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VEGA radar sensors provide safe, continuous process operation while measuring through digester foam.

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Aeromod - Municipal and industrial wastewater treatment, biological nutrient removal (Sequox), ClarAtor clarifier

Ambio - Photoionisation odor control

Amwell - Bar screens, clarifiers, gear drives, grit removal, paddle flocculators, rectangular collectors, rotary distributors, DuraMax stainless steel chains, scum skimmers

Aquaturbo - Surface aerators, mechanical mixers, decanters, floatables control

Aquionics - Open and closed channel UV disinfection

Binder Group VACOMASS - Highly Precise and efficient air control valves

Continental Blower - Multistage centrifugal blowers

Clarifier Cleansweep - Clarifier algae control systems

Ebara Pumps - Water and wastewater pumps, submersibles, dry pit submersibles, self primers, grinders, end suction centrifugal, multistage, dewatering, sump, stainless, and axial flow pumps.

Excelsior Blower - Engineered PD blower packages Gardner Denver and Sutorbilt Blowers

Fibracast - Hollow-fibre sheet membranes, and mbr systems.

Flomotion Systems - Peristaltic pumps, flow, level, and chemical metering equipment.

Fluidyne Corp - ISAM SBR, jet aeration, Hydro-Grit, tertiary filtration

Jesco America Corp - Chemical feed systems and metering pumps

Landia - Chopper pumps, submersible Mixers, digester mix systems & aeration systems

Syneco Systems - Odor Control Systems for Wastewater, from manhole inserts to large Systems. Inflow inserts.

Tenco hydro - Dissolved air flotation lamella clarifiers, grease/concentrators, oil/water separators.

Thermal Process Systems - Class A thermophilic biosolids ATAD systems, mesophilic aerobic digestion, sidestream ammonia treatment

Ultraflote - Aluminum geodesic domes and heavy-duty flat covers.

USEMCO - Package water/booster stations & controls, control systems

Wigen - Drinking water treatment (NF/MF/UF/RO) Pressure filters, ion exchange equipment, arsenic removal systems.

WTP - Headworks screenings and grit removal

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Matt Winschel, PE
(804) 545-3115
mwinschel@winenv.com
Mailing Address:
PO Box 1596
Glen Allen, VA 23060

Western Virginia:
Gary Rookstool, PE
(540) 632-0111
gary.rookstool@winenv.com
Mailing Address:
PO Box 51
Buchanan, VA 24066
Welcome to 2018! VWEA certainly had a great deal of successes in 2017 and the year established a splendid trajectory for more success in 2018. The association’s Annual Report is included in this edition of The Conduit and we encourage you to review the report and utilize it for feedback opportunities that will be presented this year to help shape our update of the Strategic Plan.

VWEA leaders frequently discuss the impressive depth of leadership within the association and it is always exciting to see new ideas from members and committees moving into leadership positions become reality and make positive impacts within our membership. We launched into the new year with our annual Leadership Retreat, in conjunction with VA AWWA, on November 8 for committee leadership. The Leadership Retreat afforded the opportunity to engage with our committees on resources and policies, as well as determining where we were placing particular emphasis this year. Collaboration among committees and association leadership was our theme and a couple areas of emphasis are worth noting as we seek to build on our past success.

The first involved the interconnection of our technical committees back to WaterJAM. We have a great group of folks working on WaterJAM each year, and they have molded the event into one of the premier state conferences, but we want to ensure that our educational content reflects the latest trends in our industry and engages our membership. Our technical committees are full of subject area experts and these individuals are the most connected with their particular area of the utility industry. Both the VWEA and VA AWWA boards felt that we needed to better engage these members to help obtain the best possible content for JAM educational sessions. A process was started to connect at least one member from each technical committee with the JAM Technical Programs Subcommittee. This is a first year initiative that we hope to see grow and help produce new and exciting educational content, plus it is also a great avenue for members to connect and participate with the JAM Committee.

A second initiative is a focus on activities at the committee level. As VWEA has grown, the committees have become increasingly important to engage members and help them have a positive membership experience. Regular inclusion of educational talks by the Lab Practices Committee as well as better utilization of periodic face-to-face meetings were shared with other committees to encourage each area to consider how they might incorporate these elements into their committee work to improve member experiences. Committee leadership has a tremendous potential to impact member experience with some great ideas and we look forward to hearing how committees utilized this knowledge in the upcoming year. We encourage every committee to consider discussing these improvements in future issues of The Conduit as it serves as a great vehicle to share ideas and celebrate successes together.

The schedule for 2018 contains many exciting events and networking opportunities, including the WEF Collection Systems specialty conference in Virginia Beach in April. Our leadership for WaterJAM and other regional conferences are already hard at work to produce another outstanding year. We hope that these efforts serve you well in the upcoming year by equipping and supporting you in the critical work you perform to protect and enhance our water resources. Because of our efforts to update our Strategic Plan, additional survey opportunities to provide feedback to the association will be forthcoming, so please take advantage of these tools so we can ensure our activities meet your needs. Thank you for your ongoing membership and support of the association!
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2017 was a great year for VWEA. Last year the association set records for total membership as well as attendance at WaterJAM. The state-only membership initiative continued to grow and assist the association in serving new membership in underrepresented utilities and regions. Dedicated volunteers produced a wide variety of premier educational events and networking opportunities for our members. Our partnership with VA AWWA was further strengthened as the total number of joint committees increased. Perhaps the most exciting initiative involved the VWEA scholarship fund. Under the leadership of Grace LeRose, a vision was set to establish an endowment for scholarships. An increasing number of partners in the VWEA sponsorship program and conservative fiscal management allowed for rapid growth in the scholarship fund over the last few years, and the next step to establish an investment fund was completed under the leadership of President Eddie Abisaab and Treasurer Greg Everhart in 2017. Our committee leadership was also critical in allowing this investment to occur as they worked to meet important fiscal targets for regional events which support our ability to offer important programs like scholarships.

The year held a special surprise as WEF selected Virginia to host the Collection Systems 2018 specialty conference, which will be held in Virginia Beach in April of this year. A number of our members enthusiastically jumped into service to help make this event memorable, and we look forward to hosting this event. Two VWEA Operations Challenge Teams, Team HRSD and The Roanoke Blue Ridge Brawlers, represented the association at the national competition held at WEFTEC in Chicago.

In 2017, Kathy Rabalais celebrated six years of service and leadership with the association. Kathy’s leadership, enthusiasm, and hard work provide an excellent foundation for our success. Her assistance to members and committees continues to be an invaluable addition to VWEA, so Thank You, Kathy!

We hope that you can take a moment to review the information in this annual report. This year we will be working on updating the VWEA Strategic Plan, which will afford increased opportunities for you to share ways we can better serve our membership. Every success story begins with our members, so thank you for another great year!

Scott Shirley, VWEA President

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WHAT OUR MEMBERS ARE SAYING…

Jun Meng, P.E., YP Member, Greeley and Hansen
As a young professional in the water and wastewater business, VWEA membership provided me many opportunities to network with peers and industry leaders, and to broaden my perspectives through educational seminars and workshops. VWEA is the avenue of my choice to advocate environmental values and give back to the community. Through working with a diverse group of individuals who dedicate their time and creative minds to achieve the common goal, it truly reshaped who I am as a young engineer, allowing me to improve greatly in leadership and presentation skills.”

Amelia Wehunt, P.E., Timmons Group
Becoming a member has allowed me to grow my network within the stormwater community as well as take on leadership roles within the organization. VWEA’s training and professional development opportunities continue to be valuable resources to me and my company.

Ben Kirby, Student Member, GMU Alumnus, Environmental Engineer, Hall & Associates
As a student member for only a year, VWEA has provided invaluable resources and experiences at this early stage of my career. Participating in VWEA’s student design competition afforded me the opportunity to learn about the process of addressing a real-world wastewater engineering design problem in a team setting. This project allowed me to attend my first WaterJAM and WEFTEC, which provided forums to practice public speaking, technical writing, and networking. I encourage other students to join VWEA and participate early and often in VWEA activities to further their education and develop professional skills.

WHAT VWEA MEMBERSHIP HAS MEANT TO A RETIRING MEMBER…

Jeanie Grandstaff, Director, Hopewell Water Renewal
As a retiring VWEA member, I can’t help but think about all the years that I have been involved with VWEA. It has been an amazing journey. When I became a member 30 years ago, I remember looking at all the smart engineers and professionals who were leaders in the environmental field and/or in their localities. I was awestruck. It was amazing to be associated with people like Al Paessler, Bob Davis, and Wally Hadder, executives at the State Water Control Board. Also utility leaders like Jim Canaday at Alexandria Sanitation Authority (now Alex Renew), Charlie Maus at Pepper’s Ferry, and Millard Robbins at Upper Occoquan Sewer Authority, just to mention a few, were role models for me.

As a younger person, I watched these leaders and by becoming involved with VWEA, I worked with them on events and committees. Through this experience, I learned many leadership skills. These skills went a long way to boost my career. I started out working for the State Water Control Board, went to work in an environmental law practice, then at a consulting firm and finally at Hopewell Water Renewal where I worked my way up to director of the utility.

In addition to the leadership skills, the networking with everyone, allowed me to get to know people and people to get to know me and understand my work ethic and my abilities. This was also a boost to my career and provided me with employment and employee contacts. There is a lot to be said to go into a job interview and know the people interviewing you. It certainly makes for an easier decision on whether or not to accept the position.

I cannot say enough about VWEA and the opportunities and friendships it has provided me. My recommendations for anyone starting out in the water environment field is to join VWEA and become involved. You cannot go wrong. It may be the best career decision you ever make. It certainly was for me.
Ana Humphrey represented VA at the National SJWP Competition with her project, ColiFind: A Digital Image Analysis Application to Identify E. coli Colonies in Coliscan Easygel Water Quality Test and earned a plaque and $1000 as the runner-up.

2017 Seminars & Webinars
- Predicative Maintenance Seminars*
- Effective Utility Management Workshop*
- Design Build Workshop*
- Confined Space Safety Workshops*
- Sustainability Integration and Awareness Webinar*
- Thinking About Nutrients in Southwest Virginia
- NASSCO Inspector Training - Cured in Place Pipe (CIPP)

*In partnership with VA AWWA

2017 Lunch and Learns
- Municipal Planning – Cost Sharing for Water & Sewer Utility Construction
- HRSD SWIFT Project - EVRAC & NVRAC
- Miss Utility VA811- Know the Process for Damage Prevention
- What Might the Water Sector Expect in the Trump Era and the 115th Congress

2017 Donations/Awards
VWEA continued their support of many organizations and student projects in 2017. Our support included:

- Water For People
- 9 Regional Science Fair Awards – 1st and 2nd place
- Stockholm Junior Water Prize Travel
- Water Environment Research Foundation
- Student Design Competition Awards
- Student Design Team Travel to WEFTEC
- WaterJAM Wastewater Poster Contest
- Ops Challenge Teams Travel to WEFTEC

Total Provided: $23,725.00

2017 Seminars & Webinars

Committee Spotlight
Work for Water

The Joint VA AWWA/VWEA Work for Water Committee was extremely active in 2017. Under the leadership of Kim Clements, the committee participated in 12 career fairs! In addition to participating in career fairs, the committee held their second Junior JAM. The committee brought in local students to visit the exhibits hall at WaterJAM and had industry speakers provide presentations about careers in the water industry. The committee also coordinated with the student activities committee and assisted with two regional student water tower competitions.

Ana Humphrey represented VA at the National SJWP Competition with her project, ColiFind: A Digital Image Analysis Application to Identify E. coli Colonies in Coliscan Easygel Water Quality Test and earned a plaque and $1000 as the runner-up.
Networking and Community Service

VWEA members participated in four service projects in 2017. VWEA provided 29 networking opportunities in 2017. Members participated in golf tournaments, facility tours, after hour socials and more.

2017 Scholarships

- $2,500 - Sonny Roden Memorial Graduate
- $2,500 - Undergraduate
- $2,367 - Wastewater Operator Short School
- $2,500 - Rising Freshman
- $2,500 - Member Dependent

Total Awarded = $12,367

WaterJAM

2017 was another record year at the Joint Annual Meeting with VA AWWA in Hampton.
- 1,633 attendees, a new record!
- 261 first-time attendees
- 200 exhibit booths showcasing the latest technology
- 5 workshops
- Successful addition of mobile sessions in the exhibit hall

Awards

VWEA recognized 35 individuals and organizations in 2017 that made an outstanding contribution to the water environment profession and/or VWEA. Learn more about our awards at www.vwea.org/awards.

Ted Henifin with HRSD receives the A.H. Paessler Environmental Stewardship Award from Eddie Abisaab at WaterJAM 2017.

VWEA Annual Specialty Conferences

- Industrial Waste & Pretreatment
- Stormwater
- Education
- Operations
- Lab Practices

825+ attendees. 42 CEUs for PE and 32 CPEs for Wastewater Operators

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**2017 FINANCIAL INFORMATION**

**2017 REVENUES**
UNAUDITED

- Sponsor Donations: 12%
- Registration Fees: 63%
- Dues: 8%
- Ad Sales: 3%
- Exhibitor Fees: 9%
- Misc. Income: 5%

Total = $393,116.51

**VWEA BALANCE SHEET**
As of December 20, 2017

<table>
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<tr>
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<td>Bank Accounts</td>
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<td>Charles Schwab Scholarship</td>
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<td>Wells Fargo – Interest Checking</td>
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</tr>
<tr>
<td>Total Bank Accounts</td>
<td>$ 689,995.86</td>
</tr>
<tr>
<td>Total Current Assets</td>
<td>$ 689,995.86</td>
</tr>
<tr>
<td>TOTAL ASSETS</td>
<td>$ 689,995.86</td>
</tr>
</tbody>
</table>

| LIABILITIES AND EQUITY | |
| Liabilities | |
| Credit Cards | |
| American Express | 0.00 |
| Total Credit Cards | $ 0.00 |
| Total Current Liabilities | $ 0.00 |
| Total Liabilities | $ 0.00 |

| Equity | |
| Opening Bal Equity | 75,710.64 |
| Retained Earnings | 559,843.95 |
| Net Income | 54,441.27 |
| Total Equity | $ 689,995.86 |
| TOTAL LIABILITIES AND EQUITY | $ 689,995.86 |

**2017 EXPENSES**
UNAUDITED

- Programs: 41%
- Sponsor and Speaker Expenses: 2%
- Contract Services: 27%
- Awards, Sponsorships and Donations: 16%
- Misc: 7%
- Operating Expenses: 8%

Total = $342,891.43
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A couple of weeks ago a friend of mine told me a story of shepherd they had encountered in Albania on a mission trip. He said they were travelling by truck up a narrow road on the edge of this mountain when they pulled up behind a shepherd guiding his flock of sheep up the road and around the next pass to a field. Being there was no room for the truck to pass safely, a 700-foot cliff on one side and straight mountain walls on the other, they decided to get out and walk for a bit while they waited for the shepherd to lead his flock to the pasture. If you know anything about farming and sheep, sheep are not the smartest animals out there, and will often get themselves in bad and unsafe situations. Does this sound like anybody you know, an employee perhaps? Well as the story goes, the shepherd has to yell at the top of his lungs so the sheep can hear him, so that along with the echoes of the sheep bouncing between the mountain walls, the noise is unreal! As the sheep round the corner, one of them sees a bush with nice and pretty green leaves perched right on the edge of the cliff and makes a beeline for it and away from the rest of the herd. If this sheep would try to eat from this bush it would surely perish, as it would likely tumble down the mountain to the valley below. The shepherd sees this, and takes his long staff and gives that sheep a friendly “pop” right on the rear end. The sheep immediately gives up on his pursuit of the delicious snack and returns to the rest of the herd, safe and sound. So how did the shepherd see this sheep going off astray? Shepherds do not lead from the front, they lead from the back. This allows them to see the entire flock and anyone who may be veering off or falling behind.

How does this relate to safety and safety leadership? First, as safety leaders our responsibly is to keep our employees safe, uninjured, and out of harm’s way. This is done, through policies, procedures, job hazard analysis and so on. Second, we guide and teach our employees how to keep themselves safe and in compliance through regular training.
However, more often than that, we coach and mentor them. When they start going astray, we come beside them and give them that friendly, “Hey I care about you and your safety, let’s find a better way to do this,” a friendly “pop” as it were.

Now, I by no mean advocate hitting or touching your employees. Human Resources does not really like that sort of thing, and it can be misconstrued for other things. So when I say “pop,” I mean that figuratively, even though there are times you would like to beat them upside their hard hats with a big stick. However, as leaders we have to show restraint and level-headedness. In fact, big sticks rarely work. Yelling, cussing, and belittling your employees will get you nothing except resentment, hate, and poor morale. This in turn can increase the likelihood of serious accidents from employees, who then start taking shortcuts. Examples of possible shortcuts include not using a trench box or not setting up fall protection system, in order to get the job done faster for fear of what may occur if they take longer than their supervisor thinks they should.

You could have that one employee, which we all do, who just doesn’t want to follow the rules no matter what, no matter how many times you have used the little stick to guide and coach them. Then a bigger stick may be called for. In most organizations the path is progressive discipline with the end result being termination, but that really should be a last resort and is not needed for most employees.

This is the approach that I have taken in my safety career. On my first day, the guidance I was given was, not to be Jonathan “Attila the Safety Hun,” but Jonathan the mentor and coach. That’s the philosophy of safety leadership that I have had over these past years. There are times I lead from the front and try to impose my vision and philosophy of safety with management, through policies, procedures, and the training that we conduct. However, with the guys in the field it is different. I try to lead from the back, to be that coach, mentor and teacher. To be that level-headed person in the middle of what is at times chaos. Now that doesn’t always happen because I have spent the time and effort building the relationships, doing the teaching and coaching, and at the end of the day, they know I have their best interest in mind.

This is how I/we do this job. Without the relationships we build it is hard to reduce injuries, to have employees come and tell us the near misses that occurred, to engage them in a safety culture that identifies hazards, before they become problems.”
which were opportunities to make corrective actions before someone got hurt. This shows we are engaging our employees in our safety programs, and starting to change the safety culture. We still have a long way to go, and I cannot take full credit. It is a team approach that starts with the buy-in at the top and travels throughout the organization to the employees who want to keep themselves and their fellow coworkers safe.

Hopefully, you and your organization can take something away from this brief article that moves you both forward. Safety is a big deal, because it is life and death, and everyone wants to go home at the end of the day.

I also want to mention that we are in a time of transitioning leadership in the Safety and Security Committee. Every two years we have a new chair, and my time has come to step into that role. I want to thank all the previous chairs for the big shoes that I now have to fill moving this great committee forward over the next two years. I could not do it without their continued support, which includes a great vice-chair, and great committee members, so a big thanks goes out to them all.

As side note, more information will be coming out soon on next year’s Safety and Security Seminars on Fall Protection and Walking and Working Surfaces to be held in Newport News on March 29, 2018, Roanoke in June 2018, and Woodbridge in November 2018.

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<thead>
<tr>
<th>POTABLE WATER</th>
<th>WASTEWATER</th>
<th>LAKES, RAW WATER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce THMs</td>
<td>Improve mixing</td>
<td>Reduce cyanobacteria</td>
</tr>
<tr>
<td>Active tank mixing</td>
<td>Save energy</td>
<td>Mitigate taste, odor, toxins</td>
</tr>
<tr>
<td>Manage residuals</td>
<td>Improve compliance</td>
<td>Reduce manganese, iron</td>
</tr>
</tbody>
</table>
THE VWEA FACILITY SAFETY AWARDS

First Place Award: The WEF George W. Burke Facility Safety Award*
Second Place Award: The VWEA Facility Safety Award*

Purpose: The purpose of the VWEA Facility Safety Awards is to encourage members to engage in an active and effective safety program in municipal and industrial wastewater treatment.

Benefits of submitting an application:
• Benchmarks your wastewater facility's safety program
• Helps eliminate or reduce safety hazards
• Promotes facility safety awareness amongst staff
• Identifies safety program areas that may need improvement
• Reduces workplace accidents
• Mitigates noted safety inspection violations
• Be recognized as a safe workplace by peers
• Prepares your facility staff for a Virginia OSHA (VOSH) inspection

Notes:
1. Facilities that received either award the previous year are not eligible for a Safety Award this year.
2. At least one (1) employee of the nominated facility must have a current Professional, Academic, PWO, Young Professional, Student or Corporate member status in the VWEA.

Facility inspection: Upon receipt of your application, the VWEA Safety Awards Champion will schedule a visit to your facility to review your overall safety program. Winner (s) will be selected by June 22, 2018 and notified as soon as results are final. Winning facilities will be recognized and awards presented at the 2018 Joint Annual Meeting (JAM), September 10-13, 2018, at the Virginia Beach Convention Center, 1000, 19th Street, Virginia Beach, VA 23451.

Areas of interest to the inspection team are, but not limited to:
• Evidence of a good safety record
• Facility written safety programs
• Maintenance of all safety equipment (life safety and personal protective equipment PPE)
• A visual inspection of the facility for safety compliance and level of security
• Any other information that would complement the facilities safety compliance and level of security
• Safety training program and documentation
• Maintenance of treatment/process equipment

2017 Burke Facility Safety Award Winner: Town of Christiansburg
THE VWEA FACILITY SAFETY AWARDS APPLICATION

Submissions: A hard copy of this application must be postmarked no later than Friday, March 30, 2018 or an electronic copy of the completed application delivered to the Safety Awards Champion (contact information listed below) by March 30, 2018.

Forward completed application to: Wayne Sirna, Past Chairperson  
Facility Safety Awards Champion  
VA AWWA/VWEA Safety & Security Committee  
Dewberry  
8401 Arlington Boulevard  
Fairfax, Virginia 22031-4666  
Phone: (703) 645-9717  
Email: wsirna@dewberry.com

Name of facility: ________________________________________________________________

Person in responsible charge: ______________________________________________________

Address: ______________________________________________________________________
_____________________________________________________________________________

Physical address (if different from above): ____________________________________________
_____________________________________________________________________________
_____________________________________________________________________________

Telephone: _____________________________________________________________________

Email address: __________________________________________________________________

Name of VWEA member: ___________________________________________________________

Membership number: _____________________________________________________________

Facility size (circle one and list design flow):

- SMALL (5 or fewer employees) Design Flow: ____________
- INTERMEDIATE (6 to 20 employees) Design Flow: ____________
- LARGE (more than 20 employees) Design Flow: ____________

*NOTE: SAFETY AWARDS ARE PRESENTED SOLELY BASED ON FACILITIES MEETING THE CRITERIA ABOVE AND ARE NOT AWARDED BASED ON THE NUMBER OF APPLICATIONS RECEIVED.
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Water and wastewater systems are critical services that local governments provide to their residents – and local governments collect rates and fees from residents and businesses to pay for these services. With more than 250 providers of water and wastewater services across Virginia (including cities, counties, towns, and authorities) it is difficult to analyze statewide water and wastewater rate trends. Yet, a good understanding these trends is critical when utilities compare their rates to other rates across the state and can be essential when utilities consider rate increases.

It was out of this necessity that Draper Aden Associates began collecting data on water and wastewater rates and fees. For almost 30 years, the firm has surveyed local government providers of water and sewer and has summarized the results of the survey in an annual report. The 2017 edition of the Virginia Water and Wastewater Rate Report was released in October 2017. Draper Aden collaborated with the Virginia Water Environment Association to conduct the survey and to present the results.

**Key Findings**

The 2017 report reinforces that rates continue to rise and that the frequency of rate increases is up as well. According to the results of this year’s survey, the combined average monthly
residential water and wastewater rate increased 3.6 percent from 2016. Over the past 10 years, the combined average monthly water rate and wastewater rate increased by 60.3 percent.

Not only are water and wastewater rates rising, the frequency at which rates are adjusted is increasing as well. In 2017, 55 percent of the respondents to the survey reported a rate increase during the previous six months; and an additional 24 percent had increased rates in 2015 or 2016.

There are three primary reasons for the rise in rates and frequency of rate increases. First, providers face rising costs. From maintenance of treatment facilities plants and pipelines to chemical costs, water and wastewater systems are increasingly expensive to maintain and operate. Second, water and wastewater systems face significant pressure to cover their expenses. Many systems cannot rely on support from general fund accounts because general fund for most municipalities is stretched thin to cover other governmental costs. Third, water consumption is down, resulting in less revenue for water and wastewater providers. Not only are new homes equipped with water-efficient fixtures and appliances but, as older homes are upgraded, repaired or remodeled, older appliances and fixtures are frequently replaced with ones that use less water.

The challenge for utilities is that as we become more efficient with the use of water and consumption decreases, costs to maintain and update water and wastewater systems continue to increase. This scenario places providers in a difficult position as consumption drops while costs continue to rise.

Water and wastewater providers across Virginia face these challenges and will likely need to continue to increase rates in the coming years to address them.

Top Concerns

Respondents to the 2017 survey identified the top challenges faced by their utility and many respondents shared many of the same concerns. The most significant concern identified was related to financial matters and customer service and was long-term financial stability. Fifty-seven percent of providers who participated in the survey ranked long-term financial stability as most important. Maintaining levels of service was the second highest ranked concern with 52 percent of providers listing it as most important as well.

The top concerns regarding the management of assets were not surprising. Aging infrastructure was the most frequently cited issue with 56 percent of providers ranking it as most important. Meeting regulatory requirements also was top of mind as 49 percent of providers listed it as most important as well.

Each of these challenges poses a unique set of problems for water and wastewater providers. Aging infrastructure is expected to remain a top concern. Utilities must continue to assess their existing facilities and invest in infrastructure maintenance and improvements.

Surprising Results

Although the top concerns shared by providers in the 2017 survey were expected, a few of the results surprised the survey team. One of the biggest surprises was the low ranking of declining water consumption as a concern. Only 12 percent of providers listed this challenge as most important while twice that amount (24 percent of providers) indicated that it is not important. A similar surprise was that water conservation/demand management did not rank as high as expected on the list of concerns.

About the Report

The 29th Annual Virginia Water and Wastewater Rate Report 2017 was produced by Draper Aden Associates, an engineering, surveying, and environmental services firm with offices in Virginia and North Carolina. To conduct the survey and prepare the report, Draper Aden partnered with leading trade associations that support municipalities and utilities, including the Virginia Water Environment Association and American Water Works Association.

Respondents include over 140 water and wastewater providers in Virginia. Of the utilities that responded to the survey, 47 percent were towns, 19 percent were authorities, 17 percent were counties, and 17 percent were cities. Respondents were asked to answer a variety of questions, including residential and non-residential water and wastewater rates, connection fees, and capital recovery charges. The report and an interactive Rates Dashboard can be accessed online at www.daa.com/resources. To receive a printed copy of the report, please contact me at 804-261-2915 or sstephens@daa.com.

The survey team appreciates all the participants who complete the annual survey. This data and the resulting report provide critical information to utilities across the state. Surveys for the 2018 report will be released in June 2018. Survey materials are distributed via mail and email. If you did not receive a survey this year and believe that you should be included, please contact me at 804-261-2915 or sstephens@daa.com.

Sheryl Stephens is a Senior Community Resource Specialist in the Site Development and Infrastructure Division of Draper Aden Associates, an engineering, surveying, and environmental services firm in the Mid-Atlantic. Sheryl is the primary author of the annual Virginia Water and Wastewater Rate Report. She can be contacted at 804-261-2915 or sstephens@daa.com.
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Paper is an essential part of human civilization. While we all use and depend upon electronic communications, it is easy to ignore that it comes at an environmental cost. Worldwide spam email traffic creates greenhouse gases equivalent to burning two billion gallons of gasoline yearly, with numbers rising. More than 200 million items of toxic e-waste are thrown away every year in the US alone, with a recycling rate of only 18% compared to 57% for paper. Estimates are that North Americans throw out more than 500,000 toxic computers and cell phones every day.

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DEQ’s Virginia Environmental Excellence Program

Honors Utilities

By Denise Nelson, P.E., ENV SP, LEED AP

The Virginia Environmental Excellence Program (VEEP) was authorized by the Virginia General Assembly in 2005 to encourage facilities and organizations to go above and beyond their legal requirements with regard to the environment and pollution. The Virginia Department of Environmental Quality (DEQ) administers the program that recognizes achievements at a facility and achievements of an organization.

The facility-based track encourages facilities to use environmental management systems (EMS) based on the principles of ISO 14001 and pollution prevention techniques. Participants must have a record of sustained compliance. This track includes three levels:

- Environmental Enterprise (E2) is for facilities in the early stages of implementing an environmental management system (EMS).
- Exemplary Environmental Enterprise (E3) is for facilities with fully-implemented EMSs, pollution prevention programs and demonstrated environmental performance.
- Extraordinary Environmental Enterprise (E4) is for facilities with both fully-implemented EMSs (verified by a third party) that have committed to measures for continuous and sustainable environmental progress and community involvement.

An environmental management system is defined by Section 10.1-1187.1 of the Code of Virginia as a “comprehensive, cohesive set of documented policies and procedures adopted by a facility or person and used to establish environmental goals, to meet and maintain those goals, to evaluate environmental performance and to achieve measurable or noticeable improvements in environmental performance, through planning, documented management and operational practices, operational changes, self-assessments, and management review” (the term includes, but is not limited to, systems developed in accordance with ISO 14001).

The Sustainability Partners (SP) track encourages organizations such as businesses, local governments, universities and state agencies to make environmental sustainability part of their culture through leadership, innovation, and continual improvement.

One of the benefits of participating in the program is recognition of accomplishments and achievements. Facilities and organizations may host a recognition ceremony, display a plaque or flag, or apply for additional recognition through the annual Governor’s Environmental Excellence Award program.

The second benefit is the potential for regulatory incentives for facilities (there are no regulatory benefits associated with Sustainability Partners). This includes discounts on permit fees as follows:

Solid Waste Management: Participating E2 facilities will receive potentially up to a 10% discount on annual fees; E3 facilities will receive potentially up to a 20% discount. The total of all discounts cannot exceed $140,000 annually for all solid waste facilities.
Hazardous Waste Management: Participating E2 facilities will receive potentially up to a 5% discount; E3 facilities will receive potentially up to a 10% discount. The total of all discounts will not exceed a total of $26,000 annually.

Water: Participating E2 facilities will receive potentially up to a 2% discount; E3 facilities will receive potentially up to a 5% discount. The total of all discounts will not exceed a total of $64,000 annually.

Another regulatory incentive is that E3 and E4 facilities may apply for alternative compliance methods to state regulations. Potential alternative compliance methods outlined by the law include “changes to monitoring and reporting requirements and schedules, streamlined submission requirements for permit renewals, the ability to make certain operational changes without prior approval, and other changes that would not increase a facility’s impact on the environment.”

Any facility that impacts the environment through its operations, activities, processes, location, or other parameter is eligible to participate in the program. There are several water and wastewater facilities and organizations recognized for excellence in the program. Below is a list to date by track and level:

- **Environmental Enterprise (E2) Facilities**
  - Chesterfield County
  - Utilities Water Distribution Operations & Maintenance Department
  - City of Staunton, Department of Public Works
  - Utility Field Crews Division
  - Water Treatment Plant
  - York County Department of Public Works

- **Exemplary Environmental Enterprise (E3) Facilities**
  - Augusta County Service Authority
    - Cassell Elementary School WWTP
    - Fisherville WWTP
    - Greenville WWTP
    - Harriston WWTP
    - Middle River WWTP
    - Mt. Sidney WWTP
    - New Hope WWTP
    - Stuarts Draft WWTP
    - Vesper View WWTP
    - Weyers Cave WWTP
  - Chesterfield County
    - Falling Creek Wastewater Treatment Plant
    - General Services - Waste and Resource Recovery Division
    - Proctors Creek Wastewater Treatment Plant
  - City of Newport News
    - Department of Public Works
  - Hopewell Regional Wastewater Treatment Facility
  - Prince William County Public Works Division
    - Watershed Management
  - Spotsylvania County Utilities
    - Massaponax Wastewater Treatment Facility
    - Motts Run Water Treatment Plant
    - Ni River Water Treatment Plant
    - FMC Wastewater Treatment Facility
    - Thornburg Community Sewage Treatment Plant

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Park 500 has been involved with the Virginia Environmental Excellence Program (VEEP) since we began developing our Environmental Management System (EMS). We started at the E2 level, which provided us guidance and incentives. We are now at the E4 level and have several environmental and outreach programs that benefit our facility and our community. The value of our participation in VEEP has far exceeded the financial incentives provided by the program.

Extraordinary Environmental Enterprise (E4) Facilities
- Alexandria Renew Enterprises
- Blacksburg - VPI Sanitation Authority
- City of Newport News
  - Waterworks (Harwood’s Mills, Lee Hall and Maintenance/Operations Center)
- City of Williamsburg Public Works & Utilities Department Complex
- Fairfax County Wastewater Management Program
- Philip Morris USA, Park 500 Facility

Sustainability Partners
- Alexandria Renew Enterprises
- City of Charlottesville
- City of Newport News
- City of Roanoke
- County of York
- Prince William County
- Rivanna Water and Sewer Authority

Congratulations to these water, wastewater, and stormwater utilities for their superior environmental performance!

If you are interested in learning more about VEEP, visit DEQ’s website. There are numerous resources including:
- Fact sheets, toolkits, and samples.
- The program application and instructions.
- Information on annual reporting requirements.
- An archive of the webinar “Creating a Culture of Sustainability: Increasing Buy-In Through Communication.”
- Descriptions of regional EMS initiatives.
- Dates for regional DEQ VEEP workshops.

Denise Nelson is an Environmental Engineer with The Berkley Group. She serves on the VA AWWA/VWEA Sustainability Utilities Committee. The Berkley Group recently participated in DEQ’s Valley Region VEEP workshop and helped to provide breakfast and lunch to attendees.

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(E) jerry.shupe@inframark.com

AT INFRAMARK, PURE PARTNERSHIP ISN’T JUST A CATCHPHRASE...
The New Year always represents new beginnings and future plans. High school seniors and their families, including many VWEA members, begin making plans for their future, and many of these plans include college or entry into the water profession. For currently enrolled college students this time of year means achievement of one milestone through completion of another semester and planning for the future – such as planning for summer and the following school year. Some soon-to-be high school graduates are planning to start a career in our industry as operators, and experienced operators are planning to attend short school at VA Tech to further their career.

VWEA supports these new beginnings and opportunities for education through VWEA’s Scholarship Program. One of the most important missions for the association is education – both for our members and for our industry. We have all heard about how encouraging the next generation of operators, laboratory scientists and engineers will ensure we have the best trained staff to continue the important work of providing clean and safe water to our communities. VWEA is committed to this very important mission – and we put our money to work! The College scholarships are all in the amount of $2500 with and Operator’s scholarship covers tuition and boarding for one student and tuition for two more attendees.

VWEA is offering five scholarships this year – serving everyone from college freshman, to community college students to graduate engineering students and operators. The scholarships are:

Rising Freshman – open to all 2018 High School graduates planning to begin attending Virginia universities or community colleges and studying civil or environmental engineering or physical/environmental sciences.

Undergraduate – open to all undergraduates attending Virginia universities or community colleges and studying civil or environmental engineering or physical/environmental sciences.

Sonny Roden Memorial – open to all graduate students enrolled in civil or environmental engineering or physical/environmental science graduate programs at Virginia universities.

Operators – open to all operators employed in the wastewater treatment profession in Virginia. WEA will award up to three scholarships for operators to attend the Operator Short Course at Virginia Tech (one award will include full tuition and boarding and two will be for tuition only).

Member Dependent – open to all children of current VWEA members enrolled at Virginia universities or community colleges in a civil or environmental engineering or physical/environmental science undergraduate program.

The Member Dependent Scholarship is one of the most important direct member benefits VWEA offers, and the Scholarship Committee encourages dependents of VWEA members that meet the criteria for this one to apply. All of you who have college aged children studying civil or environmental engineering or physical/environmental science at a Virginia university or community college should ensure your kids apply for this very special benefit!

Applications for all of the VWEA scholarships are available on the VWEA website (www.vwea.org/page/Scholarships). Applications are due May 25th for all except the Operators Scholarship, with that one being due June 15. Please spread the word to your co-workers, your kids, your kids’ schools, and anyone who could use a boost to help pay their education expenses. You might be helping the next Plant Superintendent, Chief Chemist or Director of Engineering, and future VWEA Leader!

THE 2017 SCHOLARSHIP WINNERS WERE:

Matt Wiggins, Rising Freshman Scholarship
Amiana McEwan, Sonny Roden Memorial Graduate Student Scholarship
Grant Rabalais, Member Dependent Scholarship
Jenna O’Brien, Undergraduate Student Scholarship
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- Dual use flexibility for tertiary and wet weather applications
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PWCSA WASTEWATER PLANT RECEIVES REGULATORY COMPLIANCE AWARD

The Prince William County Service Authority’s H.L. Mooney Advanced Water Reclamation Facility has won a Platinum Peak Performance Award from the National Association of Clean Water Agencies (NACWA) for the fourth consecutive year.

The Woodbridge-based wastewater treatment plant has achieved 100 percent regulatory compliance for the last eight years. The Service Authority was recognized at NACWA’s Utility Leadership Conference held in St. Louis last summer.

“The staff at the H.L. Mooney Advanced Water Reclamation Facility continues to do an outstanding job protecting the environment,” said General Manager Dean Dickey. “To achieve an eighth consecutive year without any permit violations is a remarkable accomplishment and one worth commending.”

The Service Authority’s wastewater treatment process significantly reduces the amount of nitrogen and phosphorus released into the Neabsco Creek, which is a tributary of the Potomac River. Excessive nitrogen and phosphorus can fuel the growth of algae blooms that can lead to low oxygen “dead zones” in the Chesapeake Bay.

“Our folks work around the clock to ensure that everything we do at the plant complies with all state and federal regulations,” said Service Authority Process Engineer Maureen O’Shaughnessy. “The Service Authority is proud to play an important role in preserving our waterways, and we are thrilled to have won this award.”

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# U.S. STOCKHOLM JUNIOR WATER PRIZE 2018

For many years the Stockholm Junior Water Prize (SJWP) has congregated the nation’s most imaginative young minds for an outstanding competition in water-related science projects. A high school student (or group of two students, grade 9-12) with a science project aimed at enhancing the quality of life through the improvement of water quality, water resource management, or water and watershed treatment is qualified to participate in the SJWP.

Every year, typically in March, the Virginia Water Environment Association (VWEA) will volunteer judges for the SJWP competition at regional high school science fairs all over the Commonwealth. The two top students (or student groups) at each fair receive monetary awards and are highly encouraged to continue their research.

In addition to the two winners at each science fair, judges will be asked to pass out literature to all students who present a water-related project, inviting them to submit their work to the VA State SJWP. In April, SJWP will ask for volunteer judges to read and score these papers as a means of choosing a state winner. The student(s) chosen to represent VA at the SJWP will travel to North Carolina to compete against the rest of the country; and if chosen as the national winner, the student(s) will then travel to Stockholm, Sweden to compete at the international level!

We are looking for volunteers to judge these science fairs (listed below). If you or someone you know are interested at any of these fairs, please contact the SJWP State Co-Organizers Angela Weatherhead (angela.weatherhead@hdrinc.com or 757-599-7012) or Christine Radke (cradke@werf.org or 571-384-2106). For more information on SJWP, please visit www.wef.org/sjwp.

Please help show your support for all these wonderful student researchers!

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<td>Radford</td>
<td>Blue Ridge Highlands Regional Science Fair</td>
<td>Radford University - Peters Gym</td>
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<td>Lynchburg</td>
<td>Central Virginia Regional Science Fair</td>
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<td>Shenandoah Valley Regional Science Fair</td>
<td>Godwin Hall, James Madison University</td>
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<td>Math Science Innovation Center</td>
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<td>Fairfax</td>
<td>Fairfax County Area Regional Science and Engineering Fair</td>
<td>Robinson Secondary School</td>
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<td>Roanoke</td>
<td>Western Virginia Regional Science Fair</td>
<td>Hollins University</td>
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<td>April 13 or 14</td>
<td>Roanoke</td>
<td>Virginia State Science and Engineering Fair</td>
<td>Virginia Military Institute</td>
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<td>N/A</td>
<td>SJWP Paper Judging</td>
<td>Work From Home!</td>
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*Dates to be determined
PWCSA WINS TOP GREEN AWARD IN PRINCE WILLIAM COUNTY

The Prince William County Service Authority has won the Top Green category of the 2017 Prince William County Green Community Awards. This honor is given to a business or organization that demonstrates the greatest number of efforts and programs to help protect Prince William County’s natural environment and preserve its resources.

“We are thrilled to be recognized for this award. Our employees take their role as responsible stewards of the environment extremely seriously,” said Service Authority Board Chairman Joyce Eagles. “The Service Authority works around the clock every day to protect the health of our waterways and provide high quality tap water to our customers.”

The Service Authority was recognized for a variety of “green” initiatives, including its promotion of wise water use, improvement of water quality, reduction in risk of sanitary sewer overflows and its community outreach and education programs. The Service Authority was recognized for this achievement at an awards ceremony held last summer at the Ben Lomond Historic Site in Manassas.

VISIT US ONLINE!
The Public and Government Affairs Committee (PGAC) is now taking nominations for the 2018 VWEA Al H. Paessler Environmental Stewardship Award. Al Paessler was one of the initial employees of the State Water Control Board, which was formed in 1947. He served as Executive Secretary from 1949 to 1972 and was the longest-serving Executive Secretary of one of the precursor agencies to VDEQ. He was President of the Virginia Water Pollution Control Association (now the Virginia Water Environment Association) from 1959-1960. By naming this award after Mr. Paessler, the award emphasizes government employee service to the water environment field and to the association. The PGAC evaluates the nominations and makes a recommendation to the VWEA board for approval. If approved, the Al. H. Paessler Environmental Stewardship Award is presented at the VA AWWA/VWEA WaterJAM.

If there is a person you believe should be considered for this award, please contact James Grandstaff, Chair of the Public and Government Affairs Committee at 804-501-7689 or at gra@henrico.us. For each nomination the following items are required:

• Nominee name
• A one-page biography of the nominee
• A list of the specific reasons for the nomination (two pages maximum) that relates to his/her work in improving the water environment
• Any other supporting material that relates to the award criteria

Nominations must be received by March 15, 2018.
The Conduit – Winter 2018

Click HERE to return to Table of Contents

Do you have a hard time traveling on a foggy morning? Imagine how your conveyance system feels when it is full of FOG! The 34th Annual Industrial Waste & Pretreatment Conference will address how to help prevent these issues with an effective Fats, Oils and Grease (FOG) program, local limits, and more. But don’t worry, we are not only discussing FOG this year, we will have a presentation on a green pretreatment initiative at a large food processing facility, EPA updates, DEQ updates, and key updates on water quality and quantity regulation in Virginia. The Industrial Waste & Pretreatment Conference will be held on March 5 & 6, 2018 in Charlottesville, Virginia. Please visit the VWEA website at www.vwea.org/event/34thIWP for the detailed brochure and registration information.

If you would like to get involved with the committee, please contact Chris Carlough at ccarlough@hrsd.com

34TH ANNUAL INDUSTRIAL WASTE & PRETREATMENT CONFERENCE

By Chris Carlough, HRSD Pretreatment & Pollution Prevention Manager

7th Annual VWEA Operations Education Conference & Operations Challenge Roanoke, VA

Save the date!

Virginia Water Environment Association

June 27-28, 2018
Hotel Roanoke & Conference Center
The Public and Government Affairs Committee (PGAC) is now taking nominations for the 2018 VWEA Public Officials Award. The Public Officials Award is presented to an elected or appointed public official who has made a documented, significant contribution in the areas of clean water legislation, public policy, government service, or another area of public prominence that resulted in improvements to the water environment. The award can be presented for public service at the local, state or federal level. The PGAC evaluates the nominations and makes a recommendation to the VWEA board for approval. If approved, the Public Official Award is presented at the VA AWWA/VWEA WaterJAM. Winners of the VWEA Public Officials Award are nominated for the WEF Public Officials Award.

If there is a person you believe should be considered for this award, please contact James Grandstaff, Vice Chair of the Public and Government Affairs Committee at 804-501-7689 or at gra@henrico.us. For each nomination the following items are required:
- Nominee name
- A one-page biography of the nominee
- A list of the specific reasons for the nomination (two pages maximum) that relates to his/her work in improving the water environment
- Any other supporting material that relates to the award criteria are required for each nomination.

Nominations must be received by March 15, 2018.
Marshmallow Spaghetti TOWER CHALLENGE

By VWEA Communications Committee

Who: VA AWWA and WEA Committee Chairs and Vice Chairs
When: 11/8/17
Where: Annual Leadership Training (Science Museum of Virginia)

Challenge:
• Using the supplies provided, build the tallest tower possible
• Marshmallow must be at the very top of the spaghetti tower
• Whole structure must stand on its own for five (5) seconds

Supplies:
• Marshmallow
• Spaghetti
• String
• Masking Tape

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As Flushable Manufacturer Sues, We Push Back

WEF and NACWA File Amicus Brief in Support of District of Columbia’s Wipes Law


This law, the Nonwoven Disposable Products Act of 2016, aims to protect the sewer systems from backups by defining the term flushable for any disposable wipes sold within Washington, D.C., and requires manufacturers of non-compliant products to “clearly and conspicuously label” them as products that “should not be flushed.”

The Law
This law is the first successful attempt by any jurisdiction to enact legislation to define flushable officially for labeling, the brief states. The law provides that a “nonwoven disposable product” that is offered “for sale in the District” can be labeled as “flushable” only if it: “(A) Disperses in a short period of time after flushing in the low-force conditions of a sewer system; (B) Is not buoyant; and (C) Does not contain plastic or any other material that does not readily degrade in a range of natural environments.”

The D.C. Council passed the law unanimously in December 2016. As introduced, the bill prohibited the advertisement, packaging, or labeling of any nonwoven disposable product as flushable, sewer safe, or septic safe unless the claim is substantiated by competent and reliable scientific evidence. The bill authorizes the District Department of Energy and Environment to impose civil fines and penalties to sanction non-compliance with its provisions. The law requires the labeling rule to take effect Jan. 1, 2018, a deadline that the district is unlikely to meet.

The Call to Action
Since Washington, D.C. is a federal city, Congress has granted the city home rule authority to make and implement its own laws. But, the U.S. Congress also has retained jurisdiction over policies and budget matters; on occasion Congress has revoked district laws. In July 2017, some members of Congress suggested that they would take full advantage of this policy, by introducing a rider to the DC Appropriations Bill that would prevent the district from moving forward with the wipes legislation.

In response, WEF sent a letter of support to D.C.’s non-voting member of Congress Rep. Eleanor Holmes Norton and members of both the House and Senate Appropriations Committees to protect the district’s new law. Additionally, WEF issued a “Call to Action” to the WEF membership urging them to contact their senators and representatives to oppose the rider. The WEF Water Advocates program had a resounding response with 232 letters sent in just one week.

The Lawsuit
The Kimberly-Clark Corp. has sued the district to stop enforcement of the law. The plaintiff’s case states that requiring manufacturers to adhere to the definition set forth in the new law “restrains commercial speech and
compels speech by private actors,” which would violate the First Amendment. The manufacturer’s claim further says that the law violates the Commerce Clause because it invalidly seeks to regulate the conduct of manufacturers in other states by imposing civil sanctions on conduct that is entirely lawful in other states.

The Amicus Brief
In the brief supporting the district’s right to enforce the law, WEF and NACWA state that they “have a strong interest in the Court rejecting the current challenges to the authority of state and local governments to decide which products may safely enter their own sewer and wastewater systems and to create mechanisms to enforce those standards.”

The 32-page brief describes the burden that wipes place on sewer systems in Washington, D.C., and nationwide. “The increased popularity of wipes marketed as ‘flushable’ has been accompanied by a rise in costly burdens associated with handling flushed wipes – burdens borne directly by municipalities, utilities, and ratepayers,” the amicus brief states.

The brief explains the effects of wipes that do not readily degrade. They can combine with fats, oils, greases, and other debris to cause major clogs in sewer and wastewater systems. They can accumulate in pump impellers; this leads to reduced efficiency, increased electrical power used by pumps, and, potentially, complete malfunction. To restore service, workers must perform the costly, time consuming, and hazardous task of physically unclogging the pumps.


WEF continues to support the District of Columbia law, as well as convey the burden that flushable wipes and other products can cause our infrastructure. We encourage our members to continue to share their stories and hardships with their communities and representatives, along with the messages to “Only Flush the 3Ps” and “Toilets are not Trashcans.”

Brianne Nakamura, PE, ENVSP, is the manager of Collection Systems and Sustainability in the Water Science & Engineering Center at WEF. She is the staff liaison for both the Collection System Committee and the Flushables Task Force. She can be contacted at bnakamura@wef.org.

Steve Spicer is the director of Content Creation and managing editor of Water Environment & Technology magazine at the Water Environment Federation (Alexandria, Va.). He can be reached at sspicer@wef.org.

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The Water Environment Federation Announces its 2017-2018 Board of Trustees

The Water Environment Federation (WEF) is pleased to announce its 2017-2018 Board of Trustees as confirmed by WEF’s House of Delegates during WEFTEC® 2017 in Chicago, Ill. and led by 2017-2018 President Jenny Hartfelder.

At a ceremony on Oct. 3, the WEF “gavel of leadership” was passed from president Rick Warner (Reno, Nev.) to incoming president Jenny Hartfelder, who is currently a vice president with MWH, now a part of Stantec, and serves as a national campaign manager out of Denver, Colo., where she provides strategic planning and leadership for the business development activities for the water sector across the United States.

During her year-long term as WEF president, Hartfelder will continue to help fulfill the Federation’s strategic direction and critical objectives – to connect water professionals, enrich the expertise of water professionals, increase the awareness of the impact and value of water, and provide a platform for water sector innovation.

“This past year, we have made great progress on WEF’s objectives,” Hartfelder said during her acceptance speech. “In this next year, I want to focus our efforts on increasing the awareness of the value of water...”

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“IIn this next year, I want to focus our efforts on increasing the awareness of the value of water...”

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This year, an inaugural event, called UNLEASH (www.unleash.org), brought together more than 1000 talents from around the world to tackle the United Nation’s Sustainable Development Goals. The Water Environment Federation (WEF, Alexandria, Va.) sponsored eight young water professionals to attend the in Denmark to represent the North American water sector.

After several days of a facilitated innovation process, conceiving solutions, and testing them with leading experts and companies, one the WEF-sponsored professionals, Fidan Karimova, was selected to receive the Most Visionary award. Ashton Kutcher presented this award in front of thousands of attendees, which included the Princess of Denmark.

The Sustainable Development Goals
The Sustainable Development Goals (SDGs) originated in 2016 to continue the work of the United Nation’s Millennium Development Goals MDGs that originated in 2000 with 189 countries signing on to seek their achievement by 2015. Between the two lists, the number of goals increased from eight to 17, adding areas that were not previously covered. The SDGs is the largest global partnership agreement and development plan for the planet ever made, according to the UNLEASH website. SDG 6 seek to “ensure availability and sustainable management of water and sanitation for all.”

WEF’s role and contributions
Although North American countries are not automatically associated with vulnerable water sources, the Flint, Mich., water crisis in the U.S. and radioactive particles in northwestern Ontario in Canada prove that no region is immune to water issues. The Water Environment Foundation (WEF) was established exactly for this reason – to protect public health and the environment through increasing the awareness of the affect and value of water. WEF supports young professionals in the water industry and encourages them to take on more proactive roles in the industry.

Once in Denmark, the eight WEF-sponsored participants mixed with the other 1000 participants and were placed in groups with people from throughout the world. For example, Karimova’s team consisted of four men from Mexico, Denmark, Canada, Brazil. They named their team OTWOH, which is a play on words – H2O reversed into O2H/OTWOH. It stands for Ocean Plastics to Heat.

This team, led by Karimova, proposed an alternate source of energy at water resource recovery facilities. The proposal calls for harvesting pollutant plastics from the ocean and using them as a fuel source via the process of gasification. The idea originated generated with Karimova’s organization, Global Water Girls (www.globalwatergirls.com), and the UNLEASH group developed it further.

The group is continuing to work on the project after the UNLEASH event and hopes the solution will eventually help disrupt the waste and energy industries.

Why seek the SGDs?
Water and sanitation are key to thriving communities in promoting the growth of future healthy generations and access to a cleaner environment. This goal gains even more importance when taking into consideration that 1.8 billion people globally use a source of drinking water that is fecally contaminated and 2.4 billion people lack access to basic sanitation services, such as toilets or latrines, according to the UN. However, since 1990, 2.6 billion people have gained access to improved drinking water sources; so progress has been made and needs to continue.

To quote Leonardo Da Vinci, “water is the driver of nature.” Once we learn to better take care of our water systems, we will be able to meet many of the other SDG goals. The UNLEASH event helped highlight, once again, that SDG6 is at the core of all the other issues. If addressed, it could help simultaneously meet many other SDGs.

Fidan Karimova is water technology collaboration manager at the Water Environment & Reuse Foundation (Alexandria, Va.).
Each year the VWEA recruits, attracts, and adds new members to our ranks. Our diverse membership includes students, academics, and professionals (working and retired) from the public and private water industry and beyond. In fact, 35 new members joined between October and early December of 2017. We formally extend a warm “Welcome!” to our new additions. If you see these folks around, please say hello and introduce yourself.

Name: MELANIE LECKEY, PE (New Member!)
Company/Profession: Dewberry, Project Engineer
Years of Experience: 10
Home Town: Fredericksburg, VA

What kind of projects do you work on? Municipal water distribution mains, sewer collection lines/force mains, water storage tanks, utility master plans, and water/sewer system modeling, among others!

What drew you into joining VWEA? I joined to have access to the large network of resources available through VWEA/WEF. I have already utilized the online education knowledge center!

What is your favorite thing to do outside of the office? I love to quilt, which takes up some of my free time. I also have a three-year-old goldendoodle that takes up the rest; he’s amazing! I also love watching true crime shows and listening to true crime podcasts.
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- The article should be submitted electronically via email as a Word document.
- Length of material should be limited to a maximum of 2,000 words.
- Any photographic images to be included with the material must be free and clear of any copyright and be submitted as JPGs or TIFs that are high resolution (300 dpi). Image files should be sent separately with captions, not embedded in the Word document.

Please submit your article or article proposal to: conduit@vwea.org

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<td>O’Brien &amp; Gere</td>
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<td>270-826-0000</td>
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<td>800-787-3755</td>
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<td>SAK Construction</td>
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<td>Sherwood-Logan &amp; Associates</td>
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<td><a href="http://www.sherwoodlogan.com">www.sherwoodlogan.com</a></td>
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<td>Smith &amp; Loveless Inc.</td>
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<td>800-898-9122</td>
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<td>703-507-1466</td>
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<td>Tencarva Machinery Company</td>
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<td>TGO Technologies, Inc.</td>
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<td>800-543-6603</td>
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<td>Timmons Group</td>
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