

How to carry out a water audit



The benefits

A water audit, similar to an energy audit, is the method of quantifying all the flows of water in a system to understand its usage. Benefits of undertaking a water audit include:

- Reduce water consumption
- Reduce water losses
- Reduce costs
- Identify problem areas
- Optimise your efficiency

Desktop analysis

Analyse your historic meter reading data to identify any consumption patterns and highlight any times of unusual usage. Compare these to a measure of production or sales. Most businesses and organisations in England can now also choose their retail water service supplier, so the costs can be compared in the same way as electricity and gas.

Site audit

Check the water system from the street to point-of-use for leaks, overflowing tanks and cisterns and dripping taps for example. If the building is being left unoccupied for any period or closed over the weekend ensure all outlets are off and then take a meter reading. Recheck the meter reading on your return and make sure it is the same.

Analyse your water system, area by area, to identify and log all appliances and the usage of each across your entire premises. Also look for areas of wastage and other inefficiencies.

Monitor usage

Regularly correlate your water consumption against a measure of production or occupation to identify any changes that could indicate a problem or areas that could be improved.

Reduce consumption

There are many water saving devices available including fitting aerators to taps (these reduce the flow while improving the efficiency of washing); modern toilet cisterns (which use as much as 66% less per flush than older models); and displacement devices can be fitted to older cisterns to reduce the flush volume. Urinals can be flushed by sensor after use rather than a timed flush. Could rainwater harvesting on the site provide grey water for some processes or could cooling water be recovered and reused?

The water demand of any new equipment should be assessed as you would the energy consumption, more efficient equipment may be more expensive but may be cost saving during its life cycle.

Engage your staff

Engage your staff and colleagues by explaining the importance of minimising water use. For example making sure washes are only running when needed during a process and are shut off between operations, during breaks and at the end of the day. Ensure staff are only using water to clean where necessary, perhaps compressed air or a brush could replace water use? Appoint a water champion within your organisation to monitor the usage on site and identify water saving opportunities. Encourage your staff to report leaks and wastage.

