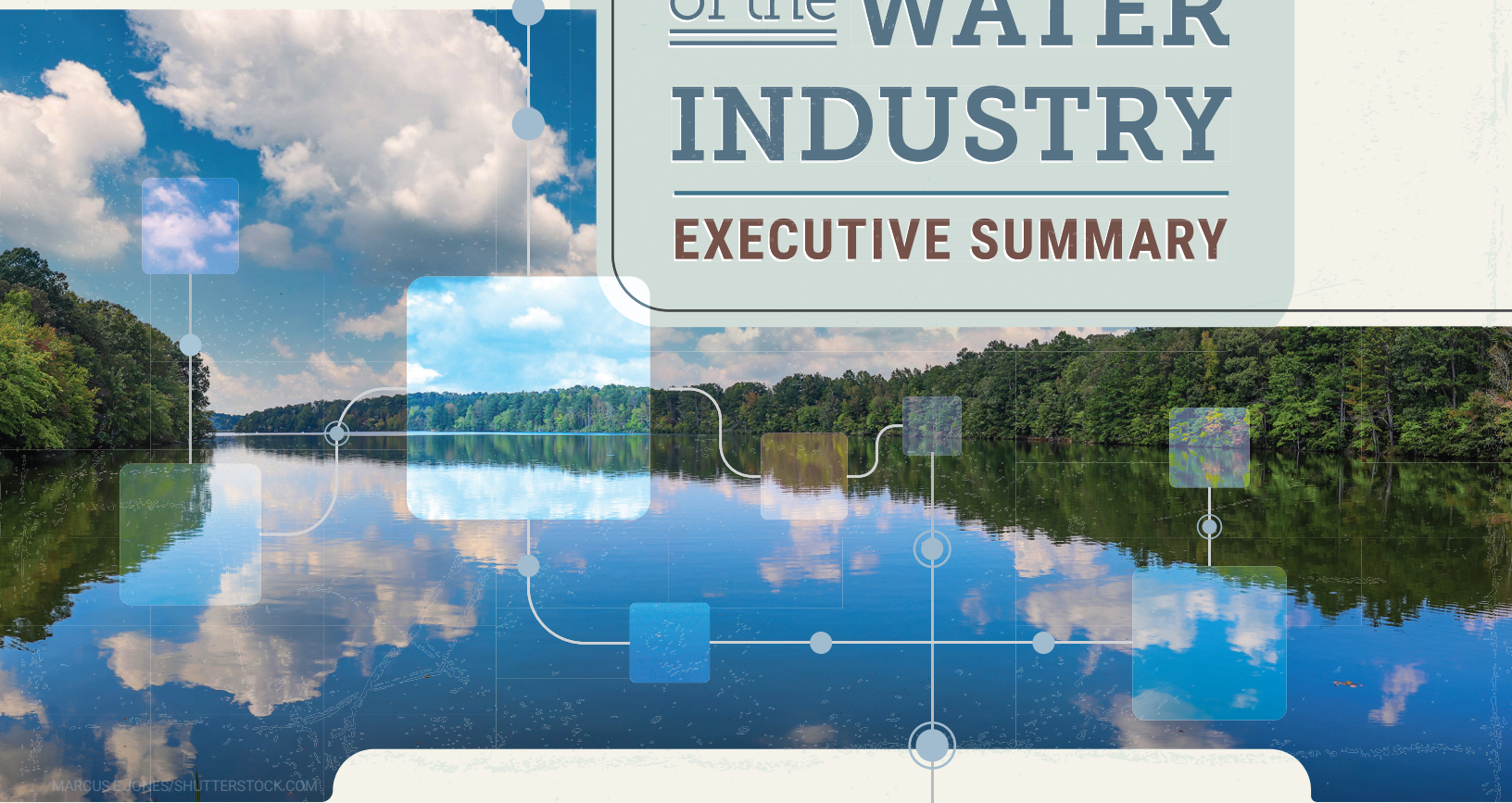


2026

STATE of the WATER INDUSTRY

EXECUTIVE SUMMARY



MARCUS JONES/SHUTTERSTOCK.COM

The Annual State of the Water Industry (SOTWI) report by the American Water Works Association provides key insights into the priorities for water utilities and challenges they currently face.

The report is based on a voluntary, anonymous survey of water professionals that has been conducted annually since 2004. In the most recent survey, from Sept. 21 to Oct. 31, 2025, a total of 2,171 water professionals participated. About two-thirds of respondents work in water utilities – mostly in systems with at least 10,001 connections – and carry tenure in the field (at least 11 years).

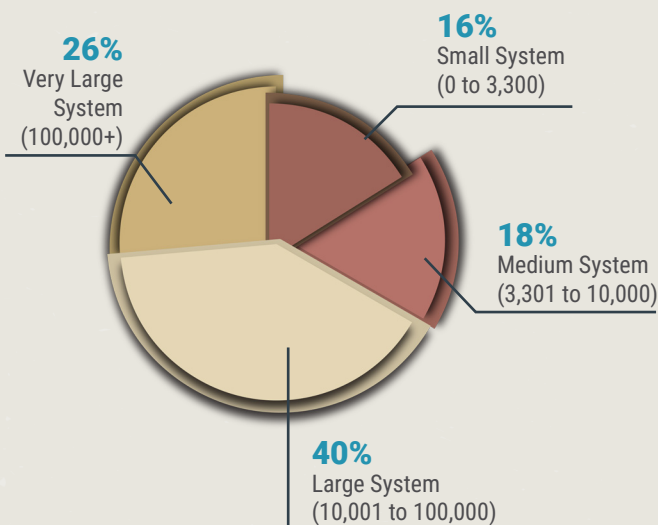
Respondents rank the current health of the water industry at an average of 4.72 on a scale of 1 to 7, a score that has remained largely consistent over the 23-year history of the survey. However, when asked about what the state of the industry will look like five years from now, respondents express slightly less certainty: an average rating of 4.53 on the same 1 to 7 scale, which is the lowest rating in eight years.

Together, these ratings show a sector that is holding steady in the present but increasingly uncertain about its capacity to withstand mounting pressures – from aging assets to climate disruptions. The drop in long-term confidence underscores how urgently utilities need stable funding, supportive policy, and resilient infrastructure to navigate what is ahead.

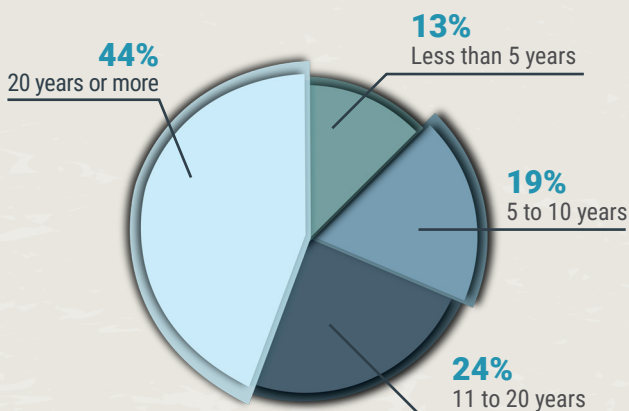
Organization Affiliation Among Respondents

Type	Response	Percent
Drinking Water Utility	648	29.8%
Combined Water/Wastewater Utility (may include other services too)	600	27.6%
Consulting Firm/Consultant	285	13.1%
Manufacturer (including Products, Representatives, and/or Distributors)	102	4.7%
Regulatory Authority/Regulator	98	4.5%
Wastewater Utility	92	4.2%
Non-Utility Government (Municipal, Provincial, Federal, etc.)	86	4.0%
Other	80	3.7%
Technical Services/Contractor	41	1.9%
University/Educational Institution	35	1.6%
Water Wholesaler	31	1.4%
Retired	31	1.4%
Nonprofit Organization	29	1.3%
Stormwater Utility	6	0.3%
Reuse/Reclamation Utility	4	0.2%
Law Firm/Legal Organization	2	0.1%
Financial Firm	1	0.0%
Total	2171	100.0%

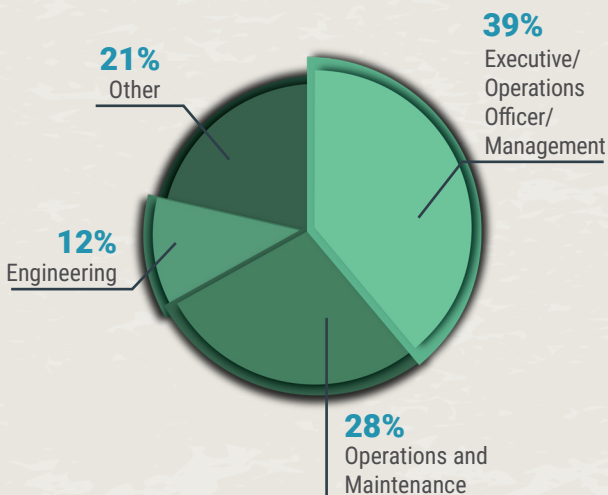
Utility Respondents by Number of Connections



Respondents' Tenure in the Water Sector



Utility Respondents by Job Category



Aging Infrastructure Meets Tighter Capital

Two issues – infrastructure renewal and replacement, and financing for capital improvements – have dominated the top of the list of concerns facing the water sector in the last decade. While financing ranked highest in the last survey, infrastructure renewal resumes the top spot in the most recent iteration and financing returned to number two.

This reflects the perennial challenges of maintaining operations and adopting new treatment technologies with infrastructure that was built up to a century ago. Many utilities are deep into lead service line replacement and anticipating or experiencing PFAS regulations, while also contending with strains on water supply – all while providing safe, clean, and reliable water service 24/7.

Emergency repairs and system failures often or always lead to overtime requests, according to 54% of utility executives. This stretches not only budgets, but also the workforce, affecting morale and long-term retention.

Less than half (45%) of utility executives report that their access to capital is as good or better than at any time in the past five years; this is a seven-percentage-point drop from the previous survey. Additionally, 18% report that their capital access was as bad or worse than the last five years, and just 43% say they are (very to fully) able to cover costs of operating a utility through rates and fees. This combination points to a widening gap between what utilities must maintain and what they can realistically afford – heightening the risk of deferred maintenance and system failures.

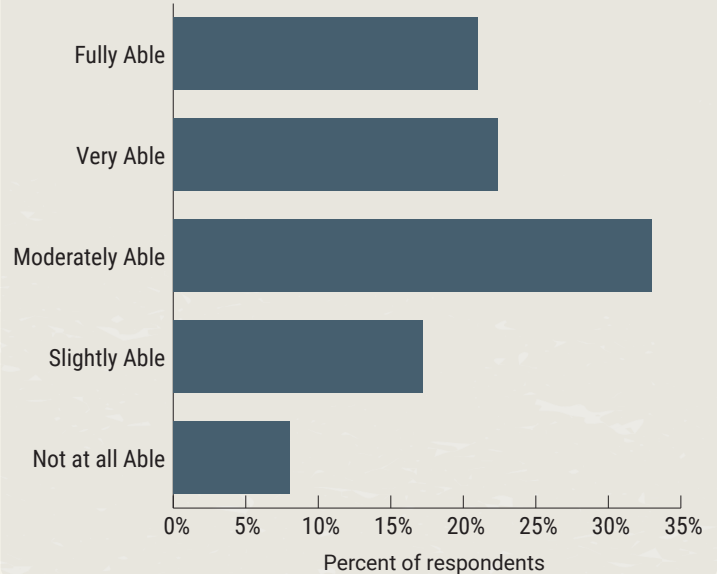
To compensate, nearly half (46%) of executives report they are planning to raise rates in the next five years – 24% in the next year. Perhaps a larger signal of financial pressure: 57% of executives report that rate increases are used often or always for capital investments, up from 44% in the previous survey.

Infrastructure Needs Will Require Unprecedented Investment

Drinking water utilities need \$2.1 to \$2.4 trillion for infrastructure upgrades through 2050, according to AWWA's new report, *Beyond the Replacement Era: Balancing Compounding Infrastructure Needs with Household Affordability*. To close the gap, an additional \$56.6 billion in capital – above what is currently spent – would need to be invested annually every year from 2026 to 2050. Otherwise, water rates would more than double, causing affordability challenges for millions of households.

Learn more in the report "*Beyond the Replacement Era: Balancing Compounding Infrastructure Needs with Household Affordability*" at [awwa.org/beyond-the-replacement-era/](https://www.awwa.org/beyond-the-replacement-era/)

Covering the Cost of Service



Ranking of Top 10 Issues Facing Water Sector and Changes from 2025

2026	Change	2025
1 Infrastructure renewal and replacement (aging infrastructure)	↑	Financing for capital improvements
2 Financing for capital improvements	↓	Infrastructure renewal and replacement
3 Long-term drinking water supply availability	↔	Long-term drinking water supply availability
4 Financial sustainability	↑	Public understanding of the value of water sector systems and services
5 Public understanding of the value of water sector systems and services	↓	Watershed/source water protection
6 Watershed/source water protection	↓	Financial sustainability
7 Groundwater management and overuse	↑	Workforce issues
8 Cybersecurity issues	↔	Cybersecurity issues
9 Workforce issues	↓	Groundwater management and overuse
10 Drought or periodic water shortages	↔	Drought or periodic water shortages

“Utilities are being asked to do more than ever with infrastructure.

The latest survey makes clear that annual, long-term investment isn't optional anymore – it's the foundation for public health protection and maintaining the quality of life in our communities. When utilities have reliable access to capital funding, they can focus on what matters most: delivering safe, reliable water every hour of every day.”

– David LaFrance, CEO, American Water Works Association



Gayna Kurlishko/shutterstock.com

Controlling the Uncontrollable: Tariffs, Supply Chains, and Natural Hazards

Utilities are increasingly contending with external pressures they cannot control — including higher U.S. tariffs, persistent supply chain disruptions, and more frequent natural hazards.

The latest iteration of the survey includes new questions on the impacts of U.S. tariffs. Respondents indicate that tariffs implemented or increased in 2025 have raised the cost of equipment, materials, and critical infrastructure projects for many utilities (51% of respondents report high-to-considerable impact), while also contributing to project delays and construction challenges (41%).

At the same time, natural hazards — such as droughts, wildfires, and extreme weather events — continue to rank as the most negatively impactful large-scale phenomena affecting the sector, followed closely by ongoing strain in global supply chains. Economic factors (#3) and the political environment (#4) both moved up the list this year as well.

Taken together, these forces introduce volatility into budgets, schedules, and long-term planning, requiring utilities to build larger buffers and contingency strategies to maintain reliable operations amid circumstances beyond their control.

Ranked Natural Hazard Concerns

1	Extreme weather
2	Droughts
3	Precipitation patterns
4	Flooding
5	Temperature increases
6	Wildfires
7	Earthquakes/hydraulic fracturing
8	Sea level rise

A Resilient Water Future

A strategic priority in AWWA's Water 2050 vision is sustainability and resilience. Experts across AWWA's membership are exploring how to mitigate risk and promote sustainable systems, and they are finding innovation in all corners of North America.

See how one utility is pioneering earthquake-resilient pipes at awwa.org/water-2050

Tariff Impacts on Utilities

Impact	Don't know/ No opinion	No to slight impact	Moderate impact	High to considerable impact
Increased costs for equipment and materials	7%	18%	24%	51%
Increased critical infrastructure costs	10%	19%	21%	50%
Supply chain disruptions for equipment and parts	7%	23%	24%	46%
Higher operating expenses	9%	22%	24%	46%
Increased costs on treatment components	11%	21%	23%	45%
Project delays and budget overruns	10%	27%	22%	41%
Higher energy costs	11%	28%	22%	40%
Scale back capital budgets	11%	31%	20%	37%
Rate increases passed on to customers	10%	33%	23%	34%



Ranked Natural Hazard Concerns by Geographic Region

WEST

1. Droughts
2. Wildfires
3. Precipitation patterns
4. Extreme weather
5. Temperature increases
6. Earthquakes/hydraulic fracturing
7. Flooding
8. Sea level rise

EAST

1. Extreme weather
2. Precipitation patterns
3. Flooding
4. Droughts
5. Temperature increases
6. Earthquakes/hydraulic fracturing
7. Wildfires
8. Sea level rise

“External pressures – from global supply chains to extreme weather – are now part of the everyday operating environment for utilities.

The resilience our members show in the face of these uncontrollable forces is extraordinary, but resilience alone isn’t enough. We need strategic foresight, supportive policy, and innovations that help utilities maintain reliability even when conditions shift overnight.”

– Brent Tippey, Vice President, East Region Drinking Water Lead, HDR and 2026-27 AWWA President



Steve Perry / Shutterstock.com

Digital Risk and Cautious Innovation

Technology is top of mind for the water sector. Most survey respondents rank cybersecurity as a top innovation priority (62% say it is very or extremely important). They also rank a tech-savvy workforce a second priority (55%) – illustrating the sector’s desire to stay on top of advancements as they evolve. The majority of respondents say their utilities fully fund cybersecurity programs (62%) or expect to do so within the next three years (17%).

In a new section for the survey, just over half (56%) of respondents anticipate some level of positive impact from generative AI technologies and 14% expect transformative change occurring within a year. That said, almost as many (49%) lack established policies that govern AI use (and an additional 15% said they didn’t know). This is risky behavior in an era where

advancements can multiply faster than some can adopt; it also leaves utilities vulnerable to cyberattacks – and on that point, many are aware: 58% say they are very or extremely concerned about breaches and deepfakes. While most respondents indicate that cybersecurity is a top priority, among small systems specifically, 22% indicate little-to-no ability to implement cybersecurity practices.

These findings show a sector eager to explore technology’s benefits yet deeply aware of the risks. The gap between interest and readiness suggests utilities need clearer guidance, workforce skills, and cybersecurity investment before AI and digital transformation can be safely scaled.

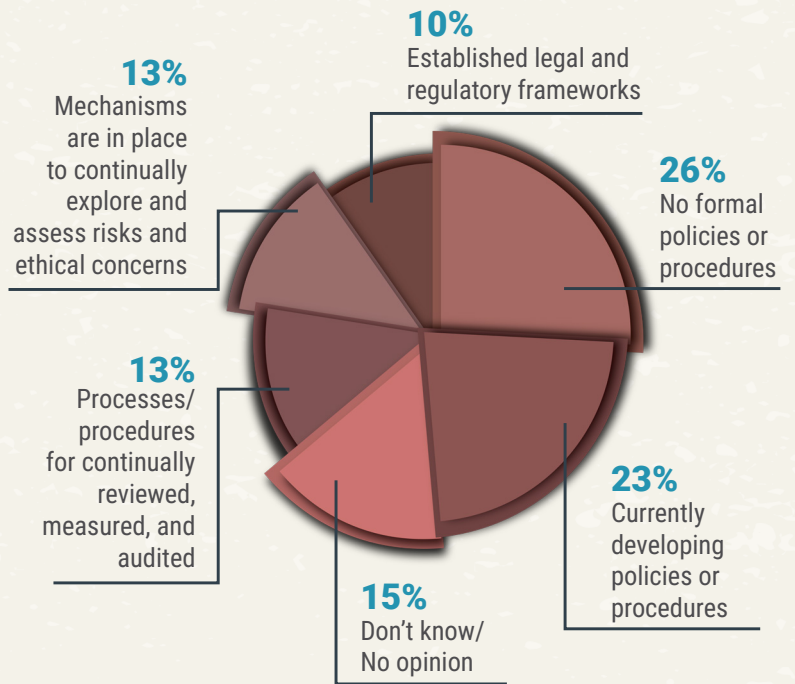
Managing Risk and Cyber Vulnerability

AWWA offers many resources for utilities at various stages of cybersecurity implementation, including:

- Step-by-step guidance on addressing vulnerabilities in process control systems.
- An assessment tool that identifies a customized, prioritized list of controls for utilities.
- A micro-learning course that details the Awareness-Analysis-Act Framework.

Visit awwa.org/resource/cybersecurity-guidance/

Stage of Implementation of Generative AI Policies



Level of Priority for Ensuring Cybersecurity and Privacy

	All Utility Respondents	Small Systems	Medium Systems	Large Systems	Very Large Systems
Immediate Priority Currently working on this objective	45%	23%	41%	50%	52%
High Priority Action planned in the next 5 - 10 years	27%	28%	28%	27%	28%
Medium Priority Like to advance, but requires additional support	15%	21%	19%	13%	10%
Low Priority Unlikely to advance this objective	6%	17%	9%	3%	2%
Not considered	1%	5%	0%	1%	0%
Don't know / No opinion	6%	6%	4%	6%	8%

“Utilities clearly recognize the importance of investing in technology and cybersecurity, but many still face real challenges in execution.

As technology and threats evolve, utilities must evolve with them – aligning cybersecurity controls, AI policies, and workforce development into a unified risk-informed approach. Strengthening cybersecurity in step with innovation – not after it – is how utilities can realize the benefits of digital transformation without compromising security or reliability.”

- Nicholas Santillo Jr.
Former Chair, Water Sector Coordinating Council



Water Availability and Climate Resiliency Plans Lag Behind Risk

Amid population growth, droughts, wildfires, and data center development, management and protection of long-term water supply is critical. Half of respondents (50%) indicate they are very or fully prepared for long-term water supply needs, but that figure represents a 5-percentage-point drop from the previous year — and 16% already acknowledge they are not at all prepared for long-term demands.

Currently, 11% of respondents indicate frequent or chronic stress on supply and one-third teeter on the edge — meaning an increase in withdrawal or a decrease in supply could result in difficulties providing drinking water.

As climate variability and population growth put increasing pressure on water resources, ensuring long-term water security becomes more imperative. Among respondents, those in the western half of the United States and Canada and those that serve more than 100,001 connections are more likely to be updating their long-range water demand forecasts every five years.

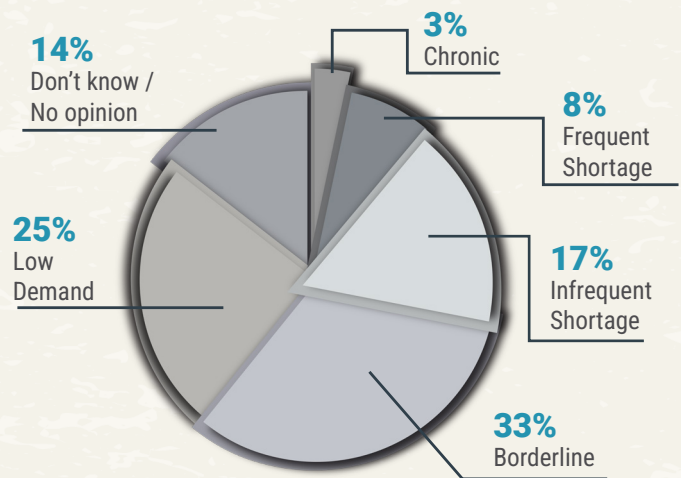
These findings highlight a sector grappling with deeper structural vulnerabilities in water availability. As climate impacts intensify and development increases demand, utilities must invest more in forecasting, conservation, and diversified supplies. The declining preparedness ratings suggest many systems could face difficult choices sooner than expected.

Data Center Development Strains Supply

Utilities can prepare for data center development in their communities by engaging with leaders early in design. AWWA's new report, *Cooling the Cloud: Water Utilities in a Data-Driven World*, outlines additional strategies for utilities that need to account for data center water usage.

Read the report "*Cooling the Cloud: Water Utilities in a Data-Driven World*" at awwa.org/cooling-the-cloud-water-utilities-in-a-data-driven-world

Stresses on Water Supply



Level of Preparedness to Meet Long-Term Water Supply Needs

	All Utility Respondents	Small Systems	Medium Systems	Large Systems	Very Large Systems
Fully prepared	16%	9%	16%	17%	18%
Very prepared	35%	26%	30%	36%	42%
Moderately prepared	31%	34%	39%	30%	24%
Slightly prepared	11%	16%	11%	11%	8%
Not at all prepared	4%	12%	3%	3%	2%
Don't know/Not applicable	3%	3%	3%	3%	5%

“Planning for long-term water security has never been more challenging.

Uncertainty is increasing from things like accelerating climate variability and the rapid expansion of tech-based industries. The future is a moving target and hitting it will require more resilient strategies that allow for pivoting on shorter time scales.”

- T.J. Stroebel, Market Development Leader at Kurita America and 2027-28 AWWA President



A Workforce Adept at Old Pipes and New Technology

Workforce challenges in the sector span the continuum, from recruitment to retention. About 21% of utility employees are eligible to retire in the next five years, according to the 2025 AWWA Utility Benchmarking Survey. While an aging workforce continues to rank in the top 10 concerns for survey respondents, it is now #9, down from #3 in 2023. A majority indicate their utility's workforce training program is fully funded (68%) or expected to be fully funded in the next three years (12%).

To delve more into workforce trends, the latest iteration of the survey includes questions regarding overtime and its impact on operations, budgets, and employee retention. Utility executives report that overtime has a moderate-to-considerable impact on employee morale (56%), budget management (48%), and operational efficiency (48%). The dominant driver of overtime is reactive, unplanned work: Respondents say overtime arises often or always for on-call response requirements (56%) and emergency repairs and system failures (54%).

Understanding overtime effects on the workforce, utility leaders indicate they are experimenting with policies to lessen the burden — particularly the spontaneous nature — on employees. The most common policies are on-call rotations (19%), improving preventative maintenance (17%), and cross-training employees (16%), according to respondents.

These workforce realities point to vulnerabilities that extend beyond staffing numbers. High overtime, limited succession planning, and growing retirements risk eroding institutional knowledge and decreasing reliability.

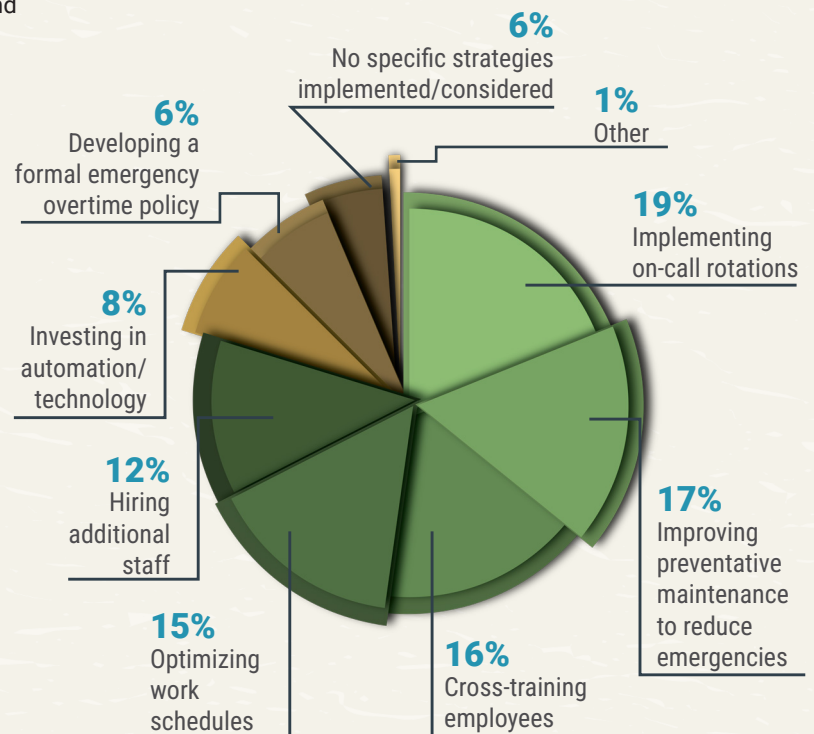
Creating a Talent Pipeline

The Transformative Water Leadership Academy — a collaboration between AWWA and the WaterNow Alliance — has enrolled its third cohort. The 10-month program trains emerging leaders in the water sector with social, environmental, and financial skills.

In the last year, AWWA has also partnered with Xavier University to create the first graduate program in water utility management and with the new Veolia Workforce Academy North America to initiate or advance water careers through free online training.

Learn more at awwa.org/resource/workforce/

Strategies to Reduce Overtime Burden



Impact of Overtime

Impact of Overtime	Don't know / No opinion	No to slight impact	Moderate impact	High to considerable impact
Employee morale and work-life balance	4%	40%	30%	26%
Budget management	5%	47%	25%	23%
Staff retention	4%	54%	21%	20%
Operational efficiency	3%	49%	30%	18%
Safety incidents	6%	75%	11%	8%



“Just as previous generations laid the pipe that built modern communities, we now have the opportunity to build the human infrastructure that will carry this industry forward. This is a defining moment. If we invest wisely – in training, leadership development, and technology integration – we won’t just stabilize the workforce. We will anchor the next 25 years of reliability, innovation, and public trust.”

- Gabriel Evans, M.A., 2023 graduate of the Transformative Water Leadership Academy and a member of AWWA’s Workforce Strategies Committee

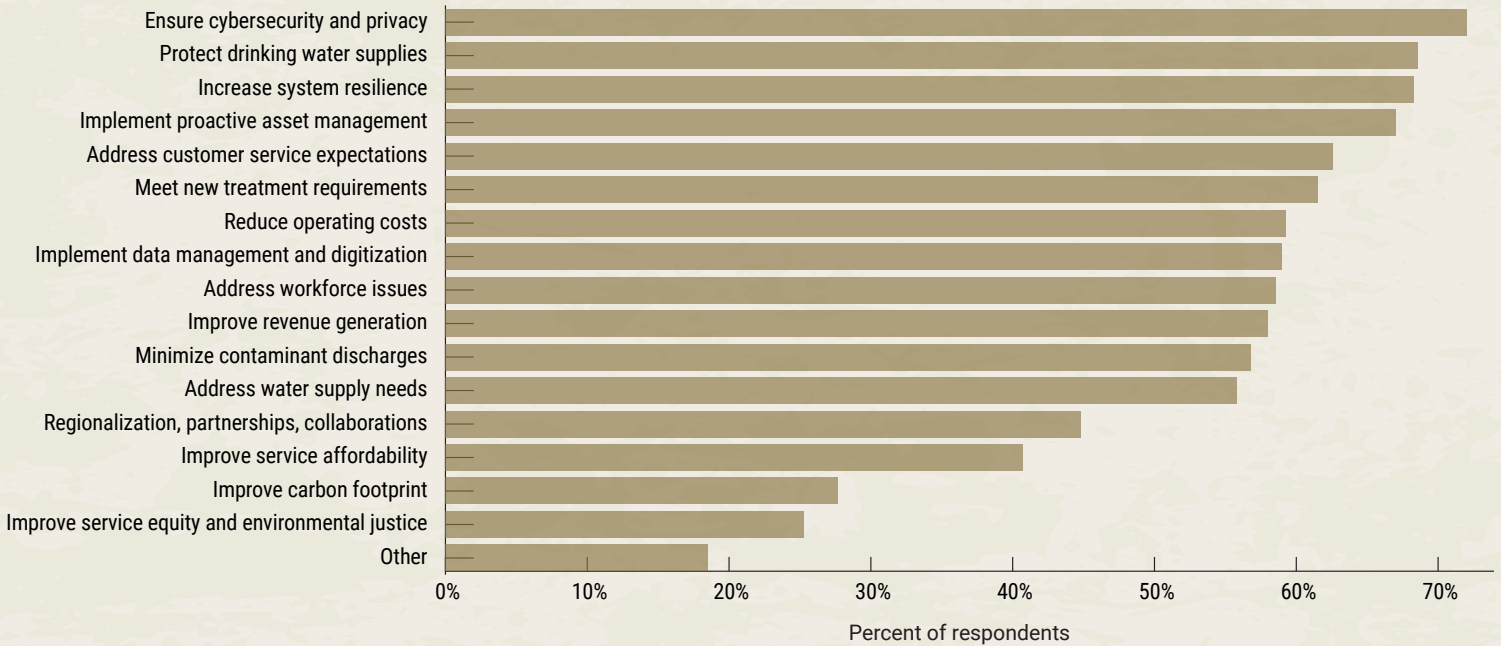
Public Trust Is an Operational Requirement

Public understanding of the value of water systems and services remains a top-five concern for utilities, according to survey respondents. In an era of misinformation and viral social media, utilities understand that it is paramount to stay in front of news about water quality and service.

News headlines about emerging concerns in drinking water. Among survey respondents, microplastics are the top contaminant of concern, with 45% saying they are very or extremely concerned. More than 40% shared concern about PFAS. Among write-in responses, survey participants expressed frustration that PFAS clean-up efforts often focus on drinking water treatment without addressing source water protection.

Consumer research from AWWA has demonstrated that education and outreach programs are increasingly important for utilities in strengthening public trust. They also build a community understanding of the value of water systems. Utilities know this: Customer service is a top-five priority for survey respondents, who ranked it high to immediate among a list of 18 issues. And two-thirds (67%) have a fully implemented customer communications plan.

Utility Priorities Ranked High to Immediate



All Things Water, Plainly Explained

AWWA’s Plain Talk About Drinking Water was recently updated to help consumers understand complex water issues and de-mystifies the most complex processes in water treatment.

Find “Plain Talk About Drinking Water” in the AWWA Store at store.awwa.org

Top Contaminants of Concern

1	Microplastics
2	Per- and polyfluoroalkyl substances (PFAS)
3	Non-point source pollution
4	Pathogens
5	Pharmaceuticals and Personal Care Products (PPCPs)
6	Algal blooms/hypoxia
7	Nutrient removals
8	Lead and copper
9	Disinfection byproducts (DBPs)
10	Cyanotoxins



“Public trust is built through meaningful, ongoing engagement with the communities we serve.

It’s about showing up, listening and creating space for real conversation – not just communicating when an issue arises. When utilities invest in community education, explain the ‘why’ behind decisions, and invite people into conversations about the future of water, we strengthen understanding, credibility, and the strength of our communities. That kind of engagement turns customers into partners and makes trust a shared responsibility.”

***- Chelsea Kulp, Director, Communications and External Affairs,
New Jersey American Water, and a member of AWWA’s Public Affairs Council***

Strength Under Duress

The State of the Water Industry survey reveals a sector working tirelessly to deliver safe, reliable water under increasingly difficult conditions. Utilities are managing aging infrastructure, rising cyber threats, and the accelerating effects of a changing climate — all while maintaining round-the-clock service to their communities. Leaders see promise in emerging technologies like generative AI, but they remain grounded in the need to protect public trust and ensure customers believe in the quality of their tap water.

Across North America, utility leaders are stretching every dollar. They are advocating for federal and state support, adjusting rates when necessary, and drawing from reserves to keep essential projects moving. They are absorbing the impacts of slow supply chains and worsening climate-driven events by building financial and operational buffers, adjusting construction timelines, and reinforcing protections for their source waters.

At the same time, they are addressing public concerns around emerging contaminants by advancing treatment technologies and modernizing aging systems. They are investing in workforce training to retain talent, transfer knowledge, and keep pace with rapid changes in the field.

And they are doing all of this as costs rise and external funding becomes less certain — a reality reflected in the lowest five-year industry outlook in eight years. The needs ahead — sustained investment, modernized infrastructure, strong workforce pipelines, and supportive policy environments — are clear and unabating.

Despite it all, the State of the Water Industry report shows North American water professionals are undeterred by the headwinds and prepared to overcome the mounting storm.





American
Water Works
Association

6666 W. Quincy Ave.
Denver, CO 80235 USA
awwa.org

2026

STATE
of the **WATER**
INDUSTRY
EXECUTIVE SUMMARY