

Statement to the Senate Committee on Environmental and Public Works Hearing on “Identifying the Unique Challenges that Small, Disadvantaged, and Rural Communities Face in Accessing and Maintaining Drinking Water and Wastewater Treatment Services, Including Infrastructure Assistance, Through the Various Clean Water and Drinking Water Programs Administered by the U.S. Environmental Protection Agency”

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Dear Senators, on behalf of the Region I Planning & Development Council, I sincerely thank you for the opportunity to discuss our infrastructure utilities. The following are my observations of the challenges and potential resolutions to infrastructure needs in southern West Virginia. While the focus of our discussion is sanitary sewer service, most of the comments below are applicable to potable water service as well.

The infrastructure needs of Region I along are staggering. In calendar year 2021 (to date), staff have prepared and submitted close to eighty applications, totaling over \$119 million in need. Over twenty projects, representing more than \$15 million, have been funded (many of which were applied for in 2020). It should be noted that most projects mentioned (both applications submitted, and funding received) represent water or sanitary sewer improvements. I am certain that many of these same issues are relevant throughout Appalachia, as well as the rest of our nation. It is my sincere hope that the following observations will be of assistance to you.

Challenges

1. Aging infrastructure: Much of the sanitary sewer infrastructure within our state is antiquated and outdated. Most of these systems are well past their useful lifespan, and some are more than 100 years old
2. Declining population and customer base: As you know, West Virginia has suffered a tremendous decline in population over the last several decades. While the customer base has dwindled, the costs associated with operating public utilities increases as electricity, chemical costs, and labor costs rise due to inflation. There are fewer customers left to bear the financial burden.
3. Topography: Rugged geographic conditions are a limiting factor for the expansion of sanitary sewer. Difficult terrain limits engineering options, and often rocky conditions result in difficult and expensive costs for installing sewer line for traditional systems.

4. Artificially-low rates: Many public systems refuse to raise utility rates. They do this with the mindset that they are helping their customers. They are harming the overall viability of the community by depriving themselves of the revenue necessary to properly operate and maintain the system. Unfortunately, when systems experience catastrophic failure, they do not have the capital reserves required to remedy the situation. The utility must then rely on state and/or federal emergency funding to remediate the issue and resume operations in a timely manner. This is not fair to the funding agencies, nor to the political leaders that are thrust into the spotlight and pressured to provide “quick fix” money.
5. Lack of system mapping/no institutional knowledge: Adequate knowledge of the system and its assets is essential to proper maintenance, expansion, and repair. Many public utilities have no documented mapping; mental information is all contained within one or two veteran operators. If these operators retire, pass away, or leave unexpectedly then all that institutional knowledge disappears as well.
6. Lack of incoming workforce: There is a dearth of new operators and workforce coming online to work for these utilities. Often, new operators will work for a small utility, then leave for a more financially lucrative opportunity at a larger system after receiving the necessary credentials.
7. Lack of technologies: Both the leadership and the workforce of many utilities remain antiquated in their technologies, if they have any at all. For many sewer systems there is no integration of technology to improve management and operational efficiencies. A perfect example of this is how many utilities have failed to adopt virtual meeting practices and equipment during the COVID pandemic. Many municipalities and public service districts continue to insist on meeting in person, even though CARES act funding was widely available for the purchase of audio/visual equipment and software. Aside from the public health aspects of utilizing remote technology, utilities would benefit extremely from conducting meetings virtually. This methodology should be utilized regardless of any public health crises; conducting meetings virtually drastically reduces project costs by eliminating expensive travel fees and hourly charges for professional services such as engineers, legal counsel, accountants, and project administrators.

Possible Solutions

1. Regionalization: Many utilities are simply too small to operate efficiently given their dwindling customer base. These small, inefficient systems should be merged into a larger utility to realize the economies of scale.
2. Utilization of non-traditional systems: Many project areas are too small, too distant, or traverse terrain too rough to be viable for conventional sewer systems. In these situations, the utilization of non-traditional, de-centralized sewer systems provide one possible solution. Similarly, many sewage treatment plants require a certain level of use to operate efficiently. Dropping below that results in operational inefficiencies. Having de-centralized systems that a community can “walk away from” as populations decline means that there is no additional stress added to the main utility.

3. Frequent minor rate adjustments to match inflation and customer decline: This is perhaps the single most important response to our deteriorating infrastructure. It is imperative that utilities implement regular rate adjustments to match inflation of labor and materials. Failing to do so only results in a utility that never has the resources to properly maintain their system.
4. Keep audits current: Many systems are remiss in completing audits and reports on time. Falling behind results in ineligibility for grant funding, as well as a general ignorance of the financial health of the utility.
5. Require implementation of current technologies: Require utilities to implement technologies that aid in system and employee transparency, efficiency, and record keeping. Using technology prevents manual entry of information (such as in maintenance logs, etc.), allows for work orders to be issued without staff having to physically return to the office, records pertinent information (such as job completion, field inspections, etc.) and offers increased public input and participation (online problem reporters, etc.).
6. System mapping: Completion of detailed system mapping aids in operational performance. Digital mapping means less time is spent searching for system features, staff can have information at their fingertips (ex: operating manual for parts hyperlinked to feature point on map), and scheduled maintenance can be depicted and tracked visually.