DEQ will assist Oklahoma water systems serving fewer than 10,000 consumers by conducting a water loss audit at no charge to the system. The service includes the audit performed by DEQ personnel, a free copy of the International Water Association /American Water Works Association (IWA/AWWA) auditing software, and instruction on how to perform an audit so water systems can conduct regular self-audits in the future. The goal is to help small community water systems find where water is being lost and not generating revenue for the system. Agency personnel will work with participating water systems to assess metering efficiency and to quantify losses to determine the most cost-effective way to correct the losses.

What is a water loss audit?
A water loss audit is a tool to help identify and quantify water loss in a water distribution system. It is an accounting of all the water produced, sold, consumed, and lost in a water system. A water loss audit indicates how much water is lost due to faulty meters, data handling errors, and unauthorized use (apparent losses) and how much is lost due to leaks and overflows (real losses).

How is a water loss audit performed?
DEQ personnel will perform top-down water loss auditing using the IWA/AWWA method, considered to be the industry standard for gauging water loss. The audit will involve software developed by the AWWA to calculate real and apparent water losses using metering and billing data routinely gathered by the water system. The audit is usually completed in a matter of hours and the results are available immediately.

How much does a water loss audit cost?
DEQ does not charge community water systems serving fewer than 10,000 consumers for the audit. The water audit software will also be provided to the system at no cost. A water loss audit performed by a private consultant can cost several thousand dollars.
How can a water loss audit benefit a water system?

1. It quantifies the amount of water and revenue lost. Without a water loss audit, it is difficult to determine exactly how much water is being lost from a distribution system and how much revenue that lost water represents. A water loss audit can both pinpoint which portions and structures on a distribution system have significant losses and help locate billing and metering inaccuracies that were previously unknown.

2. It conserves a limited resource. In drought-stricken areas, a water loss audit is a tool that helps water systems use water more efficiently. The information gained from the audit allows system operators to target repairs where they will be most effective. This can potentially reduce, or even eliminate, the need to find new sources of water and extend the useful life of existing sources.

3. It restores lost revenue. A water system may be completely unaware it is losing a significant amount of revenue from lost water. A water loss audit can help restore that revenue. The audit allows a system to determine how much revenue could be saved by making repairs. This gives the system operator the information to determine which repairs or operational practices are most cost-efficient. Most of the billing and metering problems uncovered by an audit are immediately correctable, resulting in instant revenue. Reducing water lost through leaks and unauthorized uses restores additional lost revenue and lowers operations and maintenance costs, resulting in additional savings.

4. It shows customers your initiative. A water loss audit is a first step to improve a system’s sustainability. A water system that takes the initiative to improve sustainability by building an effective water loss program may inspire customers to pursue their own conservation and efficiency plans, adding to the water system’s sustainability efforts.

Will you demonstrate how to conduct our own water loss audit?

Yes! During the audit, DEQ staff will demonstrate how to use the AWWA software so that water system personnel can conduct their own audits. DEQ recommends annual audits and will assist water systems once they begin conducting audits on their own.

Will information gathered from the water loss audit be used in enforcement?

The purpose of this technical assistance is to increase the efficient use of water and revenue, and enhance sustainability for water systems. Information is not being gathered for enforcement purposes.

How can I obtain an audit?

If you would like to participate in DEQ’s Water Loss Auditing Project, or if you have questions about this program, please contact:

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