

Asset Management; A Big Part of Capacity Development

By Randy Hellbusch, Circuit Rider

Capacity Development, as most all of us know, is the emphasis of NHHS and EPA's drinking water program. The three aspects of Capacity Development are Technical, Managerial and Financial. I have always professed that the latter mentioned, Financial, is the real key. If you don't have the finances, you most likely don't have the Technical expertise or the Managerial capabilities to run a water system.

Looking more closely, you really can't have a true financial picture of your system without proper management. To understand what kind of money is really needed to keep the system in optimal shape, you first must understand what shape the system is in at the present time. This is where recordkeeping is crucial. Records of when lines were installed or repaired, hydrants flushed, valves exercised, meters installed or tested and tank painted or cleaned are vital to know the true shape of your water system and to understand what kind of expenses you are facing in the near future.

Let's assume, and I know that this is a big assumption, that everyone has excellent records of all of the installations and repairs of the system. How do you best use this information to manage your assets? The following table shows the typical life expectancies of various water system components. Keep in mind that a number of factors can affect how long a certain asset will last. This is where good recordkeeping is crucial. If an item has been well maintained and serviced, it will have a greater life expectancy. Excessive use and environmental conditions, such as poor water quality, can reduce the life expectancy.

One asset that often is not accounted for is the water storage facility. The table below shows an elevated tank is expected to last 80 years. That is if it is properly maintained. Tower coatings are constantly improving and lasting longer than ever before, but like all products, with better quality comes a higher price. Ten years ago, it was suggested that a 100,000-gallon, elevated tank would cost around \$5,000 a year on average for inspection, repair and coatings. We are now seeing those cost more around the \$10,000 range.

Very few systems that we do rate studies for are including a water tower reserve for when the tank needs repainting. The tank may only need painting every 25 years or so but the cost often exceeds \$200,000. If the money hasn't been allocated for this it can be a tremendous blow to the water system financially.

To determine the adjusted useful life of an asset, use the table and adjust according to current age and condition of the equipment. Once you have determined the remaining useful life of all components of your system, it is time to start planning.

Now that you have an idea how long you expect each component to last, a little research will tell you what it is going to cost to replace or repair it. Parts suppliers, well drillers, tank contractors, engineers, etc. can be very helpful in this process.

Now that you know how much time you have and an estimated cost, you can calculate how much money should be set aside each year to have the financial resources to rehabilitate and or replace each component when necessary.

Unless your water system is in better shape than most, you will probably also have to prioritize. Decide which item is most critical and budget accordingly. Once again, good records are crucial. They will help convince the water board or City Council that these items definitely need to be budgeted for.

If NeRWA can be of assistance with this issue or any other aspect of your water system don't hesitate to give us a call.