SUMMARY WHITE PAPER:
WATER RECYCLING & PUBLIC POLICY

OVERVIEW & CONTEXT

In March 2021, the WateReuse Association convened the virtual 36th Annual WateReuse Symposium, which included eight live roundtable discussions with facilitated breakout sessions. Led by WateReuse members and Champion sponsors, the live roundtables were presented in a format that allowed both knowledge sharing and interaction between participants. First, a group of six to ten experts participated in a web-based video panel discussion viewed by several hundred attendees. When the live roundtable discussion concluded, the attendees moved into one of six pre-selected breakout sessions. Each breakout session focused on one aspect of the broader live roundtable discussion. WateReuse member volunteers facilitated the breakout dialogs, with one taking notes that were later used to produce this series of summary white papers.

This paper summarizes the discussions held during the 36th WateReuse Symposium Water Recycling and Policy Roundtable.

LIVE ROUNDTABLE SUMMARY

Policy experts from federal, state, and local governments across the country discussed policy approaches that would enable more widespread water reuse. The panelists framed the discussion with a breakdown of potential ways to incentivize water reuse: offering education and outreach on the safety of reuse, creating clarity around standards, providing grants and low-cost loans, and promulgating regulations at the state level. A discussion of national and state policy developments provided further insight into water recycling and policy.

The National Water Reuse Action Plan (WRAP) was developed in collaboration with federal and water sector partners under the leadership of the U.S. Environmental Protection Agency (EPA) and the WateReuse Association. The WRAP is intended to drive progress on reuse and address barriers to more widespread adoption. The EPA institutionalized a water reuse team to serve as a water reuse hub within the agency and increase technical, institutional, and

SPEAKERS

- LIZ ANDERSON, Chief Planning Officer, Albuquerque Bernalillo County Water Utility Authority, New Mexico
- JON FREEDMAN, Senior Vice President, Global Government Affairs, SUEZ Water Technologies & Solutions (Moderator)
- MARILYN HALL, Former Senior Water Resources Planner, Athens-Clarke County, Georgia
- KAREN MOGUS, Deputy Director, California Water Resources Control Board
- SHARON NAPPIER, National Program Leader for Water Reuse, U.S. EPA
- JOHN TRUITT, Deputy Secretary, Regulatory Programs, Florida Department of Environmental Protection

financial capacity. Two actions under the WRAP seek to address clarity in funding and regulations. Action 3.1 will compile existing fit-for-purpose specifications in one database for easy reference. Action 6.1 aims to create a streamlined resource of federal funding opportunities that support resiliency projects in water management.

The state of California, which already recycles 18.5% of its water, is funding research through the Water Research Foundation that is helping regulators develop standards for direct potable reuse that protect public health. The state also provides construction and planning grants for local reuse projects, works to streamline the permitting process through general orders, and establishes water reuse goals through water resilience portfolios. For example, the city of Los Angeles has set a goal of 100% reuse by 2035.

While not a water-scarce state, Florida promotes reuse as a tool to manage groundwater withdrawal and population growth. Like California, Florida is starting to streamline permitting following a legislative directive. The state also undertook an extensive community opinion survey, finding that 55% of residents supported direct potable reuse, and the majority preferred direct potable reuse over an indirect potable reuse scenario that included an environmental buffer. Local communities such as Albuquerque, New Mexico have invested in long-term integrated water planning accompanied by extensive community outreach and a financial plan. The city of Albuquerque created a public outreach program that educates fourth graders on water and water reuse by taking them on a field trip to the local river. Making the case for reuse in Athens County, Georgia included developing a risk-based model of both the hydrological system and economic structure. The utility demonstrated to the mayor the likelihood of entering a drought, leading to the loss of jobs and businesses, without an alternative water supply.

The panel emphasized the critical need for water reuse infrastructure funding across the country, in both small and large communities. Funding for construction, planning, research, and outreach components can be a barrier to getting projects off the ground. Local stakeholders felt clarity in regulations, as well as federal leadership, assists in moving water reuse forward. The panel left the group with a call to keep the momentum moving on the WRAP and to engage with their local and state officials on water reuse education.

BREAKOUT DISCUSSIONS TAKEAWAYS

Echoing the themes of the roundtable, the six breakout rooms discussed the role of the federal government, developing state regulatory frameworks, overcoming policy barriers, policy and industry, stormwater harvesting and onsite reuse, and the role of coordination and partnerships. Breakout discussions included 97 participants, with anywhere from 16 to 30 attendees in each room.

BREAKOUT ROOM 1
THE ROLE OF THE FEDERAL GOVERNMENT

The breakout room noted key examples of how the federal government works well with state and local entities on water reuse, including the New Mexico Produced Water Research Consortium and funding programs such as the Water Infrastructure Finance and Innovation Act (WIFIA) and the Clean Water and Drinking Water State Revolving Funds. The discussion highlighted geographical differences in the drivers for water reuse, which range from water scarcity to nutrient load limitations and meeting the needs of industry. Stormwater reuse and contaminants of emerging concern were identified as high-priority areas for additional research and clearer policies. The attendees viewed stakeholders' primary function as continuing to drive research and funding needs.

BREAKOUT ROOM 2
DEVELOPING STATE REGULATORY FRAMEWORKS AND REGULATIONS

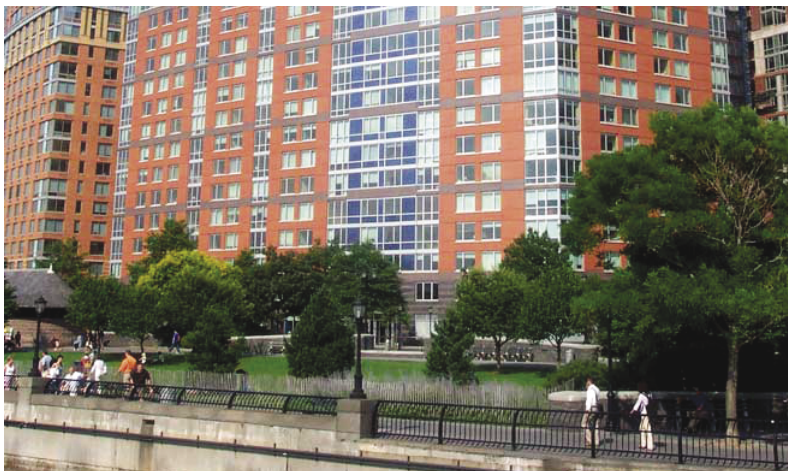
From the state perspective, regulatory frameworks can be initiated using a variety of approaches. WateReuse Florida saw an opportunity to engage the Department of Environmental Protection and state water management districts early in a Potable Reuse Commission. In Maryland, water reuse regulations are driven by the need to reduce TMDLs and manage heavily used groundwater. Arizona utilities are required to develop 100-year water supply plans, which incentivizes communities to explore water reuse. Many states, such as Washington and Texas, have not yet developed potable reuse regulations. The breakout room urged EPA to complete work summarizing and comparing state regulations and saw a role for water associations in encouraging regulators to engage with utilities.

BREAKOUT ROOM 3
OVERCOMING POLICY BARRIERS

This breakout identified several proven pathways to successfully overcome policy barriers to water reuse, such as holistic collaboration exemplified by the Florida Potable Reuse Commission and the Arizona Recycled Water Work Group. Potable reuse projects in Wichita Falls and Big Spring, Texas demonstrate that urgent water shortages can remove barriers as well. Other approaches to overcoming policy barriers include a regulatory champion that serves as a bridge builder and association engagement that expands communication and coordination. Policy flexibility is necessary to address the different drivers and value propositions for water reuse across the country. The group saw an opportunity to expand collaborations through integrated regional water management strategies.

BREAKOUT ROOM 4
POLICY AND INDUSTRY

Participants considered how policy could incentivize industrial water users to recycle water, noting as an example that the Food and Drug Administration and U.S. Department of Agricultural could provide federal guidance to advance water reuse in food production. In Florida, legislative support was needed to allow a power company to use recycled water for steam production. The breakout acknowledged that industry in water rich parts of the country is not incentivized to explore water reuse for water security. Without a clear regulatory structure or environmental driver, it can be difficult to make a business case for industries wondering if water reuse is worth the financial investment. For some industry, a commitment to corporate sustainability can balance those concerns.

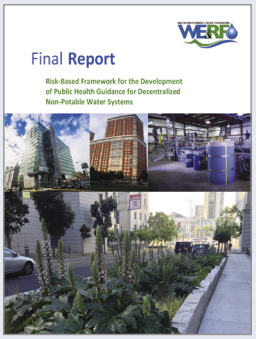


New York City is using policy to encourage onsite reuse in places like Battery Park.

BREAKOUT ROOM 5
USING POLICY TO SUPPORT STORMWATER HARVESTING AND ONSITE REUSE

This breakout room discussed numerous examples of policy adaptation to successfully integrate stormwater harvest and onsite reuse. In New York City, the Department of Environmental Protection (DEP) established regulations for onsite reuse for toilet flushing, cooling tower water, laundry, and other non-potable applications. In fact, DEP proactively set standards and reporting mechanisms ahead of the demand paving the way for developments such as Battery Park City to implement onsite reuse. While Oklahoma does not provide a framework for onsite reuse at the state level, municipalities encourage onsite reuse through local ordinances. In Southeast Asia, big cities are working on building public acceptance for onsite reuse systems. The breakout discussed the efforts

The National Blue Ribbon Commission for Onsite Non-potable Water Systems developed regulatory guidance for states.



of the National Blue Ribbon Commission for Onsite Non-potable Water Systems, which developed a risk-based framework for decentralized non-potable reuse that can be adapted by state authorities. Participants agreed that it is essential to incorporate onsite reuse as an integrated part of a city's water management plan, and not a tool in competition with centralized water and wastewater treatment.

BREAKOUT ROOM 6
THE ROLE OF COORDINATION AND PARTNERSHIPS

Broadly, the breakout room emphasized the importance of bringing together diverse perspectives and stake-holders, including regulators, the public health and medical community, and the general public. Partnerships are essential in building trust within the community.

Catalysts for partnerships can vary by geography and include water stress or resiliency, focus on community growth in population or demand, western water law, and regional planning. The participants suggested further engagement in the WRAP, lobbying at the regional level for funding, and coordinating across associations on research as important areas for coordination and partnerships.

CLOSING SUMMARY OF THE DISCUSSION

Policy at the local, state, and federal levels can have an impact on water reuse, but the approaches are not "one size fits all." Government can play an important role in advancing knowledge-sharing and supporting the water sector in meeting the needs of local communities. Finally, stakeholder engagement and education are critical to building project support and getting policies right.

The WateReuse Association thanks SUEZ Water Technologies for sponsoring and assistance in organizing this live roundtable at the 36th Annual WateReuse Symposium.