

Water and Wastewater Line Expansion Policies - An Essential Aspect of Every System



Every utility should have written policies for construction of service expansions.

One of the most challenging operational and policy issues that can face small water and wastewater systems is extending service to new customers.

Notwithstanding any territorial disputes and subsequent mandatory cost calculations, there are some very practical considerations involved in extending service to new areas, as opposed to serving new customers within existing service areas. Often smaller systems do not have policies in place that allow them to handle these matters effectively. In fact, few small rural systems have the equipment or employees to construct new distribution or collection lines. Most of these systems don't own a backhoe or other construction equipment, because their system is stable and isn't expanding and they can contract for repair services without having the overhead of owning, maintaining and operating equipment. Besides the operation of the wells or treatment plant, or addressing line breaks, field employees in small systems typically focus on setting new meters, connecting and disconnecting service and reading meters, as well as dealing with sampling and other regulatory compliance issues.

So how do these types of systems handle service extensions? They hire it done. Often, there is a de facto policy in place. A local contractor who has done work for the system for many years provides the water or wastewater system with an estimate of the cost to install a new distribution or collection line. This is usually the same guy who gets called when there is a water line break that requires excavation, and he has some sort of hourly rate worked out with the system for these calls. He's typically a

knowledgeable contractor who knows what type of distribution /collection system is in place and he can manage the extension. He may also be the guy who coordinates the permitting with the relevant state agency for such extensions. Unfortunately, while this may comply with state regulatory requirements, this process can be pretty hit or miss in terms of sound and consistent planning policy. Here are just a few of the questions that should be asked and answered before a system attempts a service area expansion:

1. Is there a written policy for construction of service expansion in place?
2. Does it cover who is going to do the construction? Is "owner-build" allowed?
3. Once constructed, who will own the lines? How will future connections and pro-rata reimbursements be handled?
4. Are there policies in place for new developments without existing customers?
5. Are there construction specifications in place? Do they provide for inspections and detail the material specifications?

And following the usual format of many of my articles, it's often easier to use examples of problems that have occurred for real systems in order to illustrate these potential problems. With that goal in mind, here is a sampling of the problems that can occur when there is no policy for service area expansion.

The single service provider

The issue of line construction came up when a backhoe operator moved into a remote rural water system and wanted to install the service line leading to his new house. The water board told him that he couldn't do it, because they had a guy who handled all their construction work, and that the homeowner would be responsible for paying that expense as part of the connection costs. The system did have a guy. And he was the ONLY guy within a 50-mile radius who had a backhoe and who was familiar with water line installations. He had been doing the system's installations for more than 20 years by default, because there really wasn't anyone else available; still, he had no contract with the system. He would write out an "invoice" if he had to handle a water line break. He also showed up at the monthly board meetings and chatted with the board about anything that needed to be done. In many respects, he was a de facto employee, because the board didn't have any other employees; the contractor handled meter sets as well. The board members themselves jointly operated the single well. They had all gotten a state operator's license over the years or were grandfathered in and were very knowledgeable. Most of them had been on the board since the inception of the district back in the late 70's. The backhoe guy was also the brother-in-law of the system clerk, who was the same person who went out and read all the meters, sent out the bills and collected payments. Systems like this exist today and they do a great job of providing drinking water to their customers. However, they rarely have many written protocols in place and this system certainly had no idea what to do when faced with the request from the new homeowner – so they just said, "No!"

And saying "No!" created a huge problem. The new backhoe operator was familiar with public procurement procedures and raised a fuss. The whole matter turned into a personality clash between the board and the new backhoe operator, who demanded that the board competitively bid out future construction work, have a signed contract for emergency work, and publish written construction specs. It was a nightmare for the board members who had no choice but to follow



Policies for expansion of utility services need to include construction specifications, including detail of acceptable materials and requirements for inspection.

When thousands of dollars had been spent in attorney's fees and engineering fees, and the board did not choose the new backhoe operator after the bidding process was completed, he ran for a board seat and won.

accepted administrative practices and implement the appropriate policies. When thousands of dollars had been spent in attorney's fees and engineering fees, and the board did not choose the new backhoe operator after the bidding process was completed, he ran for a board seat and won. Then he raised nepotism issues and even went so far as to request a state audit, which the system had to pay for. The whole thing was a disaster and there was very little that anyone could do to fix it.



Piping • Valves
Fittings • Equipment
Accessories

**Largest Inventory of Municipal HDPE
Pipe, Fusion & Electrofusion
Equipment in the State of Kansas**

- HDPE Pipe & Fittings
- McElroy Fusion Equipment - Sales & Rental
- IPEX Friatec Electrofusion

For product pricing, availability, technical assistance
or other information please contact our
Sales Department Personnel:

Larry Schneider
913-940-1009

Russ Marks Ron Hardy
800-662-6750

1150 W. Marley Rd • Olathe, KS 66061
P: 913-829-3500 • W: 800-662-6750
F: 913-829-3515
www.industrialsales.us



The self-help customer

In another rural area, a small municipal water system was faced with an offer they couldn't refuse. A group of local doctors approached the council with a request for both water and wastewater service for a new outpatient surgery/skilled nursing center which they were going to build. The council, which had never dealt with an expansion of this size, informed them that the surgery center would use so much water that the well would have to be upgraded and additional capacity would have to be added to the wastewater treatment plant and that the board couldn't afford to do this without seeking a USDA loan and that would take some time to accomplish. For that reason, the council's response was initially sound. The council proposed that the doctors pay for the cost of the additional capacity as well as the service line extensions and that as and if additional customers requested connection in the area, the doctors would be reimbursed on a pro rata basis. So basically, the council wanted to give the doctors a price quote and then go out to bid and contract to have the work performed in order to meet their timeframe. This was an excellent start. Unfortunately, the council did not have this policy written down and had never formally adopted it. Nor did it have written construction specifications.

The doctors balked at the price tag, and countered with an offer to build the collection/distribution portion of the system themselves, because they didn't want to face unnecessary delays, pay prevailing wage or have the project put out to bid. And because there was no written policy that the council could fall back on, the doctors began to exert

political pressure in order to get the council to allow them to do "owner-build". Frankly, some of the council members didn't see any reason NOT to allow the doctors to do owner-build, because they were eager to see the jobs come to town and the tax revenue increase. The doctors certainly held all the cards, and ended up negotiating a one-sided owner/build contract with the municipality, that was prepared by the doctors' engineer. Unfortunately, the town council didn't realize that they needed to include terms such as construction oversight and a warranty period. They ended up accepting ownership of the system with no as-built plans either, after the doctors fired their engineer halfway through the project and the second engineer never provided the as-built plans. All in all, the construction was poorly done and when the water mains started having chronic breaks, and it was discovered that the backflow prevention devices were incorrectly installed, the municipality had no recourse against the doctors. The municipality realized that due to the fact that it had accepted ownership of the system, it had to pay to have the work fixed regardless of any court case, and it was probably cheaper to fix the work than go to court.

In addition, the municipality ended up in a dispute with the state department of labor over the prevailing wages issue. The trend in state and federal labor department decisions is that if improvements are constructed with the intent of turning them over to a governmental entity, then fair labor standards must be followed and prevailing wages should be paid. Some of the contractors who would have been doing the work for the municipality filed a grievance with the state, and the municipality ended up in a costly dispute over whether or not back wages had to be paid. Plus, there were permitting issues with the state over the wastewater collection lines, which resulted in more expense and retro-fitting. All in all it was a costly learning experience for the municipality.

If you build it, maybe they will come?

As anyone who is even remotely involved in the real estate world knows, new housing starts have declined drastically since 2008. What is a more subtle crisis is the number of developers of new subdivisions who have folded and left their developments partially completed. This can be a disastrous situation for the system providing service to such a new development, especially if that system doesn't have a thorough agreement in place that covers such possibilities. Sadly, that is exactly what happened to a rural system that provided water/wastewater service to a new development. A local contractor decided to develop a "rural subdivision" containing about 40 homes and asked the system to



B&B Services

Since 1993 specializing in water control valves like: Cla-Val, Watts, Ames, OCV. For all your valve needs, and more! With fair pricing, 6 mo. warranty, and sizeable inventory.
Over 20 years experience on rural water systems.

Services include:

Consulting, Scheduled Preventive Maintenance and Emergency Services.

Call Rodney today for pricing, estimates, and references.

620/341-2698 cell; 620/364-8036 home.

Or e-mail bbservices@kans.com

GUIDELINES FOR PRIVATE SANITARY SEWER AND WATERLINE EXTENSIONS

The following guidelines are provided to the owner to assist him in following the steps necessary to complete a sanitary sewer or waterline extension. Be advised that these steps are required, and failure to follow them will result in unnecessary delay.

1. An Engineer, registered in the State of Ohio, shall submit construction plans to the Sanitary Engineering Department for review. This review is normally completed within 30 days.
2. The owner's Engineer shall also submit any applicable easements for review and approval. Once approved, the easement may be signed by the grantor. A copy of the signed and recorded easement must then be returned to the Sanitary Engineering Department.
3. The owner should contact all property owners along the route of the proposed extension to ask if they are willing to participate in the project by sharing in the cost of construction.

Once items 1 through 3 have been completed, and all concerns of the Sanitary Engineer have been addressed, the plans will be signed by the Sanitary Engineer. The owner's Engineer must then obtain the signature of the City Engineer of the municipality where the sewage generated by the extension will be treated. For waterline extensions, the signature of a representative of Consumers Ohio Water Company will be required.

4. Sign and submit an Application and Extension Agreement to the Sanitary Engineering Department. On the Agreement, each signature must be witnessed. Do not date the Agreement. On the Application, cross out one of the alternatives regarding reimbursement of costs. The Sanitary Engineering Department will prepare these documents for the owner's signature.
5. Submit five (5) copies, (six (6) copies for waterline extensions), of the signed plans to the Sanitary Engineering Department.
6. For sanitary sewer extensions only: Post bond, if applicable. This is necessary only when a non-participant wants to obtain a sewer guarantee before final approval of construction has been given. No guarantees will be issued before a Notice to Proceed has been issued by the Sanitary Engineer. A guarantee will allow the owner to obtain a building permit from the Stark County Building Department.

Once Items 4 through 6 have been completed, the Sanitary Engineer will send to the County Commissioners the Application and Agreement for their approval. The Commissioners will normally take action on this within two (2) weeks. After the Commissioner's approval, the owner will receive a letter from the Sanitary Engineering Department with copies of the approved Agreement and Application enclosed. The letter will list the remaining items to be completed, which will include, but not necessarily be limited to, the following:

7. The Owner must file a copy of the Agreement and Application with the County Auditor (Room 220 in the Citizens Building Tuscarawas Street at Market Avenue) and pay the required fee (\$1.00). You will receive a receipt which you must then submit to the Sanitary Engineering Department to verify that the documents have been filed.
8. The owner's Engineer must obtain a Permit to Install from the Ohio Environmental Protection Agency and submit a copy of the permit to the Sanitary Engineering Department.

Once Items 7 and 8 and any other applicable items have been completed, the owner's contractor must have a preconstruction meeting with the Sanitary Engineering Department's Construction Engineer (330-451-2310). This meeting must be scheduled at least 72 hours in advance of construction. The contractor will be required to submit proper insurance forms and a copy of his Workmens Compensation Certificate at this time. After this meeting, the Sanitary Engineering Department will issue a Notice to Proceed. The contractor must then schedule a construction inspector at least 24 hours before start of construction (330-451-2310).

Upon installation of the sewer, a sewer air test and a manhole vacuum test must be passed. A 30-day waiting period is required between the time the sewer is completely backfilled, and the time the mandrel test is performed. The mandrel test is required if PVC or ABS pipe is used. Also after the 30-day waiting period, the sewer must be videotaped, and the tape submitted to the Sanitary Engineering Department for review and approval of the sewer. Waterlines must pass a leakage/pressure test and must be disinfected. Water usage fees for flushing during the disinfection process must be paid. Bacteriological testing is also required. Testing and disinfection procedures must be in accordance with Sanitary Engineering Department specifications.

Construction inspection fees must be paid by the contractor or the owner. As-built measurements must be obtained by the owner's Engineer and submitted to the Sanitary Engineering Department for review and approval. Once all work has been completed to the satisfaction of the Sanitary Engineer, a letter approving construction will be sent. Connection permits will then be issued. If reimbursement was requested, construction costs must be submitted to the Sanitary Engineering Department. (See Item 4.)

extend a water main and to build a small, stand alone treatment plant. The system was able to obtain SRF funds in order to provide water to some nearby houses on wells and create a hybrid project that would provide service to a new portion of the service area. Parts of the project were well thought out. The system had construction specs in place for installation of the service lines and laid out the inspection terms for the construction as well. In addition, a side deal with the developer specified that a connection fee would be paid out of the closing proceeds as each house was sold and further, that treatment capacity would be reserved for the future houses in the treatment plant, per the NPDES permit. Unfortunately, after building and connecting three houses, the economy tanked and the developer was left holding the development for many months. Eventually, he walked away from the project and it ended up back in the hands of the large multi-national bank's bad debt portfolio. And the chaos ensued. The system had to continue to provide water service to the three residents of the subdivision, and they also had to operate the treatment plant for them. But the bank balked at allowing the system to connect other existing homes outside the subdivision to the treatment plant or to allow the system to connect to the water lines in order to serve additional customers. This forced the system to shoulder the financial burden of operating a plant that served three users, when other existing homes were clamoring for service. The bank also refused to honor the side deal on the connection fees and wanted them discharged as part of the foreclosure. To make matters even worse, the system discovered that the easements that had

been granted by the developer were incorrect and that some distribution/collection lines had been installed on land that did not belong to the developer. The system had to negotiate with adjoining landowners and pay for easements or relocate the lines. Truly, this became a cautionary tale for rural systems without a well thought out policy on handling new development.

No rural water or municipal utility system should consider expanding water/wastewater lines into new service areas, unless development policies and construction specifications have been adopted. As these cautionary tales demonstrate, small systems may not have these policies in place and can end up in costly battles if the projects do not go smoothly. There are many resources available, and if all else fails, look at the existing policies of other systems. Your state rural water association is an excellent source for examples and information if you want someone to help or discuss your situations. If nothing else, gaining information it will point out some of the issues that should be addressed before attempting a any line extension. I have provided an example policy from a utility in Ohio in the accompanying sidebar on the previous page.

Elizabeth Dietzmann is an attorney who has worked with rural and municipal utility boards across the country as general and special counsel on various issues. She can be reached at edietzmann@earthlink.net.



DO YOU COMPLY?

On January 4, 2014, waterworks brass will change forever.

The No-Lead Law affects you. The Ford Meter Box Company is ready for 2014 and can help you make the transition to no-lead brass.

The Ford Meter Box Co., Inc.
www.fordmeterbox.com
260-563-3171

