



40
YEARS

2021 ANNUAL REPORT



**ASSOCIATION OF
METROPOLITAN
WATER AGENCIES**

LEADERS IN WATER

AMWA's primary objective is to be the unified and definitive voice for the nation's largest publicly owned drinking water systems on regulatory, legislative, and security issues. To this end, the association works with Congress and federal agencies to ensure safe and cost-effective federal drinking water laws and regulations and to develop federal-local partnerships to protect water systems and consumers against acts of terrorism.

AMWA is also committed to the collection and exchange of management, scientific, and technical information to support sound utility operations, effective utility leadership, safe and secure water supplies, and effective public communication on drinking water quality.

PRESIDENT'S LETTER



Dear Colleagues,

Forty years ago, 16 general managers of large publicly owned drinking water systems formed the Association of Metropolitan Water Agencies. Today, the group stands at nearly 200 utilities and over 25 subscribers. While much has changed since 1981, AMWA's commitment to its mission remains.

In 2021, the Biden Administration unveiled plans to fund water infrastructure upgrades, advance equity, implement climate resilience efforts, and better secure our drinking water supplies. It is not a coincidence that as AMWA celebrated its 40th anniversary, the water sector received historic levels of national recognition and awareness. There is a direct correlation between the association's decades of legislative and regulatory advocacy and recent federal investments.

As you read this annual report, I encourage you to reflect on the achievements of this association, not just this past year but during the last four decades. AMWA has persistently elevated water issues and amplified the voices of large water utilities by advocating for sound, equitable legislation in water infrastructure investment and financing, drinking water regulation, water sector security and disaster response, resilience and climate adaptation, and water quality and conservation that helps keep water service safe, accessible, and affordable for all Americans. In addition, through its utility management programs, AMWA continues to promote and support a diverse and well-trained workforce.

Finally, I would be remiss in not mentioning that CEO Diane VanDe Hei is leaving AMWA after leading the association through an extraordinary time of transformation and success. Her tenure certainly will have a lasting impact. As the baton of leadership passes, there is an opportunity for AMWA to continue to grow and innovate while providing steady and consistent leadership to the water sector.

I am excited for the next 40 years of essential and thought-provoking work that AMWA will undertake, with your help, as we all forge ahead. Thank you for your ongoing support and participation in this remarkable organization.



Sincerely,

A handwritten signature in black ink that reads 'Angela Licata'.

Angela Licata
AMWA President
Deputy Commissioner of Sustainability
New York City Department of Environmental Protection



AMWA played a crucial role in the development of once-in-a-generation infrastructure funding.

MAKING SIGNIFICANT STRIDES IN LEGISLATIVE ADVOCACY

AMWA's 40th anniversary year was a landmark one for the association's legislative advocacy. Not only did AMWA play a crucial role in the development of once-in-a-generation infrastructure funding legislation, but the association also helped to usher passage two of its longstanding priorities. The first was a new EPA program to help drinking water system infrastructure withstand the effects of climate change and extreme weather, and a second new initiative assists low-income households pay their water bills.

EPA's new Midsize and Large Drinking Water System Resilience and Sustainability Program was created as part of a bipartisan infrastructure bill signed into law in August, with AMWA's support. It is a direct descendant of a legislative proposal that AMWA first conceived in 2009, and its support on Capitol Hill has been building since then. Grant funds will be available to help drinking water systems pay for projects to address climate change, extreme weather, and cyber threats.

Congress also passed legislation in 2021 to establish new water affordability programs, aligning with the focus of the *Affordable Water, Resilient Communities* campaign led by AMWA and NACWA over the course of the year. A new temporary water affordability program at the Department of Health and Human Services was provided with \$1.1 billion this year, while Congress created a separate water affordability pilot initiative at EPA. AMWA plans to continue tracking water affordability efforts into the new year.

To address lead service lines, AMWA supported Congress' approval of legislation to provide \$15 billion for lead service line replacements through the Drinking Water State Revolving Fund. And AMWA supported House passage of another bill to provide \$9 billion to EPA grant programs to further address lead service lines and lead in schools, funding that would come through a lead reduction grant program that AMWA helped create in 2016.

Finally, AMWA's recognition as a leader in water utility cybersecurity solidified in 2021. Discussing the topic, John P. Sullivan of the Boston Water and Sewer Commission represented the association during a Senate hearing in July. AMWA also helped to develop Sullivan's November testimony when he spoke before the House on the same topic in November on behalf of WaterISAC.

As the calendar turns to 2022, AMWA will continue to stress the importance of drinking water access and infrastructure investment to lawmakers on both sides of the aisle.

CONTINUING A STRONG LEGACY OF REGULATORY ADVOCACY

For over twenty-five years, AMWA has been deeply involved with stakeholder engagements and discussions with EPA on the Lead and Copper Rule (LCR) and the Microbial and the Disinfection Byproducts (M/DBP) Rules, and 2021 was no exception. The association provided comments as EPA requested feedback from stakeholders on whether to amend the final rule on the LCR Revisions and on how to proceed with potential revisions to the M/DBP Rules.


One of the many regulatory actions the Biden Administration put on hold for review in 2021 was revisions to the LCR. After delaying the rule, EPA proceeded with a series of public webinars. AMWA joined over twenty organizations to discuss concerns identifying and addressing lead in drinking water, communication, and public outreach with the agency. AMWA continued to engage with the Regulatory Committee and the LCR workgroup to review and strengthen the association's positions regarding the LCR and submitted comments to highlight additional components AMWA wanted to be retained in any final rulemaking.

AMWA staff also participated in several EPA stakeholder engagements on potential areas for revision for the M/DBP Rules. In addition, Frank Sidari, from AMWA member utility Pittsburgh Water and Sewer Authority, presented at one meeting about utility best practices and challenges with addressing microbial pathogens.



A scientist collects water for testing.

AMWA joined with water and environmental advocacy organizations in a letter and subsequent meeting, urging EPA to pursue a Negotiated Rulemaking Procedure for any possible revisions to the M/DBPs Rules. The outcome of this collaborative process for the 1996 Stage 2 Rules was highly successful in advancing public health protection and negated the real potential for drawn-out litigation. EPA will move forward, instead, with a workgroup chartered under the National Drinking Water Advisory Council, and AMWA nominated its member Rosemary Menard from the City of Santa Cruz to participate.



For more than twenty-five years, the association has been deeply involved with stakeholder engagements and discussions with EPA on the LCR and M/DBP Rules.

CELEBRATING 40 YEARS: LEADERS IN WATER



- **1981** Sixteen large publicly owned water systems formed AMWA to represent the unique needs of metropolitan utilities before Congress and federal agencies.
- **1981** The first annual meeting was held in St. Louis, Missouri, and Kansas City Pollution and Water Control Director Donald R. Boyd was selected as the association's first president.
- **1982** AMWA took its first policy steps by formalizing its positions on changes needed to the 1974 Safe Drinking Water Act (SDWA).



- **1987** AMWA recognized Director of Planning and Water Resources at Denver Water Kenneth Miller with the first Donald R. Boyd Award for extraordinary personal service in the drinking water field.
- **1988** AMWA presented the inaugural President's award to Donald E. Jackson of Kansas City Pollution Control and Water Department for his outstanding contributions to the improvement of water supply management.

- **1993** Negotiations on the Stage 1 Disinfectants and Disinfection Byproducts Rule concluded; AMWA played a key role in shaping the final agreement.
- **1995** AMWA published the first issue of the *Monday Morning Briefing*.
- **1996** President Clinton signed the 1996 Safe Drinking Water Act Amendments, which for the first time recognized risk tradeoffs and the need for science-based standard setting and established the Drinking Water State Revolving Fund; AMWA led advocacy efforts in support of legislative language, worked with Congressional leaders, and testified at hearings.

- **1998** AMWA expanded its core services to include utility management and leadership development.
- **1999** The first Unregulated Contaminant Monitoring Rule was promulgated, shaped by the monitoring data of AMWA member utilities.
- **2000** AMWA was appointed the sector lead on infrastructure security and established the Critical Infrastructure Advisory Group, which comprised the national water and wastewater associations.

- **2000** AMWA and the other national water and wastewater associations established the Water and Wastewater Leadership Center at the University of North Carolina.
- **2001** The first Gold Awards for Competitiveness Achievement were presented to 44 member utilities to help utilities to recognize utility and management excellence. This would become the first step in what is now AMWA's Awards Program, which includes the Platinum and Sustainable Awards.
- **2002** AMWA launched WaterISAC in cooperation with other leading national water and water associations to deliver all-hazards threat alerts and best practices to water and wastewater systems.
- **2003** AMWA filed amicus briefs with the Supreme Court in the historic water transfers cases in Florida and New York.
- **2005** AMWA was instrumental in defeating product liability protection for producers of the gasoline additive MTBE, which had been contaminating groundwater.
- **2006** The Long Term 2 Enhanced Surface Water Treatment Rule, the Stage 2 Disinfectants and DBP Rule and the Ground Water Rule were finalized; AMWA won critical modifications to help better protect public health and improve compliance.

- **2007** AMWA joined EPA and other water associations to launch a new effort to develop primers and guides on the attributes of effective utility management.
- **2007** AMWA and WaterSAC co-published *Business Continuity Planning in the Event of an Influenza Pandemic: A Reference Guide*, a first of its kind guide for the water sector.
- **2007** AMWA established itself as a leader in utility climate adaptation when it published *Implications of Climate Change for Urban Water Utilities* and formed the Climate Change Committee (later renamed the Sustainability Committee) to address long-term utility adaptation needs.
- **2008** AMWA created the International Committee to facilitate peer-to-peer exchanges of knowledge and ideas among utility managers around the world.
- **2009** The inaugural Utility Financial Information database, now called INSIGHT, launched to help large systems better understand the financial dynamics of peer utilities.
- **2009** AMWA and NACWA collaborated on the report *Confronting Climate Change*, which provided the first long-term estimate of the cost of adapting U.S. drinking water and wastewater infrastructure to climate change.
- **2009** AMWA worked with members of the House and Senate to develop the first federal legislation focused on helping water and wastewater utilities adapt to climate change and extreme weather.
- **2010** AMWA hosted Climate Change Impacts on Water – An International Adaptation Forum, composed of over 200 policymakers and water leaders from the U.S., Europe, and Asia, to foster knowledge sharing on climate change implications and adaptation.
- **2010** AMWA hosted the primer *Insurance, Bond Ratings and Climate Risks*, which describes the growing interest bond rating agencies and insurance companies have in climate change and its effects on utilities.
- **2011** AMWA joined the social media movement by tweeting as @amwa_water.
- **2012** AMWA joined the social media movement by tweeting as @amwa_water.
- **2014** The AMWA-backed Water Infrastructure Finance and Innovation Act (WIFIA) of 2014 passed, establishing a new source of low-cost loan financing for major water infrastructure projects.
- **2016** AMWA aided in crafting a program to help communities and low-income households pay for lead service line replacements as part of the Water Infrastructure Improvements for the Nation Act of 2016.
- **2017** The Utility Financial Information survey was rebranded as INSIGHT with the addition of the dashboard.
- **2018** AMWA supported enactment of America's Water Infrastructure Act of 2018, which carried a number of association priorities, including reauthorizing the DWSRF and WIFIA, a new water system resilience and sustainability program, and codifying the ability of community water systems to distribute consumer confidence reports electronically.
- **2019** AMWA published the primer *Insurance, Bond Ratings and Climate Risks*, which describes the growing interest bond rating agencies and insurance companies have in climate change and its effects on utilities.
- **2020** AMWA responded to the COVID-19 pandemic by providing a wealth of new resources, hosting a series of webinars, developing financial impact surveys for water utilities, and hosting its first virtual Executive Management Conference.
- **2021** AMWA and NACWA co-launched the *Affordable Water, Resilient Communities* campaign to increase awareness among federal lawmakers, stakeholders, and the public about the importance of providing affordable water to support public health and strong communities.



SHARPENING FOCUS ON SUSTAINABILITY VIA UTILITY RESILIENCE

The communities AMWA members serve rely on utilities providing safe drinking water. Sustaining an effective utility requires resilience to both expected and unexpected threats, events, and circumstances. AMWA's sustainability program continues to serve members by helping them become more resilient to myriad situations that arise.

In December, after more than two years of planning, AMWA, together with NACWA and in collaboration with the Water Research Foundation and WaterISAC, held the Water Utility Resilience Forum in Miami a year after its originally planned date. Over 160 attendees heard from decisionmakers at utilities, engineering firms, energy companies, and other local government agency representatives about building community resilience to climate change, extreme and unexpected weather, supply chain disruptions, and cyber threats. Speakers primed attendees to address needs considering the pandemic, a changing workforce, financial resilience amid uncertainty, and equity and environmental justice issues. Through interactive panel discussions and breakout sessions, the program provided insights and case studies to help water utility managers continue to address the resilience challenges of today while discovering new tactics to help face future obstacles.

AMWA also continued in its pioneering work highlighting utilities' foray into the green bond market by releasing, *Revisiting the Growing Green Bond Market: AMWA Member Perspectives*. The paper was the third for AMWA on the topic in the last five years and focuses on seven utility

case studies. Recognizing the unique circumstances of each situation, the case studies examine the utilities' reasons for, and benefits observed from, issuing green bonds.

AMWA also highlighted expertise and insights from members and subscribers during a webinar focused on anticipating and mitigating COVID-19 related increases in commodity and construction schedules.



Above: Aerial photos show the Lake Stanley Draper Reservoir in Oklahoma City before (top) and after (bottom) OCWUT completed erosion control measures to reduce turbidity in the lake.

Photo Right: Jonna Papaefthimiou, Chief Resilience Officer, Portland Bureau of Emergency Management, and Ghassan Korban, Executive Director, Sewerage and Water Board of New Orleans, pictured at Resilience Forum.

AMWA's sustainability program continues to serve members by helping them become more resilient to myriad situations that arise.



PROMOTING BEST PRACTICES AND SOLUTIONS IN UTILITY MANAGEMENT

Since its inception in 1998, AMWA's utility management program has expanded, serving as a source of vital data and information for water executives.

In early 2021, AMWA published the analysis and trends of its seventh biennial INSIGHT survey and made the updated database and dashboard available to the survey's 91 participants. This top management tool allows participating AMWA members to access comparative data from peer utilities. AMWA also hosted a webinar with Raftelis that provided participants an update on utility financial metrics reported in the survey.

AMWA's Executive Management Conference (EMC) made a triumphant and welcome return to in-person in Denver, Colorado, in October. Members and subscribers shared lessons learned on pertinent utility topics, including workforce, diversity, equity, and inclusion, cybersecurity, emerging contaminants, and more. Attendees also networked with colleagues and celebrated AMWA's milestone 40th anniversary at the event.

In addition, the 2021 awards program honored four winning utilities at the EMC.

- Knoxville Utilities Board was honored with the Sustainable Water Utility Management Award, the highest attainable award from AMWA, for the first time.
 - Denver Water became a second-time recipient of the top honor.
- AMWA collaborated with NACWA, AWWA, and WEF to plan for the 2022 Water & Wastewater Leadership Center at the Kenan-Flagler Business School at the University of North Carolina Chapel Hill (UNC). To address the needs of the changing water sector, the associations engaged UNC to update the leadership curriculum to include affordability, diversity, equity, inclusion, and resilience. The submission period closed in December 2021, with the 2022 session reaching its maximum capacity of 30 participants.
- Other 2021 utility management initiatives included: 10 member-to-member inquiry reports posted to the AMWA website; ongoing partnership with EPA to promote the agency's webinar series designed to address the challenges of recruiting, training, and retaining a resilient and diverse water workforce; and staff and member participation in and promotion of the Value of Water campaign's annual poll findings, United for Infrastructure Week, and Imagine a Day Without Water.
- Cobb County-Marietta Water Authority received a Gold Award for Exceptional Utility Performance.
 - AMWA recognized Oklahoma City Water Utilities Trust with the Platinum Award for Utility Excellence.

As water utilities navigated operating in the “new normal,” AMWA anticipated needs and responded to members with timely information and resources.



The opening panel at the 2021 Executive Management Conference discussed the challenges and changes utility leaders have experienced over the last two years.



*AMWA and WaterISAC
were invited to testify on
the threat environment and
efforts to secure utilities.*

ADDRESSING CRITICAL INFRASTRUCTURE CYBERSECURITY

Water sector cybersecurity made headlines last year, as 2021 saw the suspected hacking of a Florida water system's industrial control system that endangered the health of thousands of people. Coupled with the ransomware attack and shutdown of a gas pipeline, the attack drew an unexpected and sustained level of scrutiny by the White House, Congress, and the media of the sector's cybersecurity posture.

Many bills were introduced in Congress to address critical infrastructure cybersecurity, and both AMWA and WaterISAC were invited to testify on the threat environment and efforts to secure utilities. Meanwhile, AMWA and WaterISAC partnered with other members of the Water Sector Coordinating Council to conduct a survey that revealed the sector has far to go to increase cybersecurity. And EPA began ramping up efforts to create a new regulatory program as part of the sanitary survey program. AMWA and other drinking water associations united to express opposition to this course of action, which the groups labeled as ineffective, urging EPA to collaborate with the sector on a better approach. Also, AMWA's board and Security Committee, chaired by East Bay Municipal Utility District General Manager Clifford Chan, met to discuss regulatory options, and AMWA began working with Sen. Ed Markey (D-MA) on legislation to fund cybersecurity efforts and increase WaterISAC membership.

Supply chain issues also became a challenge for utilities, which experienced shortages of treatment chemicals, parts, and electronics. To shine a light on the issue, AMWA invited members to discuss their experiences on a webinar and at the Water Utility Resilience Forum in December.

Also, AMWA and WaterISAC continued to support their members against not only cyber threats but also natural disasters and the threat of anti-government extremists in 2021. Managed by AMWA, WaterISAC issued nearly 1,000 threat alerts, provided mitigation best practices from experts, hosted 13 webinars and briefings, and spoke at 15 events. In addition, for the first time, WaterISAC partnered with EPA to produce joint threat advisories, which exposed tens of thousands of utilities to WaterISAC.

AMWA continued to support its members serving on the Water Sector Coordinating Council, a body of utility managers that advises EPA and the Cybersecurity and Infrastructure Security Agency on programs. Members included John P. Sullivan, Boston Water and Sewer Commission; Dean Dickey, Prince William County Service Authority (now retired); and Calvin Farr, Jr., Prince William County Service Authority.

CONNECTING MEMBERS AND ADVANCING ON-THE-GROUND ISSUES

Building on a long tradition of coupling networking opportunities with providing salient information to members, AMWA staff initiated regular video roundtable calls last year. These calls provide an opportunity for new and existing member representatives to hear about the association's latest programs.

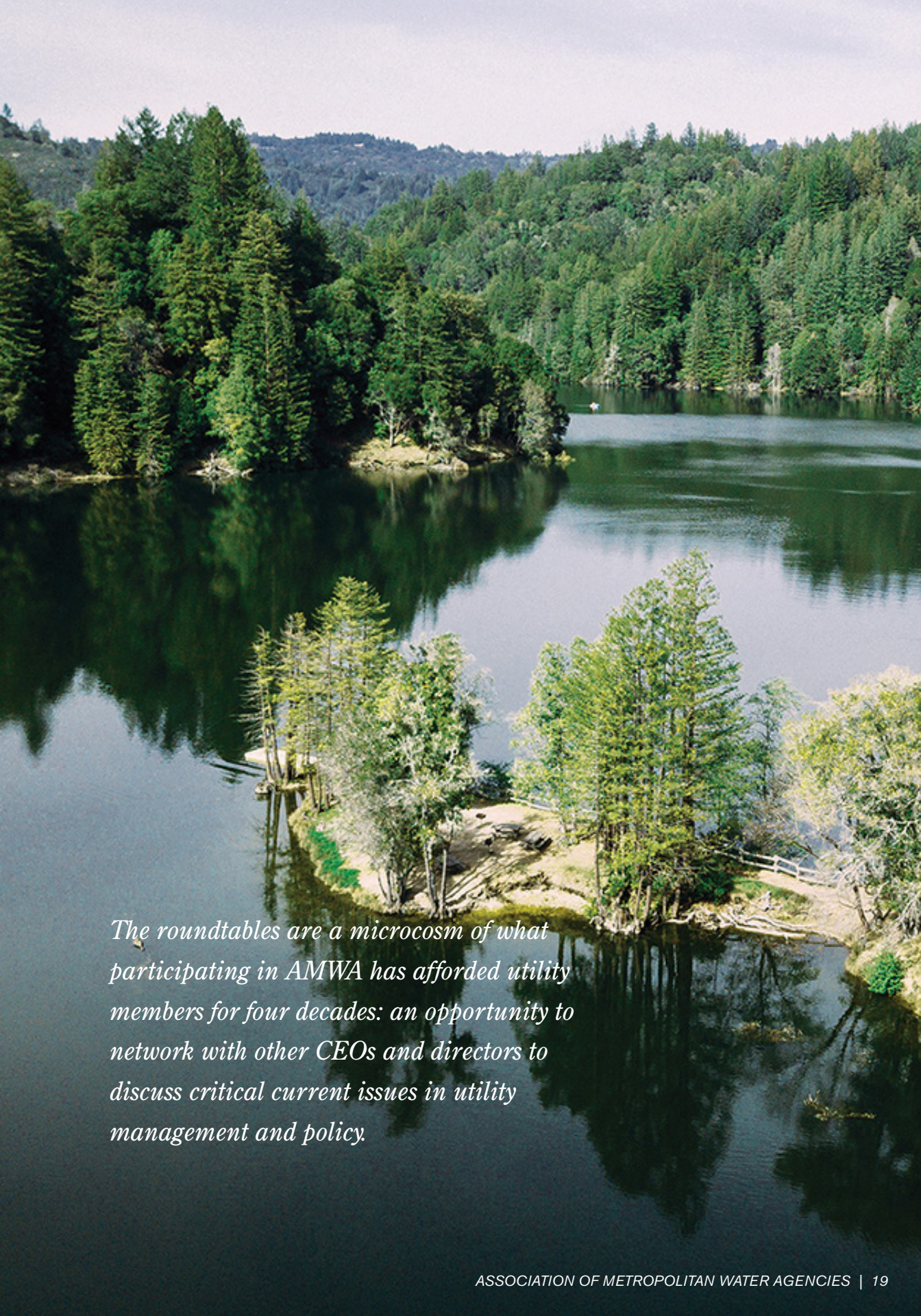
Perhaps more importantly, the sessions allow new contacts to share their utilities' current goals and challenges with a small group of peers. Often, new member

contacts connect over shared experiences, and AMWA staff also has an opportunity to point attendees to the work the association is doing in its advocacy and management programs that correlate to members' situations on the local scale. The roundtables are a microcosm of what participating in AMWA has afforded utility members for four decades: an opportunity to network with other CEOs and directors to discuss critical current issues in utility management and policy.



Above: Long Lake Dam on the Spokane River

Photo Right: Loch Lomond Reservoir, City of Santa Cruz Water Department



The roundtables are a microcosm of what participating in AMWA has afforded utility members for four decades: an opportunity to network with other CEOs and directors to discuss critical current issues in utility management and policy.

MAINTAINING ROBUST PARTICIPATION IN THE ASSOCIATION

Despite the ongoing challenges of the pandemic, AMWA members actively participated in the association. While running world-class utilities and serving their communities, AMWA members continued to chair and serve on committees, present and moderate conference sessions, provide expert testimony, and represent the organization on stakeholder meetings, among other activities.

AMWA 2021 COMMITTEE

CHAIRS INCLUDED:

Legislative Committee – Jeff Szabo, Suffolk County Water Authority

Regulatory Committee – Ron Lovan, Northern Kentucky Water District

Utility Management Committee – Marshall Brown, Aurora Water

Security Committee – Clifford Chan, East Bay Municipal Utility District

Sustainability - Rosemary Menard, City of Santa Cruz and Chris Browning, Oklahoma City Utilities Trust

Policy Resolutions Committee - Cathy Bailey, Greater Cincinnati Water Works

International Committee – John Sullivan, Boston Water and Sewer Commission

AMWA members continued to serve on committees, present at conferences, provide expert testimony, and support association activities.

Jeff Szabo, Suffolk County Water Authority, represented the association on EPA's National Drinking Water Advisory Council.

AMWA representatives at EPA's Lead and Copper Rule Stakeholder Dialog were Angela Licata, New York City Department of Environmental Protection, and Cathy Bailey, Greater Cincinnati Water Works.

Frank Sidari, Pittsburgh Water and Sewer Authority, spoke at EPA's Microbial and Disinfection Byproducts Stakeholder Meeting on behalf of the association in July 2021.

AMWA's witness for a July 21, 2021, Senate Environment and Public Works Committee hearing on critical infrastructure cybersecurity was John Sullivan, Boston Water and Sewer Commission.

In addition, a special thanks to all of the AMWA members who reviewed AMWA award applications, participated in the 2021 Virtual Water Policy Conference, presented and moderated at the 2021 Executive Management Conference, spoke on webinars, and lent their expertise to the Water Utility Resilience Forum.

Diane's energy and devotion will be hard to match, but she has well-positioned AMWA for continued success.



THANKING 32-YEAR CEO FOR STELLAR LEADERSHIP

As AMWA reached its milestone 40th anniversary, its long-serving Chief Executive Officer Diane VanDe Hei announced her 2022 departure from the association. “It is with both sadness and optimism that I tell you that I am leaving the Association of Metropolitan Water Agencies [AMWA] on March 15, 2022,” VanDe Hei wrote in the December 20 Monday Morning Briefing message. “It was an extremely difficult decision to make and one that I found myself pondering off and on for some time. AMWA is a great organization with exceptional people who I consider friends and close colleagues. I have no doubt you will be left in great hands,” VanDe Hei added.

One of the first and most prominent women in water, Diane has been an effective, dedicated, and transformational leader. She oversaw AMWA’s expansion from legislative and regulatory issues into utility management issues, including those focused on sustainability and climate resilience. Simultaneously, she led WaterISAC for 20 years, and the organization provided needed physical security and cybersecurity threat information and resilience best practices to drinking water and wastewater systems throughout the U.S. and in Canada and Australia. In addition, Diane played an integral role in getting the Safe Drinking Water Act Amendments of 1996 passed, among many other notable achievements.

The AMWA Board of Directors and the staff offer their sincere gratitude to Diane for her decades of innovation and tireless effort to advocate in the best interests of the nation’s largest publicly owned drinking water systems.

AMWA 2021 OFFICERS AND BOARD OF DIRECTORS

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New York City
Department of
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Tad Bohannon
Central Arkansas Water



Carrie Lewis
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Prince William County
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Randy Hayman
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Timothy Thomure
City of Tucson



Robert Hunter
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of Orange County



Paul Vojtek
Erie Water Works



Ghassan Korban
Sewerage and Water
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Michael Arceneaux
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Erica Brown
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40 ASSOCIATION OF
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