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Restore Public Trust by Navigating Information Challenges

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Editor's note: The water sector has an ongoing responsibility to provide safe, reliable drinking water. It is with this sentiment that AWWA has undertaken its landmark Water 2050 initiative (www.awwa.org/water2050), convening a series of topical think-tank gatherings to “collaboratively imagine the water future we want to create.” To support this initiative, AWWA’s Water Quality Technology Division is dedicating a series of Water Quality Matters columns to developing this vision through the respective lenses of each of the division’s 15 committees.

The journey to the year 2050 envisions a future in which advanced treatment technologies have become commonplace and today’s water quality concerns are consigned to history. This road is fraught with challenges, particularly when it comes to communication and the erosion of public trust. In the water industry, professionals face increasing complexities, while customers are left to grapple with too much information and a surge in

misinformation. This column delves into the critical facets of these challenges and explores potential solutions to build and maintain public trust.

Public Trust Is Essential but Threatened

Public trust in drinking water quality serves as the bedrock for sustainable water management, underpinning the support and investment necessary for pivotal projects. However, this foundation is constantly under threat, exacerbated by the emergence of new challenges accompanied by significant uncertainty. Today, emerging water quality issues include microplastics and *N*-(1,3-dimethylbutyl)-*N*'-phenyl-*p*-phenylenediamine (6PPD), but by 2050, a new suite of contaminants will likely have emerged as pressing water quality concerns. Although we can’t predict or preemptively remove

these emerging water quality issues, water professionals can strengthen their communication to position our sector for success in the face of ever-changing, emerging challenges.

Investment in water infrastructure is indispensable for securing a safe, reliable water supply, and public trust is key to garnering the necessary financial and political support. If the public lacks confidence in the information provided by water professionals, the path to securing funds for vital projects becomes steeper, sometimes unreachable. For example, as detailed in a report resulting from The Water Research Foundation’s Project #4455, *Rate Approval Process Communication Strategy and Toolkit*, “Research findings suggest that building trust in the utility is vitally important in securing necessary rate increases for investment in utility systems. Trust in the utility can be built by improving relationships with governing board members and the public, following through on commitments, conducting business in an open and

transparent manner, focusing on customer service, and being visible and active in the community.”

Public trust is threatened by evolving language, misinformation, and the task of interpreting complex water data. As technological advancements provide consumers more knowledge about their water, the absence of proper interpretation mechanisms can lead to confusion and mistrust. International news focusing on water crises in cities like Flint, Mich., and Jackson, Miss., have contributed further to the growing skepticism toward water utilities.

The Profits of Distrust, a 2022 book published by Cambridge University Press, explores the relationship between public services like drinking water and confidence in government. When people experience failures of basic public services, they learn to distrust the government; in the case of drinking water, one option is to seek solutions from private, commercial firms. For example, as highlighted in the book, the sliding of trust in government in the United States over the past 20 years mirrors the rise in bottled water use. Although there are many reasons for increased use of commercial water, including perceptions created by those selling competing water products, these trends demonstrate an exit from public services.

As presented with supporting analysis in *The Profits of Distrust*, if customers replace tap water with more expensive options like bottled water, it may reduce incentives for local agencies to improve water services. This creates a loop that shifts a heavier financial burden on consumers, one that especially affects poor and racial/ethnic minority communities that often begin with greater distrust of government as a result of historical precedence and previous injustices in the local service area or similar communities.

Unfortunately, the downward trend of public trust could well continue through 2050 and beyond. Addressing the crisis of confidence in the water supply will require a multifaceted approach that includes proactive communication and ongoing education. Improving the water literacy of customers and communities could be aided by innovative technologies.

Leading the Way With Education and Communication

As the water industry progresses toward 2050, its challenges extend beyond effective resource management. Water professionals must also be leaders in education and communication, ensuring proactive approaches that build and maintain public trust.

Proactive communication stands out as a cornerstone for building and sustaining trust with water consumers. Trust is not solely built on having all the right answers; it

is greatly affected by a utility’s response during emergency situations. Trust is built through empathy, honesty, and transparency. Utilities need excellent customer service to receive comments and complaints and in turn to communicate how a situation can be resolved.

Water professionals must provide a consistent, trusted voice in communities, engaging in frequent communication to educate the public about water-related concerns and establish a reliable presence. Repeated communication is more likely to be believed, a concept called the *illusory truth effect*.

In a society with unprecedented access to information through the internet, especially social media, water utilities must use proactive communication to combat inaccuracies. Effective communication demands tailoring messages to diverse audiences and delivering them through varied and demographic-appropriate mechanisms. For example, younger generations no longer rely on traditional communication methods, turning instead to real-time or near real-time delivery of information through social media and other platforms. Understanding regional cultures and languages is vital for meaningful two-way communication.

To thrive as anchor institutions in their communities, water utilities must continuously improve their communications by incorporating best practices and lessons learned locally and from other water professionals. They must stay current with changing communication platforms and engage with the community. Helpful resources include the following:

- AWWA’s useful guide, *Trending in an Instant: A Risk Communication Guide for Water Utilities*, offers tools and action steps to help utilities respond effectively before, during, and after a high-profile communication issue in any given service area.
- The Water Research Foundation’s Potable Reuse Demonstration Design & Communication Toolbox project recommends strategies for integrating public education and engagement at potable reuse demonstration facilities and provides outreach materials water utilities can use to communicate that water reuse is safe, environmentally responsible, and cost-effective.
- Similarly, the foundation’s PFAS One Water Risk Communication Messaging for Water Sector Professionals project provides communications materials that utilities can use as they interact with customers, regulators, and other stakeholders about per- and polyfluoroalkyl substances (PFAS), including general messaging and specific guidance related to the US Environmental Protection Agency’s fifth Unregulated Contaminant Monitoring Rule.

- AWWA's *Lead Communications Guide and Toolkit* includes best practices, guidance, customizable outreach templates, and water sector communication examples addressing the Lead and Copper Rule Revisions as well as a summary of requirements and checklists for assessing a water utility's readiness for implementation.

Building Public Trust

The increasing availability of information and the rapid pace of community engagement call for the adoption of new technologies throughout the water sector. Technological advancements are required to adapt to changing climatic conditions and revitalize existing water systems. New technologies may be able to analyze complex water data and provide clarity to customers about their water quality and service, including opportunities to optimize their water use. Looking forward, utilities and their customers will rely even more on technological improvements in the design, implementation, and management of future water systems.

Beyond technological advancements, the integration of risk-based localized solutions is crucial. These solutions, adapted to local capacities and actual risks, provide a holistic approach to water management that is grounded in current realities. By involving communities in the design and implementation of these solutions, water professionals can foster a sense of ownership and commitment to sustainable water practices.

Holistic water management faces considerable challenges, from data silos to regional disparities in water issues. Addressing these challenges requires a concerted effort that involves sharing data, targeted training programs, and collaboration among various stakeholders.

Around the globe, national integrated data systems merging publicly available health and environmental data as well as peer-reviewed scientific literature would provide a more comprehensive understanding of how water quality affects human health. Using geographic information system technology to visualize water quality across regions enhances decision-making capabilities. Integrating real-time water quality data with publicly available health outcomes would foster transparency and improve understanding of how human health is affected by drinking water quality.

Addressing regional disparities in water issues demands tailored approaches, such as improving infrastructure or promoting specific practices based on community needs. Better collaboration among public health agencies, environmental groups, academia, industry, and community organizations will support

innovative solutions. Community-led initiatives, like water quality testing through citizen science, can strengthen the bond between water professionals and the public.

A Multifaceted Approach

Navigating the journey to Water 2050 requires water professionals to confront the challenges of evolving language, information overload, misinformation, and eroding public trust. A multifaceted approach, encompassing proactive communication, technology adoption, and collaborative efforts, is essential. As the water industry grows and adapts, the ability to understand and communicate emerging water quality issues will be paramount. With knowledge, education, and advanced technology, water professionals can overcome information challenges. This approach is vital to building and maintaining public trust and ensuring a sustainable water future for 2050 and beyond. 💧

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