registered attendees from across the United States

381

of water spending occurs at the local level

95%

36 states represented nationwide

76%
of attendees are exploring new technologies and/or localized and green infrastructure strategies to stretch water supplies or address water quality issues in their community

75%
of attendees said financing is a limiting factor for non-traditional water conservation, stormwater management, and/or water treatment programs in their community
Keynote Speakers

**Clarence Anthony**  
*CEO and Executive Director, National League of Cities*

Clarence Anthony leads the largest and oldest organization representing America’s cities and their leaders. Mr. Anthony reflected on his experience advancing policies that expand local control and provide direct funding for infrastructure and sustainability programs, providing insight into challenges our local leaders are currently navigating. With the anticipation of funding from our current presidential administration, water infrastructure will play a critical role in our nation’s future.

**U.S. Representative Jared Huffman**  
*Chair, Natural Resources Subcommittee on Water*

U.S. Rep. Jared Huffman is one of Congress’ foremost leaders on water issues, championing a range of short and long-term solutions to ensure water supply and enable new clean water infrastructure. Rep. Huffman shared his optimism for the opportunity to strategically address water challenges in a new political administration and discussed how he is encouraging ambitious plans to make monumental improvements to water infrastructure, including prioritizing funding for water.

**Michael Nutter**  
*CNN Commentator and Former Mayor of Philadelphia*

Michael Nutter is a life-long Philadelphian, born and raised in West Philadelphia and educated at the Wharton School at the University of Pennsylvania. His accomplishments in launching the Green City, Clean Waters program as Mayor built one of the greenest cities in the country. Mayor Nutter emphasized the importance establishing these goals and highlighting the partnerships that made it a reality. Connections to the community and history of the city shaped and informed his political leadership.
WaterNow's Impact Awards honor public water leaders who have had meaningful impact in catalyzing climate resilient, environmentally sustainable, affordable and equitable water solutions in their communities. This year, through the generous support of Spring Point Partners, WaterNow launched a new Impact Award category -- the Emerging Leader Award. This Award is designed to elevate and celebrate young water professionals who have demonstrated extraordinary passion, initiative, and promise in advancing change in the areas of sustainability, equity, or community engagement in their water agencies.

WaterNow was very honored to have U.S. Rep. Jared Huffman present the WaterNow Impact Awards this year along with special Congressional Certificates of Recognition. Thanks to Congressman Huffman and congratulations to all of our winners!

Watch the Impact Awards Ceremony on WaterNow's YouTube Channel

Leadership Award Winner

Ann Mullins
Councilmember, City of Aspen, Colorado

Ann Mullins has been a landscape architect for over 40 years, working throughout the country on diverse projects. She graduated from Wells College, Aurora, NY with a Bachelor's of Science in Mathematics. In 2013, Ann successfully ran for Aspen City Council and was re-elected in May 2017. Through her unwavering support and guidance on the Roaring Fork Regional Water Efficiency Plan, the City of Aspen’s Water Efficiency Plan, the development of the Water Efficient Landscape Standards and the City's Qualified Water Efficient Landscaper Program, Aspen has become a model for smart and practical water demand management across Colorado and the Basin states.
The Central Arkansas Water Board of Commissioners represent the nearly 500,000 residents who receive their water from Arkansas’ largest drinking water utility. In 2020, the Board showed exemplary leadership with the issuance of the first-ever certified green bond to protect forests for drinking water quality, signaling a new era for green infrastructure investments and ensuring affordable, high quality water for generations to come. This Commission’s overall commitment to long-term resilience, innovation, and equity represents the best of public stewardship.

Mayor Ras J. Baraka
City of Newark, New Jersey

Mayor Baraka is the 40th Mayor of the City of Newark, whose family has lived in the city for more than 80 years. Mayor Baraka’s progressive approach to governing has won him accolades from grassroots organizations to the White House. His commitment to reducing crime in Newark, tackling the city’s housing crisis, replacing all lead service lines in the water system, and developing innovative and community-driven approaches to eliminating income inequality has solidified his status as one of the country’s most progressive elected officials. Mayor Baraka has demonstrated a strong commitment to improving water quality since taking office in 2014. Under his leadership, Newark launched an ambitious Lead Service Line Replacement program that has replaced 95% of the City’s 18,000 LSLs. Mayor Baraka’s advocacy for ensuring equity in services and safe access to water supplies for vulnerable populations is an inspiring national model for communities nationwide.
Meagan Williams is the Stormwater Program Manager for the City of New Orleans Department of Public Works. Meagan's work focuses on the planning and implementation of innovative stormwater management practices and technologies needed to meet the ever-growing need for flood mitigation. Meagan spearheaded the Pontilly Neighborhood Stormwater Project to reduce flood risk and beautify local green spaces. This project is helping to build resilience in historic communities that faced severe damage from Hurricane Katrina and decades of losses due to flooding.

Breanne Plier is a certified planner who specializes in program development and management, grant writing, and community engagement. She has over 10 years of experience developing and managing green infrastructure programs and developed several of the Milwaukee Metropolitan Sewerage District's (MMSD) green infrastructure programs. Breanne created the Fresh Coast Protection Program to scale up funding for green stormwater infrastructure projects, making the region more resilient in the face of increasingly severe storms. She is simultaneously generating workforce development opportunities in her community through GSI implementation.
Cathleen Chavez-Morris is an Environmental Supervisor with Los Angeles Department of Water and Power. During her 9-year tenure with LADWP, she has managed outreach, education and partnership programs aimed at encouraging customers to reduce water waste and use water more efficiently. Customer programs under her supervision include sustainable landscape workshops, turf replacement design services and the distribution of home water reports to single family residential customers. Cathleen has led efforts to expand water conservation outreach in Spanish-speaking communities with creativity and innovative ideas.

Elizabeth Gillitzer-Gallardo is the Revenue Supervisor for the Aurora Water Billing Department. She is responsible for managing revenue, billing, and all matters pertaining to collections. As a seasoned professional with more than 15 years of experience in customer service and 7 years in utilities, Elizabeth is known for her extensive knowledge of the water department and project management skills. She implemented Aurora Water Cares, an assistance program that helps customers pay a portion of their water bill. Elizabeth created the program in response to the need she saw to support residents struggling with water bills when she joined the Billing Department. Since its inception, AWC has helped hundreds of families avoid water shutoffs and fines and is rapidly becoming a national model.
Powerful Partnerships: Equity & Stakeholder Engagement in Nonprofit Municipal Programs

We heard from utility and NGO partners representing four highly successful collaborations tackling everything from ensuring access to water and sanitation for the Village of Hobson in Virginia in partnership with SERCAP; building green infrastructure playgrounds in Chicago through the Space to Grow program, a partnership between multiple utilities and the Healthy Schools Campaign; the community-driven movement centered on human health, growing economic opportunities, improving water quality, and overall quality of life for the City of Camden, its residents, and the Delaware River watershed through green and grey stormwater management, implemented by multiple partners of the Camden SMART Initiative; and low-income utility bill assistance, affordability, job training, and professional development through the partnership between the City of Aurora and the Mile High Youth Corps.

Key Takeaways:

- The best opportunities for partnerships involve multi-benefit solutions -- such as green stormwater infrastructure, playgrounds, and community spaces that are safe, engaging, aesthetically pleasing, and accessible.
- Partnering with organizations such as AmeriCorp focused on job training and employment to implement environmentally sustainable water solutions provide additional community benefits while make utility bills more affordable.
- Focus on triple impact: youth impact, community development and sustainability.
- Provide information to community so they understand the benefits for them and why these programs are necessary.

Watch the Recording

Everyone has a different set of goals, but a common mission. Leverage each other’s experience and expertise and not reinvent any wheels.

Meg Kelly
Director, Space to Grow, Healthy Schools Campaign
Powerful Partnerships: Equity & Stakeholder Engagement in Nonprofit Municipal Programs
Future of Water Infrastructure

Going Big on Resilience: The Mid-Atlantic Model for Regional Green Collaboration

This session brought together key leaders to delve into the extraordinary work taking place in the Mid-Atlantic region to advance sustainable water strategies, including the unique watershed, collaborative approach to protecting water resources across the Delaware River Basin. Speakers covered a wide variety of topics including: local green stormwater programs, success in addressing equity and affordability challenges, the importance of strong local water champions, innovative financing and philanthropy to accelerate localized infrastructure and more. We can’t wait to catch-up again with these innovative, dedicated regional leaders in Philadelphia for WaterNow’s Annual Summit in Spring 2022!

Watch the Recording

“Central management of a decentralized strategy is what needs to be chronicled. The whole city can be a wastewater treatment “plant.” So glad you’re working on this!

Carol Steinfeld
Session Attendee
Future of Water Infrastructure

East Meets West: Onsite Reuse & Water Use Efficiency

Efficiency is not just for the drought stricken West anymore—communities nationwide are struggling to ensure water supply reliability in the face of climate change and other challenges. This panel of onsite reuse and water use efficiency experts engaged in a lively discussion about some of the most innovative and affordable solutions out there to help communities across the country meet these challenges.

Key Takeaways:

- There is strong consensus that onsite reuse and water use efficiency strategies need to be key elements of water supply portfolios to help build long term reliability and resilience.
- Water efficiency provides environmental, economic, and customer engagement benefits that directly affect the communities in which they exist.

Audience Poll:
What are the top three multiple benefits that would make a strong case for your utility or organization to invest in water use efficiency and/or onsite reuse?

- 15% Energy savings and reduced greenhouse gas emissions
- 5% Improved public health
- 19% Increased affordability and more equitable access to water
- 11% Reduced burden on centralized infrastructure
- 7% Increased open space / increased urban green space
- 8% Reduced localized flooding
- 15% Increased resilience
- 18% Delayed or deferred investments in centralized infrastructure and/or avoided costs
- 3% Other - type your response(s) in the “chat” tab

27% of session attendees agree that onsite reuse and water use efficiency need to be key elements of a water supply portfolio and help build long term reliability and resilience.

Watch the Recording
Getting the Lead Out

Lead is a public health scourge nationwide and cities are scrambling to address the new Lead and Copper Rule and keep their citizens safe. In this panel, some of the country’s foremost experts discussed how communities are “getting it done” and implementing successful service area-wide lead service line replacement programs. The panelists described their approaches, shared strategies for building public support and engagement, and discussed the types of financing and resources available to support communities.

Key Takeaways:

- There is strong bi-partisan support for lead service line replacement programs. The Biden Administration’s American Jobs Plan includes a **goal to replace 100% of the country’s lead pipes and service lines – the first time the government has proposed such a sweeping mandate.**
- This would be partially paid for with a new $45 billion authorization in EPA’s Drinking Water State Revolving Fund and in Water Infrastructure Improvements for the Nation Act grants. If this proposal is enacted, it would bring critical visibility and support to lead service line replacement efforts.
- It is vital to engage local communities and to (re)build trust, particularly after lead contamination in places such as Flint, Michigan have amplified concerns about safety and transparency. Panelists described approaches that range from tailoring outreach to specific communities, to offering free testing and public lead service line inventories and maps, to partnerships with trusted local organizations to share information and resources.
- Funding is crucial to lead service line replacement efforts, since it removes the customer cost share and enables utilities to move at greater speed, easier access to remove the lines. However, accessing and administering funds present major challenges, due to the time-intensive application and reporting processes, and the difficulty of finding private property owners to participate.

**Audience Poll:**
Which potential benefits are most important to your community when considering a green infrastructure project?

- 19% No, and we are not planning to develop one
- 6% No, but we plan to develop one
- 5% We are developing a program
- 25% We have implemented a program
- 50% Unsure
A Tap into Resilience favorite, Techsploration was back to showcase emerging water tech and how these systems can play a major role in local water management when deployed at scale. Attendees engaged directly with these 6 innovators to learn how these innovations can advance local water management and resilience goals affordably and sustainably.

Key Takeaways:

- With more people spending time at home due to the pandemic, there was an increase in water usage and home renovation projects, highlighting a need for consumer awareness of new technology.

- As the prevalence of the smart home category continues to expand dramatically, data sharing has become a topic of interest. Tech companies are carving out a major role in helping utilities to ensure compliance and building greater trust with their customers.

- Smart home technology can increase sustainability, but panelists agreed that it will take more time and effort to increase participation, as well as building consumer confidence in privacy protections.

Flume Smart Home Water Monitor
The nation’s water challenges are front and center – a towering bill for infrastructure, the intensifying impacts of climate change, growing water inequity and affordability challenges and a pandemic that has rocked communities nationwide. The panel explored the key water issues facing the nation—and what they mean for our communities—from the national view of the leading water and municipal organizations, as well as the perspective of two city leaders ultimately responsible for addressing these issues on the ground.

Key Takeaways:

- Top water issues facing the sector are aging infrastructure, affordability and access, attracting a diverse workforce amidst a pandemic, building public trust, and addressing the issue of climate change.
- Establishing partnerships is an important factor in addressing these pressing issues and makes solutions more accessible.
- There are opportunities to build trust at the local level. As water challenges make national headlines, public trust is essential.
- The COVID-19 pandemic has highlighted the need for equitable and affordable resources. Identifying areas where public utilities can come up with solutions that benefit all segments of the community will continue to be a priority.

“Working with other agencies in our communities to build training and education can help to also build trust within the community.”

Jacqueline Jarrell
Water Environment Federation
Immediate Past President
Community Success Stories

Climate Resilience Happens at the Community Level

Key takeaways:

- Even though water, energy and climate are inextricably linked, water is the often-overlooked issue in climate conversations.
- Local decision-makers play a critical role in sharing information with constituents about local climate impacts and how to build climate resilience.
- Many local communities are using innovative solutions to addressing climate-related impacts from watershed restoration to restore watershed after wildfires and on-site reuse options to address drought and supply challenges.
- Water can follow a similar path that the energy sector is taking by building resilience through decentralized systems and solutions.

What word reflects something new that you learned from this session?

- Collaboration
- Nexus
- Communication
- Resilience
- Planning
- Bipartisan
- Reuse
- Distributed
- Solutions
- Possibilities
- Changing
- Baselines
- Adaptability
- Team Game
- Education
- Translate
- Drought Fatigue
- Hindsight

Watch the Recording

Audience Poll:
What are the climate impacts your community is facing?

Poll Results:
Montgomery County DEP is a leader in using green stormwater solutions to address their stormwater management challenges and following the video tours, speakers shared their valuable hands-on experience of designing, installing and maintaining these systems.

Take a deep dive and explore these innovative solutions. Watch the recording on the WaterNow YouTube channel.

Audience Poll:
Which potential benefits are most important to your community when considering a green infrastructure project?

- 34% Reducing stormwater runoff
- 25% Providing access to open, green space for residents
- 19% Restoring natural features
- 19% Reducing the heat island effect

“It was kind of driven by the opportunity more than the equity, but we have really refocused on that and have put in a lot of effort to identify areas of disadvantaged populations.”
Douglas Marshall
Watershed Planner
Green Stormwater Infrastructure: Secrets for Success

“Greener” stormwater management can help communities mitigate flooding and address water quality challenges, but is it really infrastructure? Yes! These nature-based solutions work in conjunction with built infrastructure and provide vital co-benefits to communities such as green space, local job opportunities and enhanced public health. In this session, panelists shared their hard-won victories and secrets for success, and led break-out sessions diving into attendees’ questions and experiences.

Key Takeaways:
- Integrating green stormwater infrastructure into capital planning and financing requires strong engagement with constituents and with elected officials, as well as working across departmental silos.
- Metrics about green infrastructure’s performance and co-benefits help drive and justify these programs, as well as direct maintenance activities.
- Designing green stormwater infrastructure with maintenance in mind reduces maintenance costs down the road.
- Recruiting and training workforces to maintain green stormwater infrastructure is a common challenge. Utilities are increasingly turning to community members to help flag maintenance needs or to directly maintain sites.
- Technology can support green infrastructure projects across their life cycles, from locating the sites with the greatest potential benefits, to tracking infrastructure’s performance across its lifetime.

“Greener” stormwater projects can foster social and racial equity to a greater degree than more conventional built stormwater projects. Both capture water from large rain events limiting flooding and impacts to sewer systems, but GSI generates additional co-benefits, such as green jobs, access to green space in disadvantaged communities and increased public health benefits.
Water Infrastructure Finance and Innovation Act (WIFIA) Loans 101

WaterNow was very pleased to host U.S. EPA’s Water Infrastructure Finance and Innovation Act staff to for this workshop highlighting this low-cost loan program for water infrastructure. The workshop covered eligibility and statutory requirements, navigating the application process, and financial benefits and flexibilities of WIFIA loans. Participants also heard from current borrowers from Salt Lake City, Hampton Roads Sanitation District, and City of Morro Bay as tangible examples highlighting how WIFIA loans can help communities finance sustainable water management and provide tips to help others be a successful applicant.

Key Takeaways:

- A broad range of projects are eligible for WIFIA loans, including water recycling, drought resilience, and alternative water supply projects. Projects are evaluated under 3 categories of criteria: project impact, project readiness, and borrower creditworthiness.
- Flexibilities in how WIFIA loans can be structured provide ways borrowers can save money, including fixed, low interest rates, adjustable drawdown schedules, optional debt service deferral, long maturity timelines, and sculpted repayment schedules.

In Salt Lake City, 49% of its water reclamation nutrient project, which includes wetlands improvements to serve as treatment as well as habitat and public access benefits, is being financed by a WIFIA loan with a loan amount of $348.6M taking advantage of many of the cost-saving flexibilities with the remaining 51% of the cost being financed via municipal revenue bonds. These cost savings helped keep rate increases lower than they would have otherwise been.

Morro Bay, California, a small coastal community of about 10,700 residents, is using a $61.7M WIFIA loan to build an advanced treatment facility that will allow for potable reuse rather than discharge wastewater into the ocean. The project reflects a One Water approach where a prior wastewater treatment project was re-imagined, and re-engineered, as a water supply project to provide the City with a resilient, local water supply to meet growing demand. This multiple benefit project also opened the door for other funding opportunities meaning that the project is 100% funded with low-interest loans and grants.
Water 101 - A Workshop for Local Decision Makers

Specially designed for City Councilmembers and other political leaders responsible for water resource services, this Workshop guided participants through a fast-paced, deep dive into the world of water. It’s critical that local leaders understand their community water systems, including drinking water, wastewater, and stormwater, and what role they play in management and its relation to equity and affordability. From resources and funding, to the laws governing water rights, water infrastructure presents a complex, yet essential, system in our community. WaterNow’s team of experts provided insight into the world of water and discussed the sustainable, equitable, and resilient future of water.

Key Takeaways:
- Good decision making requires a basic understanding of your water supply, wastewater and stormwater systems and vulnerabilities.
- Communication strategy is key to building a reservoir of trust in your community.
- Infrastructure is no longer limited to conventional pipes, tanks and tunnels; communities can benefit from expanding the concept of water.
- Resources are available to help leaders make informed decisions. Explore WaterNow’s Tap into Resilience Toolkit.

Watch the Recording
Debt: What Is It Good for and Can It Be Good for You?

Municipalities can be leery of debt, often for good reason. But water infrastructure, like other major public investments, has been historically financed with municipal bonds and other low cost forms of debt that provide good value for ratepayers. Utilities nationwide are facing monumental infrastructure challenges requiring significant investment. This panel explored the role of debt to support water innovation including distributed and onsite systems that have not been considered eligible for bond financing until recently. Watch the recording to consider: What would the world look like if muni bonds, performance bonds, SRF and WIFIA loans could all be used to deploy localized infrastructure at large scale?

Key Takeaways:
- To meet water infrastructure investment needs, local public utilities will need to debt finance. Debt financing these investments is good accounting and public policy because it matches costs and benefits and provides generational equity.
- State Revolving Fund loans can be used to finance a wide range of water infrastructure projects, including distributed green stormwater infrastructure, and SRF administrators can be open to being creative to innovative project types.

Audience Poll: Have you/your utility ever considered using municipal bonds or other forms of debt to fund consumer rebates for green infrastructure, water use efficiency, or reuse programs?

47% Yes
27% No
27% I don’t know

We encourage that everybody out there get familiar with regulatory accounting because we think this could be very effective in getting infrastructure that isn’t owned by the utility financed.

Julie Denisome
Partner, Moss Adams, LLP

Accounting rules are flexible enough to allow local utilities to debt finance localized water infrastructure investments.

$38B in water and sewer bonds were issued in 2020, but the estimated water infrastructure needs range from $384B to $655B over the next 20 years. 95% of these investments are made by local utilities.

Climate resilience relies on partnerships with private landowners because 90-95% of land in urban and suburban areas is privately owned.

Session participants agreed that water use efficiency, green stormwater infrastructure, onsite reuse, and other distributed strategies fall within the definition of “water infrastructure.”
THANK YOU TO OUR PARTNERS:

- Greenprint Partners
- Mayors Innovation Project
- PennFuture
- Local Government Commission
- Pacific Institute
- Pennsylvania Environmental Council
- Sonoran Institute
- Jersey Water Works
- University of Pennsylvania
- UL CT
- Utah League of Cities and Towns
- The Water Center
- Sustainable CT
- Alliance for Water Efficiency
- Water Environment Federation
- American Water Resources Association
- Colorado Municipal League
- American Water Works Association
- The green infrastructure leadership exchange

Celebrating Progress, Envisioning the Future
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We’re grateful for our inspiring speakers and supporters for their hard work and participation. Thank you to all of those who attended Tap Into Resilience.

For additional information and resources, please visit www.WaterNow.org or email us at info@waternow.org.