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95th Annual Water Environment Federation
Technical Exhibition & Conference

New Orleans, Louisiana | New Orleans Morial Convention Center
Conference: October 8-12, 2022 | Exhibition: October 10-12, 2022



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THE WATER COUNCIL

Global Center Program

Global Center Inauguration

Monday, October 10 | 10:00 am – 10:30 am

MODERATOR/SPEAKER

Jamie Eicheberger, President
Water Environment Federation (WEF)

SPEAKERS



The Honourable Arun Venkataraman, Assistant Secretary of Commerce for Global Markets, and Director General of the U.S. and Foreign Commercial Service, Global Markets
International Trade Administration, U.S. Department of Commerce



Deborah Nagle, Director, Office of Science and Technology, Office of Water
U.S. Environmental Protection Agency

WEF President, Jamie Eichenberger will inaugurate the Global Center with a message from WEF followed by The Honourable Arun Venkataraman, Assistant Secretary of Commerce for Global Markets, and Director General of the U.S. and Foreign Commercial Service, Global Markets, International Trade Administration, U.S. Department of Commerce and Deborah Nagle, Director, Office of Science and Technology, Office of Water, U.S. Environmental Protection Agency.

Enhancing the Solidarity and Cooperation for Water Sectors

Monday, October 10 | 10:30 am – 11:00 am

ORGANIZER

Korea Water Partnership

MODERATOR

Dr. Sungpyo Kim, Professor
Korea University, Korea Water Partnership (KWP)

SPEAKERS

Dr. Jaeho Ho, Managing Director
SK ecoplant Co., Ltd.

DaeHyun Bae, Director
K-water

Solidarity and cooperation in the water sector are becoming more important than ever. In terms of not only addressing the global water problem but also creating a new business model, collaboration between the public and the private in the water sector is becoming a global trend. This session will share cases of the Korean water industry, and cover the insights about the direction the water sector should move forward to solidify partnership.

Building Information Modeling: Standards for the Water Sector - German Experiences

Monday, October 10 | 11:00 am – 12:00 pm

ORGANIZER

German Water Association for Water, Wastewater and Waste (DWA)

MODERATOR

Dipl.-Ing. Johannes Lohaus, Managing Director Secretariat
German Association for Water, Wastewater and Waste, DWA

SPEAKERS

Prof. Dr.-Ing. Markus Schröder
TUTTAHS & MEYER Ingenieurgesellschaft mbH

Dr.-Ing. Michael Kuhn
KUHN GmbH

This session demonstrates how Building Information Modeling (BIM) will be introduced within the German water sector as part of a digitalisation strategy. There are high political expectations for this new technical innovation and the political will is, that more and more new infrastructure projects should be planned and operate with this technology. The basis for the technical design of wastewater facilities and the operation of these facilities in Germany is the set of rules and standards of the German Association for Water, Wastewater and Waste, DWA. After a short introduction of DWA and its set of rules and standards there will be two presentations. One presentation will explain which technical standards are elaborated until now and which technical standards are in preparation for the German water sector. The second presentation will show the influences of BIM on the manufactures. At the end of the session there will be time for questions and answers.

Innovation in Action: How Singapore Partners with Entrepreneurs to Build a Water and Climate Resilient City

Monday, October 10 | 12:00 pm – 1:00 pm

ORGANIZER

Imagine H2O

MODERATOR

Sonora Hill
Imagine H2O

SPEAKERS

Bernard Koh, Assistant Chief Executive
PUB

Mohammad Sherafatmand, CEO & Founder
Hydroleap

Leela Krishna Sriramula, CBO & Co-Founder
SpaceAge Labs

Asim Bhalerao, CEO & Co-Founder
Fluid Robotics

With Asia-Pacific communities on the front lines of the global water and climate crisis, Singapore has emerged as a leader in water management and has become the preeminent launchpad for water startups to grow their business both regionally and globally. Join Imagine H2O and PUB, Singapore's national utility, to gain insight on how PUB has fostered innovation through its PUB Singapore Water Exchange and partnerships with water technology startups. This session, featuring Bernard Koh, Assistant Chief Executive at PUB, and startup founders from Hydroleap, SpaceAge Labs, and Fluid Robotics will delve into how these startups found success in Asia-Pacific, and how, in conjunction with PUB, they are challenging the status quo of water and wastewater treatment.

US Civil Affairs and Water

Monday, October 10 | 1:00 pm – 2:00 pm

ORGANIZER

The Water Council

MODERATOR

Dean Amhaus, President & CEO
The Water Council

SPEAKERS

Lieutenant Colonel Dale Kooyenga, 38G Capabilities
Development Manager

*Strategic Initiatives Group, U.S. Army Civil Affairs and Psychological
Operations Command (Airborne) USACAPOC(A)*

Al Cho, SVP, Chief Strategy and External Affairs Officer
Xylem

Brigadier General Andrée "Dré" Carter Deputy Commanding General
*U.S. Army Civil Affairs and Psychological Operations Command
(Airborne) USACAPOC(A)*

Unquestionably, water stress has created, and will continue to escalate, global conflicts and as a result US national security agencies and the Department of Defense are "upping their game" to be at the forefront on tackling water issues. At the same time, the United States is fortunate to have a region that excels in nearly all aspects of water management and excels in academic and industry research activities and technology development to help solve these water stress challenges. Join The Water Council and the U.S. Army Civil Affairs and Psychological Operations Command (Airborne) to discover how they are working together to recruit industry water professionals to serve as Public Water and Sanitation Officers in the U.S. Army Reserve and helping train U.S. Army personnel on water solutions that can be applied across the world.

Water Smart Engagements: Utility Twinning for Water Security

Monday, October 10 | 2:00 pm – 3:00 pm

ORGANIZER

U.S. Water Partnership

MODERATOR

Chris Rich, Executive Director
U.S. Water Partnership

This panel talk, populated by leaders of large, urban water and wastewater utilities in Southeast Asia and the United States, will discuss the progress and milestones of participation in the U.S-ASEAN Water Smart Engagements (WiSE) water utility twinning program as it approaches its 2-year mark. The discussion portion will include the value and opportunities that international utility pairing brings in addressing local water security

BREW Global Innovators

Monday, October 10 | 3:00 pm – 4:00 pm

ORGANIZER

The Water Council

MODERATOR

Karen Frost, VP Economic Development & Innovation
The Water Council

SPEAKERS

Michael Piron, CEO

WEConnect

Paige Peters, CTO

Rapid Radicals

The BREW post-accelerator program brings together leading late stage startups from around the globe to participate in our growth accelerator. Learn about the global hard tech solutions that are advancing real time insights in the water industry.

International Reception

Monday, October 10 | 4:00 pm - 5:00 pm



Leading By The Example of Major Cities: Digitalization and Sustainability

Tuesday, October 11 | 9:00 am – 10:00 am

ORGANIZER

Trade Commission of Spain in Chicago

MODERATOR

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

SPEAKERS

Pablo Calabuig

GoAigua

Eva Arnaiz

FCC-Aqualia

Mario Losañez

NAVEC

David Martínez

Toro Equipment

This session will cover how the private sector is helping major cities to implement:

- the digital transformation for sewer and wastewater systems (digital twins and operational, financial, and intangible benefits)
- the provision of environmental, social, and economic solutions at all stages of the end-to-end water cycle, preserving water resources and improving management efficiency and
- how innovation in new equipment, as well as in new materials like carbon fiber, is facilitating the task.

Dutch Innovations for US and Global Challenges – Get Connected on Dutch Water Tech Innovation

Tuesday, October 11 | 10:00 am – 11:00 am

ORGANIZER

Water Alliance

MODERATOR

Harro Brons, Business Development Manager
Water Alliance

SPEAKERS

Acquaint

Berghof Membrane Technology

Klaren International

Nepad UV

Paques Environmental Technologies

PB International

Samotics

Dutch water tech innovators will present their solutions on global and US water challenges. Sharing state of the art innovations on for example AI for water management, hygiene, wastewater treatment and re-use, and other new innovations. US and Dutch partnerships strengthen R&D, innovation and doing business together; let's get connected on water tech innovation.

“One Water” Planning and Management – Three County, State and Watershed Perspectives

Tuesday, October 11 | 11:00 pm – 12:00 pm

ORGANIZER

Beca Ltd, New Zealand/Aotearoa

MODERATOR/SPEAKER

Garry Macdonald, /National Business Director - 3 Waters
Beca Ltd.

SPEAKERS

Troy Brockbank, Maori Advisory Lead (Principal)
Pattle Delamore Partners Ltd

John Crawford, Technical Fellow - Wastewater
Beca Ltd.

Jackie Colliar, Waters Strategy Manager
Hamilton City Council

Rick Warner, President
Warner H2O

“One Water” Planning and Management is being re-envisioned through many different lenses across the globe as politicians and peoples realize the strategic and sovereign values of Water. A paradigm shift in our approach to Water is needed. This session will demonstrate three different One Water approaches at country, state and watershed level. The first presentation will summarize how the New Zealand government has made an intentional shift to incorporate Maori/First Nation peoples’ values in a cross governmental initiative to transition from a decentralized utility network to four regional, publicly owned entities for water service delivery. The second presentation will discuss long term, planning for more sustainable and resilient management of natural waters along the Waikato River, the longest river in New Zealand. The Waikato is subject to “co-governance” between local government councils and Maori for whom the river is a “taonga” or historical treasure, over the centuries providing food, water, and sustenance for many tribes within its catchment. The third presentation will be from Nevada and will focus on how partnering is core to accelerating One Water solutions in that state. This includes public/private partnerships to deliver mutual benefits; communicating the “Value of Water” through state-wide initiatives and legislation; and applying innovation for state-wide water reuse.

Wastewater Development in the Land of Pura Vida

Tuesday, October 11 | 12:00 pm – 12:30 pm

ORGANIZER

Global Water Stewardship

SPEAKERS

Laura Torres

Costa Rica Institute of Aqueducts and Sewers

Liz Heise, Chair

Global Water Stewardship

Costa Rica is one of the most unique places on earth, with roughly 5% of the world’s biodiversity. The economy is stable, and fueled by tourism, attracting visitors from all over the world who are drawn to the amazing cloud forests, beaches, food, and “Pura Vida” lifestyle. This “Pura Vida” lifestyle and culture has led it to consistently beat the top of the “World’s Happiest Countries” list. The Costa Rican Institute of Aqueducts and Sewers (AyA) and Administrative Associations of the Communal Aqueduct and Sewer Systems (ASADAs) have implemented systems that provide safe reliable drinking water to over 98% of the country’s inhabitants. The next challenge is improvement and expansion of wastewater treatment. The current treatment rate by centralized WWTP approximately 15%. 70% of their wastewater is currently collected by individual septic tanks and drainage systems. In 2017 a National Plan for Sanitation Improvements was put into place, with a goal of treating 100% of the wastewater generated by 2045. Global Water Stewardship has partnered with AyA to expedite this goal by providing resources and training opportunities such as TICOSAN, the first wastewater conference in Costa Rica, as well as through community partnership.



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.

Moving Towards Sustainable Water Supply at Saudi Aramco Communities

Tuesday, October 11 | 12:30 pm – 1:00 pm

ORGANIZER

Saudi Aramco

SPEAKERS

Mohammed H. Abdulatif, Division Head – Utilities, Utilities & Facilities Services Department

Saudi Aramco

Ibrahim S. Nassar, Facilities Planning Consultant, Facilities Planning Department

Saudi Aramco

The Kingdom of Saudi Arabia is categorized as a country with Absolute Water Scarcity. The two main water resources that are available in the Kingdom are seawater and non-renewable groundwater. As such, groundwater has been under stress of depletion due to widespread use. Policies in the Kingdom have been put in place to safeguard this precious resource through conservation and recycling. Saudi Aramco, the largest oil company in the world, owns and operates five communities, where more than 15,000 employees and their families live. Water services at these communities, which are privately built and operated by Saudi Aramco, have been at the forefront of implementing innovative approaches to conserve groundwater. Since the 1980's, sewage treatment and reuse in landscape irrigation has been implemented in all these communities. However, limited available resources and health codes requirements meant that groundwater was still needed to meet the water demands at Saudi Aramco communities. In the early 2000's, Saudi Aramco placed an economic value on groundwater to encourage conservation and development of sustainable alternatives, thus allowing for the implementation of a master plan to reduce groundwater consumption by 60% through the supply of desalinated seawater and full unrestricted reuse of treated sewage.

Mexico's Water Industry Status and Opportunities

Tuesday, October 11 | 1:00 pm – 2:00 pm

ORGANIZER

Commercial Service, U.S. Embassy, Mexico City
National Water Commission (CONAGUA)

MODERATOR

Francisco Ceron, Senior Commercial Specialist
Commercial Service, U.S. Embassy, Mexico City

SPEAKERS

Arturo Palma, President
ANEAS

Mario Mata Carrasco, Executive Director
Junta Central de Agua y Saneamiento del Estado de Chihuahua

Francisco de Jesus Garcia Leon, General Director
Comision Estatal del Agua de Guanajuato

Individual presentations will include: An overview of the status and trends of Mexico's water industry to be delivered by ANEAS (National Association of Water and Wastewater Utilities) followed by Mexican state water authorities from Northern and Central Mexican States.

From Public Health to Energy Conservation: Lessons Learned at Japanese Utilities

Tuesday, October 11 | 2:00 pm – 3:00 pm

ORGANIZER

Japan Sewage Works Association (JSWA)

MODERATOR

Yosuke Matsumiya

Japan Sewage Works Association

SPEAKERS

Hazuki Tsuchiya, Staff Member /Environmental Management Section, Facilities Management and Maintenance Division
Bureau of Sewerage

Tokyo Metropolitan Government

Mana Suzuki, Environmental Engineer, Wastewater Quality Control Division, Sewerage Facility Department Environmental Planning Bureau

City of Yokohama

Mitsuya Isshiki, Senior Staff Member /Technical Development Section, Planning and Coordination Division

Bureau of Sewerage, Tokyo Metropolitan Government

The three Japanese utility professionals speak about their research work. Two of them are the award winners in the local conference and journal each. The first speaker studied the presence of SARS-CoV-2 RNA and the infectivity in influent and effluent of the two WRRFs. Each sample was analyzed by RT-qPCR assay to detect SARS-CoV-2 RNA and by cell culture-based assay to evaluate the infectivity. She will show more in the session. The second speaker researched on the microplastic analysis methods. She compared the two methods for the qualitative analysis of microplastics bigger than 300µm. The first method is the Attenuated Total Reflection (ATR) method and the second one is the FT-IR microscopy method. She will present the result. The third speaker worked on an innovative airflow control system to conserve energy at WRRFs. He had faced a problem that the airflow was not provided in the same amount as a calculated required specific airflow due to changes in the pressure in the pipe. He will show his solution on the day. Followed by Q&A.

Reclamation and Restoration on the Ice: Operational Complexities and Challenges faced at the McMurdo Station WWTP in Antarctica

Tuesday, October 11 | 3:00 pm – 4:00 pm

ORGANIZERS/SPEAKERS

Daniel Isenberger

Bill Davis

Richland County Utilities

The presentation focuses on unique operational challenges faced and the solutions used from an operator's perspective in actively operating and maintaining the largest Wastewater Treatment Plant on the Antarctic continent. Also highlighted is the unique working relationship that developed through the WEF Student & YP Mentorship Program between protégé and mentor that helped to work through the challenges faced. Several challenges mentioned in this presentation include a short operator handoff and turnover, hard to understand procedures and data, absent preventative and reactive maintenance. Solutions to such challenges involved multidisciplinary work group efforts within the Utilities department, operational process adjustments, material repurposing and mentor-protégé guidance. A few water industry focused perspectives include but are not limited to: the draw of alternative work arrangements with extended unpaid leave, importance of 3rd party inspection for remote operations, physical and mental toll of working above 40 hours per week, dangers of complacency, value of cross-training, public community awareness and multidisciplinary work-groups. A summarization of key lessons learned will close the presentation. Following this presentation, a Q and A session will be provided. This presentation will be a joint presentation with both Bill Davis and Daniel Isenberger.

Federal Funding Opportunities for Water Infrastructure and Buy America, Build America Requirements

Wednesday, October 12 | 9:00 am – 9:30 am

ORGANIZER

U.S. Environmental Protection Agency (US EPA)

SPEAKERS

Michael Deane

Chief, Clean Water State Revolving Fund

U.S. Environmental Protection Agency

Alejandro Escobar, Manager, WIFIA Technical Support Branch,
Office of Wastewater Management

U.S. Environmental Protection Agency

Leslie Corcelli, Physical Scientist

Office of Wastewater Management

U.S. Environmental Protection Agency

Mr. Michael Deane, Chief of the Clean Water State Revolving Fund (SRF) at the US EPA, will be presenting on the new and increased federal funding for local wastewater and stormwater infrastructure investments included in the Bipartisan Infrastructure Bill. The Clean Water SRF will receive at minimum over \$12.8 billion over the next five years, and the EPA has developed guidance and technical assistance tools to help potential wastewater and stormwater projects obtain funding. Alejandro Escobar and Leslie Corcelli of EPA's Office of Wastewater Management will join Michael to present the Agency's approach to implementing the Build America, Buy America Act (BABA) requirements in the Bipartisan Infrastructure Law (BIL), how it will interact with existing American Iron and Steel requirements and balancing the critical need for infrastructure investment and the transformational opportunity to build a resilient supply chain and manufacturing base for critical products in the United States.

Reaching 200 Million People by 2030

Wednesday, October 12 | 9:30 am – 10:00 am

ORGANIZER

Water for People

SPEAKERS

Chelsea Reppin, Sr. Business Development Manager

Water For People

Water For People has a bold vision for the future: the passionate pursuit of sustainable water, sanitation, and hygiene services for all; called Destination 2030. 2030 is the target year for United Nations to achieve the Sustainable Development Goals, ultimately creating a better world by eradicating poverty, ensuring equality, and protecting the environment. The foundation for Destination 2030 is built on replicating and scaling our proven Everyone Forever impact model to reach people beyond the nine countries and 39 districts where we currently work. By 2030, we aim to serve 20 million locally, reach 200 million at the national level, and influence change globally, thus closing the gap for the 2 billion without water. We will do this in collaboration with other organizations. This session will focus on the steps Water For People is taking to reach 200 million people including scaling our effort at national levels to strengthen water and sanitation systems and improve services. Steps include innovation, data, technical assistance, advocacy and influence, and co-investment. You'll learn how these efforts and partnering with all levels of government build strong national water, sanitation, and hygiene systems to provide improved services for 200 million people in the next 8 years.

Business Opportunities in the Brazilian Water/Wastewater Sector

Wednesday, October 12 | 10:00 am – 11:00 am

ORGANIZER

U.S. Commercial Service, U.S. Embassy Brazil

MODERATOR

Thales Demarchi, Environmental Specialist for Brazil
U.S. Commercial Service, U.S. Embassy in Brazil

SPEAKERS

Allan Arnesen, Sanitary and Environmental Engineer
SABESP

Andre Lermontov, Superintendent
Grupo Aguas do Brasil

Bruno Sidnei da Silva, Engineering Director SABESP

Claudia Piunti, Director
Aegea Saneamento

Fernando Humphreys, Engineering Director
Aegea Saneamento

Filipe Cintra, Technical Director
Georevest

Jose Carlos de Moura Filho, President
Planalto Hidrotecnologia

Manuelito Magalhaes Junior, President
SANASA

Marco Antonio dos Santos, Technical Director
SANASA

Mariana Vilella Vin, New Technologies
BRK Ambiental

Rafael Silveira, Director
Georevest

Hear from representatives of the largest Brazilian water companies—Aegea Saneamento, BRK Ambiental, Grupo Aguas do Brasil, SABESP and SANASA—local distributors, and service companies, about new market trends and business opportunities for foreign companies in the Brazilian water and wastewater industry. In 2020, Brazil passed a new sanitation regulatory framework that resulted in several positive and tangible results for the sector, and now sanitation leads the urban environmental agenda in the country and is the infrastructure sector that received most investments in 2021. Additionally, private companies are entering this market and recent concessions reached over US\$ 10 million in investments. Local industry experts predict more than USD 150 billion in investments to universalize sanitation services by 2033, and stakeholders are constantly looking for new and innovative technologies and equipment to improve water and wastewater systems in the country.

Water Opportunities in Saudi Arabia and Vision 2030

Wednesday, October 12 | 11:00 am – 12:00 pm

ORGANIZER

U.S. Commercial Service, U.S. Embassy Saudi Arabia
Presenting water opportunities in Saudi Arabia in all sub-sectors: municipal wastewater, industrial wastewater, sludge treatment, huge plant privatization programs.

MODERATOR

Sabah Hershey
U.S. Commercial Service, U.S. Embassy Saudi Arabia

Presenting water opportunities in Saudi Arabia in all sub-sectors: municipal wastewater, industrial wastewater, sludge treatment, huge plant privatization programs.

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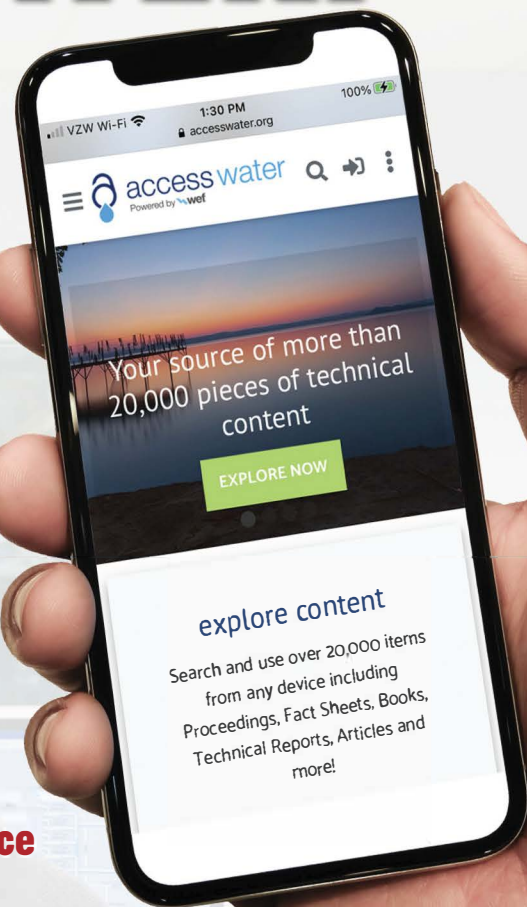
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