

# Money Decisions in Small Water and Wastewater Systems not a Small Task

In the March 2019 issue of *The Kansas Lifeline* magazine I described how operating and maintaining water and wastewater utilities is becoming more unaffordable in small communities. In that article I presented a case study and an example of the city of Toronto and the challenges it faces with deteriorating infrastructure and the need for improvements to the water and wastewater systems. The city does not have enough revenue or savings in the bank to pay for a two, three, four, or 10 plus million dollar project. What small town or small rural water district does? I would suspect nearly all small towns or districts across Kansas have had to make the decision to borrow money to refurbish, rebuild, or construct a new water or wastewater treatment facility, or make improvements to the wastewater collection system or water distribution lines.

The need for improvements can vary greatly. Some improvements are necessary to maintain compliance with State and Federal water and wastewater

regulations. Other improvements may be necessary to replace or upgrade failing equipment or infrastructure, out of date technology, or increasing capacity for additional customers. The latter is seldom the issue with smaller entities. No matter the reason, one thing is consistent with all small

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communities. There is rarely internal city or district money to cover the entire cost for these projects. Many entities are progressive in setting their rate structure to set money aside for future water and wastewater projects. However, more times than not the funds that were set aside for water or

wastewater improvement projects were used on other projects. Two examples of this that I have been told, are the improvement of Santa's sleigh for the Christmas parade and the replacement of the mayor's brother-in-law's driveway.

The recipients of the USDA loans and grants in Kansas were announced last December and were listed in the March 2019 *Lifeline* issue. The range of the cost estimates for the 16 recipients range from \$250,000 dollars to more than \$7 million dollars. Not one of those projects would be what I would consider a wish list project. A wish list would be the list of everything the city would like to improve possibly both water and wastewater should the estimates and the financing all fall within the city's and citizens' budget. Very seldom have I seen a city that was able to fulfill the entire wish list. More commonly the project cost estimates come back and the price tag for all improvements (the wish list) will be unpayable by the citizens, unless the citizens wish to all chip in for the 10-million-dollar project out-of-pocket. In a town with a population of 300 each citizen would chip in over \$30,000. Again, I suspect most small communities have had to at least consider an alternate source to pay for the proposed improvements. These types of difficult decisions can often divide an already struggling community or district. The dividing factor is not whether the improvements need to be made. The real question for most small towns and its citizens is what will the monthly rate increase be per household. Rates could double, triple, or quadruple depending on how



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fancy the city council or an engineering firm decides to get with the improvements. Another issue is that a rate increase does not financially affect each citizen equally. The rate increase is equal for all citizens. However, a rate increase of X-amount of dollars per month affects Mr. and Mrs. Fi-Nanchewlee Stable and Mr. and Mrs. Runuv Badluck very differently. In the March 2019 *Lifeline* Greg Duryea, assistant manager of Kansas Rural Water Association (KRWA), discusses the importance of adjusting rates and reviewing those rates annually. As Greg pointed out in his article, only one of seven systems that had a rate review were charging a rate that was adequate to fund the daily operations. If the rate in six of seven towns or districts isn't enough to cover daily operations then the rates for any upgrade in water or wastewater are obviously going to be drastic compared



Pipe from a water system in Kansas. Many clamps....

to the rates that are already too low to cover daily operations.

Knowing their current rates are probably already too low and a significant increase will be necessary for major improvements, the manager, mayor and councils must now consider even more factors. Does the city or district choose the 10-million-dollar water and wastewater wish list project or does it only repair the absolute necessary infrastructure or a single segment of water line or collection system to keep rate increases payable by all citizens? Often the mayor and council make decisions based on the potential rate increase and not the future of the community.



This section of 4-inch cast iron pipe shows excessive mineral deposits found in many old water lines.

In the debate of whether to take a loan that will significantly increase rates there is usually one common argument. "Many folks in this community are on fixed incomes" and increasing the rate to whatever percentage is too tough to absorb financially. I have family members who are on fixed incomes so I empathize with that argument. However, I do not believe a reasonable comparison is ever thought of for other common expenditures or services.



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There is no average or common cost per gallon for water in Kansas due to the many circumstances that affect rates. For comparison, I will use the \$5 per thousand gallons of water I pay to my rural water district as a reference. Milk is \$4 per gallon. Purchase 2 gallons per month at \$8 and you get two gallons of milk that you most likely had to travel to purchase, increasing the overall cost. Compared to 1000 gallons of water delivered to your tap, no travel necessary. If you happen to be an occasional cheap beer connoisseur like myself, one gallon of middle of the road cheap beer will cost around \$9 gallon. If I could only get cheap beer delivered to my tap for \$9 per thousand. One gallon of gas costs \$2.75 which could be burned up in a 20-mile drive. How much extra money is spent per month on fuel so we can drive bigger, better vehicles?

In addition to water, another utility that most cities do not have rate control over is electricity. The average electric bill in Kansas is around \$100. This rate is double if not triple most water and sewer bills. I suppose the electric company could just let the old electric

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poles break off and use every other pole or scab on a piece of pipe to the pole to hold the line off the ground if citizens did not want to pay for upgrades. This is similar to what water and wastewater operators are asked to do daily for their systems rather than permanently fix the issues. If these logical comparisons for other utilities and daily items purchased still does not alleviate the frustration of increasing water and sewer rates I believe I have a system that could assist with the sticker shock of a rate increase for improvements to the water and or sewer bills.

The first part consists of education; inform the citizens why the city or district needs the improvements. One of my family members in a smaller community who is on a fixed income stated that his sewer bill doubled in the last year to \$38 and that is twice the price of his approximately \$20 water bill. So roughly \$70 is spent on water and wastewater. I asked him what the city’s explanation was for the increase and he stated that the city did not provide an explanation. I have worked with the city and explained the rate increase was to correct the city’s inflow and infiltration issues. Despite my

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explanation, the fact that the rate doubled seems drastic to my uncle. I am sure the city posted in the local newspaper or some other form of communication the reason for the rate increase but to a fixed income person this may not matter. If education does not relieve the anger or frustration for the doubling rate increase, I feel I have a couple foolproof system that will work.

First the city building codes may need to be revised to allow each household to construct an outhouse for this system to work. A jar needs to be placed in the outhouse to collect whatever payment the person using the outhouse would be willing to pay per use to have running water back into the toilet. I believe during the extreme cold or hot months more than the \$38 monthly cost of the water bill in the example above would be in the jar at the end of any month. Additionally, the city should provide a 5-gallon bucket for each household to carry to the local creek to fetch water. Again, after each bucket is carried back to the house a jar would sit by the door for a payment for the amount of money a person would pay to not have to carry the 5-gallon bucket from a creek for bathing, drinking and cooking. 200 trips at 5 gallons a trip for the same amount of water the person could have at the tap for \$5. I would venture to guess that more than \$5 would be in the jar after 200 trips. If surface water is not available, then a hand pump could be placed on the community well to pump water into the bucket.

Of course, this is a hypothetical example of how to prioritize the cost of fresh, clean, compliant water at the tap on demand. I would like to hear what my two teenage nieces have to say about being made to use an outhouse and carry water! Water and sewer conveniences are severely taken for granted. Not to mention the magic that happens at the toilet in the bathroom. One push of the lever on the toilet and PRESTO, the contents magically disappear into an unknown place out of sight and out of mind.

Many factors go into the decision-making process for what improvements need to be made to the water and wastewater systems. Each town or community has different factors that must be weighed. I have personally seen wish list projects and bare minimum projects both become great success stories and I have also seen them financially burden the community or district and not resolve the issue.

Contact our office and speak to Greg Duryea about rate reviews. To apply and receive grants, loans, or funding in general, a rate review will need to be completed. The sticking point in most projects is the monthly rate increase. One suggestion to all cities or water districts is to communicate to the public what the rate review from KRWA recommended, and to adjust the rates gradually over time, prior to needing the funding. Unfortunately, when most small towns or districts need the improvement projects, the need is near emergency status. Often the rates have not been increased for many years.

There is no guarantee that no matter how big or small the investment the outcome will be positive for all in the community. It seems like whatever the rate increases may be, it would be better than using a cold dark outhouse in the middle of January or carrying water uphill both ways.

My goal for the people of Kansas is to not lose sight of the extraordinary convenience of having water on demand and a flushing toilet in your home. No one wants to pay quadruple the amount for these same services. If each citizen compares their daily expenditures for other utilities, services, and the convenience factor, the rate increase may not seem so inconvenient comparatively.

*Jason Solomon works primarily as a wastewater tech at KRWA. He previously was District Administrator at the Kansas Department of Health and Environment southeast Kansas office in Chanute.*



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