

Ask the Experts



Over the next several years, water and wastewater utilities will have to deal with large numbers of their workforce reaching retirement age.

What are some things your organization is doing (or is planning to do) to prepare for this exodus?

Each issue, we ask members of the *On Tap* Editorial Advisory Board to answer a drinking water-related question. We then print as many responses as space permits. The opinions expressed are not necessarily those of NESCA.

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Reach Out to Bring Them In

There is no substitute for experience and replacing those who have been around for a while is a daunting task. However, what I can't seem to explain, but I am encouraged by, is the high quality of people who are interested in entry-level positions in the water and wastewater treatment fields.

When I interview people, they claim that their interest stems from news coverage of problems and challenges facing those working in our profession. What we are finding out is that the water and wastewater treatment fields are attracting talented prospects from engineering, biology, chemistry, mathematics, and environmental science disciplines.

We have experienced great success by participating in career nights at the local high schools and community colleges and have actually found several employees from these venues. We also host tours of our facilities for local college, high school, and elementary school groups. These students usually find the facilities and operations fascinating once inside the gates. Sharing our time and experiences can and will inspire the next generation of utility operators and managers.

Keep a Long-Term Perspective

Most of the federal environmental laws (including the Safe Drinking Water Act) were first enacted in the 1970s. The passage of those laws and new requirements for both water and wastewater treatment resulted in many people entering the treatment arena as certified operators. Thirty years later, those experts in the treatment field are approaching retirement age. As they retire over the next few years, there will be a problem finding new certified operators, especially with experience, to replace them.

The recent federal requirement for drinking water treatment and distribution operators has caused some amount of upswing in the number of people seeking certified operator status. However, many of these "new" operators are people who have been in the field for years but never needed to be certified. The number of young workers seeking water and wastewater certification is on the rise, but at a level far below the rate of personnel leaving the field. Additionally, for small systems in particular, there is the problem of operator retention. As a "lowly" operator becomes trained and certified, there is always a better position available at another utility. A crisis is in the offing.

Utilities need to start bringing young people into the realm of certified operator. This means finding those who are interested

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in making a career of utility work. It means stimulating them by making the job both interesting and challenging. It means pushing them and encouraging them to gain knowledge in the field and move up the levels of certification. It also means paying them according to the importance of their position.

Certified operators are one of the poorest paid groups of public employees. Quite often they are not appreciated for their important role in society. These people protect public health by making sure the drinking water is safe for all citizens to drink. They protect the waters of our nation by adequately treating wastes so that pollution is minimized and water quality maximized. They are on call around the clock, in any kind of weather, to repair, rebuild, and react to every emergency that threatens water and wastewater systems. Until proper recognition—including adequate pay—is achieved there will continue to be shortages of trained and certified operators.

Once a utility admits the importance of its operators (not just for regulatory compliance), it can start looking to them as the future of their operations. Adequate pay, a chance for advancement, continued training and learning opportunities, and a challenging level of responsibility will not only bring young people into the field, but also assure their interest and loyalty to the job. Utilities must create the proper atmosphere to bring interested employees into the field, and more importantly, keep them there.

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Craft Training to Meet Needs

People working in the water/wastewater industry are well aware of this problem, or they should be. Unfortunately, I think conditions will get very uncomfortable before they improve. There is a reason people are not entering the industry—it's called money. Most operators are not paid appropriately for the amount of knowledge needed and the job duties they perform. Supply and demand has a way of working these things out eventually. I've seen this happen in other industries.

Those of us involved in the creation of training materials and those providing technical assistance in the field should be able to paint an accurate picture of what operators and managers need to know. Amorphous guidelines and thick manuals will not work for small system operations. State-specific training tools will be very important to new operators. Sure, they'll need to know in general how to operate and maintain systems, but they also need access to specific documents or templates that help them perform their day-to-day job duties.

If the operator of a system retires before passing on his experiences to another, then case-study applications will become more important. There must be an obvious path for a new or aspiring operator to follow. We should not inundate an operator with unrealistic expectations. If he is certifying to operate a small ground water system with no treatment, then teach him according to that configuration with an appropriate case study. Don't bury him with topics he will not deal with. If his system changes, such as addition of disinfection with the Ground Water Rule, then his certification requirement would change too, and he would need that additional training.

The best way to learn how to operate a system is hands-on. How do we motivate experienced operators to pass that information down to the newbie? If I were a system owner, I would insist on an up-to-date operations' manual. If that manual does not exist or if it has not been updated in a year or two, then that task should be made a high priority. It is imperative that the body of knowledge from the retirees be handed down to the new people. Whether this information is scratched onto crumpled paper or neatly printed from a computer program does not matter. It just better be there.

One training application that could help solve this problem is what I refer to as a "win-win" activity. This application would

make it easy for a seasoned operator to assemble a very informative and complete operations manual. This is a win for the system owner and the new operator that eventually replaces the seasoned operator. If the seasoned operator is able to earn credit toward maintaining his license for performing this task, then he is more likely to do this, a “win” for him. If we wait too long, then seasoned operators will not care about maintaining their certification and this is a non-issue. So let’s get to work all you training developers and providers. There’s plenty to be done.

Kevin Kundert

Training Director
Montana Water Center



Consider Various Options

At my company [Peninsula Light Company], the average age of our employees is approximately 48. Fortunately, people in upper management positions are not all set to retire at the same time, and at least one of the three is a younger, experienced professional. We recognize that there is a need to plan for a significant portion of our workforce nearing retirement. This month at our annual strategic planning session, one of the action items to be discussed is a succession plan for retiring employees.

One advantage to existing (and often younger) employees is the greater opportunity for advancement within the company, but it also means an increase in hiring and training new employees. The obvious downside is the history and experience that leaves with the outgoing retirees.

Another way my company has retained at least one employee (me) is to offer a more flexible schedule and reduced hours. This may also work for some retirees who are not ready to fully leave the job market.

As a company, we also have a pretty good record for hiring high school and college interns. One of these interns, after coming back each summer, finally moved into a permanent position. I began my career during college as an intern for a large municipal water system, and I’m still involved today in the water industry.

I was previously active in a water organization where age was a concern and also diversity (minorities and females). As the first female chair (and under age 40 at that time), my first mes-

sage to the membership addressed this particular issue. At that time, there were only 30 women under the age of 35 and not that many more men in the same age category for an organization with more than 2,000 members. This organization today has over 3,000 members. The strategic plan, which was reviewed annually, was modified to target this issue and it appears that these goals are coming to fruition. The strategies outlined to achieve these goals included expanding the types of committees and conference activities that would attract a more diverse membership. It also included promoting the young-professionals’ group.

Actions that can reduce the knowledge drain or ease transitions include job shadowing, cross training of positions, mentoring, and good historical documentation of important decisions and actions that can be relied upon if they arise again after the experienced employee has left.

If there is not an adequate pool of candidates with relevant experience, it could mean the industry might have to rely more on outsiders (i.e., those not previously connected with the water industry) being brought into the fold. This has the potential for creating more employee stress or anxiety than would normally happen with any transition, but it can also increase creative avenues for getting business accomplished. Change is inevitable; it is only a matter of time.

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We're all ears!

Have you benefitted from information you've read in *On Tap*? Have you used any of our other services? We're always interested in learning how what we do helps you. Here's how to contact us:

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