



THE WATER TOWER



THE WATER TOWER

# ANNUAL REPORT

2024 Educate. Innovate. Elevate.



**THE WATER TOWER** is comprised of two nonprofit organizations:

**The Water Tower at Gwinnett**, a 501(c)4, which is responsible for the development and operations of the campus, and

**The Water Tower Institute**, a 501(c)3, which is responsible for our solutions, instruction, and engagement programming.

**Together**, these entities are committed to building a thriving ecosystem of innovation driven by water challenges, informed by research, and powered by people. This is accomplished by bringing together the public and private sectors of the water industry, side by side with academia and nonprofits, to tackle the industry's greatest challenges.



**Vision**

Build a thriving ecosystem of innovation driven by water challenges, informed by research, and powered by people.



**Promise**

We create diverse and enriching experiences with passionate people, state-of-the-art facilities and dynamic partnerships.



**Mission: The Water Tower Institute**

The Water Tower Institute is a hub for water industry solutions that fosters a thriving community and environment.



**Mission: The Water Tower at Gwinnett**

The Water Tower at Gwinnett provides world-class resources and infrastructure to support the Institute and the community.

## MESSAGE FROM OUR CEO



As we celebrate five transformative years since the launch of The Water Tower Institute and The Water Tower at Gwinnett, we are deeply grateful for our collective achievements and excited for the opportunities ahead. With the help from our ecosystem of innovators, The Water Tower has established itself as a dynamic international hub for utilities, researchers, companies, and other industry leaders to address real-world water challenges, making a meaningful impact on the water sector.

In 2024, we welcomed over 9,000 visitors from around the world to our state-of-the-art facilities. We hosted thought-leadership programs on topics including cybersecurity, digital solutions, resiliency, emerging contaminants, and succession leadership, and proudly served as the venue for the national meetings such as the Water Finance Conference, which brought finance officers from across the U.S. to TWT’s campus.

Reinforcing the need for industry-wide workforce development, we successfully concluded the Water Workforce for Resilient Communities pilot program, training over 30 Gwinnett residents for water industry careers. Building on this success, we launched the Water Training and Recruitment (WTR) Hub, a national effort supported by a \$2M grant from U.S. EPA expanding our workforce initiatives to South Carolina, Mississippi, and California.

Our R&D program continues to grow, with key initiatives in emerging contaminants, optimization, and treatment supported by multiple grants and key research partnerships. Our commitment to industry engagement resulted in nearly 100 events and collaborative programs for the water industry and local communities, including the inaugural H2GO “Run Like Water” 5K in partnership with neighboring F. Wayne Hill Water Resources Center.

These successes are not ours alone. Our progress would not have been possible without the unwavering support of our exceptional Board Members, partners, collaborators, colleagues, volunteers, and friends. Working together, we will continue to reach new heights for the benefit of the water industry.

Melissa Meeker, CEO

## 2024 By The Numbers



**9,000** Visitors to campus

**51** Supporting partners    **10** Academic partners    **9** Companies with offices on campus

- 2** Visiting scholars with research projects supported by The Water Tower Institute
- 5** Grants awarded for research and training
- 7** Technologies demonstrated on campus

### TRAINING & EDUCATION

**900+** Workers trained in 30+ classes  
**170** Job shadowing trainee shifts at the F. Wayne Hill Water Resources Center  
**6** Job shadow students in The Water Tower’s lab



### TWT EVENTS

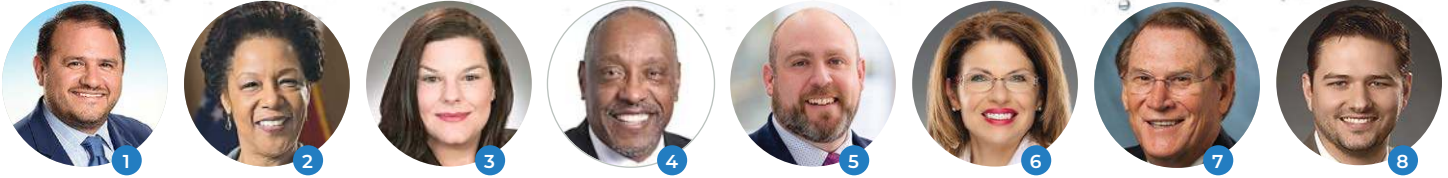
**250+** Attendees from across the United States at the Annual Demo Day  
**155** Attendees at the 5th Annual Watering Hole Golf Tournament



# 2024 BOARD OF DIRECTORS

## The Water Tower at Gwinnett

The Water Tower at Gwinnett (TWTG), a 501(c)4 organization, focuses on The Water Tower's real estate development and infrastructure.



- 1 **Nick Masino**, *Chair*, President and CEO, Gwinnett Chamber and Partnership Gwinnett
- 2 **Jann Joseph, Ph.D.**, *Treasurer*, President, Georgia Gwinnett College
- 3 **Jennifer Fennell**, *Secretary*, Gwinnett District Manager, Jackson EMC
- 4 **Melvin Everson**, Vice President, Economic Development, Gwinnett Technical College
- 5 **Kyle Jones, Ed.D.**, Gwinnett County Public Schools Academies of Career, Technical and Agricultural Education
- 6 **Jessica Rantamaki**, Business Development Specialist, Geo-Hydro Engineers
- 7 **Ron Seibenhener**, Retired Director of Water Resources, Gwinnett County
- 8 **Daniel R. Sosebee III, CPA**, Associate Member, Moore Stephens Tiller

## The Water Tower Institute

The Water Tower Institute (TWTI), a 501(c)3 organization, focuses on The Water Tower's programming in applied research, technology innovation, workforce development, and community engagement.



- 1 **Eileen O'Neill, Ph.D.**, *Chair*, Founding Partner, Water Principles LLC
- 2 **Nick Masino**, *Immediate Past Chair*, President and CEO, Gwinnett Chamber and Partnership Gwinnett
- 3 **Terrell S. Gibbs, Ph.D., PE**, *Treasurer*, Environmental Department Manager, Corporate Environmental Risk Management (CERM)
- 4 **Bruce Bharat**, Regional President – Americas for Kamstrup North America
- 5 **Erica Brown, PMP**, *Secretary*, Director of Administration, Fairfax Water
- 6 **Tony V. Carnell, P.E.**, General Manager, Henry County Water Authority
- 7 **Glen T. Daigger, Ph.D., PE, BCEE, NAE**, President, One Water Solutions



The Water Tower is pleased to welcome **Shane Snyder, Ph.D. BCES**, José Domingo Pérez Foundation Chair and Professor of Civil and Environmental Engineering at Georgia Tech Institute of Technology, to The Water Tower Institute Board of Directors as of 2025. His work has shaped global policies, influenced cutting-edge water technologies, and guided organizations like the World Health Organization and the U.S. Environmental Protection Agency. Dr. Snyder brings decades of expertise in water sustainability, emerging contaminants, and environmental health to TWTI.

## JOINT LETTER FROM BOARD CHAIRS

Guided by the vision set by Gwinnett County, The Water Tower remains dedicated to advancing water innovation through industry-wide collaboration. Utilities face complex challenges in delivering safe, reliable water, and our mission is to provide the resources and solutions they need to navigate these evolving demands.

The Water Tower at Gwinnett's state-of-the-art facilities have become a global destination for water professionals, offering space for research, training, events, and co-working. With fully equipped laboratories, live water quality flows, and hands-on learning environments, we provide an unparalleled setting for problem solving and innovation. Now that our main building has reached full capacity, we have begun planning for the next phase of development to support growing industry engagement.

The Water Tower Institute continues to expand its programs to provide solutions for research, workforce, and technology challenges. As the sector prepares for a wave of retirements, our workforce development initiatives—including a national recruitment, training, and placement program—are helping build the next generation of water professionals. While on campus, utilities can experience the latest R&D advancements to aid in informed decision-making and engage in our nearly 100 events, training classes, and projects on important topics such as OT cybersecurity, emerging contaminants, best management practices, and more.

Together, our nonprofits are committed to providing real-world solutions, expanding our reach, and continuing to foster collaboration to serve the industry. We invite you to join us as we innovate, educate, and elevate the future of water!



A handwritten signature in black ink that reads "Nick Masino".

Nick Masino  
2024 Board Chair,  
The Water Tower at Gwinnett



A handwritten signature in black ink that reads "Eileen O'Neill".

Eileen O'Neill, Ph.D.  
2024 Board Chair,  
The Water Tower Institute



### The Water Tower Team

**Melissa L. Meeker**

Chief Executive Officer

**Kristan VandenHeuvel**

Director of Impact & Engagement

**Chris Impellitteri, Ph.D.**

Director of Research & Development

**Courtney Lee**

Director of Training Development

**Peggy Alexander**

Office Manager

**Amanda Willis**

Sr. Water & Wastewater Specialist

**Virgil Welch**

Sr. Water & Wastewater Specialist

**Claude David Mbemba**

Laboratory Technician

**Kaitlyn Castrejon**

Marketing & Communication Specialist

**Carlie Smith**

Events & Facility Relations Specialist

**Abbey Kennedy**

Research Intern

**Anna Impellitteri**

Research Intern

**Faith Carlisle**

Strategic Projects Intern

# EDUCATE

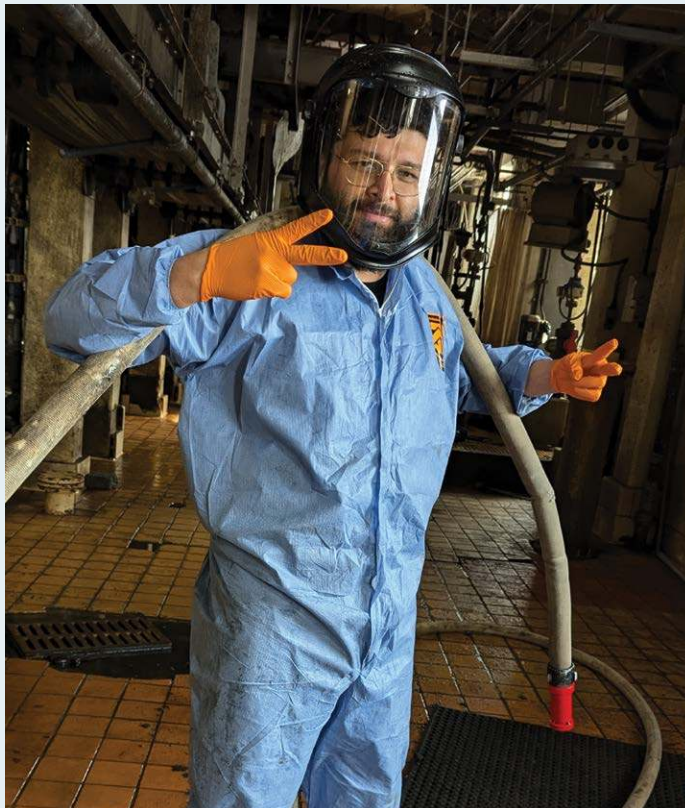
## Empowering the Water Workforce

With nearly half of the water workforce approaching retirement in the next decade, The Water Tower (TWT) is committed to addressing utilities' personnel and training needs. Our workforce initiatives cover recruitment, training, placement, and upskilling, equipping students with hands-on experience for successful careers in the water industry.

To remove barriers to entry in skilled trades, TWT provides training through grants and scholarships. In 2024, we supported three training cohorts, offering hands-on instruction, job placement assistance, and life skills support to help trainees earn Georgia's state-recognized operator certificate. With multiple pathways to success, our program serves both high school students and career changers, with training completed in as little as four months.

TWT also concluded the **Water Workforce for Resilient Communities pilot program**, a grant-funded initiative launched in 2022 to support underserved populations and individuals displaced by the COVID-19 pandemic. Through partnerships with Georgia Center for Opportunity and Corners Outreach, the program trained over 30 Gwinnett residents for water industry careers. Funded by the U.S. Department of Treasury under the American Rescue Plan Act and coordinated by Gwinnett County, this initiative strengthened the region's water workforce pipeline.

### Training for Success



Melquice Ordonez, a proud graduate of TWT's Wastewater Operator Class III program, is now thriving at Slater Infrastructure Group. Melquice's story is a great example of how TWT programs help candidates launch a rewarding career in water while addressing workforce shortages in the water industry.

*"If you're looking for stability, fair pay, and the satisfaction of contributing to a great cause then I suggest The Water Tower as your bridge to a skilled trade that will provide all of that and more. To go through a program in such a short amount of time and come out as a licensed professional without taking on any debt is unheard of. If you're serious about learning a new skill and eventually getting paid, then the opportunity and the people to lift you up are ready when you are."*  
– Melquice Ordonez

## EPA Grant to Establish Water Workforce Training and Recruitment Hub

In October 2024, The Water Tower received a \$2 million grant from the U.S. Environmental Protection Agency to establish the Water Workforce Training and Recruitment (WTR) Hub. This initiative will develop white papers in partnership with social nonprofits to identify key target populations and highlight their unique cultural needs, ensuring equitable workforce development.

The hub will also create hands-on, scenario-based training materials in English and Spanish, expanding to South Carolina, Mississippi, and California. In collaboration with Water Professionals International, TWT is launching a train-the-trainer certificate program to prepare instructors who will train and certify 60 new operators and 30 trainers. Additionally, digital navigation tools will enhance training access and effectiveness.

## Inspiring the Next Generation



Each year, TWT presents the **Standing (Inn)Ovation Award at the Gwinnett County High School Science Fair** to recognize innovative water research. Winners receive a behind-the-scenes tour of TWT's campus, where they meet industry experts and explore opportunities to expand their research. Congratulations to the 2024 winners, Jiya and Rehani, for their project Pull'n the Plastics!

To inspire future water professionals, TWT also engages with students through **career fairs** at high schools and social nonprofit events.

In April 2024, TWT hosted the second annual **State Model Water Tower Competition**, organized by Georgia AWWA and the Georgia Association of Water Professionals. Middle school students tested and refined functional water towers they designed, building skills in water resources engineering, public speaking, and problem-solving.



# INNOVATE

## Innovating Tomorrow's Water Solutions

With advanced labs, a full-scale living laboratory, and strong industry partnerships, TWT drives applied research, technology development, and collaboration to solve critical water challenges. The mission is to fast-track the advancement and adoption of groundbreaking water solutions, from treatment technologies and digital advancements to workforce training and beyond. TWT collaborates with universities, colleges, institutes, and other organizations on research efforts, including those highlighted below. By connecting research with real-world impact, The Water Tower is driving the future of water innovation.

### PFAS Fate & Transport in Wastewater Treatment Systems

This study explores PFAS and total organic fluoride measurements in wastewater treatment to assess mass balance through effluent and biosolids. It evaluates total organic fluoride as a rapid monitoring tool. Published results are expected in Spring 2025.

*Collaborator: University of Alabama*

*Funding: National Science Foundation*



### Opportunities Pathogens, Disinfectants & Disinfection Byproducts in Drinking Water Distribution Systems

In 2024, year one of a three-year study examined pathogen, disinfectant, and DBP relationships in eight U.S. utilities. Data includes pathogen cultures, flow cytology, metagenomics, disinfectant levels, DBPs, and dPCR. Findings will inform exposure models and utility tools to minimize risks from DBPs and pathogens.

*Collaborators: Georgia Tech, UNC-Chapel Hill, and Northeastern University*

*Funding: U.S. Environmental Protection Agency*

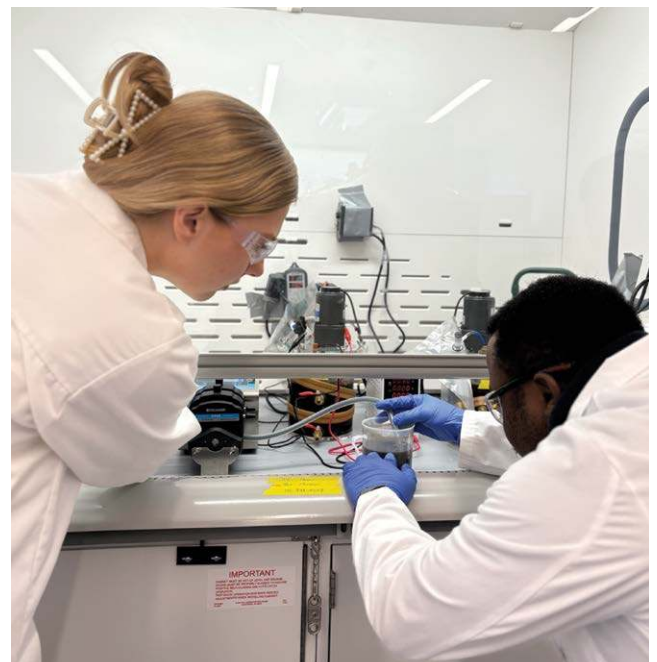


### Technology Development for Optimizing Anaerobic Processes for Sludge Treatment

In 2024, research began on bioelectrical anaerobic digestion using bench-scale reactors to enhance methane production and phosphorus removal for fertilizer reuse. Successful results will lead to pilot-scale testing at The Water Tower. Techno-economic analyses will assess costs and benefits.

*Collaborator: University of Alabama*

*Funding: U.S. Department of Energy*





## Research Advisory Committee

The Water Tower's Research Advisory Committee (RAC) is composed of high-caliber experts in the water field who provide guidance for TWT's applied research agenda.

**Glen T. Daigger, Ph.D., PE, BCEE, NAE, RAC Chair,**  
One Water Solutions, LLC

**Katherine Atteberry,** Metropolitan North Georgia  
Water Planning District

**Charles Bott, Ph.D., PE, BCEE, HRSD**

**Gail Cowie, Ph.D.,** Georgia Water Planning  
and Policy Center at Albany State University

**Michael Diaz, PE, MS,** Arcadis

**Chris Haney, PE, ENV SP,** STV Inc.

**Kevin Middlebrooks,** Gwinnett County Department  
of Water Resources

**Jason Mingo,** Water Services  
Association of Australia

**Stéphanie Rinck-Pfeiffer,** Global Water  
Research Coalition

**Orren Schneider, Ph.D., PE,** Aclarity, LLC

**Rebecca Shelton, PE,** Gwinnett County  
Department of Water Resources

**Eva Steinle-Darling, Ph.D., PE,**  
Carollo Engineers



Staff and visiting researchers conduct research in the state-of-the-art TWT labs.

## BioReady Award



Gwinnett County was officially recognized with Gold-Tier BioReady® Community status by Georgia Bio, making it the first county in metro Atlanta to earn this distinction for its strong infrastructure and commitment to the biotech industry. The Water Tower's biotech laboratory and manufacturing activities played a key role in achieving this status.

**Above:** Gold-Tier BioReady® Community status was presented during the Gwinnett County Board of Commissioners Meeting July 16, 2024.

# ELEVATE

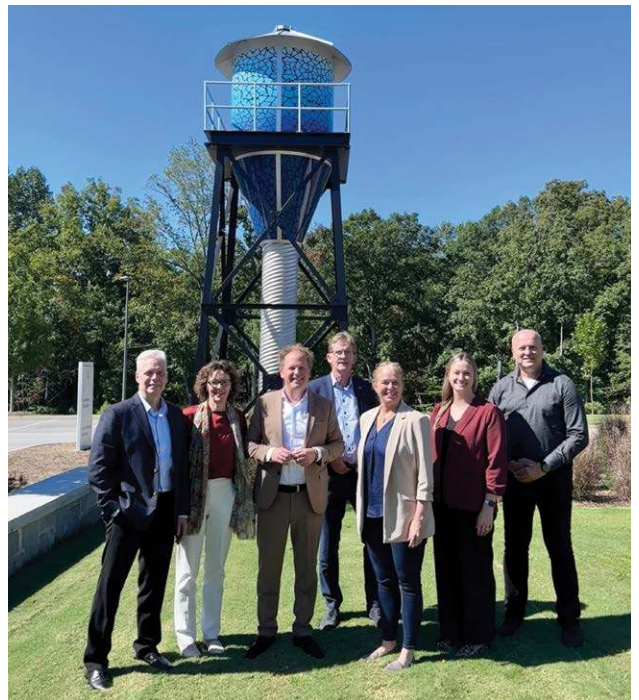
## Fostering Industry Engagement & Collaboration — Locally & Worldwide

In April 2024, The Water Tower hosted two major industry events, bringing together professionals to collaborate on critical challenges. The third annual **Demo Day** welcomed over 250 attendees, including technology manufacturers, engineers, consultants, and utility professionals, to explore cutting-edge solutions for the water industry. Thanks to our generous sponsors, the event remained free for utility participants.

Later in the month, the International Conference on the Design of Cyber-Secure Water Plants (DCS-Water '24) convened experts and practitioners to address growing cybersecurity threats in the water sector. Nearly 100 participants engaged in discussions on AI, digital twin technology, and zero-trust design to enhance security strategies for water and wastewater infrastructure.

In June, The Water Tower signed a Memorandum of Understanding with Water Alliance, a leading Dutch water technology hub, to drive innovation and create market opportunities in both regions. This partnership builds on ongoing collaboration with the **Consulate General of the Netherlands** in Atlanta and Water Alliance to connect Dutch businesses, utilities, and the U.S. water sector.

As part of this initiative, TWT and local partners hosted a Netherlands delegation in October, including representatives from Water Alliance, the Dutch Consul General, the Municipality of Leeuwarden, the Gwinnett County Chamber of Commerce, Partnership Gwinnett, and the Metropolitan North Georgia Water Planning District. Discussions focused on international collaboration, technology exchange, and future innovation opportunities.



## Exploring Water Behind the Scenes

The Water Tower hosted the inaugural **H2GO Run Like Water 5K** on November 16, 2024, guiding 165 runners through the award-winning F. Wayne Hill Water Resources Center. Sponsored by 21 organizations, this immersive race highlighted the transformation of wastewater into clean water. Proceeds supported The Water Tower Institute's STEM workshops and workforce training, fostering strong, sustainable communities.

The Gwinnett County Department of Water Resources earned a National Association of Counties Achievement Award for its Coordinated Public Tours and Engagement program. Launched in January 2024, it offers residents monthly behind-the-scenes tours of the F. Wayne Hill Water Resources Center and The Water Tower, with over 100 participants last year.

## Ripple Effect: Business & Networking Opportunities

TWT hosted its **Annual Economic Development Breakfast** in late February with over 30 regional economic development professionals, TWT Board members, and water industry leaders gathering to discuss unique business opportunities at The Water Tower with Gwinnett County Chairwoman Nicole Love Hendrickson sharing opening remarks.

TWT also hosted three **Women, Water, and Wine networking receptions**, bringing together 100+ attendees to connect, collaborate, and support women in the industry.

In October, 150+ colleagues, partners, and water professionals joined our **5th Annual Watering Hole Golf Tournament** at Lanier Islands Legacy Golf Course.



## Roadmap for Innovation Success

Developed by The Water Tower and Arcadis, *Building an Innovation Narrative* is a first-of-its-kind guide to help utility leaders drive industry progress. With input from 36 utilities worldwide, it addresses a key challenge—demonstrating the value of innovation investments.

Through research, case studies, and actionable steps, the guide teaches users how to integrate measurement and communication to build project support. It includes worksheets to craft key messages, align performance metrics, and effectively tell an innovation story.



# Supporting Water Professionals for Every Stage and Role

- In April, TWT's new Water 101 class introduced industry fundamentals—including utility governance, procurement, and the urban water cycle—to over 10 new professionals from consulting firms, engineering firms, and product manufacturers.
- In August, TWT hosted the **National Backflow Prevention Day celebration**, welcoming 125+ water professionals to explore the latest advancements in backflow prevention. Experts covered topics from ROI optimization and emerging trends to best practices and soft skills for backflow assembly testers.
- TWT was proud to be the host site for the **2024 Water Finance Conference**—a national forum for utility leaders and financial experts to discuss water, wastewater and stormwater financial challenges and innovative strategies for funding this critical infrastructure.



# Growth & Expansion

The Water Tower saw remarkable growth in 2024, strengthening its role as a hub for water industry innovation and collaboration. We welcomed five new partners, expanded our team with five new staff members, launched and hosted new events and training programs, and attracted over 9,000 visitors to our campus. These milestones showcase our success as a thriving ecosystem focused on knowledge-sharing and research-driven solutions.

## Campus and Partners Brimming with Experts and Innovators

Several new partners joined The Water Tower in 2024, including **STV, iTrust Centre for Research in Cyber Security, Chemsearch FE, and Industrial Water Solutions**. Their expertise strengthens our network, driving innovation in water research, technology, and training. Through strategic collaborations, The Water Tower continues to serve as a global hub for advancing sustainable water solutions.

The Water Tower building has officially reached full capacity. Our tenant community includes dynamic industry leaders including **5840 Holdings, Brown and Caldwell, Carollo Engineers, CoSurge, GHD, Garver, Gresham Smith, Kimley-Horn, Reeves Young, STV, and Wade Trim**. With all office spaces

occupied and a waitlist for coworking space, TWT is exploring the next phases of campus development.

## Mobile Lab to Elevate Training and R&D

The Water Tower received a generous donation of a **mobile lab trailer** from the City of Birmingham Water Works. Once refurbished and fully equipped, this mobile lab will expand our ability to deliver hands-on learning, enhance research, and provide cutting-edge water solutions for utilities.

## New Team Members

The TWT team continues to grow as well. We welcomed four new staff members and one intern in 2024, who play key roles in research, communications, and training.



## 2025 TWTI CHAIR LETTER AND VISION FOR 2025

As the incoming Board Chair for The Water Tower Institute, I am honored to build on the incredible progress The Water Tower has made. I want to extend my deepest gratitude to Dr. Eileen O'Neill for her outstanding leadership, which has positioned The Water Tower as an industry leader for water innovation, workforce development, and cross-sector collaboration.

Looking ahead to 2025, we have exciting initiatives on the horizon. Phase 2 of our campus expansion will enhance our ability to support research, training, and industry engagement. Our workforce development programs will continue growing, equipping more professionals with the skills needed to sustain and strengthen the water sector. Additionally, we remain committed to serving as a testbed for emerging technologies, providing utilities with cutting-edge solutions to their most pressing challenges.

Innovation thrives through collaboration, and I invite you to be part of this journey. Whether through research, training, or engagement, your involvement is key to shaping the future of water. Together, we will continue driving meaningful progress for the industry and the communities we serve.

Thank you for your support—The Water Tower Institute Board and I look forward to an impactful year ahead!



A blue ink handwritten signature that reads "Bruce Bharat".

Bruce Bharat  
2025 Board Chair  
The Water Tower Institute



# 2025-2030 Strategic Goals and Objectives

The water sector is currently facing a convergence of complex challenges. These challenges cannot be addressed alone. The Water Tower boards and staff recently completed a strategic planning process that is a testament to our commitment in supporting the water sector through this journey. The following strategic goals and objectives have been carefully crafted to serve as a guide for The Water Tower's operational planning and decision making to achieve valuable growth and impact over the next five years.

## Empower the Water Workforce

Integrate and expand comprehensive programming that attracts and trains a water workforce reflective of our communities.

## Innovate Tomorrow's Water Solutions

Advance applied research to address utility challenges and develop new solutions for water resource management.

## Tailor Opportunities for Collaboration

Offer cutting-edge thought leadership, access to global expertise, and unique networking opportunities that collaboratively advance the water industry.

## Become an Underserved-Utility Center of Excellence

Deliver accessible and practical solutions to underserved utilities.



## Upcoming Events

**April 24:** Demo Day at The Water Tower

**May 8:** Women, Water & Wine networking reception

**May 15:** AquaRoyale Casino Night at The Water Tower

**June 25:** Water 101

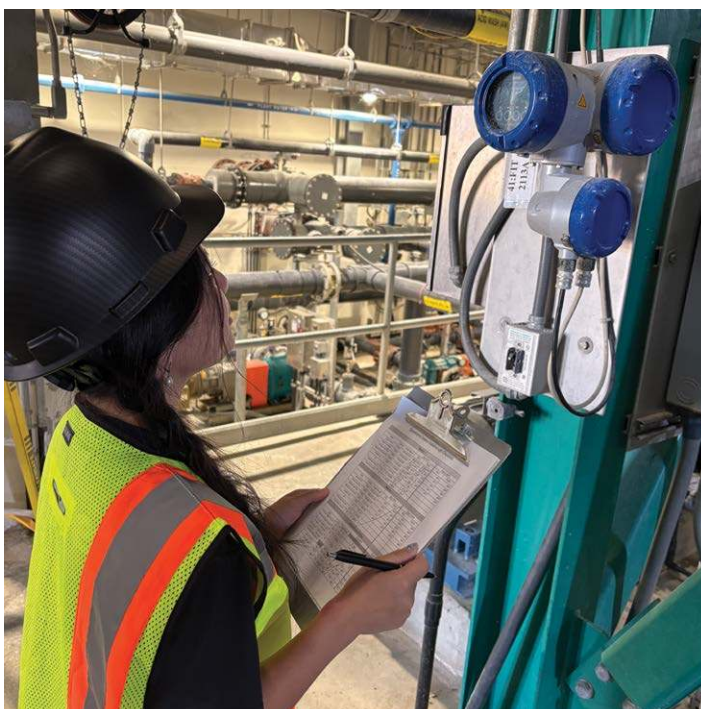
**August 14:** National Backflow Prevention Day Celebration

**September 26:** Student Water Innovation and Leadership Summit

**October 23:** 6th Annual Watering Hole Golf Tournament

**November 15:** H2GO Run Like Water 5K

*For a full list of TWT events, visit [www.theh2otower.org/calendar](http://www.theh2otower.org/calendar)*





# Thank You, Partners!

## SUSTAINING AND TRANSFORMATIVE PARTNERS



## INNOVATION PARTNERS



## COLLABORATION PARTNERS



## FOUNDING PARTNERS



### Become a Partner



Partnering with The Water Tower provides a unique opportunity to participate in leading-edge research, expand the water workforce, collaborate for innovation and engage in tailored programming. Scan the QR code or visit [theh2otower.org](http://theh2otower.org) to learn more.