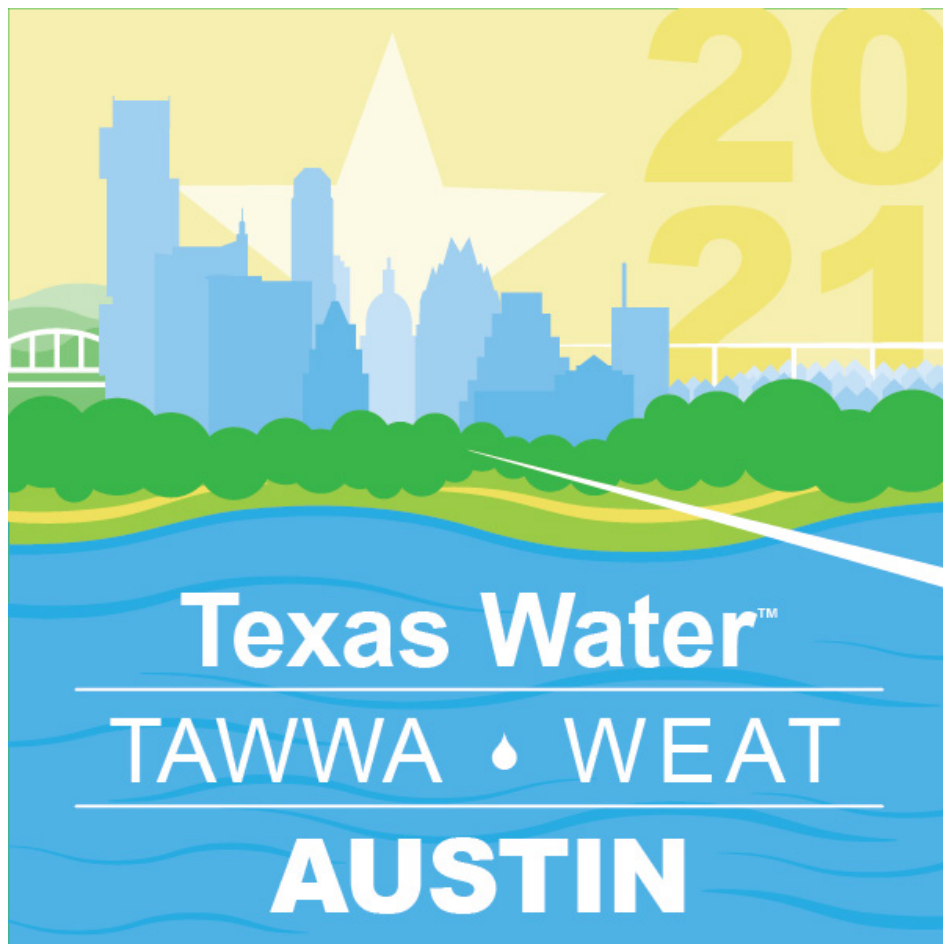


**Conference Preview**

# **Texas Water™ 2021**

## **- Virtual -**



**March 29 - April 1, 2021**

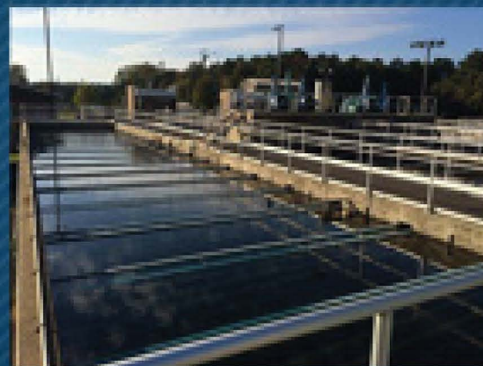
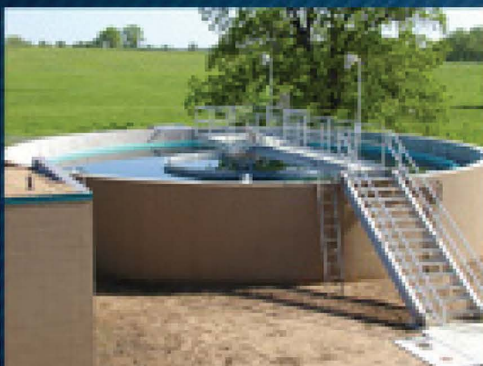
**- Online -**





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# Texas Water goes Virtual for its 26th Year!

We are excited to invite you to attend **Texas Water™ 2021 – Virtual**, the largest (virtual) regional water conference in the nation!

Texas Water™ 2021 – Virtual will offer an opportunity to view a considerable number of online presentations plus opportunities to receive TCEQ approved Operator hours or Engineering CEU hours for viewing these presentations. We have endeavored to create what we believe will be the most interactive virtual water conference for all our colleagues.

The sessions will be made available “on-demand” once they are posted, allowing for convenient viewing at any time. You will not have to choose between attending different sessions as you would at an in-person conference. Better yet, all the sessions will remain posted for multiple months after the conference, to provide for maximum viewing flexibility.

Texas Water™ 2021 – Virtual will also feature a **Virtual Exhibition**, which will give you the opportunity to (virtually) visit our loyal vendors that have continued their support of the conference. Plus, once again play an online version of our “Match-the-Name Game” scavenger hunt for some amazing door prizes.

We hope that you’ll join us online for Texas Water™ 2021 – Virtual. In the midst of very challenging times, the Texas Section of the American Water Works Association and the Water Environment Association of Texas continue their mission of advancing the clean water and drinking water professions and protecting the health of our communities and environment. Our industry has never been more essential, and we hope that you and yours are safe and healthy as we navigate these difficult circumstances.

We all look forward to meeting in person in the near future, but for now, we invite you to celebrate the 26th year of the Largest Regional Water Conference in the U.S.®, Texas Water™ 2021 – Virtual!

## Mike Howe

Executive Director

*Texas Section American Water Works Association*

## Julie Nahrgang

Executive Director

*Water Environment Association of Texas*

**Full registration for Texas Water™ 2021 - Virtual** includes access to all technical sessions as well as all other virtual conference events such as the Opening Session, Women in Water event, Dodson’s Drive Virtual Fun Run, Curtis Smalley Virtual Environmental Event, Young Professional Panel and Reception, virtual Exhibit Hall and Awards Ceremonies:

- **Member:** (in AWWA or WEF): \$200  
on/after March 29: \$250
- **Non-Member:** \$425  
on/after March 29: \$475

**Non-member registration** includes a free\* one-year membership in either **AWWA** or **WEF**.

*\*New members only, not for membership renewals*

## REGISTER ONLINE AT [www.txwater.org](http://www.txwater.org)

### C.E. HOURS

Texas Water is seeking TCEQ Operator Training Certification Hours for most technical sessions.

Engineers may also receive self-reporting CE hours for attending.

Details on how to submit your hours will be provided closer to the conference date.

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# TENTATIVE VIRTUAL CONFERENCE SCHEDULE

While the technical sessions will be available to view at your convenience, be sure to join us live for these events the week of March 29! And enjoy the **Women in Water panel**, **Virtual Tours**, **Operations Challenge Events**, and **Texas AWWA** and **WEAT Award ceremonies** on demand for viewing at your convenience. *The schedule is subject to change; please visit [www.txwater.org](http://www.txwater.org) for the latest conference news and updates.*

## Ongoing Events

Scholarship Golf Tournament: February 1 - March 15

Dodson's Drive: March 25 - March 30

### Monday, March 29

8:15-9:00 am	Curtis Smalley Environmental Event
9:00-11:00 am	Exhibit Hall Opening
11:00 am-12:00 pm	Opening Session
12:00-1:00 pm	Exhibitor Power Hour
1:00-2:40 pm	Technical Sessions
2:40-3:10 pm	Visit Exhibits
3:10-4:15 pm	Technical Sessions
4:15-4:30 pm	Live Q&A for all Monday Technical Sessions
4:30 pm	Young Professionals Development Event – Panel Discussion

### Tuesday, March 30

8:30-10:10 am	Technical Sessions
10:10-10:40 am	Visit Exhibits
10:40-11:45 am	Technical Sessions
11:45 am-12:00 pm	Live Q&A for all Tuesday Morning Technical Sessions
12:00-1:00 pm	Exhibitor Power Hour
1:00-2:40 pm	Technical Sessions
2:40-3:10 pm	Visit Exhibits
3:10-4:15 pm	Technical Sessions
4:15-4:30 pm	Live Q&A for all Tuesday Afternoon Technical Sessions
4:30 pm	YP & Student Reception/Mentoring Program Networking Event

### Wednesday, March 31

8:30-10:10 am	Technical Sessions
10:10-10:40 am	Visit Exhibits
10:40-11:45 am	Technical Sessions
11:45 am-12:00 pm	Live Q&A for all Wednesday Morning Technical Sessions
12:00-1:00 pm	Exhibitor Power Hour
1:00-2:40 pm	Technical Sessions
2:40-3:10 pm	Visit Exhibits
3:10-4:15 pm	Technical Sessions
4:15-4:30 pm	Live Q&A for all Wednesday Afternoon Technical Sessions
4:30-5:00 pm	Operations Challenge Awards Ceremony
5:00-6:00 pm	Conference Entertainment Event

### Thursday, April 1

8:30-10:10 am	Technical Sessions
10:10-10:40 am	Visit Exhibits
10:40-11:45 am	Technical Sessions
11:45 am-12:00 pm	Live Q&A for all Thursday Morning Technical Sessions
12:00-1:00 pm	Awards Celebration - Live event
12:00-1:15 pm	Engineering Ethics - Live event

Also visit the Virtual Exhibit Hall, take part in the Water For People Silent Auction, explore poster presentations and more that will be available at [www.txwater.org](http://www.txwater.org), all included with attendee registration.

Attendee and Exhibitor Registration is Now Open!  
For more information and to sign up, visit [www.txwater.org](http://www.txwater.org)

*Texas Water™ 2021 is a registered trademark of Texas AWWA for the exclusive use for this joint conference with WEAT. All rights reserved.*



# Message from the Associations

On behalf of the Texas American Water Works Association (TAWWA) and the Water Environment Association of Texas (WEAT), we invite you to join us for Texas Water™ 2021 – Virtual, the Largest Regional Water Conference in the U.S.®.

Although a virtual conference, we are still honoring Austin as our “host city” and would like to thank the wonderful volunteers who have been planning for months to make Texas Water™ 2021 – Virtual a success. The committee is led by our 2021 Conference Chairs, Shay Roalson of Austin Water and Rick Coronado of Austin Water, and supported by the dedicated leadership of both organizations, Mike Howe (TAWWA) and Julie Nahrgang (WEAT).

While there will be no handshakes or exchanges of business cards this year, TAWWA and WEAT are committed to still making this conference the best virtual conference and many of our Texas Water special events available to you. Now more than ever we encourage each of you to take part in special events such as the Opening Session, Awards Ceremonies, Women of Water, Young Professionals Recognition, Water for People Silent Auction, and MORE!

An added benefit of this virtual format is that you no longer have to choose between attending different sessions as you would at an in-person conference. All sessions will be made available “on-demand” once they are posted, allowing for convenient viewing at any time. Furthermore, you don’t have to spend time traveling as you can enjoy the activities from the comfort of your own office or home while wearing your most comfortable slippers. We wish you all a great virtual conference experience in 2021 and hope you and your families are happy and healthy in 2021!

**Melissa Bryant**

Chair

*Texas Section American Water Works Association*

**Rick Hidalgo**

President

*Water Environment Association of Texas*



water for people

## 2021 Texas Water Silent Auction

March 29<sup>th</sup> – April 1<sup>st</sup>

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# CONFERENCE HIGHLIGHTS

## SCHOLARSHIP GOLF TOURNAMENT

All profits from the Virtual Texas Water Golf Tournament go toward the scholarship programs. This year our mission is to keep players safe by following safety precautions but still enjoy a round of golf and continue our mission to assist students with scholarships. We are changing our format to accommodate every golfer playing as a single, a group of two, three, or foursome. Your golf event will be held at a golf course in your community. Your group will register and independently pick a course and submit your scorecard and picture of yourself or your group to Texas Water before the March 15<sup>th</sup> deadline to be featured on the website. Fill out the form on page 23 or register online at [www.txwater.org](http://www.txwater.org).

## WATER FOR PEOPLE SILENT AUCTION

Now, more than ever, access to clean water is critical. That is why Texas Water™ is committed to continuing to raise funds to support the important work that Water for People is doing across the globe to provide access to safe, reliable water services.

The Water for People Silent Auction will be hosted online using HANDBID, a mobile silent auction platform that allows you to bid from your smartphone. (If you've attended our in-person conferences before, this is the same platform we have used to support the Water for People Silent Auction in 2018, 2019, and 2020.)

Donate an item for the auction at [www.txwater.org](http://www.txwater.org).

## YOUNG PROFESSIONALS' DODSON DRIVE FUN RUN

**VIRTUAL RACE • THURSDAY, MARCH 25 THROUGH TUESDAY, MARCH 30**

The Dodson's Drive was created in the spring of 2011 to honor the life and work of Kenneth Dodson. Kenny D worked in the wastewater industry for 20 years and was a tireless supporter of YP education and growth. The net proceeds from the registration fees in this event benefit our young professionals by providing contributions for scholarships and assisting them to attend the annual Young Professionals summit. All timed-donation participants will receive an official event tech shirt and access to our virtual timing portal with eligibility for team and single participant awards! Runners are also welcome to join us as untimed participants and participate in our virtual social media contests.

Donations can be made on the Dodson Drive 5K registration page; any amount is appreciated.

The 2021 Dodson's Drive Fun Run will be completely virtual. All the event information will be available and updated regularly on our online platforms. Participants can run at their convenience anytime during the week of Texas Water starting on Thursday, March 25th. The 5K will also feature a pre-run stretch-out and warm-up, which will be posted on our online platforms. We will provide several sample routes for various cities across Texas. Try them out or make your own! Runners will be able to print a finisher certificate and be able to post photos for a social media photo contest!

Tech shirts for Timed/Team participants will be mailed. Awards will be during the YP Recognition Event, as always! Be sure to follow our social media page for other event updates. Finally, thank you so much to our generous sponsors for their support of this year's YP Dodson Drive 5K! Register online at [www.txwater.org](http://www.txwater.org).

## VIRTUAL EXHIBIT HALL

Stop by the Virtual Exhibit Hall at [www.txwater.org](http://www.txwater.org) to connect with our Texas Water Virtual exhibitors. You can also take part in our virtual game to win some amazing prizes!

## TECHNICAL SESSIONS

The Texas Water Program Committee offers technical sessions presented by the top experts in the industry and targeted to the most important issues facing water and wastewater professionals today. Once registered, the sessions will be available for you to view starting the week of March 29 and be available for weeks after. **For a listing of presentations that have committed to the virtual conference, see Pages 10-21.**

## PRESENTATION POSTERS

Texas Water™ 2021 - Virtual will give attendees an expanded opportunity to learn with the presentation of posters. The posters give authors the opportunity to display their research topics and to share the information they discovered. The posters will be available online at [www.txwater.org](http://www.txwater.org). Authors are encouraged to leave contact information so that viewers can direct questions or comments their way.

# CONFERENCE HIGHLIGHTS

## TEXAS AWWA COMPETITIONS

Texas AWWA is planning a variety of Exhibition Competition Events in Pipe Tapping, Meter Madness, Hydrant Hysteria and Top Ops with operators from around the state demonstrating their skills in preparation for Texas Water 2022 and ACE 2022, both to be held in San Antonio. You won't want to miss these demonstration events in a COVID safe environment!

## OPS CHALLENGE COMPETITION

Tune in and cheer on your favorite Ops Challenge team in this year's VIRTUAL competition. Teams will compete via a live Zoom meeting link that we will be broadcast on WEAT's FB page. This year, even more than year's past, sector operators have proven that they are essential front-line workers protecting human health and the environment. Show your appreciation and watch some of Texas' best water professionals compete in the Collections Event simulating real-life operations challenges. More information including log in information to come!

## WOMEN IN WATER FORUM

### AVAILABLE ON-DEMAND

Each year for the annual Texas Water™ Conference, we host The Women In Water Forum. This event focuses on the specific efforts, successful techniques, and achievements of a variety of women in the water community who are willing to share their experiences to empower others to be successful in their careers. This year participants will also discuss the impacts of the pandemic on their work and life experiences.

Join Melissa Bryant, Chair of the Texas Section AWWA, along with Sally Wright, of Dallas Water Utilities, Yvonne Forrest of Houston Water, Shay Roalson with Austin Water, Heather Cooke also with Austin Water, Theresa Pedrazas with TetraTech, Liz Fazio Hale with Gulf Coast Authority, and Allison Blake with Freese and Nichols. You won't want to miss the Women in Water Forum, available on-demand for your convenience.

## 2021 WEAT STUDENT DESIGN COMPETITION

### AVAILABLE ON-DEMAND

#### *City of Houston Intercontinental Airport WWTP, BNR and Solids Improvements*

The WEAT Student Design Competition gives students the opportunity to design and present a project based on a real-world wastewater treatment plant design problem. Students will be competing to represent WEAT at the Student Design Competition at WEFTEC 2021. The prompt this year is focused around the City of Houston's Intercontinental Airport Wastewater Treatment Plant in Houston, TX. Students shall propose design alternatives to construct new facilities required for expanded capacity, rehabilitate existing facilities, convert the plant from a conventional activated sludge facility to a biological nutrient removal facility, and design of proposed solids processing facilities. Come out and support your alma mater or see some prospective future leaders in the industry! This year teams from the University of Houston, Lamar University, Southern Methodist University, Texas Tech University, and SMACC will compete.

## CURTIS SMALLEY ENVIRONMENTAL EVENT

### MONDAY, MARCH 29, 8:15 AM

The Curtis Smalley Environmental Event honors the legacy of Curtis Smalley. His contribution, leadership, mentorship, dedication to service, and passion for the water industry left a significant impact. He was a driving force to include the environmental event as part of Texas Water to provide fellowship for colleagues and an opportunity to give back to the community in a fun and engaging manner. We can't plant seeds together or jump into kayaks to clean up a waterway this year, but we look forward to sharing ideas and opportunities for environmental conservation efforts in a panel discussion about stewardship and conservation featuring water utilities from across the state.

## OPENING GENERAL SESSION

### MONDAY, MARCH 29, 11 AM TO 12 PM

Hear from Melissa Elliot, President of AWWA and Jackie Jarrell, Past President of WEF as well as elected officials discuss the Texas and national water horizon.

The program grid on pages 10-21 reflect those authors who have committed to presenting at the virtual conference. The schedule is subject to change. We encourage you to watch sessions at their scheduled date and time but all sessions will be available for you to view at your own convenience. They will also be available for viewing several weeks after March 29. We are currently seeking TCEQ operator hour approval for most technical sessions.



## YOUNG PROFESSIONALS DEVELOPMENT EVENT – PANEL DISCUSSION

**MONDAY, MARCH 29, 4:30 PM**

Join us for a virtual professional development event specially geared towards students and young professionals! A panel of seasoned professionals will share their experiences and guidance for success in the water industry and answer questions from attendees.

## YP & STUDENT RECEPTION/MENTORING PROGRAM NETWORKING EVENT

**TUESDAY, MARCH 30, 4:30 PM**

Come out and join the YPs and seasoned professionals for a virtual event recognizing our competition winners and discussing the Mentoring Program. Networking break out sessions will follow the awards and announcements!

## CONFERENCE ENTERTAINMENT EVENT

**WEDNESDAY, MARCH 31, 5 PM TO 6 PM**

One of the highlights of every Texas Water is the Conference Entertainment Event and we're keeping that tradition alive...virtually. Join us for a virtual social event that still gives us the chance to come together and celebrate the water and water quality industries in Texas, even though we have to be apart. This event will cap off the Conference in a uniquely Austin way that recognizes our "virtual host city" for another outstanding Texas Water conference.

## AWARDS CELEBRATION

**THURSDAY, APRIL 1, 12 PM TO 1 PM**

Texas Water will honor **TAWWA and WEAT friends and colleagues** who have demonstrated their commitment to the water and wastewater profession. Seating is limited in this *live* Zoom event. *You will need to preregister the week of March 29 at [www.txwater.org](http://www.txwater.org); only available to those registered for the conference.*

## PROFESSIONAL ETHICS WORKSHOP FOR ENGINEERS

**THURSDAY, APRIL 1, 12 PM TO 1:15 PM**

The Texas Water Engineer's Ethics Seminar is an interactive and thought-provoking session led by Bob Pence and Gina Smith from Freese and Nichols, Inc. While earning one Professional Development Hour and satisfying the annual ethics requirement, you will learn to recognize ethical situations faced by engineers, analyze the issues of ethical situations, and discuss how to resolve ethical situations in a creative and professional

manner. *There is no additional fee for this training but you will need to preregister the week of March 29 at [www.txwater.org](http://www.txwater.org); seating is limited; only available to those registered for the conference.*

## VIRTUAL TOURS

**AVAILABLE ON-DEMAND**

Enjoy our virtual tours, available on-demand for you to view at your convenience):

**South Austin Regional WWTP:** Please join Austin Water for a virtual tour of its South Austin Regional Wastewater Treatment Plant. Built in 1984, South Austin Regional (SAR) is one of three wastewater treatment facilities in the City of Austin and has the capacity to treat up to 75 MGDs. Other large wastewater facilities include the Walnut Creek Wastewater Treatment Plant and the Hornsby Bend Biosolids Management Plant. Austin Water has invested over 45 million dollars over the last four years on improvements to update the air distribution system and convert aging sand filter galleries into a state-of-the-art cloth disk filter complex. Staff will walk you through the plant virtually, giving you a behind the scenes look at the facility and operations. This walkthrough will highlight new equipment, technologies, recent upgrades, as well as some of the future challenges for the plant. After the virtual tour, staff will be on hand to answer questions and facilitate an exciting discussion about the operations and maintenance of the SAR Wastewater Treatment Plant.

**Combating Zebra Mussels:** Zebra mussels were first discovered in the US in the Great Lakes in the late 1980s. Since then, this invasive species has spread across the country and made its way into our Highland Lakes in 2017. Zebra mussels negatively impact ecosystems in many ways, and they are here to stay. They filter out algae that native species need for food, attach to and incapacitate native mussels, and wreak havoc on underwater infrastructure. Water utilities have spent millions of dollars to remove zebra mussels from clogged water intakes. In this virtual tour, learn how Austin Water has worked to combat this pest at our facilities. We will discuss the use of divers for inspections and cleanings, the multi-phase approach to implementing the chemical feed systems, and some of the challenges that were overcome along the way. You will get a first-hand look at the equipment at our facilities and gain insight into the ongoing efforts needed to mitigate this destructive mollusk.

# TENTATIVE SCHEDULE    TECHNICAL SESSIONS

## Monday, March 29, 2021

	Pretreatment	Legislative/Regulatory	Small Systems
1:00 - 1:30 pm	<b>Social Distancing 101: Keeping Industrial Pollutants Far and Few Between Through Technically Based Local Limits</b> John Lozano Garver	<b>Updates from The 87th Session of the Texas Legislature</b> Julie Nahrgang Water Environment Association of Texas/ Texas Association of Clean Water Agencies	<b>Benchmarking For Small Wastewater Treatment Plants</b> Chris Malinowski HDR
1:35 - 2:05 pm	<b>PFAS: Industrial Source Control and Wastewater Pretreatment</b> Susan Spore AECOM	<b>TCEQ Updates on Water Quality/ Drinking Water Issues</b> TBD	<b>Small MUD, Big Plan: Development and Execution for a more Robust and Resilient Water System</b> Michael Whitaker Harris County MUD 132 Matthew Froehlich BGE
2:10 - 2:40 pm	<b>Industrial</b>	<b>EPA Region 6 Updates on Drinking Water and Water Quality Issues</b> TBD	<b>Water System Weekend Warrior: How Stay-at-Home Order Affected Water Demand in a Suburban Community</b> Samantha Greivell Garver Wade Parks Garver Francisco Carillo City of Mont Belvieu Marcel Khuouw IDS Engineering Group
	<b>Treatability Testing Significance in Industrial Wastewater Treatment Plant Design</b> Jeffrey Steinwinder Brown and Caldwell Ronald Ballard Brown and Caldwell		
Visit Exhibitors			
3:10 - 3:40 pm	<b>Laboratory</b>	<b>AWWA/WEF Combined Updates</b> Tommy Holmes AWWA Steve Dye WEF	<b>Source Water Protection for Small Texas Communities</b> Mason Miller TCEQ Rose Sobel CDM Smith Kimberly Chanslor CDM Smith
	<b>Getting Ready for Your ISO 17025 Audit Utilizing an Auomated Quality Management System, Qualtrax</b> Michelle Robertson GBRA		
3:45 - 4:15 pm	<b>Traceability in Whole Effluent Toxicity Testing</b> Ginger Briggs Bio-Analytical Laboratories	<b>Nutrients Are Telling: Reporting Requirements to Nutrient Limits</b> Ana Pena-Tijerina Rajendra Bhattarai Clean Water Strategies	<b>One City's Rounding Error is Another SUD's Max Day: Modeling &lt;1 MGD Water Systems</b> Ashlyn Morgan Kimley-Horn and Associates
	Q&A for all Monday Afternoon Sessions		



# TENTATIVE SCHEDULE    TECHNICAL SESSIONS

## Monday, March 29, 2021

Water Resources	Odor & Corrosion Control	Young Professionals	
<b>Impact of Climate Trends on Water Supply, Demand, and Return Flows in North Texas</b> Cody Graham, <i>North Texas Municipal Water District</i> Katharine Hayhoe, <i>ATMOS Research</i> Billy George, <i>North Texas Municipal Water District</i> Lissa Gregg, <i>Freese and Nichols</i>	<b>Odor Complaint Challenges in Co-vid Environment in Austin, TX</b> Soo Koon Soon <i>Austin Water</i>	<b>Working Out the Bugs - Tips and Tricks for Starting Up a Facility</b> Kyle Kubista <i>Kimley-Horn and Associates</i>	1:00 - 1:30 pm
<b>Houston 2100 – Do We Have Enough Water to Last for Years to Come?</b> Tina Petersen <i>Harris Galveston Subsidence District</i> Sunil Kommineni <i>KIT Professionals</i> Michael Turco <i>Harris Galveston Subsidence District</i> Justin Bartlett <i>KIT Professionals</i>	<b>Sulfur Modeling: A Texas Facility's Assessment of Odor Control Approaches and Whole Plant Impacts</b> Dusty Brannum <i>Trinity River Authority of Texas</i> Eric Redmond <i>Black &amp; Veatch</i> Mike Young <i>Trinity River Authority</i> Lynne Moss <i>Black &amp; Veatch</i>	<b>Breaking the Red Tape: A Step-by-Step Through the SRF Loan Process</b> Holly McCuiston <i>Garver</i>	1:35 - 2:05 pm
<b>TRWD Develops a Portfolio of Future Demand Projections and Spatial Allocation to Inform Water Supply Planning Efforts</b> Nicole Rutigliano <i>Tarrant Regional Water District</i> Jessica Fritsche <i>Brown and Caldwell</i> Jenny Bywater <i>CDM Smith</i>	<b>Tools of the Trade: How to Use Materials, Coatings, and Cathodic Protection to Mitigate Corrosion</b> Stephen Foster <i>Wiss, Janney, Elstner Associates</i>	<b>Show Some Restraint! Introduction to Valves and Pipe Fittings in Water Industry</b> Keval Satra <i>HR Green</i>	2:10 - 2:40 pm
Visit Exhibitors			
<b>Large-Scale Impacts of Small-Scale Projects: Integrating Austin's Innovative Water Management Strategies into the State Water Plan</b> Alicia Smiley, <i>AECOM</i> Jaime Burke, <i>AECOM</i> Marisa Flores-Gonzalez, <i>Austin Water</i> Helen Gerlach, <i>Austin Water</i>	<b>Cathodic Protection of a Long Distance Multi Material Water Pipeline</b> Christopher Sheldon <i>V&amp;A Consulting Engineers</i>	Workforce Development	3:10 - 3:40 pm
		<b>1 Vision, 4 Pillars and 60 Chapters. Establishing a Unified Vision and Framework</b> Andrew Swirsky <i>Stantec</i>	
<b>What Lies Beneath: Dealing with Hydrogeologic Uncertainties When Implementing Aquifer Storage and Recovery Projects</b> Charles Schoening <i>Arcadis</i> Michael Short <i>New Braunfels Utilities</i> Neil Deeds <i>INTERA Incorporated</i>	<b>Sister Grove Odor Control - An Update on Phase II and Staying Ahead of the Odor!</b> Bruce Singleton <i>CDM Smith</i>	<b>Labor in the Time of COVID: Keeping a Strong Team of Diverse Engineers in the Midst of a Pandemic</b> Katherine Hallaway <i>BGE</i> Roman Grijalva <i>BGE</i> Lizanne Douglas <i>BGE</i>	3:45 - 4:15 pm
Q&A for all Monday Afternoon Sessions			

# TENTATIVE SCHEDULE    TECHNICAL SESSIONS

## Tuesday, March 30, 2021

	Drinking Water Quality	Wastewater Collection	Municipal Resource Recovery & Design
8:30 - 9:00 am	<b>What is the Magic Sauce in My Water Source? Solving Disinfection Residual Mysteries When Managing Multiple Drinking Water Sources</b> Xi Zhao, <i>Freese and Nichols</i> John Pippins, <i>City of Beaumont</i> Amalia "Molly" Villarreal, <i>City of Beaumont</i> David Munn, <i>Freese and Nichols</i>	<b>Re-Plumbing the Sims Sewershed to Mitigate Flood Risk: WWTP Consolidation, WWTP Expansion and Tunnels in Houston</b> Brian Gettinger <i>Freese and Nichols</i>	<b>Biological Nutrient Removal in the First Magnetite Ballasted Activated Sludge Installation in Texas</b> Anton Dapcic <i>Carollo Engineers</i> Jody Zabolio <i>Upper Trinity Regional Water District</i> Joe Thompson <i>Upper Trinity Regional Water District</i> Toshio Shimada <i>Carollo Engineers</i>
9:05 - 9:35 am	<b>CFD Simulations on the Water Quality Performance of Ground Storage Tanks</b> Rishi Saladi <i>AECOM</i> Shriram Manivannan <i>AECOM</i> Ryan Edison <i>AECOM</i>	<b>Let's Play a Game: The Floor is Lava (or, in our case, Municipal Solid Waste)</b> Kendall NeSmith <i>Kimley-Horn and Associates</i> Patrick O'Connor <i>SAWS</i> Gaby Mena <i>Kimley-Horn and Associates</i>	<b>Making Ends Meet - Rebuilding the Front and Back Ends of a WRRF While Adding a Completely New Treatment Train</b> Robert Adams <i>Plummer</i> Nicholas Sherman <i>Cibola Creek Municipal Authority</i>
9:40 - 10:10 am	<b>Something Smells Fishy: Investigating Water Quality Issues in Blended Waters</b> Corey Smith <i>KIT Professionals</i> Shashi Kumar <i>City of Missouri City</i> Sunil Kommineni <i>KIT Professionals</i> Todd Hoover <i>City of Missouri City</i>	<b>City of Hurst Replaces a Critical Sewer Interceptor Using Minimally Invasive Pipe Bursting Technology</b> Kyle Wroblewski <i>Aegion</i> Duane Hengst <i>City of Hurst</i> Shawn Garcia <i>Underground Solutions</i>	<b>From East to West: Learning from Experiences of MBRs from Texas to Singapore</b> Andrew Shaw <i>Black &amp; Veatch</i> Joshua Berryhill <i>eHT Engineering</i> Dylan Christenson <i>Black &amp; Veatch</i> Laura Stratton <i>Black &amp; Veatch</i>
<b>Visit Exhibitors</b>			
10:40 - 11:10 am	<b>Bromide Occurrence in Texas and Its Implications for Disinfection Byproduct Formation</b> Marshall Plunk <i>Plummer Associates</i> Christopher Boyd <i>Plummer Associates</i>	<b>How Low Can You Go? Alternative Inverted Siphon Construction Method Reduces Overall Construction Costs by Nearly \$1M</b> Ty Riebe <i>Garver</i> Paul Banschbach <i>Garver</i>	<b>Design Considerations and Operational Tools to Promote Fermentation for EBPR at a Greenfield WRRF</b> Alexandra Doody <i>CDM Smith</i> Samir Mathur <i>CDM Smith</i> Jyh-Wei Sun <i>CDM Smith</i> Donna Long <i>North Texas Municipal Water District</i>
11:15 - 11:45 am	<b>Proposed Revisions to LCR: Why Optimizing Corrosion Control Treatment is Critical for Water Utilities</b> Amlan Ghosh <i>Corona Environmental Consulting</i>	<b>Alternative Delivery, Design, Construction, and Operations Lessons Learned on Emergency Replacement of Wastewater 30/36" Dual Steel Force Mains with 36" FRP</b> Michael Ancell <i>Jacobs Engineering Group</i> Gilbert Trejo <i>El Paso Water</i> Jason Bowen <i>Oscar Renda Contracting</i>	<b>From Theory to Practice: Hydrocyclone-Based Wasting for Settling and Nutrient Improvements</b> Erin Tracy <i>Brown and Caldwell</i>
<b>Q&amp;A for all Tuesday Morning Sessions</b>			



# TENTATIVE SCHEDULE    TECHNICAL SESSIONS

## Tuesday, March 30, 2021

Water Distribution	Diversity/Inclusion	University Forum	
<b>The Water Goes on the Inside - A Review of Real World Ground Storage Tank Post-Testing Concerns</b> Kim Keefer <i>Pape-Dawson Engineers</i> Chris Noe <i>Pape-Dawson Engineers</i> Tim Kleppe <i>Preload</i> Eric Neune <i>Raba Kistner Environmental</i>	<b>Addressing Old Wounds: Utility Strategies for Advancing Equity</b> Heather Dalrymple <i>Austin Water</i> Denise McGlowin <i>Austin Water</i>	<b>The Heterogenous Nucleation of Gypsum Flat Surface: the Role of Hydrophobicity</b> Xiaochuan Huang <i>Rice University</i>	8:30 - 9:00 am
<b>New Braunfels Utilities Deploys Utilis Satellite Service as a Standard Operating Procedure for Ongoing Leak Detection</b> Jessica Green <i>New Braunfels Utilities</i> Jason Theurer <i>New Braunfels Utilities</i> Paul Gagliardo <i>Gagliaqua</i>	<b>Diversity &amp; Inclusion, Does it Matter?</b> Ana Pena-Tijerina Aisha Niang <i>Houston Water</i>	<b>Nitrification of High Strength Waste Streams at Low pH in a Membrane Aerated Bioreactor</b> Maryam Salehi <i>Texas Tech University</i>	9:05 - 9:35 am
<b>Out of Sight, But Not Out of Mind: Using Satellites to Find Leaks and Improve the Dependability of the Water Distribution System in Irving</b> Donna Starling <i>City of Irving</i>	<b>Best Practices to Increase Diversity and Inclusion in Your Organization</b> Regina Smith <i>Freese and Nichols</i>	<b>Accelerating Water Hammer Simulations Using Vectorization</b> Gerardo Riano-Briceno <i>The University of Texas at Austin</i>	9:40 - 10:10 am
Visit Exhibitors			
<b>Changing Regulations and New Developments Along a Pipeline Alignment Over an Extended Design Timeframe</b> Showri Nandagiri <i>North Harris County Regional Water Authority</i> Paul Vining <i>AECOM</i> Alan Moon <i>Jones Carter</i> David Warner <i>Jones Carter</i>	<b>Break the Illusion and Go for Inclusion: Diversity and Inclusion in the Water Industry</b> Andre Garces <i>Plummer</i>	<b>Enhancing Solar Membrane Distillation Performance Using Core-shell Nanofiber</b> Ruikun Xin <i>Rice University</i>	10:40 - 11:10 am
<b>Northeast Transmission Line 108" x 84" Interconnect: Innovative Design Strategies to Overcome Space Constraints</b> Christine Kirby <i>Lockwood, Andrews &amp; Newnam</i> Eric Hernandez <i>Lockwood, Andrews &amp; Newnam</i> Warren Green <i>Lockwood, Andrews &amp; Newnam</i> Kevin Tran <i>City of Houston</i>	<b>Building a Better Workforce Through Diversity and Inclusion</b> Ashok Perera <i>Atkins North America</i> Alan Davis <i>Plummer</i> Dena Johnson <i>City of Fort Worth</i>	<b>A Topological Technique for Optimizing Parallel Speedup of Urban Water Modeling</b> Edward Tiernan <i>The University of Texas at Austin</i>	11:15 - 11:45 am
Q&A for all Tuesday Morning Sessions			

# TENTATIVE SCHEDULE    TECHNICAL SESSIONS

## Tuesday, March 30, 2021

	Drinking Water Quality	Wastewater Collection	Municipal Resource Recovery & Design
1:00 - 1:30 pm	<b>Multifaceted Nitrification Management: Where are We After Two Years of Implementation?</b> Yue Sun <i>Ardurra</i> Nicholas Cook <i>City of Deer Park</i> Shannon Jungman <i>Ardurra Group</i> Matt Noland <i>City of Deer Park</i>	<b>City of Frisco Utilizes Horizontal Directional Drilling with 20-inch Fusible PVC® Pipe to Mitigate Construction Impact</b> Kyle Sanderson <i>Kimley-Horn</i> Kyle Wroblewski <i>Aegion</i> Shawn Garcia <i>Underground Solutions</i>	<b>Conroe Central Wastewater Treatment Plant – Designing for the Future</b> Paul Wood <i>Lockwood, Andrews &amp; Newnam</i> Norman McGuire <i>City of Conroe - Public Works</i> Greg Hall <i>City of Conroe - Public Works</i>
1:35 - 2:05 pm	<b>Formation(!) and Removal of Per- and Polyfluoroalkyl Substances (PFAS) in Advanced Water Treatment</b> Eva Steinle-Darling <i>Carollo Engineers</i>	<b>Gravity or Pressurized Sewer? Get a Lift Station That Can Do Both!</b> Eric Johnson <i>Plummer</i> Jimmy Sibert <i>City of Irving</i>	<b>How Do You Get Salt Out of Water? Approaches for Mitigation of TDS in Treated Wastewater</b> Zaid Chowdhury <i>Garver</i>
2:10 - 2:40 pm	<b>Challenge Accepted: A Case Study of Unique Approaches for Membrane WTP Expansion</b> Erica Agha Gholizadeh <i>Tetra Tech</i> Jorge Barrera <i>City of Eagle Pass Water Works System</i>	<b>Accident Awareness and Loss Prevention</b> Malvin “Rusty” Nezat <i>Nezat Training and Consulting</i>	<b>Going Retro: Lessons in Modernizing a 1970s Wastewater Treatment Facility</b> Keith OConnor <i>KIT Professionals</i> Greg Lushbaugh <i>San Jacinto River Authority</i> Chris Meeks <i>San Jacinto River Authority</i> Corey Smith <i>KIT Professionals</i>
<b>Visit Exhibitors</b>			
3:10 - 3:40 pm	<b>A Robust Modeling Tool for Smart Water Operations and Planning</b> Jose Porro <i>KIT Professionals</i> Robert Upton <i>City of Pearland</i> Rajendra Shrestha <i>City of Pearland</i> Rasika Perera <i>City of Pearland</i>	<b>Development of a Genetic Algorithm Tool for RDII Parameterization</b> Michelle Lacks <i>Garver</i> Samantha Greivell <i>Garver</i> Evan Tromble <i>Garver</i>	<b>Repurposing Infrastructure for Phosphorus Removal</b> Leon Downing <i>Black &amp; Veatch</i>
3:45 - 4:15 pm	<b>The Long and Winding Road to TTHM Compliance - High TOC Groundwater</b> Steve Walden <i>Steven Walden Consulting</i>	<b>Thinking Outside the “Junction” Box: The Use of Large Diameter Fiberglass Round Structures in Substitution for Concrete Junction Box to Save Time and Cost</b> George Farah <i>Plummer</i>	<b>Flexible Process Configuration Mitigates Wastewater Quality Uncertainty</b> Toshio Shimada <i>Carollo Engineers</i> Troy Laman <i>Carollo Engineers</i> Daameon Stovall <i>City of The Colony</i>
<b>Q&amp;A for all Tuesday Afternoon Sessions</b>			



# TENTATIVE SCHEDULE    TECHNICAL SESSIONS

## Tuesday, March 30, 2021

Water Distribution	Water Conservation	Young Professionals	
<b>Challenges of Designing a Large Diameter Water Line in Urban Area of Houston</b> Meng Liu <i>Aurora Technical Services</i> Rafael Ortega <i>Aurora Technical Services</i> Showri Nandagiri <i>North Harris County Regional Water Authority</i>	<b>Beyond Total GPCD: Building on this Simple Measure to Provide Additional Utility-Level Water Use Efficiency Insights</b> Miguel Morales <i>Austin Water</i>	<b>Unique Energy Saving Strategy by Using Compound Control Loop of Both DO and Ammonia Based Aeration Probes</b> Suparna Mukhopadhyay <i>CDM Smith</i>	1:00 - 1:30 pm
<b>How Low Can You Go? A Review of the Ability of Long Transmission Pipe Conveyance Systems to Cool Water</b> Kim Keefer <i>Pape-Dawson Engineers</i>	<b>Quantifying Historical Conservation Achievements Across TRWD's Service Area</b> Dustan Compton <i>Tarrant Regional Water District</i> Jessica Fritsche <i>Brown and Caldwell</i> Jenny Bywater <i>CDM Smith</i>	<b>Little Fish in a 320-mgd Pond: Being a Resident Engineer on the Northeast Water Purification Plant Expansion Project</b> Rajeev Datta Kamalampet <i>CDM Smith</i> Rajinder Singh <i>City of Houston</i> Jasmin Zambrano <i>City of Houston</i>	1:35 - 2:05 pm
<b>Building Water System Resiliency – McKinney's Redbud Pump Station</b> Sam Meisner <i>Freese and Nichols</i> Craig Sherwood <i>City of McKinney</i> Paul Tucker <i>City of McKinney</i>	<b>Rainwater Harvesting in Texas: Then, Now, and the Future</b> Shae Luther <i>Texas Water Development Board</i>	<b>Inspiring a Lifelong Journey of Water Education</b> Paula Monaco <i>Plummer Associates</i>	2:10 - 2:40 pm
Visit Exhibitors			
<b>Houston's Leap Year Leak – A Catastrophic Blow-out of a 96-inch WL and how Houston Responded to a Boil Water Notice and Fast-Trackd the Repair</b> Drew Molly, <i>City of Houston</i> Venus Price, <i>City of Houston</i> Jim Wilson, <i>City of Houston</i> Phillip Goodwin, <i>City of Houston</i>	<b>No Good Deed Goes Unpunished: The Unintended Consequences of Water Conservation</b> Ellen McDonald <i>Plummer</i> Dexter May <i>Plummer</i> Gilbert Trejo <i>El Paso Water</i>	<b>Mentoring is a Two-Way Street: Value Gained on Both Sides of the Mentor-Mentee Relationship</b> David Munn <i>Freese and Nichols</i> Valetta Saldanha <i>AECOM</i>	3:10 - 3:40 pm
<b>Don't Stress, Pre-stress! Basics of the Design and Construction of Prestressed Concrete Ground Water Storage Tanks</b> Keval Satra <i>HR Green</i> Satej Kulkarni <i>CDM Smith</i>	<b>Feast or Famine: Factors that Contribute to Rebate Application Submittals for Outdoor Incentive Programs</b> Christopher Charles <i>Austin Water</i>	<b>You Can Model Too: Navigating Process Model Development as a YP</b> Rachel Adkisson <i>Freese and Nichols</i>	3:45 - 4:15 pm
Q&A for all Tuesday Afternoon Sessions			

# TENTATIVE SCHEDULE    TECHNICAL SESSIONS

## Wednesday, March 31, 2021

	Water Treatment & Operations	Asset Management	Construction Issues
8:30 - 9:00 am	<b>How can a Dynamic Water Model Help with Rapidly Screening Alternatives and Identifying a Cost-Effective Solution</b> Sunil Kommineni <i>KIT Professionals</i> Jose Porro <i>KIT Professionals</i> Chris Munson <i>Ardurra Group</i> Michael Lawrence <i>Stantec</i>	<b>Vista Ridge Regional Supply Project: Creating and Configuring an Asset Register and Computerized Management Maintenance System</b> Alan Foster <i>KCI Technologies</i>	<b>A River Runs Through It – Building a PS in the Flood Plain</b> Cameron Lawrence <i>Freese and Nichols</i> Jason Ward <i>Freese and Nichols</i> Travis Markham <i>North Texas Municipal Water District</i>
9:05 - 9:35 am	<b>The Hard Truth about Softening When a Flood Washed Away All of the Hardness – Austin's Flood Response</b> Greg Pope <i>Carollo Engineers</i>	<b>Lessons Learned: Integrating "Dirty Data" into Cartograph</b> Abby Owens <i>City of Plano</i> Stephen Johnson <i>Freese and Nichols</i> Mazen Kawasmi <i>Freese and Nichols</i>	<b>Super Operator: How the Construction Liaison Role Keeps Things Flowing</b> Gary Hammond <i>Austin Water</i>
9:40 - 10:10 am	<b>Revisiting Highland Lake Flooding Fall 2018, Why Travis Co. WCID 17 PWS Survived Unscathed?</b> Patrick Lackey <i>Trihydro Corporation</i> Jason Homan <i>Travis County WCID No. 17</i>	<b>Integrated Reservoir Asset Management: Practical Application and Lessons Learned</b> Rachel Crawley <i>Tarrant Regional Water District</i> Esteban Azagra <i>Arcadis</i> Dorota Koterba <i>Tarrant Regional Water District</i>	<b>Commissioning Through COVID – Managing the Startup of a Fast Track 48.6 MGD Water Treatment Plant Amidst the Pandemic</b> Matt Richart <i>Black &amp; Veatch</i> Alissa Lockett <i>San Antonio Water System</i> Mike Watson <i>PLW Waterworks</i>
<b>Visit Exhibitors</b>			
10:40 - 11:10 am	<b>Planning and Innovation Pays Off – How an additional 10 MGD was gained from our Membrane Water Treatment Plant</b> Adam McKnight <i>Upper Trinity Regional Water District</i> Kurt Staller <i>Upper Trinity Regional Water District</i>	<b>Asset Management: Proven Formula by the City of Houston to Prioritize Maintenance</b> Mitchell Ramon <i>City of Houston</i> Susana Blauser <i>BGE</i> Amit Sengupta <i>BGE</i>	<b>Leveraging the ICS Framework to Clarify the Murky Waters of Outage Planning</b> Rebecca Vento <i>Austin Water</i> Joe Smith <i>Austin Water</i> Chuck Chapman <i>Austin Water</i>
11:15 - 11:45 am	<b>Optimization and Resiliency Planning for Large WTPs</b> Daniel Olson <i>Garver</i> Brandon Pritchett <i>City of Pflugerville</i> Zaid Chowdhury <i>Garver</i> Ian Toohey <i>Garver</i>	<b>Cost Effective Tools to Improve the Data Collected During a Treatment Plant Condition Assessment</b> Chris Malinowski <i>HDR</i>	<b>Tanks a Lot: Expediting Additional Water Supply and Storage in One of Texas Fastest Growing Counties Through CMAR</b> Cale Underberg <i>HDR</i> Sherif Mabrouk <i>HDR</i> Heath Woods <i>CLWSC</i> Larry Bittle <i>CLWSC</i>
<b>Q&amp;A for all Wednesday Morning Sessions</b>			

# TENTATIVE SCHEDULE    TECHNICAL SESSIONS

## Wednesday, March 31, 2021

Utility Management	Public Information	Wastewater Operations & Maintenance	
<b>Intelligent Manhole Monitoring</b> Shannon Dunne <i>City of Houston</i> Vince Turner <i>City of Houston</i>	<b>Communicating Your CIP to Key Stakeholders, including the Press and the Public</b> Mike McGill <i>WaterPIO</i>	<b>Emergency Response: Continuing Wastewater Service</b> John Croom <i>AUC Group</i>	8:30 - 9:00 am
<b>Gender Diversity in Public Works</b> Donna Renner <i>CP&amp;Y</i>	<b>Working with Stakeholder Groups: A Survival Guide</b> Josh Sendejar <i>Texas Water Development Board</i>	<b>From Cloudy Gas to Bright Rays: A Chlorine Conversion Story</b> Sharon Miller <i>North Texas Municipal Water District</i> Jeremy Thompson <i>North Texas Municipal Water District</i>	9:05 - 9:35 am
<b>Should I Keep My Plant, Expand It, Buy More Water, or Both? – Charting a Course for the Future</b> Ferdous Mahmood <i>HDR</i> Robert Hoffman <i>HDR</i> Kelly Rouse <i>City of Lewisville</i>	<b>H2OMG Podcast: Reaching New &amp; Diverse Audiences in Water Communications</b> John-Michael Perkins <i>Fort Worth Water</i>	<b>Safety #1: Reevaluating Site Safety for Handling Critical Chemicals and Bulk Deliveries</b> Michael Leeper <i>PVS Minibulk</i>	9:40 - 10:10 am
Visit Exhibitors			
	Value of Water		
<b>Digital Water as a Technology Platform: From Design to Utility Management to Optimization</b> Kevin Stively <i>Brown and Caldwell</i>	<b>Misinformation vs. Education: Which Holds Water?</b> Rachael Rodgers <i>Kimley-Horn and Associates</i> Alicia Smiley <i>AECOM</i>	<b>Bearing Failure: GBRA's Bearing Failure Analysis Program</b> Michael Urrutia <i>Guadalupe-Blanco River Authority</i>	10:40 - 11:10 am
<b>Houston's Innovative Interactive Dynamic Platform for Collection System Capacity Evaluation Using Appraisal District Database and Customers Water Consumption Data</b> Pratistha Pradhan <i>City of Houston</i> Fazle Rabbi <i>City of Houston</i> Kabindra Shrestha <i>Gunda Corporation</i>	<b>Engaging Stakeholders Through Strategic Events</b> Lisa Rosendorf <i>El Paso Water</i>	<b>Nutrient Removal for Managing Your Operations Budget</b> Fred Ramirez <i>Jacobs</i>	11:15 - 11:45 am
Q&A for all Wednesday Morning Sessions			



# TENTATIVE SCHEDULE    TECHNICAL SESSIONS

## Wednesday, March 31, 2021

	Water Treatment & Operations	Asset Management	Construction Issues
1:00 - 1:30 pm	<b>From Lessons Learned to Innovations: A Case Study on the Flocculators Rehabilitation Project at the Largest Water Treatment Plant in Houston Area</b> Vinoth Manoharan <i>AECOM</i> Yong Wang <i>City of Houston</i> Hanh Pham <i>City of Houston</i> Valetta Saldanha <i>AECOM</i>	<b>Large Utility Applies Advanced Analytical Techniques to Understanding and Managing Water Main Breaks</b> Darryl Corbin <i>Carollo Engineers</i>	<b>More Than a Band-Aid: Developing a Long Term Fix to a 104-Inch Pipeline Failure</b> Justin Reeves <i>Lockwood, Andrews &amp; Newnam</i> Kelly Davis <i>Trinity River Authority of Texas</i>
1:35 - 2:05 pm	<b>Switching from Gas Chlorine to On-Site Hypochlorite Generation – City of Deer Park’s Story of Decision-Making</b> Nicholas Cook <i>City of Deer Park</i> Yue Sun <i>Ardurra</i> Xinyi Yi <i>Ardurra</i> Matt Noland <i>City of Deer Park</i>	<b>Technology Benefits Asset Management</b> Melissa Mack <i>Lockwood, Andrews &amp; Newnam</i> Robert Henry <i>Lockwood, Andrews &amp; Newnam</i> Kyle Leblanc <i>Lockwood, Andrews &amp; Newnam</i> Fabiola de Carvalho <i>City of Sugar Land</i>	<b>Keeping the Construction Party Going During Pandemic Lockdowns</b> Steven Metzler <i>Trinity River Authority of Texas</i>
2:10 - 2:40 pm	<b>21st Century Designing: Learn How 3D Design Tools Result in Conflict Resolution and Ease of Construction</b> Corey Smith <i>KIT Professionals</i> Wayne Murphy <i>CH2M HILL</i> Sunil Kommineni <i>KIT Professionals</i> Randy Rogers <i>CDM Smith</i>	<b>Forensic Analysis of a 72-Inch Water Transmission Pipeline Failure</b> Ben Stephens <i>Halff Associates</i> Cody Graham <i>North Texas Municipal Water District</i> Jayson Melcher <i>North Texas Municipal Water District</i> Ashan McNealy <i>Pure Technologies U.S.</i>	<b>Hail Mary By “pass” Pumping – Considerations During Project Planning</b> Marco Ramirez <i>Garver</i>
<b>Visit Exhibitors</b>			
3:10 - 3:40 pm	<b>Texas Optimization Program (Top Ops) Reporting: GBRA-San Marcos WTP Top Ops</b> Kasey Belote <i>Guadalupe Blanco River Authority</i>	<b>Finding a Way: Conducting Facilities Assessments in a Virtual Environment</b> Robert Hoffman <i>HDR</i> Ben Kuhnel <i>Arcadis U.S.</i> Chaise Holmgren <i>Dallas Water Utilities</i> Sally Wright <i>Dallas Water Utilities</i>	<b>Construction Challenges with a Large Diameter Tunnel</b> Christopher Haeckler <i>HDR</i> Miguel Vazquez <i>North Texas Municipal Water District</i>
3:45 - 4:15 pm	<b>Houston’s Approach to Preparing and Equipping Staff to Operate and Maintain a New \$1.765B, 320 MGD WTP</b> Paul Walker <i>Carollo Engineers</i> Andrew Molly <i>City of Houston</i> Eric Garza <i>City of Houston</i>	<b>Power BI for Water Operations. Not Just for the Business Office.</b> Johnny Partain <i>Carollo</i>	<b>Swamp Pipeline – Design and Construction of a 66-inch Pipeline in Awful Ground Conditions</b> Eric Engelskirchen <i>Freese and Nichols</i> Chad Sharbono <i>Garney Construction</i> Amanda Stubblefield <i>Freese and Nichols</i>
<b>Q&amp;A for all Wednesday Afternoon Sessions</b>			

# TENTATIVE SCHEDULE    TECHNICAL SESSIONS

## Wednesday, March 31, 2021

Utility Management	Resiliency, Safety & Cybersecurity	Wastewater Operations & Maintenance	
<b>Houston's Groundwater Operations and Maintenance Team Built for the Future: Business Practices Advance Utility Maintenance and Capital Planning</b> Mitchell Ramon <i>City of Houston</i> Sandeep Aggarwal <i>City of Houston</i> Howard Smith <i>City of Houston</i> Josue Aceitunolopez <i>City of Houston</i>	<b>Tarrant Regional Water District: A Case Study on Regional Collaboration and Emergency Response</b> Poonam Dagli <i>Arcadis</i> Norman Ashton <i>Tarrant Regional Water District</i>	<b>Signs the Heart of Your Plant is Needing Regular Check-ups</b> Wade Parks <i>Garver</i> John Warnement <i>City of Webster</i> Sean Scuras <i>Garver</i> Jared Sienkiewicz <i>Garver</i>	1:00 - 1:30 pm
<b>Managing the Cash Register: Capturing Lost Revenue from Large Meters</b> Ashley Waits <i>City of Irving</i> Frank Kaplan <i>Olea Edge Analytics</i>	<b>SARS-CoV-2 in Houston Wastewater: Tracking, Interpretation and Action</b> Rae Mills <i>City of Houston</i> Loren Hopkins <i>City of Houston</i> Lauren Stadler <i>Rice University</i> Paul Zappi <i>City of Houston</i>	<b>A Baffling and Head(works) Scratching Puzzle: Using Computational Fluid Dynamics Modeling for Configuring Grit Removal</b> Max Wallack <i>Arcadis U.S.</i>	1:35 - 2:05 pm
<b>Got Data? Visualization Techniques to Improve Workforce Efficiency</b> Leticia Gomar <i>Carollo Engineers</i>	<b>Cyber Threat Risk Management in a Hackers World</b> James Forbes <i>Pipeline Analysis</i>	<b>Training Plant Operators with Digital Twins</b> Garrett Owens <i>Jacobs Engineering Group</i>	2:10 - 2:40 pm
<b>Visit Exhibitors</b>			
<b>How Austin Water Achieved Results and Teamwork Through Effective Utility Management</b> Anna Bryan-Borja <i>Austin Water Utility</i> Matthew Saragosa <i>Austin Water Utility</i>	<b>City of Houston Implements Largest U.S. Microgrid Project for Water Purification Plant</b> Greg Bowen <i>Enchanted Rock</i> Ravi Kaleyatodi <i>City of Houston</i>	<b>Confronting the Challenges of Clear Water: An Inflow and Infiltration Study for Universal City</b> Cale Underberg <i>HDR</i> Amy Shoebotham <i>HDR</i> Progga Chirontoni <i>HDR</i> Randy Luensmann <i>City of Universal City</i>	3:10 - 3:40 pm
<b>Leading People and Managing Assets for a Sustainable Future</b> James Courchain <i>Tata &amp; Howard</i> Jenna Rzasa <i>Tata &amp; Howard</i>	<b>Elevated Tank Visual Inspections: Alternatives to Climbing Elevated Tanks for Visual Inspections and Investigations</b> Gary Alford <i>Benbrook Water Authority</i>	<b>Does Robust Biological Phosphorus Removal have to be Complex?</b> Arifur Rahman <i>Freese and Nichols</i> Nick Landes <i>Freese and Nichols</i> Rachel Adkisson <i>Freese and Nichols</i>	3:45 - 4:15 pm
<b>Q&amp;A for all Wednesday Afternoon Sessions</b>			

# TENTATIVE SCHEDULE    TECHNICAL SESSIONS

## Thursday, April 1, 2021

	Biosolids	Applied Research	Watershed Management/Stormwater
8:30 - 9:00 am	<b>Can Regionalization Achieve Economies of Scale? Key Considerations in Consolidating Solids Processing</b> Natalie Sierra <i>Brown and Caldwell</i>	<b>Use of Copper to Prevent Zebra Mussel Attachment in a 75 MGD Raw Water Pipeline</b> Caroline Russell <i>Carollo Engineers</i> Mark Ernst <i>Tarrant Regional Water District</i>	<b>Free-Water Surface Wetland Significantly Improves the Quality of Hypereutrophic Lake Water</b> Tim Noack <i>Plummer Associates</i> Ryan Pierce <i>Plummer Associates</i> Gregg Eckhardt <i>San Antonio Water System</i>
9:05 - 9:35 am	<b>The OIG Report as a Catalyst: Responses and New Research Define a Roadmap for Biosolids Management</b> Lynne Moss <i>Black &amp; Veatch</i>	<b>Community-Wide Sewage Surveillance Targeting SARS-CoV-2 Prevalence in San Antonio, Texas</b> Haya Al-Duroobi <i>UTSA</i>	<b>Implementing the 3 Key Goals of the Collaborative 8-County Gulf-Houston Regional Conservation Plan</b> Deborah January-Beyers <i>Houston Wilderness</i>
9:40 - 10:10 am	<b>Cost Impact of PFAS on Biosolids Programs</b> Eric Spargimino <i>CDM Smith</i> Samir Mathur <i>CDM Smith</i>	<b>Electron Beam Technology for PFAS Treatment</b> Suresh Pillai <i>Texas A&amp;M University</i> David Staack <i>Texas A&amp;M University</i> Purshotam Juriasingani <i>Tetra Tech</i>	<b>A Tale of Two Pump Stations: How a Flood-Prone City Can Overcome a Depressed Highway</b> Lizanne Douglas <i>BGE</i> Makenzie Davis <i>BGE</i> Christen Specht <i>TxDOT</i>
<b>Visit Exhibitors</b>			
10:40 - 11:10 am	<b>Biosolids Dewatering System Selection: How City of Port Arthur Did It and So Can You!</b> Bansi Khajuria <i>Freese and Nichols</i> Somnath Chilukuri <i>Freese and Nichols</i> Donald Stanton <i>City of Port Arthur</i> Murali Erat <i>Freese and Nichols</i>	<b>Reduction of Concentration Polarization in Desalination &amp; Water Treatment Membrane Processes: An Effort Towards Higher Energy Savings</b> Progga Chirontoni <i>HDR Engineering</i>	<b>Westcliff Drainage Improvements Phase 2B: A Tunneling Success Story for the City of Fort Worth</b> Matt Koziol <i>Schnabel Engineering</i> Karen Stafford-Brown <i>Wade Trim</i>
11:15 - 11:45 am	<b>Bioenergy Modeling – Determining the Highest Value for Hornsby Bend’s Biogas</b> Jeffrey Meadows <i>CDM Smith</i> John Mitchell <i>Austin Water</i>	<b>Enhancing Freshwater Recovery in Brackish Groundwater Desalination by Diatom-Based Photobiological Treatment</b> Keisuke Ikehata <i>Texas State University</i>	<b>New Orleans Green Infrastructure – From Concept to Constructability</b> Jessica Watts <i>CDM Smith</i> Jessica Addison <i>CDM Smith</i>
<b>Q&amp;A for all Thursday Morning Sessions</b>			



# TENTATIVE SCHEDULE    TECHNICAL SESSIONS

## Thursday, April 1, 2021

Water Reuse	Infrastructure Financing	Electrical and SCADA/I&C	
<b>What Happens in Texas Doesn't Stay in Texas: How a Small-Town Texas DPR Study Inspired an International Award-Winning Non-RO Direct Potable Reuse Demonstration (in Florida)</b> Eva Steinle-Darling <i>Carollo Engineers</i>	<b>Updating Miscellaneous Utility Fees – What Are The Benefits? How Tough Can It Really Be?</b> Varenya Mehta <i>KIT Professionals</i> Betsy Varghese <i>City of Houston</i> Paula Komazin <i>KIT Professionals</i> Jennifer Ivey <i>Carollo Engineers</i>	<b>Ensuring Equipment Protection and Improving System Reliability Through Relay Setting Reviews and Maintenance</b> Douglas Durand <i>HV Engineering</i>	8:30 - 9:00 am
<b>Reuse in North Texas - DPR to IPR</b> Hunter Adams <i>City of Wichita Falls</i> Mark Southard <i>City of Wichita Falls</i> Harold Burris <i>City of Wichita Falls</i> Daniel Nix <i>City of Wichita Falls</i>	<b>How Wall Street Views Your Utility's Environmental Risks</b> Ted Chapman <i>S&amp;P Global Ratings</i>	<b>Flying Blind No More: GBRA's Optimization of a Complicated Raw Water Pumping System</b> Mike Bernard <i>Specific Energy</i> Kasey Belote <i>Guadalupe Blanco River Authority</i>	9:05 - 9:35 am
<b>More than a Backyard Pool – Lubbock's Pursuit of a Sustainable New Water Supply</b> Aubrey A. Spear <i>City of Lubbock</i> David Dunn <i>HDR</i> Paula Jo Lemonds <i>HDR</i>	<b>Successfully Navigating SRF Funding with a CMAR Project-Tips and Tricks on How to Survive in a Federal Funding World</b> Stacy Barna <i>CDM Smith</i>	<b>Weathering the Automation Storm</b> Juliana Wafer <i>Signature Automation</i> Linda Bevis <i>San Antonio Water System</i> Chad Morris <i>Black &amp; Veatch</i> Matthew Friend <i>Signature Automation</i>	9:40 - 10:10 am
Visit Exhibitors			
<b>Shower Water Collection, Cleaning, and Reuse in a Novel Dual Water Toilet Flushing System in a Single Family Home</b> Mehaa Amirthalingam <i>GSA Travis High School</i>	<b>A 'Capital' Idea: How to Fund Needed Utility Improvements</b> Kimberly Bostik <i>NewGen Strategies and Solutions</i> Chris Ekrut <i>NewGen Strategies and Solutions</i>	<b>Cost Effective Replacement of a 23 Year Old SCADA System</b> Jim Wyatt <i>Guadalupe Blanco River Authority</i>	10:40 - 11:10 am
<b>Virtual Re-use-ality: Giving Plant Operators a Glimpse into El Paso's Direct Potable Reuse Future</b> Hilma Perez <i>Carollo Engineers</i>	<b>Saving Lake Leon Dam Water Supply Reservoir with Multiple Grant Funding</b> Cristopher Parker <i>HDR Engineering</i> Brandon Hilbrich <i>HDR Engineering</i>	<b>Roadmap to Successful Remote Monitoring/Control of Water and Wastewater (W/WW) Facilities Using the Appropriate Industrial Wireless Communication Technology</b> Kalyani Ganesan <i>Carollo Engineers</i>	11:15 - 11:45 am
Q&A for all Thursday Morning Sessions			



# Texas Water 2021 - Virtual Registration

March 29-April 1  
Online

**Payment Must Accompany this Form or Registration Cannot be Processed**  
**REGISTER ONLINE: [www.txwater.org](http://www.txwater.org). PLEASE PRINT OR TYPE**

FIRST NAME \_\_\_\_\_ LAST NAME \_\_\_\_\_  
COMPANY \_\_\_\_\_ TITLE \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY/STATE/ZIP \_\_\_\_\_  
PHONE \_\_\_\_\_ MEMBER # \_\_\_\_\_ ☐ AWWA ☐ WEF  
EMAIL (**REQUIRED FOR PROCESSING\***) \_\_\_\_\_

*\*Must use unique email for each attendee or they will not receive their individual conference log in information later on*

☐ This is my first time attending the Texas Water Conference

By registering, you agree to receive email communications from our exhibitors. Our exhibitors have agreed to comply with our privacy rules to protect your information. You may opt out of providing your email to exhibitors by checking the box: ☐

Received before 3/29/21

Received on/after 3/29/21

☐ Full Registration - **MEMBER** ..... \$200 ..... \$250 .....

☐ Full Registration - **NON MEMBER** ..... \$425 ..... \$475 .....

**NON MEMBERS ONLY.** Full registration at the non-member rate includes a free one-year membership to either AWWA or WEF. With full, non-member registration, please indicate which organization you wish to join (new members only - no renewals): ☐ AWWA ☐ WEF

☐ Donation "Water for People" - *Optional* .....

☐ I registered prior to Texas Water going virtual in 2020 and opted to receive a discount off 2021 registration

**TOTAL PAYMENT** (add right column) .....

**THE EASIEST WAY TO REGISTER IS ONLINE: [www.txwater.org](http://www.txwater.org)**

## PAYMENT METHOD:

☐ Check Payable to Texas Water Bill My: ☐ AMEX ☐ VISA ☐ MasterCard ☐ Discover

Card # \_\_\_\_\_ Expiration \_\_\_\_\_ Security Code \_\_\_\_\_

Cardholder Name \_\_\_\_\_

Signature \_\_\_\_\_

Credit Card Billing Address \_\_\_\_\_

For more information, contact:  
Texas Water: 512-251-8101 | [texwater@texas.net](mailto:texwater@texas.net)

**Register online at [www.txwater.org](http://www.txwater.org)**

or mail form with payment to:

**Texas Water 2021 Registration**  
**c/o GCP Association Services**  
**PO Box 676**  
**Pflugerville, TX 78691**  
**or fax to 512-251-8152**

**No refunds will be granted but substitutions will be allowed.** All substitutions must be requested in writing. Email or fax substitutions to Texas Water at [texwater@texas.net](mailto:texwater@texas.net) or (fax) 512-251-8152.



# Texas Water™ 2021 - Virtual Scholarship Golf Tournament

February 1, 2021 – March 15, 2021

Help raise funds for scholarships to assist students with families in the water and water quality industry. All profits from the Virtual Texas Water Golf Tournament go toward the scholarship programs. This year our mission is to keep all players safe by following safety precautions but still enjoy a round of golf and continue our mission to assist students with scholarships. We are changing our format this year to accommodate every golfer playing as a single, a group of two, three or foursome. Your golf event will be held at a golf course in your community. Your group will complete the registration form below and independently pick a course and submit your scorecard and picture of yourself or group to Texas Water before the March 15<sup>th</sup> deadline to be displayed vertically on the Texas Water virtual site during the conference. Since we cannot be together to enjoy the game of golf, we are still offering opportunities to assist with fundraising by offering four levels of Scholarship Sponsorships as listed below. In addition, there are mulligans for purchase and the forward tee to be used at the team's discretion on any Par 5. Your generosity is sincerely appreciated by all and let's enjoy our golfing event.

## CHOOSE THE NUMBER OF PLAYERS

### REGISTRATION FEE PER PLAYER

\$75 each due by March 1, 2021

Deadline to submit score cards and single or group photos: March 15, 2021. Submit photos using #TexasWater2021Golf

## SCHOLARSHIP SPONSORSHIPS

**Diamond Sponsorship**  
**Platinum Sponsorship**  
**Gold Sponsorship**  
**Silver Sponsorship**

100% of the sponsorships will go to our students. Your company logo will be displayed throughout the conference virtually.

## INDIVIDUAL OR TEAM CAPTAIN

Name (Team Name): \_\_\_\_\_  
Firm Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_  
State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Daytime Phone: \_\_\_\_\_  
Email: \_\_\_\_\_

## TEAM PLAYER NAMES

#2: \_\_\_\_\_  
#3: \_\_\_\_\_  
#4: \_\_\_\_\_

## CALCULATE FEES

**Diamond Sponsorship**..... \$5,000 ..... \$ \_\_\_\_\_  
**Platinum Sponsorship**..... \$2,500 ..... \$ \_\_\_\_\_  
**Gold Sponsorship**..... \$1,500 ..... \$ \_\_\_\_\_  
**Silver Sponsorship**..... \$1,000 ..... \$ \_\_\_\_\_

**Individual Registration:** \$75 x \_\_\_\_\_ \$ \_\_\_\_\_  
**Team Registration (4):**...\$300..... \$ \_\_\_\_\_

### Tournament Extra(s)

\_\_\_\_ Mulligans (\$5/each; max 4/player)... \$ \_\_\_\_\_  
\_\_\_\_ Forward Tee (\$20/team)..... \$ \_\_\_\_\_

**TOTAL (ADD COLUMN AT RIGHT)** \$ \_\_\_\_\_

## Tournament Chairs:

Yvonne Gil-Vallejo, 713-213-2328, ygilvallejo@cityofkyle.com  
Van VanWinkle, 409-527-2626, van.vanwinkle@ausintexas.gov

## REGISTER ONLINE: [www.txwater.org](http://www.txwater.org)

Or mail form with payment to:

**TW21 Golf**  
**P.O. Box 676**  
**Pflugerville, TX 78691**

Or fax to **512-251-8152**

**PAYMENT METHOD:** ☐ Check Payable to "Texas Water"

**CHARGE MY:** ☐ AMEX ☐ VISA ☐ MasterCard ☐ Discover

Card #: \_\_\_\_\_ Expiration: \_\_\_\_\_

Cardholder Name: \_\_\_\_\_ Security Code: \_\_\_\_\_

Credit Card Billing Address: \_\_\_\_\_

Signature: \_\_\_\_\_