FWEA SOUTH FLORIDA CHAPTER NEWSLETTER'



2ND SEMESTER - 2024

MESSAGE FROM THE CHAIR Abnery Picon, Jacobs

Welcome to this issue of the FWEA South Florida Chapter newsletter!

In this issue you will meet the South Chapter FY 2024–2025 Steering Committee. Our Steering Committee served the South Florida Chapter and other FWEA committees for many years, and they are committed to continue serving for the benefit of our professional community. In addition to our Steering Committee, we have a group of volunteers that are committed to support our chapter. If you are interested on being a volunteer in our Chapter, please contact us and we will invite you to our monthly meetings so you can decide in which activity you want to assist.

Several events were held during the 2023-2024 fiscal year, that are highlighted in this issue. These events were led by our past chair Arturo Burbano from Black and Veatch. An important factor for the success of these events was the support of the Utility Sector, where key personnel from the Miami-Dade Water and Sewer and the Village of Key Biscayne presented how these Utilities are dealing with current water and environment challenges.

More events are in the making for this new fiscal year. Our first event will be on August 21st, 2024, from 6:00 pm to 9:00 pm at the 94TH Aero Squadron Restaurant, 1395 NW 57TH Avenue, Miami, FL 33126. Our speakers for this event will be **Christine Wartman** and **Daniel Lizarazo** from the **Miami-Dade Water and Sewer Department** who will be presenting **Enhancing Our Future: Innovative Utility Programs for Upgrading WASD's Critical Infrastructure**.

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On **September 16, 2024** we will be hosting a **Young Professionals and Networking Event** from 6:00 pm to 8:00 pm at Top Golf Doral. This event is being organized by Jissell Muir from Arcadis, which not only is part of the South Florida Chapter Steering Committee but is also the Chair at state level of the FWEA Students & Young Professionals Committee. Don't miss this opportunity to connect with her and other members of our Steering Committee.

In October we are back to New Orleans for WEFTEC. This year, the conference will be from October 5 to 9. You will enjoy of five days of technical conferences and networking with over 21,000 participants and 800 exhibitors. By December, you don't want to miss the Miami Joint Societies Christmas Dinner. Details regarding this event will be provided in the upcoming months.

The renewal of WEF membership is coming soon. If you work for the private sector, to be a member of the FWEA, you need to renew your WEF membership and select to add the Florida WEA membership to your registration. The system will assign you a local chapter based on the address you use for the registration.

I don't want to miss this opportunity to say thank you to our 2023-2024 and 2024-2025 Chapter's Annual Sponsors. Your support to our organization allows us to coordinate events and to provide accessible registration fees to our membership.

Our next Newsletter issue will be by February 2024. We invite you to contribute to this newsletter with a technical article or highlight any event associated to our professional community. Please contact Carolina Cubides via email to ccubides@gfnet.com.

2024 - 2025 STEERING COMMITTEE MEMBERS



CHAIR: Abnery I. Picón, Jacobs abnery.picon@jacobs.com



VICE-CHAIR: Melody González, Black & Veatch GonzalezM@bv.com



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UTILITY LIAISON: Alberto Pisani, Miami Dade RER



STUDENT LIAISON: David Hernandez (UM), Hazen and Sawyer dhernandez@hazenandsawyer.com

If you could dedicate a year of your life to any philanthropic or humanitarian cause, what would it be and why? Helping homeless people. Growing up I had the experience of visiting a homeless shelter to provide supplies and talk with them. That experience made me realize the difficult circumstances they have faced and how much they need our help and support to move forward in life.

Can you share an experience in your life that profoundly shaped your professional outlook? Serving as the president of EWB at FIU. During my tenure, I led a project in Nicaragua to provide clean water to a rural community called Jinotega. This experience involved planning, collaboration with local FWEA leaders, and hands-on work to implement sustainable water solutions. Witnessing the impact of our efforts on the lives of the community was incredibly rewarding.

Please share a fun fact about yourself. The adventurous spirit within me gave me the courage to try a tandem skydive jump out of a plane in Houston, Texas to experience the rush of free falling. Later, while vacationing in Peru, I jumped off a cliff in Miraflores to experience paragliding along the Pacific Ocean coast in Lima.

How do you maintain a work-life balance, and what hobbies or activities help you recharge? Maintaining a work-life balance as a full-time working engineer and mother to an energetic and inquisitive 5-year-old can be quite challenging. At this point in my life, I find that balance is something I continually strive for rather than something I consistently achieve.

Please share a fun fact about yourself. I scored a hole-in one on March 17, 2008. According to Google, the odds of the average golfer making a hole-inone are 12,500 to 1.

How do you maintain a work-life balance, and what hobbies or activities help you recharge? Not an easy task to balance both; thought is to always maintain a rhythm or momentum of progress on both. I like playing guitar and spending time with friends to help me recharge.

If you could dedicate a year of your life to any philanthropic cause, what would it be? I would focus on improving access to clean water. Clean water is essential for health, education, and economic development. Many people spend hours daily fetching water, limiting their opportunities for education and employment. By enhancing water infrastructure, sanitation, and education, we could significantly improve lives and drive sustainable development globally.

If you could dedicate a year of your life to any philanthropic or humanitarian cause, what would it be and why? If I could dedicate a year of my life to any philanthropic or humanitarian cause I would focus on the climate crisis. This matter seems to only be worsening, and innovative policy changes and plans need to be put into place and executed immediately to drive change.

How do you maintain a work-life balance, and what activities help you recharge? In a professional setting, there is no worse feeling than being unprepared and having to scramble. Being reactive typically leads to longer work hours as you're putting out fires. I organize my work proactively so that I <u>alberto.pisani@miamidade.gov</u> am always prepared, and crisis mode work is minimized.

> Can you share an experience in your life that profoundly shaped your professional outlook? Learning to sail on Biscayne Bay as a child cemented my love of water from an early stage in life. My passion for sailing and being on the water has really helped guide me toward the water industry.

PREVIOUS EVENTS

November 2023 MIAMI-DADE WASD NEW INITIATIVES

On November 14, 2023, we celebrated a Dinner and Networking event in the 94th Aero Squadron at Miami. For this event, we were honored to have two keynote speakers from the Miami-Dade Water and Sewer Department.

- Amanda R. Kinnick, PE, Chief of Staff
- Catalina Lopez-Velandia P.E. MSc., W&S Chief Strategy Officer

Their presentation was titled WASD New Initiatives. Among the information shared with the audience was the process followed by the Miami-Dade Water and Sewer Department for the development of the five-year strategic plan covering the period from 2023 to 2028.

Over 100 members of our professional community participated in this event which included dinner and open bar.







January 2024 WASD'S 7.9B CAPITAL IMPROVEMENT PLAN: HOW DO WE FLY THE PLANE WHILE WORKING ON THE ENGINES

On January 24, 2024, we met again at the 94th Aero Squadron to celebrate our second Dinner and Networking event of the 2023-2024 fiscal year. In this occasion our keynote speaker was Billie Jo McCarley, PE, Deputy Director of Operations for the Miami-Dade Water and Sewer Department. The tittle of the presentation was WASD's 7.9B Capital Improvements Plan: How Do We Fly the Plane While Working on the Engines. This was a sold-out event with over 120 participants all eager to hear Billie Jo's message regarding WASD operational challenges, the strategies to seamlessly addressing these challenges, while maintaining the commitment with the community of providing a reliable service.

We greatly appreciate that Billie Jo took time from her busy agenda and commitments to share this valued information with our community.





PREVIOUS EVENTS

April 2024

FLORIDA WATER RESOURCE CONFERENCE

Alberto Pisani & Jose Abinazar

The Florida Water Resources Conference was successfully held earlier this year, bringing together experts and professionals from the sector to discuss the latest advancements and challenges in water and environmental resources management. The topics addressed included water conservation, wastewater management, water quality, hydraulic infrastructure, and resilience to climate change, among other interesting topics. Participants had the opportunity to share experiences, knowledge, and best practices in water resource management. The conference also featured prominent speakers who presented technical sessions, case studies, and innovative projects in water resource management, providing additional Q&A sessions and roundtables to foster debate and collaboration among attendees.

The following presenters from the South Florida area were present:

- Nelson Perez-Jacome (MDWASD) Feasibility Analysis for a WRRF to Address Zoonotic Pathogens in Reuse
- Nelson Perez-Jacome (MDWASD) Emergency Relocation of a 36 Inch Water Main via HDD under Biscayne Bay
- Christina Garcia-Alario (MDWASD) From Obstacles to Opportunities: Miami-Dade County's Journey to ASR
- Aubrey Litzinger (Florida International University) A SWMM Assessment of GI for Flood Control in Historic Downtown St. Augustine
- Sussette Irizarry (Stantec), Colin Devitt (Stantec), and Manuel Moncholi (Stantec) FWPCOA Operator Showcase: Advanced Water Treatment for Potable Reuse
- Alberto Pisani (DERM-RER), Jose Abinazar (Gannett Fleming), and Georgio Tachiev (GIT Consulting) Using Geospatial Modeling to Empower Stormwater Resilience and Flood Mitigation

The conference is a valuable opportunity to strengthen the network of professionals in the sector and advance the search for solutions to the challenges facing water resource management in Florida. The technical sessions highlighted innovative approaches and collaborative efforts essential for addressing these complex issues.

Alberto Pisani, P.E., is a Senior Professional Engineer with Miami Dade Department of Regulatory and Economic Resources. He serves as Utility Liaison with FWEA – South Florida Chapter. Jose Abinazar, El is a Project Designer with Gannett Fleming.





PREVIOUS EVENTS

April 2024 MEMBERS APPRECIATION EVENT

On April 17, 2024, we had our Member's Appreciation and Networking event at Bay 13, in Coral Gables. For three years in a row, we have hosted this event to celebrate the successes of the past fiscal year ending on April 30, and to welcome the new steering committee for the next fiscal year. Over 60 people participated in this event, enjoying a good chat, with appetizers and open bar.

We used this opportunity, to recognize the leadership of our past chair Arturo Burbano, from Black and Veatch, who guided the South Chapter for the last two years. Some of the highlights during that period are:

- Chapter's Annual Sponsors increased from 12 to 24, allowing us to have funds for events coordination and to provide accessible registration fees to our membership.
- Successfully transitioned from the virtual events held during Covid, to in-person events.
- Hosted four dinners and networking events, with over 100 participants in each one, with recognizable speakers for the utility sector including:
 - Nelson Perez-Jacome, Assistant Director Engineering & Construction, MDWASD
 - o Steve Williamson, Manager, Village of Key Biscayne
 - o Amanda R. Kinnick, PE, Chief of Staff, MDWASD
 - o Catalina Lopez-Velandia P.E. MSc., W&S Chief Strategy Officer, MDWASD
 - o Billie Jo McCarley, PE, Deputy Director, Operations, MDWASD
- Donated \$1,000 to aspiring engineers at Coral Reef Senior High School Engineering Booster Club.

Thanks to our membership, the support of the Chapter's Annual Sponsors, and to our Steering Committee led by Arturo Burbano, the FWEA South Chapter will continue to provide excellent services to our professional community for many years to come.





PREVIOUS EVENTS

July 2024 WATER LEADERSHIP INSTITUTE

Lilian Marrero

In today's world, where water scarcity and environmental challenges dominate discussions, the need for visionary leadership in the water sector is more pressing than ever. To address this critical need, the Water Environment Federation (WEF) Water Leadership Institute (WLI) created a transformative program aimed at cultivating the next generation of leaders in the water and wastewater industries.

Entry into the WLI is highly competitive. The application process evaluates candidates on their experience, potential, and alignment with the program's objectives. This year a diverse group of eighty-four people across the US/Canada and one from Ghana serving a variety of roles in the water/wastewater industry joined the program. Participants engaged in management training and leadership development while tackling real-world challenges facing the water and wastewater industries. One of the key features of the WLI is its focus on networking and relationship-building. Participants connected with a diverse array of subject matter experts, mentors, and peers from both the public and private sectors. These interactions are vital for sharing ideas, best practices, and fostering collaborations. The supportive community created through the WLI is instrumental in helping participants navigate their professional journeys and build lasting connections within the industry.

I was thrilled to be part of the Class of 2024, and the experience has exceeded my expectations in every way. During the two-day in-person leadership workshops held May 9 and May 10 in Alexandria, Virginia I met my classmates and participated in sessions focused on various topics like strengths-based leadership, communicating with impact, entrepreneurship and innovation, workforce planning, allyship, managing and leading, unconscious bias, emotional intelligence, effective public speaking, conflict management. The rest of the program consisted of monthly virtual workshops and virtual group projects workings sessions whose objective is to tackle key issues in our industry. Participants prepared four webcasts focused on The Intersection of Leadership and Communication of 12 Water Challenges which will be broadcasted by WEF starting August 6 thru August 15, 2024. The culmination of the WLI Class of 2024 will take place in October at the WEFTEC Conference. This event will serve as a platform for participants to highlight their achievements and engage with a wider audience of water professionals. It underscores the program's commitment to integrating learning with real-world application and ongoing professional development.

The Water Leadership Institute not only educates and trains emerging leaders but also empowers them to forge lasting relationships and drive meaningful change within the water sector. For those enthusiastic about making a significant impact, the WLI offers an unparalleled opportunity for professional growth and leadership development.

Professionals from all areas of the water sector—including utility staff, consulting engineers, regulators, academics, and equipment manufacturers—are encouraged to apply. Additionally, the WLI provides scholarships for candidates whose employers cannot sponsor their participation.

Applications for the next cohort will open after the WEFTEC Conference in October. For more information, please contact WLI at WLI@wef.org.

Lilian Marrero, P.E., is a Project
Manager and Professional Civil
Engineer with Gannett Fleming. She
serves as Treasurer-in-Training for
Florida Water and Environment
Association (FWEA) – South Florida
Chapter and as Secretary for Florida
International University (FIU) Civil and
Environmental Engineering (CEE)
Department Advisory Board (DAB).



PREVIOUS EVENTS

April 2024 RECOGNITION TO JUAN OQUENDO

Did you know that the FWEA South Chapter was founded only 7 years ago? The Miami-Dade and Monroe counties areas were part of the FWEA Southeast Chapter that also served the Broward and Palm Beach counties. The extension of the service area made it difficult to coordinate events in centralized venues convenient to our members in Miami-Dade and Monroe County. The South Chapter was created, thanks to tenacity of a small group led by Juan Oquendo, now vice-president at Carollo, that advocated to improve the services of the members in South Florida.

Juan was the first Chapter's Chair and was re-elected to serve a second term. Under his guidance the first events for our local professional community were held, newsletters were issued, and mentorship to students' participating in the Florida Water Resources Conference (FWRC) competitions were provided.

The 2023-2024 South Chapter Steering Committee wanted to recognize Juan for the initiative of founding our Chapter and leading us for the first two years. We value his contributions and today the South Chapter has over 75 registered members, provides networking opportunities to our professional community and is constantly selling out events directed to continued technical education.







TECHNICAL ARTICLE

TAKING ACTION: WHAT WATER SUPPLIERS NEED TO KNOW ABOUT THE PFAS NATIONAL PRIMARY DRINKING WATER REGULATION

Lori Kappen, PE, Senior Project Engineer, Gannett Fleming, Camp Hill, PA.
Sophia Liskovich, PE, Senior Project Manager, Gannett Fleming, Owings Mills, MD.
Jamie Shambaugh, PE, Vice President and Water Process and Operations Group Manager, Gannett Fleming, Camp Hill, PA.

- Main topic: The U.S. Environmental Protection Agency's PFAS National Primary Drinking Water Regulation established legally enforceable levels of six PFAS in drinking water.
- **How the article can benefit utilities**: As water suppliers navigate the challenges of managing PFAS contamination, understanding the regulations, treatment options, and available funding opportunities will be crucial for protecting public health and the environment.

In March 2023, the U.S. Environmental Protection Agency (EPA) proposed National Primary Drinking Water Regulations (NPDWR) for six per- and polyfluoroalkyl substances (PFAS) in drinking water. The EPA expects that limiting PFAS to maximum contaminant levels (MCL) will reduce health implications caused by PFAS contamination. In April 2024, the EPA announced the final NPDWR for those six PFAS.

To achieve compliance with the new federal legislation, water suppliers should understand:

- The EPA's drinking water MCLs.
- Treatment alternatives and considerations for PFAS.
- The benefits of hydrogeologic modeling of contamination plumes.
- State and federal funding opportunities.

Understanding the EPA's Drinking Water MCL Regulations

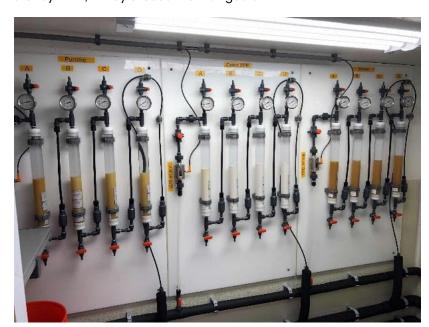
The six compounds included in the NPDWR are perfluorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS), perfluoronanoic acid (PFNA), hexafluoropropylene oxide dimer acid (HFPO-DA), perfluorohexane sulfonic acid (PFHXS), and perfluorobutane sulfonic acid (PFBS). Under the regulation, public water suppliers must:

- Monitor their systems for these PFAS.
- Notify the public of the levels of PFAS present in their systems beginning in 2027.
- Reduce the levels of the six PFAS in the drinking water by 2029, if they exceed the MCL goals.

While some states already have PFAS standards, the new federal drinking water requirement may be more stringent, requiring treatment even if the state standards did not.

PFAS Treatment Alternatives and Considerations

The primary method for treating PFAS in drinking water is adsorption onto solid media, typically granular activated carbon (GAC) or anion exchange resin. Alternative adsorbents are also available, with additional materials in various stages of testing for PFAS treatment potential. Membrane filtration technologies like reverse osmosis and nanofiltration are also effective at removing PFAS but are costlier to implement and require more extensive pretreatment.



Pilot testing helped Aqua Pennsylvania determine an optimum solution for removing PFOS and PFOA compounds in its Hatboro wells. Read about it here.

Continued on next page.

TECHNICAL ARTICLE

Continued from previous page.

GAC and ion exchange resins adsorb PFAS with more than 99% removal efficiency. Typical adsorption uses trains of two tanks operated in a lead-lag configuration, in which the water flows through the two tanks in series. When the first tank is exhausted, the valve positions are switched, and the lag tank assumes the lead position. The result is relatively clean media in the lead tank to adsorb the higher concentrations and new media in the lag tank to remove lower concentrations that may remain after treatment in the lead tank.

The selection of the appropriate treatment method depends on factors like water quality, cost, and available space. An evaluation of alternatives should consider differences in contact time and loading rates for GAC and ion exchange resins. It may also include pilot testing to assess treatment effectiveness and design parameters.

Benefits of Hydrogeologic Modeling of Contamination Plumes

PFAS are highly mobile in groundwater because they are hydrophobic, lipophobic, and have surfactant properties that help them infiltrate the ground quickly. Hydrogeologic modeling is crucial to optimizing well use and understanding the long-term behavior of PFAS plumes. This modeling allows water suppliers to assess the impact of ceasing pumping from contaminated wells on surrounding wells, evaluate strategies for plume containment, and consider the role of waste streams in plume migration. When designing PFAS removal systems, factors like pressure losses, waste generation, site access, and permitting must be considered.

State and Federal Funding Opportunities

State and federal funding can ease the burden of capital costs associated with PFAS removal. There are three pockets of money designated for dealing with emerging contaminants:

- 1. **Drinking Water State Revolving Fund (DWSRF).** This program provides financial assistance to help water systems and states achieve Safe Drinking Water Act objectives. The DWSRF is funded by Congress and administered by the EPA, supporting water infrastructure projects. The Bipartisan Infrastructure Law (BIL) appropriated \$4 billion through 2026 to the DWSRF to address emerging contaminants, including PFAS.
- 2. Clean Water State Revolving Fund (CWSRF). The CWSRF is a federal-state partnership that offers low-cost financing for water quality infrastructure projects. The BIL appropriated \$1 billion through 2026 to the CWSRF specifically to address PFAS.
- 3. Emerging Contaminants in Small or Disadvantaged Communities Grant. This program awards grants non-competitively to small or disadvantaged communities to address emerging contaminants, including PFAS. The BIL is making \$1 billion available each fiscal year from 2024 to 2026 for technical assistance, water quality testing, training for local contractors, and installing centralized water treatment systems.

The EPA's NPDWR established legally enforceable levels of six PFAS in drinking water. As water suppliers navigate the challenges of managing PFAS contamination, understanding the EPA's regulations, treatment options, and available funding opportunities will be crucial for protecting public health and the environment.

Contact lkappen@afnet.com to learn more.

FUTURE EVENTS



EVENT SPONSORSHIP OPPORTUNITIES

Event sponsorship opportunities are available. Please contact

Juan F. Aceituno juan.aceituno@stantec.com 786-620-6844

Speakers:

Christine Wartman, PE, Senior Professional Engineer MDWASD Utility Construction Division, Priority Projects

Daniel Lizarazo, PE, ENV SP, Senior Program Manager MDWASD Utility Engineering, Pipeline Division

Registration:

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\$65 FWEA/WEF Members \$60 Gov. Employees

\$85 Non-Members

\$20 Students

Registration closes on August 20, 2024 or once the capacity is met 120 participants).

Florida Water SOUTH Environment FLORIDA Association CHAPTER

Florida Water SOUTH

Environment FLORIDA

Association CHAPTER

For sponsorship details, please

contact Juan F. Aceituno

juan.aceituno@stantec.com

Miami FL 33126

Event sponsorship opportunities are available.

Cell, 786-620-6844

Thank you to our Volunteers:

- Cadi Turner, Kimley-Horn
- Carolina Cubides, Gannett Fleming
- Dory Torres, BCC Engineering
- Julia Batista, BCC Engineering
- Salome Montoya, Wade Trim
- Sharmin Siddique, CDM Smith
- Sidney Salit, Brown and Caldwell

REGISTER TODAY!

YOUNG PROFESSIONALS AND NETWORKING EVENT

Enjoy a fun afternoon playing golf and connecting with peers! All professionals are welcome.



MONDAY SEPTEMBER 16, 2024 6:00PM TO 8:00PM



TOPGOLF MIAMI DORAL 11850 NW 22nd St, Doral, Fl 33182



\$25 FWEA/WEF Members \$20 Gov. Employees \$40 Non-Members \$15 Students

Includes appetizers, Fajitas buffet, and two drinks per person.

Registration closes on September 13, 2024 or once the capacity is met (30 participants, 6 players per bay).

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2023-2024 SPONSORS























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