



GLOBAL CENTER

PROGRAM



where the **global water community** meet



2021

October 16-20 | **Conference**
October 18-20 | **Exhibition**
McCormick Place, Chicago, IL

WISCONSIN:

A Global Hub for Water Technology

Visit us at the Global Center to learn more about the unique blend of technology, expertise, innovation and collaborative spirit Wisconsin offers—and how we can help you make connections in the water technology space, in Wisconsin and around the world.



Please stop by for a conversation with our staff or join us for one of the following sessions:

MONDAY, OCT. 18, 4:30 P.M.

"Wisconsin Appeal: Global Connections in the Dairy State."

at the Global Center (with a reception to follow at 5:30 p.m.)

TUESDAY, OCT. 19, 9 A.M.

"Leveraging the EU Tech Bridge for U.S. Projects." at the Global Center

TUESDAY, OCT. 19, 1 P.M.

"The Importance of ESG and Water Stewardship in Today's Corporate Landscape." at the SDG 6 Theater in the Drinking Water Pavilion

TUESDAY, OCT. 19, 1 P.M.

"Highlights from the BREW 2.0 Post-Accelerator and Tech Challenge."

at the Innovation Pavilion



Global Center Program

SESSION GC01

Global Center Inauguration

Monday, October 18 | 10:00 - 10:30 AM

MODERATOR/SPEAKER

Walter Marlowe, Executive Director
Water Environment Federation (WEF)

SPEAKERS

The Honourable Radhika Fox, Assistant Administrator Office of Water
U.S. Environmental Protection Agency

The Honourable Dato' Ramlee A Rahman, Chief Executive
Permodalan Darul Ta'zim (PDT) Invited

WEF welcomes back the world to WEFTEC 2021.

WEF Executive Director, Walter Marlowe will inaugurate the Global Center with a message from WEF, a recorded message from The Honourable Radhika Fox, Assistant Administrator Office of Water, U.S. Environmental Protection Agency and greetings from The Honourable Dato' Ramlee A Rahman, Chief Executive of Permodalan Darul Ta'zim (PDT) *Invited*.



**Don't miss a special message from
The Honourable Radhika Fox.**

SESSION GC02

OPEX Improvement Through Energy Efficiency, Energy Production and Emission Control

Monday, October 18 | 10:30 - 11:30 AM

MODERATOR

Morten Siem Lynge, Consul General & Head of the Water, Biogas & Environmental Team
The Danish Water Technology Alliance in North America (WTA is part of the Ministry of Foreign Affairs of Denmark)

SPEAKERS

Michael B. Nissen, CTO
Nissen Energy

Robert Montenegro, Executive Vice President
Water Utility/Municipal, North America
Grundfos

Jesper Hørlyk-Jensen, Head of Sales - Europe & North America
Biogasclean

Derick Swarr, Director, Veg Oil Processing & Water, North America
Novozymes

Most utilities are challenged by significant budget constrain on one side - and increased customer quality demands on the other side. Adding to this comes increasing political pressure for utilities to reduce CO₂ emission and increase energy efficiency. This seminar argues that you have very well-known technologies that allows you to handle budget constrains while at the same time e.g. significant increase your energy efficiency and reduce your emissions. For years utilities in Denmark has been "forced" by an annual "2% OPEX efficiency demand" to find smart solution to their wastewater and drinking water operations. Digitalization, energy efficiency, and energy production has been some of the answers. Today some Danish utilities are producing up to 3 times the energy they are using themselves and the water sector is now down to consuming 1,7% of the national energy consumption vs. e.g. a 4% EU-average. Efficient wastewater treatment processes and cost-efficiency are two sides of the same coin. It is highly important to consider wastewater a valuable resource as organic content can be converted to energy, phosphorus recycled, heat recovered and treated wastewater used for irrigation, municipal purposes or cooling in buildings or industry.

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SESSION GC03

New Partnerships to Improve Small System Capacity and Performance

Monday, October 18 | 11:30 AM - 12:00 PM

MODERATOR/SPEAKER

Sarah Buck, Sr. Director of Programs
Rural Community Assistance Partnership (RCAP)

SPEAKER

Ted Stiger, Sr. Director of Government Relations & Policy
Rural Community Assistance Partnership (RCAP)

This session will discuss small system wastewater needs, the Treatment Works technical assistance and training program that was developed as part of the 2018 America's Water Infrastructure Act, including an overview of a new partnership around this program between RCAP, WEF and others to build small POTW and onsite/ decentralized technical, managerial and financial capacity including the much needed leveraging of infrastructure dollars from CWSRF and other sources.

SESSION GC04

Public, Private, or Hybrid: Models of Success for Water Utilities in a Changing World

Monday, October 18 | 1:00 - 2:00 PM

MODERATOR

Chris Rich, Executive Director
US Water Partnership (USWP)

SPEAKERS

David Gadis, Chief Executive Officer
DC Water

The Honourable Dato' Ramlee A Rahman, Chief Executive
Permodalan Darul Ta'zim (PDT)

This session will discuss the benefits and challenges of different water utility business models as they seek to meet the challenges of Covid-19, climate change, and urbanization. Representatives from DC Water and Johor Bahru's state water utility PDT will speak on the subject.

SESSION GC05

COVID-19 and Wastewater-Based Epidemiology (WBE)

Monday, October 18 | 2:00 - 3:00 PM

MODERATOR

Dr. Sungpyo Kim
Korea University/Korea Water Partnership

SPEAKERS

Lan Hee Kim, Research Professor
Korea University

Dr. Christobel Ferguson, Chief Innovation Officer
The Water Research Foundation (WRF)

Wastewater-Based Epidemiology (WBE) has recently become an issue for managing the ongoing COVID-19 pandemic. This session will share research studies of WBE and explore opportunities for future research. It will also share an effort to establish infectious disease prevention and control from Mega-City in this pandemic.

SESSION GC06

Digitization and Application of AI to Water Systems, Optimization of Resources Through Technology and New Delivery Methods (P3)

Monday, October 18 | 3:00 - 4:00 PM

MODERATOR

Maria Jesus Fernandez, Trade Commissioner
at Trade Commission of Spain in Chicago
Trade Commission of Spain in Chicago

SPEAKERS

Pablo Calabuig, CEO North America
GoAigua

Eva Arnaiz Garcia, Country Manager USA
Aqualia

Digitization of water systems: optimization of resources and preventive action through the deployment of real-time artificial intelligence algorithms. Monitorization and early warning of viruses in the water systems, in particular of the SARS-CoV-2 virus. Bringing the circular economy to the water industry. P3 as a tool for change and optimization of resources.

SESSION GC07

Submersible Pumps as the Right Response to the New Pumping Scenarios Associated to Climate Change

Monday, October 18 | 4:00 - 4:30 PM

SPEAKER

Maria Elena Rodriguez Hernandez,
Water Engineering Director, R&D - Engineering
INDAR, Ingeteam Group

Climate change is disrupting weather patterns, leading to extreme weather events, unpredictable water availability, exacerbating water scarcity, contaminating water supplies and flooding areas that were never affected by these events before in the past. Water in its various forms is always on the move, in a complex process known as the water cycle. Global warming is already having a measurable effect on this cycle, altering the amount, distribution, timing, and quality of available water. Water users - from communities, to industries, to ecosystems - are in turn affected: their activities and functions depend, either directly or indirectly, on water. The rapid growth of cities, and consequently population requirements in terms of water supply, and at the same time, global warming ravages (drought, flooding events, tide rise and so on), has changed any known water supply pumping scenario: Different, reliable pumping solutions are definitively needed to answer the actual pumping challenges. This presentation will expose, with the help of different case studies, how submersible solutions could be the right choice to the new challenging pumping scenarios that climate change brings to our society.

SESSION GC08

Wisconsin Appeal: Global Connections in the Dairy State

Monday, October 18 | 4:30 - 5:30 PM

MODERATOR

Dean Amhaus, President & CEO
The Water Council

SPEAKER

Andy Gralton, Chief Marketing Officer
Clearwater Industries

When SIGMA DAF, a Spanish water clarifying company, approached The Water Council about finding a U.S. partner, we knew we'd find the perfect complement in Wisconsin. Find out how we connected the company to Clearwater Industries and how the partnership has helped both companies. It's another example of the global reach of The Water Council and how water works in Wisconsin.

Global Center Reception

Monday, October 18 | 5:30 - 6:30 PM

Sponsored by the Wisconsin Economic Development Corporation (WEDC)



SESSION GC09

Leveraging the EU Techbridge for US Projects; How The Water Council and The Water Alliance are Creating an Opportunity Path

Tuesday, October 19 | 9:00 - 10:00 AM

MODERATOR

Dean Amhaus, President & CEO
The Water Council

SPEAKERS

Kevin Shafer, Executive Director
Milwaukee Metropolitan Sewerage District

Harro Brons, International Business Development Manager
The Water Alliance

The EU Techbridge project matches innovative European SMEs with North American based end-users/corporate buyers which are looking for innovative water and energy solutions. By setting up an intensive matchmaking program (virtual and physical), concrete challenges from North American corporate buyers will be matched with innovative solutions from European SMEs. The Water Alliance will introduce/discuss the program and The Water Council and Milwaukee Metropolitan Sewerage District will introduce the Water Council's Wisconsin planned challenge and how other regions and partners across the United States also leverage the program.

SESSION GC10

EnviroCert: The Value of Credentialing For Stormwater Professionals Over the Last 40 Years

Tuesday, October 19 | 10:00 - 10:30 AM

SPEAKER

Rob Anderson, Executive Director
EnviroCert International

This session will cover the importance of proper training for stormwater practitioners and discuss the various professional stormwater credentials offered by EnviroCert that can be used to ensure existing staff is properly trained. This presentation will also include an update on NGICP and other credentials that can be used to bring more diversity into the sector.

SESSION GC11

Rethinking Coastal Resilience Strategies Using the Challenge Model

Tuesday, October 19 | 10:30 - 11:00 AM

SPEAKER

Dr. Paul A. Robinson, Executive Director
RISE

Coastal communities are increasingly vulnerable to sea level rise and other climate-related changes. How can these communities build environmental and economic resilience in the face of these threats? In this session, learn how the challenge model can be used to source innovative adaptation and mitigation solutions to critical problems, accelerate businesses in the coastal resilience sector, drive local workforce development, and help cities plan future projects. This session will describe the model used by RISE to address the resilience challenges faced by coastal communities from severe weather events and sea-level rise. Since 2017 RISE has sourced the flooding and associated challenges in southeastern Virginia to the global community of companies with innovative products and services. RISE supports these companies to demonstrate and pilot their products and assists them in getting paying customers and/or follow-on investment. Examples will be shown of companies' products which support the region's adaptation and mitigations in response to increased flooding. These efforts have resulted in increased economic activity in the region, increased job creation and retention, and increased technical knowledge for the cities to aid in their planning. Plans are afoot to expand this effort to other regions and cities.



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SESSION GC12

Modern, Effective and Compassionate Billing: How Louisville Made an Overdue Upgrade to Assistance Programs and Improved the Utility Customer Relationship

Tuesday, October 19 | 11:00 AM – 12:00 PM

MODERATOR

Letitia Carpenter, Program Manager
US Water Alliance

SPEAKERS

Tony Parrott, Chief Executive Officer
Louisville and Jefferson County Metropolitan Sewer District

Megan Hancock, Director of Customer Care and Business Operations
Louisville Water

Alex Bores, Solutions Engineer
Promise

Financial stress incurred by the COVID-19 pandemic and economic crisis has brought water affordability into sharp focus. Water agencies have been seeking innovative solutions to meet their communities' immediate needs while also developing long-term solutions to water affordability challenges. The water and wastewater utilities in Louisville, Kentucky, provide one such case. During the height of the COVID-19 pandemic, Louisville showed how new, smarter solutions to bill assistance and debt relief helped people in need while improving the utility-customer relationship. Now, Louisville is working to use what they have learned from this process to inform long-term affordability and assistance strategies. Panel participants will share Louisville's work to: identify and reach those customers in need; increase enrollment in affordability programs; tailor assistance to the unique needs of their customers, and simultaneously balance care, bill assistance, and debt relief with needed revenue stability to maintain essential water systems

SESSION GC13

Global Water Stewardship: Sustainable Solutions in Costa Rica

Tuesday, October 19 | 1:00 – 2:00 PM

MODERATOR

Mohammed Haque (STC), District Manager/Chief Executive
Northern Moraine WRD

SPEAKERS

Liz Heise (STC), Project Engineer
Trotter and Associates, Inc.

Micah Pitner (STC), Sr. Water Resource Engineer
Crawford, Murphy & Tilly, Inc.

Joseph Lapastora (STC), Engineer
Northern Moraine WRD

Gussel Davila (STC), Environmental Engineer
Baxter & Woodman

Global Water Stewardship (GWS) is a non-profit organization sponsored by the Central States Water Environment Association (CSWEA) to provide sanitation facilities in the developing world by educating people and engineering sustainable centralized solutions that keep waterways clean and communities healthy. This presentation will introduce GWS's history, goals, methods, and some of our current work to provide sustainable solutions to water quality issues in Costa Rica.

SESSION GC14

Uganda Wetlands Restoration

Tuesday, October 19 | 2:00 – 2:30 PM

SPEAKER

Kimberly Lemme, Director of Program Learning and Influence
Water for People

In Uganda, 11 percent of the land area is covered by wetlands. Despite their benefits, wetlands have been regarded as wasteland and consequently degraded. This has impacts on water quality and beyond. Water For People has partnered with the Ugandan government and the District of Kamwenge local government to facilitate the development of clean water and improved sanitation systems for all people in the district. Sustainable water, sanitation, and health/hygiene (WASH) requires safe water sources and water conservation. The wetlands in Kamwenge district are severely degraded. They are part of the recharge of the water supply system areas and the degradation was a threat to water supply sustainability. Human activities were a major cause of the degradation. Therefore, Water For People partnered with the Kamwenge government on a one-year project to assess and map the wetlands and from there, protect the wetlands to improve the quality. The scope of work also included: delineation of the wetlands, permanent demarcation of the boundaries, community livelihood improvement initiatives, enforcement, and ground water level monitoring using divers. This session will focus on the results and lessons learned from this project and how they can be used in other locations.

SESSION GC15

Expanding Water Innovation Across the Asia-Pacific

Tuesday, October 19 | 2:30 – 3:00 PM

MODERATOR

Nidhi Menon, Sr. Associate
Imagine H2O

SPEAKERS

Pat Kiley, Founder and CEO
SENTRY

Ralph Exton, Chief Marketing Officer
SUEZ

When scaling your solution in the Asia-Pacific, there is no "one size fits all" approach. Each region has its own unique opportunities and challenges. However, there are plenty of lessons learned from those that have already paved the way. This session will feature two different perspectives around water innovation—the CEO of an early stage startup and an executive of a global corporation. Pat Kiely (CEO, SENTRY) and Ralph Exton (Chief Marketing Officer, SUEZ) will discuss how their organizations have successfully entered new markets and expanded their global reach. What lessons do these speakers have to share with the water innovation community? What are the processes that work? What role can you play to ensure innovation succeeds and delivers lasting impact when accessing new markets?

SESSION GC16

Flood Management in Mexico City - Vicente Guerrero Stormwater Pumping Station

Tuesday, October 19 | 3:00 - 3:30 PM

SPEAKER

Maria Elena Rodriguez Hernandez,
Water Engineering Director, R&D - Engineering
INDAR, Ingeteam Group

Flood Management in Mexico City requires reliable solutions. A specific Axial Flow Pump design with the cables protected (on side - Not in contact with the pumped flow) faces the challenging situations when pumping stormwater with all the type of materials/solids. The presentation will cover the initial requirements/challenges and the achievement of a durable design that fulfills the performance requirements (operational) at the time constitutes a reliable solution facing potential risk with the material shaking the cables.

SESSION GC17

Fishfriendly Pumps for the New Dilution Pumping Station: Carlsbad Desalination Plant

Tuesday, October 19 | 3:30 - 4:00 PM

SPEAKER

Maria Elena Rodriguez Hernandez, Water Engineering
Director, R&D - Engineering
INDAR, Ingeteam Group

The Claude "Bud" Lewis Carlsbad Desalination Plant is the largest, most technologically advanced and energy-efficient seawater desalination plant in the US. Each day, the plant delivers nearly 50 million gallons (56,000 acre-feet per year (AFY)) of fresh, desalinated water to San Diego County - enough to serve approximately 400,000 people and accounting for about one-third of all water generated in the County. The new regulation in California (2015 Ocean Plan Amendment) in terms of environmental impact for the new dilution pumping station requires innovative pump designs that ensures environmental balance not affecting local ecosystem: Customized Axial Flow pumps are required to satisfy the design requirements for the projected new screened intake. The presentation will cover the initial requirements and the achievement of a fish friendly design that fulfills the performance requirements (operational) at the time follows all the Fishfriendly features.

SESSION GC18

Extralab: A New Laboratory for Water Quality

Tuesday, October 19 | 4:00 - 4:30 PM

SPEAKER

Paul Floury, Founder
Extralab

Extralab is a French Start-up in water quality control. Extralab proposes a new concept of laboratory for water quality monitoring. Extralab can provide a whole range of fully automated solutions to measure different parameters of water. We can install full online all the equipment you can find in a real laboratory such as chromatography or mass spectrometer. Started in 2015, our solution is deployed in three different countries in top research organisms: Illinois University in US, CNRS in France, Tianjin University in China. By doing so the end user have access to a large set of data in real time. Then it is possible to detect a problem with water quality before knowing the occurrence of the incident like an industrial incident. During my presentation, I will present the development and management of such a lab-field solution by answering the following questions: How can we manage and work on a full remote laboratory? How have we built this collaborative network? What can we learn thanks to high-frequency continuous measurements? How were the collaborative teams organized around the Riverlab development? What improvements this represents to share experience on the quality and on the performance of the acquisition?

SESSION GC19

The Future of Pathogen Detection in Wastewater

Tuesday, October 19 | 4:30 - 5:00 PM

SPEAKER

Michael Piron, CEO
WE CONNECT

This presentation will be an opportunity to review the research and development by the company WE CONNECT of an automated pathogen detection machine in wastewater and how this team wishes to improve the process for detecting different pathogens in near real time.

Operator Ingenuity Awards

Wednesday, October 20 | 10:00 - 11:00 AM

MODERATOR

Susan Merther, Director WEFTEC Education
Water Environment Federation (WEF)



We celebrate our operators, who are at the front lines in the protection of public health, at the Operator Ingenuity Awards. Water and wastewater operators routinely devise outside-the-box ideas that enhance how their facilities protect public health and the local environment. These awards recognize, celebrate, and spread the word about home-spun innovations and clever ideas that advance the sector.

WEF gratefully acknowledges the Wisconsin Economic Development Corporation (WEDC) for its sponsorship of the Global Center. The Wisconsin Economic Development Corporation is a public-private agency in the state of Wisconsin designed to assist business development and innovation through loans, grants, tax credits, and technical assistance programs.



Global Membership

Connecting water quality professionals across the globe!

As a leading organization for water quality professionals, the Water Environment Federation (WEF) is committed to supporting the global water community by providing resources and tools needed to effectively educate and train the next generation of water quality stewards.

WEF's Global membership will give you access to people, information, and opportunities that will help strengthen your career—at the click of a button. Global membership allows you to stay informed, enhance your professional network, advance your career, and save money. You'll find substantive information and technical resources, products and services available through WEF's website.

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