

Good Time for an Audit

By Russ Topp, Circuit Rider

Don't have a heart attack! I'm talking about a water audit not a tax audit. Winter months are right around the corner and that's the best time to conduct a water audit.

Have you ever conducted a water audit of your water system, and found out you have an unusually high percentage of unaccounted for water? The first thing you think is I must have a water leak. You drive and walk the entire distribution system and find nothing. Where is that water going?

Maybe this would be a good time to explain just what a water audit is, and how to conduct one. Simply divide the amount of water you sold by the amount of water you pumped. For an example, let's say you use the months of January, February and March. The total amount of water you pumped for these three months is 7,500,000 gallons. During these months you sold 5,000,000 gallons. Simply divide 5,000,000 by 7,500,000. You should get 66%. This means you are selling 66% of the water you pump, or losing 34%. Typically the industry standard is anything under a 15% loss is acceptable.

About now you are asking yourself, why would I want to conduct this audit in the winter months? There could be a significant amount of water pumped by your system that doesn't get metered. Some examples could be a swimming pool, park, ball field, fairgrounds, playground, golf course, cemetery, hydrant flushing, sewer jetting or fire fighting to name a few. Swimming pools and irrigation can consume a huge amount of water that may not be metered. There are some other sites that you may have to estimate the usage for. This could be city-owned buildings such as the city office, library, water or wastewater plants, city shop, low income or elderly living apartments.

Your wells may be another place you need to be aware of. If you have an older line shaft turbine well there could be a pre-lube line running continuously. Most of the newer wells have a solenoid valve that opens a few minutes before the well starts to lube the shaft. Make sure the solenoid valve is working correctly and they typically don't use much water. If you have an older line shaft turbine well you may want to install a check valve

and a residential meter to determine how much water is actually going back down the well. Be sure the check valve is installed correctly to allow water back down the well. Read the meter and deduct that amount from the water pumped. If you have your well tested for efficiency every year by your well driller, check the report they send to you. This report will tell you if your well meter is accurate. You need to check the orifice test compared to the well meter reading. I have seen well meters running up to 18% fast. This can be a big factor as to the actual amount of water your well pumps in a month's time. Calculate the actual amount of water pumped when conducting the audit.

Remember 10% loss is great and 15% very good. If your loss is above 20% it might be time to have us come and conduct a leak survey.