PREVENTATIVE MAINTENANCE (PM) IS THIS ONE OF YOUR PRIORITIES?

Richard Winters | Circuit Rider I

After the winter we went through last year, with extreme temperatures not seen in a very long time, I felt that bringing back an old article from my files would be worth a second look. I know of a few systems that I worked with last winter that wish they had done more of these things before the issues that they had to deal with had taken place and I'm sure there are a lot more of you that I didn't work with that feel the same way. One item I would add would be the Styrofoam plugs installed in the main line valve boxes after they had been properly cleaned and exercised. How much time would that have saved us last winter?

We all know how hard it is to convince our political leaders that having and sticking to a real preventative maintenance program in our water and wastewater systems will actually save them money in the long run. We have all heard that our budgets need to be trimmed and no unnecessary spending will be approved. I happen to agree with them on this. These are some important steps I think should be deemed necessary. Here are a few of those things:

1. Hydrant flushing and valve exercising. (Being done at the same time.)
2. Locating and marking all main valves and curb valves. (Service connection valves)
3. Creating and maintaining current system maps. (Not relying on old unconfirmed maps, or even worse, the famous old grey notebook with those great points like 2 and a half feet from the old oak tree, that just happened to fall down ten years ago.)
4. Keeping a supply of spare parts for repairs. (Organized and kept current, not fittings you will never use again anyway.)
5. Proper equipment and tools. (Both safety and tools needed to maintain the system.)
6. Proper administrative equipment and training to use it. (For ex. - computer w/internet access, digital camera.....)

Can you believe that I have heard more than one town or village official say that they thought the flushing of hydrants was a waste of treated water and labor? I have also been told:

If we touch some of our valves they will leak. We don't have the time or money for paint to mark out all these valves. These maps are all we have ever had and we don't have the equipment or the training to upgrade them. Keeping parts on the shelf costs money. We make due with the tools we have. How can a computer and/or a digital camera help me?

Most of the systems I visit do have and follow a hydrant flushing program. They know that this keeps the dirty water complaints down and lessens the chance for other problems to develop in the distribution system. Very few systems exercise their valves at this time for various reasons. Some of the benefits they could receive by doing this would be:

1. Knowing that the valve boxes aren't full of debris when they need access to them during an emergency event.
2. The valves would have been cleaned by the increased velocity of flow during the flushing and would hold when needed.
3. Valves that were not functioning properly could have been scheduled for replacement on a regular time frame and not in an emergency. (The latter always seems to happen at night in the middle of the winter.)

The second and third things I mentioned above go hand in hand. If you know where all your valves are and keep them marked, you will be able to keep your maps up to date. Measurements taken from two fixed locations (things that most likely won't be moved like sewer manhole lids or corners of houses) come in handy when you need to find a valve quickly in an emergency situation. I like to mark the pavement with a single line in line with curb valves. (These are usually still visible when the grass has four feet of snow on it, and time can be very important when somebody's house is filling up with water.) When it comes to spare parts, all I can ask is, how much does it cost to have a whole crew of men stand around a hole in the road you have shut down, while they wait for yet another guy to go to the nearest supply store for a part they may or may not have in stock when you really need it. As far as having the right tool for the job, I believe this should be self explanatory, especially the safety equipment. The cost of one life supersedes any budget line cut. The savings that can be realized by learning to keep records and the research opportunities of having, and using, a computer can be significant. Having digital photographs of repairs (giving you the chance to input measurements, materials used, location, etc...), valve locations and many other things more than justify the cost of having one.

I know these were probably not the types of preventative maintenance things you were expecting to see in this article, but if we can get people to understand the value in doing these things and realize the money that can be saved by these things, all of our water and wastewater systems will benefit. I hope you didn't mind rereading an old article but I felt that it was just as pertinent today as it was when I first wrote it. THANKS and hope this is found to be somewhat useful.