

Workforce Strategies

MANAGING TODAY'S STAFFING CRISIS

Managing Knowledge Transfer in the Digital Age

BY JENNIFER ZACH

An acute pain point for many water and wastewater treatment operations is the “silver tsunami” of retirement currently washing over the industry. The US Environmental Protection Agency estimates that one-third of the water sector's workforce will be eligible to retire in the next 10 years, which will result in a significant loss of experienced personnel. To compound the problem, this knowledge exodus coincides with the digital revolution; together, they are destabilizing the water workforce.

Even if we could opt out of the digital revolution, no one would choose the inefficiencies and waste of old paper-based systems. Modern digital asset management can deliver enormous savings by getting the most value from the assets that facilities already have. Embracing strong digital tools helps treatment plants extend equipment life, defer capital costs, lower energy use, avoid the cost of overprotecting assets, minimize downtime, and reduce the risk of a water crisis. And in an age of increased extreme weather events, a digitized, cloud-based system can help mitigate the effects of natural disasters.

But transitioning from baby boomer to Gen Z professionals in a high-tech environment isn't easy, and we're in the thick of this transition. Most people at or near retirement have spent the bulk of their careers relying on paper records, good memory, and years of service to maintain operations. Meanwhile, incoming professionals are digital natives who value interoperability, crave tools for efficiency, and are less likely to spend more than a few years with a facility. The urgency to capture the wisdom of older, veteran employees before they retire is coinciding with fundamental changes to the way utilities capture, store, and access knowledge. To help water utilities successfully reconcile generational and technological shifts, it's vital to have a plan, find the right technologies and training, and bring generations together.

HAVE A PLAN

Change management must be intentional. If change is simply allowed to happen, it rarely goes where leaders need it to go. A good plan will account for all the generations of the workforce. While a utility integrates a modern digital system expected by incoming Gen Z and younger millennial workers, it needs to give boomers and older Gen X workers many opportunities to impart their wisdom and experience to new colleagues. Their knowledge then needs to be converted into data that can be transferred into a digital system.

Such a plan must have a solid communication strategy. For more experienced generations, communications should focus on how digital tools prioritize reliability and functionality. Incoming professionals will be reassured that digital tools reduce inefficiency and make their jobs easier.

But don't expect the rising wave of young water professionals to make a lifetime career with your facility as did previous generations. A digital asset management plan should document routine processes to prevent a knowledge drain every time younger professionals leave.

CHOOSE GOOD TOOLS

Now is a great time to upgrade from legacy systems. Newer digital solutions are built on cloud-first architecture and are unencumbered by difficult transitions from on-premise deployment to the cloud. New companies and solutions are generally well positioned to help you take

advantage of the latest technology and tools that ease digital transitions.

Make sure your vendor's interface is robust enough to capture the full breadth and depth of your institutional knowledge and easy enough for the tech-wary to use. If tools are too complex and confusing, the members of your brain trust may retire earlier than you would like them to, taking their valuable knowledge with them.

Choose tools that can be deployed quickly and updated easily. Even 2025 technology will eventually be obsolete, so avoid investing in a system that will take years to be fully operational.

CUSTOMIZE YOUR TRAINING

Training your veteran employees will be different from training younger, digital natives. These groups will have different goals, motivators, and skills, so their training should be customized. Facilities will have at least two cohorts—the crew who cut their teeth on paper-based systems and people who have no memory of life without smartphones—and some facilities will have a third group somewhere in between.

For workers who are comfortable with digital and cloud-based technology, a lot of training can be in self-guided forms that require less handholding. For maximum engagement, older generations may need you to connect the dots to relevancy and demonstrate how the tools improve processes. During vendor selection, confirm that differentiated training is offered.

ESTABLISH A MENTORSHIP PROGRAM

Perhaps the most valuable approach involves pairing young professionals with facility veterans. While young professionals have greater digital fluency and an enhanced ability to adopt technology, veterans can explain why these tools are relevant, the backstories of the

equipment and people, the quirks of the system, and why things are done a certain way, including regulatory compliance and political climates that are unique to your service area. Some processes and procedures might exist only in employees' minds, so it's important to create opportunities to pass along that knowledge. Without the "why" behind the processes, younger workers can fall prey to thinking they know better just because their ideas and education are newer.

As the old guard educates the new guard on the system specifics, the new guard can show the old guard how to use digital tools, improve their digital literacy, and help them achieve efficiencies. For professionals who are five or more years away from retirement, this support can greatly extend their

productivity and professional enjoyment as they round out their careers.

TAKE A DIGITAL-FORWARD APPROACH

Transitioning to digital tools may have challenges, but the benefits are too good to pass up. In addition to vastly improving asset management, a strong digital platform can be a valuable recruitment and retention tool. Although veteran employees may be hesitant to adopt new ways, the right digital tools can motivate them to get on board if the tools improve workflow and reliability. And if your asset management platform is antiquated, clunky, or unsupported, it will be hard to attract young professionals and keep those who are frustrated with an outdated system.

Water systems are grappling with two significant workforce changes: a mammoth retirement wave and a fundamental shift in how utilities store and transfer employee knowledge. Without a plan to capture the wisdom of retiring workers, your utility risks losing significant amounts of institutional knowledge that could result in system failures and expensive, unplanned downtime. This succession planning is especially challenging given the typical resistance of older workers to new technology. New tools offer undeniable benefits but are tricky to deploy with such a range of technological comfort among worker groups. Being intentional in your response to these strong currents will help your utility sail smoothly into the future. 