THM CHALLENGE
Anion Exchange Treatment Meets the THM Challenge

by Marvin Gnagy, P.E., President - PMG Consulting, Inc.

Nearly a decade of DBP treatment and monitoring for the Village of Archbold, Ohio has resulted in continuous compliance with the Stage 1 Disinfectants/Disinfection Byproducts (D/DBP) Rule requirements. In more recent years, the running annual average (RAA) THM concentration had been increasing ever so slightly each year. Increasing RAA THM created concern within the plant staff and administration over future THM compliance related to the upcoming Stage 2 D/DBP Rule. In 2009 and 2010, Interim Distribution System Evaluation (IDSE) monitoring indicated that Archbold could have difficulty meeting Stage 2 Rule requirements that go into effect for the Village in January 2013. Anion exchange treatment proved to be more cost effective than other advanced treatment processes for TOC reduction and THM control for the Village during studies conducted in 2010 by PMG Consulting, Inc. as a subcontractor to URS Corporation. This article discusses previous TOC removal and THM compliance at the Archbold Water Treatment Plant and their ongoing work to maintain THM compliance under the Stage 2 Rule.
If you talk the talk, you damn well better be ready to ride the ride.

For the genuine article, always insist on Team EJP.

It’s easy to look good standing still. But true performance can’t be faked.

None of our imitators have been able to match TEAM EJP’s commitment to service 24/7/365. No one else has made the investment in the technology, inventory and infrastructure needed to serve today’s market. And no one has assembled a team with more integrity and expertise than TEAM EJP.

Accept no substitute!
As the new chairperson and (glad to say!) past conference co-chair, I cannot say enough how honored I am to be a part of the Ohio Section and the many volunteers that make up the organization. I want to thank those that have supported and guided me throughout the years.

I spoke on the importance of volunteers in my incoming address at the Ohio Section annual conference. It could not have been shown more true than by the many volunteers and volunteer hours it took to host the Annual Conference. I want to thank the City of Dayton and surrounding utilities for an excellent conference. This was a huge regional endeavor. My Conference Co-Chair, Martha Schwendeman and I, were blessed with a team willing to volunteer countless hours. Their hard work and dedication made the Dayton conference a success. I am proud to have been a part of a team that did a fantastic job with the conference details and made all feel welcome. Professional Services once again provided support and hard work that was appreciated by all. The conference committee set a goal to provide three concurrent technical sessions to our members at this year’s conference. This was achieved by the diligence of the conference committee members and the technical program committee. Thank you to all.

The Dayton conference aimed to be innovative. The conference exhibit hall gave us a new look and flow pattern, thanks to Bill Schindler. Some of our technical speakers discussed and used innovation in their presentations. One speaker group in particular videotaped water employees and put that in their talk. This was met with very positive comments. We hope some of you were able to use your smart phones to access the conference using the IR code and our very own conference website. Smart phones have changed the way we are connected. The conference committee was able to give you the freedom to connect to the internet no matter where you were or what you are doing, to see the conference updates and any changes to the conference program.

Keep a look-out as the Ohio Section continues this innovative approach and works to improve our website and ways to disseminate information. When you think about the internet it is basically people sharing information. We will continue looking further into the different social media websites in an effort to better serve and share information with our members.

The Ohio Section is an inviting place and full of hardworking volunteers. In my Chair’s acceptance speech, I spoke of the many volunteers and how we increase each other’s personal resilience. We can all continue this by welcoming new members. Share your expertise and discuss the organization’s attributes. Continue to search for volunteers at the district level, councils, committees chairs/members, and nationally. Help members decide how to select their best volunteer opportunities. More importantly, demonstrate your volunteerism. Be willing to make the effort and become involved in the many opportunities the Section has to offer.

It truly is an honor and a pleasure for me to be the chairperson of the Ohio Section. I look forward to my new position and working with all of you. I hope our year together will be beneficial to Ohio Section.
DIRECTORS REPORT

We have just completed a highly successful 2012 Annual Conference in Dayton, Ohio. Co-Chairs Lorrie Brown and Martha Schwendeman and their energetic Conference Management Committee did an outstanding job organizing excellent technical sessions, exciting competitions, fun social and networking event, keeping the rain away for the annual golf outing, and a top notch day of exhibits. My thanks to Chris Neilson, Bob Davis and Larry Valentine for hosting our visiting officer, Vice President David Koch from Michigan on the golf outing. He reported having an excellent time – which would not have been the case if this non-golfer had attempted to play! I’d also like to thank David for the time and effort he put into his visit to our conference. He attended many of our activities and served as a judge during the Water Taste Test. He also met many of our Section members and was pleased that he wasn’t ribbed too much about being from Michigan.

David provided a thorough update on activities at the Association level at both the Section Forum and during his address at our Business Luncheon. One of the topics he discussed was the AWWA-WEF Collaboration effort that was underway and the three potential models that the Exploratory Committee were exploring. Since the conference, the Committee has reported back to the Board of Directors, and the decision has been made to continue with the same model we have been using for the last few years. We will continue to work together on the Joint Management Conference, the AWWA Water Matters Fly-In and other activities that are of concern to both organizations.

We have a strong tradition of leadership in the Ohio Section and this tradition has been upheld by our outgoing chair Karen Hawkins. Karen, your leadership was instrumental in negotiating the Professional Services contract, defining the scope of the review of our Section Finances, and in finalizing our most recent Strategic Plan. Thank you for your service.

My congratulations to Lorrie Brown who began her term as Chair of our Section at the Annual Conference. Lorrie is a long-time volunteer who is driven to make our Section and industry stronger. Her work ethic was amply demonstrated during our recent conference, and her attention to detail will be crucial as the Board works on the joint conference with Ohio WEA in 2014, and as we continue to face the challenge of delivering value to our members in a challenging economy. Congratulations also go out to Curt Smith on his election as Vice Chair and to Todd Radel on his appointment as Assistant Treasurer. My thanks also to Rob Gardner for his agreement to extend his term as Treasurer for an additional year. This will enable us to complete the financial review and give Todd a chance to get up to speed on the finances of the Section. We have a talented and diverse Board and I look forward to continuing to work with them on whatever challenges lie ahead.

As always, if you have any questions about AWWA, please feel free to call me at 216-64-2444 extension 5638, or email me at melinda_raimann@clevelandwater.com.

If you have any questions about AWWA please feel free to call me at 216-664-2444 or e-mail me at melinda_raimann@clevelandwater.com.
Kurt Smith was elected Vice Chair at the business luncheon on September 20th. Kurt has over 29 years of experience assisting municipal and other governmental entities find effective solutions to their water infrastructure challenges. He earned his BS in Civil Engineering from Ohio Northern University in Ada, Ohio and started his career as a project engineer. Kurt, a registered professional engineer in the states of Ohio and Michigan, currently works for Malcolm Pirnie, the Water Division of ARCADIS as a project manager for planning, design and construction management of water and wastewater related projects.

Kurt has been a longstanding member of AWWA since 1986. He began his leadership role with the Ohio Section of AWWA as Assistant Secretary/Treasurer for the NW District in 2001. Since then he has served as the Chair of the NW District, Northwest Trustee and IT Committee Chair. Kurt is also a member of the Ohio Water Environment Association and the American Society of Civil Engineers where he served as President of the Toledo Section.

Kurt and his wife Kay, also an engineer, have been happily married for 13 years. They are blessed with two wonderful children Owen, 11, and Lila, 7, who keep them very busy. Owen is active in soccer, baseball, hockey and Cub Scouts, and enjoys golfing with Kurt when he can find time. Lila is active in soccer, swim team and ice skating.

Chris Nielson was elected Northeast District Trustee at the business luncheon on September 20th. Chris is a senior consultant in the Water Resources Group in the Cleveland office of URS. His primary areas of expertise include the planning, design and construction of major water, wastewater, roadway, bridge and airport capital improvement projects. Nielson has also managed several public works and utilities organizations, where he has been responsible for finances, human resources, water quality, operations, engineering and strategic planning. Nielson's primary professional interests revolve around sound operational, financial and capital investment aspects of water utilities.

Before joining URS, Nielson served as the Commissioner of the Cleveland Division of Water. Nielson holds a BS in Civil Engineering from Northwestern University and a Masters of Public Administration from Harvard University. He is a registered Professional Engineer in Ohio and Colorado. Chris has been involved with AWWA since 1977 and was a Charter Member of the AAWA Research Foundation. Nielson and his wife of 36 years, Heather Hogan, Associate Dean at Oberlin College, are proud parents of Katherine who now resides in Washington, DC. Nielson enjoys golf, anything that gets him on, in or near the water, and travel.
ARCHBOLD WATER TREATMENT PLANT OPERATIONS

Archbold uses the Tiffin River in Northwest Ohio as its water source. River water is monitored as necessary and is pumped into one of two underground storage reservoirs prior to treatment. The larger reservoir has a storage capacity of 200 million gallons, while the smaller reservoir holds 100 million gallons. Typical treatment at the Archbold plant consists of permanganate reaction, followed by powdered activated carbon adsorption in separate mixed reactors. Previous attempts using chlorine dioxide for organics control were very successful, but the operating costs proved to be much higher than permanganate treatment. Water from pretreatment is directed to the solids contact clarifiers for initial coagulation and softening. Clarifiers are alternated as necessary for operations although only one clarifier is used at a time in treatment. Archbold has long been using enhanced coagulation with ferric chloride for TOC removal and lime softening during treatment.

Seasonally, caustic soda is used to soften and to replace alkalinity removed by the coagulation process. Softened and clarified water is recarbonated before being filtered through four dual media filters. Filtered water is disinfected using chlorine and treated with fluoride as needed. Treated water is stored onsite in two clearwells before being pumping to the distribution. Typical raw water and finished water organic content at the Archbold plant is shown in Table 1.

Treatment operations produced about 61 percent TOC removal between the source water and the finished water. It was estimated that more than 70 percent TOC removal would likely be needed to lower THM concentrations below the Stage 2 limits and to maintain regulatory compliance. Typical finished water TOC concentrations average 2.2 mg/L along with average UV254 absorbance (UVA) levels of 0.029 cm⁻¹. A target TOC level of 1.7 mg/L or less was established as the demonstration study goal to maintain THM concentrations below the 80 µg/L limits.

Table 1

<table>
<thead>
<tr>
<th>Raw Water Quality</th>
<th>Year</th>
<th>TOC, mg/L</th>
<th>UV254, cm⁻¹</th>
<th>SUVA (1), L/mg-m</th>
<th>THMFP, µg/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>6.9</td>
<td>0.186</td>
<td>2.70</td>
<td>487.7</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>6.7</td>
<td>0.176</td>
<td>2.65</td>
<td>465.8</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>6.9</td>
<td>0.161</td>
<td>2.33</td>
<td>487.7</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>5.7</td>
<td>0.188</td>
<td>3.30</td>
<td>384.2</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>5.6</td>
<td>0.129</td>
<td>2.30</td>
<td>375.8</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>5.1</td>
<td>0.127</td>
<td>2.49</td>
<td>334.4</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>5.6</td>
<td>0.126</td>
<td>2.25</td>
<td>375.8</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tap Water Quality</th>
<th>Year</th>
<th>TOC, mg/L</th>
<th>UV254, cm⁻¹</th>
<th>SUVA, L/mg-m</th>
<th>THMFP, µg/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>2.2</td>
<td>0.028</td>
<td>1.27</td>
<td>117.1</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>2.5</td>
<td>0.027</td>
<td>1.08</td>
<td>137.4</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>2.8</td>
<td>0.030</td>
<td>1.07</td>
<td>158.4</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>2.4</td>
<td>0.030</td>
<td>1.25</td>
<td>130.6</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>2.5</td>
<td>0.032</td>
<td>1.28</td>
<td>137.4</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>2.0</td>
<td>0.031</td>
<td>1.55</td>
<td>104.0</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>2.1</td>
<td>0.028</td>
<td>1.26</td>
<td>127.9</td>
<td></td>
</tr>
</tbody>
</table>
Archbold also supplies two small consecutive systems with drinking water. It was estimated that the water age at the maximum residence time (MRT) THM monitoring site is about six days. Figure 1 shows the historical THM monitoring results from 2004 through 2010 demonstrating the slight increase in THM RAA levels. Table 2 provides the IDSE results obtained during the 12-month monitoring period conducted in 2009 and 2010. Results from the IDSE indicated that three of the four monitoring sites could have difficulty meeting the Stage 2 D/DBP Rule THM limits.

Additionally, three of the four sites exceeded the calculated Operational Evaluation Levels (OELs) allowed under the Stage 2 Rule. The IDSE results indicated that Archbold likely would need to construct plant improvements to meet the future Rule requirements for THMs and OELs.

Figure 1 - Running Annual Average TTHM Concentrations 2006 Through 2010

Table 2

<table>
<thead>
<tr>
<th>PERIOD</th>
<th>SAMPLE RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SM-1</td>
</tr>
<tr>
<td>2nd Quarter 2009</td>
<td>66.4</td>
</tr>
<tr>
<td>3rd Quarter 2009</td>
<td>59.4</td>
</tr>
<tr>
<td>4th Quarter 2009</td>
<td>66.5</td>
</tr>
<tr>
<td>1st Quarter 2010</td>
<td>45.4</td>
</tr>
<tr>
<td>LRAA (1)</td>
<td>59.4</td>
</tr>
</tbody>
</table>

(1) Locational Running Annual Average (2)
HISTORICAL THM MONITORING AND WATER QUALITY

The water treatment plant staff and administration routinely conducted self evaluations of organics removal treatment and THM control as water quality variations were observed in their reservoirs. When the THM monitoring requirements impacted the Village in 2003, the drinking water produced resulted in a RAA THM concentration of about 52 µg/L. About 2005, the RAA THM concentration began increasing very slightly each year from the routine 52 µg/L levels to a concentration just above 70 µg/L. Increased coagulant dosages were no longer reducing THM concentrations below expected levels. Optimization of other chemical treatments (chlorine dioxide, potassium permanganate, lime) could not produce enough TOC removal to control THM levels in the system. With the Stage 2 D/DBP Rule rapidly approaching, the Village’s continuing search for more comprehensive THM control became paramount.

In 2010, the Village contracted with URS Corporation to study the use of anion exchange treatment and GAC contactors for further reductions in TOC content and to lower THM concentrations in the drinking water. Marvin Gnagy from PMG Consulting, Inc. was hired as a subcontractor to URS for the development and operation of the demonstration study and for pilot testing the two alternative treatment approaches. Initial screening of plant records related to organics content and THM concentrations indicated that a possible change in watershed was altering the organic load from intermediate molecular weight organics (similar to fulvic acids) to a more hydrophilic low molecular weight organic character (similar to transphilic acids). Figure 2 illustrates the change in source water TOC and SUVA values observed from the process monitoring data. TOC concentrations in the reservoirs were 18 percent below 2004 levels and SUVA content in the reservoirs was averaging 9 percent below levels obtained in 2004.

Figure 2 - Apparent Changes in Source Water Organics 2004 To Present
It was concluded that the low molecular weight organic character in the source water would likely need advanced technologies such as GAC, anion exchange, membranes, or biologically active filtration (BAF) for more effective TOC removal. Discussions throughout 2008 and 2009 concluded that the use of either GAC contactors or post-filtration anion exchange reactors would likely be necessary to remove the organic content that remained in Archbold’s water. A demonstration study protocol was developed and approved by Ohio EPA in the spring of 2010 for conducting the demonstration studies. Onsite evaluations of both treatment technologies began in July 2010 and were operated through September 2010. The information that follows describes the demonstration period, the THM concentrations simulated during the studies, and the results obtained.

**DEMONSTRATION STUDY OPERATIONS**

Four anion exchanges resins were evaluated for possible use at the Archbold plant. The resins selected for the demonstration study are manufactured specifically for TOC removal from water. Characteristics of each resin are given in Table 3. Each column was operated as close as possible to a 7.5 gpm/ft² hydraulic loading by daily measurements and corrections to the column flow rate. Column detention times averaged about three minutes based on the resin volumes and the water being treated. After initial resin exhaustion each column was regenerated with brine solution, rinsed, and placed back into service. Eight complete operating and regeneration cycles were conducted for each resin type to obtain sufficient analytical and operating data for comparison.

Figure 3 shows the smaller pilot columns constructed for demonstration of the resins. Analytical parameters and operating data were collected five days per week two times per day until eight operating and regeneration cycles were completed for each resin.

**Table 3**

<table>
<thead>
<tr>
<th>Resin Manufacturer</th>
<th>Resin Type</th>
<th>Exchange Capacity</th>
<th>Salt Regenerant, lbs/ft³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dow DOWEX TAN-1</td>
<td>Macroporous, Type I SBA</td>
<td>0.7 eq/L (1)</td>
<td>2.92</td>
</tr>
<tr>
<td>Dow DOWEX MARATHON 11</td>
<td>Porous gel, Type I SBA</td>
<td>1.3 eq/L</td>
<td>4.74</td>
</tr>
<tr>
<td>Thermax Tulsion A-30 MP</td>
<td>Macroporous, Type I SBA</td>
<td>0.7 eq/L</td>
<td>2.92</td>
</tr>
<tr>
<td>Thermax Tulsion A-72 MP</td>
<td>Macroporous, Type I SBA</td>
<td>1.1 eq/L</td>
<td>4.00</td>
</tr>
</tbody>
</table>

(1) Equivalents per Liter

Dr. Scott Summers and his team at the University of Colorado at Boulder conducted the GAC demonstration study and provided the operating data and THM analyses produced from those studies. A 55 gallon drum of filtered (non-chlorinated) water was shipped to the University lab for use in the GAC demonstration studies. Empty bed contact times (EBCTs) of 10-minutes and 20-minutes were used in the rapid small scale column test (RSSCT) while collecting influent and effluent water quality after each EBCT period. The GAC columns were operated to exhaustion to gather data necessary for the study and for predictions of GAC operating parameters. Figure 4 illustrates the RSSCT arrangement used as a GAC contactor.
ANION EXCHANGE TREATMENT RESULTS

Operating times between regeneration cycles for the anion exchange columns varied from 26 hours to 82 hours depending on the exchange capacity of the individual resins. Following resin depletion, each column was regenerated with brine and stood idle for 45 minutes to elute organic matter from the resin. After a regeneration period, each column was rinsed with three bed volumes of feed water before placing the column back into service.

Water quality obtained from the anion exchange columns generally was found to be lower in pH, alkalinity, and organic content as compared with the feed water (filter effluent from full-scale operations). Water from the anion exchange columns was mixed with filter effluent water to produce the blended water results expected of full-scale operations. Water pH and alkalinity from the anion exchange process averaged 7.8 and 9 mg/L, respectively. UV254 absorbance and TOC concentration in the anion exchanged treated water averaged 0.006 cm⁻¹ and 0.53 mg/L, respectively.

Typical blended water quality following anion exchange treatment and mixing with filter effluent water is given in Table 4. The blended alkalinity concentrations obtained for the study were somewhat lower than existing filtered water alkalinity concentrations. Adjustments in lime dosing are planned in full-scale treatment so that blended water alkalinity averages more than 40 mg/L to meet corrosion control treatment needs. A general anion exchange TOC breakthrough curve is provided in Figure 5. Based on the study results, full-scale anion exchange columns might be operated to a TOC breakthrough concentration of about 1.3 mg/L (about 1,100 bed volumes). This operation is expected to maintain finished water TOC at less than 1.7 mg/L for effective THM control.

Table 4

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water pH, s.u.</td>
<td>9.78</td>
</tr>
<tr>
<td>Total Alkalinity, mg/L</td>
<td>25</td>
</tr>
<tr>
<td>Phenol Alkalinity, mg/L</td>
<td>10</td>
</tr>
<tr>
<td>UV254 Absorbance, cm⁻¹</td>
<td>0.019</td>
</tr>
<tr>
<td>TOC, mg/L</td>
<td>1.35</td>
</tr>
<tr>
<td>SUVA, L/mg-m</td>
<td>1.41</td>
</tr>
<tr>
<td>THMFP, µg/L</td>
<td>64.1</td>
</tr>
</tbody>
</table>

GAC TREATMENT RESULTS

The RSSCT provided operational data and water quality data used in the evaluations for the demonstration study. TOC breakthrough was found to be 2.2 mg/L in the 10-minute EBCT contactor and 2.0 mg/L in the 20-minute EBCT contactor. Estimates of carbon operating time, carbon usage rate, and TOC breakthrough before GAC replacement were made and translated to full-scale operations. The results obtained indicated a carbon operating time of about 330 days for a 20-minute EBCT and a TOC breakthrough concentration of 2.0 mg/L. Carbon usage rate for the GAC was found to be 0.54 pounds per 1,000 gallons treated. Figure 6 shows the TOC breakthrough curve for a 20-minute EBCT for a single contactor and parallel contactors.
SDS-THM CONCENTRATIONS

The DOWEX TAN-1 resin and the Thermax Tulsion A30-MP resin provided significant TOC removal, but the TOC that remained resulted in elevated 6-day simulated THM concentrations (greater than 89 µg/L). The DOWEX Marathon 11 resin and the Thermax Tulsion A-72 MP also provided significant TOC removal that resulted in much lower 6-day simulated THM concentrations. The GAC treatment also provided significant TOC removal and low THM concentrations depending on the breakthrough allowed from the contactor. Simulated THM results for anion exchange treatment and GAC treatment are given in Table 5. Results indicated that either anion exchange treatment using a high exchange capacity resin or GAC treatment could be used to meet the Stage 2 THM requirements for Archbold. A TOC breakthrough in GAC treatment less than 1.6 mg/L would be necessary to meet the Stage 2 THM limits based on the SDS-THM results obtained.
OPERATING COST COMPARISONS

Operating costs for power, chemicals, dilution water and rinsing, anion exchange resin, and GAC were estimated based on the anticipated operation of either anion exchange treatment or GAC treatment as defined in the demonstration study. The costs estimated were based on October 2010 dollars. Annual operating costs for anion exchange treatment ranged from $57,400 to $71,700 (8.3 cents to 10.3 cents per 1,000 gallons) depending on the resin selected for treatment. Annual operating costs for GAC treatment was estimated based on the carbon life expectancy at $175,200 (25.3 cents per 1,000 gallons). Anion exchange treatment was found to be about one-third the cost of GAC treatment for the Archbold plant.

STATUS OF RECOMMENDED TREATMENT ALTERNATIVE

Based on operating costs, anion exchange treatment using either the DOWEX Marathon 11 resin or the Thermax Tulsion A-72 MP resin was recommended for the Archbold plant. A slight increase in lime dosage would be necessary in softening treatment to produce a blended water alkalinity concentration greater than 40 mg/L for corrosion control. Operating the anion exchange process to a TOC breakthrough less than 1.2 mg/L is expected to maintain finished water TOC concentrations less than 1.7 mg/L to provide adequate THM control for the Stage 2 monitoring sites. THM concentrations less than 80 µg/L are expected in the third quarter (August) monitoring period, while other monitoring periods would likely be significantly less than the regulatory limits.

Design of the anion exchange system for Archbold is currently begin completed by Roger Baker from URS Corporation. This project will be the first anion exchange treatment facility in Ohio for municipal drinking water application. A building addition adjacent to the existing filter building will be constructed drawing a portion of filtered water from the treatment plant operation and pumping it through the anion exchange columns. Monitoring each exchange column for effluent pH will be used to signal regeneration needs before significant TOC breakthrough occurs. Anion exchange treated water and the remaining filter effluent will be blended before final disinfection and storage in the clearwells. The blended lower TOC water will then be supplied to the system using the existing high service pumps. Completion of the treatment facility is anticipated before the third quarter 2013 monitoring period meeting the Stage 2 compliance deadlines for the Village of Archbold.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Marathon 11</th>
<th>Tulsion A-72 MP</th>
<th>GAC 1.4</th>
<th>GAC 1.7</th>
<th>GAC 2.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-day THM</td>
<td>22.1</td>
<td>27.3</td>
<td>43.2</td>
<td>52.6</td>
<td>61.0</td>
</tr>
<tr>
<td>6-day THM</td>
<td>19.0</td>
<td>78.7</td>
<td>70.0</td>
<td>81.9</td>
<td>95.1</td>
</tr>
</tbody>
</table>

TOC breakthrough of 1.4 mg/L, 1.7 mg/L, and 2.0 mg/L in GAC contactor operations

Table 5

SIMULATED DISTRIBUTION SYSTEM (SDS) THM CONCENTRATIONS

All results are µg/L concentrations.
2013 Ohio Section Governing Board/ District Officers

Chair
Lorrie Brown, City of Dayton Water Dept.
937-333-6135
Lorrie.Brown@daytonohio.gov

Vice Chair
Kurt Smith, ARCADIS
419-473-1121
kurt.smith@arcadis-us.com

SW Trustee
Tim Ray, Troy Water Plant
937-339-4826
tim.ray@troyohio.gov

NE Trustee
Chris Nielson, URS
216-622-2425
chris.nielson@urscorp.com

At Large Trustee
Robin Liss, MWH
614-324-2224
Robin.A.Liss@mwhglobal.com

At Large Trustee
Dan Barr, Burgess & Niple, Inc.
419-459-2050
dbarr@burntip.com

Director
Melinda Raimann, Cleveland Division of Water
216-664-2444
melinda_raimann@clevelandwater.com

Treasurer
Robert Gardner, City of Westerville
614-901-6776
robert.gardner@westerville.org

Assistant Treasurer
Todd Radel, City of Cincinnati
513-591-7749
todd.radel@gcww.cincinnati-oh.gov

Secretary
Richard Griffing, Warren Water Department
330-841-2963
rgriffing@warren.org

Assistant Secretary
Franco Lucarelli, City of Warren
330-509-4328
flucarelli@warren.org

Professional Services Manager
Shawn Truss, Ohio Section AWWA
614-265-3180 • oawwa@ohiowater.org

Professional Services Director
Curtis L. Truss Jr, OTCO
614-268-6826 • curtis@ohiowater.org

Northeast District

District Chair
Sandy Vozar, P.E.
City of Berea
440-234-5652
svozar@bereaohio.com

1st Vice Chair
Bill Simon
Avon Lake Utilities
440-933-7210
bsimonalmu@gmail.com

2nd Vice Chair
Franco Noce
Cleveland Div of Water
216-533-7210
franco_noce@clevelandwater.com

Past Chair
Franco Lucarelli
City of Warren
330-509-4328
flucarelli@warren.org

Secretary/Treasurer
Brenda Duncan
City of Berea
440-234-5652
dkbarkst@aol.com

Asst. Secretary/Treasurer
Sam W. Jacob
City of Elyria
440-324-7669
swjacob@cityofelyria.org

MAC Representative
Kris Rogozinski
Bisnuss, Inc.
440-871-8394
krogozinski@bisnussinc.com

Northwest District

Chair
Richard Kroeger
OEPA - NWDDAGW
419-373-4101
Richard.Kroeger@epa.state.oh.us

1st Vice Chair
James Bookman
City of Lima
419-221-5170
Jim.Bookman@cityhall.lima.oh.us

2nd Vice Chair
Jason W Phillips
City of Ottawa
419-523-5020
Jphillips@ottawaohio.us

Past Chair
Thomas Boldrini
Poggemeyer Design Group
419-352-7537
Boldrini@poggemeyer.com

Secretary/Treasurer
Tom Hinson
Delaware Water Plant
740-203-1926
thinson@delawareohio.net

MAC Representative
Thomas J. Bierley
Siemens Water Technologies
419-427-1067
thomas.bierley@siemens.com

Southeast District

Chair
Andrew Fruehling
American Structurepoint, Inc.
614-901-2235
AFruehling@structurepoint.com

Vice Chair
Todd Garwick
City of Dublin
614-410-4665
TGarwick@dublin.oh.us

1st Vice Chair
John Lee II
City of Newark
740-349-6765
JLee@newarkohio.net

2nd Vice Chair
Jeff Kauffman
Columbus Dept of Public Utilities
614-645-7691

Past Chair
Dan Langton
City of Westerville Water Department
614-901-6778
daniel.langton@westerville.org

Secretary/Treasurer
Brian Macy
614-625-4163
brianmacy.pe@gmail.com

Assistant Secretary
Dan Langton
City of Westerville Water Department
614-901-6778
daniel.langton@westerville.org

MAC Representative
Ted Simmons
MSC Waterworks
513-942-2888
tsimmons@mscwaterworks.com

Southwest District

Chair
Beverly Engram
Metropolitan Sewer District of Cincinnati
513-591-7853
Beverly.Engram@cincinnati-oh.gov

Vice Chair
Jay Ponder
Neptune Meter Co.
513-348-9488
jgatsbyp@aol.com

1st Vice Chair
Lisa Dawn
City of Xenia
937-376-7629
ldawn@ci.xenia.oh.us

2nd Vice Chair
Nichole Sajdak
Hazen and Sawyer
513-348-9488
nsajdak@hazensawyer.com

Past Chair
Maureen Richard
Greater Cincinnati Water Works
513-391-7853
maureen.richard@gcww.cincinnati-oh.gov

Secretary/Treasurer
Scott Stevens
513-312-0376
scott.a.stevens@jci.com

MAC Representative
Ted Simmons
MSC Waterworks
513-942-2888
tsimmons@mscwaterworks.com
CIVIL ENGINEERING STUDIES, DESIGN AND CONSTRUCTION
Kohli & Kaliher Associates, Inc.
ENGINEERS & SURVEYORS
FOUNDED – 1946
2244 BATON ROUGE AVE., LIMA, OHIO 45805
PH: 419-227-1135 FAX: 419-227-4674
EMAIL: KK@KOHLIKALIHER.COM

CT Consultants
engineers | architects | planners
Source Investigations
System Modeling
Distribution Systems
Storage Tanks
Treatment Plants
Your Trusted Advisor – www.ctconsultants.com

Best of Business Award
in Engineering Services
(Small Business Commerce Association - SBCA)

- Engineering
- Planning, Design and Construction Services
- Elevated Storage Tanks
- GIS Asset Inventories
- Water Treatment Facilities Design
- Distribution System Analysis and Design
- Federal, State, and Local Grant Funding

RA Consultants, LLC
4250 Creek Road • Cincinnati, Ohio 45211 • 513-469-6600
www.rafconsultantsllc.com

HUNGERFORD & TERRY
CUSTOM BUILT WATER TREATMENT SYSTEMS
GROUND WATER
• MEMBRANE PRETREATMENT
• REMEDIATION, ADSORPTION
• ION EXCHANGE, FILTRATION

Represented By:
The Bergren Associates
17076 Maple Drive
Chagrin Falls, OH 44023
• Tel/Fax: 440-591-5248
Mikemurphy@Bergren.com
• Cell: 216-926-4982
6641 Sylvania Avenue, Suite 2
Sylvania, OH 43560
Jimschafer@Bergren.com
• Cell: 440-725-3211
J. Dwight Thompson Company
PO Box 505
Miamisburg, OH 45041
• Tel: (513) 817-9970 • Fax: (513) 871-2270
Dwight@jdco.com

H & T INC.
PURE WATER

© 2012 Hungerford & Terry, Inc.
MWH assists our customers in managing the complete lifecycle of water. With extensive and proven knowledge in water supply and treatment, wastewater treatment, hydropower and dams, tunneling, mining and resource efficiency management, MWH leads the way.

WATER.Way

Jeff Rains
Northeast Regional Manager
jrains@fordmeterbox.com

Water Works Brass Valves & Fittings
Water Meter Setting Equipment
Water Meter Testing Equipment
Pipeline Products

The Ford Meter Box Company, Inc.
Phone: 260-563-3171 / www.fordmeterbox.com

PITTSBURG
TANK & TOWER MAINTENANCE CO., INC.

SAVE!
We have a crew in YOUR AREA!

Hugh McGee
270-826-9000 Ext. 330
www.watertank.com

Engineers • Architects • Planners
100 E. Campus View Blvd., Suite 130
Columbus, OH 43235
Tel: 614-825-4780
www.grwinc.com

Offices in OH, IN, KY, TN & TX
DIXON ENGINEERING INC.

Engineering and Inspection Services for the Coating Industry

Since 1981, Dixon Engineering has been recognized as a leader in the storage tank and coating inspection industry. With over 1250 municipal, state, and federal clients, Dixon has experience with virtually any type of water/wastewater storage tank and coating maintenance needs - specify Dixon Engineering. Let our expertise help you preserve the value of your facilities.

Dixon offers the following services to meet your engineering and inspection needs:

**Inspection Services**
- Tank Maintenance
- Underwater Diver/ROV
- Warranty
- Abrasive Blast Cleaning
- Steel Coating Applications
- Concrete Coating Applications
- New Tank Construction
- Antenna Installation
- Cathodic Protection
- Welding/Repair

**Engineering Services**
- Tank Repainting Specifications
- Specification Review
- Cathodic Protection Specifications
- Antenna Design and Review
- Tank Structural Repair Specifications
- Tank Raising and Relocation
- Tank Demolition
- Coating System Failure Analysis
- Treatment Plant Coating Specifications

Visit our website at [http://www.dixonengineering.net](http://www.dixonengineering.net) for information about these and our other services.

---

**T I C**

**Tank Industry Consultants**

Storage Tank Engineering & Inspection Specialists

- Design • Evaluation • Rehabilitation
- • Construction Observation
- • Specialized Structural Engineering

Indianapolis, Indiana
317/271-3100

Offices Nationwide

[www.TankIndustry.com](http://www.TankIndustry.com)

---

**J. DWIGHT THOMPSON CO.**

MANUFACTURERS REPRESENTATIVE
WATER & WASTEWATER PROCESS EQUIPMENT

P.O. BOX 505 • Miamisburg, OH 45401
(513) 871-9970 • FAX (513) 871-2270

---

**Jack Doheny Supplies/Rentals**

“World’s Largest Distributor of Sewer Cleaning, and Industrial Air Handling Equipment”

Service Center
1860 Summit Commerce Park
Twinsburg, OH 44087

1-800-892-2195

[www.dohenysupplies.com](http://www.dohenysupplies.com)

---

**Thrasher Engineering**

thrashereng.com

Thrasher Engineering, Inc.
4150 Belden Village St.
Suite 101
Canton, OH 44718
Phone: 330-491-8170
Fax: 330-491-8340
canton@thrashereng.com

Civil Engineering • Survey • Construction Monitoring

---
Ohio Section Advertisers help bring you this copy of AWWA’s newsletter.

When you are in need of supplies or services, please contact the companies who support the Ohio Section Newsletter.

If it has to be right…
then it has to be

Bennett & Williams

For the best advice on Earth®
Bennett & Williams 1-800-635-3810 Westerville, Ohio

Environmental Analytical Laboratory and Industrial Hygiene Services

American Analytical Laboratories, Inc.

Environmental Testing: Drinking Water, Wastewater, Groundwater, Air and Solids
Hazardous Materials/Waste Testing - Field Sampling - Industrial Hygiene Audits

Columbus
5777 Franz Rd
Dublin, Ohio 43017
(614) 791-1136

Akron
840 S. Main St.
Akron, Ohio 44311
(330) 535-1300
e-mail: info@aal-inc.com
website www.aal-inc.com
# 2012 Longevity Awards

## Wendell LaDue Awards (20 years of membership)
- Dave Benson
- Henry Biggert
- Brent Bolin
- R. Brown
- Scott Bryant
- Raymond Byrom
- Ralph Castellucci
- Jeff Cunningham
- Robert Davis
- Christopher Day
- Philip De Groot
- Ronald Dickerson
- Andrew Eribo
- Sam Feinberg
- Timothy Griffith
- David Groth
- Chris Huebner
- John Huey
- Jennifer Jenkins
- Nick Kravitch
- Andrea Kroma
- Timothy Linn
- Scott Moegling
- Tim Newland
- Terry Palmer
- Milton Pommeranz
- George Reed
- David Reimer
- Gregory Reinhart
- Steven Retherford
- Mark Rosemark
- Frank Schaefer
- Robert Schroeder
- Robert Shoaf
- George Sorial
- Jerry Sotzing
- Julie Spangler
- Jeffrey Swertfeger
- Christopher Taylor
- John Weyandt
- Pamela Whited

## 20 Year Organization Awards
- Brunersburg Water District
- Fairfield County Utilities
- Village of North Baltimore
- Russell C. Bales
- Robert W. Becker
- Brian T. Bisson
- Julius Ciaccia Jr.
- Stephen F. Davis
- William J. Eitel
- Ronald E. Fauels
- Bill Kolens
- Richard C. Lorenz
- Deborah H. Metz
- Walter “Buzz” Pishkur
- James H. Purts
- Gary Sheely
- Jay W. Shutt
- David W. Sprague
- John C. Van Harlingen
- Dennis L. Williams
- Timothy A. Wolfe

## Life Member Awards (30 years of membership)
- Ashley R. Bird
- James H. Duty
- Joe D. Varatta
- Richard S. Wasosky

## 30 Year Organization Awards
- City of Georgetown Utilities Water
- Ross County Water Company
- J Douglas Brookhart
Tatlock Award Recipients
(Past district chairs)

Northwest - Tom Borck

Northeast - Franco Lucarelli

Southwest - Maureen Richard

Southeast - Dan Langton

Secretary Citation

Secretary Citation

Southwest - Margie Thomas

Northeast - John Fitch
Dayton 2012

Christopher Day
Andrew Eribo
Andrea Kroma

David Reimer
Greg Reinhart
Robert Shoat

Jeff Swertfeger
Pamela Whited
Russell Bales

Robert Becker
Brian Bisson
Richard Lorenz

Deborah Metz
Jay Shutt
Tim Wolfe
**Fuller Award**

**Bob Stevenson**

Bob Stevenson received the Ohio Section AWWA’s highest award for his distinguished service in the water supply field in commemoration of sound engineering skill, brilliant diplomatic talent, and constructive leadership of men and women in the association.

One of Bob’s strong traits is the ability to challenge himself and those around him with the goal of obtaining tangible, sustainable results. During a career that spans over thirty (30) years, this kind of influence would be rewarded by continual progression up the organizational ladder. Beginning as a Chemist-Bacteriologist in the water division, our recipient worked in a variety of positions including Chief Chemist, Administrator of Operations, Plant Manager, Commissioner of Treatment and Director of Public Utilities before assuming his current position as Water Resources Manager.

Bob was instrumental in developing and implementing water quality protocol. This would result in goals of achieving no more than one half of the Maximum Contaminant Level (MCL) for regulated contaminants. This practice still exists in that utility today, resulting in the utility receiving Ohio EPA’s Award of Excellence.

Bob has been a member of AWWA for over 29 years. Bob has been active in the organization as a member of the Water Utility Council, Northwest District trustee, Section Chair a past member of the National Board of Directors, and has also helped host three (3) section meetings. Having Class IV water and a Class III wastewater license allows him to make contributions as a member and chair of the Ohio EPA Board of Examiners.

The AWWA theme of Water Matters! is much more than just a catchy phrase to our recipient. He has dedicated many hours conveying the challenges facing the drinking water industry to local, state and federal officials. His advocacy began earlier in his career as a member of the Water Utility Council and has continued as a participant of the Washington Fly-in.

---

**Richard F. Melick Award**

**Keshia Kinney**

Keshia Kinney was awarded the Richard F. Melick Award for distinguishing himself by giving unselfishly to water profession training and technical education through AWWA and to Operator Training Committee of Ohio.

Keshia has a masters degree in Toxicology and before she joined the City of Dayton Water Department she performed neurological research at the University of Cincinnati and was the co-author of several research papers.

Keshia is a strong supporter of the American Water Works Association and has been a conference organizer for years. Keshia has served as SW District Chair, Research Committee Chair, a member of the Young Professionals Committee, and member of the Diversity Committee.

Keshia cheerfully and diligently helps out water operators prepare for Ohio EPA operator certification exams. She has taught the OTCO Basic Water Class, voluntarily conducted “Monster Math” tutoring sessions on Saturdays, and has given numerous, one-on-one training sessions for. She has also organized and served as a Study Session instructor for the SW district of Ohio AWWA. The effectiveness of her teaching skills are demonstrated by the 80 - 90% success rate for her students at the state exams.

Keshia has volunteered to serve as a member or leader of a number of improvement projects for her City. Keshia is known for intelligence, charm, calmness, integrity, and a great sense of humor. Her cooking skills are legendary. She and her husband use these skills on weekends when they operate a food truck at various festivals throughout Ohio.
Operator Meritorious Service Award (Treatment)

Tony Koehler

Tony Koehler was honored with the Operator Meritorious Service Award for distinguishing himself by regular compliance with public health standards, exemplary plant maintenance, and development of new ideas, training, and outstanding achievement above and beyond his normal operating responsibilities.

Tony started working in an entry level position for the water industry nearly thirty years ago. From that initial job as a part of the maintenance department, our recipient identified the best path for the future was to gain certification and move into the operations side of the industry. While advancing through the various levels of certification, increased responsibilities, a transfer to another facility, and promotions came available.

Tony obtained his Class 1, 2 and 3 licenses within four years of starting in the water field. Tony would go on to receive his Class IV license a few short years later. Over the years, Tony has stayed committed to water treatment and has volunteered many hours to help improve the water industry and has been an AWWA member since 1984. Our recipient has gone through the various district and state level offices of the Ohio Section AWWA.

Operator Meritorious Service Award (Distribution)

Tony Ferritto

Tony Ferritto was honored with the Water Distribution Operator Meritorious Service award for continued compliance with all public health standards in the water distribution system, consistent and outstanding contribution to distribution maintenance thereby prolonging the useful life of equipment, and special efforts in training of distribution personnel.

Tony has seen to it that his system has been in continuous compliance with all public health standards for finished water for the past 31 years. During his 31 year career, he has progressively worked his way up through the ranks and has performed every job in the distribution system from painting fire hydrants to reading meters to fixing leaks to overseeing the construction of pump stations and water towers. He is distribution through and through. His fellow employees say that he is a BTO, that is a big time operator. Tony knows what it is like to crawl out of bed at 2:00 AM on Christmas Eve because someone doesn’t have water. He knows how unpleasant it is to initiate a boil water advisory to restaurants, schools and hotels. But, he also knows how good it feels to supply safe water to a rural customer who up until then got their drinking water from a contaminated well or cistern.

This year’s recipient is a good husband, a great dad, a fine mentor, a die-hard Browns fan, and the Distribution Superintendent of Rural Lorain County Water Authority.
John Sadzewicz Award

John Arduini

John Arduini was awarded the John Sadzewicz Award of Excellence for his outstanding contributions to improving public health practices, encouraging the use of proven new technologies, promoting sound operational practices in meeting regulatory requirements, and encouraging safe, potable drinking water for the citizens of Ohio.

John has been very involved with the Ohio AWWA Technology Committee since its inception roughly 20 years ago. John has been an active participant in the drinking water regulatory process both as an employee of Ohio EPA and, as an AWWA volunteer. He has consistently provided a practical approach to regulations – particularly Ten-State Standards and the plan-approval process. John has promoted revision of the technical guidelines to make them truly available to Ohio public water systems of all sizes. He has delivered several public presentations with useful regulatory information for Ohio’s water professionals.

John Arduini
John Sadzewicz Award

Mike Gradoville

Mike Gradoville was awarded the John Lechner Award of Excellence that recognizes a section Manufacturers/Associates Council member who has demonstrates exemplary service to the drinking water community and promotes Ohio AWWA’s mission and goals.

Mike has been termed by his employer as a company vagabond. He can show up anywhere at any time. Even though he lives in eastern Ohio, nobody at his company's Iowa home office is surprised when they see him walk in announced. Mike is a regional manager for A.Y. McDonald Company and his boss comments the best part of him being a regional manager is he will drive anywhere or take a red eye flight to save money thus avoiding the cost of a hotel room.

Mike has been married to his wife for 41 years and their close friends refer to her as St. Ellen. They have five children and five grandchildren and Mike’s motto is “family is everything”.

John Lechner Award of Excellence

Mike Gradoville

Mike Gradoville was awarded the John Lechner Award of Excellence that recognizes a section Manufacturers/Associates Council member who has demonstrates exemplary service to the drinking water community and promotes Ohio AWWA’s mission and goals.

Mike has been very active in the Ohio AWWA section, having served on several committees including the conference local arrangement committee. He is currently the chair of the Competition Committee which has the responsibility of the tapping team, meter madness, Top Ops, and Taste Test competition.
Chair’s Award 2012

Robert Gardner

Karen Hawkins presented the Chair’s award to Section Treasurer, Robert Gardner. The plaque read that the award was presented to Bob for “Advancing the Section’s fiscal soundness through diligence, forward thinking, and process improvement.” During his tenure as Treasurer, Bob implemented a travel reimbursement policy, developed a “Treasurer’s Corner” on the Section’s website, and transitioned district reporting to an on-line format.

Bob also served during a period of economic downturn. He strongly supported a balanced budget approach to assure the fiscal soundness of the Section and provided cost saving recommendations to the Governing Board to help meet this goal.

This year should have been Bob’s final year on the board but due to no eligible applications being received prior to the deadline for the Treasurer position, he agreed to stay on for one more year. This willingness to serve the Section beyond his term is yet another example of his dedication to the organization.

Larry Valentine Membership Award

Sierra McCreary

Sierra McCreary was awarded the Larry Valentine Membership Award for recruiting four new members this past year. Sierra moved to Ohio (Columbus) about 3 years ago. She previously lived in Pennsylvania where she was actively involved in the YP group of AWWA for their section. She currently works as an engineer for Black and Vetch.

When Danella Pettenski was chair in 2009-2010, she happened to meet Sierra and found out she was active in AWWA in Pennsylvania, and hooked her up with Robin Liss who at that time was serving as our YP Chair. By the 2010 conference, Sierra was already getting involved in the Ohio Section AWWA and was quickly appointed the YP chair. Sierra has been heavily involved with OSU students and have participated in a number of activities with the students over the past year. Sierra is definitely one of the bright young stars for our Section.
Tapping Contest 2012

The Ohio Section AWWA Conference brought 8 teams to compete in the Men's and Women's Tapping Contests - 6 men's teams from Cincinnati, Columbus, Lima, Montgomery County A, Montgomery County B and Toledo, and 2 women's teams from Cincinnati and Montgomery County. The winner of each contest won the opportunity to represent the Ohio Section in Denver, Colorado, at ACE in June of 2013.

And what a spirited competition it was! After the first round of the women's contest, there was only 6.22 seconds between the teams. At the second tap, Greater Cincinnati Water Works women's team of Cranker Zebra Primus, Feeder Lela Moustafa, and Copper Vanessa Pleasant pulled away with a time 3:37.97. Montgomery County came in with a time 14.4 seconds behind. The second place Montgomery County women's team consists of Coach Walt Ernst, Cranker Laurie Prenat, Feeder Dorthy Sorrell and Copper Melissa Wilson.

In the men's competitions after the first round, Lima Water was behind Greater Cincinnati Water Works by only 2.53 seconds. With the order of competition set in the second round to be from slowest time to fastest, Water started the round with a time of 1:40.37 moving them into 3rd place. After Montgomery County B improved their time but were still well behind the leaders, Toledo's team led by Coach Jeff Erd, Cranker Ken Fuety, Feeder Brad Cline and Copper Joe Swiskowski improved their first round time by over a minute setting a time of 1:27.32 to move themselves into first place. Lima Water, last year's defending State Champ, was up next. Coach Larry Huber fired up his teams of Cranker Timothy Stidman, Feeder Ed Scarberry and Copper Andy Reaman to throw up a time of 1:23.85 to move themselves into first place. The last tap of the day was by Greater Cincinnati Water Works which had set the bar during the first round with a time of 1:27.44. But during their first tap their Cranker, Ryan Bookwalter had hurt his back. Even though they only had to improve their first round by only 3.59 seconds, Ryan and his teammates of Feeder Chad Bolser, Copper Chris McDonald and Coach Keith Wempe fell short.

Lima water is set to represent our section in June in Denver and Toledo Water is the alternate.

As usual our judges of Wayne Koop, Tom Parson and Mike Sprigs with Bruce in the Pit did an excellent job. Cliff Shrive of Stantec was a fabulous Emcee.

I would like to complement the volunteers from Dayton Water and Montgomery County Water. This is by far the best group of workers we have had in my years of working with the Tapping Committee.
Ohio Section AWWA Top Ops Competition

SCORING

The point value for each correctly answered question was two (2) points. The point value for each incorrect answered question was one (1) point.

The team with the most points at the end of each round was awarded three (3) competition points, the second place team two (2) competition points and the third place team one (1) competition point.

The teams first competed in 3 rounds with 10 questions in each round. The team with the least amount of points after 3 rounds received 3rd place.

Three teams competed in the competition.

### TEAMS

<table>
<thead>
<tr>
<th>NW</th>
<th>NE</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Round 1</strong></td>
<td>3.0</td>
<td>1.5*</td>
</tr>
<tr>
<td><strong>Round 2</strong></td>
<td>3.0</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Round 3</strong></td>
<td>3.0</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>9.0</td>
<td>5.5</td>
</tr>
</tbody>
</table>

* Round Tied. Moderator awarded 1.5 to each.

The two remaining teams competed for 1st and second place based on their raw score after 15 questions.

### TEAMS

<table>
<thead>
<tr>
<th>NW</th>
<th>NE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHAMPIONSHIP ROUND</strong></td>
<td>14.0</td>
</tr>
</tbody>
</table>

### FINAL RESULTS

**1st Place, NW (NORTHWEST)**
1) Greg Reinhart, Director of Defiance County Water and Wastewater
2) Som Pandya, Chemist, City of Lima
3) Bill Blakely, Water Utility Director, Village of Montpelier

**2nd Place, NE (NORTHEAST)**
1) Franco Noce, Water Plant Operator II, City of Cleveland
2) Bernie Bruder, Maintenance Mechanic II, Avon Lake Municipal Utilities
3) Dave Erne, Maintenance, City of Berea

**3rd Place, SW (SOUTHWEST)**
1) Dennis Hartman, Water Plant Operator II, City of Dayton
2) Jacob Dell, Water Plant Operator II, City of Dayton
3) Adam Westley, Water Plant Operator II, City of Dayton
Meter Madness 2012

This was the first year of having the District winners meet at our section Conference for Meter Madness. Representing the NE District winner was Ed Flinner of Wooster, Matt Boling of Columbus represented the SE District, and Doug Hardyman of Middletown the SW District. Paul Tucker of Lima competed in Dallas at ACE 2012 and represented the NW District.

As in most competitions, the excitement produces jitters for most competitors during the first round. Paul Tucker’s previous experience at the national competition proved beneficial. Paul set a time of 52.53 seconds for the first round. During the second round everyone settled down and all but Paul improved their times by more than 20 seconds, but they still could not reach Paul’s first time. The order of finish for the competition was Paul Tucker FIRST with 51.65, Ed Flinner SECOND with 1:00.47, Matt Boling THIRD with 1:04.19 and FOURTH Doug Hardyman with 1:07.13.

Paul Tucker earned the right to represent the Ohio Section in Denver, Colorado, in June of 2013 at ACE. Ed Flinner is first alternate if Paul cannot attend.

We would like to thank Badger Meter for sponsoring this year’s Section Competitions and next year’s National Competition. Also a special thanks to Jeff Morris of M. E. Simpson and the committee of Mark Beatty of Utility Service and Supply; Jeff Cunningham of Sensus Meter; and Ray Schwarz of Neptune Equipment.
Best-of-the-Best 2012 Water Taste Test

Congratulations to the City of Hamilton, this year’s winner of the Ohio Section Water Taste Test. They reclaimed the title from the City of Wyoming, who took best in Ohio in 2011. Along with their Best-of-Ohio in 2010, the City of Hamilton has also won “Best-of” distinctions at the Berkeley Springs International Water Tasting competitions in 2009 and 2010.

Participation has held steady over the past couple years, with sixteen municipalities participating in the 2012 Taste Test during the Section Conference in Dayton:

- Berea *
- Columbus
- Dayton
- Fairborn *
- Hamilton
- Lake County East
- Lake County West
- Lewisburg *
- Lima *
- Middletown *
- Montpelier
- Oxford
- Springfield
- Toledo
- Wyoming
- Xenia *

* first-time participant

The competition took place during the afternoon of September 19, as part of the Conference Exhibits. The winner was announced that evening, and recognized again during the Annual Business Lunch.

The water samples were tasted by judges David Koch, visiting AWWA Vice President; Larry Valentine, past Section Director; and Gina Hayes, of the Ohio EPA. Cliff Shrive, chair of the Public Affairs Committee was the coordinator for the Taste Test and assisted the judges. Shannon Zell, provided additional support from the City of Dayton.

By securing the title of “2012 Best-of-the-Best” for the Ohio Section, the City of Hamilton will have the opportunity to represent the Ohio Section during the ACE Water Taste Test in Denver, Colorado this summer in June.

The Public Affairs Committee encourages this past year’s utilities to participate again in Toledo, during the 2013 Section Conference. We’d also like to see the other utilities which participated previously come back, plus have at least five new participants. We just might have over twenty next year!!

Congratulations to the City of Hamilton, and good luck in Denver this summer!
Call for Papers – 2013 Annual Conference - Toledo, Ohio

Ohio Section American Water Works Association Annual Conference will be held September 17-20, 2013 in Toledo, Ohio. ABSTRACT DEADLINE is March 1, 2013. Please meet this deadline if you wish to present at Ohio’s annual conference because we typically receive more abstracts than we have spaces available.

Preliminary session topics include plant operations, water quality, distribution, research, management, human resources, customer service, meter reading, backflow prevention, source water protection, facilities maintenance, public relations, regulations and other topics of interest to the water industry.

Technical sessions consist of an oral presentation of 25 minutes in length followed by a 5 minute discussion period. Presenters attending the conference must pay their own travel expenses and the appropriate registration fee.

Please include the following items with your initial submittal:

Presentation Title, Primary Author, Co-Authors, Company, Address, City, State, Zip, Phone, Fax, E-mail and Applicable Session Topic(s).

ABSTRACTS MUST BE SUBMITTED NO LATER THAN MARCH 1, 2013.

Submit via mail, FAX, or email to:

Stacia Eckenwiler
City of Columbus Department of Public Utilities
Division of Water
910 Dublin Road
Columbus, Ohio 43215

614.769.0637 Cell
614.645.0268 Office
614.645.6165 Fax
skeckenwiler@columbus.gov

Governing Board Candidates Sought

Are you looking for a way to expand your volunteer efforts with the Ohio Section? Do you like to take on new challenges? Are you interested in growing your industry network? Do you have new ideas to grow the membership or expand services?

If you answered yes to any of these questions, you might be interested in serving on the Ohio Section Governing Board. The Nomination Committee is seeking qualified candidates for consideration for the 2013-2014 board including: Director, Vice Chair, Southwest District Trustee, and At-Large Trustee. These positions will be elected during the Annual Conference Business Luncheon in Toledo in September 2013.

All Governing Board members help to guide our organization by participation in board meetings; acting as liaisons or members of Section committees; and participation in policy, program and budget development and implementation. The successful candidates can expect to undertake interesting projects, develop new skills, and build friendships with water industry professionals from across the state of Ohio and beyond.

With the exception of the Vice Chair, all positions are for a three year term and open to active members of the Ohio Section. Of course, the Southwest Trustee position must be filled by a candidate from the respective district. The Vice Chair position is a one year term with automatic succession to the Chair position. Applicants for Vice Chair must have served at least two years on the Governing Board.

Because the work of the Governing Board does take time, the individual selected by the nomination committee must have full support of his/her employer. In addition to the time requirement, we also ask the employer to be prepared to absorb a significant portion of travel and lodging expenses related to Governing Board business.

For further information, please contact Kurt Smith, Nomination Committee Chair, at 419-473-112. Interested parties may submit a letter of consideration to him at: ARCADIS, 1 Seagate #700, Toledo, Ohio 43604 or via e-mail at kurt.smith@arcadis-us.com.
50 YEARS OF AWWA MEMBERSHIP
Doug Brookhart Awarded Golden Water Drop Award

In July 1961, I accepted the position of Superintendent of Water & Sewage for the Village of Johnstown, Ohio. I was 20 years old, held a Class “C” water certification (Class I today) and I was a real “green horn” knowing little about running a water system. On the other hand, the Village only wanted to pay $300 per month for my services so the deal was a wash. I didn’t know much, the Village didn’t want to pay much. What a great experience for a young person entering the field of water treatment. It was the right move and I would do it all again!

In August 1962, a gentleman drove up to the water treatment plant and came into the building with a leather brief case like we all used to carry. “Young man,” he said, “you need to join the AWWA.” I paid $15.00 for my membership. The gentleman signing me up was not Larry Valentine as I joked at the conference this year, but instead was Myron W. Tatlock, the Section Secretary/Treasurer (1961-1963). He was canvassing the state and signing up new members. Tatlock is best known in the association for the award given in his name to District Chairs.

I have thoroughly enjoyed every year of my 50 years in AWWA. The workshops, the Annual Section Conferences, the National Conferences (ACE) are super, but most of all the relationships made with hundreds of wonderful water works people is the best. Never once in my half century in the business was I ever turned down by a fellow member when I would call asking about a water works problem I was facing. The Ohio Section AWWA is really all about the great people who are members.

Thanks for the memories......Doug Brookhart
WE KNOW PIPE
INSIDE & OUT.

Partner with Lee Supply and receive quality, engineered products backed by our experienced sales staff, trained technicians and craftsmen. We don’t just sell pipe - we know pipe INSIDE & OUT!

1.800.353.3747
www.leesupply.com

Ohio Section Advertisers help bring you this copy of AWWA’s newsletter.
When you are in need of supplies or services, please contact the companies who support the Ohio Section Newsletter.

Operator Training Committee of Ohio Inc.
3972 Indianola Avenue
Columbus Ohio 43214
614.268.6826 614.268.3244 Fax
www.ohiowater.org

The primary focus of the Operator Training Committee of Ohio, Inc. is to design, develop, and deliver various types of training programs for individuals in water and wastewater utility occupation, in business, industry, and government.

Water, Wastewater, Water Distribution Systems, Collection Systems, Laboratory, Cross Connection Control, GIS, Management, Computer Literacy, Customer Service, and Continuing Education for Contact Hours

Approved by Department of Labor for WIA, and TAA funds for re-careering funding

Providing Services For:
GPS Data Capture, Cross Connection Control, and Conference Management.

Whether it is water or wastewater treatment, water distribution or wastewater collection systems, the ultimate goal is safe drinking water for everyone.

Curtis L. Truss Jr.
Executive Director
curtis@ohiowater.org
937.215.6554 mobile

Joseph J. DePetro
5583 Ridge Avenue
Cincinnati, Ohio 45213
513-531-7103
Fax 513-531-0445
Email: jdep@cinci.rr.com

www.chesleyassociates.com
Representing Leading Water and Wastewater Treatment Equipment Manufacturers
When you are in need of supplies or services, please contact the companies who support the Ohio Section Newsletter.
Ohio Section Advertisers help bring you this copy of AWWA's newsletter.

When you are in need of supplies or services, please contact the companies who support the Ohio Section Newsletter.

Water Supply Services
Water Well Drilling/Cleaning
Cable Tool Drilling
Pump Sales/Service
Hydrogeologic Consulting
Contract Drilling

Environmental Services
Environmental Drilling
Ground Water Treatment Systems
Underground Tank Removal
Brownfield Site Investigations

Quality Service Since 1891
Locations
Meadville, PA 800-836-5040
Houston, PA 866-336-0000
Canton, OH 800-836-5040
Waverly, NY 877-602-3120

Visit us at www.moody-s.com
Stark State College: conveniently online
Ohio EPA approved contact hours online

<table>
<thead>
<tr>
<th>Water Treatment Operations One-year Program</th>
<th>Wastewater Treatment Operations One-year Program</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td><strong>First Semester</strong></td>
</tr>
<tr>
<td>Water/Wastewater Math and Chemistry*</td>
<td>Water/Wastewater Math and Chemistry*</td>
</tr>
<tr>
<td>2 Credits</td>
<td>2 Credits</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td><strong>Second Semester</strong></td>
</tr>
<tr>
<td>Permits and Administration</td>
<td>Permits and Administration</td>
</tr>
<tr>
<td>1 Credit</td>
<td>1 Credit</td>
</tr>
<tr>
<td>Water Treatment I</td>
<td>Water Treatment I</td>
</tr>
<tr>
<td>4 Credits</td>
<td>4 Credits</td>
</tr>
<tr>
<td>Pumps, Maintenance and Safety</td>
<td>Pumps, Maintenance and Safety</td>
</tr>
<tr>
<td>3 Credits</td>
<td>3 Credits</td>
</tr>
<tr>
<td>Technical Elective</td>
<td>Technical Elective</td>
</tr>
<tr>
<td>2 Credits</td>
<td>2 Credits</td>
</tr>
<tr>
<td><strong>Third Semester</strong></td>
<td><strong>Third Semester</strong></td>
</tr>
<tr>
<td>Water Treatment II</td>
<td>Water Treatment II</td>
</tr>
<tr>
<td>4 Credits</td>
<td>4 Credits</td>
</tr>
<tr>
<td>Water Analysis</td>
<td>Water Analysis</td>
</tr>
<tr>
<td>3 Credits</td>
<td>3 Credits</td>
</tr>
<tr>
<td>Water Distribution Systems</td>
<td>Water Distribution Systems</td>
</tr>
<tr>
<td>4 Credits</td>
<td>4 Credits</td>
</tr>
<tr>
<td>Water Certification Exam Prep*</td>
<td>Water Certification Exam Prep*</td>
</tr>
<tr>
<td>2 Credits</td>
<td>2 Credits</td>
</tr>
<tr>
<td>Technical Elective</td>
<td>Technical Elective</td>
</tr>
<tr>
<td>2 Credits</td>
<td>2 Credits</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>TOTAL</strong></td>
</tr>
<tr>
<td>27 Credits</td>
<td>27 Credits</td>
</tr>
</tbody>
</table>

* Practiced final examinations may be required at Stark State College or another testing facility

When you are in need of supplies or services, please contact the companies who support the Ohio Section Newsletter.
Baker and Associates, Inc.
Water and Waste Treatment Equipment

1284 SOM Center Rd., #215
Cleveland, Ohio 44124
Phone: 440-461-4577, Fax: 440-461-0429

Ted Baker
440-829-8405
hlbaker@aol.com

Doug Borkosky
614-361-3673
doug@hlbaker.com

Water & Wastewater Treatment Equipment Sales

www.bergren.com

Serving Northern and Central Ohio

Jim Schaffer
Phone: 419-843-2170
Fax: 419-843-3370
jimschaffer@bergren.com

Mike Murphy
Phone: 440-591-5248
Fax: 440-591-5248
mikemurphy@bergren.com

Hatch Mott MacDonald
CONSULTING ENGINEERS
infrastructure • environment • transportation • tunnels

18013 Cleveland Parkway Drive, Suite 200
Cleveland, OH 44135-3233
Phone: 216.535.3640
Fax: 216.265.2816

Offices throughout North America
www.hatchmott.com

800.832.3272

Engineering and Consulting Solutions

Office Nationwide
Cleveland, OH (216.522.1917)
Cincinnati, OH (513.984.7500)
Columbus, OH (614.839.5770)

- Water Treatment/Storage/Distribution
- Pump Stations and Pipelines
- Wastewater Collection/Treatment/Disposal
- Asset Management
- Membrane Treatment
- Utility Management
- Energy Audits/Sustainability

Rehabilitation Design & Inspection
Certifications: NACE, API
Tank Management Programs
Robotic Inspection & Cleaning
Cathodic Protection Systems
Chemical Tank Certification
Repairs and Upgrades

For additional information contact:
Joe Rikk, Jr. P.E. (614) 794-9424
jrikk@gfnet.com
Marlay Price (614) 284-7613
marlaybprice@gmail.com
One Company
For All Your Filter Media.

Phone: 800-344-5770
Fax: 888-204-9656

www.CEifiltration.com

Compliant with AWWA and Food Chemical Codex standards.

MID Atlantic Storage Systems, Inc.

More Tank Choices ~ Turn-key tank Construction
Aquastore® TecStore® Weldstore™
Ground Storage or Composite Elevated Tanks
1551 Robinson Road — Washington CH, OH 43160
740.335.2019 www.midatlanticstorage.com
Jim Wary — Regional Sales Manager

Jones & Henry Engineers, Ltd.
Consulting Engineers Since 1926

3103 Executive Parkway
Suite 300
Toledo, Ohio 43606
419.473.9611
419.473.8924 FAX
Toledoinfo@jheng.com

Fluid thinking™.
www.jheng.com

Fox & Dole
TECHNICAL SALES

Dennis J. Maurer
President
www.FoxandDole.com

Flow
Temperature
Pressure
Level
Water Quality
Specialty Measurement
Data Acquisition
Valves

555 Golden Oak Parkway
Cleveland, OH 44145
Phone: 440-735-0100
Fax: 440-735-0123
Cell: 216-409-7733
Email: Sales@FoxandDole.com

Hazen and Sawyer
Environmental Engineers & Scientists
www.hazenandsawyer.com

Engineering
Better Solutions to Water Challenges

Water
Wastewater
Stormwater
Biosolids/Residuals

PRATT
Henry Pratt Company
Valves and accessories for all your water project needs

401 S. Highland Avenue
Aurora, IL 60506
Toll Free: 877-436-7977
Fax: 630-944-4121
www.henrypratt.com
ISO 9001: 2000 Certified

• AWWA Butterfly Valves
• AWWA Ball Valves
• AWWA Plug Valves
• AWWA Check Valves
• Cone & Sleeve Valves
• Nuclear Valves
• Control Systems & Actuation
Delaware (Ohio) Water Treatment Plant Has Energy Efficiency On Tap

Andy McCabe CEM, AEP Ohio Manager, Business Programs EE/DR

Del-Co Water Company pumps 33 million gallons of water per day through parts of suburban and exurban Columbus that are among the fastest growing in the nation over the last two decades. Del-Co’s four water treatment plants and 18 booster stations also serve rural customers across four Ohio counties – Delaware, Knox, Marion and Morrow.

According to Electrical Maintenance Supervisor Rick Miller, Del-Co receives 75 electric bills from four different electric providers. Anything that helps Del-Co save money on its energy bills, like implementing energy efficiency, grabs Miller’s attention and the attention of Del-Co general manager P.K. Tudor.

“There is a combination of things at work here. Certainly, money is one of them. Incentives help offset the capital cost of these kinds of (energy efficiency) projects. And over the long haul, we are taking steps to keep our energy costs down which keeps water rates down for our customers,” said Tudor. “We’re also keeping an eye on our carbon footprint and doing our best to be good corporate citizens too.”

According to Tudor, Miller is Del-Co’s ‘energy czar’ and is leading the effort.

“Rick is stepping up when it comes to energy efficiency. We’re sending him to every seminar and workshop on the subject we can find,” said Tudor. “We are also in the process of creating an energy efficiency team with representatives from every department in Del-Co. We’ll have six or seven people on a team that drives our corporate energy efficiency strategy now and in the future.”

REPLACING THE INEFFICIENT

An ancient piece of equipment called a Roto Verter and some out-of-date T12 lighting were the first energy efficiency projects taken on by Del-Co. According to Miller, the Roto Verter technology was first used some 75 years ago and is grossly inefficient.

“In our application, the Roto Verter runs the pump on a single phase at maximum speed all the time,” he added. “It generated so much heat that we had to run the air-conditioning 24/7 to keep the booster station cool. We were using a lot of electricity in just one place.”

After Miller did his homework, Del-Co purchased two variable speed drives (VSDs) from Cutler-Hammer to run the 20 hp motors at the booster station. The Del-Co staff was able to perform the installation over the course of a few days but there were challenges to overcome along the way.

“We had to design a circuit using motor starters to run one pump at a time while we installed the VSDs. There are two pumps in the station, one has to be working at all times,” said Miller. “Once we installed the first VSD and verified that it was working, we could install the second.”

Del-Co installed 20 T8 lamps with six bulbs each to replace inefficient metal halide lamps. By doing so, Del-Co reduced the electricity usage in this facility by 50 percent.

According to Tudor, Miller is Del-Co’s ‘energy czar’ and is leading the effort.

“Rick is stepping up when it comes to energy efficiency. We’re sending him to every seminar and workshop on the subject we can find,” said Tudor. “We are also in the process of creating an energy efficiency team with representatives from every department in Del-Co. We’ll have six or seven people on a team that drives our corporate energy efficiency strategy now and in the future.”

The T8 lamps in this maintenance facility are on occupancy sensors that turn on the lights in sections. At one time, metal halide lamps were on 24 hours a day.
Installing the VSDs accomplished three goals: First, it reduced the heat once generated by the Roto Verter, allowing Del-Co to remove the air-conditioning unit in the booster station. Second, the soft start of the VSD reduces wear and tear on the pumps. Finally, the VSDs enabled Del-Co to run the pumps at 53 hertz, an additional energy savings that adds to the life of the pumps.

Del-Co estimates – and its energy bills support – that it has saved 25 to 30 percent in electricity in this one booster station alone.

The lighting retrofits saw Del-Co replace 18 400-watt metal halide lamps with 20 T8 fixtures that had six 32-watt bulbs in each fixture, cutting their energy consumption in half. Occupancy sensors were also installed on these lights that were once kept on at all times.

“These new fixtures are instant-on, unlike the old ones which took forever to warm up. That’s why we kept the lights on all the time,” said Miller. “Now they come on in sections when someone walks into the storage facility.”

FUTURE PLANS

Tudor and Miller see a bright energy efficiency future for Del-Co – which has led them to create their energy efficiency team and a plan that looks at all of the equipment, lighting, etc. in every Del-Co facility.

“Not every project is going to be as cost-effective as a lighting retrofit. It’s going to take planning to do larger projects that have a larger capital cost,” said Miller. “With a plan in place, a team to execute it and the availability of incentives from AEP Ohio and others, Del-Co can be as energy efficient as we can be.”

Del-Co is planning to sub-meter some of its buildings and even some specific motors so it can evaluate high usage areas and determine where improvements can be made.

“Much of our annual budget is energy related,” concluded Tudor, “so we have to look at all areas where we can save money by conserving energy.”

ABOUT THE AEP OHIO BUSINESS INCENTIVES PROGRAM:

AEP Ohio offers several energy efficiency programs to business (non-residential) customers for the installation of energy efficiency products. These programs help reduce the payback period of an investment and create a long-term reduction in energy consumption and costs. For more information on the AEP Ohio Business Incentives Program, please visit www.AEPOhio.com/Incentives or call 877-607-0739. You can also contact the program via email at aepohioincentives@dnvkema.com.
2012 Best Paper/Presentation Awards

BEST PRESENTATION AT AN ANNUAL CONFERENCE
2011 Annual Conference
Title: Increasing Trends in Dissolved Phosphorus in Lake Erie Tributaries: The Role of Agriculture
Author: R. Peter Richards, Heidelberg University.

Pete has a BS from Oberlin College in German and Geology, and a PhD from the University of Chicago in Paleontology. He taught paleontology at Oberlin and then joined the staff of the National Center for Water Quality Research at Heidelberg University in 1978. He is currently a Senior Research Scientist at the Center.

BEST PRESENTATION

Water Lab Workshop, May 2012
Title: Research on Emerging & Potential Water Contaminants: Water Analysis and Treatment
Author: Dr. Kenya M. Crosson, University of Dayton.

Dr. Crosson is an Assistant Professor in the Department of Civil and Environmental Engineering at the University of Dayton. She received her PhD and MS in Environmental Engineering from Penn State University, and a BS in Agricultural and Biosystems Engineering from North Carolina A&T State University. Prior to joining the University of Dayton, she was a research associate in the Energy, Environment, and Economic Analysis Group (Energy Science and Technology Department) at the Department of Energy's Brookhaven National Laboratory.

BEST PAPER

Summer 2012 Newsletter
Title: City of Canton’s 5- year Construction Program
Author: Carl Seifried, Burgess & Niple.

Carl has earned a MSCE from University of Akron and BSCE from Cleveland State University. He is a registered professional engineer in Ohio. He has over 40 years experience in the design of a number of large municipal and industrial treatment facilities. He joined Burgess & Niple in 2007 as a Senior Project Manager, responsible for managing the design and construction of over $50 million dollars of water and wastewater improvement projects in Northeast Ohio.

BEST PAPER BENEFITTING SMALL SYSTEMS

Spring 2012 Newsletter
Title: Mixing Up the Twins, Active Mixing and Other Water Quality Considerations for Storage Tanks
Author: Thomas Waters, O’Brien & Gere.

Thomas has a MS in Environmental Engineering from Lehigh University and currently works as a Project Engineer with O’Brien & Gere in Cincinnati and Louisville (KY). He is responsible for master planning, water/wastewater hydraulic / hydrologic modeling, and water resources studies.
BEST PRESENTATION BY AN OPERATOR

2012 Water Workshop
Title: Pilot Evaluation of GAC Filter Caps for Control of DBPs and Emerging Trace Organic Contaminants at a Ground Water Facility
Authors: Katie Jamriska, Kevin Reynolds, Bruce Whittenberry, Debbie Metz, Greater Cincinnati Water Works.
Katie has a BS in Chemistry from St. Norbert College, MS in Chemistry from Ball State University, and an MBA from the University of Cincinnati. She has been with the GCWW for 7 years and has a Class III Water Supply License. Kevin has a BS in Biology and an MS in Environmental Science, both from the University of Cincinnati. He has been employed by GCWW for almost 30 years as a chemist, and holds a Class III Water Supply License. Bruce has a BS in Geology from Olivet Nazarene University and a MS in Hydrogeology from Wright State University. He has been with the GCWW for 14 years, holds a Professional Geologist license through the State of Indiana, and has a Class IV Water Supply License.

Debbie has a BS in Biology/Natural Science from Xavier, a MS in Environmental Science from the University of Cincinnati, an MBA from Xavier University, and a PhD in Environmental Science from the University of Cincinnati. She has been with the GCWW for 37 years, and holds a Class IV Water Supply License.

BEST PRESENTATION AT A DISTRICT MEETING

Southeast District OAWWA Meeting, Spring 2012
Title: Dam Safety Presentation
Author: Rodney Tornes, Ohio DNR.
Rodney is a Program Manager in the ODNR Division of Soil and Water Resources’ Dam Safety Engineering Program where he is in charge of the Permits, Enforcement, and Repairs Programs. Rodney has a BS in Agricultural Engineering from The Ohio State University and is a registered Professional Engineer in Ohio.

Student Paper Competition
The Ohio Section YPs continued to be very active at the State Conference in Dayton. For the twelve year, we have sponsored a Student Paper Competition, for which we received thirteen submissions from the University of Cincinnati, The Ohio State University, University of Akron, and the University of Toledo. This year three top winners were chosen based on abstracts submitted, were invited to present their papers at the conference, and were given $300, $200, and $100 awards, respectively. Nine students competed in our Student Poster Competition that awarded $100 to the top winner.

PAPER COMPETITION WINNERS:

First Place - Mr. Andrew Skeriotsis:
“Employing Fluorescence Spectroscopy and Ultra-violet Absorbance in Water Treatment Plant Pocesses to Manage Disinfection By-products in a Distribution System.” Andrew was our Fresh Ideas Winner. Fresh Ideas is a program that the National Young Professionals Committee and the National MAC Committee started. Each section selects a student paper winner to send to the ACE to compete in a student paper poster. To help fund the student’s travel, the YP Committee will donate $700.
continued from page 45 - paper competition

to the Fresh Ideas Winner. An additional $130 was raised as part of the fundraiser held at the YP exhibit booth. Mr. Andrew Skeriotis is a research and teaching assistant at the University of Akron, Department of Civil Engineering. He is currently studying for his Ph.D. in environmental engineering and has earned his B.S. and M.S. in civil engineering, also from the University of Akron. Mr. Skeriotis’ research is emphasized on working with drinking water utilities to improve treatment processes using newer technologies such as fluorescence spectroscopy utilizing numerous statistical techniques and models. He hopes to be a professor upon completion of his Ph.D.

Second Place - Ms. Xuexiang He:

“Influence of Natural Water Quality on the Destruction of Cyanotoxin Cylindrospermopsin by UV 254 nm-based Photochemical Processes.” Xuexiang received her B.S. from Nanjing University in China. She is currently working on her PhD at the University of Cincinnati with Professor Dionysios D. Dionysiou in the Environmental Engineering and Science program. She has been evaluating the advanced oxidation technology for the removal of emerging organic pollutants, such as cyanobacterial toxins and antibiotics, from water sources, trying to search for sustainable methods that can provide high quality drinking water. Xuexiang is a member of AWWA, ACS, IUVA and WEF

Third Place - Mr. Changseok Han:

“Development of Multi-walled Carbon Nanotubes-based Biosensor for Detection of Cyanobacterial Toxin, Microcystin-LR in Sources of Drinking Water.” Changseok Han is a Ph.D. student in the Environmental Engineering and Science program at the University of Cincinnati. He has a B.S. degree in Civil and Environmental Engineering and an M.S. degree in Environmental Engineering from the Yeungnam University in South Korea. His research interests are in the fields of water treatment using advanced oxidation processes and nanotechnologies based on environmental chemistry and catalysis. In addition, he is interested in development of water monitoring sensors based on nanotechnology. Currently he is developing controllable size monodisperse nanomaterials. He is the author or co-author of six peer-reviewed journal articles in journals including Chemical Communications, Applied Catalysis B: Environmental and Journal of Materials Chemistry.

POSTER COMPETITION WINNER:

Mr. Robert Phillips:

“Economic and Environmental Evaluation of Reducing Potable Water Use by Rainwater Harvesting”. Robert Phillips is currently an undergraduate student at The University of Toledo, where he works with the sustainability engineering research lab, supervised by Dr. Defne Apul. Mr. Phillips has also pursued his education internationally, partaking in a study abroad program, attending the University of Newcastle, New South Wales, Australia. His research interests have focused on sustainability and conservation initiatives as they correspond to energy and societal infrastructure demands. His research thus far has focused on the evaluation and effectiveness of rainwater harvesting systems corresponding to various building types and characteristics. Evaluating energy, financial and global warming implications, analyses have primarily came from a model developed at the University of Toledo, Economic and Environmental Analysis of Sanitation Technologies (EEAST) model, which quantifies the life cycle of rainwater harvesting systems when implemented in new construction phasing. Through this work, Robert has participated in the Undergraduate Summer Research and Creative Activity Program (USRCAP) of the University of Toledo as well as the Research to Practice Program of US Green Building Council (R2P2 USGBC). Robert works in both professional and academic settings. While pursuing his research and educational goals, he also works for Hull & Associates, Inc., a civil engineering and science consulting firm with chief market sectors in alternative energy and waste management. Upon completion of his B.S. in civil engineering Robert aspires to continue his education through a M.S. program in environmental engineering at The University of Toledo.

Thank you to Dr. Isabel Escobar from the University of Toledo for organizing the competition again this year, and to our judges for both the student poster and paper competitions.
Ohio Section-American Water Works Association
Advanced Degree/Continuing Education

SCHOLARSHIP INFORMATION

Purpose: To encourage water industry related education through scholarship. This scholarship program has been created in an effort to give back to the individuals who support the water industry and the Ohio Section of the American Water Works Association.

Awards: The Scholarship Committee will award scholarships for the fall 2013 academic season.

Dates: Application submission deadline - February 8, 2013.
Award notification anticipated for May 2013.

Eligibility: Any student residing in Ohio attending an accredited institution of higher learning during the scholarship year, in a water industry related program (i.e. science, engineering, management, computer information systems, or other water related field).

Misc.: Current Committee members or their immediate family are not eligible to receive a scholarship. State Governing Board members who themselves or immediate family members applied for a scholarship cannot vote for scholarship award winners.

No student shall receive more than two scholarships from this program within a ten-year period.

If no students meet the criteria, no awards shall be given during that calendar year.

The scholarship will be paid directly to the awardees school for tuition costs. A current invoice must be provided for this payment to be processed.

Applications can be obtained from: (if not attached)

Richard Griffing
Ohio AWWA Secretary
City of Warren
580 Laird Avenue
Warren, OH 44483
330-841-2710
Ohio Section-American Water Works Association
Advanced Degree/Continuing Education

SCHOLARSHIP APPLICATION

Personal History:

Name ________________________________

Home address __________________________ City _______ State _______ Zip _______

Phone (home) __________________________ Phone (school/cell) ______________________

☐ YES, I declare that all information supplied in this application form is true and accurate.

Signature of applicant: __________________________ Date: ____________________________

Note: The selection team for this scholarship is not made aware of the personal information of prospective applicants. With this in mind, please do not include your name on any parts of the application other than this page and your transcript.

Are you currently a member of AWWA, or are you covered under a utility or technical membership?

Your AWWA member No.: __________________________

Is one of your parents a current member of AWWA? _______ If yes, their membership No.: __________________________

Academic status during upcoming scholarship year (check one):
☐ Freshman  ☐ Sophomore  ☐ Junior  ☐ Senior  ☐ Graduate Student  ☐ Adult Continuing Ed.

Estimated cost of scholarship year tuition: $ __________________________

Estimated amount of scholarship year tuition cost covered by your employer, other scholarships, and/or grants: $ __________

School name & admissions phone number: __________________________

Educational experience:
List high school, colleges, universities, or technical schools beginning with the most recent.

<table>
<thead>
<tr>
<th>School Name</th>
<th>Major Field</th>
<th>Dates Attended</th>
<th>Degree Received</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Work experience:
List work experience, starting with the most current.

<table>
<thead>
<tr>
<th>Job Title</th>
<th>Employer</th>
<th>Dates Employed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Professional Organizations:
List other professional/student organizations, societies, etc., in which you hold membership:

List extracurricular activities, social work, volunteer work, etc., in which you participate:

Personal Statement:
On a separate paper, provide a brief description of your career goals upon graduation or course completion. Include how you see your field of study benefiting the advancement of the drinking water industry. Also include ways in which you may use your experience and education in support of the American Water Works Association. Please do not include any personal identifiers in this document.

☐ YES, I've attach a verified copy of my scholastic record (transcript) to this application.

Completed application and associated documentation must be received by February 10, 2012.

Send application to:
Richard Griffing
Ohio AWWA Secretary
City of Warren
580 Laird Avenue
Warren, OH 44483

Below is for Scholarship Review Board only. Do not complete.

Date Application Received: _______________________

To be completed by Section Secretary.

| *Verify the applicant submitted all requested application information. Circle one. | Yes | No |
| *Verify the applicant will be attending an accredited institution of higher learning during the scholarship year, in a water industry related program (science, engineering, management, computer information systems or other water related field). Circle one. | Yes | No |
# 2013 AWWA Committee Chairs

## Awards and Recognition
Steve Heimlich  
Avon Lake Utilities  
440-933-3229  
SHeimlichalmu@gmail.com

## By-Laws Review and Update
Melinda Raimann  
Cleveland Division of Water  
216-664-2444  
melinda_raimann@clevelandwater.com

## Conference Management (Co-Chairs)
Andrea Kroma  
Toledo Engineering Services  
419-936-2163  
andrea.kroma@toledo.oh.gov

## MAC Exhibits 2012
Dave Rogozinski  
BissNuss, Inc.  
440-871-8394  
drogozinski@bissnussinc.com

## Communications
Keshia Johnson  
Cleveland Division of Water  
216-664-2444  
keshia_johnson@clevelandwater.com

## Customer Service
Caryn Dachner  
City of Westerville, Utility Billing Supervisor  
614-901-6436  
caryn.dachner@westerville.org

## Distribution
Jennifer Webster  
Malcolm Pirnie, Inc  
513-677-6859  
jwebster@pirnie.com

## Diversity
Susan Wilson  
City of Columbus  
614-645-1874  
slwilson@columbus.gov

## Education
Steve Heimlich  
Avon Lake Utilities  
440-933-3229  
SHeimlichalmu@gmail.com

## Finance and Audit
Joe Flahiff  
Fremont Water Plant  
419-332-2955  
jmflahiff@fremontohio.org

## Fuller Award
Paul Tomes  
RA Consultants, LLC  
513-469-6000  
promes@racconsultantsllc.com

## Information Technology
George Sendrey  
Michael Benza & Associates  
440-326-0268  
georges@mbenzaengr.com

## Kenneth J. Miller
Debbie Metz  
Greater Cincinnati Water Works  
513-624-5658  
debbie.metz@gcww.cincinnati.oh.gov

## Leadership
Bob Davis  
Warren Water Department  
330-841-2710  
bddavis@warren.org

## Membership
Shawn Wagner  
City of Newark  
740-221-5276  
wagner@newarkohio.net

## Newsletter
Larry Valentine  
Water Consultant  
330-328-2137  
lvalentine@neo.rr.com

## Nominating
Kurt Smith  
ARCADIS  
419-213-1644  
kurt.smith@arcadis-us.com

## Operator Meritorious Service (Treatment)
Steve Heimlich  
Avon Lake Utilities  
440-933-3229  
SHeimlichalmu@gmail.com

## Operator Meritorious Service (Distribution)
Dave Wickard  
Northwest Water-Sewer District  
419-354-9080  
dwickard@nwwsd.org

## Public Affairs
Cliff Shrive  
Stantec Consulting Services  
513-842-8200  
cliff.shrive@stantec.com

## Research (Co-chairs)
Keshia Kinney  
City of Dayton  
937-333-6054  
keshia.kinney@cityofdayton.org

## Richard F. Melick Award
Karen Hawkins  
City of Fairborn  
937-754-3097  
karen.hawkins@ci.fairborn.oh.us

## Sadzewicz Award
Scott Moegling  
Ohio EPA NE District  
330-425-9171  
scott.moegling@epa.state.oh.us

## Safety
Michele Humphrey  
City of Columbus Div of Water  
614-645-7691  
mrhumphrey@columbus.gov

## Scholarship
Lorrie Brown  
City of Dayton  
937-333-6133  
lorrie.brown@daytonohio.gov

## Section History (Co-chairs)
Doug Brookhauer  
Jones & Henry Engineers, Ltd.  
419-473-9611  
dbrookhauer@jhen.com

## Strategic Plan
Melinda Raimann  
Cleveland Division of Water  
216-664-2444  
6538  
melinda_raimann@clevelandwater.com

## Tapping Contest
Mike Gradoville  
A Y McDonald Mfg Co  
513-252-8407  
mgradoville@aymcdonald.com

## Technical Committee
Stacia Eckert  
Columbus Dept of Public Utilities  
614-769-0637  
skeckert@columbus.gov

## Technology
Matt Steele  
City of Columbus Div of Water  
614-645-7691  
MASteele@columbus.gov

## Top-Ops
Kevin Gleich  
Columbus Division of Water  
614-645-6559  
kgleich@columbus.gov

## Water for People
Todd Radel  
Greater Cincinnati Water Works  
513-591-7749  
todd.radel@gcww.cincinnati-oh.gov

## Water Taste Contest
Mike Gradoville  
A Y. McDonald Mfg Co  
513-252-8407  
mgradoville@aymcdonald.com

## Young Professionals
Sierra McCready  
Black & Veatch Corporation  
614-473-0921  
McCrearySB@bv.com
Council Chairs

Manufacturers/Associates
Council Chair
Jay Cermenaro
American Ductile Iron Pipe Division
412-851-1230
jcermenaro@american-use.com

Water Utility Council
Richard Lorenz
City of Westerville
614-901-6772
richard.lorenz@westerville.org

Participating Organizations

Ohio Rural Water
Kevin Strang
Executive Director
55 Whites Rd.
Zanesville, OH 43701
800-589-7985
ksorwa@aol.com

OTCO
Curtis L. Truss Jr.
3972 Indianola Ave.
Columbus, OH 43214
614-268-6826
614-268-3244 fax
curtis@ohiowater.org

OWEA
1890 Northwest Blvd, Suite 210
Columbus, Ohio 43212
614-488-5800
614-488-5801 fax

Ohio WARN
Randy Gilbert
Montgomery County
937-781-2625
GilbertR@mcohio.org
(unti Dec 31, 2012)

Where water leaders gather.

ACE13 registration opens in January of 2013.
Register by March 29, 2013 for the lowest registration fees.

Denver, Colorado | June 9–13, 2013 | www.awwa.org/ace13/leaders
American Water Works Association

2012 North American Individual Application

Section 1: Member Information

☐ MR.  ☐ MS.  ☐ MRS.  ☐ DR.

NAME ____________________________________________

TITLE ____________________________________________

COMPANY NAME __________________________________

IS YOUR COMPANY A CURRENT MEMBER OF AWWA?  ☐ YES  ☐ NO

MEMBER NUMBER (IF KNOWN) __________________________

ADDRESS  ☐ BUSINESS  ☐ HOME

PO BOX OR MAIL STOP ____________________________

CITY ____________________________________________

STATE/PROVINCE ____________________________

ZIP/POSTAL CODE ____________________________

COUNTRY ______________________________________

PHONE  ☐ BUSINESS  ☐ HOME

FAX ____________________________________________

E-MAIL  ☐ BUSINESS  ☐ HOME

*Please be sure to provide your e-mail address, as it is required to receive member benefits that are delivered electronically.

 Were you referred by an AWWA member?  ☐ Yes  ☐ No  Referring Member ____________________________ Member # (if known) __________________________

How did you first learn about AWWA?

☐ Colleague  ☐ E-mail  ☐ AWWA publication or periodical  ☐ Other, please specify: ____________________________

☐ Direct Mail  ☐ Conference/Seminar  ☐ Internet

What areas of the water and wastewater industry are of current interest to you? (Please check all that apply)


Do you work for a utility?  If yes, how many service connections does it have?

☐ Yes  ☐ No

☐ <5,000  ☐ 5,001-10,000  ☐ 10,001-25,000  ☐ 25,001-50,000  ☐ 50,001-100,000  ☐ 100,001-150,000  ☐ 150,001 +

Section 2: Circulation Information

What one business activity best describes your company? (Please check only one)

☐ A  Public Water Supply Utility—Municipally Owned
☐ B  Public Water Supply Utility—Investor Owned
☐ C  Government—Federal, State, Local
☐ D  Consulting Firm
☐ E  Contractor
☐ F  Private Industrial System or Water Wholesaler
☐ G  Manufacturer of Equipment & Supplies (including representatives)
☐ H  Distributor of Equipment & Supplies (including representatives)
☐ I  Educational Institutions (faculty and students), Libraries and other related organizations
☐ J  Fully Retired
☐ K  Research Lab
☐ L  Other allied to the field (please specify) __________________________

What one category best describes your job title? (Please check only one)

☐ A  Executive (General Manager, Commissioner, Board Member, City Manager, Municipal Supt., Mayor, President, Vice President, Owner, Partner, Director, etc.)
☐ B  Management/Non-Engineering (Division Head, Section Head, Manager, Dept. Head, Comptroller, etc.)
☐ C  Design and Engineering/Both Managerial and Non-Managerial (Chief Engineer, Civil Engineer, Mechanical Engineer, Elect. Engineer, Environmental Engineer, Planning Manager, Field Engineer, System Designer, etc.)
☐ D  Scientific/Non-managerial (Chemist, Biologist, Biophysicist, Researcher, Analyst, etc.)
☐ E  Purchasing (Purchasing Agent, Procurement Specialist, Buyer, etc.)
☐ F  Operations (Foreman, Operator, Maintenance Crewman, Service Representative, etc.)
☐ G  Marketing & Sales/Non-Managerial (Market Analyst, Marketing Representative, Salesperson, Sales Representative, etc.)
☐ I  Professional (Educator, Teacher, etc.)
☐ Z  Other (please specify) __________________________

What one category best describes your field served/principal activity? (Please check only one)

☐ 9  Both Water Supply & Wastewater  ☐ 5  Water Supply Only  ☐ 7  Wastewater Only  ☐ 3  Other

Completion of this information is optional

AWWA maintains profile data for use in developing programs and services to meet the diverse needs of our members.

Race/Ethnic Identification

☐ Gender

☐ Male

☐ Female

Birth Year __________________________

All applicants must complete this section.
ALL APPLICANTS MUST COMPLETE THIS SECTION.

Section 3: Dues and Benefits

Membership Type:
☐ Individual $170 (02)  ☐ Young Professional $99 (YP2012)  ☐ Operations/Administrative $70 (06)  ☐ Student $28 (14)

Student members and members with APO/FPO addresses will receive e-periodicals only. Operator members receive Journal AWWA online. Print periodicals may be purchased for an additional fee. Please call 1.800.926.7337 or e-mail us at custsvc@awwa.org if you wish to subscribe to any or all of the periodicals.

Section Assessment
AWWA has 43 local sections in North America. You are automatically enrolled in a section based on your address. Some sections require additional fees to better serve their local members. The mandatory additional section assessment is required if your address is located in one of the following areas:

<table>
<thead>
<tr>
<th>Your State/Province</th>
<th>Individual/Young Professionals</th>
<th>Operations/Admin.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska, Connecticut, Minnesota, Missouri, Ontario...</td>
<td>$9</td>
<td>$4</td>
</tr>
<tr>
<td>Alberta, Arizona, Illinois, Kentucky, Manitoba, Northwest Territories, Saskatchewan, Tennessee, Texas, Wisconsin...</td>
<td>$17</td>
<td>$7</td>
</tr>
<tr>
<td>Alabama, Arkansas, Idaho, Louisiana, Mississippi, New Jersey, New York, Oklahoma...</td>
<td>$26</td>
<td>$11</td>
</tr>
<tr>
<td>Pennsylvania...</td>
<td>$26</td>
<td>$5</td>
</tr>
<tr>
<td>Florida, Georgia, Indiana, Iowa, South Carolina...</td>
<td>$34</td>
<td>$14</td>
</tr>
<tr>
<td>California, Maine, Massachusetts, Nevada, New Hampshire, Rhode Island, Vermont...</td>
<td>$68</td>
<td>$28</td>
</tr>
</tbody>
</table>

Additional Section Options
In addition to your primary section membership, you may also join other AWWA sections. This allows you to receive information on events and activities from other sections of your choice. There is a $33 multi-section fee, plus the assessment fee for the second section. If you are interested in joining additional sections, please call 1.800.926.7337 for information and assessment fees, then indicate your choices here:

______________________________________________________________

Signature Required ____________________________ Date ____________________________

By signing this application, students certify they’re enrolled in school, carry at least 9 credit hours, and have been a member of AWWA for less than 5 years.

Section 4: Payment

Annual Dues (as indicated in Section 3)  ☐ Individual $170  ☐ Young Professional $99  ☐ Operations/Administrative $70  ☐ Student $28

Section Assessment (if applicable)  $_____________ (Enter amount from Section 3)

Additional Section Option (if applicable)  $_____________ (Enter amount from Section 3)

Total  $_____________

Payment Method
☐ Check enclosed (Make payable to AWWA. US currency only, drawn from a US bank.)
☐ American Express  ☐ Discover  ☐ MasterCard  ☐ VISA

Card Holder ____________________________________________________________

Card Number __________________________________________________________

Expiration Date _______________________________________________________

No action will be taken on this application until payment is received.

Section 5: Application Instructions

Mail completed application to: AWWA Customer Service
AWWA Customer Service
6666 West Quincy Avenue
Denver, CO 80235-3098 USA

Fax completed application to: Fax completed application to: 303.347.0804
Questions? Call Customer Service
Apply online at: www.awwa.org/join

at 1.800.926.7337 or 303.794.7711

Dues and section assessment rates valid through Dec. 31, 2012. Dues are not deductible as charitable contributions for income tax purposes. The following is for USPS periodical mailing requirements only. In some AWWA sections, a portion of the section allotment equal to 50% or more of the domestic subscription rate charged for the section periodical will be allocated toward a subscription to that periodical. Allocation for each publication recipient authorized—Journal AWWA = $50; Opflow = $16. NOTE: Member’s phone numbers, fax numbers, and email addresses are protected under AWWA’s Privacy Policy.
EAGON & ASSOCIATES, INC.
Consulting Geologists
100 Old Wilson Bridge Road, Suite 115 / Worthington, Ohio 43085
Phone: (614) 888-5760; Fax: (614) 888-5763

- Ground-Water Exploration
- New Well Siting & Design
- Well Field Evaluation & Management
- Aquifer Testing
- Ground-Water Modeling
- Wellhead/Source Water Protection
- Downhole Video Inspection

EMHT
Evans, Mechwart, Hambleton & Tilton, Inc.
Engineers, Surveyors, Planners, Scientists
A legacy of experience.
A reputation for excellence.
1.888.775.EMHT • emht.com
Columbus • Cincinnati • Indianapolis • Charlotte

Metropolitan Industries, Inc.
The Pumping World’s One Stop Shop™
- House Booster Stations
- Plant Water Systems
- Seal Water Systems
- Re-Use Water Systems
Let our sales engineers design a solution for you!
All systems backed by our 24/7 service.
For more information, contact:
THE OHIO PUMP COMPANY
330-222-2400
ROMEOVILLE, IL 60446-1343
(815) 886-5200 • FAX: (815) 886-6932
www.metropolitanind.com

M.E. SIMPSON Co., Inc.
Water and Wastewater Operations and Maintenance Service Solutions
Asset Management Services
- Valve Exercise Programs
- Hydrant Operation/Maintenance Programs
- Fire Hydrant Flow/Watermain Capacity Testing Programs

Water Loss Control Services
- Water Audits
- Large Meter Evaluation, Testing and Repair
- Leak Survey/Leak Pinpointing

Water Quality Programs
- Undirectional Flushing Programs
- Cross Connection Control Survey & Inventory
- Backflow Management, Testing & Maintenance

Contact: Marlay Price, Representative
marlay.price@mesimpson.com
www.mesimpson.com
Phone: (800) 255-1521
Fax: (989) 531-2444

BOXLOX
THE VALVE ALIGNMENT DEVICE
- Aligns the Gate Valve to the Access unit
- For use with Cast Iron Valve Boxes or 6” PVC Pipe Risers
- Two piece design requires no Valve disassembly
- Units are White for easy location of the operating nut
- Easily fits all AWWA C509 R/S Gate Valves up to 12”

Visit us at:
www.boxlox.com

EMMA SALES, LLC
P.O. BOX 730
FAIRVIEW, TN 37062
615-210-9141 615-799-9849 (FAX)
Save time & money by the Gallon!

AMCO Clear® are the only turbidity calibration standards available “pre-mixed” in gallons, meaning time and labor savings.

- Safe, non-toxic and disposable
- Ready to Use/no dilutions or preparations
- Accurate +/-1% lot to lot
- Lasts longer - Guaranteed stability for One Year even after opening!
- Stable and accurate low level calibration standards as well as for higher turbidity values.

GFS Chemicals is your helpful source for your water testing needs. Call for a free catalog today!

Call toll free 1-877-534-0799, or visit us at www.amcoclear.com
Ohio Section Advertisers help bring you this copy of AWWA’s newsletter.

When you are in need of supplies or services, please contact the companies who support the Ohio Section Newsletter.
**Don’t Get Caught...**

Stage 2 DBP Standards are coming soon!

Do you have a solution to bring your plant into compliance with the EPA Stage 2 Disinfection By-product Standards by April 2012? Water systems across the country are choosing the MIEX® Process as the most economical alternative for DBP precursor removal to achieve current and future DBP standards. **Don't get caught with your pants down - the time to act is now!**

Contact your local representative:

**Smith Environmental INC.**
1211 Chesapeake Ave., Columbus, Ohio 43212
Phone (614) 224-7670 Fax (614) 224-7660

---

**CBI**

Michael Allison  
Business Development Manager  
CB&I Steel Plate Structures  
Tel: +1 815 439 3112  
Cell: +1 815 341 1940  
Fax: +1 815 439 3130

CB&I  
14105 S. Route 59  
Plainfield, IL 60544-8984  
USA

www.CBI.com  
mallison@CBI.com

---

**EBAA IRON SALES, INC.**

MEGALUG® Mechanical Joint Restraint  
MEGAFLEX® Restrainted Flange Adapter  
FLEX-TEND® Flexible Expansion Joint  
MEGA-COUPLING® Restained Coupling

P.O. Box 857 • Eastland, TX 76448 • 800.433.1716 • www.ebaa.com

---

**Ground Water Science**

Science and Planning for Earth’s Most Critical Resource

- Groundwater and wells specialists: *Not a sideline*
- Professionals with the most quality and varied groundwater and wells experience in the region
- We tackle your “weird problems”
- Make sure we’re on your water engineering team

Smith-Comeskey Ground Water Science LLC  
www.groundwaterscience.com  
295 S. Lawn Ave., Bluffton, OH 45817 • 419.356.0528 • 419.235.4955
Ohio Section Advertisers help bring you this copy of AWWA’s newsletter.

When you are in need of supplies or services, please contact the companies who support the Ohio Section Newsletter.
Suggestions for Public Water Systems Considering Providing Water to Oil and Natural Gas Drilling Companies

Ohio EPA recently released a fact sheet in response to the growing number of public water systems (PWSs) being approached by oil and natural gas companies that are interested in using their water. The fact sheet covers PWS approved capacity, registration and permit requirements, engineering concerns, emergency preparedness and security.

Approved Capacity

PWSs should ensure their systems remain below the approved capacity. To do so, they need to know the volume of water requested by oil and gas companies and should take into account factors such as the length of the contract (for example, long-term vs. short-term), the type of water being requested (for example, raw water vs. finished water) and the potential for future water-use restrictions.

Registration and Permit Requirements

Depending on their withdrawal capacity, PWSs may have to register with the Ohio Department of Natural Resources (ODNR). They may also need to meet additional permit requirements. These permits relate to consumptive use and the diversion of water out of the Lake Erie drainage basin or the Ohio River drainage basin. Contact ODNR for additional information or consult the ODNR “Water Withdrawal Regulations for Oil and Gas Drilling” fact sheet (www.dnr.state.oh.us/Portals/7/pubs/pdfs/lctshtr68.pdf).

Emergency Preparedness and Security

PWSs must prepare for emergencies and threats in order to provide safe drinking water. Community PWSs, in particular, are required to have a written contingency plan for emergency conditions (see OAC Rule 3745-85-01). When providing water to an oil and gas company, PWSs should update their contingency plan to include provisions for emergencies such as contamination incidents involving hazardous chemicals. It is also recommended that PWSs consider additional security measures that may be necessary following any modifications to the water treatment plant or distribution system. Completing a vulnerability assessment may also be helpful when identifying threats, prioritizing upgrades and making changes to reduce risks.

Resources

Please consult the Ohio EPA Marcellus and Utica Shale web page and “Considerations for Public Water Systems Prior to Providing Raw or Treated Water to Oil and Natural Gas Companies” fact sheet available at (http://epa.ohio.gov/Marcellus-andUticaShale.aspx#LiveTabsContent135400) for additional information, including a list of references and other resources.
Stage 2 Disinfection Byproducts Rule – Operational Evaluation Level

Ohio Administrative Code requires all public water systems (PWSs) monitoring for Total Trihalomethanes (TTHM) and Haloacetic Acids, five (HAA5) under Stage 2 of the Disinfection Byproducts Rule to meet Operational Evaluation Levels (OELs).

OELs are determined at each monitoring location by summing the two previous quarters’ results with twice the current quarters’ results and dividing by four to determine an average. An OEL exceedance occurs when this average exceeds the maximum contaminant level (MCL) for either TTHM (0.080 mg/L) or HAA5 (0.060 mg/L).

A PWS exceeding an OEL at one or more locations in the distribution system is required to submit a completed report (Ohio EPA Form 5031) to the appropriate Ohio EPA district office within 90 days of notification of an OEL exceedance by Ohio EPA.

Guidance for evaluating your system and completing Form 5031 along with a link to USEPA guidance on the subject can be found on our website at: http://epa.ohio.gov/portals/28/documents/pws/OELReportFinalVersion_August2012.doc

Derecho June 29, 2012

During the early morning of Friday June 29, 2012 a band of moist southwesterly winds intersected a front over eastern Iowa. The front extended east into central Ohio and southwestern Pennsylvania, and the storm continued on this path throughout the day. The storm front separated hot, humid air to the south from cooler and drier air to the north. The hot air was responsible for an extended heat wave that gripped the Ohio Valley in the days prior to June 29.

The Iowa thunderstorms grew and developed east into northern Illinois through the remainder of the morning. The Iowa and Illinois storms produced scattered instances of severe hail and damaging wind but were not otherwise noteworthy. By early afternoon, however, the storm strengthened as it moved into northern Indiana producing wind gusts of 60-70 mph.

By 4 p.m., the storm front had grown into what is called a derecho as the intense storm arced from south of Toledo through the Dayton area to near Indianapolis. The derecho squall line accelerated east-southeast across central and southern Ohio through the remainder of the afternoon and early evening, reaching northern Kentucky and western West Virginia by 7:00 p.m. Scattered 80 mph gusts caused widespread severe damage.

The word derecho is a Spanish word, meaning “straight”. In meteorology, the term is used to describe a long-lived, violent straight-line wind storm able to travel hundreds of miles. By definition, if the wind damage swath extends more than 240 miles and includes wind gusts of at least 58 mph or greater along most of its length, then the event may be classified as a derecho.
Here is a list of the highest measured wind gusts throughout the event:

- 87 mph - Scott, OH
- 84 mph - Paulding, OH
- 78 mph - Columbus Grove, OH
- 76 mph - Antwerp, OH
- 73 mph - Napoleon, OH
- 64 mph - Convoy, OH
- 64 mph - New Bavaria, OH
- 63 mph - Zanesville, OH
- 59 mph - Convoy, OH

The morning after the event, electric utilities reported approximately 4.2 million customers without power across 11 States and the District of Columbia. Over 1 million customers lost power in Ohio, with power outages widespread across roughly two-thirds of the state. The damaging winds brought down trees, causing physical damage to electric power infrastructure, including transmission and distribution lines, substations, and utility poles. This event was the largest power outage in American Electric Power Ohio history. Utilities received little advanced warning of the 2012 derecho, a factor which reduced preparation time and lengthened restoration time. Restoration efforts in many cases took 7 to 10 days.

Saturday morning, Ohio EPA Division of Drinking and Ground Waters (DDAGW) discovered multiple water systems were already facing troublesome scenarios: loss of power, depressurizations and boil alerts. DDAGW was prepared to coordinate assistance for the water systems that needed it, but our own services were hindered. Ohio EPA’s southeast district office was without power and would not be available to help water systems in need of assistance. Ohio EPA immediately began working on a plan for contacting water system operators and/or owners in the southeast district to ensure they were able to safely operate their water systems. DDAGW discovered most public water systems were prepared for such emergencies, including having a back-up generator for loss of power. Some systems had contacted their local Emergency Management Agency (EMA) office; others had used their mutual-aid assistance plan; and some were prepared for depressurizations. However, while some public water systems were prepared, others were not. Now is the time to reflect on problems your water system experienced during this event and to prepare for the next emergency.

Saturday afternoon, Ohio Governor John Kasich declared a state of emergency due to widespread power loss, damages, and the ongoing heat wave. In addition, the state Emergency Operation Center (EOC) activated in response to the severe storms. The EOC comprises of multiple state agencies, including Ohio EPA.

On Sunday afternoon, President Obama declared Ohio a federal disaster area, allowing FEMA money and resources to be used in the area.

In summary, the Ohio Valley / Mid-Atlantic derecho of June 2012 traveled approximately 700 miles in twelve hours, inflicting untold damage and hardship along a heavily populated corridor through the Midwest and Mid-Atlantic states. 22 people lost their lives, and many more were seriously injured.

Here are some suggestions for you to keep in mind:

- Identify your local EMA representatives and contact them before an emergency. The EMA office may be able to provide assistance to your system such as helping obtain a generator or bottled water.

- Consider how you will obtain a back-up generator. The benefits to your system may outweigh the overall cost of either purchasing a generator or borrowing one. Having a generator can keep your system operational and reduce the concern of consumers, keep you from issuing a boil advisory, from depressurizing and having to collect additional water quality samples. At the very least, be able to use a generator.

- Update your contingency plan. Do you have a plan for power failures? Have you practiced it? Make sure you are prepared to address issues such as depressurizations and reduced staffing.
• Become part of the Ohio Water/Wastewater Agency Response Network (OhWARN). This network is a tool for obtaining resources during an emergency (http://www.ohwarn.org/).

In response to the derecho of 2012, DDAGW began reviewing our rules for provisions that would require systems to provide back-up power in the event of power loss. Presently, Ohio does not directly require back-up power for treatment plants, pumping stations, and other components necessary to provide safe and reliable water to the public in times of power loss. Ohio EPA immediately surveyed other states to get an idea of how many required back-up power and to what extent their rules required it. Thirty-four states responded of which 35 percent required back up power in some manner or another. DDAGW continues to evaluate the possibility of requiring the ability to use back-up power through rule in an effort to avoid some of the difficulties experienced by several water systems across the state during this most powerful event.

Drought 2012 and Its Impact on Ohio

It has been more than a half-century since a drought this extensive has impacted the United States, the National Oceanic and Atmospheric Administration (NOAA) reported July 16, 2012. The United States Department of Agriculture as of August 1, 2012 had already declared natural disaster areas in 1,584 counties in 32 drought-stricken states. Dry weather and soaring temperatures have taken a toll on communities from Texas to the Dakotas, and Ohio to California. The nation’s corn and soybean crops withered, cattle herds were depleted, river and lake levels dwindle, and rampant wildfires brought further devastation.

Much of Ohio had slipped officially into a drought in July, creating economic and wildfire concerns for emergency-management officials, as well as for agriculture and farmers statewide. Food and agriculture are the state’s top industry, according to the Ohio Department of Agriculture. This industry contributes over $100 billion to the economy and employs 1 in 7 Ohio residents. In the early stages, Ohio’s drought ranged from mild in the southwest region of the state to moderate or severe in the northwest region, according to the National Oceanic and Atmospheric Administration. About half of Ohio was classified as abnormally dry, according to U.S. Drought Monitor, another drought indicator to which several federal agencies contribute data. Released every two weeks, the Drought Monitor shows graphically, the impact on the state. Despite sporadic severe storms, it will take a lot of rain to reverse Ohio’s drought which means stream flows, reservoir and ground-water levels continue to decline.

In Ohio, a drought-assessment committee led by the Ohio Emergency Management Agency met on Friday, July 6, 2012 to begin to plan for the state’s response to the drought. Potential agricultural responses include mandatory water conservation, emergency livestock-feed distribution, and emergency payments and loans to producers who lose property or production.

State of Ohio agencies monitor precipitation, groundwater levels, stream flows, snow pack, and water quality and utilize indices to ascertain drought potential. Hydrological Drought is evidenced by reductions in stream flow and in lake and reservoir levels, depletion of soil moisture, a lowering of the ground-water table and consequently a decrease in ground-water discharge to streams and lakes. (Visit the Ohio Department of Natural Resources or ODNRs, Water Inventory Program for more information on the status of water resources in Ohio. http://ohiodnr.com/tabid/4191.aspx)

On July 18, 2012, DDAGW contacted community water systems requesting they complete a survey of their current conditions and drought readiness. Of the responses collected, approximately 30 communities responded they had initiated watering restrictions, either voluntary or mandatory. Most of the watering restrictions were typically proactive with the communities not experiencing any decline in well levels, but simply preparing for worsening conditions. Also included in the survey were reminders of what requests for information that should be included in their contingency plan in the event drought conditions worsened.

It is DDAGW’s hope that the survey questions will fuel discussions with operators and water systems to help them be better prepared in the event the drought continues. They should be considering emergency interconnections with neighboring water systems as well as monitoring their water source quantity and quality.
Announcement of Examinations for Certification of Class I, II, and III Personnel

USE APPLICATION FORM EPA 4220 (Rev. 9/12). Applications must be completed in full and returned to the Operator Certification Unit by the deadline listed below. Only applications with original signatures will be accepted. Education and experience requirements for each exam are listed on the other side. Failure to properly complete the application may result in rejection.

Applications may be obtained from our Web page at http://www.epa.ohio.gov/ddagw/opcert.aspx or by mail at Certification Unit, Ohio EPA, Lazarus Government Center, P. O. Box 1049, Columbus, Ohio 43216-1049, or by phone at (614) 644-2752 or (866) 411-6728.

Completed applications and a check or money order for the appropriate fee, payable to “TREASURER, STATE OF OHIO,” must be returned to Ohio EPA, Lazarus Government Center, Office of Fiscal Administration, P. O. Box 1049, Columbus, Ohio 43216-1049.

Any person applying for examination for certification as an operator shall pay a fee at the same time their application is submitted. All fees are non-refundable.

Applications must be postmarked by the application deadline noted below. Applications postmarked after the deadline will be rejected.

Courses and college experience may only be used to reduce the amount of operating experience required after an applicant has documented 12 months of hands on “operating experience”.

<table>
<thead>
<tr>
<th>Exam Dates</th>
<th>Application Deadlines</th>
<th>Exam Fees</th>
<th>Approval Letters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wastewater May 7</td>
<td>February 6</td>
<td>WD, WC, WS and WW Class I - $105</td>
<td>Mid-April</td>
</tr>
<tr>
<td>Water May 8</td>
<td>February 7</td>
<td>WD, WC WS and WW Class II - $120</td>
<td></td>
</tr>
<tr>
<td>Wastewater November 6</td>
<td>August 8</td>
<td>WS &amp; WW Class III - $130</td>
<td>Mid-October</td>
</tr>
<tr>
<td>Water November 7</td>
<td>August 9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please see other side for exam day guidelines.

LOCATION: Lausche Building, Ohio Expo Center and State Fair, Columbus, Ohio. Take I-71 to exit 111, 17th Avenue. Go west two blocks. Turn right into fairgrounds. The Lausche Building is the second building on the left.

A list of courses which can be used to substitute for a portion of the required operating experience for Class II and III certification may be found on the following Web site: http://www.epa.ohio.gov/portals/28/documents/opcert/courses_substituted_for_experience.pdf.
### Education and Experience Requirements

<table>
<thead>
<tr>
<th>Education (in years)</th>
<th>Months of Experience Required</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Class I</td>
</tr>
<tr>
<td>High School Graduate or GED (REQUIRED)</td>
<td>12</td>
</tr>
<tr>
<td>13 *</td>
<td>12</td>
</tr>
<tr>
<td>14 or Associate’s Degree *</td>
<td>12</td>
</tr>
<tr>
<td>15 or more with no degree *</td>
<td>12</td>
</tr>
<tr>
<td>Associate’s Degree in Water or Wastewater (ex: Zane State College (Muskingum Tech) or Owens Community College) or a BS or BA from any accredited four-year college *</td>
<td>12</td>
</tr>
</tbody>
</table>

* Post High School education shall be obtained in a physical or natural science or chemical, civil or environmental engineering.

** Must hold a valid Class II Certificate for 12 months and meet experience requirement by the exam date.

### Operating Experience Criteria

(see OAC Rule 3745-7-01 for the definition of operating experience)

<table>
<thead>
<tr>
<th>Counts</th>
<th>Doesn't Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily Plant Operations/Maintenance</td>
<td>Clerical duties</td>
</tr>
<tr>
<td>Laboratory work at the lab of an owner of a public water system or treatment works</td>
<td>Commercial lab work</td>
</tr>
<tr>
<td>Military experience (potable water/wastewater)</td>
<td>Sludge handling and hauling if not part of a treatment works</td>
</tr>
<tr>
<td>On-site investigations/inspections or construction inspection/engineering design that require coordination of work with the active treatment processes, sewerage or distribution systems (hours must be documented).</td>
<td>Investigations/inspections or construction inspection/engineering design that do not require coordination of work with the active treatment processes, collection or distribution systems.</td>
</tr>
<tr>
<td>Troubleshooting plant operations at a public water system or treatment works.</td>
<td>Academic Research</td>
</tr>
<tr>
<td>Industrial wastewater treatment</td>
<td>Meter Reading only</td>
</tr>
<tr>
<td>Onsite SCADA system monitoring sludge handling and sludge hauling if part of a public water system or treatment works will count for no more than 25 percent of the required experience</td>
<td>Off-site monitoring of SCADA</td>
</tr>
<tr>
<td>Laborers, even at plant, if only duties are mowing grass, painting, etc.</td>
<td>Septage hauling</td>
</tr>
</tbody>
</table>

Experience for drinking water related examinations may only be obtained at public water systems. Applicants may be accepted to take a (Class I and II) exam without the required experience in accordance with criteria established in Ohio Administrative Code 3745-7. Experience credit for training courses is not counted until 12 months of actual operational experience has been obtained.

### Exam Day Guidelines

<table>
<thead>
<tr>
<th>Do NOT Bring:</th>
<th>Do Bring:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell Phones, pagers, PDA’s Headphones</td>
<td>Your entrance letter</td>
</tr>
<tr>
<td>Headphones Programmable or Scientific Calculators Adding machines with tape</td>
<td>Your picture ID</td>
</tr>
<tr>
<td>Backwards, briefcases, purses, etc. Books, paper</td>
<td>No. 2 pencils</td>
</tr>
<tr>
<td>Hats</td>
<td>Canned or bottled drinks</td>
</tr>
<tr>
<td></td>
<td>Snacks (in clear bags only)</td>
</tr>
<tr>
<td></td>
<td>Money for parking</td>
</tr>
<tr>
<td></td>
<td>Basic calculators (should only perform the most basic functions)</td>
</tr>
</tbody>
</table>
The Fall meeting of the Northwest District was held in the Village of Archbold. In the morning, 104 attendees were provided three contact hours by four excellent speakers on four interesting topics. District Officers would like to thank Scott Young, Hach Company; Scott Dailey, Burgess and Niple, Inc.; Amy Staley, Alloway Labs; and Richard Bose, Univar USA, Inc. for taking the time to provide the technical sessions. Topics included Testing for CL2 Utilizing DPD and Amperometric Methods, Deep Well Injection and Its Effects on Drinking Water Sources, E-Coli Analysis in Potable Water By QuantTray Method 9223-B and Handling Chlorine Safely.

A great lunch was provided by Brookview Farm Meats and BBQ. Mayor Jim Wise welcomed attendees to the Village. He also acknowledged Village Administrator, Dennis Howell, Scott Schultz, Water Superintendent; Frank D’Ambrosia, Waste Water Superintendent, and thanked his staff for their work in preparing for the meeting. NW Chair Tom Borck, Poggemeyer Group, presented Mayor Jim Wise with a plaque in appreciation for hosting the meeting. Following the business meeting, several attendees attended tours of the Village’s Water Treatment Plant by the Water Superintendent Scott Schultz and the City’s Wastewater Treatment Facility by Wastewater Superintendent Frank D’Ambrosia and their staff.
City of Canton Hosts Fall Northeast District Meeting

The City of Canton hosted the Fall meeting of the Northeast District on October 18th at the Northeast Water Plant and Gervasi Vineyards. Tours of the water plant was offered in the morning, and a technical session on the water plant improvements was presented by Carl Seifreid of Burgess and Niple before lunch. An excellent lunch was provided by the winery. Mayor William Healy II and Service Director Warren Price welcomed attendees to the City and thanked water department employees for their efforts in hosting the meeting. Approximately 140 attended the meeting.

A business meeting was conducted after lunch by Chair Sandy Vosar. Franco Noce, Cleveland Division of Water, was elected 2nd Vice Chair and Sam W. Jacob, City of Elyria, was elected Assistant Secretary-Treasurer. A Past District Chair Plaque was awarded to Franco Lucarelli, City of Warren, and an outgoing secretary-treasurer plaque was awarded to John Fitch of CDM.

Nancy Rice gave an Ohio EPA update, Tyler Converse gave a Quick and Dirty Talk on Leak Detection, and the last talk of the day was given by Michael Hively of Tideflex Technologies.
City of Lebanon Hosts Southwest Fall Meeting

The SW District’s 2012 Fall Meeting showcased the City of Lebanon and their transition from being a water supplier to becoming a wholesale customer of the Greater Cincinnati Water Works (GCWW) to purchase finished water for distribution to their customers. The topics of the Technical Sessions presented Lebanon’s decision process including: a) years of planning and analyzing their existing system, b) approaching GCWW to develop a comprehensive water supply solution that meets the long term needs of their community, c) working through detailed design and construction, and d) communicating regularly with City of Lebanon customers 12 months prior to the expected transition date. The City of Lebanon and GCWW were even able to accommodate a pump station facility tour after the technical sessions during the construction completion and start up activities. Over 100 operators and professionals within the water industry attended the classroom technical sessions with almost 50 registrants attending the pump station tour following the technical sessions.

In addition, the District’s Business Meeting was conducted over the lunch break. Two new officers were elected to the SW District, namely Nichole Sajdak from Hazen and Sawyer as 2nd Vice Chair and Scott Stevens from Johnson Controls as Secretary/Treasurer. Lorrie Brown, Ohio Section Chair, also provided a Section update during the meeting. The meeting concluded with current District Chair, Maureen Richard welcoming Beverly Engram as the new 2013 District Chair.

The Southwest District would like to thank everyone that participated in the Fall Meeting, and hope to see all of you again next year at the April 9, 2013, Southern Ohio Utility Expo and other SW District meetings.
City of Canton Hosts Summer Workshop at Football Hall of Fame

Sandra Vozar, First Vice Chair of the Northeast District, recognized and thanked Tyler Converse and the City of Canton for establishing this Hall of Fame meeting so that Water operators are able to continue to grow their knowledge in our industry and obtain contact hours close to home at a very fair value. And enjoy some football history while at it! Over 180 water professionals attended the sessions and were provided an exceptional meal.

Thanks to speakers Mark Addison of Roberts Filter Group; Chuck Green of OUPS; Dan Barr, Chris Everett, and Scott Dailey of Burgess and Niple; and Jennifer Myers of Brown & Caldwell; Craig Smith of Ohio EPA; Nik Amstutz of Enertech Electrical; and Curtis Truss of OTCO who provided a very informative workshop.

The Pro Football Hall of Fame is amidst the largest expansion and renovation project. Coined “The Future 50” Expansion & Renovation Project because it will be completed in time of the Hall of Fame’s 50th Anniversary in 2013 and will set the museum on course for the future, the Hall of Fame will grow to 118,000 square feet from its current area of 85,000 square feet.

The groundbreaking and construction of Phase I of the “Future 50” Project began on August 5, 2011 and was completed June 2012. Work stopped during the 2012 Enshrinement Festival and Phase II will include major renovation of the galleries in the rotunda building and the installation of completely new exhibits. The entire Future 50 Project will be completed and ready for a grand opening by August, 2013.
Section History Committee Working on Two Projects

The Section History Committee is currently working on two projects of interest. Representatives of the committee recently met with City of Delaware officials and discussed the placing of a commemorative plaque on the wall of the new Delaware Water Treatment Plant recognizing C.W. Wiles as the Founder of the Ohio Section AWWA. Wiles served as Superintendent and General Manager of the Delaware Water Company 1892-1923. During the research for our section history book, Al Wansing visited the stacks at The Ohio State University Library and also studied the archives at the Ohio Historical Society. He determined from his research that the Central States Water Works Association was the forerunner of the Ohio Section. That Association was organized in February 1898 at the suggestion of Mr. Wiles and held its first annual conference in Springfield, Ohio in that same year.

A second project involves the development of the Ellen Swallow Richards Mentoring Award. This award developed by committee member, Conrade Hinds, recognizes the importance in the teaching and mentoring provided by Swallow Richards at MIT and the Lawrence Experiment Station. Ms. Richards influenced water engineers including Fuller, Hazen, Gregory, Burgess and many others who studied civil engineering in the late 1800s and helped to develop water projects in Ohio.

Once completed by the History Committee, the award will be passed on to the Awards Committee followed by a review and approval by the Board. It is hoped that the award can be made available in 2013 at the Annual Conference.

30th Annual OAWWA Northern Expo

Where: Wayne County Fairgrounds  
199 Vanover Street  
Wooster Ohio 44691

When: Thursday, April 11th, 2013

For more info: Kevin Givins, Expo Chair  
City of Wooster  
1123 Old Columbus Road  
Wooster, Ohio 44691  
Phone# 330-263-5285  
Fax # 330-263-5291  
kgivins@woosteroh.com

FREE CONTACT HOURS

Check out our website: northernohioexpo.com
TIC’s Top Ten TANK TIPS

1. **Look to the future.** When writing rehabilitation specifications or installing antennas, future tank maintenance should be taken into consideration.

2. **Don’t flip the switch yet.** On a recently painted interior wet area, cathodic protection should not be energized for at least 1 year. A decision to energize or delay the operation of the CP should be made no earlier than the First Anniversary Evaluation.

3. **Cleanliness counts.** During a rehabilitation of a tank, the surface cleanliness is crucial for coating adherence to the substrate, and to the previous coats. A dirty surface can result in peeling paint.

4. **Empty first, then tighten.** Diagonal bracing on elevated legged tanks should be tightened only when the tank is empty. Tightening the bracing with the tank full will cause excessive stresses in the bracing when the water level lowers.

5. **You can’t just a tank by its cover.** Before accessing the roof of your tank, make sure the roof plates have not deteriorated internally to the point that it is unsafe to support your weight and any equipment you carry.

6. **Keep it clean.** Vegetation and debris covering the bottom plate can shorten the useful life of a tank. Keep the foundation clean and properly graded to promote drainage away from the tank.

7. **Don’t be a square.** Square-cornered insert and patch repair plates should be avoided. Use round or rounded-corner plates instead.

8. **We all need elbow room.** Avoid interferences with existing shell welds when installing new fittings. API 653 provides rules for acceptable weld spacing.

9. **Don’t be all wet.** Be alert for evidence of bottom leaks. The tank bottom is typically the most likely to leak first. If left untreated, even bottom leaks can lead to catastrophic failure.

10. **Keep your eye on ‘em.** Tanks should be evaluated every 3 to 5 years by a professional engineering firm, and annually by water department personnel.

**COMPLIMENTS OF TANK INDUSTRY CONSULTANTS**
www.TankIndustry.com
TUESDAY, April 9th

Hotel Reservations to be made prior to March 18th, 2013. Call (800) 654-7036

From Cincinnati: Take I-71 North to Exit 50 @ Wilmington. Turn left off the exit ramp. Turn right onto Gano Road at the BP Station/Dairy Queen. Turn left into the 3rd driveway to the front of the complex.

From Columbus: Take I-71 South to Exit 50 @ Wilmington. Turn right off the exit ramp. Turn right onto Gano Road at the BP Station/Dairy Queen. Turn left into the 3rd driveway to the front of the complex.

From Dayton: Take St. Rt. 35 East towards Xenia, OH. Follow the 35 East By-pass around Xenia—sign says to Washington Court House. Exit at the Home Ave/St Rt 68. Turn right off the exit ramp on to St. Rt. 68 South. Follow 68 South about 9 miles towards Wilmington. Turn left at the BP Station/Dairy Queen onto Gano Road. Turn left into the 3rd driveway to the front of the complex.

Located at I-71 & U.S. 68 Look for AWWA entrance signs!

Tuesday

7:30am – 8:00am Sign-in of the Preregistered for Technical Session @ $30
7:30am – 8:00am Same day Registration cost for Technical Sessions @ $35
7:30am – 8:00am Registration for FREE Exhibitor Education Sessions
8:00am – 2:00pm Exposition Open FREE to all
8:30am—11:15am Tours of FREE Exhibitor Education Sessions (2.25 OEPA W/WW-OM & X)
11:15am –12:30pm $10 Lunch Buffet, FREE with Paid Technical Sessions
Noon - 3:30pm Paid Technical Sessions (3.0 OEPA W/WW—OM)

Wednesday

7:00am – 3:00pm Paid Technical Sessions (3.0 OEPA W/WW—OM)

The best local event for distribution, engineering, and operations professionals. See the latest tools, equipment, plant maintenance and security, parts and supplies available to the utility industry.

Stop by the 100+ vendor booths! Machinery displays! product demonstrations! 2.25 OEPA Free contact hours! With an additional 3.0 OEPA hours available through paid technical sessions.

Free EXPO admission!
- Free Coffee
- Free Popcorn
- Door Prizes Educational Tours!!

Exhibitor Education Sessions: 8:30am-11:15am
Showcasing innovative services, new products and advanced technologies.

The tour session provides a series of exhibitor experts speaking for 15 minutes on their product or service at their booth and handouts of their education material and product information. Earn FREE 2.25 OEPA contact hrs for W/WW – OM & X.

Technical Sessions: Noon –3:30 pm
Highlighting essential operations and maintenance and engineering topics.

These class sessions provide speaker presentations for solutions and management of technical issues facing water industry professionals.

For $30 pre-registered or $35 registration at the event receive 3.0 OEPA contact hrs for W/WW – OM and a delicious Lunch Buffet offered before the Tech Sessions.

Lunch Buffet: 11:15am—Noon
Features entrée, salad and desert w/tea or coffee. Can be purchased separately from the Technical Sessions for only $10.00 per person.

American Water Works Association - Ohio Section 2013

Call Jay Ponder at 513-623-0539
jponder@neptuneequipment.com
Vice Chair, OAWWA -Southwest District

EXHIBITOR APPLICATION

Company name (for Program and Booth Sign):

Company Web Site Address:

AWWA Organization Member? □ No □ Yes (Membership No.) __________
Interested in becoming one?: http://www.awwa.org/Files/Membership/images/2012ServiceProviderApp.pdf

Show contact (for show logistics):

Address: __________________________________________________________
City: __________________________ State/Province: ________ ZIP/Postal Code: __________________
Phone: __________________________ Fax: __________________________
E-Mail: __________________________

BOOTH LOCATION & DISPLAY

Number of 8’ × 10’ booths: ____________________ (No peninsula booths will be assigned.)
Preferred booth location: 1st choice __________________ 2nd choice __________________ 3rd choice __________________
Companies from whose booths you desire to be separated (specify company names, not products):
________________________________________________________________________
________________________________________________________________________
Which one is most important to your booth location?
□ Booth Separation □ Requested Location □ Corner Booth
□ Open Space
Special requirements: □ Compressed Air □ Water □ Other
□ Other:
List any dangerous items that will be a part of your display (i.e., chemicals, gases, motor vehicles, etc.):
________________________________________________________________________
________________________________________________________________________
GIFT DONATION

Wish to Donate a Door Prize or Raffle Gift? Please list item(s):

AGREE FOR EXHIBITOR

We hereby agree to:
1. Abide by the Exhibitor Contractual Terms & Conditions that are posted at www.awwa.org/conferences/exhibitors.
2. Attach hereto is our check made payable to Southwest-Ohio American Water Works Association for the full cost of the booth fee(s) and lunch reservation(s). Applications must be accompanied by full payment.
3. Full payment due prior to space assignment and No Later Than March 18th, 2013.

AGREE FOR EXHIBITOR

NAME (PLEASE PRINT)

TITLE

SIGNATURE DATE

BOOTH RATES AND LUNCH

<table>
<thead>
<tr>
<th>Booth Rate</th>
<th>Late After March 18th</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWWA</td>
<td>$160</td>
</tr>
<tr>
<td>Organization Member</td>
<td>$240</td>
</tr>
<tr>
<td>Nonorganization Member</td>
<td>$200</td>
</tr>
<tr>
<td>One Complimentary Lunch per Booth</td>
<td>$0</td>
</tr>
<tr>
<td>Additional Lunch Reservations per meal</td>
<td>$10</td>
</tr>
</tbody>
</table>

Amount Enclosed: $______

□ Company Check (payable to SW-OAWWA)

Company Contact Information:

Person: __________________________
Participant(s) Nametag:
________________________________________________________________________
Phone: __________________________ Email: __________________________
2013 Advertiser’s Directory

AECOM ...................................................... 77
American Analytical Laboratories, Inc .............. 19
American Ductile Iron Pipe ......................... 55
Aqua Ohio, Inc ........................................... 77
Aqua Serv Consultants .................................. 75
Artesian of Pioneer ...................................... 79
Baker and Associates, Inc .............................. 40
Bennet & Williams ...................................... 19
Bergen Associates ...................................... 40
Biosolutions, LLC ....................................... 18
BioTech Agronomics, Inc .............................. 57
BissNuss, Inc .............................................. 75
Black and Veatch ....................................... 76
BNR Inc ..................................................... 59
Brown and Caldwell ................................... 76
Burgess & Niple ......................................... 38
Caldwell Tank ............................................ 77
Calgon Carbon .......................................... 76
CB & I Water Storage Tanks ......................... 58
CDM Smith .................................................. 14
CEI-Carbon Enterprises, Inc .......................... 41
CH2M Hill................................................... 57
Chesley Associates, Inc ................................. 36
Corrpro Waterworks .................................... 59
CT Consultants ......................................... 15
CTI Engineers, Inc ...................................... 78
Delta Chemical now part of USALCO, LLC ....... 78
Dixon Engineering, Inc ................................. 17
DLZ .......................................................... 37
DN Tanks .................................................... 39
Eagon & Associates ..................................... 54
EBAA Iron Sales, Inc .................................... 58
EE&T, Inc ................................................... 19
EMH&T ...................................................... 54
EMMA Sales, LLC ...................................... 54
Engineering Associates, Inc ........................... 76
Everett J. Prescott, Inc .................................. 2
Floyd Browne Group .................................... 39
Ford Meter Box Company, Inc ....................... 16
Fordline Waterworks ................................... 38
Fox & Dole Technical Sales ........................... 41
Gannett Fleming/Acuren Inspection (formerly Extech) .. 40
GFS Chemical ............................................. 55
Ground Water Science ................................ 58
GRW Engineers ........................................ 16
H. R. Gray .................................................. 40
HammonTree & Associates, Limited ................. 37
Hanson Pressure Pipe .................................. 55
Hatch Mott MacDonald Consulting Engineers .... 40
Hazan and Sawyer Environmental Engineers .... 41
HDR .......................................................... 40
Henry P. Thompson Company ....................... 18
Henry Pratt Company .................................. 41
HNTB .......................................................... 37
Hungerford & Terry ..................................... 15
Integrity Aquatic, LLC .................................. 57
J. Dwight Thompson Co ................................ 17
J.G.M. Valve Corporation .............................. 38
Jack Doheny Supplies ................................ 17
Jacobs ....................................................... 77
Jones and Henry Engineers, Ltd ....................... 41
Jones and Henry Laboratories, Inc ................... 37
Kohli & Kaliber Associates ........................... 15
Lake Erie Diving, Inc ................................... 55
Lee Supply .................................................. 36
Leggette, Brasher & Graham ......................... 39
M.E. Simpson Company, Inc ........................ 54
Malcolm Pirnie- ARCADIS ............................ 56
MAI Environmental Services .......................... 59
Metropolitan Industries ............................... 54
Mid-Atlantic Storage Systems, Inc ................. 41
Moody and Associates, Inc .......................... 38
ms consultants, inc ...................................... 76
MTech ....................................................... 58
MWH ........................................................ 16
Neptune Equipment Company ........................ 14
O’Brien and Gere ......................................... 14
Ohio Drilling Company, Inc ........................... 59
Operator Training Committee of Ohio ............. 36
Pelton Environmental Products, Inc ................. 57
Pittsburg Tank and Tower .............................. 16
Poggemeyer Design Group ......................... 56
Process Control Services ............................. 19
ProTech ..................................................... 15
RA Consultants, LLC .................................... 19
Ramsey Collector Wells ............................... 78
Ribway Engineering Group, Inc ...................... 14
Smith Environmental, Inc ............................. 58
Stantec Consulting ....................................... 19
Stark State College ...................................... 39
Sullivan Environmental Technologies, Inc ......... 75
Tank Industry Consultants ............................ 17
Thrasher Engineering ................................... 17
Tonka Equipment Company .......................... 38
Trumbull Industries ...................................... 56
U.S. Scada, Inc ........................................... 18
Underground Utility Services, Inc .................... 18
URS .......................................................... 18
US Pipe and Foundry ................................. 75
W.E. Quicksall and Associates, Inc ................. 75
Warner Diesel Filtration .............................. 75
Water Solution Unlimited, Inc ...................... 75
XCG Consultants, Inc .................................. 75

2013 Advertising Rates:

Full Page Ad ........................................... $1,950
Half Page Horizontal Ad ................. $1,040
Half Page Vertical Ad ....................... $1,040
Quarter Page Ad ................................ $650
Professional Card Size Ad ................ $325

If you did not receive a notice for advertising or you want to be on our advertisers manufacturers mailing list, please contact the Newsletter Editor at:

Larry Valentine, P.E.
717 Shannon Avenue
Cuyahoga Falls, OH 44221
Phone 330-328-2137
lvalentine@neo.rr.com
Since 1987  "In support of proactive WTP operators"

Aqua Serv Consultants
Nick Pizzi, Owner

9842 Country Club Circle
Twinsburg, OH 44087
www.aqsrv.com
Phone: 330.357.7215
Email: info@aqsrv.com
For clean, safe drinking water, prevention is still the best medicine.

Granular Activated Carbon (GAC) removes Naturally Occurring Matter before it can react with disinfectant chemicals such as chlorine and chloramine to form harmful Disinfection By-Products during the disinfection process.

At the same time, GAC also:
- Removes unpleasant tastes, odors, and colors
- Removes many endocrine-disrupting compounds and pharmaceuticals/personal care products
- Is cost-effective, simple to operate and maintain, and recyclable through reactivation

Contact us to see how you can put our powerful GAC technology to work.

Calgon Carbon
Making Water and Air Safer and Cleaner
+1 800 422 7256 www.calgoncarbon.com

---

ms consultants, inc.
engineers, architects, planners
2221 Schrock Road
Columbus, Ohio 43229-1547
614.898.7100
info@msconsultants.com
www.msconsultants.com
Offices in Ohio, Indiana, Pennsylvania, West Virginia & North Carolina

---

advancing™

Engineers
Scientists
Consultants
Constructors

Cincinnati | Cleveland | Columbus
Offices Nationwide | 100% Environmental | Employee Owned
BrownandCaldwell.com
DON’T REPLACE IT. PRESERVE IT.

Maximize the life of your water storage tank and avoid expensive repairs with Caldwell Tanks’ exclusive Tank Asset Preservation® (TAP) program.

American-owned Caldwell Tanks, Inc. is the oldest and largest full-service tank company in the world. Supported by Caldwell’s 36 in-house engineers and 15 NACE certified coating inspectors, our trained Preservation Teams draw on over 125 years of tank expertise and experience to ensure your tank stays safe, sanitary, secure and looking its best.

TAP full-service maintenance contracts cover every facet of tank repair and maintenance, including:

- Annual Inspections
- Interior Clean-Outs
- Repairs & Replacement of Parts
- Graffiti Removal
- Exterior Repainting
- Interior Relining

Caldwell
Since 1887

Water - Energy - Industrial

Ron Quall • rquall@CaldwellTanks.com

Thinking Inside the Drop

- Drinking Water Treatment & Distribution
- Wastewater Treatment & Collections Systems
- Sewer Rehab & Management
- CSO/SSO Program & Design
- Tunnels & Geotechnics
- Regulatory Compliance & Planning

Jacobs
Leaders in Delivering Value

Cincinnati, Ohio
+1 513.595.7500
Offices Worldwide

www.jacobs.com

Naturally.

Aqua continually invests in sustainable efforts that work towards our goal of a greener planet, so nature can do what nature does best!

For Us, Being Green Comes Naturally.

www.aquaamerica.com

CONSERVING MORE EFFICIENTLY

AECOM...Creating, enhancing and sustaining the world’s built, natural and social environments.

Akron
Cincinnati
Cleveland
Columbus

www.aecom.com
Together, USAICO and Delta Chemical Corporation bring together Ohio’s most comprehensive product line, offering state-wide coverage for all of your coagulant needs. Our complementary strengths will mean shared best practices and industry leading quality, reliability, service and performance. United, we bring a combined strength and dedication to providing high-quality, cost-effective products coupled with superior customer service, technical expertise and superior logistics management. Discover why we are Ohio’s leading provider of Aluminum Sulfate, Sodium Aluminate, and now DePAC products.

Ashtabula, OH  |  Fairfield, OH  |  Gahanna, OH  |  www.usaico.com

Tel: 410.918.2230  |  Tel: 410.354.0100

---

**Ranney Collector Wells**

- Riverbank Filtration
- Groundwater
- River Intakes

Contact:
Matt.Reed@Layne.com
Henry.Hunt@Layne.com
614-888-6263

---

**Preserving, Protecting, and Restoring Water Resources**

Focusing on innovative ways to clean, move, control and conserve water to enhance quality of life while protecting the environment.

CTI
Practical Innovation, By Design®
220 Market Avenue South, Suite 750
Canton, Ohio 44702
Phone 330.455.7733
Fax 330.313.2282

One Cascade Plaza, Suite 710
Akron, Ohio 44303
Phone 330.294.5996
Fax 330.315.0946

www.ctiengr.com

---

**Ohio Section Advertisers help bring you this copy of AWWA’s newsletter.**

When you are in need of supplies or services, please contact the companies who support the Ohio Section Newsletter.
An OHIO Company Serving OHIO

Vertical Pressure Filters
Horizontal Pressure Filters
Gravity Filters
Filter Media
Membrane Systems
Aeration
Ion Exchange Softeners
Chemical Feed Equipment
Hydro Tanks
Detention Tanks
Water Storage Tanks
PLC Controls
Automated Systems
Telemetry

Thank You OHIO For Allowing Us To Serve You For 48 Years!

County Wide Systems
Regional Water Districts
Cities
Villages
Towns
Schools
Mobile Home Communities
Industrial Applications

Iron Removal
Arsenic Removal
Radium Removal
Color Removal
Manganese Removal
Hydrogen Sulfide Removal
Hardness Removal
ANY Type of Potable Water Problem

Come See A Virtual Tour Of One Of Our Plants At

Artesian of Pioneer, Inc.
50 Industrial Ave
PO Box 247
Pioneer, OH 43554
800.547.2453
www.aopwater.com
Disclaimer: The ideas, opinions, concepts, procedures, etc. expressed in this publication are those of the individual authors and not necessarily those of the Ohio Section AWWA, its officers, general membership, or the editor.

2013 National Conferences

Feb 25-28 - San Antonio, TX - Membrane Technology Conference
Mar 10-13 - Phoenix, AZ - Utility Management
Jun 9-13 - Denver, CO - Annual Conference and Exposition
Nov 3-7 - Long Beach CA - Water Quality Technology Conference

2013 State Water Tests

May 8 - May 8 - Water I / II / III, Water Distribution I / II. Deadline for application February 7
Nov 7 - Water I / II / III, Water Distribution I / II Deadline for application August 9

2013 Specialty Conferences

July 16 - Water Distribution Workshop
August 22 - Canton Drinking Water Workshop (6 Contact Hours Each)

2013 Review Sessions

Northeast District - April 27 & Oct 26
Northwest District - April 27 & Oct 26
Southeast District - April 27 & Oct 21
Southwest District - April 27 & Oct 26

2013 Ohio Section Meeting

September 17 - 20, 2013, at the Seagate Convention Center and Park Inn, Toledo, Ohio

District Conferences

Northwest District Meetings

April 11 - Northern Expo/Meter Madness
April 25 - Joint NE/NW Sandusky
July 18 - Village of LaRue
October 17 - AWWA/OWEA - Lima

Southeast District Meetings

April 2 - Joint SE/SW – Deer Creek
April 9 - Southern Expo/Meter Madness
July 11 - Summer Meeting - TBD
October 11 - Fall Meeting - TBD

Northeast District Meetings

April 11 - Northern Expo/Meter Madness
April 25 - Joint NE/NW Sandusky
August 22 - Hall of Fame Canton
October 17 - Fall Meeting - TBD

Southeast District Meetings

April 29 - Joint SE/SW – Deer Creek
April 9 - Southern Expo/Meter Madness
July 11 - Raymond Memorial
October 4 - Westchester Golf

Deadline for material to be in the 2013 newsletters are:

Spring Issue - Feb 1 - Target mailing week of Mar 25
Summer Issue - May 31 - Target mailing week of Jul 15
Winter Issue - Oct 4 - Target mailing week of Dec 2