

Distribution Management

By Doug Osburn, Training Specialist

Fall is the best time of the year for me, the warm days and the cool nights. The things I enjoy doing most happen in the fall. The skiers and boarders are praying for snow, the big game hunters are dreaming about bagging the big one, the ones who like to fish are wondering if they will get a chance landing a winter run hawg and the bird hunters are tuning up their dogs and reflexes.

After the hunting trips are over and everyone settles back into the swing of things at work this is a good time to start planning for next year's projects and priorities. Annual maintenance for the distribution system sometimes gets overlooked or not given a high enough priority. The fact that most of the system is underground and can't be seen tends to cause us to forget about it. You know the old saying, out of sight, out of mind. The distribution system is an integral part of the whole water system, the skeleton so to speak. If proper maintenance is not performed, delivering clean, safe water to your customers could become difficult and make your job harder to do.

Annual maintenance should include a water mainline flushing program of the entire distribution system. For some systems, this may have to be done more often. Fire hydrant flow testing needs to be done with an inspection of the hydrants. Look for chipping paint and rust, check for leaks and missing caps. The fire hydrant is the most visible part of the system that your users see and to keep them painted and in good repair will affect how they think about the whole system and staff. The gate valves throughout the system needs to be exercised at least once a year. If you find valves that don't operate or have leaks, document the number or location for future repair. Ensure that the valve cap and lid is in good order. The reservoir or tank needs to be inspected inside and out. Look for silt or sand accumulation inside. Check for rust or chipping paint on the outside and if there are leaks, document for repair. A reservoir should be taken out of service and cleaned every five to ten years. Depending on your system, this may have to be more often. The control valves in your system should be inspected for proper operation; these can include pump control valves, flow control valves, altitude valves

and pressure reducing valves. Inspect all valve boxes or vaults for broken lids or doors. Check for leaks from the piping or seepage into the vault. Water meter boxes that have been broken or the lids are gone need to be fixed. Ensure that your water meter testing is getting done. Many systems have a five-year program where 20% of their meters are tested or exchanged each five years.

As part of a water conservation plan, a leak detection program should be in place where all or part of your system is done each year. You should plan time to ensure that all your system maps have been updated with any changes that occurred in the prior year.

Distribution maintenance can be time consuming, but it is very important that it is accomplished each year. I know that for many systems, the jobs are many and the staff are few, but by doing the maintenance each year it can save time and money in the long run.