



IS YOUR BUSINESS WATERTIGHT?

The water experts

business stream
A SCOTTISH WATER COMPANY



Water Efficiency Guide

It's easy to take it for granted, especially when you run a business. Which is why we're leading the way in making businesses more water efficient. Watertight, if you like.

Small changes, big difference

Making small changes can make a big difference to your water usage – especially as most businesses don't actually realise the amount they use. Did you know, for example, that you use on average nine litres of water every time you flush a toilet? Or that a running tap uses an average of six litres of water per minute?

Your first step towards saving water

There are a few easy steps that you can take to reduce the amount of water you use and potentially waste in your business.

To help get you started, we've developed this water efficiency guide, which you can use to develop a simple water management plan.

business-stream.co.uk/water-efficiency

Our water efficiency booklet is a guide to help your business become more water efficient.

1. Plan

Simple steps to make your business more water efficient

2. Assess

A step-by-step guide to help you audit your water consumption and wastage

3. Implement

Tips on equipment you can use to reduce the amount of water your business uses.

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Plan

Develop your water management plan with these simple steps:

One - appoint someone to take charge of the plan and get staff involved in creating a water efficient workplace.

Ⓢ As with any business plan, full management and staff support is essential.

Ⓢ Let your staff know what you're trying to achieve. Positive communication wins the support of your staff, which in turn helps you achieve your objectives.

Two - review your costs and usage.

Ⓢ Firstly, if you have meter, read it on a regular basis and keep record. You'll see trends in your water usage and be able to identify potential leaks.

Ⓢ Secondly, review your invoices. This allows you to compare your actual consumption against your charges and check that they're accurate.

Three - assess how much water you use and set realistic targets for improvements.

☉ Carry out a survey to find out how, where, when and why water is being used within your business. You can then draw up an inventory of all the processes or activities using water, together with an estimate of how much water each activity uses.

Here are some examples to help you:

- ☉ A running tap uses an average of 6 litres of water a minute.
- ☉ A single washing machine cycle on full load uses roughly 45 litres of water.
- ☉ A single dishwasher load uses about 20 litres of water.
- ☉ A running hose will use about 9 litres of water a minute.
- ☉ Taking a shower uses roughly 35 litres.

Your business may use water for certain processes where it is difficult to estimate how much you're actually using. If you have a meter, you can find out the consumption. Make sure no other water is being used, and then take a meter reading before and after using the equipment. The consumption will be the difference between the two readings.

Compare the estimated total water usage from your survey with the volume of water that has been recorded by your meter. A discrepancy of around 10% can be expected for 'unaccounted water', but a difference of more than 10% would indicate you haven't accounted for one of your business' water processes or there may be an undetected leak.

Assess how water is being used on a day-to-day basis and ask staff to give suggestions on how efficiency could be improved.

Be aware of how vigilant you are, especially within the larger areas where water is being

used, such as washrooms and canteens. Are appliances using water turned off when not in use? Are taps dripping? These are quick wins, saving significant amounts of water at virtually no cost to your business.

Four - evaluate water efficiency measures that best suit your business needs.

- ☉ Water efficiency measures can help reduce water consumption and offer ongoing savings.
- ☉ In some cases, there may be an initial cost outlay. You'll need to assess whether that outlay will result in long term savings for your business.

Five - put your plan into action.

- ☉ Establish time frames for your plan and regularly review progress.
- ☉ Communicate key messages and successes to your staff on a regular basis.
- ☉ Check for leaks or faults in your equipment and make sure they are repaired or replaced.

Assess

Your DIY water efficiency audit

Completing this audit can help your business manage water usage effectively. Some of the questions may not be applicable to your business, if this is the case, simply move on to the next section. If you're having difficulty completing the audit, consulting a plumber may save money in the long run.

One - if you have a meter, use it to check for internal plumbing leaks.

- ☉ Open the internal stop valve when no water is being used and check the meter. Is the reading stationary?

☐ If **YES**, there is no internal leakage.

☐ If **NO**, check ALL internal pipe joints, appliances, fittings and overflows for leaks.

☉ Fixing internal leaks is your responsibility. If you discover one, call your water retailer and for help, or you can call a plumber.

Action/Comments:

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Two - check for underground/external pipe leaks.

☉ If you have a meter or meters, locate these and the internal stop valve(s). The majority of meters are installed internally; however, some meters may be external.

Log locations for future use:

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Meter(s):

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Internal stop valve(s):

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☉ Close the internal stop valve(s). The stop valve can usually be found where the supply pipe enters the building.

Action/Comments:

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☉ Is the meter reading now stationary?

☐ If **YES**, there is no leak in your pipework between the meter and the stop valve.

☐ If **NO**, please call your water retailer for help, or call a plumber.

Three - compare your meter reading/accounts records.

☉ Compare your current invoice with previous invoices to check for abnormal water consumption, as read by your meter. Make sure you check for unusually large increases, which may indicate a leak or inefficient practice.

Always investigate irregularities.

Action/Comments:

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☉ Is your consumption what you'd expect for the size and nature of your business? Calculate the average water use for your business (number of employees x typical rate of water use per employee) and then compare this against your actual water use (shown by your meter reading).

Average water use:

Employee (full-time, no canteen) > 35 litres/person/day
Employee (full-time, with canteen) > 50 litres/person/day

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☉ Do you read your meter regularly? With regular meter readings, you can establish a pattern and it's easier to identify leaks.

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Four - assess plumbed water appliances for efficiency.

☉ Are all taps drip free? A dripping tap can waste as much as 90 litres of water a week. Replace the tap's washer as soon as a drip is noticed. You can also invest in tap aerators to reduce flow.

Action/Comments:

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☉ Do staff sometimes leave taps running? You can retro-fit self-closing taps to prevent waste. These switch off automatically after a specified time. Many models have in-built flow restrictors, which can further reduce waste. Spray taps can also reduce the flow.

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☉ Are plugs fitted in the basins? Replace missing or ill-fitting plugs. Captive plugs encourage users to fill the basin, rather than use running water.

Action/Comments:

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☉ Is the flow of water from your taps excessive? A flow of six litres per minute should be enough for hand washing purposes.

Action/Comments:

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☉ Are the toilet cisterns operating efficiently? Are water saving devices, like Hippos, fitted?

Action/Comments:

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☉ Are the urinals fitted with water efficient controls?

Action/Comments:

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☉ Are shower controls in use? Are you using push controls or low-flow showerheads?

Action/Comments:

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Five - internal pipe-work

☉ Is your water pressure at the minimum level for your needs?

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Six - process the water you use.

- ☉ Do you recycle water?

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- ☉ Can you minimise the required water use within your processes?

Action/Comments:

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- ☉ Are all activities which use water essential?

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- ☉ Do you use water for garden/grounds maintenance, including ponds?

Action/Comments:

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- ☉ Do staff leave hoses running? This can waste a significant amount of water. Fitting a trigger nozzle prevents unnecessary wastage.

Action/Comments:

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Seven - assess your catering facilities.

- ☉ Do you have a canteen or kitchen on your premises?
- ☉ Do you switch off equipment when water is not in use?
- ☉ Are taps dripping?

Action/Comments:

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Eight - ensure good practice.

- ☉ If staff are involved in the plan to conserve water, they can help generate quick-win water saving ideas.

Action/Comments:

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Implement

It's easier than you may think to start reducing the amount of water you use and therefore save your business money. There are lots of ways to make your business more water efficient, here are just a few suggestions.

No cost or low cost options.

Good practice – Ensure water appliances are turned off when not in use and fix dripping taps immediately – these can save significant amounts of water at virtually no cost.

Cistern displacement devices – Toilet cistern displacement devices, like a Hippo, can reduce the volume of water used by up to three litres every time you flush. If the toilet bowl no longer clears when flushed, try a smaller device or remove it altogether.

Collect rainwater – Water butts can reduce the need for mains supply water, especially for jobs like washing vehicles and watering plants. These are simple to fit to the downpipe of your roof guttering.

Medium cost options

Low and dual-flush toilets - Consider these options when replacing existing units. The maximum cistern volume of these newer options is six litres, compared with nine litres (or even more) for older models.

Supply restrictor valves - These are easily fitted to water supply pipes and maintain a constant water flow, regardless of any fluctuations in your water pressure.

Tap controls - An easy and relatively cheap way of reducing water consumption. These are available in both new and retro-fit options. There are a number of different types of controls available on the market including infra-red, battery operated, push-top and spray taps.

Urinal controls - These are available in both new and retro-fit options. These will ensure that the cistern only flushes after use and can be set to operate only during office/business hours, rather than flushing continuously.

Waterless urinals - These use either a syphonic trap or an outlet in the urinal containing a deodorising agent. Some of these water saving options will involve ongoing maintenance costs.

High cost options

These options require a bigger investment but should still be considered, especially in the construction of a new building, to encourage good water practice from the outset.

Washroom control systems - These can limit both the hot and cold water supply. These can also control lighting and ventilation, providing additional energy savings.

Rainwater harvesting systems - Rainwater from roofs or large paved areas (e.g. car parks) can be recycled and used for toilet flushing, vehicle washing or watering plants.

Greywater recycling - Waste water from washroom basins and showers can be recycled and used for flushing toilets or watering grounds and gardens.

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If you wish to buy water efficiency equipment, take a look at the governments advice and list of available products at:

gov.uk/government/publications/water-efficient-enhanced-capital-allowances

You can claim enhanced capital allowances on products in the usual way on your tax return.

Remember, you can find more water saving suggestions online at:

business-stream.co.uk/water-efficiency



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business-stream.co.uk/get-in-touch



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