

Conducting a water audit

Waterwise Business Information Sheet



A water audit is part of a water efficiency program. The purpose of a water audit is to:

- Identify all uses of water within a facility.
- Determine whether each component is using water efficiently.
- Look for ways to reduce water use.
- Monitor water use. The monitoring process will identify any change in water use over time and may be a trigger for maintenance.

A water audit team needs to be established to undertake the work. Suggested team members include an audit co-ordinator, personnel familiar with the operations, the facility or plant manager, and maintenance staff.

The results of the water audit feed back into the Water Efficiency Program process.

Water use summary

The key task in a water audit is to construct a summary table that identifies all water use at the facility.

Firstly, create a table of all water uses. Consider mechanical plant, cooling towers, amenities, on-site processes, dishwashers, garden use, etc. Our Water Audit Checklist can help.

The next step is to estimate how much water each component uses over the year and reconcile this against the water consumption account. A history of your account can be provided by Busselton Water upon request.

Enter your estimate of the annual water use for each component in the water use table. Consider using sub-meter data (if this is available), manufacturer's information on water use per cycle x number of cycles per year, number of toilets x estimated flushes per year, measure reticulation flow by reading the meter fore and after a cycle x number of waterings per year; measure time to fill bucket etc.

Add these figures and compare them with the quantity of water charged on your water bill. If your total is within 15% of the water bill amount, that's pretty good. If not, you may have under or overestimated a particular water use, or possibly not captured all water use.

Processing data

Once the water use table is complete and reconciled, compare each water use against an appropriate industry benchmark.

The purpose of the exercise is to identify the inefficient processes and develop a plan to improve water efficiency through process changes, retrofitting or replacement.

References DPPEA FY04-08 (August 2002) - North Carolina Division of Pollution Prevention and Environmental Assistance. Water Corporation, Perth WA.