

## Water Rates and Capacity Development

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Capacity development has been heralded by the Department of Health and Human Services (DHHS) as the main goal in their dealings with the water systems in the State of Nebraska. Capacity development has three main components, namely technical, managerial and financial, and all three of these play an important part in the overall “health” of a public water system.

The State of Nebraska has been ahead of the curve in regards to technical capacity. The state had an operator certification program long before it was mandated by the federal government, and operators have been required to attend continuing education to keep abreast of changes in the industry. This emphasis on education and increasing the skills and knowledge of water system operators has gone a long way in improving the technical capacity of water systems within the state. Technical assistance providers, such as The Nebraska Rural Water Association, The League of Nebraska Municipalities, Midwest Assistance Program, the Nebraska Section of the American Water Works Association, offer water system operators useful information on the operation and maintenance of their water system, as well as updates on the continually changing regulations under which the water systems must operate. All of this works to the benefit of the state’s water systems in increasing their technical capacity.

Managerial capacity has also been increased in the state’s water systems. Since the DHHS started using the enhanced sanitary survey, many areas of management have been addressed. Many management policies are reviewed as a part of the sanitary survey, and deficiencies are noted and reported to the owner of the water system. Cross connection control policies, emergency planning, short and long term planning and operation and maintenance procedures are among some of the management areas that are considered. The Check Up Program for Small Systems (CUPPS) is a new tool that will soon be ready for systems to use to improve asset management capabilities. This tool will allow systems to maintain a certain desired level of service at the best appropriate cost. Systems that use the CUPPS software will gain an understanding of the condition of the infrastructure and other components of their system and the steps that will be necessary in the future to maintain the system in a manner that will assure their ability to deliver safe water to their customers. This will result in an even greater increase in the managerial capacity of the water system.

Having trained our water operators how to operate the water system efficiently, and giving water operators and system owners and managers the tools to determine the steps that will allow the system to continue to operate smoothly into the future, we now come to part three in capacity development. “How are we going to pay for this?” There are two schools of thought on the answer to this question. The first one is that the current users should maintain the system and pay as they go. This would include having reserve funds set aside to replace all components of the system in a timely manner as they wear out. The second school states that the future users of the system should pay for the improvements that they will be utilizing. This would lead to borrowing money for improvements and having the users of those improvements pay back the load over the life of the improvements. Both of these methods have valid points to them, but they also both require a rate structure to accomplish their goals.

Rates for the first method must be set high enough to cover all current operation and maintenance costs, and also fund a reserve that will be capable of paying replacement costs of system components as they reach the end of their useful life. This goal might be practical for a system if it has been in place from the time the system was built, but to try to implement it at a time when a large portion of the system infrastructure is nearing the end of its useful life is nearly impossible. A lot of small systems are reaching the point where major replacement of infrastructure is becoming necessary, and they are finding out just how expensive that is.

On the other hand, setting rates just high enough to cover operation and maintenance costs, and expecting future users to cover all replacement costs will put a heavy burden on those future users. Many systems that have used this practice, whether on purpose or by accident, are finding that their water rates are doubling, tripling or even worse when the time comes for major system improvements. This can have an adverse effect on the system as a whole, from the customer on a fixed income to the youth of the system deciding if they want to stay in the area or move away.

A water rate that looks at both of these options and plans for a gradual increase in the cost of water over time while still building reserve funds for replacement costs of system infrastructure is a good compromise. System owners need to realize that they will not be able to fully fund infrastructure replacement with income derived from current water rates, but they do have the opportunity to reduce the impact of that replacement on future users by striving to build up a fund that can be used to partially pay those costs and reduce the indebtedness of the system. Determining what amount the system can afford to start saving and what average water bill the customers can afford is one way to begin the process of setting rates in an equitable and fair way for the system and its customers.