

HELP US HELP YOU

By Steve Freeman

Many of our member systems contact NYRWA field technicians for assistance in leak detection. It is one of our most popular calls and we're happy to respond. Leak detection is not magic. We don't possess a magic wand; it is a combination of experience and proper tools. I won't get into the specifics as those were covered in a previous article by fellow Circuit Rider, Jonathon Barnes. The most important component in successfully locating leaks are good listening points. Fire hydrants are the most popular, being that they are easily identified and accessible. Second, are water main valves and that is where you can help us.

Water main valves provide an excellent listening point for sonic devices and are often used for an accurate leak correlation. The setback we often encounter is that the valve is inaccessible due to excessive dirt and/or debris in the valve box. This is usually caused by winter's road sand and salt entering the loose covered valve box. Quite often frost departing from the road surfaces raises the box preparing it for probable breakage, resulting in pieces of metal entering the box. It's important for water systems to have a valve box maintenance plan to assure they are accessible when needed, but that is a discussion for another article.

I have seen many methods of valve box cleaning from very simple to more sophisticated. An affordable option is a good wet-dry shop vac with a piece of 1½" or 2" PVC pipe attached to the hose, employ a digging bar and water to loosen dirt and a weed burner style torch if frozen, not that we would encounter that in our winter months! Most shop vacuums can be energized with a portable generator. A strong magnet attached to a wooden dowel or broom handle will assist in removing metal debris. Other methods include air or water through a hose connected to a hydrant. Getting further involved and maybe more successful, a sewer jet machine or a vacuum truck work well. Getting a little outside of the box, so to speak, I have even seen a septic tank pumping truck remove the debris quite nicely.



Photo 1



Photo 2



Photo 3



Photo 4

Once the box is cleaned, one of the best options I have found to keep them free from debris are polyethylene mud plugs, affordable and offered by many municipal supply distributors. Photo # 1 shows a new plug alone. Photo # 2 shows it inserted into a valve box. Photo # 3 shows a plug active in the field and photo # 4 shows an active plug removed resulting in a clean, accessible valve. I have found these plugs to work well for the older Erie/Buffalo style curb stop boxes, you know, the ones that have no rod attached! Simply using a 3" hole saw to customize the plug size so it will fit snugly into the curb box, make a slot in each side, and use a sturdy zip tie for a handle.

It is important to keep your valves accessible to provide good listening points for us and to provide quick access for you in an emergency. Any method is great; however, I have found the plugs to be an easy, affordable, excellent means of achieving the goal. Saving time and money is always rewarding. Please do your part to help us help you. Working together we will continue to provide Quality on Tap!

**Quality
On Tap!**
Our Commitment  Our Profession



Steve Freeman
Circuit Rider
freeman@nyruralwater.org