

THE CONDUIT

SPRING 2022

THE OFFICIAL PUBLICATION OF THE VIRGINIA WATER ENVIRONMENT ASSOCIATION, INC.

2022 BUYERS' GUIDE



INSIDE

- WaterJAM 2022: Our Water, Our Future
- The Impact of the Envision® Rating System for Sustainable Infrastructure
- WEF: It Is Not About Pipes, It Is About Patricia

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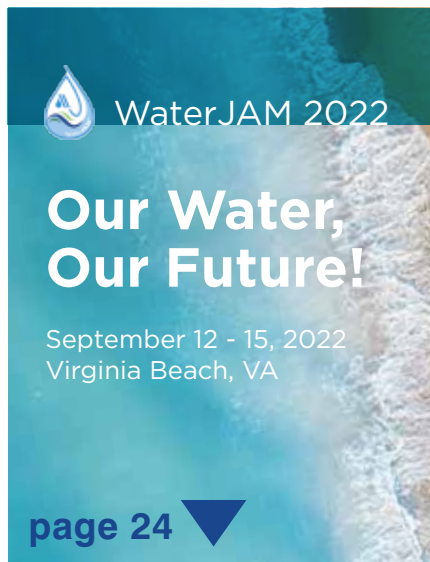
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▼ INSIDE

WaterJAM 2022

Get ready for WaterJAM, the premier event for Virginia water professionals.

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Our theme this year, *Our Water, Our Future*, is appropriate as water professionals navigate the ever-changing industry.

The Impact of the Envision® Rating System for Sustainable Infrastructure 32

Back in 2013, The Conduit published the article "Envision Sustainable Infrastructure Rating System for Water Infrastructure" Ten years later, the program has become a success.

VWEA's Eastern Regional Activities Committee Volunteers for Oyster Cage Building 37

Oyster cage building is an important part of oyster gardening, which increases oyster populations in a natural and sustainable way.

Water For People Update 41

The Virginia Water For People Committee is excited to announce a new regional approach where leaders will be creating fun events.

What is Operations Challenge? The Wastewater Olympics 42

This is water sector's premier skills competition, and features five events.

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Evan Bowles,
VWEA President

Keeping Our Foot on the Gas

"Spring work is going on with joyful enthusiasm."

— John Muir, 1838-1914

While this Spring concluded another long Virginia winter, it also brought new hope and ambition for many of us that felt boxed in during the peaks and valleys of the COVID-19 pandemic these past two years. While the pandemic may be around for a while, VWEA has begun its transition into a post-COVID-19 world. While we're not exactly certain what this new frontier will look like for us, there is one thing we certain of – we are ready to move on.

Our committees organized and hosted dozens of high-caliber events over the past two years. These dedicated committee members, like us, had zero experience maintaining and executing successful endeavors during a global pandemic. This unprecedented roadblock did not stop us from delivering on VWEA's vision and mission – in fact, it empowered us to blaze new trails to ensure continued engagement and value for our membership. Through these challenges, we have truly redefined what "nimble" means, which has sharpened us to become a stronger Association.

Time and time again, our VWEA member and event attendee feedback points to two key value items: networking and education. In this transitional period, we continue to focus on these two areas: to reinvigorate member engagement, and to maximize our avenues of knowledge sharing. Our committee members are working hard to bring some of our classic events back to your calendar and identifying new ones that take lessons learned from what works well, and what did not during the peak pandemic.

Our committees have had a busy 2022 already! Our Young Professionals and Regional Activities Committees (RACs) have hosted multiple after-hours events, which were all heavily attended because we all know that we're better together! Our Eastern Virginia RAC 'walked the talk' by leading an oyster restoration service project with the Hampton Roads Chesapeake Bay Foundation. Our committees are currently planning many of these types of service events across the state. Service events are a fantastic way to recruit new members, and engage current members looking for ways to get to make an indelible impact on our water environment.

Our educational event calendar ramped up quickly with a return to a successful in-person Industrial Waste and Pretreatment Conference in Charlottesville in late February. The Collections System Committee hosted an informative day-long seminar on innovative funding and delivery of collection system projects at the beautiful Lewis Ginter Botanical Gardens in Richmond. The Stormwater Committee also returned to in-person in April with an event that focused on an incredibly important topic – environmental justice, and how stormwater management planning can benefit communities of all types. The pandemic highlighted the importance of keeping regular webinars as part of VWEA's educational portfolio. Both the Utility Management Committee and Sustainable Utilities Committee hosted top-notch virtual learning opportunities, which we will continue delivering well into our post-COVID-19 world.

There is a lot to look forward to in the coming months, which also allows us to spend time with fellow VWEA professionals. I would also encourage you to try to attend an event on a topic that is brand new to you this year. I think you'll find that the diversity of people and information will be refreshing and will also continue to aid your network and career growth.

It's hard to believe that my term as President is more than half-way complete. I am proud to see what our Board, committees, and membership have accomplished. I am excited to see what is around the corner for us and will be working diligently to maintain VWEA as the premier professional association for our profession. ☺



VWEA Strategic Plan Update

Thank you to the Virginia Water Environment Association (VWEA) Board for guiding us through a pandemic, while ensuring the utmost value for our members! The Board effectively pivoted to continue supporting committees and enabling VWEA to provide value to its membership in a time when others were cancelling events.

The heart of any organization's strategy is what it actively chooses to do and not do, and how effectively it executes those choices. Strategic plans, however, often fail or remain under-leveraged when going through the motions of developing the plan simply because common sense says "every good organization must have a strategic plan".

VWEA is no different. With our Vision "to preserve and enhance Virginia's water environment, now and for future generations", VWEA needs to ensure that it is focused on strategic goals, which enable it to realize this vision.

GOALS

In 2018, the VWEA Board identified the six main goals for its updated Strategic Plan (2018-2023); each of them to be championed by a member of the Board and assisted by two executive-level mentors that have previously served on the VWEA Board as President, volunteering their extensive organizational and industry experience to continue to serve the organization. Goal areas and goal champions are listed below:

1. Leadership & Advocacy – President
2. Membership Value – YP Representative
3. Education & Training – Vice President
4. Collaboration & Outreach – PWO Representative

5. Technology Optimization – Association Representative
6. Organizational Stewardship – President-Elect

At every VWEA Board meeting, the champion of each Strategic Plan Goal provides an update regarding the progress on several objectives that support the achievement of each goal in the *VWEA Strategic Plan Blueprint*. The objectives under each goal were determined by their impact to the success of the goal over the next five years. Next, each objective was assigned an Action Plan comprised of specific tasks. These tasks have measurable results within execution timelines attainable using available resources. The accomplishments for each goal are then summarized and presented to the membership annually.

GOAL PROGRESS TO DATE

In 2021, Virginia was recognized as the WEF Member Association of the Year! This award recognizes an outstanding member association which excels in the areas of membership retention, financial strength, new memberships, scholarship programs, student achievement and support, technology transfers, and award programs.

Below is a summary of the past year's Strategic Plan progress and an outlook on the year to come:

GOAL 1 – Leadership and Advocacy

The Government Affairs Committee monitors legislation which impacts members, and provides an update in the spring issue of *The Conduit*. This Committee recently updated the *Understanding Wastewater Regulations in Virginia for Elected Officials* handbook and shared it with the Virginia Municipal

League (VML) and updated the resource on the VWEA website.

VWEA is working to have an info booth with a game on what to flush next at the Water Taste Test at WaterJAM 2022 on the Virginia Beach Board Walk.

GOAL 2 – Membership Value

The VWEA Diversity, Equity and Inclusion (DEI) Committee was formed to identify and meet the needs of our membership. This is a developing effort with resources posted on the VWEA website.

The First Women Impacting Water event, held at WaterJAM 2021, provided an opportunity for a membership segment to share and support one another. This event sold out the 66 available seats!

Kathy Rabalais and Leigh Blecki have been monitoring and reaching out to non-member attendees immediately following events to highlight association activities and share membership information. This effort has successfully encouraged individuals to join!

GOAL 3 – Education and Training

We recently relaunched a group of individuals to evaluate Operator training. This group will gather data to determine training needs, location preference for training, and will investigate online education opportunities. Additionally, VWEA expanded the number of short school scholarships from three to five operators in 2021, and hopes to continue to increase awards in the future.

Development of the VWEA *Straight Flush* podcast, which communicates Virginia wastewater and stormwater trends, initiatives, and individual contributions to the industry. The podcast currently has

over 1,300 downloads and 14 episodes. The pandemic helped drive our adoption of virtual platforms, such as virtual WaterJAM 2020, podcasts and webinars.

There is a new Communications Committee initiative to get each committee to write for *The Conduit* and to share more about events and insights on social media. Committees have been asked to provide guidance and answer questions. We look forward to seeing more of what our committees have been up to and learning from their expertise.

GOAL 4 – Collaboration and Outreach

Utilize WEF and its resources to develop strategy and activities for the new DEI Committee on the state level. There has been a strong uptick in the formation of DEI

committees from our member organizations. We are working to collaborate and support the formation of all DEI groups.

GOAL 5 – Technology Optimization

Utility Management Committee launched the collaborative delivery page to share information on projects across the state to facilitate collaboration and knowledge sharing.

VWEA completed a website revamp in 2021 to more effectively and professionally communicate with members and the general public. Visit www.vwea.org to check it out!

GOAL 6 – Organizational Stewardship

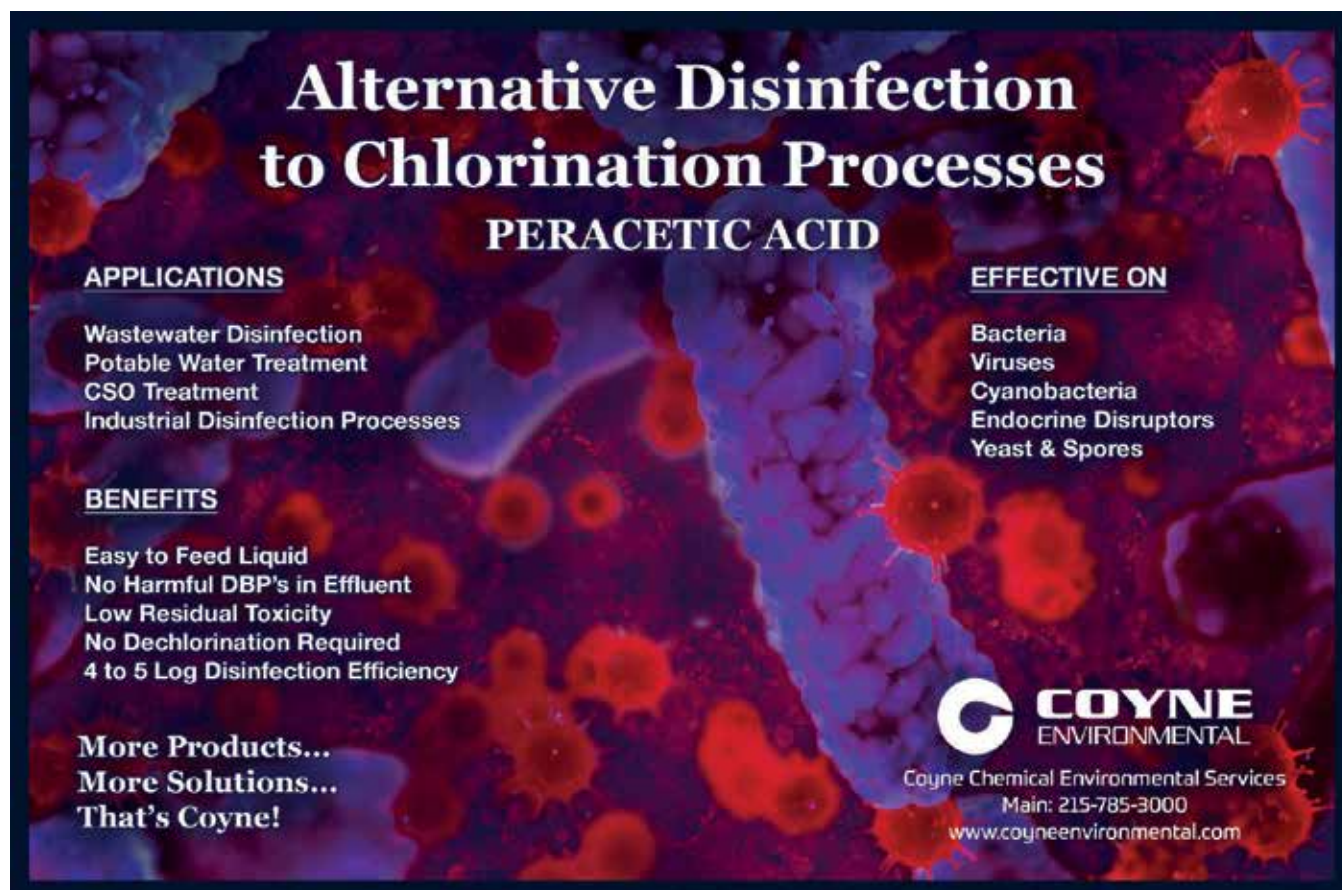
A Board subgroup has been developed to evaluate VWEA's current income diversification to determine if there are

opportunities for improvement. As a result, money was transferred from low-interest, non-operational accounts to investment accounts. This will ensure VWEA is capable of supporting its membership.

The next steps for the VWEA Strategic Planning Committee are to continue to work with the VWEA Board to execute its action plans to be implemented over the next year, and to continue reporting on the progress of the plan annually.

Please reach out to Kathy Rabalais: kathy.rabalais@vwea.org, or the Strategic Planning Committee's Ryan Nagel: rnagel@hazenandsawyer.com, and Dana Hargrove: dana.hargrove@westernvawater.org with questions regarding the 2018-2023 VWEA Strategic Plan. ☺

“There is a new Communications Committee initiative to get each committee to write for *The Conduit* and to share more about events and insights on social media.”



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VISION — *The Virginia Water Environment Association will preserve and enhance Virginia's water environment, now and for future generations.*

MISSION

- ◇ Share & exchange water quality information and expertise among members, industry professionals, and the public
- ◇ Deliver high quality educational services and products to water quality professionals and colleagues
- ◇ Promote & advance the water quality industry through effective communication strategies
- ◇ Support the application of sound science
- ◇ Advance the knowledge and understanding of Virginia's water environment

GOAL 1. LEADERSHIP & ADVOCACY

Be the community leader, authority on trends and issues and promote awareness of public policies.

LEAD — President

OBJECTIVES

1. Identify local impact of key technical, regulatory, and legislative issues facing the water community and promote awareness among membership.
2. To be an advocate in the practice of sound science in the Water Industry.
3. Promote association outreach to the public.

GOAL 2. MEMBERSHIP VALUE

Enhance opportunities for membership development and engagement.

LEAD — YP Representative

OBJECTIVES

1. Enhance and communicate VWEAs value to a diverse membership to grow and retain members.
2. Advance member professional development.
3. Enhance member participation

GOAL 3. EDUCATION & TRAINING

Provide education and professional development opportunities for VWEA members, students, legislators, and other key stakeholders.

LEAD — Vice President

OBJECTIVES

1. Enhance VWEAs ability to distribute educational materials over multiple platforms.
2. Enhance high quality knowledge sharing.
3. Promote education, leadership and training opportunities through scholarship program support.

GOAL 4. COLLABORATION & OUTREACH

Promote collaboration with other professional associations to enhance outreach efforts.

LEAD — PWO Representative

OBJECTIVES

1. Align with the water community.

GOAL 5. TECHNOLOGY OPTIMIZATION

Leverage technology to streamline communications and amplify organizational efficiency.

LEAD — Association Representative

OBJECTIVES

1. Optimize collaboration amongst members and stakeholders.
2. Adopt technology solutions to address VWEA business needs.
3. Provide effective communication to members and stakeholders.

GOAL 6. ORGANIZATIONAL STEWARDSHIP

Use resources to effectively and efficiently serve its members and unify the water community.

LEAD — President—Elect

OBJECTIVES

1. To remain the premier water quality association.
2. Maintain financial sustainability.



Academy Class Holds Training Session on Values-Based Leadership


By Karlyn Owens, James City County



“The application period for next year’s Leadership Academy class will open soon, so be on the lookout for more information.”

Class participants of the 2021-2022 VA AWWA/VWEA Leadership Academy: <https://www.vwea.org/page/LeadershipAcademy>, attended their first all-day training session on January 26, 2022, in Richmond. The training was facilitated by Sharon Amoss of Innerwill Leadership Institute. Due to the COVID-19 pandemic, the training was held using a hybrid format, with half the class attending in person and the other half attending virtually.

Throughout the day, the class was encouraged to consider the values they prioritize, and how understanding those values plays a key role in decision making. Through group discussions and sharing of experiences, the training encouraged participants to consider the values of others and to use that information to establish better relationships and solve conflicts.

The Leadership Academy was created for water and wastewater professionals interested in topics such as moral and ethical leadership, emotional intelligence, people styles, and project management. The current Leadership Academy class consists of 26 participants from all over Virginia. The application period for next year’s Leadership Academy class will open soon, so be on the lookout for more information, or contact Karlyn Owens, committee chair: karlyn.owens@jamescitycountyva.gov. 



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By Brandon Cooper, Greeley and Hansen; Stacie Crandall, HRSD

Virginia Water Environment Association (VWEA) offers great benefits to all members but can be especially advantageous to Young Professionals (YPs) beyond the framework of the YP Committee. The YP Committee represents a launching pad for long-term involvement as a contributing member to VWEA. Here are the top five reasons to be a YP Member of VWEA:

1 NETWORKING

- **Meetings, lunch and learns, webinars, workshops, and training:** Member benefits that relate directly to YPs as VWEA members becoming more involved in the water industry.
- **Social functions:** Regional activities and Young Professional committees offer opportunities to meet in a less formal setting to network and engage with peers. These committees organize site visits across the Commonwealth of Virginia to learn more about innovative facilities to treat wastewater, manage stormwater, and embrace the concept of one water. There are also opportunities to practice water and environmental stewardship by participating in community

service projects such as tree planting, stream and river clean-up events, as well as Chesapeake Bay oyster bed reconstruction.

- **Seminars and conferences:** Specialty seminars and conferences, such as WaterJAM, offer great opportunities to meet like-minded professionals and build your network. WaterJAM hosts fun-filled social events and provides networking breaks with opportunities to meet with speakers and other attendees. Virtual events also make attendance easy when travel is not an option.

2 CAREER OPPORTUNITIES

- **Job listings:** VWEA serves as a great resource for job postings, whether you are looking for employment or needing to fill a position. When job searching, VWEA membership, committee activities, and conference participation are great items to provide a boost to your resume.
- **Advice/mentorship:** Moving from the YP Committee into other more specialized committees offers opportunities to receive mentoring through interaction with more experienced peers in the industry. The VWEA/VA AWWA Water Leadership Academy offers opportunities for those

accepted into the program to interact with industry experts and offers opportunities for peer feedback and mentoring.

3 PROFESSIONAL DEVELOPMENT

- **Soft Skills:** Through VWEA membership, YPs have opportunities to learn and apply leadership, teamwork, communication, and organizational skills through collaboration. There are plenty of opportunities to hone these skills through participation in the various VWEA committees.
- **Committee Participation:** One of the easiest ways to exercise opportunities for professional development is through VWEA committee participation. Committee involvement can result in opportunities for leadership, collaboration, and communication, all of which facilitate professional development.
- **Public Speaking:** Both small and large meetings afford the opportunity to practice public speaking skills. Whether it is providing technical information at a committee meeting, facilitating a workshop, or presenting in a technical session at WaterJAM, there are ample opportunities to speak to water professionals in a supportive and collaborative environment.

“Virginia Water Environment Association (VWEA) offers great benefits to all members but can be especially advantageous to Young Professionals (YPs) beyond the framework of the YP Committee.”

EDUCATION AND TRAINING

- **Knowledge sharing:** Not only are there opportunities to learn from other VWEA members through committee and event participation, but membership also offers opportunities to share knowledge. Involvement in innovative aspects of the water industry is always interesting and can serve as a vehicle to share knowledge with others.
- **Professional development hours and continuing education credits:** Attendance at VWEA discounted conferences, virtual events, and workshops present excellent opportunities to ensure PDH and CEC requirements are easily achieved.
- **Opportunities to join Technical Committees tailored to your Career:** VWEA has 29 committees covering many facets of the water industry, and many of them are joint committees with VA AWWA.

Areas of focus range from communications to utility management to WaterJAM planning, to other technical focus areas of the water industry. As career focuses and interests change, members can find committees that meet their evolving interests and continue to grow with VWEA.

BUILDING YOUR BRAND

- **Resume Booster:** Through participation and involvement with VWEA, YP resumés stand out from their peers. Industry professionals like to hire YPs who showcase greater participation in organizations such as VWEA.
- **Increased Visibility:** As YPs are beginning their professional careers, VWEA provides an accessible platform for them to transition from being students to professionals in the water industry. VWEA provides water

industry professionals a means of going above and beyond the traditional duties of our 9-to-5 jobs to preserve and enhance Virginia's water environment, now and for future generations.

- **Expansive Network of Colleagues:** Through the many opportunities to get involved with VWEA, YPs begin to quickly expand their professional network of industry colleagues.
- **Scholarships and Awards:** VWEA awards several annual scholarships, including the Roden, Undergraduate, Rising Freshman, Member Dependent, and Operator Scholarships. VWEA also annually recognizes an Outstanding YP who has made significant contributions in the form of activities such as volunteer work, committee work, leadership activities, and/or paper presentation(s). ☺

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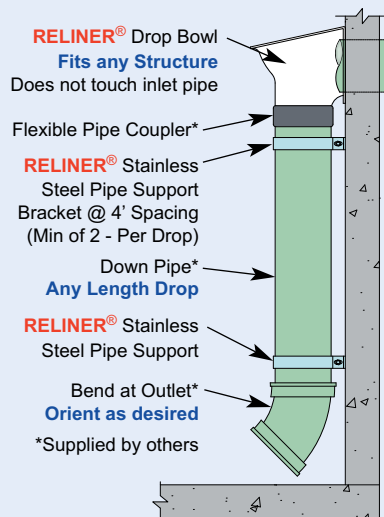
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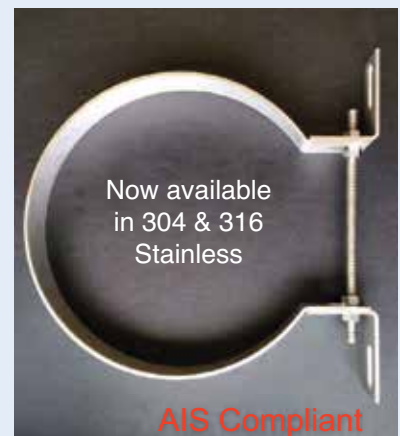
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By Max O'Brien, Arcadis, and Kelsey Kenel, HDR



Max O'Brien of Arcadis, and Kelsey Kenel of HDR at the 2022 Young Professionals Summit

The second portion of the Summit focused on the process of design thinking as a team and the intricacies involved in truly identifying the key problem in a situation as well as developing a solution approach. This activity allowed for even more team building and discussion. Conversation also covered challenges currently faced in the industry, ways to improve upon them and direct implementation in our careers. Topics included engaging people to work in the industry, emerging technology, and public perception.

Max and Kelsey had the following to say about the event:

"The YP Summit was an incredibly welcoming and engaging experience for YPs. The discussions I had with other YPs across the USA were meaningful and relatable. It was a great opportunity to meet other YP's from around the country and learn about their experiences in the water industry."

— KELSEY KENEL

"The Summit was a great opportunity to meet our peers from across the country, and we all made several connections that will last for years. The lessons and challenges presented during the Summit forced us to reconsider how we approach situations, both in our work and personal lives, that we'll work to keep and pass along to our peers back home. I'm very grateful for the opportunity to have attended this great event!"

— MAX O'BRIEN

Max and Kelsey were selected to go to this event because of their participation and past years volunteering with WVEA events. Max has participated in WaterJAM YP planning for several years, and is the WVEA/VAWWA YP Vice-Chair for Eastern VA. Kelsey has also participated in WaterJAM planning and was the YP Vice-Chair for WaterJAM YP events in 2021 and is now the WVEA/VAWWA YP Vice-Chair for Northern VA.

They highly encourage other VA YPs to participate and engage in local WVEA/VAWWA events and committees, as well as recommend attendance to the YP Summit in 2023, joining future leaders in water. [e](#)

IN FEBRUARY 2022, Kelsey Kenel and Max O'Brien escaped the Mid-Atlantic cold and attended the WEF/AWWA Young Professionals (YP) Summit in Orlando, FL on behalf of WVEA/VAWWA. The YP Summit is a two-day premier water and wastewater industry workshop, which brings young professionals together from all over the United States and Canada. The YP Summit takes place every year during the first days of the WEF/AWWA Utility Management Conference. After two years of virtual conference activities, the YP Summit and Utility Management Conference once again returned to in-person events.

Max and Kelsey both attended the half-day WEF Workshop for Emerging Leaders Workshop on February 20, and the full-day Summit on February 21. Each day's events were followed by receptions which allowed further opportunities for networking. This year's Summit focused on Creative Resilience – a timely topic given the past two years we have all endured.

The WEF Leadership Workshop events included interactive discussions on topics relating to resiliency and leadership qualities.

The Japanese concept, 'ikigai', which refers to a state where a person has achieved a sense of purpose and reason for being was presented to the workshop. Discussions of this concept with fellow YPs allowed for meaningful conversation topics, including what has kept people motivated the past two years, why others have chosen this industry, and why they have stuck with it each day. In addition to discussions of "why", day-to-day habits of successful people and leaders were presented with challenges to contemplate simple ways to implement these habits.

The full-day Summit consisted of two main presentations, followed by a panel discussion with leaders in the industry. The first session of the Summit focused on leadership skills, particularly, how to communicate efficiently through effective listening. The session encouraged YPs to get out of their comfort zones and engage with one another on topics that typically are not discussed in professional settings, including struggles endured, both professionally and on a personal level. This activity was nerve-racking and uncomfortable at first, but turned out to be very rewarding.

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For more information please contact:

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Save the Dates:

28th Annual Good Laboratory Practice Technical Conference 2022 and WaterJAM 2022 Workshop

By Kerri Williams, Laboratory Manager/LPC Chair

Each year, the joint VWEA/VA AWWA Laboratory Practices Committee (LPC) hosts two extraordinary events, the Good Laboratory Practices Conference (GLPC), and a workshop at WaterJAM.

This will be the first in-person GLPC in two years, and we all look forward to getting back to providing a great opportunity for face-to-face networking and collaborative learning through workshops and technical sessions focused on timely topics with a laboratory focus.

The conference will be held on July 25 and 26 in Charlottesville, VA at the Charlottesville Omni.

Four workshops will be offered on Monday, July 25 along with a vendor reception later in the afternoon. Tuesday morning, July 26, starts with a keynote session followed by a sit-down lunch and rounding out the afternoon with concurrent technical breakout sessions covering three different tracks, including drinking water, wastewater and technology/management. You will not want to miss this year's GLPC, which will feature three dynamic keynote speakers:

- **"Updates from Virginia Environmental Laboratory Accreditation Program (VELAP)"** with Cathy Westerman, VELAP Manager with the Division of Consolidated Laboratory Services
- **"The NELAC Institute 2016 Standard – What Has Changed?"** with Stacie Crandall, Laboratory Division Chief with HRSD
- **"Implicit Bias"** with Keely Humphrey, Training Coordinator with City of Newport News Waterworks Department

MARK YOUR CALENDARS AND PLAN TO ATTEND THE 2022 IN-PERSON GLPC.

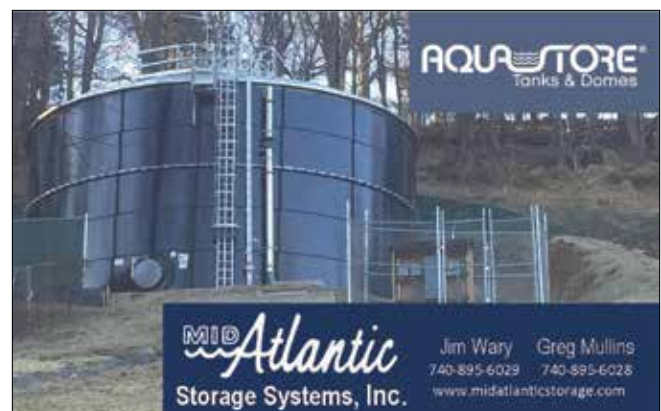
During the workshops and technical presentations, presenters will be covering other hot topics, such as:

- Per- and Polyfluoroalkyl Substances (PFAS)
- Ethics/Data Integrity
- Laboratory Back to Basics
- Haloacetic Acids (HAAs)
- BOD troubleshooting for wastewater analysis
- Copper and Lead for drinking water
- COVID-19 surveillance in wastewater
- Legionella in drinking water

Mark your calendars and plan to attend the 2022 in-person GLPC. You will not want to miss the opportunity to learn about the most current happenings with laboratory accreditation, build knowledge through attending technical presentations and workshops, and network with peers and reconnect with vendors displaying the most current products and instruments. In addition, many presentations and workshops will qualify for Operator Continuing Professional Education (CPE) credits. Registration opens in mid-May, and can be found at <https://www.vwea.org/event/GLP2022>.

LPC AT WATERJAM

The 2022 LPC WaterJAM workshop will be held Monday, September 12, 2022 at the Virginia Beach Convention Center from 8:30 a.m. to 3:00 p.m. It will be a great way to kick off a busy week of learning at WaterJAM. The LPC is working diligently to put together a valuable workshop covering the latest environmental laboratory topics. Please remember to also mark your calendar to attend this workshop. ☺





Seeking Nominations for VWEA AWARDS



The Virginia Water Environment Association (VWEA) Awards provide an opportunity to recognize individuals and organizations who have made outstanding contributions to the water environment profession and to the Federation and its Member Associations.

We are currently accepting nominations for the following awards, which are due on **June 6, 2022**:

- Enslow Hedgepeth
- Hatfield
- Stormwater Splash
- Outstanding YP
- Golden Manhole



Please note that the VWEA Facility Safety Awards deadline for submission has been extended to **May 20, 2022**. The VWEA Facility Safety Award encourages members to engage in an active and effective safety program in municipal and industrial wastewater treatment.

More information on the awards and nominations forms can be found at <https://www.vwea.org/page/Awards>. ☺



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ERRATUM:

On Page 14 of the Winter 2022 issue of *The Conduit*, an incorrect version of the One Water Alexandria logo accompanied the article titled "One Water: Riding the Wave of the Future". This notice seeks to correct this error. The One Water Alexandria logo was created to communicate the partnership between the three water entities in Alexandria – Virginia American Water (drinking water), City of Alexandria (sewer systems), and Alexandria Renew Enterprises (wastewater treatment) to promote awareness about how water is managed in Alexandria.



VWEA Scholarships Now Open!

By Allison Lee, Hazen and Sawyer, Scholarship Committee

One of the most important missions for the Association is education – both for our members and our industry. VWEA is committed to this very important mission – and we put our money to work! VWEA is proud to offer five scholarships this year:

RISING FRESHMAN – Open to all 2022 High School graduates planning to attend Virginia universities or community colleges and studying civil or environmental engineering or physical/environmental sciences. VWEA will award \$2,500.

Application deadline is June 3, 2022.

UNDERGRADUATE – Open to all undergraduates attending Virginia universities or community colleges and studying civil or environmental engineering or physical/environmental sciences. VWEA will award \$2,500.

Application deadline is June 3, 2022.

SONNY RODEN MEMORIAL – Open to all graduate students enrolled in civil or environmental engineering or physical/environmental science graduate programs at Virginia universities. VWEA will award \$2,500.

Application deadline is June 3, 2022.

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.

VWEA will award \$2,500.

Application deadline is June 3, 2022.

OPERATORS – Open to all operators employed in the wastewater treatment profession in Virginia. VWEA will award up to three scholarships for operators to attend the Operator Short Course at Virginia Tech.

One award will include full tuition and board, and two will be for tuition only.

Application deadline is May 13, 2022.

Applications for all the VWEA scholarships are available on the VWEA Scholarship website: <http://www.vwea.org/page/Scholarships>. Please spread the word to your co-workers, your kids, your kids' schools, and anyone else who could use a boost to help pay their education expenses!

VOLUNTEER OPPORTUNITY!

The Scholarship Committee is also looking for members to volunteer as application scorers. If you are interested in this opportunity, please contact Allison Lee: lee.allisonv@gmail.com.

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INDUSTRIAL WASTE AND PRETREATMENT CONFERENCE Held In Person for First Time in Two Years

The Virginia Water Environment Association's (VWEA) 38th Annual Industrial Waste and Pretreatment Conference was held in person for the first time in two years in Charlottesville from February 28 to March 1, and delivered on the theme of "Emerging Concerns in Pretreatment". Per- and polyfluoroalkyl substances (PFAS) have been hot-button topics, and it was insightful to hear from industry experts on how this will impact pretreatment in the coming years. There is still much more science to discover on these substances and education is needed to present to consumers. Pretreatment will have its work cut out learning how to control discharge at the source.

There were 110 drinking and wastewater professionals and 14 exhibitors in attendance at the two-day conference. The Monday afternoon workshop was led by Michael Martin, Chief of the Pretreatment and Pollution Prevention Division from the Hampton Roads Sanitation District (HRSD) on "A Systematic Approach to Source Tracking Intermittent Treatment Plant Upsets through a Pressure System". RK&K's D.J. Wacker discussed Henrico's study on "Developing Organic Loading Limits for SIUs" that were impacting biological treatment process. Ashutosh Sharma from Aquatech focused on "Treatment of High-Strength Brewery Wastewater using

Anaerobic Ceramic Membrane Bioreactor Technology", while Angela Kilgore and James Sabo concluded the day with a presentation on HRSD's Hauled Waste Program.

Tuesday's technical seminar attendees heard regulatory updates from EPA Region 3's Joe Camperson and AquaLaw's Amanda Waters. Neil Zahradka from the Department of Environmental Quality presented on "Containments of Concern in Biosolids", while Mike McGill from WaterPio discussed "How to Communicate PFAS Discoveries to the Press and Public". Tuesday's session culminated with presentations by Ryan Holmes from Gage, LLC on "Eliminating FOG in Wet Wells and Lift Stations", and Chuck Durham from PG Environmental on "How to Survive a Pretreatment Audit".

VWEA Environmental Excellence Awards were presented during the Tuesday session of the conference to six awardees for consistently achieving 100% compliance with the requirements of their pretreatment permit for a specified period and demonstrated dedication and commitment to pollution prevention, waste elimination/reduction, or conservation through the implementation of an Environmental Management System (EMS). The VWEA Environmental Excellence Awards Awardees are selected from nominations made by the respective company's pretreatment control authority. The award categories are:

- **Platinum:** Five or more consecutive years meeting the criteria
- **Gold:** Two to four years consecutively meeting the criteria
- **Silver:** One full year of meeting the criteria

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"A special thanks goes out to all of the exhibitors who helped make this year's conference another success, and a heartfelt thank you to all of the committee members, volunteers, and administrative staff who made it all possible."

WWEA Environmental Excellence Awards were presented to the following companies:

Platinum

- Covanta Alexandria/Arlington, LLC
- Fairfax Water
- Micron Technology, Inc.
- Southern Graphics Systems

Gold

- Anheuser-Busch, LLC
- Silver
- Dynax America

A special thanks goes out to all of the exhibitors who helped make this year's conference another success, and a heartfelt

thank you to all of the committee members, volunteers, and administrative staff who made it all possible.

If you are interested in volunteering or becoming a committee member on the Industrial Waste and Pretreatment Committee, contact Ashley Tatge: ashley.tatge@erg.com ☎

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WaterJAM 2022

Our Water, Our Future!

September 12 - 15, 2022
Virginia Beach, VA

On behalf of the Virginia Section of the American Water Works Association and the Virginia Water Environment Association, we want to extend a warm invitation to WaterJAM 2022: *Our Water, Our Future*, scheduled for September 12-15 in Virginia Beach.

As the COVID-19 cases continue to drop, and mask mandates lift, we are hopeful that the end of the pandemic is ahead, and that we can enjoy the first spring and summer in two years without restrictions. For many of us, WaterJAM 2021 was the first in-person event since the start of the pandemic, and it was so wonderful to see so many of our colleagues and friends outside of a Zoom meeting. With over 1,500 attendees, 201 technical sessions and 200 exhibitors, WaterJAM 2021 marked a triumphant return to in-person events. We are excited to welcome everyone back to Virginia Beach in September and cannot wait to see your smiling faces!

Our theme this year, *Our Water, Our Future*, is appropriate, as our industry navigates the ever-changing challenges that water, wastewater, and stormwater professionals face on a daily basis. From climate change impacts on our industry, the rising cost and complexity of compliance, technological advances and the challenge of operating in a post-pandemic world, the future of the water industry is always evolving. This year's WaterJAM promises to provide the latest in our industry to help you advance your knowledge and learn from what others are doing – while also having a little fun along the way.

The future of the water industry as a diverse, equitable and inclusive workforce

will also be a focus of WaterJAM 2022. The newly formed VWEA and VA AWWA Diversity, Equity and Inclusion (DEI) Committees are working to bring notable leadership in the DEI space to kick the conference off with a thought-provoking keynote address, establishing the importance of DEI in creating and sustaining the water workforce of the future, followed with a focus session to dive into some of these provocations.

The WaterJAM 2022 Committee is working tirelessly to ensure we host the premier State Conference once again for water, wastewater, and stormwater professionals. The WaterJAM mission statement is ever present in our planning and is as important as it has ever been to meet the needs of our members:

Plan and implement a sustainable comprehensive conference that brings together technical excellence and innovation while supporting networking opportunities at an exceptional value to all attendees.

WaterJAM 2022 will provide attendees with numerous technical growth opportunities (including continuing education credits) covering the latest municipal and industrial trends, as well as a variety of networking opportunities. With over 370 abstracts submitted, our technical program co-chairs, Dana Hargrove and Pradeep Sudini, and our vice co-chairs, Angela Weatherhead and Kelsey Kenel, are working hard to put together a comprehensive technical program including technical presentations and workshops.

This year's program will offer a total of 190 presentations including System Operation and Maintenance, Technology Forum, Emerging Technology, Water

and Wastewater Treatment, Biosolids Management and Solids Handling, Asset Management, Utility Management, Small Utilities, Public Outreach and Education, Sustainability and Resiliency, Stormwater, and much more! We're certain there will be something for everyone in this diverse program. All of the sessions provide the opportunity for professional engineer educational credits and numerous opportunities for both water and wastewater operator educational credits.

In addition to outstanding presentations and workshops, you can expect fun social events that will provide opportunities for networking with friends and colleagues. Local arrangements co-chairs, Kimberlee Stubbs, Henrico County, and Stacey Higgings, Volkert, along with volunteers from both VA AWWA and VWEA have been busy brainstorming a conference experience that provides much more than just technical growth. The Committee is focused on providing activities that give participants opportunities to network, socialize, and have fun – what we strive for each WaterJAM. We always look forward to seeing what this group puts together for the attendees!

We are excited to announce the addition of a Fishing Charter on Monday, September 12, with Rudee Tours. Scott Davidson, Kimley-Horn and Associates, and Sarah Lothman, Burns & McDonnell, have been working hard to plan this inaugural event, which will be held from 8 a.m. until 2 p.m.. Come and join the most experienced crew on the East Coast as they head out on a private charter towards the Chesapeake Bay in search of croakers, flounder, and spot.

“ We are tremendously excited about this year’s WaterJAM and on behalf of your hard-working WaterJAM Planning Committee, we look forward to seeing you in Virginia Beach in September!

If fishing isn’t your thing, you can also choose from two events that are already on the books for Monday including the Golf Tournament at Cypress Point Country Club and the Clay Shoot at Old Forge Sporting Clays in Providence Forge. These events are sure to provide camaraderie, sponsorship opportunities and chances to win excellent prizes provided by generous local businesses.

The Young Professionals Committee (YPs) is active and working to draw new young professionals and students to the conference. Our YP liaison, Xiao Guo and the YPs are brainstorming creative ways to bring you service and networking opportunities. The YPs will post volunteer opportunities in upcoming editions of the VWEA e-newsletter, VWEA *Conduit* magazine, and VA AWWA e-newsletter and *Tap into Virginia* magazine.

Before you leave for home after your week in Virginia Beach, we suggest you consider one of our facility tours. This year our WaterJAM committee vice co-chair,

Chris Wilson, is arranging both virtual and in-person tours that are sure to be educational all the while providing innovative treatment ideas.

The exhibits committee co-chairs, Bryce Carter and Anna Kazasi, will be sure to have a completely full Exhibit Hall. Be sure to visit the Exhibit Hall during each break in the Technical Program on Tuesday and Wednesday to see the latest technology while enjoying some light refreshments. As always, the exhibit area will host the Operations Challenge and Utility Rodeo Demonstrations. And don’t forget the Scavenger Hunt, the Networking Reception featuring the Water Reach Silent Auction, the Water for People Raffle sponsored by the WaterJAM exhibitors, and free Wi-Fi access as you visit with vendors and network over a beverage. New this year - be on the lookout for the Biosolids Beauty Contest!

Because WaterJAM is the premier event for Virginia water professionals, hotel rooms will disappear quickly, so make sure to register

and book early (and save money in the process!). Registration opens online in early May 2022, so be sure to check the WaterJAM website: **waterjam.org**, for registration information. We are tremendously excited about this year’s WaterJAM and on behalf of your hard-working WaterJAM Planning Committee, we look forward to seeing you in Virginia Beach in September!

Ronnie Baker



Noelle Slater



Conference Co-Chairs

P.S.: Don’t forget to follow us on Facebook: facebook.com/VirginiaWaterJAM and Twitter (@WaterJAM_VA).



What: WaterJAM Fishing Charter
When: Monday, September 12, 8 am-2 pm
Where: Rudee Tours, Virginia Beach
Price: \$100 per person
Info/Reservation:
Sarah Lothman
P: 571.246.0836
E: SELothman@burnsmcd.com
Scott Davidson
P: 757.635.1188
E: Scott.Davidson@kimley-horn.com

Some other details are attached in the reservation confirmation letter from Rudee Tours.

Don’t miss out on WaterJAM’s first ever fishing charter! Join the most experienced crew on the East Coast as we head out on a private charter towards the Chesapeake Bay in search of croakers, flounder, and spot. The cost includes all rods, reels, tackle, bait, and fishing licenses. The boat is equipped with two bathrooms, a climate-controlled cabin, and full snack bar. You are welcome to bring your own food & drinks on board the six-hour trip.



2022 YP Service Project Seeking Volunteers

The Young Professionals Committee is actively working to draw new YPs and students to the WaterJAM Conference this year. The YP-sponsored service event will be held during the conference this September, and provides attendees with a fantastic volunteering opportunity to give back to the City of Virginia Beach!

The event will take place outdoors and all required tools will be provided. All attendees, families, and friends are invited to join. The volunteer event is being coordinated by the YP Committee, and additional details will be posted in upcoming editions of the WEA e-Newsletter, WEA *Conduit* magazine, and VA AWWA e-Newsletter and *Tap into Virginia* magazine!

For more information, please contact Lizzy Merin: elizabeth.merin@fairfaxcounty.gov, Sydney Sabino: ssabino@hazenandsawyer.com, Rachel Schwaab: rachel.schwaab@ramboll.com, or Ryan Turadek: rturadek@hazenandsawyer.com.



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YP Workshop to Seek Answers on the Future of the Industry

WaterJAM's theme for 2022, *Our Water, Our Future*, may lead young professionals in the water industry to question what the future of our industry will look like. As young professionals, the future is as expansive as our imaginations, and the water industry offers many career opportunities for growth in technology, networking, and reporting, along with many other aspects of the water world.

So, in what direction should we start looking in order to secure the future of our industry today? Join us at WaterJAM 2022 Young Professional's

Workshop where we will dive head first into this question. The Young Professionals Committee of VWEA and VA AWWA will be hosting the YP Workshop during WaterJAM 2022 to provide insights on the future of the water industry, answer your questions, and much more.

The workshop will consist of multiple presentations, interactive activities to promote contemplation and further discussion, as well as a Q&A panel discussion from our presenters. The presentations will be delivered by leaders and young professionals in the water industry

around the Commonwealth, and will cover the future of the industry, from design/engineering, to consulting, to regulations, operations and maintenance. The panel discussion will include an audience Q&A, providing attendees the opportunity to gain deeper insight into these topics and experiences of the panelists through discussion.

Contact Max O'Brien: maxwell.obrien@arcadis.com, Charles Noakes: noa002@henrico.us, or Tim Wilson: twilson@bowman.com, for more information.

Get Ready for the Fresh Ideas Young Professional Poster Contest Magazine Ad



Present your professional work and research to leading professionals in the water and environmental industries at the annual WaterJAM Conference! Create a poster that showcases your innovative projects, research, and interests in the drinking water, wastewater, stormwater, and environmental fields. Young professionals and students are encouraged to participate!

The winner for the top poster in the Drinking Water Category will be awarded \$1,000 and will

be invited to present at the 2023 AWWA Annual Conference and Exposition. The winner for the top poster in the Wastewater/Stormwater/Environmental Category will receive \$1,000.

Submit your 125-word poster abstracts to the Poster Contest Committee by August 5, 2022. To participate or for more information, please contact Sarah Shay: sshay@hazenandsawyer.com, or Rusty Rouillier: rouillier@hazenandsawyer.com.

WaterJAM 2022 YP Exhibit Hall Activity Booth

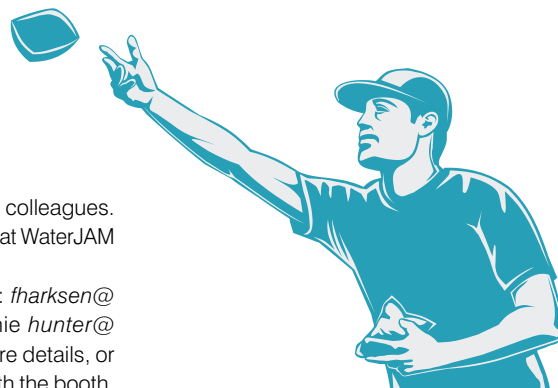
When: Tuesday, September 13 – Wednesday, September 14

Where: Virginia Beach Convention Center, Exhibit Hall
1000 19th Street, Virginia Beach, Virginia 23451

Are you coming to WaterJAM this year? The Young Professionals Committee of Virginia will have a booth in the Exhibit Hall with several different games. Play to win prizes and network with fellow water/wastewater YPs in Virginia. Also, back by popular demand will be Cornhole!

Spread the word among your colleagues. We hope to see you in September at WaterJAM in Virginia Beach!

Please contact Trey Harsen: tharsen@dewberry.com, or Hunter Ritchie hunter@ritchieenvironmental.com for more details, or if you are interested in helping with the booth.





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VA AWWA and VWEA Unite for the DEI Agenda

Our Water, Our Future...

Generating dialogue around our role as utility and industry leaders, advocates, change agents, and influencers in shaping our water resources and, most importantly, our future as a diverse, equitable, and inclusive workforce – where everyone feels they belong!

This WaterJAM, the VWEA and the VA AWWA Diversity, Equity and Inclusion (DEI) committees are working to bring notable leadership in the DEI space to kick off the WaterJAM Conference with a thought-provoking keynote address, establishing the importance of DEI in creating and sustaining the water workforce of the future, followed with a focus session to dive into some of these provocations.

As part of the focus session, a panel discussion and an interactive workshop is also being planned with utility leaders, DEI officers, and advocates in the water sector for WaterJAM participants to engage in a dialogue around best practices, triumphs, and lessons learned in creating diversity, equity, and inclusion in the communities where we live, work, and volunteer.

Don't miss the groundbreaking insights you are sure to obtain as part of these sessions on diversity in hiring and career progression, inclusive leadership, LGBTQIA+ in the workplace, navigating race and gender parity, mentoring, allyship, and organizational commitments to DEI, among other topics. ☺



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WATERJAM 2022

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Young Professional Deadline - August 28, 2022, 11:59 PM

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THE IMPACT OF THE ENVISION[®] RATING SYSTEM FOR SUSTAINABLE INFRASTRUCTURE

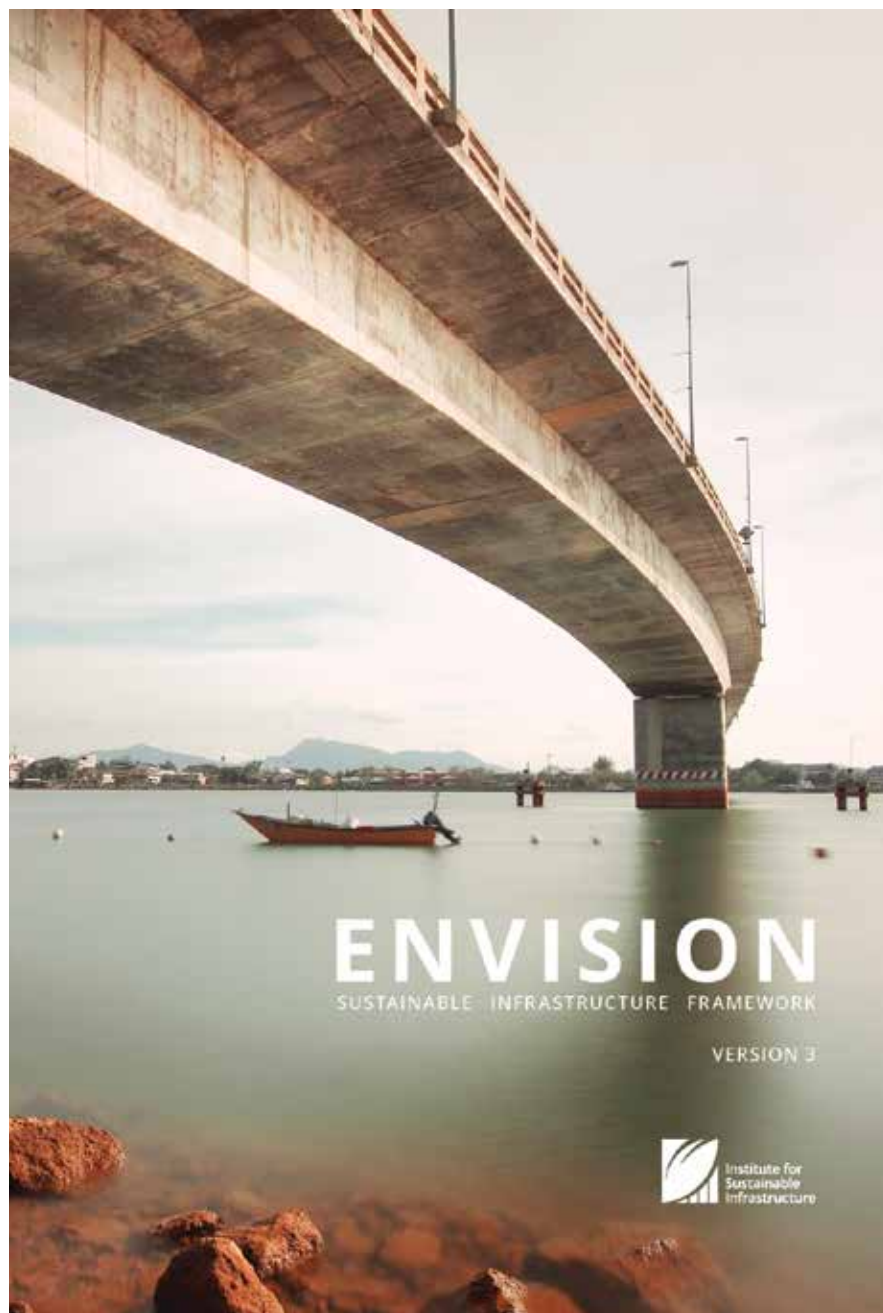


By Denise Nelson, PE, CFM, ENV SP, LEED AP
Director of Resilience and Grants, Launch! Consulting, Charlottesville, Virginia

The Envision rating system for sustainable infrastructure was released in 2012 to guide decision-making in infrastructure development, and provide metrics for rating project performance. Ten years later, the success of the program is proven!

The 2013 *Winter Conduit* published "Envision Sustainable Infrastructure Rating System for Water Infrastructure" announcing the new guidance manual, professional credential, and project rating system. At that time, Envision[®] included 60 credits organized into five categories: Quality of Life, Leadership, Resource Allocation, Natural World, and Climate and Risk. There were over 150 Envision Sustainability Professionals (ENV SPs) in total, including a few in Virginia. Professionals were testing the use of the guidance on projects, but there were not yet any projects awards.

Today, a new version of Envision is available. Now there are 64 credits organized into five similar categories: Quality of Life, Leadership, Resource Allocation, Natural World, and Climate and Resilience. There are 6,000 ENV SPs worldwide and approximately 150 in Virginia. A new level of expertise has emerged: professionals can be trained by the Institute for Sustainable Infrastructure (ISI), the organization administering Envision, to serve as ISI-approved Envision trainers and third-party project review verifiers. There are three trainers and several verifiers in the state. There's even a training center in Italy! Envision sustainability awards have recognized 122 projects in the U.S. and Canada. There are also projects with awards in Saudi Arabia and Italy. These infrastructure projects represent many sectors: water, wastewater, stormwater, energy, transportation, ports, and more. There are three projects with awards in





THE NEED FOR ENVISION™

Virginia: AlexRenew's Nutrient Management Facility (2016), Virginia Beach's Marshview Park – Phase 1 (2017), and Fairfax County's Noman Cole Disinfection Improvements (2019).

In the last 10 years, ISI has redeveloped the online Envision credential training materials, significantly improved the online Envision scoresheet, initiated a monthly newsletter, and supported users in creating scores of webinars to share case studies and lessons learned. The Envision guidance manual, online scoresheet, and archived webinars are available free of charge by creating a free login account at www.sustainableinfrastructure.org. If you're thinking about using Envision, I recommend the recent webinar "Nuts and Bolts for Local Government: Building Internal Support, Training Staff & Operationalizing Processes" for Envision Adoption by Carol Davis from the Town of Blacksburg. ISI has also released the *yearlong schedule* for upcoming webinars.

Beyond credential and awards, the industry has shifted toward more sustainable practices. Envision guidance is a collection of best practices arranged to improve sustainable performance based on incremental change: one project or even one credit at a time. Professionals can pick and choose which concepts to integrate into decision-making based on the infrastructure sector, owner, location, source of funding, or other parameters. The guidance can be applied formally or informally. The increase in ENV SPs in the state suggests this is happening. In addition, more and more infrastructure owners are writing Envision or Envision concepts into design standards, project procurement documents, and program policies. In fact, the Reston Association in northern Virginia was one of the first agencies ever to require development aligned with the Envision criteria. Since then, Hampton Roads Sanitation District wrote alignment with Envision into their design standards and many localities starting requiring Envision when procuring

design and construction services. There are four projects in Virginia identified on ISI's website as registered for verification and award.

The Envision rating system for sustainable infrastructure is now a proven tool for incorporating sustainability into infrastructure development decision-making. ISI, ISI founders, the American Society of Civil Engineers, American Public Works Association, and American Council of Engineering Companies, and the Zofnass

Program for Sustainable Infrastructure at the Harvard Graduate School of Design were successful at developing a lasting and easy-to-use tool for creating a paradigm shift in the industry.

ABOUT THE AUTHOR

Denise Nelson is the Director of Resilience and Grants at Launch! Consulting, a firm supporting #AllThingsResilient. She is also active on the VWEA Sustainable Utilities Committee. [@](#)



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ROSEMOUNT **HAWK** **WATERLINE**
EMERSON **SWI** **CONTROLS**

PRESSURE

ROSEMOUNT **WINTERS**
EMERSON **NOSHOK**

ANALYTICAL

ROSEMOUNT **S-CAN**
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Volunteers assembling oyster cages.

VWEA'S EASTERN REGIONAL ACTIVITIES COMMITTEE

VOLUNTEERS FOR Oyster Cage Building



BY LYNDSEY STONE, RAMBOLL

In February 2022, members of VWEA came together at the Hampton Roads Chesapeake Bay Foundation (CBF) Headquarters to help build oyster cages in efforts to replenish the oyster population in the Lynnhaven River.

Oyster cage building is an important part of oyster gardening, which increases oyster populations in a natural and sustainable way. Replenishing oyster populations encourages the growth and diversity of aquatic ecosystems, creating habitats for small marine life which attracts larger game fish, such as striped bass and sea trout.

Oysters act as miniature water treatment centers. Adult oysters can filter as much as 50 gallons of water per day – the same amount that would fill an average bathtub, or the amount of water used in a 10-minute shower. Oysters filter out excess sediment and nitrogen by consuming them or shaping them into small packets, which are deposited on waterbeds where they are no longer harmful. Restored oyster reefs (of approximately 80 acres) are estimated to remove a quantity of nitrogen equivalent to 20,000 bags of fertilizer – a service valued at more than \$1.7 million.

The CBF Oyster Gardening program trains hundreds of citizens to become oyster gardeners, to grow and care for oysters at their docks, or other approved locations in tidal waters across Virginia. Gardeners take an oyster cage filled with oysters for approximately one year, tending to them by checking on the integrity of the cages and the environmental conditions, before returning them to be planted on local reefs.

Our group of volunteers was able to build 24 cages during the extended lunchbreak event, each able to sustain 1,000 oysters, or a total of 24,000 oysters – equivalent to 1.2 million GPD being filtered in the Lynnhaven River!

Interested in volunteering? EVRAC, along with the other RACs, are a great way to get involved. Reach out to Becky Whalen at becky.whelen@tetrattech.com for more information on how to get involved.

This event was organized by the Eastern Virginia Regional Activities Committee, partnering with the Chesapeake Bay Foundation. ☺



CBF employee teaching volunteers the importance of oysters, showing an in-use oyster cage.



Walking out to CBF's mobile oyster center, volunteers receiving an oyster barge tour.



Oyster cages built by the volunteers.

New Treatment Plant Allows Sought-After Southside to Keep Growing

Growth, progress, prosperity. There's no shortage of it in North Alabama, which has seen its population grow by 30,000 over the last five years, and is projected to rise by a further 24,500 by 2027. Jobs are also on the up, having increased by almost 50,000 in the past five years – with a projected growth of 33,000 more jobs, also in the next five years.

In Etowah County, Alabama's smallest yet most densely populated county, vibrant Southside (population 8,000 – about an hour northwest of Birmingham), is its fastest-growing city – but this prestigious position held by the place described as the "loveliest village on the River Coosa", has been faced with the recent possibility of being overtaken by other fast-rising locations in the state.

Growth naturally brings the need for new infrastructure. Southside's old sewage lagoon system, despite decades of excellent management, had finally reached its capacity. All that growth, progress, and prosperity – but a potential halt on building more homes and attracting more business to the area – without a new wastewater treatment system.

"Everything was perfectly in order with our treatment levels," said David Fry, Assistant Superintendent for Southside Water Works and Sewer Board, "But we'd reached the point where there was a moratorium on the lagoon, so to keep Southside on track, the City knew it had to invest in a treatment system that would future-proof the wellbeing and continued success of Southside."

CDG, Inc. (which operates across the whole of Alabama) was brought in to work with the City of Southside to find the best solution. Bordered by the Coosa River in the foothills of the southern Appalachian Mountains, the area is blessed with wildlife, as well as top-quality boating and fishing. So, not surprisingly, it is very well monitored by Alabama's Department of Environmental Management.

Scott Trott, P.E., Chief Strategy Officer at CDG, commented: "As always, we wanted to do much more than just collaborate; we wanted to build a unified team with trust, so we brainstormed long and hard with Brandon Sewell (Superintendent) and Fry at the Water Works and Sewer Board to explore all the options."

He added: "This included seeing how or if the lagoons could be improved, but they just can't economically and reliably meet today's environmental needs. Some poorly maintained lagoons have well-documented issues of unwanted odors, bacterial spread, and nitrogen/phosphorous overload, but the Southside Board and its predecessors had always managed the lagoon system very professionally and successfully."

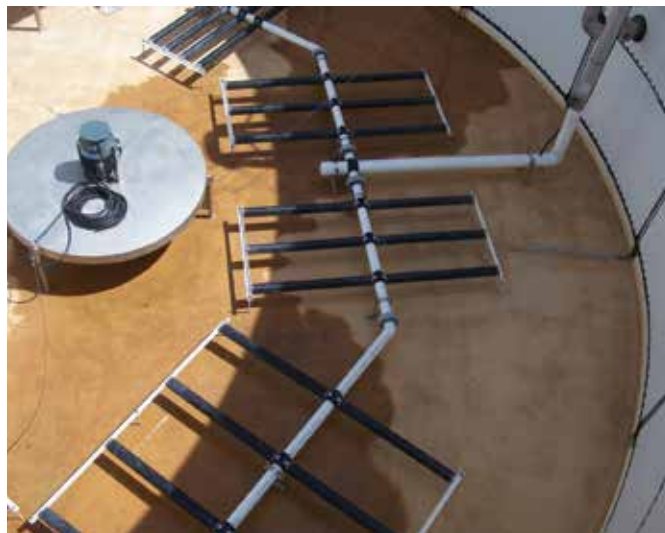
Ultimately, an SBR (sequencing batch reactor) was chosen; one that was very robust – simple to operate – and could be easily scaled up for future needs. A site was identified, and after the equipment opportunities went out to bid, an SBR from Lakeside Equipment Corporation was chosen from its long-established agent in Alabama, The Eshelman Company.

Scott Trott continued: "Bringing the team together, including Aaron Schmidt at Schmidt Environmental Construction, Inc., we started mapping out the project with a detailed analysis so that we all knew where we were, understood what our success would look like, and how every move we made was in that right direction."

Designed as a cost-effective biological treatment process, Lakeside's SBR benefits from a fully automated system that treats raw wastewater flow in a single basin using timed-based phases to fill, mix, aerate, settle, decant, and waste sludge. It incorporates diffused aeration with mixers to provide optimum mixing and aeration for high oxygen transfer. An innovative decanter minimizes decanting intervals, while extending the biological process time. The resultant clear water discharges without foam or floating scum.



CDG, Inc., provided the forward-thinking design for Southside.



Lakeside's SBR was selected for Southside.



The Eshelman Company sourced most of the equipment.

‘LONG-LASTING AND EFFECTIVE’

Ed Moore from The Eshelman Company said: “For me, the choice of CDG, Inc. and such a long-lasting and effective Lakeside SBR underlines the City of Southside’s desire to do things properly. The old lagoon system was hampering the growth and prosperity of the city, so it was exciting to see Scott Trott’s forward-thinking design for what was clearly going to be a very well-thought-out, scalable new plant that would keep Southside one step ahead of the rest for many years to come.”

The new site was laid out so that capacity – peak flow of one million gallons per day – could easily be doubled by building new tanks. Initially, it would only be running at around 150,000 to 175,000 gallons per day on average – or up 300,000 gallons per day, depending on the time of year. The site required a fair degree of earth moving for it to be raised – with ample groundwater to contend with – but according to contractor, Aaron Schmidt, this proved a straightforward challenge as the team quickly gelled together.

“Most of the equipment was sourced by The Eshelman Company,” said Aaron, “So being able to call upon Ed Moore’s knowledge and experience was a big help. Lakeside was also always quick to respond to any questions during the 10 months of construction.”

It would be interesting to know just how seamless – or otherwise – it was when Southside’s first water system was constructed when the City was incorporated in 1957. Now, more than six decades on for its first dedicated wastewater treatment plant, CDG, Inc., through Scott Trott’s design, took great care not to overbuild the new facility, putting a constant review process in place with certified personnel to see the layout from the customer’s viewpoint; carefully considering heights, spaces, and repeat activities – all to make the treatment plant operator’s job easier – without unnecessary obstacles.

‘TOTAL SUPPORT THROUGHOUT’

CDG’s Scott Trott continued: “With designs that aren’t overly complicated for the sake of it, Lakeside clearly understands the needs of operators, so this, together with being excellent communicators, made everything much easier and enjoyable to work on. Some companies only work well when the sun is shining, so to speak, but as always, you soon find out who you are really working with when you hit a few stumbling blocks – and I can safely say that Jim Aitkenhead and his colleagues at Lakeside were with us from start to finish – total support throughout, taking huge pride in the job. There have been no problems with the SBR. It is very reliable and effective.”



The new facility is easily scalable for the future.

Based on a 35-year cost analysis with key component assets forecast for a minimum of 25 years, the Lakeside SBR comprises five key stages in its process:

MIX-FILL: Raw wastewater is introduced into the basin where it is mixed with the mixed liquor suspended solids. This phase is anoxic and can be adjusted to anaerobic for phosphorus release.

REACT-FILL: Aeration is added as the basin is fed with raw wastewater to create aerobic conditions for BOD and ammonia removal. This phase can alternate between aerobic and anoxic conditions for nutrient removal.

REACT: Raw wastewater flow is stopped from entering the basin. Aeration and mixing are controlled to provide final treatment.

SETTLE: Aeration and mixing are stopped to allow separation of liquid and solids.

DECANT AND SLUDGE WASTING: Clear effluent is removed from the surface by the decanter. Near the end of decanting cycle, a set amount of settled sludge is wasted from the system.

Sewell, continued: “From managing chlorine levels at the lagoon, there is obviously far more to a full treatment plant, but that said, the SBR is very easy to operate, with the back-up of the SCADA system, and the team always ready with help, if required. The Lakeside SBR was the right solution for us. It works really well.”

Moore added: “Southside now has a delightful plant to walk around. It has a really good vibe and feel. Considering it has such a high level of design and such rugged equipment, the final cost of \$4.3 million is an outstanding achievement by all concerned, especially because the new facility is so easily scalable for the future. This is a great example of a long-lasting investment for the wastewater industry.”

‘CRUCIAL TO THE CONTINUING SUCCESS AND GROWTH OF THE CITY’

Fry concluded: “The final effluent from the SBR looks just like drinking water, which is pretty remarkable when you see where it has come from. Overall, the plant is very maintenance-friendly.

“Maybe it sounds strange to some people, but the new plant is a great environment to work in – and Southside is a great place to live. This new treatment plant is crucial to the continued success and growth of the City. Now that there is all this new capacity, Southside can welcome the building of more new homes and investments from new business.” ☺

THE STRAIGHT FLUSH

Continues to Release Regular Podcast Episodes



VWEA's *The Straight Flush* podcast, which launched in July 2021 has now released 15 episodes. The podcast focuses on Virginia wastewater and stormwater trends, initiatives, and individual's contributions to the industry.

The Straight Flush is available on all major podcast platforms, including Apple Podcasts, Google Podcasts, Spotify, Amazon Music, and more. Scan the QR code to take you directly to the website page for the podcast.

Members can help and participate in this exciting new platform by sending ideas for episodes at podcast@vwea.org. Alternatively, you can contact the podcast co-producers Evan Bowles (ebowles@hazendawsawyer.com), or Ryan Hendrix (rhendrix@pfrwa.com).

- Ep. 1** – Podcast Introduction & Legacy Series: Welcome to the "Sur Plant" Pt. 1
- Ep. 2** – Legacy Series: Welcome to the "Sur Plant" Pt. 2
- Ep. 3** – Women Impacting Water Series: Career Trajectories are Fluid
- Ep. 4** – DE&I Series: Diversity, Equity, and Inclusion Joint Task Force Introduction

- Ep. 5** – 2021 WEF Updates and Initiatives
- Ep. 6** – One Water Series: An Introduction
- Ep. 7** – Dive into Local Stormwater TMDLs, A Mini Series: Local TMDL Impacts, Education and Outreach
- Ep. 8** – Dive into Local Stormwater TMDLs, A Mini Series: Local TMDL Legal Foundations and Trends
- Ep. 9** – Dive into Local Stormwater TMDLs, A Mini Series: A Perspective on Local TMDLs from Fairfax County
- Ep. 10** – Dive into Local Stormwater TMDLs, A Mini Series: A Perspective on Local TMDLs from Washington, DC
- Ep. 11** – Dive into Local Stormwater TMDLs, A Mini Series: A Perspective on Local TMDLs from Chesterfield County
- Ep. 12** – Women Impacting Water Series: Engaging Operators Leads to Smooth Operations
- Ep. 13** – DE&I Series: Engaging and Developing the Next Generation of Water Workers and Leaders
- Ep. 14** – Legacy Series: The Life and Times of Clarke Wallcraft
- Ep. 15** – Legacy Series: Ted Henifin's Transformative Public Service ☺

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Water For People COMMITTEE UPDATE



The Water For People Committee is excited to kick off another great year of fundraising and connection! At the beginning of this year, we launched a new regional approach to the Committee, so individuals can engage in Water For People events happening locally. Currently, regional leaders are established in central and eastern Virginia with volunteer opportunities still available in northern and western Virginia.

Our regional leaders in central and eastern Virginia are hard at work creating events in your area. Recently, Maria Ramirez (central) co-hosted a happy hour with the Young Professional Committee in the Richmond area. Our eastern regional leaders, Amanda Albright and Lyndsey Stone, are looking forward to seeing you at Top Golf in Virginia Beach this summer. A hike in Northern Virginia is also in the works for summer 2022.

We will continue to offer beloved staples from our committee, including the popular golf tournaments in Northern Virginia and Williamsburg and the WaterJAM 5K. A big thank you to Celeste Gregson, Angie Weatherhead, and other volunteers for making these events possible.

We are actively looking to expand our committee. If you are interested in joining the Water For People Committee, contact Sarah Busch: sarahbusch28@gmail.com, and Stephanie Doblosky: sdoblosky@fairfaxwater.org, to learn more about the Committee.

Upcoming Event: Top Golf, Virginia Beach

Date: Sunday, August 7, 2022

Time: 2-5 p.m.

Ticket purchases include food, and 3 hours of game play.

There will be a hole-in-one contest for a cash prize, and tickets will be sold for several raffled prizes ☺

WATER FOR PEOPLE

Water For People is a global non-profit headquartered in Denver, CO, determined to close equity gaps in the water, sanitation, and hygiene (WASH) sector through their model *Everyone Forever*.

The organization focuses on sustainable local solutions to the global water crisis. Visit their website waterforpeople.org for more information.

In Virginia, VA AWWA and VWEA support Water For People through a joint committee. The goal of the VA AWWA/VWEA Committee is to champion the nonprofit through educational campaigns and giving opportunities.

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WHAT IS OPERATIONS CHALLENGE? 'THE WASTEWATER'



Operations Challenge, the water sector's premier skills competition, is unmatched in delivering cross-training, team building, and professional development to wastewater professionals. The competition recognizes excellence and professionalism in wastewater treatment, operations, maintenance, laboratory safety, and collection systems personnel. In the competition, teams compete to earn the highest score in five different events. Each team includes four members and often a coach. Each event is designed to test the diverse skills required for the operation and maintenance of water resource recovery facilities, collection systems, and laboratories. The five events are collections systems, laboratory, process control, maintenance, and safety. Winners are determined by a weighted points system.

EVENT DESCRIPTIONS

Pump Maintenance: A pump trouble alarm was received via the SCADA system at the Operations Control Center. A crew has been dispatched to troubleshoot the alarm. The teams will need to troubleshoot the electrical control panel, troubleshoot, and perform routine maintenance on the KSB submersible pump and restore the pump station to normal operating condition.

Collection System: Teams will be required to cut out a section of an 8" PVC sewer pipe with water flowing through it, drill and install a four-service saddle into the replacement pipe, cut and install the replacement section with couplings and program a Hach Sampler.

Safety: While a facility crew is working, one of the workers collapses inside a manhole. The coworker is found at the bottom, it is



WATER OLYMPICS'

suspected that he/she has been overcome with an unknown gas, or due to a lack of oxygen from a worn 4" check valve. Two team members will enter the manhole, rescue the worker, and repair the leaking check valve. Teams will be required to rescue a downed co-worker from a simulated manhole (<https://www.rmwea.org/oc.php>).

Process Control: The process control event consists of answering several multiple-choice questions, some short math questions with multiple choice answers, and up to five operational-type scenarios that have four to six questions each, which may require considerable calculation.

Laboratory: Laboratory results are valuable as a record of plant operations. This data lets the operator know how efficiently the plant is running and help predict and prevent troubles that may be developing within the various processes. The teams will analyze and determine total suspended solids, conductivity/TDS, and performing solids mass balance across a treatment system.

The competition has shown great success in developing skills and cultivating leaders at utilities. The best way to learn of the benefits is to hear from those involved so we asked a competitor and a utility leader to share their experiences related to Operations Challenge.

ENHANCING WASTEWATER AS A CAREER

For our employees who actively participated in Operations Challenge several years ago, each of those team members has advanced in their careers to management/supervisory positions. While we have excellent training programs

for all staff, the particularly high percentage of the team that subsequently moved on into management positions speaks to the benefit imparted to participants from the Operations Challenge experience. The events not only advance their knowledge of the wastewater field, it also helps them build a peer network within the industry, which serves to enhance their view of wastewater as a career.

– Scott Shirley, Western VA Water Authority,
Chief Operating Officer – Water Quality

MORE THAN JUST A COMPETITION

I had the opportunity to participate in Operations Challenge for 10 years through the Western Virginia Water Authority's Blue Ridge Brawlers. During my time as a team member, I quickly learned that Operations Challenge was more than just a competition and an opportunity to showcase the team's wastewater knowledge and skills.

The first thing I realized was the opportunities presented for networking at each competition. From the state event at the WVEA Operators Conference, to the regional events in Atlantic City and Ocean City, to the biggest competition stage at WEFTEC, every team member was given the opportunity to interact and network with individuals from across the country and the world who work in the field of wastewater. The competitors and vendors of various wastewater-affiliated industries could collaborate and learn from one another throughout the event. I was able to bring that network back to the Western Virginia Water Authority to help, not only myself, but my coworkers while positioned in the wastewater laboratory, industrial pretreatment and plant operation fields.

Another great benefit that I discovered as an Operations Challenge competitor is the wealth of knowledge that you gain regarding

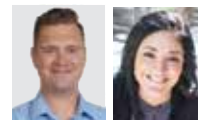
the overall wastewater treatment process. The five events that comprise the overall competition are all curtailed to on-the-job scenarios that someone may face during his/her career in the wastewater field. From collection system repair to confined space entry, to laboratory analyses, Operations Challenge provides a platform to help essential wastewater employees become better-rounded, which has proven to be extremely valuable during the pandemic.

Last, but definitely not least, are the leadership characteristics that each team member will develop while competing in Operations Challenge. As captain of the Blue Ridge Brawlers, I was tasked with finding the strengths of each teammate and applying those strengths to complete each event as safely and efficiently as possible. This skillset is something that I use every day as Wastewater Operations Manager of the Western Virginia Water Authority. As proof of the leadership development that Operations Challenge can provide, all five members of the 2016 Blue Ridge Brawlers that placed 1st overall in Division I at WEF are all now in a management/leadership roles.

Operations Challenge has changed the lives of so many people, including mine. I have no doubt that my experience with the Blue Ridge Brawlers helped to shape my career at the Western Virginia Water Authority. I strongly encourage any wastewater municipality to take a close look at forming a team and taking advantage of the employee development that Operations Challenge can provide.

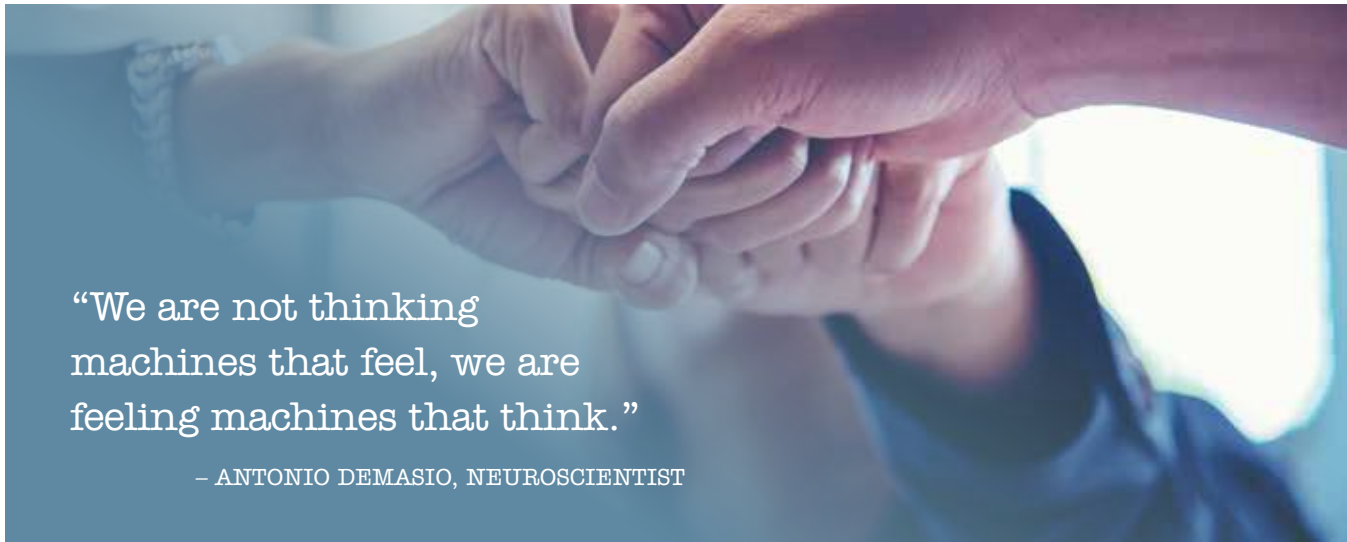
To learn more, attend the Operation Challenge Workshop at the Annual Operations Conference in Harrisonburg on June 22, 2022.

– Lacy Burnette, Western VA Water Authority,
Wastewater Operations Manager



By Steven Drangsholt and Stephanie Corso

It Is Not About Pipes, It Is About Patricia



“We are not thinking
machines that feel, we are
feeling machines that think.”

— ANTONIO DEMASIO, NEUROSCIENTIST

This article originally appeared in the May 2021 issue of *Water Environment & Technology* magazine. Reprinted with permission from the Water Environment Federation. All rights reserved.

If we want people to pay attention to our story as a sector, we cannot leave out the people who make it as special as it is. You can probably think of at least one person who was pivotal to your involvement and passion for water. I certainly can.

It was a cool autumn evening in downtown Boise. It was my first time at a water sector conference, and my emotions ranged from excited to nervous like an emotional ping-pong match taking place in my brain. I stepped into Bittercreek Alehouse, completely unaware that the course of my life and career was about to change forever. I noticed a group of vaguely familiar-looking people at a large corner table. I was new. It was hard to remember all the faces and names, but they seemed to recognize me and called me over. I nervously introduced myself for the 100th time, and being so young, I felt

like I had little to share. They knew each other quite well. They welcomed me and asked me questions to get me talking.

The server stopped by to ask for my drink order. My anxiety went sky high. What's the approved drink order for this kind of social situation – beer, wine, whiskey? I felt everyone's eyes on me as I blurted out, “Can I get a Car Bomb shot?” Soon we were all enjoying Car Bomb shots, and I learned I had sat down with the entire Pacific Clean Water Association Board and WEF-invited guests.

My fate was sealed. I had found my people.

Real Connections

For many of us, we are not here because of a conference agenda, no matter how valuable the content. We're here because of the people we get to sit next to, share a meal with, or text to grab a beer. Whether you want to admit it or not, it is not the water or technology that make this sector essential – it is the people.

If you asked me two years ago about communication, story, and audience, I would have struggled to make the connection between that sphere of my work and my own

work as an engineer. My friends at Rogue Water taught me how to bridge that gap and introduced a world of resources to me that elevated my work as an engineer by leveling up my skills as a communicator.

Technically minded people, like myself, struggle with the fact that emotion, not logic, drives most of our decision making. And yet, I continue to notice instances where we've missed the mark by dehumanizing our work and the people we serve.

COVID-19

This pandemic completely upended our world and sector. Water became an essential part in the fight against its spread with a heightened awareness around the importance of handwashing.

Unsurprisingly, our communications jumped straight to the importance of water and the water worker as essential. However, the focus of the story became handwashing rather than the men and women providing that service. The water professional should have been framed just like the healthcare professional – a guardian of public health.

Storytelling Books

Here are a few resources to get you crafting an effective story.

Building a StoryBrand: Clarify Your Message So Customers Will Listen

By Donald Miller

Includes a storytelling model anyone can follow. Has online resources and courses for deeper dives into marketing and messaging. You will not be able to watch a movie or TV show the same again.

This Is Marketing: You Can't Be Seen Until You Learn to See

By Seth Godin

Reframes marketing as a tool used to create positive effect. The marketer is there to solve your problem not to sell you something you may not need. Seth's case studies are relatable and profound – you cannot help but be changed forever.

Stories That Stick: How Storytelling Can Captivate Customers, Influence Audiences, and Transform Your Business

By Kindra Hall

In depth advice and story types to better connect others to your purpose through story. Includes multiple examples of how story transformed floundering businesses and changed teams.

According to the Centers for Disease Control, firefighters and police officers are specifically listed as frontline essential workers and given first priority to the vaccine. States have left water and wastewater workers in the ambiguous category of "public health", which means their priority groups vary state by state. We missed the opportunity to focus on the people, rather than the service they provide.

Crisis: Texas Winter Storms

When Texas and surrounding states experienced that unprecedented weather in February with temperatures plunging to single digits, it created devastating consequences to homes and public utility systems. Social media was flooded with stories of pipes bursting, boil water notices, and the need for improved infrastructure to handle an increase in extreme weather events caused by climate change.

The frustration felt by water utility staff was palpable online as many seemed to ask: "What

about us?" These sentiments were not always welcomed with empathy and understanding from many customers. Those customers were dealing with their own stress and challenges as they managed the storm's effect on their own families and livelihoods.

Infrastructure Funding

Infrastructure Week each spring is a decades-long awareness campaign that is lacking. Our sector focuses on all the challenges, including the red tape, lack of federal funding, ideological battlelines (e.g., debt), and the public's abysmal understanding of the work we do or its value. When our ability to provide safe, reliable drinking water and wastewater services is challenged by emerging contaminants and dilapidated systems, we excel at talking about pipes and treatment facilities. But this story doesn't move our communities to change or politicians to increase funding. We need to talk as much about the people at the ends of those pipes as we do the pipes themselves.

People First

Our work matters because of the people we serve, not because of the pipes in the ground. It is time for a communication revolution because our story is not about pipes, it is about Patricia. It is not about microbes, it is about Marco.

Our stories need an audience-first focus. Over the last several years, I devoted myself to the study of storytelling and found one method that works every time – I craft each message for the intended audience. The book, *Building a Story Brand* by Donald Miller, describes this approach in detail.

In short, any story is about the hero; it is not about the guide. By positioning ourselves as the hero, we have made it all about us and, therefore; we are marketing and talking to ourselves. The specific audience we want to reach – our communities, politicians, neighborhoods, regulators – should always be positioned as the hero. We, the water sector, take the role of guide to solve their problem.

Our fatal flaw is that we often position ourselves as the hero in the story instead of the guide. You are not the hero. You are the guide. Good stories are about people and not about things or technology.

To see this in action, consider these two similar ideas:

Water worker as hero. Water workers are essential to public health and the environment and without them, our society would crumble. Thank a water worker for all they do today because without them, our community would not exist.

Water worker as guide. Our communities are incredible places to live but suffer the effects of COVID-19. As water workers, we support a healthy, vibrant community by providing clean water to stop the spread. Your health and safety are our top priority.

Ask yourself which message would resonate better with you as a customer if asked about rate increases, or if your street needed to close for repairs?

If you take only one thing from this viewpoint, take this: You are not the hero, you are the guide. The hero needs to overcome adversity.

Get Comfortable with Being Uncomfortable

Focusing this carefully on how we communicate may feel daunting and completely outside of your wheelhouse, but if we ever hope to create a world that understands what we do, values our work, and invests in our future, we have to do the work to reconnect to the people we serve. The first step is opening our minds to the valuable role communication plays in our sector.

Clear, relatable communication is as much a part of our shared mission as the pipes in the ground and we all play a role. Putting this into action can mean many things: investing in your own skills, hiring communication professionals, or ensuring your existing communication team has a seat at the table (and the budget) to make a difference. It is all a part of being a guide to serve your audience and provide the foundational element of life – water.

About the Authors

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Meet WEF's Newest Stormwater Leaders

In 2022, WEF Communications and Marketing will be choosing topics to focus on each month. We encourage you to align your publication of these materials with our editorial calendar.

Originally appeared in January 2022 in The Stormwater Report, stormwater.wef.org. Reprinted with permission from the Water Environment Federation. All rights reserved.

At WEFTEC 2021, the Water Environment Federation (WEF; Alexandria, Virginia) Stormwater Committee welcomed Mark Doneux and the WEF Stormwater Institute Advisory Committee welcomed Scott Taylor as their 2021-2023 chairs. Taylor and Doneux have volunteered on their respective committees for several years in supplement to their careers at the forefront of stormwater management, leadership, and research.

As the new chairs settle into their roles, they spoke to *Stormwater Report* about their professional backgrounds, as well as their plans and priorities during their leadership terms.

Scott Taylor, WEF Stormwater Institute Advisory Committee



I am looking forward to working with you over the next two years to improve U.S. stormwater programs as well as overall stormwater quality.

Scott Taylor, newly appointed chair of the Water Environment Federation (WEF; Alexandria, Virginia) Stormwater Institute Advisory Committee, has worked in water resources for nearly 40 years. As one of the founders of the National Municipal Stormwater Alliance (NMSA), Taylor is uniquely suited to help the WEF Stormwater Institute advocate for MS4 permittees and spearhead programs to make their jobs easier. Image courtesy of Taylor/NMSA

"I am looking forward to working with you over the next two years to improve U.S. stormwater programs as well as overall stormwater quality."
— Scott Taylor

The U.S. Municipal Separate Storm Sewer Systems (MS4) program is currently at a crossroads. On the regulatory side, it faces needs to implement numeric standards through total maximum daily loads (TMDLs) and retrofit the built environment with green infrastructure. On the technical side, our tools remain somewhat primitive for removing dissolved compounds from stormwater. Also, the tens of millions of potential pollutants and episodic volumes of stormwater runoff complicate practical and economical solutions to improve runoff water quality.

My overarching goal for the WEF Stormwater Institute is to help move the national stormwater program forward, identifying ways to improve the performance of stormwater infrastructure investments as well as cost-effective ways to implement these investments. An additional goal is to improve access to funding and other resources to help MS4 permittees implement more robust programs.

Some of the specific ideas I plan to discuss with the Advisory Committee for potential development by WEF include the following:

- **Standard training and a career path for stormwater professionals.** The water and wastewater treatment sectors have a well-defined curriculum and structure to advance

in facility operation and management. Stormwater professionals lack this structure. WEF is a leader in water education, and it is a natural fit for WEF to provide the leadership to establish a career path and structure for stormwater professionals.

- **Create a curated library of available curriculums for elementary and middle-school classes about stormwater.** A pressing issue is that the public has little

understanding of what stormwater is, and the problems of stormwater pollution. Creating this awareness early will pay dividends for stormwater in the future. We also will look at ways to educate the general public about stormwater and its value as an essential utility in the urban environment.

- **Support source control for stormwater.** As of July 2009, there were more than 48 million known organic and inorganic substances assigned a chemical abstract number, with more than 12,000 additional substances being added each day. We need to shift from discovering and mitigating pollutants at the end of the pipe and instead focus on control of pollutants at their source.
- **Promote One Water.** Ultimately, urban stormwater needs to be recycled and used in direct potable reuse systems. This will solve not only the issue of treating polluted urban runoff, but also will help make the urban water cycle more sustainable. The WEF Stormwater Institute is currently updating its *Rainfall to Results* publication, and the One Water approach will be central in the publication's updated vision for stormwater.
- **Secure funding.** WEF has been invaluable in helping to get the word

'stormwater' into infrastructure legislation. We need to continue this progress and push for appropriations to match the enabling legislation. Among Stormwater Institute funding priorities are creating new grant programs for stormwater infrastructure; working toward a dedicated U.S. Environmental Protection Agency (EPA) Office of Stormwater; expanding access to Section 319 funding for MS4 permittees; and implementing recent recommendations from the EPA Environmental Finance Advisory Board.

The Stormwater Institute also will continue to support implementation of the Stormwater Testing and Evaluation of Products and Practices (STEPP) program, now under the stewardship of the National Municipal Stormwater Alliance (NMSA). STEPP is an important initiative that will enable stormwater programs to optimize their investments.

My 37-year career in water resources has prepared me well for my term as chair of the WEF Stormwater Institute Advisory Committee. I am a civil engineer based in California with professional registration in ten states. I have received recognition as an American Society of Civil Engineers (Reston, Virginia) Fellow, and hold a Diplomate designation from the American Academy of Water Resources Engineers (Reston, Virginia). I have been a member of the California Stormwater Quality Association for more than 20 years and served a term as Chairman of the Board.

My professional career includes work in hydrology, hydraulics, sediment transport, as well as stormwater quality and management. My focus for the past 20 years has been MS4 programs.

Along with Randy Neprash and Seth Brown, I founded NMSA, a nonprofit organization dedicated to assisting MS4s in implementing their stormwater programs, and currently serve as its chair. In addition to its technical work, NMSA aims to provide a unified, national voice on MS4 issues.

Learn more about Scott Taylor at the NMSA website. Learn more about the WEF Stormwater Institute on its homepage.

"This year at WEFTEC, I was honored to receive the Volunteer Service Award for my work on the WEF Stormwater Committee." – Mark Doneux

Mark Doneux,
WEF Stormwater Committee



The WEF Stormwater Committee advocates for effective stormwater management by developing high-quality technical products and programming to support stormwater professionals, promote innovation in the field, support policies that recognize the importance of implementing sound management principles, encourage communication and outreach with the public and decision makers, and collaborate with organizations and groups to advance the field. The committee is comprised of 150 volunteer participants from state/local governments, consultants, academics, nonprofits, vendors, and other organizations.

One major initiative for the Stormwater Committee was a realignment of its subcommittees, which support the committee's work in specific areas, that occurred in 2021. The reorganization involved the addition of a new Industrial Stormwater Subcommittee, as well as other changes informed by the committee's strategic plan and a recently conducted member interest survey. Overall, the realignment aimed to place a greater emphasis on emerging and high-interest topics within the stormwater sector, provide greater opportunities for volunteering, engagement, and leadership among members. In 2022, the committee will work to ensure the successful launch of these new subcommittees and support their leadership.

The updated list of subcommittees now includes:

- Funding and Finance
- Green Infrastructure and Stormwater Control Measures
- Industrial Stormwater
- Innovation and Technology,
- Policy, Governance, and Regulation
- Public Outreach, Education, and Collaboration, and
- Resiliency


Doneux recently became the new chair of the WEF Stormwater Committee and will serve in the position for the next two years. Doneux, Administrator of the Capitol Region Watershed District (CRWD; St. Paul, Minnesota), discussed recent committee efforts to reorganize volunteers and advocate for national-level stormwater priorities.

The committee is planning a webinar for May 2022 as well as several ongoing "all-hands" calls, in which members will hear the latest news from the stormwater sector, learn about subcommittee initiatives, receive updates from our other partners at WEF including the Stormwater Institute, the WEF Watershed Committee, the WEF Committee Leadership Council, the WEFTEC Program Committee, and the WEF Technical Practices Committee.

Members also will work this year to ensure that stormwater is identified in the next U.S. EPA Clean Watersheds Needs Survey (CWNS), which begins in 2022; support WEF's Water Week efforts; and present at the June 2022 Stormwater Summit and at WEFTEC.

Aside from my work with the WEF Stormwater Committee, I am the Administrator of the Capitol Region Watershed District (CRWD) in St. Paul, Minnesota, and have more than 35 years of experience in the water resources field. As administrator, I oversee all CRWD operations, including 22 staff, as well as manage the \$11-million CRWD annual budget and work plan. CRWD operates its own regulatory program, performs stormwater research, provides watershed education, and maintains best management practices. It also owns, operates, and maintains a 10-km (6-mi) regional storm sewer system. Additionally, we implement capital improvement projects and provide grant funding to support water quality projects.

This year at WEFTEC, I was honored to receive the Volunteer Service Award for my work on the WEF Stormwater Committee. Additionally, I am a member of the Minnesota Association of Watershed Administrators and will become their president in 2022. For the Central States Water Environment Federation, I am the chair of the Minnesota Chapter's Stormwater Committee. I am also honored to once again co-chair the Stormwater Summit, to be held in Minneapolis in June 2022.

Learn more about Mark Doneux at the CRWD website. Learn more about the WEF Stormwater Committee on wef.org. 

VWEA invites you to attend the Annual Wastewater Operations Conference. This year's conference will include something for every water professional - from workshops to full-day technical sessions, and a networking/social event.



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▼ LOCATION

Hotel Madison & Shenandoah Valley Conference Center
710 S Main St, Harrisonburg, VA 22801

▼ CONTACT

Email questions to Jeff Coyne at jcoyne@hazenandsawyer.com

▼ COST

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▼ REGISTRATION

<https://www.vwea.org/event/Operations2022>



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Register and pay online at
www.vwea.org/events/

Payment can be made online with a credit card (Visa, Master Card and American Express are accepted) or by check payable to VWEA.

Registration and Payment due by Friday, June 3rd

DIRECTIONS

For directions to the course, visit the 1757 Golf Club website at www.1757golfclub.com

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CONTACT INFORMATION

For more information or if you don't have a complete team, please contact

Andrew Beatty at 571.291.7746
ABeatty@loudounwater.org
or
Thom Lipinski at 571.291.7992
Tlipinski@loudounwater.org





MEMBER SPOTLIGHT



NOELLE SLATER

Name: Noelle Slater
How long have you been a VWEA member? 12 years
What company do you work for? AECOM

What do you feel has been the biggest benefit of being a VWEA member?

Meeting people and building a professional network are the biggest benefits of membership for me. When I was new to

the area, I became involved with VWEA and that helped me gain some footing and build confidence to be able to participate in conferences and committees.

My focus was initially stormwater, but as time has gone on, I have been able to participate in informal mentoring across many facets of the water industry. I have made great friends through committee interaction and conference attendance, especially WaterJAM.

What do you feel are the highlights of VWEA membership?

I feel that there is an important educational component of VWEA. Being able to attend conferences, participate on committees, and make presentations is valuable for members. The Stormwater Committee is a perfect example of one that combines network building, meetings, opportunities for collaboration and educational offerings through the Spring seminar.

Another highlight is the versatility in ways to volunteer. I have chaired the Water Reach Committee and coordinated the Silent Auction. I also served as Secretary and chaired the Spring Conference for the Stormwater Committee. More recently, I have worked with the WaterJAM Committee as a Technical Program Committee member and I am now the 2022 WaterJAM Committee Co-Chair.

What are some interesting things about you?

I am a New Year's baby born 2 minutes after midnight, but not THE New Year's baby for my birth year. There was another baby at the same hospital born a few seconds after midnight.

I love to grow things! I inherited this from my grandma and my mom, I think. I have a lot of plants and always start seeds for the spring during the winter, so I am ready when the weather is warm enough to plant. My gardens include a lot of vegetables, fruits, herbs, and berries. I love growing flowers and I am pretty sure I will be a master gardener once I retire and have time for that. I love the Norfolk Botanical Garden and am sure I will have many gardening friends in addition to my water industry friends in the future.

▼ If you have questions about VWEA membership, please contact Leigh Blecki: leigh.blecki@vwea.org.



RAHKIA NANCE

Name: Rahkia Nance
How long have you been a VWEA member? About six months, maybe less.
What company do you work for? HDR
How many years of experience do you have? 15
What is your hometown? Herndon, Virginia

What kind of projects do you work on?

I lead communications for water and wastewater projects in Maryland, Virginia, and the District of Columbia. I work closely with client teams, creating public outreach plans, overseeing stakeholder engagement, coordinating the creation and distribution of outreach materials, and facilitating public meetings.

Why did you join VWEA?

I'm interested in working alongside other water professionals who are passionate about what they do.

What is your favorite thing to do outside of the office?

Favorite? It really depends on the season.

Any fun facts that you would like to share?

I'm a former Zumba instructor and a published author.



ALLAN FONTANILLA

Name: Allan Fontanilla
How long have you been a VWEA member? 2014
What company do you work for? RK&K
How many years of experience do you have? 32
What is your hometown? South Riding

What kind of projects do you work on?

I work on water and wastewater conveyance and pumping stations.

Why did you join VWEA?

To connect with other Virginia engineering professionals, and learn about other projects in the Commonwealth.

What is your favorite thing to do outside of the office?

Spend time with family exploring new places.

Any fun facts that you would like to share?

I spent my high school years in Cairo, Egypt, where my father worked on the massive wastewater system improvements project in early 1980s. That is what got me hooked on civil engineering and waterworks in particular. ☺



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Brown and Caldwell, Inc.
Core & Main
Jacobs
Kimley-Horn and Associates, Inc.
LimnoTech, Inc.
SEH
Timmons Group, Inc.
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TANK INSPECTION/MAINTENANCE

JDV Equipment Corporation
Pittsburg Tank & Tower Maintenance Co.
Preload, LLC
SEH

ULTRAVIOLET DISINFECTION

Heyward, Inc.

**WATER RESOURCES/NATURAL
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Brown and Caldwell, Inc.
Jacobs
Kimley-Horn and Associates, Inc.
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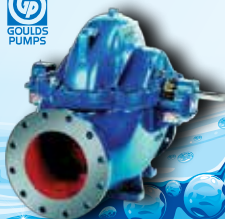
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
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A close-up photograph of a hand holding an open oyster shell. The oyster's interior is visible, showing its gills and a small, dark, round object (possibly a pearl or a small fish). The background is a soft, out-of-focus sunset sky with warm orange and pink hues. The hand is positioned in the lower right, holding the shell from underneath.

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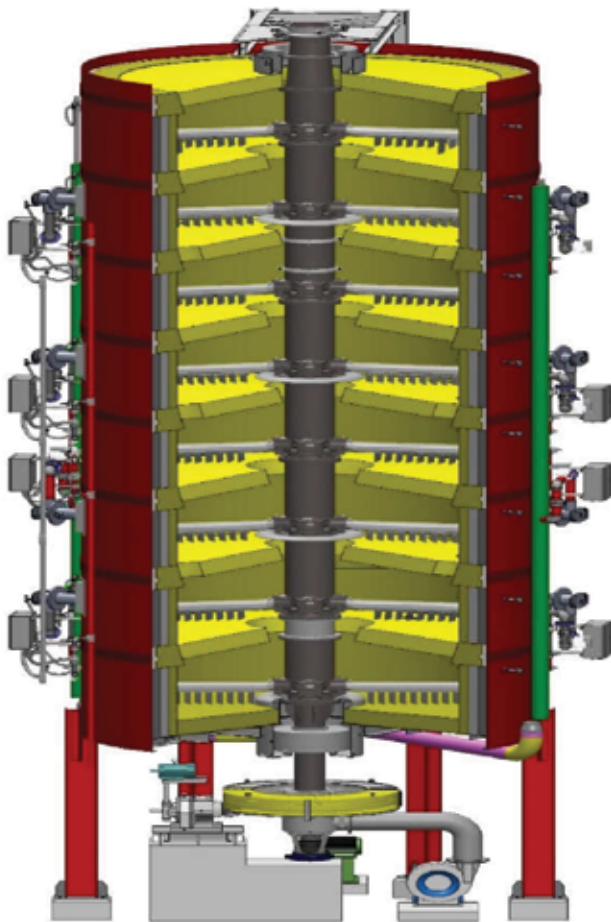
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