



Focus: Water Infrastructure

Utilities at the Crossroads

The pressure mounts for municipal drinking water systems

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New Jersey's publicly owned water supply utilities are coming to a crossroads. The choices made in the next five years will have an enormous influence on who provides drinking water to our residents and businesses, the rates charged to those customers, and the quality of service. The drivers for these choices will be the new Water Quality Accountability Act and the existing Safe Drinking Water Act, affecting future needs for improved drinking water treatment and the management and replacement of pipelines, pumps, and people.

At last count, New Jersey has more public community water supply (PCWS) systems (584) than municipalities (565). These systems provide water to 90% of all New Jersey residents. They range in size from very large, serving three-quarters of a million people, to tiny, serving less than one hundred people.

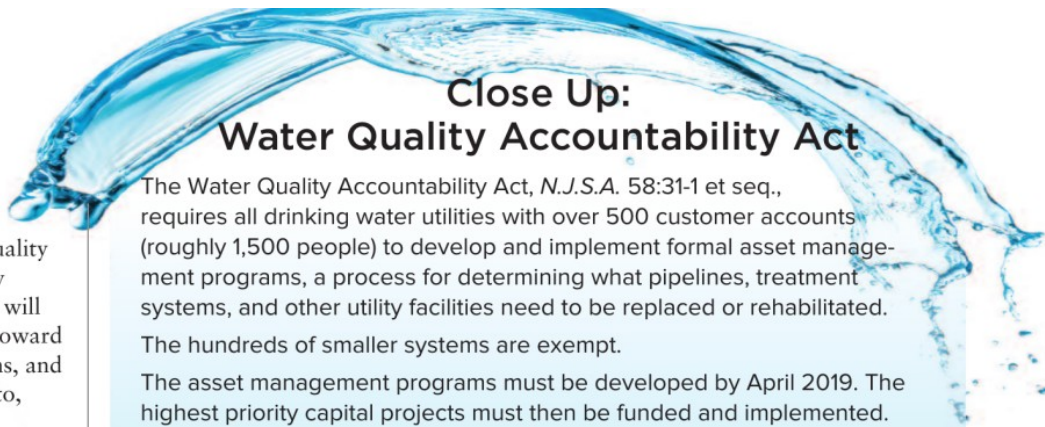
The largest 13 systems provide service to 3.9 million residents; they are mostly owned or operated by private-sector, investor-owned utilities (NJ American Water, Suez Water-New Jersey, and Middlesex Water). Only Passaic Valley Water Commission, Newark, and Trenton are publicly owned and operated, while Jersey City Municipal Utilities Authority contracts out its system operations to Suez Water.

Another 24 systems serve the next 30% of residential customers. These mid-sized systems serve between roughly 40,000 and 100,000 residents, and nearly all are publicly owned. Another nearly 90 systems serve between 10,000 and 40,000 residents; again, nearly all are publicly owned. These systems are too small to be big, and too big to be small, which means that they face difficult management decisions. They may need to attract and retain capable staff (a major concern as so many utility employees reach retirement age), purchase and effectively operate improved technology, and replace or rehabilitate old infrastructure—the pipes, pumps, and water storage facilities that all too often have not been maintained. These needs all put pressure on costs and therefore customer rates, which can create a backlash if the public is not convinced of the justification

for rate increases. Customers need to know that our drinking water utilities require regular investment to overcome declining infrastructure integrity (as do our wastewater and stormwater utilities also, but that is another article). Avoiding the costs now simply means greater costs later.

And what of the smallest systems, which serve under 10,000 residents? There are well over 400 of them. Roughly 120 of these serve more than 1,500 residents; some are owned by investor-owned companies (those listed above plus Aqua-New Jersey and a few others), but most are owned by municipal governments or municipal utility authorities. Most of the rest, the very smallest, are owned by private companies and serve specific developments, such as small mobile home parks, apartment buildings, or single-family home developments. These 400-plus small and tiny systems have limited revenue and therefore limited ability to hire qualified staff and experts. They may be one major cost away from insolvency, especially for the smallest.

In sum, the biggest systems have large enough customer base that they should be capable of serving their customers well, though we know that what should be possible and what is actually accomplished sometimes don't match. The middle-sized systems should also be able to manage their systems well, but that requires expertise and political will, especially for the publicly owned systems that can't call on a parent company for help. The smallest systems have very limited ability to manage their systems in a cost-effective way.



Close Up: Water Quality Accountability Act

The Water Quality Accountability Act, N.J.S.A. 58:31-1 et seq., requires all drinking water utilities with over 500 customer accounts (roughly 1,500 people) to develop and implement formal asset management programs, a process for determining what pipelines, treatment systems, and other utility facilities need to be replaced or rehabilitated.

The hundreds of smaller systems are exempt.

The asset management programs must be developed by April 2019. The highest priority capital projects must then be funded and implemented.

To read the act in full, visit njleg.state.nj.us/2016/Bills/PL17/133_.PDF

Please direct any questions to watersupply@dep.nj.gov with "Water Quality Accountability Act" or "WQAA" in the subject line.

Forcing decisions

Which brings us to the Water Quality Accountability Act of 2017, a very important piece of legislation that will drive our drinking water utilities toward better management of their systems, and will drive public decision-makers to, well, make decisions!

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This new law will drive New Jersey to the forefront of utility management nationally, if implemented well, but in the process will make clear the costs of running our utilities properly. Those costs and the complexities involved with improved utility management will force decisions regarding the ownership and management of these utilities.

In some cases, implementation of asset management programs could actually decrease customer costs, through reduced system leakage, more efficient pumps, more cost-effective treatment processes and better operations. However, in many cases we should expect increased utility costs, and that means increased customer rates. Increased rates will make drinking water less affordable for financially stressed households, or businesses.

Also, utilities that lack routine asset management programs will find that the complexity of their work has increased greatly, requiring more expertise and more rigorous management by utility staff and their decision-making bodies. For publicly owned systems, that means municipal utility authority boards (i.e., volunteers who may or may not have utility expertise) or municipal governing bodies (i.e., elected officials who rarely have utility expertise).

One likely result of this new law is that some municipalities will decide that they no longer want responsibility for their water utility. Offloading the headaches can reduce the complexities of municipal governance, especially for municipalities with small populations and little in-house staff. Decisions of this sort can be very controversial, but so are rate increases. We have seen waves of divestitures in the past, often when new drinking water

quality standards require major treatment plant upgrades that would impose high costs, or when a local water source is contaminated or no longer sufficient.

In a few cases, municipalities may decide to merge their system into a larger publicly owned utility. Sometimes the municipal utility is not divested, but management is outsourced to an investor-owned utility or private consultant that can bring in expertise. Sometimes, a decision is made to sell the utility, a step that should be seen as irrevocable because the cost of re-acquiring the utility would be prohibitive (See February 2016 *NJ Municipalities* article, "A Flood of Choice: Considering Privatization of Water Utilities," pp. 22-26). The advantage of a sale, especially for small systems, is that the local system gets merged with the rate base of a much larger utility, spreading the costs to customers outside the municipality. In essence, the local customers get subsidized by the other customers of the investor-owned utility.

New law, new stress

As with most major legislation, solving one problem can create new stresses. In this case, our need for better drinking water utility management is clear. As a result, affordability stresses, management stresses, and political stresses will increase. Those stresses will drive decisions by municipal leaders.

It will be important for New Jersey to provide clear rules and a level playing field so that the right long-term decisions are made, and not just the most expedient choices. ♣

The views in the article are those of the author and have not been reviewed or endorsed by Rutgers University.