



Community and Economic Development in North Carolina and Beyond Blog: Five Dangerous Myths for Small Water Systems

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Article: <https://ced.sog.unc.edu/five-dangerous-myths-for-small-water-systems/>

This entry was posted on July 28, 2015 and is filed under Financial Assets, Financing Development

Small water systems serving 10,000 people or less comprise more than 94% of our nation's public water systems. They are a large and diverse group, and are managed by a wide variety of actors – from local and tribal governments, to mobile home park owners, to homeowners associations, to shopping mall operators and hotel managers. These managers often have many other, very different responsibilities and often face challenges in running the water system. In 2011, 25 percent of the nation's smallest systems violated health-based standards in part due to their geographic isolation, small staff size, growing infrastructure needs and small customer bases. And as we wrote about earlier this year, small water systems with financial difficulties are more likely to have violations.

Since 2012, the Environmental Finance Center at UNC and the Environmental Finance Center Network have been working to help educate and build financial and managerial capacity within small water systems. Through our work under the Smart Management for Small Water Systems Project, we've noticed 5 dangerous myths in financial planning. These myths can appear wherever water system planning occurs, but seem to be most prevalent among smaller communities that are considering creating a new or significantly expanded water system.

Myth 1: Significant grant funding is essential to expanding or improving a water system.

We have encountered many communities that are reluctant to invest in a water system unless they can find a grant to cover all, or at least a significant part of, the project. In some cases, economic conditions leave communities with no alternatives – they are broke and/or their rate base has no financial capacity to support anything close to what they need. However, if a water system is not in a position to finance or take on any debt and can only improve itself by relying on grants, it might be worth asking if the system can really remain a viable independent entity moving forward. This may be a harsh assessment and may lead to uncomfortable social debates, but from a practical standpoint, grant funding has decreased steadily over the years, and there is little evidence this trend will change in the future. Fortunately, many systems have access to debt at historically low interest rates either through pooled state programs, State Revolving Loan Funds, or USDA loans. In many cases, water systems have some basic capacity to self-finance, but are reluctant to go forward without grant support. In some cases, leaders feel it is important to show their customers that they were successful in getting outside funding assistance before they raise rates. In these cases, being able to clearly demonstrate the economic value of subsidized public debt options (they include hidden subsidies) may make small system leaders feel more like they are getting outside help.

Myth 2: New is best.

Many communities considering new or expanded water systems are faced with choices about where they get their water. In some cases, communities have a choice of building something new or relying on existing facilities which may be owned and under the control of someone else. The "new" option often wins out, leaving small systems with an exciting new asset that ends being considerably more expensive for their customers than if they had figured out a way to tap into existing available capacity. The decision to go with something new can often be traced to a financial analysis or feasibility study that shows that the new option is a good investment compared to tapping into existing resources that they will not be able to control. We have dusted off many financial analyses that helped convince a community to build something new, and have found that the justification was founded on flawed assumptions (see Myth 3 and 4).

MYTH 3: Build it and they will come.

Many rural water systems have been unpleasantly surprised by the number of new customers that connect once their plants are built, lines completed etc. Being very conservative about how many customers will sign on to a new water line may not make your financial projection look very good, but it will decrease your chances of being disappointed and having



to scramble to find funds to pay off water loans once revenue does not appear.

MYTH 4: You can predict the future by looking at the past.

The past has proven to be a poor predictor of the future in many aspects of water financial planning, including estimated water sales. As the price of water increases, water efficiency standards spread, and customer attitudes towards water change, the volume of water they can be counted on to purchase has also changed. New customers, particularly those in newer homes with more efficient fixtures, often use far less water than the average existing customers. In many parts of the country, residential customers that could be counted on to purchase 6,000 to 7,000 gallons per month are now using half of that amount. We see some of the lower average per capita water use figures in the country in small rural water systems with relatively high water costs.

MYTH 5: Utilities need to have very sophisticated rate structures to achieve their goals.

Multi-tier rate structures with fancy names may have their place in some situations, but for many smaller systems – simple seems to be the best. Smaller water systems often have small homogeneous customer bases. The average cost of providing water for these small systems is expensive enough that customers tend to see the value of it without the utility resorting to different block structures. In fact, many of the rural systems with whom we work have water rates higher than the highest conservation block of their urban peers. Our advice to most small rural systems: figure out how much revenue you need to cover your operating costs and capital investment needs, allocate as much of it as you can to a sizable base charge, and collect the rest with a uniform charge based on conservative estimates of customer usage (see myths 3 and 4).