

Audit of the Water Kind

By Doug Osburn, Training Specialist

What is a water audit and why should a system conduct one? A water audit is an accounting of the water you produce and the water you sell. It is an integral part of a Water Conservation Plan and can tell you if you have leaks, water theft, low reading meters and/or unaccounted water loss.

An audit should be conducted annually but with the use of computer billing some systems have the ability to generate a report each time the meters are read.

Well or treatment plant production meters (Master meters) need to be installed and calibrated annually, all the residential and commercial service connections need to be metered and read. The difference between the amount produced and the amount sold is considered lost or unaccounted water loss. Water loss at 5%-15% is pretty normal; anything exceeding 15% is considered excessive and needs to be investigated. Remember that every gallon lost is robbing your system of revenue.

The first thing system managers and operators think of is leaks in the system and that might be the culprit but it can be several other factors that can cause the discrepancy. The distribution system has many places that water can be lost, service meters need to be calibrated or changed out on a regular schedule. I don't know of many meters that as they wear start reading higher. Any meter that is broke or not recording any usage needs to be fixed or replaced. All parks and system owned buildings need to be metered to account for the water used. A system flushing program can use a lot of water especially if you have several dead end lines that need to be flushed often. If you have some construction going on and are supplying water for tanker trucks, that needs to be metered and accounted for. I have found in several older systems unknown service connections that were not metered at all. Now we get to leaks, not all leaks come up to the surface so it is important to schedule leak detection on a regular basis if you are still having a large loss percentage. You can do this in house or hire a service that deals with finding leaks; they usually have very sophisticated equipment that a small system can't afford.

An audit can be done quite simply, finding where the loss is occurring can be a hard job and could take a lot of time to accomplish. By doing the audit you can budget time and money to reduce your water loss. Remember that this should be an on going project and needs to be part of your systems Standard Operating Procedures.

If you need assistance in developing a plan of action to address you water loss issues please call our office at 503- 873- 8353 and we can schedule a visit by one of our staff.

That is all for now and I'll see you down the road.