ensure that they are free of cracks and or trip hazards. Side rails should also be inspected for cracks or missing pins. Make sure that harnesses are inspected for tears or frays and are not past the expiration date. Make sure to inspect your ladders to ensure that they are in good repair and that the feet are not damaged. Safety lines for ladders should also be carefully inspected for damaged cables and properly operating safety hooks, if so equipped.

Make sure to put safety equipment where it belongs to prevent damage; for example, hang up harnesses, don’t throw them on the floor. Store them away from heat and chemicals. Check them every day for dirt/debris buildup and damage. Remove dirt buildup with mild soap and a little warm water and let them hang to dry. Remove damaged equipment from the premises. Damaged goods should never be used for any reason. Equipment that has been exposed to a fall must also be removed from the site and replaced right away. You should also have a written procedure for outside contractors working at your facility to ensure that they comply with the safety rules that you have established.

Taking the few extra minutes for safety preparation just may be the insurance you need to keep you on the job and out of the emergency room. As the old saying goes, “An ounce of prevention is worth a pound of cure.”

James Graham
NW Safety Representative
jgraham@bgohio.org



UTILITY ENHANCEMENT COMMITTEE FREE LUNCHTIME WEBINAR SERIES

by Doug Clark, Chair

The Utilities Enhancement Committee is hosting two 3-part webinar series in 2011 in its continuing commitment to educate members and reach out to potential members.

In the first series, relating to **Nutrient Removal**, attendees heard from three different agencies on nutrients, their impacts on Ohio municipalities, and mitigation:

- ◆ Part 1, February 24, 2011, was presented by Dan Dudley of Ohio EPA. Dan informed us on nutrient standards and where they may lead us in the future.
- ◆ Part 2, March 31, 2011, we heard from John Kessler of the ODNR on Gulf Hypoxia and its impacts to Ohio municipalities.
- ◆ Part 3, April 28, 2011, was presented by Dusty Hall of the Miami Conservancy District. Dusty informed attendees about the Great Miami Nutrient Trading Program.

An average of 110 water professionals registered to take advantage of this free, convenient training and information sharing.

Be sure to mark your calendars for the next 3-part series on **Wet Weather Issues**. Dates for this series are July 28, 2011, August 25, 2011 and September 29, 2011. All dates are on Thursday and all times are from 12:00 – 1:00.

Due to the complexity of tracking contact hours during a webinar, OWEA does not offer contact hours for the webinars at this time. That being said, GOOD training and FREE training is a PRICELESS VALUE. As many presenters are more than willing to present in public (allowing contact hour tracking), I urge you to join us on these webinars and suggest which speaker you would like present at one of the many training/specialty workshops hosted by OWEA throughout the year.

WE NEED YOUR HELP! If you or your employer have done anything that you have found to be beneficial to your utility please share it by becoming a webinar presenter. You can present from the comfort of your own office as this is done by way of computers and you are not in front of a “live” audience. The sharing of ideas is how we all learn, so please share your successes so we can all learn from you.

Doug Clark, Chair
douglas.clark@bgohio.org, 419.354.6275

Jim Hewitt, Vice Chair
hewitji@ci.akron.oh.us, 330.375.2185

John Newsome, Secretary
jgnewsome@columbus.gov, 614.645.8460



Submit your water quality question to the experts at www.ohiowea.org

and view other “Ask the Expert” questions and responses



REGISTER NOW!

THE OHIO WATER ENVIRONMENT ASSOCIATION
PRESENTS

SOMEWHERE BETWEEN SURVIVAL & SUSTAINABILITY JUNE 21 - 23, 2011

OWEA Awards Brunch - Tuesday

Facility Tour - Tuesday, Kalahari Treatment & Pumping Systems

Exhibit Expo - Tuesday, 70+ Exhibitors

Technical Sessions - Wednesday & Thursday

Wednesday: 48 Technical Sessions/4 Concurrent Tracks

Thursday: 9 Technical Sessions/3 Concurrent Tracks

plus the latest **Ohio EPA Updates**

Golf Outing - Monday at Thunderbird Hills Golf Club

Meet & Greet - Tuesday Night

Networking on the wild side at Kalahari

Annual Banquet - Wednesday Night

WEF Awards, Passing of the Gavel, and more . . .

Earn up to
**12 Contact
Hours**

**Networking
Events**

May 27 - Last Day for Early Bird Registration and Special Lodging Rates

at Kalahari Resort and Convention Center - Sandusky

7000 Kalahari Drive ■ Sandusky, Ohio 44870 ■ 877.525.2427



Hosted by OWEA's Northwest Section. For information contact:

Doug Borkosky
614.361.3673
doug@hlbaker.com

Dave Sprague
419.394.4114
dsprague@cityofstmarys.net

Ohio Water Environment Association
614.488.5800
info@ohiowea.org

Top Ten Reasons

You Should Attend the 2011 OWEA State Conference

Reason #10: Location

You're in for a new conference experience. Kalahari Resort includes a spacious, modern conference center, and over 800 guest rooms. All conference activities except golf, one facility tour, and the spouse/guest program will take place on-site. Parking and internet access are complimentary!

Reason #9: Relaxation

Evenings are for rest, relaxation, and networking. The Meet & Greet on Tuesday night offers a traditional pig roast, complete with food, drinks, music, dancing, and much more. Conference rooms include water park passes, another opportunity for networking. In addition, the resort offers a spa, an animal park, arcade, pottery barn, restaurants, candy shop, gift shops, and more.

Reason #8: Peer Planning

The conference planning committee members are experienced and enthusiastic representatives of municipalities, consultants, Ohio EPA, vendors, and manufacturers...conference planning for water quality professionals by water quality professionals.

Reason #7: Meals

The Kalahari offers superb culinary capabilities. Continental breakfasts, the Awards Brunch, and the Annual Reception and Banquet are included with full registration.

Reason #6: People

You will meet and connect with colleagues who are passionate about their work and like to have fun.

Reason #5: Tours

Two tours will be provided: an on-site tour of the Kalahari water treatment and support areas and a tour of the Sandusky WWTP.

Reason #4: Exhibits

See, touch, and learn about the latest and greatest technology. Meet representatives from large and small companies in the wastewater field. Ask the questions you really want to know and gather the facts to make informed decisions.

Reason #3: Education

Learn from fellow water quality professionals, hear the latest trends, discover new solutions, and more. Attendees can choose from over 50 technical sessions and easily earn up to 12 contact hours.

Reason #2: Networking

Networking is perhaps the most important benefit from the conference. Discuss problems and solutions with like-minded professionals. You'll be hard pressed to find a better way to meet and develop a network of water quality professionals. Relationships and contact from three days in June can provide support throughout your career!

Reason #1: Value

This year's State Conference is more than the sum of its parts. You'll take away so much more than the handouts and business cards – you'll walk out with peer connections and access to knowledge that will impact your bottom line and day to day work for years to come. Gain new skills and knowledge to enhance your expertise as a water quality professional. Registration fees include banquets, technical sessions, exhibits, meals, special events, and more. The basic room rate is only \$114 per night, an unbelievably affordable rate. With the economic challenges facing municipalities today, there has never been a better time to attend a value-driven conference.

Dear Colleagues,

Dumela! Tjike! Sawubona! Molo! Hallo!....or just Hello!

As you'll see, we're getting ready for the 2011 OWEA Annual Conference! This is our chance to escape to another world and yet experience the hospitality of northern Ohio as we gather at the African themed Kalahari Nia Convention Center in Sandusky Ohio.

Somewhere Between Survival and Sustainability.

In selecting the theme for the 2011 conference, we were influenced greatly by the conflict many municipalities are facing....namely the decreasing availability of water and sewer revenues and project funding that complicates the need to address failing infrastructure and increasing regulatory requirements. There is a general desire to do what is right—to find ways to take care of infrastructure and be good stewards of the environment—to look for sustainable programs and technology. Yet it is increasingly obvious that the economy is pushing decision makers into survival mode...

These goals—survival and sustainability—are exemplified by the Kalahari region in southern Africa. The Kalahari has a large desert component—where life is tough and survival difficult. However, there are parts of the Kalahari that are rich with life and water. Some regions have water year round, and others take advantage of seasonal water availability...surviving on what is available. Life in the Kalahari is truly somewhere between survival and sustainability.

Closer to home, the conference technical program is going to include the traditional types of topics covering technology and regulations, but it is also going to include a special emphasis on sustainable practices like asset management and green technology. OWEA President-Elect Doug Clark and his team have worked hard to organize the technical program—and it looks great!

So, as we gather this June to conduct business, network, celebrate exceptional professionalism, and learn about technology, we look forward to exploring both "survival" and "sustainability". We may discover that these two concepts are not so far apart that they require choosing one or the other. Hopefully we will discover that many things we do for survival can be easily adapted for sustainability, and that many sustainable practices will eventually lead to easier survival.

The 2011 Annual Conference Committee is looking forward to welcoming you this June. Mark your calendars, submit your travel requests, reserve your rooms...and join us at Kalahari!

Sincerely,

2011 Annual Conference Committee Chairs
Doug Borkosky, doug@hlbaker.com
Dave Sprague, dsprague@cityofstmarys.net



Somewhere Between Survival & Sustainability

Where are you on that spectrum?

The decisions that operators, engineers, managers, and regulators have to make are motivated by a need for preservation (survival) but also a desire to improve the environment. Sometimes, our solutions include a mix of survival and sustainability. In the end, truly "sustainable" options should lead to survival . . . right?

President-Elect Doug Clark has designed the 2011 Technical Program to explore this relationship between survival and sustainability.

See the program offerings on page 30.

SCHEDULE & TARIFF

June 21-23
Kalahari Resort & Convention Center

2011

SCHEDULE | Monday, June 20 - Thursday, June 23

MONDAY, JUNE 20

8:30 a - 5:30 p	Golf Outing - Thunderbird Hills Golf Club
4:00 p - 6:00 p	Registration - Kalahari Nia Convention Center
5:00 p - 9:00 p	Exhibitor Setup
7:30 p - 9:00 p	Executive Committee Meeting

TUESDAY, JUNE 21

7:00 a - 5:00 p	Registration - Kalahari Nia Convention Center
7:00 a - 8:30 a	Exhibitor Setup
7:00 a - 9:30 a	Continental Breakfast
8:30 a - 10:30 a	Exhibit Expo Open
Multiple Time Slots	Onsite Tours of Kalahari's Water Treatment/Support Areas <i>Sign Up at Registration Desk</i>
10:30 a - 1:00 p	Awards Brunch
1:00 p - 4:30 p	Spouse/Guest Program
1:30 p - 2:30 p	OWEA Annual Business Meeting
1:00 p - 5:00 p	Exhibit Expo Open
3:00 p - 4:00 p	Moderator/Monitor Training Meeting
4:00 p - 5:00 p	Afternoon Social in the Exhibit Expo Area
5:00 p - 6:00 p	Exhibit Tear Down
6:00 p - 10:00 p	Meet & Greet at Kalahari's Zanzibar

WEDNESDAY, JUNE 22

7:30 a - 5:00 p	Registration - Kalahari Nia Convention Center
7:30 a - 9:00 a	Continental Breakfast
8:00 a - 10:00 a	Exhibit Tear Down
8:30 a - 11:45 a	Technical Sessions (4 Concurrent Sessions)
9:00 a - 4:30 p	Spouse/Guest Program
11:45 a - 1:15 p	Lunch - Kalahari's Pavillion
11:45 a - 1:15 p	President's Luncheon (by invitation)
1:15 p - 4:30 p	Technical Sessions (4 Concurrent Sessions)
6:00 p - 7:00 p	Social Reception - 5S Induction
7:00 p - 9:30 p	Annual Banquet
9:30 p - 11:30 a	After Banquet Gathering - Live Music in Kalahari's Reserve

THURSDAY, JUNE 23

7:00 a - 11:00 a	Registration - Kalahari Nia Convention Center
7:30 a - 9:00 a	Continental Breakfast
7:30 a - 8:30 a	5S Breakfast
8:30 a - 10:00 a	Technical Sessions (3 Concurrent Sessions)
10:30 a - 12:00 p	Technical Session (Ohio EPA Updates)

Did you know?

- Over 500 individuals have attended and/or participated in each of the past three Ohio Water Environment Association's annual conferences held in 2008, 2009, and 2010.
- The exhibit expo booths have been sold to capacity in each of the past three years.
- An army of OWEA volunteers provides the planning, coordinating, moderating, monitoring, ticket taking, sign wrangling, and many other tasks to provide this educational experience for Ohio's water quality professionals.

2011 Tariffs

Early Registration - by May 27th:

Full Conference Member	\$275
Full Conference Nonmember	\$375
Retired Member Full Conference	\$120
Tuesday Only Member	\$145
Tuesday Only Nonmember	\$195
Wednesday Only Member	\$145
Wednesday Only Nonmember	\$195
Student	\$50
Spouse/Guest Program	\$160

Late Registration - after May 27th:

Full Conference Member	\$325
Full Conference Nonmember	\$425
Retired Member Full Conference	\$170
Tuesday Only Member	\$170
Tuesday Only Nonmember	\$220
Wednesday Only Member	\$170
Wednesday Only Nonmember	\$220
Student	\$75
Spouse/Guest Program	\$210

Exhibitor Registration:

Includes Full Conference Registration for Primary Exhibitor

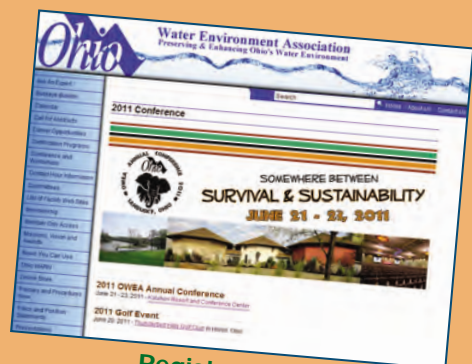
Member Exhibitor	\$700
Nonmember Exhibitor	\$850
Extra Booth Attendant	\$40

Conference Sponsorships:

Titanium	\$3000
Platinum	\$2000
Gold	\$1000
Silver	\$500
Bronze	\$250

Golf Registration:

Foursome	\$300
Individual Golfer	\$75
Hole Sponsorship	\$250



Register online
www.ohiowea.org

WEDNESDAY, JUNE 22 - AM TECHNICAL SESSIONS - 4 TRACKS

Spending More to Save More			
8:30	9:00	Bulk or On-Site Generation: What's Your Hypochlorite Solution	Kyle Novak
9:00	9:30	Development of a Method for the Evaluation of WAS Reduction	Julian Sandino
9:30	10:00	Development of a Method for the Evaluation of WAS Reduction	Julian Sandino
10:00	10:30	Break	
10:30	11:00	Replacing Old Sand Filters with Modern Disc Filters	Tom Kutcher
11:00	11:30	2 Green ARRA Projects & 1 WWTP: An Equation for Energy Savings	Ashley G. Elber
11:30	12:00	Best Value Pre-Selection and Procurement	Terry Gellner
Green Technology / Energy			
8:30	9:00	An Economic & Green Alternative for Dissolved Nutrient Recovery	Katya Bilyk
9:00	9:30	Developing Bioplastics From Wastewater Treatment	Mike Maringer
9:30	10:00	Achieving Economic & Environmentally Sustainability Objectives	Michael Bullard
10:00	10:30	Break	
10:30	11:00	Energy Efficiency Evaluation for Process Aeration Blowers	Scott D. Phipps
11:00	11:30	Energy Optimization in Membrane Bioreactors	Brian Codianne
11:30	12:00	Dissecting your Electric Bill: Energy Efficient Operations of WWTP's	Kevin T. Krejny
Asset Mangement			
8:30	9:00	Assets - You Don't Know What You Have Til It's Gone.	Tom Fishbaugh/Larry Baxa
9:00	9:30	The New CYA . . . Covering Your Assets	Tom Fishbaugh/Larry Baxa
9:30	10:00	Can You Tell Your Assets from a Hole in the Ground?	Tom Fishbaugh/Larry Baxa
10:00	10:30	Break	
10:30	11:00	Maintaining Your Assets Using CUPSS	Tom Fishbaugh/Larry Baxa
11:00	11:30	I Think, Therefore I AM (Asset Management)	Kevin Camapanella
11:30	12:00	I Think, Therefore I AM (Asset Management)	Kevin Camapanella
CSO - SSO			
8:30	9:00	Evaluating Water Quality at CSO by a Novel Approach	Ting Lu (YP)
9:00	9:30	High Rate Treatment as Part of the Solution for Wet Weather Flows	Tom Bulcher
9:30	10:00	Integrated Approach to Handle Growth & Wet Weather Flows	Tom Bulcher
10:00	10:30	Break	
10:30	11:00	Visualize the History of a Sewer Collection System with Free Tools	Mel Yuanhang Meng,
11:00	11:30	Establishing a Benchmark for CSO Mitigation	C. Gibson Chen/Doug Clark
11:30	12:00	Interim Interconnector Sewer Operational Plan Update	Gary Hickman

WEDNESDAY, JUNE 22 - PM TECHNICAL SESSIONS - 4 TRACKS

MBR / Emergency Planning			
1:00	1:30	Efficiently Managing Peak Flows in MBR	Dennis Livingston
1:30	2:00	MBR vs Conventional Treatment Disinfection Study	Ashley G. Elber
2:00	2:30	MBR vs Conventional Treatment Disinfection Study	Ashley G. Elber
2:30	3:00	Break	
3:00	3:30	When Disaster Strikes	Dan Miklos
3:30	4:00	Will You Be Ready for Your Next Power Outage?	Ed Dunn
4:00	4:30	Benefits of a Backup System Control Center	Greg Betz
Dewatering / Potpourri			
1:00	1:30	Press or Spin? Dewatering Case Studies	Steven C. Reese
1:30	2:00	Rotary Drum Sludge Thickening: Maximizing Process Performance	Marty Davidson
2:00	2:30	Saving a Gravity Belt Thickener: Maximize Belt Longevity	Shawna Gill
2:30	3:00	Break	
3:00	3:30	It's a Volatiles Issue: Sampling for Organic Analysis	Kathleen Richards
3:30	4:00	From Shoveler to Operator	Joe Tillison
4:00	4:30	You Are In The Healthcare Business	Doug Brookhart
Collections			
1:00	1:30	Large Diameter Sewer Inspection Finds More Than Expected	Stuart Bowns
1:30	2:00	Corrosion Condition Assessment of Force Mains	James T. Lary
2:00	2:30	Sewer Condition Assessment and Rehabilitation	Elizabeth Ehret
2:30	3:00	Break	
3:00	3:30	Odor Control In Collections	Bill Hyland
3:30	4:00	How Sewer Improvement Projects Can Impact Your Customers, and How You Can Help Them	Pat Esposito
4:00	4:30	Incorporating a Customer Service Initiative into an "Engineering Process"	Vanessa Smedley
CSO - SSO			
1:00	1:30	Real Time Savings: Transforming Real Time Hydraulic Data	Luis Montestruque
1:30	2:00	Plan to Save Money, Afford Eliminating Basement Backups	Curtis D. Courter
2:00	2:30	Louisville & Jefferson Co MSD Downspout Disconnection Pilot Program	Timothy Kraus
2:30	3:00	Break	
3:00	3:30	Maywood Ave CSO Volume Reduction with Green Infrastructure	Patekka Bannister
3:30	4:00	Urban Green Street Design to Target CSO Reduction	Christopher J. Rust
4:00	4:30	Evaluating Green Alternatives for Inflow Redirection	Heather Seitz

THURSDAY, JUNE 23 - EARLY AM TECHNICAL SESSIONS - 3 TRACKS

BNR			
8:30	9:00	Sustainable Approaches to Meeting Potential Future Nutrient Limits	Sam Jeyanayagam
9:00	9:30	Carbon & Oxygen Engineer to Achieve Afford Nutrient Removal	Mark Greene
9:30	10:00	Enhanced Nitrogen Compound Removal In Cold Climate Domestic WWT Lagoons	Kraig Johnson
10:00	10:30	Break	
Potpourri / EPA			
8:30	9:00	Using Energy Savings Performance Contracts	David Wrightsman
9:00	9:30	Evaluating the Environmental Impacts of WWT Using Life Cycle Assessment Software	Joe Rohrbacher
9:30	10:00	What Is a Technical Support Document & Why Should I Care?	Bill Zawiski
10:00	10:30	Break	
Small Communities			
8:30	9:00	Small Community Wastewater Challenges	Adam Voris/Roberta Acosta
9:00	9:30	Small Community Wastewater Challenges - continued	Adam Voris/Roberta Acosta
9:30	10:00	Valiant Efforts in Versailles: How One Community Balanced Growth and Financial Means	Jim Gagnon
10:00	10:30	Break	

THURSDAY, JUNE 23 - LATE AM TECHNICAL SESSIONS - 1 TRACK

Ohio Regulatory			
10:30	11:00	Ohio EPA - Director's Update	Scott J. Nally
11:00	11:30	Ohio EPA - Division of Surface Water Division Chief's Update	George Elmaraghy
11:30	12:00	Ohio EPA - Operator Certification Environmental Manager's Update	Andrew Barienbrock

OWEA NEEDS YOUR HELP

A Successful Conference is absolutely dependent on the contributions of time and effort from volunteers. From planning to executing, there are so many tasks to be undertaken. If interested in helping out, contact OWEA at info@ohiowea.org or 614.488.5800, Conference Co-chairs Doug Borkosky (doug@h1lbaker.com) or Dave Sprague (dsprague@cityofstmarys.net).

Full details and online volunteer form available at www.ohiowea.org/2011_annual_conference.php.

Volunteer Opportunities for the 2011 Conference include:

Registration Assistants – Time Slots available Monday - Thursday

Golf Volunteers – Monday

On-site Plant Tour Monitors - Tuesday

Exhibit Tour Monitors - Tuesday

Sign Wranglers - Tuesday, Wednesday, and Thursday

Ticket Takers - Tuesday & Wednesday

Moderators - Wednesday and Thursday

Monitors - Wednesday and Thursday

THANK YOU ASSOCIATION SPONSORS!

Level 6

Stantec

Level 5

Ovivo

The OWEA Sections

Northeast Section

Northwest Section

Southeast Section

Southwest Section

Level 2

Thermal Process

Level 1

Smith Environmental - PLUS

ASSOCIATION SPONSORSHIPS AVAILABLE

Level 6	\$7500
Level 5	\$4500
Level 4	\$3500
Level 3	\$2500
Level 2	\$1500
Level 1	\$1000

Become a year-round sponsor of the Ohio Water Environment Association, with recognition at various events over the course of the year. Ted Baker, OWEA Sponsor Program Chair, would be happy to talk to your company about this unique opportunity.

THANK YOU CONFERENCE SPONSORS!

Gold

City of Canton WRF

CT Consultants Inc.

Silver

Alloway

The Henry P. Thompson Company

Bronze

GRW Engineers, Inc.

Ohio Environmental Equipment

CONFERENCE SPONSORSHIPS AVAILABLE

Titanium	\$3000
Platinum	\$2000
Gold	\$1000
Silver	\$500
Bronze	\$250

Register online at www.ohiowea.org or call 614.488.5800. Unique sponsorship opportunities also available.



EXHIBIT EXPO HOURS | Tuesday, June 21, 8:30 to 10:30 a.m. & 1:00 - 5:00 p.m.

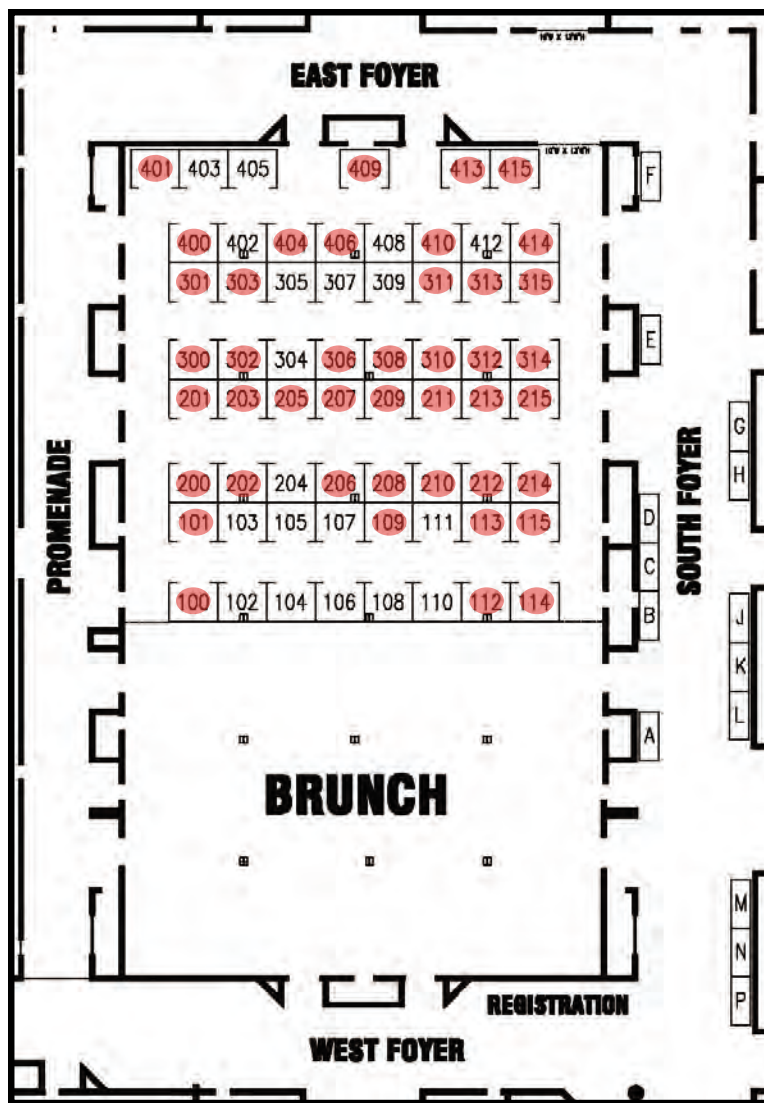
The Exhibit Expo will be held at Kalahari Convention Center in Sandusky, Ohio. **Exhibitor spaces are limited so reserve yours now!** The Exhibit Hall will be open Tuesday from 8:30 - 10:30 a.m., 1 - 5 p.m., with a social in the Exhibit Hall from 4 - 5 p.m.

Register online at www.ohiowea.org. or contact OWEA at 614.488.5800/info@ohiowea.org for more information.

Registration: \$700 for OWEA members
\$850 for Nonmembers
includes one full conference registration
Additional Booth Attendants:
- \$40 includes Exhibit Expo access & Tuesday brunch

Exhibitors as of May 1, 2011

ABBA Pump Parts & Service
Airvac, Inc.
Alloway
ASA Analytics
Aulick Chemical Solutions, Inc.
BissNuss, Inc
Boerger, LLC
Brown Bear Corporation
Buckeye Pumps Inc.
C&W Tank Cleaning Co.
Duke's Root Control, Inc.
E & I Corporation
EmNet LLC
Environmental Express
EnviroScience, Inc.
E-Tank, Ltd
ETC, Inc.
Fairmount Water Solutions
Ford Hall Company, Inc
Gannett Fleming Inc.
Gilson Engineering Sales
GRW Engineers, Inc
Hach Company
Hamilton Kent LLC
Hobas Pipe USA
Hydro Dynamics Company
Hydromax USA
ITT Water & Wastewater Flygt Products
Jason Consultants
Kemira
MASI Environmental Labs
Mid Atlantic Storage Systems, Inc.
Natgun Corporation
Ohio Environmental Equipment
Ohio RCAP
Oldcastle Precast, Inc.
OTT Group/ Hydro-Logic
Pelton Environmental Products, Inc
Process Control Services
Source 1 Environmental
Spectrashield Liner Systems
The Henry P. Thompson Co
Trans-Tech Energy and Environmental, Inc.
Trojan Technologies



● = Booths assigned as of May 1, 2011

EXHIBIT EXPO AFTERNOON SOCIAL | Tuesday, June 21, 4:00 - 5:00 p.m.

Join the 60+ Exhibitors in the Exhibit Expo Tuesday afternoon from 4 - 5 p.m. for a light afternoon social as you take advantage of the last hour to stroll the exhibit aisles. Enjoy a refreshment and see the new offerings by the 2011 Annual Conference Exhibitors.

AWARDS BRUNCH | Tuesday, June 21, 10:30 am to 1:00 pm

Bring your appetite and your appreciation for the 2011 award winners to the Ohio Water Environment Association Awards Brunch. The brunch will be held on Tuesday, June 21 at 10:30AM in the ballroom of the Kalahari Convention Center. After an awesome meal of carved New York strip loin, wild mushroom chicken sauté, smoked salmon, fresh scrambled eggs, classic Eggs Benedict, buttermilk pancakes, sausage, bacon, assorted salads, fresh fruit and vegetables, bagels, and desserts (basically, something for everyone!) we will present the OWEA state awards, the 5S nominees, and the Crystal Crucible and Golden Manhole award winners.

If you know someone who is a candidate for a future award, please give their name to your section award committee representative (available online at www.ohiowea.org).



OWEA ANNUAL BUSINESS MEETING | Tuesday, June 21, 1:30 to 2:30 pm

Participate in the election of OWEA's officers, hear OWEA's financial report, catch up on organizational news, committee news, and learn about the activities of the NW, NE, SW, and SE Sections.

KALAHARI TOUR | Tuesday, June 21 - Sign-up at Registration Desk

No bus needed!

This year OWEA is pleased to offer a facility tour without leaving the site of the meeting! Kalahari Resort Sandusky has an indoor water park that covers 173,000 SF and an outdoor waterpark covering 77,000 SF. Underneath the waterpark and the nearly 900 hotel rooms lies a service area that manages not only housekeeping and laundry but also water treatment and reuse.

As part of the tour, attendees will see:

- Several banks of pressure filters
- Inline UV disinfection units
- Chlorine storage and dosing
- Chlorine monitoring equipment
- Boilers and heat exchangers
- Centrifugal blower room for wave generation

In addition, the tour will also explore other pollution prevention, energy saving, and green initiatives in the waterpark, laundry and kitchen areas of the resort. Examples include:

- Installation of Texlon transparent roof system which allows natural light in to help heat America's largest indoor waterpark.
- Installation of ozone laundry system which allows for faster washing and drying using less chemicals and less energy.
- Partnering with a local landscaping company to implement a food waste composting system.
- Installation of low-flow showerheads in guest rooms, reducing water consumption by more than two million gallons per year.
- Installation of massive fans in the waterpark to lower heating costs by pushing warm air near the ceiling to floor level.
- Installation of HVAC energy management system.
- Installation of 200 indoor waterpark lighting with fluorescent fixtures, LED exit signs, and motion-sensored lights in public areas.
- Installation of 15-watt compact fluorescent bulbs in 5,500 fixtures, saving 294,000 kWh per year.
- Installation of low-flow dishwasher sprayheads.
- Reducing oven pre-heating and combining underused coolers.

Sign-up for Facility Tours onsite at the OWEA registration desk. Contact hours pending for this one hour tour! For more info: visit www.ohiowea.org.



MEET & GREET | Tuesday, June 21, 6:00 pm to 10:00 pm

"NETWORKING ON THE WILD SIDE AT KALAHARI"

at ZanziBar in Kalahari's Safari Outdoor Adventure Park

Pack your safari khakis for the 2011 OWEA Meet & Greet. Located in Kalahari's outdoor waterpark, the tiki-hut styled **ZanziBar** will play host to a private Vark Braai (hog roast) just for conference attendees. Network with your fellow water quality professionals and enjoy a traditional hog roast, complete with food, drinks, music, dancing, and much more.

The theme for this year's conference is **"Somewhere Between Survival and Sustainability"**, but what does the Meet & Greet have to do with survival and sustainability?

Networking is a business habit that benefits everyone - regardless of your stage in work and life. Taking advantage of knowledge and wisdom gained and shared by others makes survival easier! Learning from the experience of others can help in understanding sustainability - how do others keep on keeping on with less?

Can you survive? Explore your wild side on a thrilling zip line, ropes course, climbing walls, and more. Join us at an oasis of food and drink!

Can we sustain the fun? Dance to the music of **Free Rider**, one of west-central Ohio's best bands. They play music that makes people feel good and have a great time. Have a special request? They'll play it...even if they don't know it!

Networking on the Wild Side begins Tuesday evening at 6:00 pm!



RECEPTION AND ANNUAL BANQUET | Wednesday, June 22nd, 6:00 pm to 10:00 pm

The Annual Banquet will be held on Wednesday, June 22, 2011. The activities will include a Social Reception at 6:00 p.m. The ceremonious 5S Induction will take place during the Social Reception.

The banquet will start at 7:00 p.m. This year's banquet program will honor those receiving WEF Awards, presented by a representative of WEF. Next will be the passing of the Ohio Water Environment Association gavel from outgoing President Dale Kocarek to the incoming President Doug Clark.

Enjoy a delectable dinner prepared by the excellent Kalahari chefs and help celebrate the work of OWEA and its long tradition of dedicated and talented leaders.



Trek over to Kalahari's African themed Restaurant & Bar, **The Reserve**, for the OWEA post-banquet social. As the sun sets on the village, the Reserve offers an opportunity to gather at the watering hole. With more live music and room to relax, there is no reason to go to bed when you can continue to network with your peers in the water quality industry.



SANDRA RALSTON | Representing the WEF Board of Trustees

Sandra Ralston is a member of the 2010-2011 Board of Trustees for the Water Environment Federation (WEF).

Sandra is currently a Senior Associate and Client Services Manager at Malcolm Pirnie in Charleston, S.C. She also participates on the Business Council of the U.S. Conference of Mayors and as a Strategic Partner for the International City/County Managers Association.

A WEF member since 1989, Sandra served as the chair of the WEF Government Affairs Committee from 2005- 2008, with particular focus on increasing outreach to Member Association government affairs committees, conducting the national discussion of what the next 35 years of the Clean Water Act should be, and engaging a wider community of stakeholders to talk about the future of wet weather policy. She was a member of the Committee Leadership Council development working group and served as Chair of the Stakeholder Focus Group in 2007. She also served on the planning committee for the Utility Management Conference.

Also a member of the Indiana Water Environment Association, Sandra was IWEA President from 2002-2003, served as chair of IWEA's annual conference program, and represented IWEA at annual WEFMAX meetings.

She received a BA from the University of Colorado and an MBA from George Washington University.



2011 SPOUSE/GUEST PROGRAM | Tuesday and Wednesday, June 21st & 22nd

Slow down, unwind, and enjoy life on the savannah. OWEA spouses and guests will enjoy the sights, sounds, tastes, and sensations offered by Kalahari.



TUESDAY AFTERNOON - Pastry Chef Demonstration

Kalahari Chef Pamela Crawford will treat you to a personal, hands-on pastry experience. Learn professional techniques and sample Chef Pamela's special creations.

A Sandusky native, Pam has always enjoyed baking from scratch, beginning at a young age in her mother's kitchen. From following family recipes (handed down from generations) to creating new treats to try out on her family, she always felt at home with a spoon and a mixing bowl.

Today, she applies innovative personal twists to common desserts. *"Baking and pastry creation are passions. Once you start to enjoy them you will never stop thinking about how to create new products."*

TUESDAY AFTERNOON - Behind the Scenes at Safari Adventures Animal Park

Safari Adventures Animal Park offers a unique, interactive experience that allows guests to experience entertaining and excitingly educational animal encounters. Interact with the animals, assist with their care, help prepare diets, and learn interesting information and fun facts.



WEDNESDAY - A Day of Fun and Food plus Wine Tasting in a Private Whirlpool Cabana

Revel in all the comforts Kalahari has to offer. Enjoy your day in a Private Whirlpool Cabana with two flat screen TV's, refrigerator, and private seating for relaxing and dining. You will feast on dining delights throughout the day as you visit with other OWEA Spouses and Guests and enjoy Kalahari's water features.



Join Spouse/Guest Program Chair Wendi Clark for this year's relaxing program.
Contact Wendi at dclark020@woh.rr.com or 419.575.9011 for additional information.

Just \$160 per guest if registered by May 27 (\$210 after May 27)

TUESDAY, JUNE 21

7:00 a - 9:30 a Continental Breakfast
10:30 a - 1:00 p Awards Brunch
1:00 p - 4:30 p Spouse/Guest Program
6:00 p - 10:00 p Meet & Greet at Zanzibar

WEDNESDAY, JUNE 22

7:30 a - 9:00 a Continental Breakfast
9:00 a - 4:30 p Spouse/Guest Program
6:00 p - 7:00 p Social Reception
7:00 p - 9:30 p Annual Banquet
9:30 p - 11:30 p After Banquet Gathering

THUNDERBIRD HILLS GOLF CLUB | Monday, June 20 - 10 a.m. Shotgun Start

Where: Thunderbird Hills Golf Club
1316 Mudbrook Road
Huron, OH 44839
419.433.4552

Format: 240 Golfers
(30 Teams Per Course)
Four Person Scramble

Times: 8:30 a.m. Registration
8:30 a.m. Driving Range Open
10:00 a.m. Shotgun Start

Prizes: Prizes for Long Drive,
Pin Shots. Cash Prizes
for Winners from Each Course

\$300 per Foursome includes: Golf Cart, Range, Lunch, Dinner, Beverages, Prizes, and Events.

Thunderbird Hills Golf Club is a gorgeous, 36-hole, public golf facility located in quaint Huron, Ohio, less than 45 miles west of Cleveland and less than ten minutes east of Cedar Point. Thunderbird Hills Golf Club offers golfers of all levels the opportunity to combine golf with nature. It is literally minutes from the best roller coaster park in the world, the largest indoor water park in the country, some of the nicest beaches in Ohio, and the Lake Erie Islands.

The North Course opened in 1959 and it is characterized by its mature trees and rolling fairways. The course is 6,347 yards in length with par at 72.

The South Course is a more modern layout with larger greens and lush bent grass fairways and tees. It opened in 1995, and was designed and built by Bruce Palmer. This course shares the rolling hills of the North, but it incorporates breathtaking elevated views of the Huron River through the middle holes of the front nine. The course is 6,368 yards in length with par at 72. Take a virtual tour of Thunderbird Hills Golf Club at www.thunderbirdhills.com.



SANDUSKY AREA | Local Attractions

The Sandusky area is usually identified with Cedar Point, the park so grand that for the last eight years, it has been honored by Amusement Today with the Golden Ticket Award, which is presented to the best amusement park in the world. But this area is not just the home of Cedar Point.

In Sandusky you can also enjoy shopping, museums, boating, cruises, water parks, golfing, fishing, camping, spelunking, dining, wineries, and much more. For more information on attractions listed below and other nearby activities, visit www.shoresandislands.com or call 800.255.ERIE.

- Boating & Fishing
- Cedar Point
- Cruises & Ferries
- Historical Attractions
- Lake Erie Coastal Ohio Trail
- Merry Go Round Museum
- Outdoor Recreation, Hiking, Water Trails
- Sandusky Maritime Museum
- Sandusky State Theatre
- Shopping



CONFERENCE VENUE | Tuesday, June 21 - Thursday, June 23

Experience "A World Away" right here in Ohio! Join OWEA at the Kalahari Resort and Convention Center in Sandusky, Ohio. Kalahari has over 100,000 SF of convention space, modern audio/visual resources, elegant meeting rooms, superb culinary capabilities, and over 800 rooms. All conference activities except golf, one facility tour, and the spouse/guest program will take place on-site. With free parking, free wi-fi, convenient highway access, and close proximity to Sandusky and Lake Erie, there is a low stress stay waiting for conference attendees!

With so many rooms, there are options for attendees, including multi-family suites and hospitality suites. The basic room rate is only \$114 per night for four persons (Hut Room), so attendees get resort lodging at an unbelievably affordable rate!

Family friendly - attendees and their guests can also enjoy the indoor and outdoor waterparks, including over 3½ football fields of waterpark, rides, and facility under roof. (OWEA conference room rates include waterpark passes.) In addition, the resort offers a full service spa, animal park, arcade, pottery barn, restaurants, candy shop, and gift shops.

If you have questions about the rooms, resort, convention center, or conference in general, feel free to check out Kalahari's website (www.kalahariresorts.com/oh/) or contact OWEA directly for assistance.

OWEA room rates available from Sun June 19 thru Wed June 22.
Make your reservations via the link at www.ohioweaa.org
or by calling Kalahari Resort Sandusky at 877.525.2427.
Cutoff date for reservations is Friday, May 27th.

Room Options:

Hut Room (4 waterpark passes)	\$114
Lodge Suite (1 bedroom, 4 waterpark passes*)	\$164
Combination Suite (2-Bedroom, 8 waterpark passes*)	\$274
Village Suite (3- Bedroom, 12 waterpark passes*)	\$374
Hospitality Suite (4 waterpark passes**)	\$204

*Assumes use of sleeper sofa. If additional children sharing beds, can add additional water park passes at \$20 per night per person.

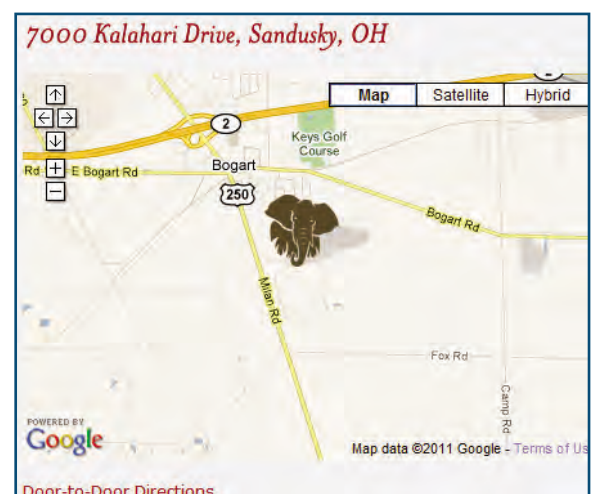
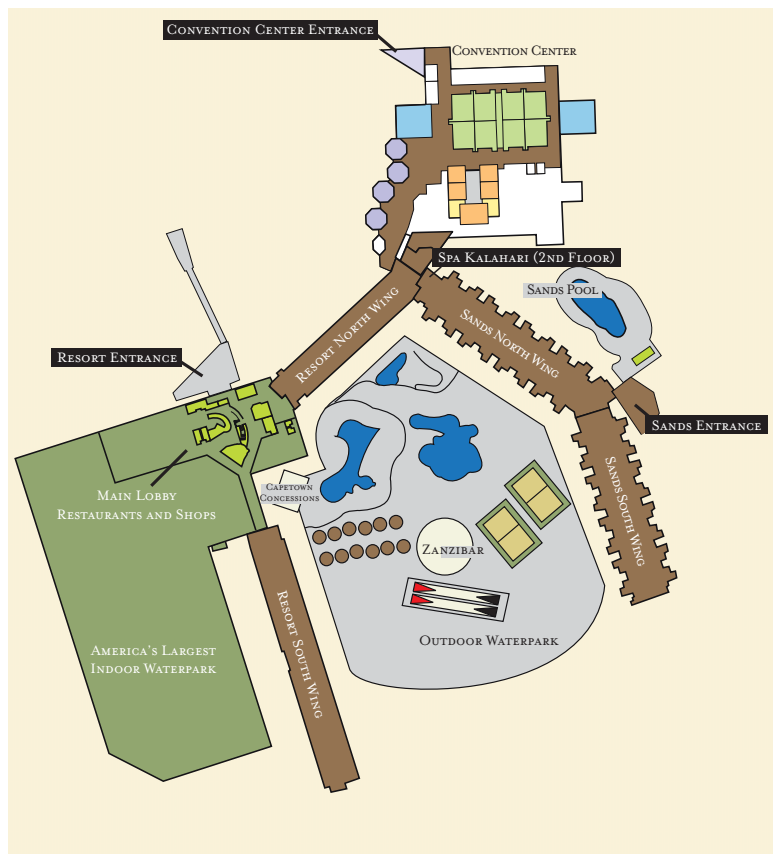
**Can add one or two people to Hospitality Suite for \$20 per night per person (assumes use of sleeper sofa).



Hut Room



Combination Room





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June 21 - 23, 2011 - Kalahari Resort and Convention Center, Sandusky

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Email:		Tel #:	
OWEA/WEF # (req for member rate)		Spouse/Guest Name (if attending)	

Conference Registration	Registration Type	by May 27	After May 27	Row Total
Full Conference includes: All Technical Sessions, Exhibit Expo, Awards Brunch, Meet & Greet, Wed Box Lunch, Annual Banquet	Full Conference Member	\$275 <input type="checkbox"/>	\$325 <input type="checkbox"/>	
	Full Conference Nonmember	\$375 <input type="checkbox"/>	\$425 <input type="checkbox"/>	
	Full Conference Retired (not working)	\$120 <input type="checkbox"/>	\$170 <input type="checkbox"/>	
	Full Conference Student (ID Req'd)	\$50 <input type="checkbox"/>	\$75 <input type="checkbox"/>	
Tue Only includes: Exhibit Expo, Awards Brunch, Meet & Greet	Tuesday Only Member	\$145 <input type="checkbox"/>	\$170 <input type="checkbox"/>	
	Tuesday Only Nonmember	\$195 <input type="checkbox"/>	\$220 <input type="checkbox"/>	
Wed Only includes: Technical Sessions, Box Lunch, Annual Banquet	Wed Only Member	\$145 <input type="checkbox"/>	\$170 <input type="checkbox"/>	
	Wed Only Nonmember	\$195 <input type="checkbox"/>	\$220 <input type="checkbox"/>	
Includes: Awards Brunch, Meet & Greet, Annual Banquet, Spouse Program	Spouse/Guest Program	\$160 <input type="checkbox"/>	\$210 <input type="checkbox"/>	
	Extra Awards Brunch Ticket(s)	___ x \$25 each	___ x \$35 each	
	Extra Meet & Greet Ticket(s)	___ x \$65 each	___ x \$75 each	
	Extra Annual Banquet Ticket(s)	___ x \$70 each	___ x \$80 each	

OWEA Golf Outing Monday, June 20 at Thunderbird Hills Golf Club		
Includes: Golf Cart, Range, Lunch, Dinner, Beverages, Prizes and Events. 8:30 am Registration, 10 am Shotgun Start, 4 person Scramble. Prizes for Long Drive, Pin Shots, and Course Winners. Thunderbird Hills Golf Club www.thunderbirdhills.com	# Team(s) of four golfers	___ x \$300 each
	# Individual Golfers	___ x \$75 each
	Hole Sponsorship Sign	___ x \$250 each
	Print golfers names:	
	Course Preference	<input type="checkbox"/> North Course <input type="checkbox"/> South Course
		TOTAL AMOUNT DUE

Tickets will be taken for the events below. Please check which events you plan to attend.	
Included in Full and Tues Registration	Included in Full and Wed Registration
<input type="checkbox"/> Awards Brunch	<input type="checkbox"/> Wednesday Box Lunch
<input type="checkbox"/> Meet & Greet	<input type="checkbox"/> Annual Banquet

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Any Cancellation 7 days or more prior to the conference will receive a full refund minus any credit card processing fees.



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THE REGULATORY FRONTIER: NEED FOR NEW LEGISLATIVE REGULATORY SOLUTIONS TO THE AGE-OLD PROBLEM OF NON-POINT SOURCE POLLUTION CONTROL

by Tyler Linton, PhD, a Concerned Scientist

Does the title attract your attention? I sure hope so. Admittedly, there are many reading this article who both are better informed and more qualified to be writing it than myself, but I cannot keep from voicing my growing concern regarding this issue. What specific issue is that? The issue that there are still no provisions included in the Clean Water Act (CWA) that provide a legislative mandate to control non-point source pollution. This regulatory absence not only impedes our ability to achieve specific water quality objectives, but, through the lack of such provision, unfairly places the lion's share of the implementation (and cost) burden on point source dischargers (and their rate payers/customers). Such burden is either direct, through new construction for better storm water control and/or other expensive wastewater treatment plant modifications to reduce pollutants like phosphorous and nitrogen/ammonia, or indirect, via the use of pollutant trading and other "monetary-transfer" mechanisms (grants) to entice landowners (e.g., farmers) to employ the best "on field" practices to reduce pollutant loadings.

From a certain perspective, I, as a taxpayer, and one particularly concerned about water resources, do not mind contributing to either our city utility or local farmer per se. I am fully aware of population growth, our outdated water and sewer infrastructure, the tough economic times we are facing, etc. But by the same token, I do not want to be made to pay for a problem that could be largely circumvented with raised political/cultural awareness (i.e., environmentally-careless urban planning and development, unacceptable land management practices by agro-business, leaky septic systems, and poor care of the environment by inconsiderate individual property owners, etc.).

Our continued focus and reliance on point source dischargers to address today's most pressing water quality problems/impairments (i.e., nutrient enrichment, sediment/siltation, pathogens, hydrodynamic flow alteration) is misplaced for two very obvious reasons:

1. The overall contribution of point sources (e.g., municipal wastewater treatment effluent) to some of our most pressing water quality problems (excessive nutrients/sediments) is often far exceeded by the contribution from "unregulated" non-point sources.
2. Without some over-arching program that can be regulated through binding agreement, the participation in "voluntary" programs such as continued implementation of best land use practices and other cost-incentive mechanisms is just that, strictly voluntary. What happens when either the desire or level of participation needed is simply not enough, mitigating circumstances or not? What then do we do to ensure protection of our waterbodies and the health and ecological integrity of these systems?

Unfortunately, I do not have any answers, which is why I thought it prudent to ask in this article, hoping that maybe one of you do. I work and operate almost exclusively in the well-defined and highly-regulated world of point source pollution control, water quality criteria/standards, and National Pollution Discharge

Elimination System (NPDES) compliance issues. Those of you who are professionally familiar with this area know (for the most part) the rules, procedures, and policies in place to ensure NPDES compliance under the CWA are clear-cut. This is because all the elements under the NPDES permit compliance system are both well established and little changed over the past several decades. It is also because the regulatory target - point source dischargers and their discharges - are discrete entities. Regulators often know not only the pollutants discharged (or potentially discharged) by most of these highly-regulated entities, but the system has developed fairly good, legally defensible ways of monitoring and limiting those pollutants so they are not discharged in harmful amounts.

Herein lies the rub for me with regards to non-point source pollution (arguably one of the greatest threats to the waterways of our country today - perhaps best left to a different article). If we are to place such a huge burden on regulating one pollutant source category (i.e., point source dischargers), yet only "loosely" and indirectly attempt to control other major pollutant source categories (urban development/runoff, unfriendly agricultural land-use practices, etc.), we simply will not be able to consistently attain water quality objectives. This all became crystal clear to me at the OWEA Government Affairs Workshop in Columbus, March 11, 2010. The second speaker of the day was Mr. George Elmaraghy, Division Chief, Surface Water, Ohio EPA (OEPA), who provided a state surface water quality update. During his presentation he revealed the following: "...OEPA met goals [surface water quality/aquatic life use] for greater than 80 percent of large rivers [drainage area greater than 500 square miles], but not small rivers [between 20 and 500 square miles]." The reason given was largely due to land use - agricultural activities and urban development, and primarily a result of: 1) excessive nutrients and 2) siltation/sedimentation. This finding was not particularly surprising to me, nor should it be to you. I am willing to bet (without directly verifying) that excessive nutrients and siltation/sedimentation are present in every states 303(d) impaired waters list, particularly the Midwest states. Which again begs the questions: What are the existing tools in the regulatory tool box? How effective are they really?

Now here is where things can get a bit tricky. Let's take for instance, an example some of you might be familiar with. I first heard it at



the SEOWEA/NEOWEA joint section meeting March 25, 2010 at Dover, Ohio. The last talk that day, after an excellent tour and early afternoon platform session, was entitled: "Tussing Road WRF NPDES Permit Appeal" presented by Fairfield County Utilities. I understand that many of you might have heard a follow-up presentation on this same subject at the OWEA Annual Conference in Columbus, June 2010, so I will not go into great detail here. The synopsis of the presentation was this . . . biological and water quality study of the Big Walnut Creek Basin in 2000 indicated that the designated aquatic life use of the Big Walnut Creek Watershed (Warm Water Habitat) was not being met. A TMDL was mandated and new permit limits for total phosphorous and total dissolved solids were imposed for the Tussing Road WRF. As a result, the costs of compliance are expected to be in the tens of millions.

In this particular example it is important to keep in mind a few things. First, while the IBI score (indication of fish community integrity) is actually lower upstream of the wastewater treatment plant (WWTP) in the sub-watershed where there is agricultural land use, the opposite is true for the ICI score (indication of macroinvertebrate community integrity), thus, the stream is only in partial attainment downstream of the WWTP but is in full attainment upstream of the WWTP. Second, if one were to plot measurements of total phosphorous (TP) and total dissolved solids (TDS) from upstream to downstream, instream concentrations of TP and TDS increase from upstream of the WWTP to downstream. The permit limits imposed by the TMDL were to protect the stream as the WWTP expanded. The current conditions were causing a mild impairment, but due to the expansion, there was a concern that expansion without maintaining load or the targets would result in more serious degradation. In this particular example, the TMDL also requires a relatively large reduction in TP from the non-point source contributions, but as there currently is no regulatory mechanism in place to achieve these reductions, they will likely not occur.

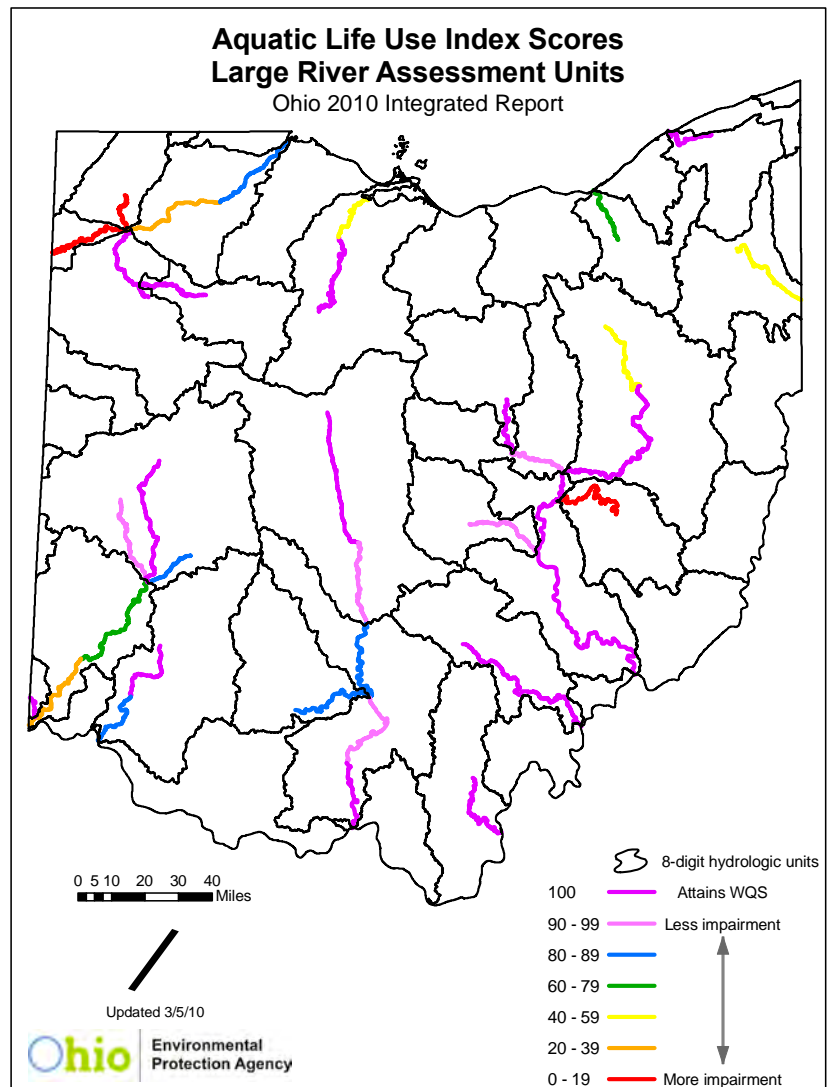
The above example serves to illustrate that yes, in the case of nutrients like TP, point sources can and do contribute to various levels of loading (generally in the form of dissolved phosphorous, the most biologically active, and therefore the most problematic for aquatic life), and also that yes, non-point sources are a big factor (and in some cases much bigger) as well, and these are much harder to control for the reasons explained above. I am sure we can all think of numerous examples where stricter non-point source pollution control measures would likely be far more effective than tighter point source pollution control - take the excessive nutrient/toxic algae problem at nearby Grand Lake St. Mary's as a case in point.

Here are some simple facts to consider according to the recent webinar (February 24, 2011) sponsored by OWEA in collaboration with OEPA and ODNR (available at: <http://www.ohiowea.org/webinars.php>). There are currently 76 POTWs on Lake Erie with TP limits, and another 74 POTWs throughout the rest of Ohio with TP limits based exclusively on TMDLs. An additional 353 POTWs currently monitor for phosphorous, many of which are also expected to receive TP limits also based on TMDLs. In one sense it is tempting to ask here: Is it

reasonable to ask the point source discharger to achieve these low limits at great expense just because there is no other legally-binding regulatory mechanism with which to control non-point source pollution? But that would be grossly over-stating the question; WWTPs do not receive TP limits just because they can be regulated. TP limits are undoubtedly administered only with justification and under thoughtful consideration. The real question is this - would more bang for the buck be achieved with better non-point source pollution controls? The answer may not always be so black and white, but the question is clearly one worth asking.

OEPA is, for the first time, on the verge of recommending numeric standards for TP and dissolved inorganic nitrogen (DIN) to prevent impairment of state waters due to nutrient over-enrichment. With OEPA's exceptional biomonitoring program and historic database to keep tabs on progress, their continued cooperation with ODNR to develop a state nutrient management plan, and scientifically-sound numeric standards, the state is poised to realize at least some reduction in current TP and DIN loads, and quite possibly the desired improvement in water quality. But will the over-reliance on the age old NPDES permit system and compliance enforcement driven by TMDLs again carry the day, or will it take far more political will and cooperation amongst numerous parties/constituents to pull off the great feat, not just the old regulatory favorite, convenient and

continued on page 44



familiar standby - the point source discharger? Now is the time for much needed innovation in the field. For those actively working in this area, we implore you to keep innovating, particularly with regards to enhanced non-point source pollution control measures.

Clearly this article is meant to be provocative, and hopefully stimulate continued discussion on this matter. I trust that any of you actually "on the ground" with this issue will be so kind as to correct any misinterpretation or representation of the facts, and perhaps more importantly, seek to clarify, add to, provide counter discussion on, etc., so as to inform what I suspect to be a growing number of concerned water professionals seeking greater knowledge of the issue(s).

Finally, for the Ohio General Assembly and the host of lobbyists . . . beware the Tragedy of the Commons, and do I dare say it to these our most Sacred Cows, (urban/suburban developers/dwellers, and farmers) stand up and be counted to do your part, or also beware."

Tyler Linton, PhD
tlinton@glec.com



The author thanks Erin Sherer (Ohio EPA) and Brandon Fox (Fairfield County Utilities) for their valuable insight and comment on earlier drafts.

Disclaimer: This article is the expressed opinion of the author, a concerned water professional peripherally familiar with the issue(s). It does not constitute endorsement by his place of business, OWEA, or any other affiliate member. Also see similar viewpoint "A Delicate Balance" in the April 2011 issue of WE&T (page 8) by Jeanette Brown, President of WEF.

The Tragedy of the Commons is a dilemma arising from the situation in which multiple individuals, acting independently and rationally consulting their own self-interest, will ultimately deplete a shared limited resource even when it is clear that it is not in anyone's long-term interest for this to happen. This dilemma was first described in an influential article titled "The Tragedy of the Commons," written by Garrett Hardin and first published in the journal Science in 1968.

Hardin's Commons Theory is frequently cited to support the notion of sustainable development, meshing economic growth and environmental protection, and has had an effect on numerous current issues.

Central to Hardin's article is an example (first sketched in an 1833 pamphlet by William Forster Lloyd) of a hypothetical and simplified situation based on medieval land tenure in Europe, of herders sharing a common parcel of land, on which they are each entitled to let their cows graze. In Hardin's example, it is in each herder's interest to put the next (and succeeding) cows he acquires onto the land, even if the quality of the common is temporarily or permanently damaged for all as a result, through over grazing. The herder receives all of the benefits from an additional cow, while the damage to the common is shared by the entire group. If all herders make this individually rational economic decision, the common will be depleted or even destroyed to the detriment of all.

http://en.wikipedia.org/wiki/Tragedy_of_the_commons



OWEA COMMITTEES AT WORK

The Ohio Water Environment Association committees conduct the essential business of the association. Committees often meet at the OWEA office at 1890 Northwest Blvd, Suite 210 in Columbus.

Collections Committee Meets - February 4th



(Front left to right): Kevin Aller, Tim Pringle, Aaron Zonin, Tom Brankamp, Steve Donovan (Back left to right): Rick Miller, John Swartzbaugh, Mark Buchenic, John Schroeder, Bill Horst

Audit Committee Meets - March 24th



(left to right): Tom Fishbaugh, Jane Winkler, Rich Varner

Publication Committee Meets - March 30th



(left to right): Dale Kocarek, Deb Houdeshell, Mark Livengood, Tom Angelo, Cindy Jacobsen, and Brad Lowery

If your committee would like to meet at the OWEA office, please call 614.488.5800 or email info@ohiowea.org to reserve the OWEA Conference Room. OWEA also has conference call/web meeting options available for committee work.

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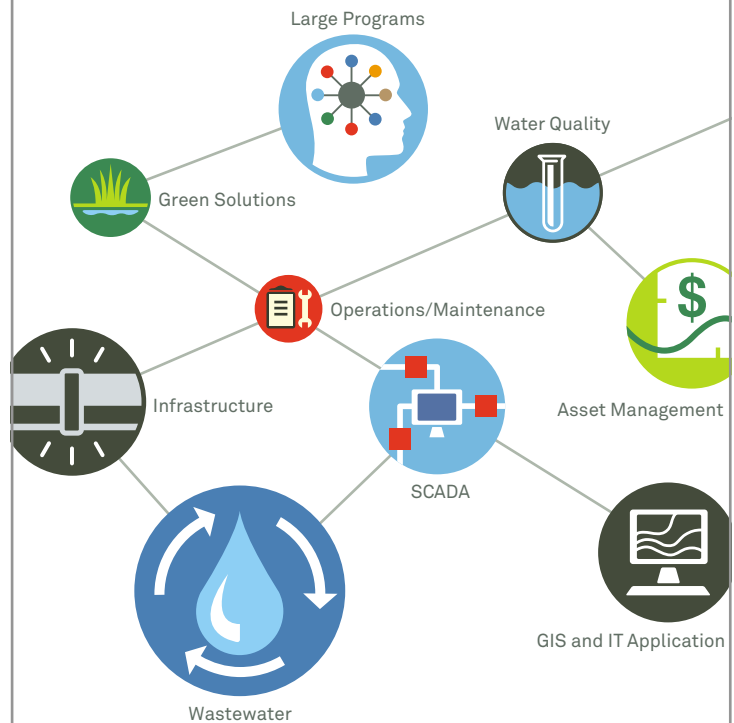
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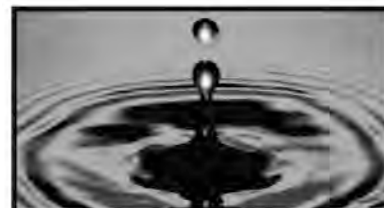


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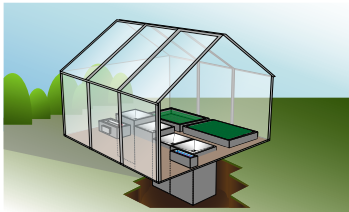


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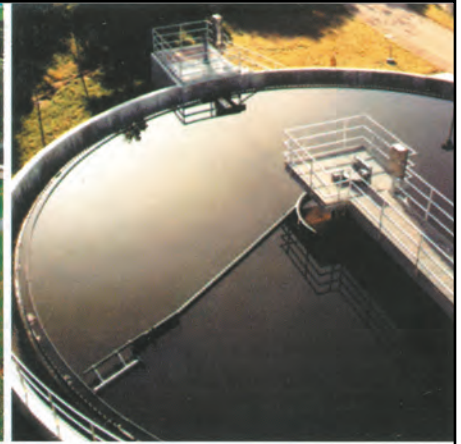


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CITY OF SOLON WASTEWATER TREATMENT PLANT

by Tom Voldrich, P.E. and Paul Solonics, Director Solon Water Reclamation

HISTORY OF SOLON WWTP UPGRADES

The City of Solon Central WWTP is tributary to the Beaver Meadow Run, which is an upstream tributary to Tinkers Creek, the Cuyahoga River, and, ultimately, Lake Erie. Over the years the City has experienced growth residentially, commercially, and industrially. This growth necessitated continual expansions in capacity and refined treatment of strong waste streams with particular need for advanced treatment to accommodate particular industrial waste constituents. Increasing regulatory controls further challenged the community to maintain the water quality standards of Tinkers Creek. The City has enjoyed success in meeting this challenge.

Review of Facility Upgrades

Sanitary sewer construction in Solon was initiated in 1929 and the first centralized treatment facility was commissioned in 1962. This conventional activated sludge facility had a design capacity of 1.4 million gallons per day (mgd). Solids handling consisted of anaerobic digestion and sludge drying beds. A second treatment facility, the Northeast Wastewater Treatment Plant (WWTP), was constructed in the mid-1960's to service the northeast area of Solon.

Rapid growth within city limits led to the first of three plant expansions at the Central WWTP. The first expansion, completed in 1970, increased the design average daily flow capacity to 2.4 mgd. Improvements included additional secondary treatment units and chlorination (disinfection) facilities. A sludge thickener and centrifuge were added to improve solids handling and disposal capabilities.

Continued growth within Solon, including a substantial industrial component and more stringent effluent discharge limits, necessitated a plant expansion. This expansion was completed in 1980. The growth spurred the average daily design flow increase to 3.6 mgd. The contributing industrial wastewater flow and more stringent regulatory limits necessitated improvements of advanced secondary and tertiary treatment. Major wet stream improvements included automatic bar screens, a grit classifier, a grease separator, new primary and secondary clarifiers, high rate trickling filters, additional aeration tanks, rapid sand filtration, and expanded chlorination facilities. Vacuum filters, a dissolved air flotation thickener, and a Purifax sludge stabilization system were added to the solids stream process.

Further, in the 1980's, the city retrofitted various processes to improve efficiency. These improvements, considered minor, included adding two belt filter presses, retrofitting the aeration system with fine bubble diffusers, and adding odor control systems.

In 1988, the City's Northeast WWTP was converted to a pump station. The approximate 1.0 mgd of wastewater flow (from the northeast area of Solon) tributary to that pump station is conveyed via force main to the Central WWTP. Shortly thereafter, the city initiated a design for the expansion of the Central WWTP. This expansion to 5.8 mgd, completed in 1997 and intended to serve Solon through build-out, completed the City's consolidation of treatment facilities. Implemented improvements rehabilitated and updated much of the existing equipment and processes. They provided additional primary, secondary, and tertiary wet stream process units, and wet stream equalization units. The solids handling facility was converted to a lime stabilization process. The



Primary Clarifiers

chlorination disinfection system was removed and an ultraviolet disinfection system was added. Odor control systems were expanded.

In 2007, the city completed the Trickling Filters/Aeration Project. This included the replacement of the trickling tower media and the addition of variable speed distributor arms for greater flexibility in the treatment of variable loads.

The aeration basin was modified with two anoxic zones, a fully automated D.O. control system and the capability to operate a conventional plug flow or step feed aeration system. These improvements allow the plant to maintain a higher solids retention time for the same basin volume to ensure adequate nitrification and reduce solids loading to the secondary clarifiers.

Current Facility Upgrades

Solon's plant operators and maintenance personnel strive to run a sustainable facility with routine unit process upgrades. Currently two projects of noteworthy scale are under way. The first is the replacement of a number of electrical components including underground cabling, MCC and switchgear replacement, and added standby power generation. The second is an upgrade to the anaerobic digesters to increase their capacity. A high rate mixing system capable of mixing up to 6% dry solids is under construction. Once completed the digesters will accommodate all the primary

continued on page 54



Two Stage Odor Control



Trickling Filters



Gravity Belt Thickeners

clarifier sludge. Design features include spiral heat exchangers, new hot water boilers, and a jet mixing. The project also includes a gas cleaning system to remove siloxanes so that the biogas may be recovered and used for heating the digesters and potentially meet other energy demands. Currently the digesters are heated with natural gas as the siloxanes in the biogas readily foul the burners in the hot water boilers. The City is in the process of addressing biosolids stabilization and disposal for all biosolids produced at the plant. A second phase digester project is planned to receive all waste activated sludge. Alternatives for disposal of stabilized biosolids are being evaluated as well.

SOLON CENTRAL WWTP PROCESS FLOW DIAGRAM

Wet Stream Process

Influent - Wastewater entering the plant from the collection system may be diverted to equalization basins utilized for storm flow, attenuation, daily peak shaving, and industrial shock load storage. The equalized flow is discharged into the wet stream process in a manner that affords optimal treatment.

Preliminary Treatment - Preliminary treatment consists of automatic bar screens and grit tanks with classifiers. The materials removed are disposed of at a sanitary landfill.

Primary Treatment - Primary settling is accomplished in four (4) primary clarifiers, and raw sludge removed is pumped to the anaerobic digesters. Floatable solids are removed and pumped to the Bar Screen Building and separated by a grease concentrator.

Secondary Treatment - Influent flow to the secondary treatment process is split between three (3) trickling filter towers. They can be operated as roughing or high rate towers. These are equipped with variable speed distributor arms to remove carbonaceous biochemical oxygen demand (BOD). Tower effluent can be recirculated to provide additional treatment and/or to ensure sufficient filter wetting rates.

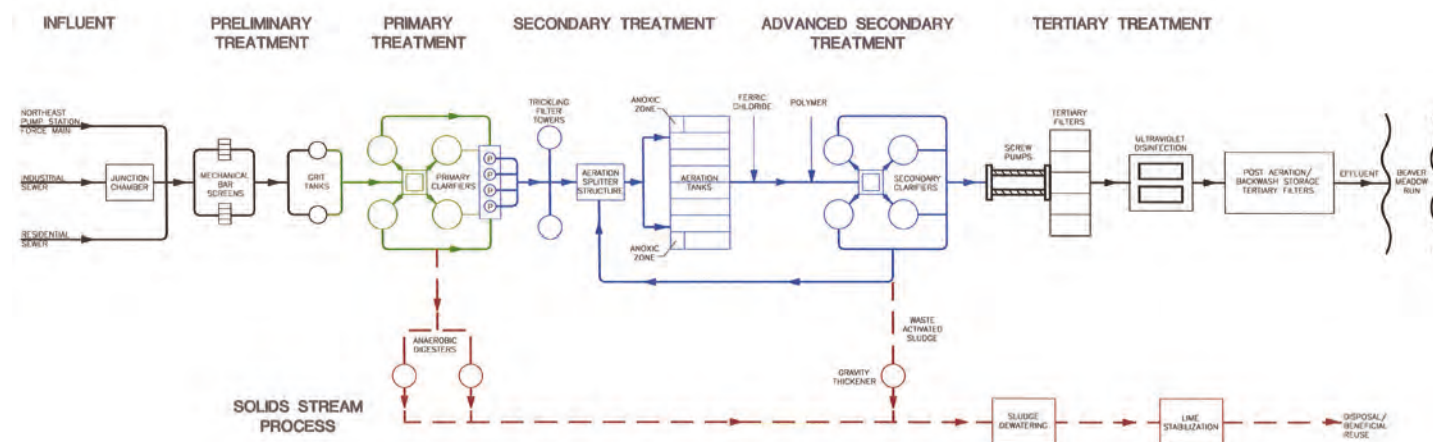
Advanced Secondary Treatment - Trickling tower effluent is distributed to the aeration basin where the nitrification process occurs. The basin is equipped with automated air adjustment and fine bubble diffusers and can be operated in conventional plug flow or step feed flow. Anoxic zones at each basin influent facilitate denitrification in the aeration basin before reaching secondary clarification. Ferric chloride and polymer are used to enhance the treatment process. Activated sludge is returned to the aeration basin or wasted to the thickener before being sent to the solids handling building for sludge dewatering and stabilization.

Tertiary Treatment - Screw pumps lift the secondary effluent to five (5) air scoured rapid sand filters to achieve tertiary treatment. Flow from the filters is channeled through two ultraviolet disinfection banks before discharging to the receiving stream. A supervisory control and data acquisition system (SCADA) affords the staff reliable and continuous monitoring of all plant operations.

Solids Stream Process

Raw sludge removed from the primary clarifiers is pumped to the complete mix anaerobic digesters for volatile solids reduction

Continued on page 55



Design Data**GENERAL**

DESIGN YEAR	2010
DESIGN POPULATION	26,400
DESIGN FLOWS	
Average Daily Flow (mgd)	5.8
Peak Hourly Dry Weather Flow (mgd)	9.6
Peak Hourly Wet Weather Flow (mgd)	2.35 (15.0 w/EQ)

DESIGN CHARACTERISTICS

BOD ₅ – Raw	405 mg/l
BOD ₅ – Effluent	9.0 mg/l
Suspended Solids – Raw	347 mg/l
Suspended Solids – Effluent	10.5 mg/l

WET STREAM FACILITIES**INFLUENT****FLOW EQUALIZATION BASIN**

Volume	
Northeast Pump Station Site, gal.	90,000
SCWWTP Site, gal.	880,000

PRELIMINARY TREATMENT**MECHANICAL BAR SCREENS**

Number	2
Capacity (each), mgd	12
GRIT TANKS	
Number	2
Type	Detritus
Capacity (each), mgd	7.8
Grit Pumps	
Number	3
Type	Vortex
Capacity (each), GPM	205

PRIMARY TREATMENT**CLARIFIERS**

Number	4
Diameter, ft.	50
SWD, ft.	10
Volume (each), gal	147,000
Surface Overflow Rate @ ADF, gpd/sf	740

EFFLUENT PUMPS

Number	4
Type	Submersible
Capacity (each), GPM	5,231

SECONDARY TREATMENT**TRICKLING FILTERS**

Number	3
Diameter, ft.	45
Media Depth, ft.	34
Surface Area (total), sf	4,770
Volume (total), cf	162,225
BOD ₅ Loading, lbs./1,000 cf	88

AERATION TANKS

Number	8
Volume	164,000
Detention (total) @ ADF, hrs. 5	

BLOWERS

Number	3
Capacity (each), cfm	3 @ 5,000

CLARIFIERS

Number	4
Diameter, ft.	55
SWD, ft.	12
Volume (each), gal.	213,750
Surface Overflow Rate @ ADF, gpd/sf	610
Solids Loading Rate, lbs/day/sf	35

TERTIARY TREATMENT**TERTIARY FILTERS**

Number	5
Area (each), sf	378
Filtration Rate @ ADF, gpm/sf	2.67
Filtration Rate @ Peak, gpm/sf	5.0

DISINFECTION

Ultraviolet Disinfection	
Number of Channels	2
Number of Banks/Channel	2
Number of Bulbs (total)	416

BIOSOLIDS FACILITIES**GRAVITY THICKENER**

Number	1
Diameter, ft.	30
SWD, ft.	10
Surface Overflow Rate, gpd/sf	600

ANAEROBIC DIGESTERS

Number	2
Diameter, ft.	30
SWD, ft.	10
Volatile Suspended Solids, lbs/1,000 cf	0.063

SLUDGE CONDITIONING/DEWATERING

Gravity Belt Thickeners	
Number	2
Belt width, meters	2.2
Capacity (each), lbs. dry solids/hr.	1,700

Belt Filter Presses

Number	2
1.5 Meter Press	
Capacity, lbs. dry solids/hr.	900
2.0 Meter Press	
Capacity, lbs. dry solids/hr.	1,200

Lime Stabilization Process

Capacity, lbs. dry solids/hr.	850
-------------------------------	-----

Biosolids Cake Storage

Area, sf	3,100
Cake depth, ft.	3
Volume, cy	350

ACKNOWLEDGEMENTS

The planning, design, construction, and continued successful operation of Solon's Water Reclamation Facility is credited to the dedication of former and present plant operators, various offices of the City's Administration, the Mayor, Members of Council, Consulting Engineers, and General Contractors.

prior to dewatering and stabilization. Digested primary sludge is blended with the waste activated sludge and thickened on the belt thickeners. Thickened sludge is then dewatered utilizing belt filter presses. Sludge cake can then be directed to the lime stabilization equipment capable of producing a Class A biosolid product, or

directly loaded to a tractor-trailer and transported to the ultimate disposal site.

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WATER FOR PEOPLE

by Keith Riley, OWEA Water For People Chair

Water For People 2011 Fundraising

I am writing my last article as Chair of the very important Water For People Ad-hoc Committee. In March of 2003, I approached the current State Executive Committee President, Roger Loomis, and marketed the idea of following the lead of Water Environment Federation when it adopted Water For People as its officially supported charity at WEFTEC 2002. I was fortunate that the Executive Board had faith in me to allow me to begin the journey to support Water For People.

With guidance early on from the Ohio Section of the American Water Works Association's well established Water For People Committee, we got off to a great start with the support of a lot of wonderful association leaders and friends. OWEA has remained one of the top WEF Member Association supporters of Water For People.

I am extremely proud of the combined efforts of the OWEA State and Section leadership which has helped to sustain support of raising funds year after year for this important cause. As you can see by the summary numbers below, together we have increased our level of support each year.

Break-down by calendar year combined OWEA/MSD/OEHA/ OAWWA/ Cincinnati Water Works

2003	OWEA	\$1,288	OAWWA	\$15,065	Total	\$16,353
2004	OWEA	\$3,441	OAWWA	\$16,402	Total	\$19,843
2005	OWEA	\$5,870	OAWWA	\$28,083	Total	\$33,953
2006	OWEA	\$6,587	OAWWA	\$13,505	Total	\$20,092
2007	OWEA	\$6,568	OAWWA	\$6,111	Total	\$12,366
2008	OWEA	\$6,097	OAWWA	\$15,961	Total	\$22,058
2009	OWEA	\$7,200	OAWWA	\$20,767	Total	\$27,967
2010	OWEA	\$21,292	OAWWA*	\$28,948	Total	\$50,240

*includes the OWEA/AWWA joint sponsored OSU/Michigan tickets raffle

Please remember to send me an update on any funds raised the first half of 2011, so we can keep our records and recognition up to date.

I am planning on retiring this summer after 39 years. While I plan to stay involved with OWEA and Water For People, I believe it is time for new committee leadership after 8 years. If any of you would like to step up to lead our efforts, please contact the incoming President, Doug Clark. I will be around to help you get started. You won't regret learning more about and supporting the good works of Water For People's efforts.

I know we will have some great fund-raising activities at the upcoming State Conference and I solicit your continued generosity. I hope to see each of you at the conference and thank you personally for your support over the years.

West Point Cadet Blogs from Honduras

by Bradley Potts (volunteer system assessment crew member)

After a day of travel and acclimation to the balmy climate, we were eager to begin our work. Today, we had a chance to meet with representatives from Water for People and regional water project directors for the area. We discussed the goals of Water for People



A woman standing beside her tapstand outside of her home in rural Honduras
(photo by Water for People)

in the area which included water delivery and sanitation to 95% of villagers in the municipalities of San Antonio, El Negrito, and Chinda. The overarching goal of the Honduras work, however, is to teach villagers to maintain their water systems for long-term use (the teach a man to fish philosophy).

We also learned about the three types of surveys which we will administer at each village we visit; these include household interviews, a community water point interview with a village leader, and a public institution interview aimed at understanding school water delivery and sanitation. By coupling the surveys with chlorine tests at various points within a town, we hope to learn about system upkeep, performance, and delivery to the villages various taps.

In the afternoon, we were afforded our first chance to survey and assess a village. After a long ride through countryside, we arrived at Colonia San Juan, a village of approximately 660, within the San Antonio municipality. Here, we conducted 20 household surveys and grew more comfortable with the format and our own speaking abilities. The village consisted of colorful open brick houses and rocky dirt roads; local dogs and hundreds of chickens shared the grounds with livestock. The villagers were very friendly and generally satisfied with the water delivery system. Nearly all had a running tap just outside their front doors and a clean latrine within meters of the home. It was apparent that many of the older women took great pride in their homes; it was not uncommon to see fine kept and fragrant houses decorated with children's school certificates. Colonia San Juan was a great first impression of rural Honduras and I hope to visit many similar sites this week. Upon completing the survey, we gathered very important data for our report to WFP; without delving to deep into specifics, the village of Colonia San Juan seemed to be in good shape with the exception of infrequent chlorination of the water tank and that we could not view the financial records.

Tomorrow promises to provide more great experiences as we split into two teams and visit four more villages. Also, today marks the first of a profile video that I plan on conducting for all team members. It is a small peek into the life of Mark Atangan.

Lessons Learned

by Fabiola Monje, WFP Staff

Water for People Note: As any returning World Water Corps® (WWC) volunteer will tell you, the experience of the field teaches you many lessons in sustainable development—and brings you face to face with extraordinary human beings.

People, who feel passionate about the need for change in their own communities, work tirelessly to make it happen. Water For People–Bolivia staff member Fabiola Monje went to the village of Hardeman, recently, for some WWC style monitoring of household latrines. What she brought back, in addition to her data, was a profound sense of the human element in our work.

On the day I met Dona Betty, I noticed how lively it was in her Hardeman Central neighborhood, a little district near the San Pedro municipality, dry and dusty, but with plenty of fruit trees. Here, all of the men leave at sunrise to the “Chaco” (the wetlands), where they labor on large farms, while the women stay to “raise the kids at home,” as they proudly say. Some men return home every evening, others just a couple of nights a week. The children play barefoot with an old ball, breathing dust every hour of the day, every day of their lives.

I was in Hardeman as part of a monitoring team of Water For People staff and partners, going household to household, checking the maintenance of ecological composting latrines a year after Water For People had facilitated their installation. Dona Betty was fretting, trying not to miss anything that her neighbors did or said. For Dona Betty, a leader of her community, the activity of evaluating Hardeman’s latrines was serious business. She wanted the good grade of “green”—meaning well-maintained and properly used—not just for herself, but for the community as a whole. It was against this backdrop of methodical data collection that we suddenly heard screams from a neighbor. We rushed out to see a gasoline truck crashed into a tree whose leafy branches were tangled with the electric cables that ran across the peaceful town.



*A Bolivian woman stands proudly by her new bathroom
(photo by Water for People)*

Our team stood astonished, almost immobilized, as the scene developed in front of us. Maybe we didn’t understand the gravity of the events; certainly we didn’t have the image in our minds that in that moment came back to Dona Betty. Terrified but determined, Dona Betty ran to the little shop in front of her house that sold, apart from groceries, small tanks of liquid gas and diesel. The cables sparked like fireworks, and the sparks got brighter. Fire looked imminent, not least because the truck was full of gas. The driver ran from the wreck without looking back, stunned into action by the vision in his rearview mirror of white smoke from the burned cables, wafting over the wooden roofs of the neighborhood houses.

Miraculously, the incident stopped there, before the worst could happen, and we continued on about our business. Dona Betty

returned to us and resumed her role as volunteer guide in the evaluation task. Despite her agitation, and even with the fifty-some years she carried on her shoulders, she was determined to continue. But I saw her trembling and nearly breathless because of the fright that had passed. We kept walking the rest of the day, dutifully completing our surveys, while Dona Betty told us the story, in response to my curious questions.

More than two decades ago, the carelessness of a family that left a log smoldering, helped along by the Southern winds, burned all of the trees of Motacú, and within a few minutes, all of the houses on the town’s main street. Being a Catholic woman, Dona Betty remembers how she prayed while watching the fierce fire ravage the neighbor’s houses, and how (here with a trace of pride in her voice) God protected her house, turning the flames away and down another path through town.

Then, too, Dona Betty remembers vividly how the beloved Father Remo personally helped the victims of the fire. He and his heroism are part of the essence of the town, and the statue that stands in the central plaza captures that well. Everyone remembers him warmly for his unselfishness, for the way that he worked and helped tirelessly after their common tragedy. If one day you have the good fortune to visit Hardeman, any person there could tell you about Father Remo—and about his tragic end on Christmas of 1984. With a bag of toys for the kids and the bicycle that he always carried on his shoulders, Father Remo set out across the Piraf River, but fell from the rickety bridge of tree trunks to his death in the river’s fury.

There is much to say about this day in Hardeman, but what I realized that night, lying awake in my little hotel, with its straw mattresses and innumerable funny prohibitions, is that the world is so big that people do not bother identifying all of the anonymous heroes that work for the good of their fellow man. An infinite number of names come to my head, each one with a story behind it . . . and the world becomes small again before my eyes, because somehow people that are simple links bring themselves together to work as a chain going around the world, giving a little bit towards sanitation, saving a child’s life, and changing the world.

Report submitted by Keith Riley
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AN INTEGRATED APPROACH TO IMPROVE WATER QUALITY AT A WATERSHED LEVEL

by Ting Lu, Ph.D., Metropolitan Sewer District of Greater Cincinnati (MSDGC)

Fecal microorganisms are a major source of surface water contamination, which poses steep environmental and human health problems. This article presents how Metropolitan Sewer District of Greater Cincinnati (MSDGC) utilizes an integrated systematic approach to address combined sewer overflows (CSOs) to improve water quality at the watershed level.

Current Challenges

Metropolitan Sewer District of Greater Cincinnati (MSDGC) is a Hamilton County owned sewer district collecting and treating 192 MGD of wastewater by operating seven major treatment plants. The primary mission of MSDGC is to deliver responsive, customer-focused wastewater treatment services to a community of over 800,000 people and protect public health and the environment through water reclamation and watershed management. The collection system is comprised of over 3,000 miles of pipe covering an area of over 400 square miles. Forty percent of the pipe network was developed as combined sewers that transport raw sewage and storm water together. During wet weather, combined sewers overflow into local water courses after reaching pipe capacity.

Research has shown that combined sewer overflows (CSO) have been linked to adverse public health effects. During 2004, MSDGC entered into a Global Consent Decree with US EPA, Ohio EPA (OEPA), and the Ohio River Valley Water Sanitation Commission (ORSANCO), which requires the City and County to develop and implement a comprehensive plan to address MSDGC's wet weather overflows. In order to effectively manage watershed and improve water quality, an integrated sustainable approach targeting both water quantity and water quality is desired in order to address CSO problems.

Historical water quality evaluations carried out for the majority of the receiving streams in Hamilton county between 1999-2004 support the finding that fecal bacteria are the sole pollutant of concern in both dry and wet weather.

Conventional Approach for CSO Removal and Water Quality Monitoring

Regarding the CSO control, grey solutions exploring conveyance and storage are commonly used as the default solution. The approach includes upsizing sewer pipes or building tunnels to reduce wet weather overflows. Although the hydraulic capacity could be accommodated by grey solutions, it's usually associated with significant construction and operation cost. In addition, it is difficult to measure the project effectiveness and ensure full water quality compliance indicated by *Escherichia coli* and fecal coliform bacteria through culture based methods.

These two bacteria are selected as indication bacteria to measure the potential presence of pathogens in water used for swimming or drinking since they are present in the digestive tracts of all

humans, and their presence in water samples is easy to measure. However, since most of the members of fecal microbial flora are anaerobic and difficult to cultivate, (viable but not culturable microorganisms) the culture based method is not a good representative measurement for human health risk. In addition, the culture based *E.coli* method does not provide the source origin where the contamination is from. Consequently, it is difficult to identify the source of contamination. The fecal sources may have mixed origins, such as human and animal waste, stormwater runoff, urban runoff, CSO, non point source contamination, malfunctioning private systems, or upstream boundary flow.

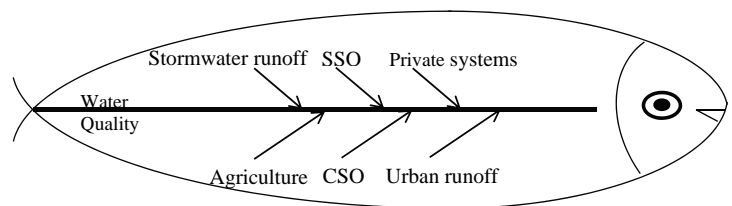


Figure 1 A fishbone diagram showing the possible contributing factors to water quality impairment

A Systematic Approach to Improve Water Quality

Currently, MSDGC is developing a systematic approach to identify opportunities for source control of rainwater on a watershed basis. Keeping rainwater from entering the sewer system can lower construction costs of future infrastructure, and more importantly can provide the best opportunity to keep future annual costs as low as possible. In addition, it brings more social and environmental benefit such as diverse habitat, better air quality, and reducing urban heat island etc. For instance, a series of green solutions (including rain gardens, green roofs, and detention ponds etc) were compared to grey solutions in the Lick Run watershed in order to reduce 2 billion gallons per year of CSO. Comparing capital, operating, and maintenance costs, the green solution has a much higher total social, economic and environmental benefit, which will better serve to revitalize the local community.

Although a source control approach is proven to be most cost-effective compared with end of pipe solutions, one of the biggest challenges in utilizing source control is source identification,

A decision tool focusing on source identification is very important in order to:

1. help establish priorities based on water quality objectives;
2. address overflows in context with other pollution sources; and
3. evaluate the project effectiveness and provide cost-effective solutions to improve overall water quality at a watershed level.

especially the non point source contamination. Consequently, it is difficult to link engineering performance (project effectiveness) with desired outcome (improved water quality healthy stream).

At MSDGC, we are exploring an integrated approach including microbial source tracking, GIS mapping technologies as well as physical, chemical, and biological analysis to monitor water quality. The overall objective is to identify the source of pollution loadings, such as household sewage treatment system (HSTS), CSO, sanitary sewer overflows (SSO) and contributing factors (agriculture/urban runoff, water temperature and available organic material).

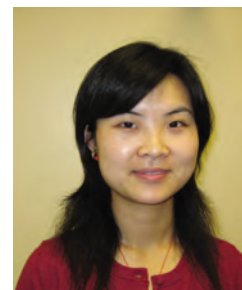
Microbial source tracking (MST) has been used to identify Host-specific markers (specific fecal source groups) in order to develop best management practices (BMPs) to control fecal contamination from point and nonpoint pollutions (U.S. 2005). This technology was expanded on the development of polymerase chain reaction (PCR) based molecular tools to identify bacteria on the species level based on 16S ribosome RNA (rRNA) genes. It is well know that the 16S rRNA is highly conserved yet contains regions that are variable enough to allow for genus and species identification. For instance, *Bacteroides* spp., enteric anaerobes considered to be restricted to warm-blooded animals and proven to be a good linkage with spatio-temporal resolution to a sampling site (U.S. 2005; Kildare et al., 2007). Currently, we are developing PCR

protocols to discriminate non-human *Bacteroides* samples such as bovine, and chicken fecal contamination from those with human contamination and identify spatiotemporal source inputs based on sampling schedule and location.

Summary

Exploring an integrated systematic approach allows us to evaluate all the possible sources of pollution and develop targeted control strategies on a watershed level. The long term strategy is to establish a water quality model in order to identify the contamination source, whether it is a point source or non point source contamination. In addition, a risk model based on the field data will be developed to facilitate decision-makings on various levels of management, and in designing strategies to prevent microbial contamination of surface waters.

A multisource, multiagency, and regional strategy is needed in order to lead to full water quality standards compliance.



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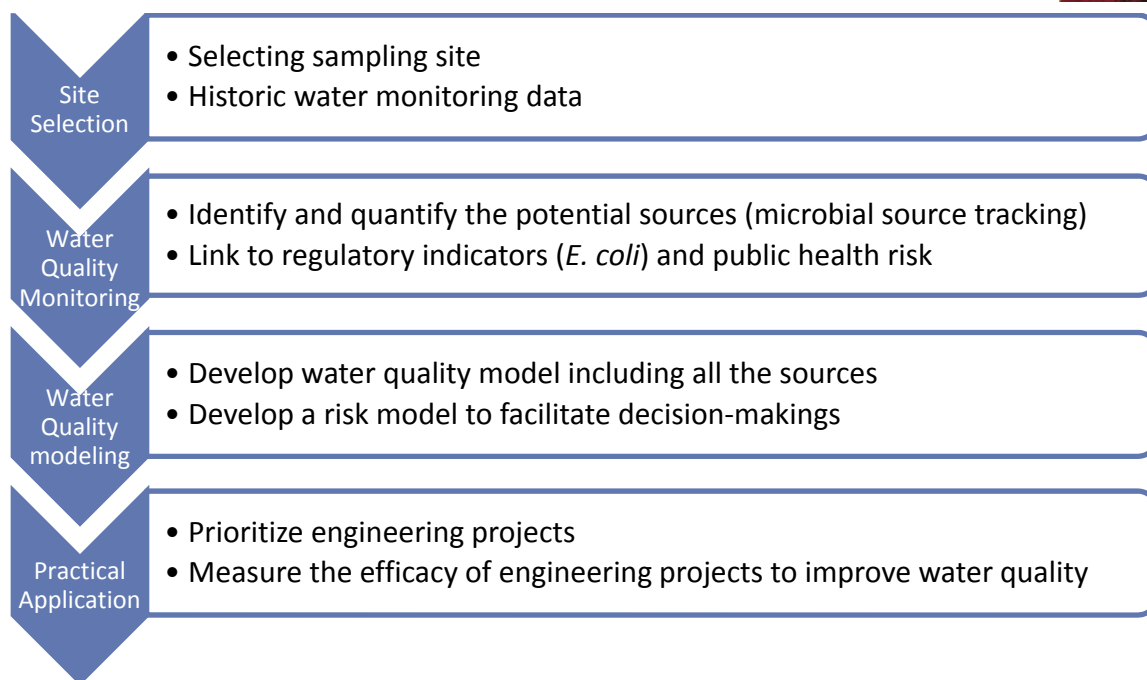


Figure 2 Framework of exploring integrated watershed approach including microbial source tracking to improve water quality

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- U.S., E. P. A. (2005). *Microbial source tracking guide document*, United States Environmental Protection Agency Office of Research and Development. EPA/600/R-05/064.

SMALL SYSTEMS STRUGGLE WITH I/I, TOO*by Adam Voris, PE, Project Manager and Associate at EMH&T*

Most everyone in the civil engineering business is familiar with the massive efforts being undertaken by operators of Ohio's large sewer systems to eliminate the effects of inflow and infiltration (I/I). It will take decades and billions of dollars for our large and mid-size communities with old and combined sewer systems to make these improvements. The sheer size and complexity of these incredible efforts make it easy to overlook the smaller communities in Ohio that are struggling with similar problems.

Although there is still a strong focus of developing new infrastructure in un-sewered communities, system rehabilitation and repairs are becoming increasingly necessary for what have been traditionally considered the "small system" operators. These operators commonly range from the mid-size villages to the small "county seat" cities in more rural areas of the state. We've all probably noticed the steady increase in sewer rehabilitation projects in recent years and the growing number in the Water Pollution Control Loan Fund (WPCLF) program.

In addition to size, there are a few common differences in wet weather projects between large/mid size systems and the subject smaller communities. Human and financial resources are usually the biggest limitation for utilities with a limited customer base. Most large system operators have been able to develop proactive programs of evaluation and rehabilitation to assure capacity. These programs are usually supported by sewer user rates and sometimes with the stormwater utility. Many small systems occur in communities where stormwater utilities are absent or still being developed. Additionally, politicians in smaller communities are closely associated with utilities and therefore more vulnerable to resident dissatisfaction with rate increases. Without a reliable revenue source, an asset management approach to I/I reduction is nearly impossible for some smaller systems, thereby limiting them to an endless chain of reactionary projects.

Sewer systems in smaller communities also tend to be much younger than those in their larger counterparts, often having been constructed in the Clean Water Act era of the 1970's. Although relatively young in comparison, these systems are nonetheless nearing the end of their useful life. Older systems in larger communities usually have at least some combined sewers in the older neighborhoods. The point source inflow from these combined systems is usually a strong influence in the activation of overflows or plant washouts. Cherry picking these inflow connections for removal and separation is a relatively efficient and effective way to significantly reduce clean water connections. Newer sewers in smaller communities are almost exclusively separated systems with widespread infiltration affecting the system more so than point source inflow. The effects of this difference are that small system operators often have to look and work a little harder to find the water. Sometimes locating and eliminating infiltration can be like a dog chasing his tail. Sometimes solving a problem in one location creates one in another . . . like the lining project that seemed to create an increase in infiltration. Efficient improvements to a small collection system are often impossible and the operator must rely on plant/pump station modifications or equalization basins to avoid overflows and washouts.

Scioto County, Ohio, offers an interesting and relevant case study. The Scioto County Sanitary Engineer's office is working on tracking down and mitigating an I/I problem in its Wheelersburg sewershed. Despite a limited staff that is already stretched thin, the Department has been able to carve out enough time from its regular schedule to perform a cursory investigation. The Wheelersburg sewer system was constructed as a separate system in the 1970's and has experienced overflows at lift stations and washouts at the plant for many years. Several years ago pump station upgrades increased the pumping rates to a level that eliminated overflows at the pump station, but created more washouts in the plant. Since then, the loss of solids during plant washouts has caused NPDES permit violations during periods of heavy rain.

Scioto County's first efforts focused on cherry picking downspout and drainage connections with smoke testing.



Unfortunately, very few of these easy fixes were found, and it became apparent that most of the clean water must be coming from infiltration or private connections. WWTP Superintendent Ryan Smith explained that they are attempting to dedicate one day a week to camera and flow meter work. Just making these essential tools available has taken some innovation on Ryan's part. Although their outdated camera still works, the fact that it utilizes VHS tapes clearly indicates its real functionality. Additionally, he has made his own flow meters from pressure sensors and other spare parts. Although not traditional, this improvised equipment is able to get the job done.



Ryan has also been able to make some modifications to the plant's operations that have kept it in compliance during this wet spring. Earlier this year, the plant had been experiencing high inflow for approximately three weeks due to spring rains. Flows at the plant could range from a dry weather base flow of 350K gpd to more than 2.2M gpd during heavy rain. By converting one of their racetrack ditches to an equalization basin, lowering the recirculation rates and utilizing temporary pumping, the plant has been able to significantly reduce its violations.



Ryan and his staff spent a large part of the fall installing new drives and timers on the recirculation pumps and hard wiring controls into the portable pumps in preparation for this switch. Ryan and the Department are working with representatives from the Ohio EPA to meet all requirements for compliance and appreciate all the help they have been provided.

Ryan's innovation and clever approach are typical of what it takes to address similar problems in Ohio's small communities. Although the end goals for I/I projects may be the same as their larger counterparts, sometimes the challenges and methods small systems use to get there are different. As regulatory attention continues and resources are stretched thinner and thinner, I/I management will become a more regular part of the small system operator's responsibilities.

Adam Voris, P.E.
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SMALL SYSTEMS COMMITTEE

by Roberta Acosta, Chair

The ad-hoc small systems committee held its regular meeting on April 7, 2011 at the OWEA Conference Room. Three new members have joined the committee. Sub-committees were formed and it was decided that the focus would be on small system issues related to finance, technology, and management. The goal is for the committee to develop training and outreach programs to address these issues for systems serving populations under 2,500.

We are still looking for members, particularly Village or County administrators and operators. If you are interested in working with the Ad-Hoc Small Systems Committee contact:

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Ohio RCAP
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BIOSOLIDS HAPPEN!

by Elizabeth Wick, P.E.

Ohio EPA, Division of Surface Water Northwest District Office

On January 4, 2011, the Agency adopted final revisions to the biosolids rules found in Ohio Administrative Code (OAC) Chapter 3745-40. I asked the “sludge guys” to write a summary of the rules for the Buckeye Bulletin, and this is what I received:

T'was a few months after Christmas, when all through Ohio
Some sludge was being hauled, a little bitty pile.
The sludge spreaders were pulled out of the barn with care,
In hopes that the weather soon would be fair.

The sludge contractors had submitted their bids,
While visions of dollar signs danced in their heads.
Digesters were full and there was work to do,
It was time to start haulin' the poo.

When over the radio they heard some chatter,
They ran from the barn to see what was the matter.
Tore open the truck door and stepped on the gas.
Away to the sludge field they flew like a flash

When, what to their wondering eyes should appear,
But Three Ohio EPA sludge guys on an old John Deere.
They were dressed all in Carhartt, from head to toe,
Here to make sure there was no sludge in the stream flow.

They spoke not a word, but went straight to work,
Checking field tiles and records, they turned with a jerk.
An awful scent in the air caused a pinch of the nose,
and quickly onto the John Deere they rose.

The engine sprang to life with the turn of a key,
And the sludge guys rushed off to collect a sludge fee.
But I heard them exclaim, with a slightly crooked sneer
“Happy Haulin’ to all, the new sludge rules are here!”

So, I took a stab at writing my own summary and got them to verify the facts . . . OAC 3745-40 includes rules governing the treatment or disposal of biosolids, the transfer of biosolids to another NPDES permitted treatment works, the storage of biosolids, and the beneficial reuse of biosolids. These rules become effective on July 1, 2011. The rules may look longer, but they have been reorganized, making information easier to find. Overall the technical changes adopted include a balance of “more stringent” and “less stringent” requirements, all of which are designed to be protective of public health and the environment.

The following areas are NOT covered by OAC 3745-40.

- ◆ Ash generated during sewage sludge or biosolids incineration
- ◆ Sewage sludge or biosolids co-fired in an incinerator with other wastes
- ◆ The use or disposal of grit or screenings
- ◆ Sewage sludge or biosolids that contain PCBs at a concentration equal to or greater than 1 mg/kg of total solids on a dry weight basis or that is considered a hazardous waste
- ◆ Sludge generated at an industrial facility during treatment of industrial wastewater with or without sewage present
- ◆ Treatment, storage or disposal of domestic, commercial or industrial septage unless septage from multiple sources is combined at a single treatment works prior to treatment, storage, transfer, disposal, or beneficial reuse
- ◆ Treatment, storage or disposal of grease trap waste
- ◆ Treatment, storage or disposal of final effluent

Details of some of the changes that NPDES permit holders should be aware of follow:

1. The terms “biosolids”, “beneficial use” and “bulk exceptional quality” were added and defined.
2. The Class A biosolids classification was eliminated, leaving Class B and EQ as the only two classes.
3. By July 1, 2015, influent wastewater and septage, or sewage sludge at a treatment works must be treated by a process such as physical screening or another method to significantly remove manufactured inerts. Manufactured inerts are considered solid waste and should be disposed in a landfill. When cleaning out a digester or other sewage sludge treatment unit from a time period prior to screening, the entity should inspect the biosolids to evaluate if screening is needed. To meet the screening requirement, a POTW can screen the influent wastewater and septage through a properly designed barscreen with maximum aperture of 5/8 inch, screen all biosolids through a barscreen with maximum aperture of 5/8 inch prior to beneficial reuse, or obtain director’s approval for an alternate method.
4. The director may require any person who is not an NPDES permit holder to obtain coverage under a management plan prior to beneficially using biosolids. Potential management plan applicants include third party soil blenders, composters or distributors. The beneficial use of biosolids by municipalities will still be regulated under an NPDES permit.
5. Record keeping requirements were added to show compliance with pathogen reduction and vector attraction reduction requirements. To assist operators with these new record keeping requirements compliance assistance tools for biosolids have been added to Ohio EPA’s website at <http://www.epa.ohio.gov/dsw/sludge/biosolid.aspx/>. These include a Fecal Coliform Geometric Mean Calculation Spreadsheet, an Agronomic Rate Calculation Spreadsheet, and a Specific Oxygen Uptake Rate Calculation Spreadsheet.

6. Requirements to monitor biosolids for total phosphorus and total potassium were added so that farmers can be given this information. Under the existing rules the biosolids were only required to be monitored for Kjeldahl nitrogen and ammonia nitrogen.
7. After July 1, 2013, OAC 3745-40-08 requires that the agronomic rate for biosolids beneficial use be based on the most limiting of either the nitrogen or phosphorus. The phosphorus beneficial use rate takes into account the phosphorus concentration in the soil.
8. The reduced isolation distances were expanded to be applicable to immediate incorporation of Class B or bulk exceptional quality biosolids.
9. OAC 3745-40-08 (D)(2) addresses frozen and snow covered ground and requires that between December 15 and March 1, the beneficial use of Class B or bulk exceptional quality biosolids be accomplished by either same day incorporation or immediate injection.
10. The annual monitoring requirement of sewage sludge for dioxins has been removed. OAC 3745-40-09 now states that the director may require monitoring for dioxin in sewage sludge if it is determined that monitoring is needed to protect public health and the environment.

You can view the new rules on Ohio EPA's website at: http://www.epa.ohio.gov/dsw/rules/final_sludge_jan11.aspx

If you have specific questions on the rules, we have three "sludge guys" at Ohio EPA. They are available to help permittees through the interpretation of the rules. (and they have a great sense of humor!)

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OCAPP is not a regulatory program at Ohio EPA. This means that information obtained by the office is not shared with Ohio EPA inspection or enforcement staff.

OCAPP's free resources include:

- Plain-language fact sheets and compliance guides that a small business can understand. These are available on the web and hard copies are available by request.
- A web page of resources at www.epa.ohio.gov/ocapp
- Facilitating meetings with new business start-ups so they know what environmental permits they need to obtain and what regulations will apply to their business. OCAPP can contact agency staff and coordinate a meeting with representatives from the appropriate permitting divisions.
- Toll-free hotline (8:00 a.m. to 5:00 p.m.) to answer confidential questions from small businesses (fewer than 100 employees).
- Workshops/training on environmental compliance and pollution prevention.
- On-site compliance assistance for small businesses (fewer than 100 employees). This can help reduce liability, reduce the potential for violations and penalties, and help protect worker health and safety.
- Quarterly newsletter.
- Assistance in completing air permit application forms.
- Helping companies of all sizes identify ways to prevent generating waste and save money. These free pollution prevention services can help a company market its "going green" efforts and save money.

OCAPP assists many types of businesses. They include, but are not limited to, auto service/collision repair; contractors; painting/coating operations; manufacturing companies; dry cleaners/laundries; power washers; carpet cleaners; bakeries; printers; furniture makers/wood refinishers; HVAC service; metal finishing/fabrication; and construction.

Feedback from businesses that have worked with OCAPP is positive. **They identify the following benefits of working with OCAPP:**

- Achieving environmental compliance;
- Saving money and improving business performance;
- Reducing liability and potential for violations or penalties;
- Protecting workers' health and safety; and
- Preserving natural resources.

Need help? Please call OCAPP at (800) 329-7518 or (614) 644-3469, weekdays, 8 a.m. through 5 p.m. or email p2mail@epa.state.oh.us for assistance.



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who joined OWEA from October 2010 to March 2011

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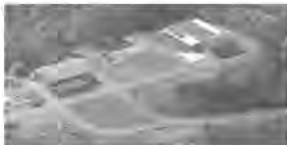
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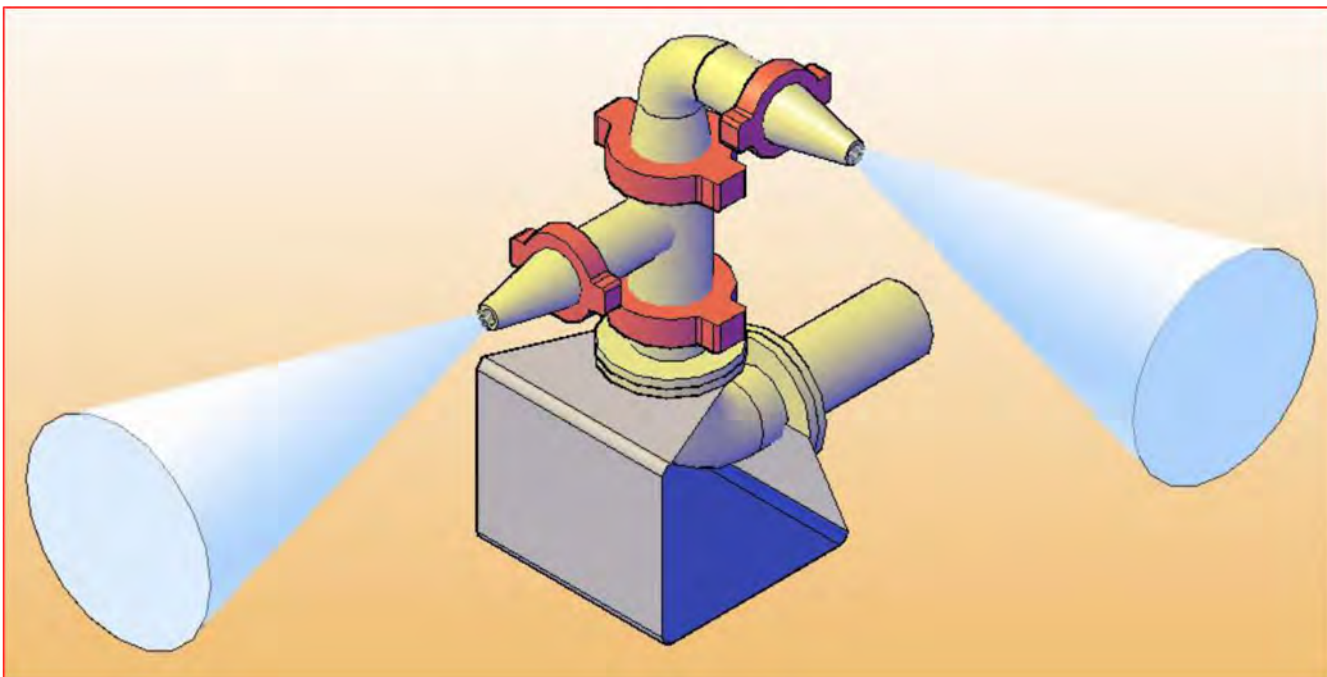
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A photograph of a person rock climbing. The climber is seen from behind, wearing a blue shirt, light-colored shorts, and a climbing harness. They are positioned on a large, dark, textured rock face. A rope is visible on the left side of the frame.

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