



# July 15-17, 2024 Hyatt Regency Dallas

## Program

*As of July 2, 2024*

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The Water Environment Federation's second Circular Water Economy (CWE) Summit is designed to bridge the gap between industrial and municipal water leaders – and the communities they serve – as they pursue sustainable solutions to water challenges. The 2024 conference highlights industrial water solutions – including circular water solutions from specifically targeted sectors: agriculture and food processing, technology, municipal, financial, policy, fashion and textile, academia, and energy.

This 2.5-day program features distinct sessions aligning with the value proposition and business case of the circular water economy:

*Session 1: Future Forward – AI in Circular Water Economy*

*Session 2: The Intersection of Innovation & Funding*

*Session 3: Circular Flow Modeling*

*Session 4: Industrial Symbiosis: From Policy to Practice*

*Session 5: Circular Water in Agriculture & Food Processing*

*Session 6: Drivers for Circular Water Strategies*

The Summit will use a variety of formats including keynotes, facilitated panel discussions, small group roundtable discussions, simulations, and a variety of opportunities to build a constituency dedicated to leading this transformation together.

All events will be held at the Hyatt Regency Dallas.

**For more information and to register, visit the Summit website at**

**<https://www.wef.org/cwesummit>**

## Monday, July 15, 2024

### Pre-Summit Deep Dives

*Deep Dives A and B are available to add on free-of-charge to all Summit registrants. Deep Dives run from 1:00pm – 4:00 pm, followed by the Evening Welcome Reception open to all Summit registrants from 5:00 pm – 6:30 pm.*

#### Deep Dive A

#### The Relationship Between Circular Water Economy and Oil & Gas Industry

**1:00 pm – 4:00 pm**

*(Limit 25 participants)*

This program focuses on the Circular Water Economy (CWE) for upstream, midstream, and downstream end users, solution providers, technology equipment suppliers, and other water related professionals to better define CWE and its relation to the Oil & Gas (O&G) Industry. Key elements for the O&G Industry will consider water access, use and drivers to move from linear to circular approaches for water management. An overview of the industry will be provided to enable active participation of all attendees. A variety of breakout upstream, midstream, and downstream case studies will be provided for group breakouts to discuss and brainstorm ways to improve circularity of water to eliminate wastewater, preservation of water resources, sustainability, and resiliency. The current state of practice, opportunities for improvement, challenges, and barriers will be discussed. Exploration of topics includes how to minimize by-products and waste, minimize consumption, include opportunities for carbon capture, maximize reuse best practices, and alternative delivery/finance approaches.

- |         |   |
|---------|---|
| 1:00 pm | Welcome   |
| 1:10 pm | Introductions (at individual tables)  |
| 1:20 pm | Setting the Stage: What Does WEF Mean by “Circular Water Economy”?<br>Aimeé R. Killeen, President, WEF Board of Trustees  |
| 1:30 pm | State of Circular Water Economy for the Oil & Gas Industry <ul style="list-style-type: none"><li>▪ Relevant Elements</li><li>▪ Key Considerations for Water</li><li>▪ Strategic Enablers</li><li>▪ Drivers to and from Water Circularity</li><li>▪ Foundational Elements of the O&amp;G Industry</li></ul> Facilitated by Tom Sandy, Brown and Caldwell<br>and Rusty Smith, Texas Produced Water Consortium |
| 1:50 pm | Breakouts to discuss in relation to the Circular Water Economy<br>Overview of Breakout Case Studies   |
| 2:00 pm | Whole Group Breakout Case Study Example<br>Key Consideration and Report Out Discussion <ul style="list-style-type: none"><li>• State of practice (linear and circular)</li><li>• Opportunities for improvement</li><li>• Challenges</li><li>• Barriers</li><li>• Advancement solutions</li></ul>  |

2:15 pm	Break
2:30 pm	Small Group Breakouts
3:30 pm	Reporting
3:50 pm	Wrap Up
4:00 pm	Deep Dive Concludes

## **Deep Dive B**

### **Introducing the ESG Game Experience: Ignite Sustainability and Collaboration**

**1:00 pm – 4:00 pm**

*(Limit 20 participants)*

Are you ready to embark on a transformative journey towards a more sustainable future? Introducing the ESG Game Experience – a dynamic and immersive simulation designed to empower your team with the knowledge, skills, and strategies to implement impactful Environmental, Social, and Governance (ESG) practices.

A simulation game for four teams of up to 5 people, the ESG Game Experience sets the stage with a carefully curated selection of ESG themes, each forming a gateway to a realm of innovation and responsible business practices. Your team will dive into captivating topics such as Employee Relations, Community Engagement, Climate Change, etc. Every theme begins a remarkable adventure, leading your team toward sustainable success.

Empower your team to lead the way in environmental stewardship, social responsibility, and sound governance. Join us to embark on your ESG Game Experience and become a catalyst for a brighter, more sustainable future.

The game will guide you along the following path of discovery:

#### **Unveil the Path to ESG Excellence**

The ESG Game Experience sets the stage with a carefully curated selection of ESG themes, each forming a gateway to a realm of innovation and responsible business practices. Your team will dive into captivating topics such as Employee Relations, Community Engagement, Climate Change, and many more. Every theme sparks the beginning of a remarkable adventure, leading your team toward sustainable success.

#### **A World of Choices and Action**

Your journey continues as your team selects a theme in Phase 1, igniting a cascade of choices and decisions that mirror the real-world challenges faced by today's businesses. Will you embrace Circular Economy principles? Champion Gender Diversity? Promote Safe Working Conditions? You hold the reins, and your choices shape the path to progress.

#### **Empowerment Through Learning**

In Phase 2, knowledge becomes power. Teams explore their chosen ESG domain, crafting strategies and solutions that breathe life into their aspirations. This is where theory meets action, where teams forge alliances, and where innovation takes center stage. Engaging tasks and challenges guide your team, enhancing collaboration and transforming concepts into tangible impact.

### **Navigating the Unexpected**

Phase 3 introduces a twist – the unpredictable. Teams will encounter unexpected challenges, mirroring the ever-evolving landscape of sustainable business. Adaptability, resourcefulness, and strategic thinking will guide you through these uncharted waters, ensuring your ESG initiatives stand strong against any tide.

### **Victory of Transformation**

In the end, one team emerges victorious, having achieved the most remarkable transformation on their ESG journey. But in the ESG Game Experience, every participant wins. The wisdom gained, the bonds forged, and the strategies uncovered are shared triumphs that empower your entire team to make a positive impact, both individually and collectively.

## **Monday Evening Welcome Reception**

**5:00 pm – 6:30 pm**

To kick off the Circular Water Economy Summit, join us for a welcome reception with sustainability executives, decision-makers, and thought leaders from companies and municipalities that are successfully turning waste streams into value streams.

*Sponsored by Xylem*

## Day 1: Tuesday, July 16, 2024

### 8:00 am – 6:30 pm

*A breakfast buffet will be available in the foyer at badge pickup, 7:00 am – 8:00 am, with morning programming running from 8:00 am-Noon, followed by a luncheon Noon – 1:00 pm. Afternoon programming runs from 1:30 pm – 5:00 pm followed by the networking reception 5:00 pm – 6:30 pm.*

### Opening Session

#### 8:00 am – 10:00 am

Early circular water principles can be found in indigenous practices that embraced a respectful approach to water and to nature as a whole. Water was and continues to be revered by many of these cultures. A special screening of *Our Blue World* and accompanying panel discussion will open the Summit and further “explore humanity’s profound relationship with water.”

View the [Our Blue World - A Water Odyssey](#) trailer.

- 8:00 am Welcome to the Circular Water Economy Summit  
Aimeé R. Killeen, WEF President  
Ralph Exton, WEF Executive Director  
John Ikeda, WEF Chief Mission Officer
- 8:15 am Biosphere 2: Ecotechnic Laboratory for Circular Economy Air Purification,  
Wastewater Recycling and Food Production  
Mark Nelson, Institute of Ecotechnics
- 8:45 am Water and the Sacred Circle  
Travis Numan, University of Nevada-Reno
- 9:15 am Our Blue World Vignettes and Panel  
Facilitated by Aoife Kelleher, BlueTech Research

### World Café / Small Group Roundtable Discussions

#### 10:00 am – 10:30 am

Connect in small groups with other CWE Summit participants to learn what brought them to the Summit and what they hope to take away from this experience.

#### 10:30 am – 11:00 am Networking Break

### Session 1

#### Future Forward – AI in Circular Water Economy

#### 11:00 am – Noon

Fast-forward to the present day, Artificial Intelligence (AI) has become a part of the common vernacular. People in various industries are already tapping into the power of this new tool to improve and inform systems. A second-panel discussion hosted by thought leaders and practitioners will help uncover the power of AI and the potential behind this tool for water circularity.

The following speakers will discuss the traditional ancestral ways of integrating circularity into water practices and how, with the tools available to us, we can enhance our processes.

- 11:00 am      Introductions  
John Ikeda, WEF
- 11:05 am      Future Forward – AI in CWE Panel  
Rober Bornhofen, DC Water  
Gigi Karmous-Edwards, Karmous-Edwards Consultants  
Edmundo Ortega, Machine & Partners  
Facilitated by Barry Liner, The Water Council

**12:00 pm – 1:00 pm Luncheon**

*Sponsored by AECOM*

**Innovation Showcase I**

**1:00 pm – 1:30 pm**

Discover how Imagine H2O's portfolio companies are driving the transition towards a more circular water economy through their innovation and technological advancements. During these 30 minutes, you will hear from various featured companies who are promoting a more resilient and resource-efficient future.

**Session 2**

**The Intersection of Innovation & Funding**

**1:30 pm – 3:00 pm**

Innovation and funding are critical spokes in the circular water wheel and are often identified as both opportunities and barriers. Their interdependency can make or break impactful movements. We've invited four prominent organizations in this space to showcase how they work to propel more sustainable technologies forward.

- 1:30 pm      Introductions  
John Ikeda, WEF
- 1:35 pm      Intersection of Innovation & Funding Presentations and Panel  
Lauren Greenlee, XPRIZE  
Charles Werth, Department of Energy (DOE) Advanced Research Projects Agency-  
Energy  
Earl Jones, DCVC  
Facilitated by Gregory Madden, H2O Innovation

**3:00 – 3:30 pm Networking Break**

**Session 3**

**Circular Flow Modeling**

**3:30 pm – 5:00 pm**

Lean in to learn from top researchers versed in circular flow modeling for nutrients and decarbonization. This micro-course will give participants a high-level overview of the science-backed knowledge surrounding why it is critical to understand flow models and how they can inform circular opportunities across various industrial verticals.

- 3:30 pm      Introductions  
John Ikeda, WEF

- 3:35 pm      Sally Brown, University of Washington
- 4:00 pm      Angela Fasnacht, Princeton University
- 4:30 pm      Small Group Exercise  
During the last half-hour participants will put circular flow modeling into practice together as a group.

## **Tuesday Networking Reception**

### **5:00 pm – 6:30 pm**

Grab a drink and snacks and connect with other participants and speakers met earlier today. Or, if the vignettes shown in the Opening Session wasn't enough, come watch the full-length film, *Our Blue World*, discussing themes together with other Summit guests.

*Sponsored by Arcadis and Grundfos*

## Day 2: Wednesday, July 17, 2024

**8:00 am – 4:30 pm**

*A breakfast buffet will be available in the foyer at badge pickup, 7:00 am – 8:00 am, with morning programming running from 8:00 am-noon, followed by a luncheon Noon – 1:00 pm, and afternoon programming 1:30 pm – 4:30 pm.*

### **Welcome and Keynote Speaker**

#### **Technology Spotlight: Meta's Journey to Water Positive**

**8:00 am – 8:30 am**

Learn how Meta is making water the undercurrent of their sustainability strategy. Meta will highlight how water is moving through their organization with data centers, water restoration projects, and utility partnerships.

8:00 am        Welcome to CWE Summit Day 2  
                  Howard Carter, WEF Incoming President  
                  John Ikeda, WEF Chief Mission Officer

8:10 am        Tom Birmingham, Meta

### **Session 4**

#### **Industrial Symbiosis: From Policy to Practice**

**8:35 am – 10:10 am**

Adaptation has become a necessity in planning for circularity in industrial processes. Learn from trailblazing organizations that have found that power in numbers across non-traditional partners has created opportunities beyond the status quo. You will gain perspectives from policymakers, sustainable infrastructure experts, and municipal and industrial leaders.

8:35 am        Industrial Symbiosis: From Policy to Practice Panel  
                  Benedikte Borg Pedersen, Consul General and Head of Energy North America,  
                  Ministry of Foreign Affairs of Denmark  
                  Rep. Mike Chapman, Washington State Legislature  
                  Steve Worley, City of Vancouver, Washington  
                  Facilitated by Rhys Roth, Center for Sustainable Infrastructure  
                  and Robert Duff, Washington State Governor's Office

9:35 am        Small Group Exercise  
                  During the last half-hour of the session, participants will have the opportunity to  
                  conduct a simulated industrial symbiosis exercise.

### **10:05 – 10:30am Networking Break**

### **Session 5**

#### **Circular Water in Agriculture & Food Processing**

**10:30 am – 12:00 pm**

Water is required by nature to grow the food we depend on. This session will spotlight how circular water approaches inform best practices across various companies, from vertical agriculture to intelligent irrigation, food production, and distribution.



10:30 am      Introductions  
John Ikeda, WEF

10:35 am      Circular Water in Agriculture & Food Processing Presentations and Panel  
Daniel Baker, Manulife Investment Management  
Paul Bowen, Beverage Industry Environmental Roundtable  
Gopi Sandhu, Nestle-Purina  
Morgan Welch, U.S. Department of State (formerly at Bowery Farming)  
Facilitated by Tracy Ekola, Brown and Caldwell

## **12:00 pm – 1:00 pm   Luncheon**

### **Innovation Showcase II**

**1:00 pm – 1:30 pm**

Discover how Imagine H2O's portfolio companies are driving the transition towards a more circular water economy through their innovation and technological advancements. During these 30 minutes, you will hear from yet more companies who are promoting a more resilient and resource-efficient future.

### **Session 6**

#### **Drivers for Circular Water Strategies**

**1:30 pm – 3:00 pm**

Circular water strategies continue to infiltrate the dialogue across multiple sectors. From companies to utilities, institutions to governments, learn what drivers are guiding these decisions, where impacts are taking shape, and the potential of embedding these strategies into business as usual.

1:30 pm      Introductions  
John Ikeda, WEF

1:35 pm      Drivers for Circular Water Strategies Presentations and Panel  
Facilitated by Lucy Pugh, AECOM  
Betsy Hickman, Anthesis Group  
Matthew Jalbert, Trinity River Authority  
Pradipta Parhi J.P. Morgan

### **Closing Keynote and Remarks**

**3:30 pm – 4:30 pm**

3:30 pm      Elizabeth Fazio Hale, Gulf Coast Authority

4:15 pm      Closing Remarks  
Ralph Exton, WEF Executive Director

The CWE Summit concludes at 4:30 pm.

## CWE Summit Schedule At-A-Glance

### Monday, July 15, 2024

- |                   |  |
|-------------------|--|
| 1:00 pm – 4:00 pm | Pre-Summit Deep Dive A: The Relationship Between Circular Water Economy and Oil & Gas Industry<br>Pre-Summit Deep Dive B: Introducing the ESG Game Experience: Ignite Sustainability and Collaboration |
| 5:00 pm – 6:30 pm | Monday Evening Welcome Reception   |

### Tuesday, July 16, 2024

- |                    |                              |
|--------------------|------------------------------|
| 7:00 am – 8:00 am  | Badge Pickup and Breakfast   |
| 8:00 am – 12:00 pm | Morning Sessions             |
| 12:00 pm – 1:00 pm | Lunch                        |
| 1:00 pm – 5:00 pm  | Afternoon Sessions           |
| 5:00 pm – 6:30 pm  | Tuesday Networking Reception |

### Wednesday, July 17, 2024

- |                    |                            |
|--------------------|----------------------------|
| 7:00 am – 8:00 am  | Badge Pickup and Breakfast |
| 8:00 am – 12:00 pm | Morning Sessions           |
| 12:00 pm – 1:00 pm | Lunch                      |
| 1:00 pm – 4:30 pm  | Afternoon Sessions         |
| 4:30 pm            | CWE Summit 2024 Adjourns   |