



# Friends Are Important; Sometimes, It Takes a Village

This photo gives an idea of just how dangerous a recent waterline repair was. The 6-inch line crosses the highway and immediately parallel is a major railroad track.

**N**ot enough can be said about developing relationships and having good friends in life.

We've all been there where a need arises and someone steps up and helps out. Being out in the utility field for many years, I have had the opportunity to make friends and develop relationships with many in the waterworks industry. It is a great asset to be able to have folks out there a person can count on whether it be for questions on technical issues, parts, and supplies or advice on any variety of subjects. It is always nice to have someone out there who can be counted on. It takes time to develop good relationships with others in the industry but it's critical today with fewer workers available in many smaller communities.

Now that can be taken to a whole new level when you are going to trust someone with your very safety and well-being such as in a military combat setting or actually in a waterworks scenario such as working on a water leak. That may sound a bit silly – but it isn't. Some water and wastewater line repairs pose hazardous work conditions that could be life-threatening. Risks such as cave-ins, injury from machinery and excavation equipment, falls or injuries from heavy fittings such as a fire hydrant are always present. Each phase of a repair has to be carefully thought out. Working safely requires common sense. The need for having adequate

knowledge and experience of what needs to be done cannot be overstated.

I've had many occasions to need to call on friends for help. In one example, I pulled into a small community after the operator had left for the day and my truck battery decided that was the spot where it was going to give up. I gave a quick call to the operator. He came down to help me out taking me to a parts supplier to pick up a new battery and then helping install it. But one situation recently causes me to think about how much benefit a few friends can provide.

KRWA was asked to assist with an emergency water loss situation in a small town in south-central Kansas.

I received the call one evening from the operator who explained the leak scenario along the state highway. KDHE had also requested KRWA's help. The town is physically separated by the highway with one-third of the town including the water supply well north of the highway and two-thirds of the town south of the highway. In addition, there is a major railroad track that parallels the

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highway. We discussed the leak and the complications of the highway and railroad in such close proximity. I planned to meet the operator the next morning. Later that evening he called again to report that the leak had increased and the city was going to shut the water off due to concerns of the leak undermining the highway. The situation was now becoming much more desperate. But there were unknowns including what size pipe was under the highway.

Because the operator in the town was relatively new, I reached out to a friend in a neighboring small town. With one phone call, he assured me he was glad to assist on what I was sure would be a major project. In addition, we were going to need some heavy equipment and the town with the leak had very little in that regard. I made a few more calls to other operators regarding parts and materials and everyone was glad to help out. Later that evening more calls were made back and forth to KDHE and KDOT due to the proximity to the state highway. The next morning, I was met by the mayor and some of the city council members, the operator, a local engineering firm, and the former operator from twenty-plus years ago.

We reviewed the distribution system maps and tried to determine the possible cause of the leak. We looked for valves that may have been installed and that were not listed on the map in an attempt to isolate the leak and restore water to part of the town. None were in locations that would be of any help on this problem.

Therefore, the entire town had to be without water service until the source of the problem could be located and repaired. The former operator had told us a story about repairing a leak over 30 years prior on an unpaved street that intersected the highway and a line that had been abandoned under the highway. After a lot of methods were tried unsuccessfully to locate the mainline, we decided to dig in the area we determined to be the most likely location for the line.

When we finally located the line, it was not where the maps indicated. The location matched the recollection of the former operator concerning the water main he had repaired years ago. He had cut the portion off that went under the highway and left a short piece stubbed out of another main and capped it, also capping it on the unpaved road that intersected the highway to abandon that section under the highway. Two of the bolts on the 4-inch MJ cap were completely gone and the cap blew partially off causing the leak. The other two bolts on the cap were very thin and shaped like an hourglass. We could have replaced the cap and called it good but decided to fix it right and remove the tee and a section of the 6-inch line. These were all original 1913 sand cast iron lines. This line was also the main transmission line running under the state highway



**When the highway was reconstructed years ago, it resulted in the city's water main being incredibly deep as this photo shows. Shown are KRWA Technical Assistant Jon Steele and Everett Higdon from the neighboring town of Turon.**

along the town's Main Street. Fifteen feet of the original cast iron line including the tee and reducer bushing were removed and replaced with C-900 PVC; a new valve was also installed.

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Finally, after two days of dealing with the challenge of being within five feet of a 70 mph traffic lane including semi-trucks and inattentive drivers we were finished. The excavated site was filled with flowable fill. Water was restored however a boil advisory was in effect pending the results of a bacteriological sample. Extensive flushing was done to remove air from the system and to bring the chlorine residual up in all corners of town. The next day four samples were taken and I delivered them to a local lab for bacteriological analysis.

It was not an easy repair but was a real blessing having good friends and neighbors in the industry who were and remain willing to help and see that a difficult job was completed. It's an example of the great people in the water and wastewater industry. They should be thanked for the jobs they do in what most of the time, are less than ideal circumstances.

*Jon Steele has been employed by KRWA as a Circuit Rider since 1995. Jon is certified as a water and wastewater operator. He has more than twenty-five years experience in public works, construction and industrial arts.*

