

FACT SHEET: Water

Monitoring water consumption

Familiarise yourself with your water bill and water meter by keeping track of your monthly/weekly water consumption. If possible, figure out how much water different aspects of your business are using. By comparing your water consumption data with other businesses in your sector (information available from Go Green Richmond Business) you may be able to identify areas where you can save water.

- Envirowise has a number of downloadable software tools to help you monitor your water use, compare this against other similar businesses, and find further detailed information specific to your business category: www.envirowise.gov.uk/page.aspx?o=watertools

Regular monitoring will also help you to spot leaks, if they occur, which can be identified by sudden increases in your water consumption rate (see below).

You could get staff involved in this monitoring programme by appointing individuals to check the water meters at regular intervals and ask for them to suggest areas where savings can be made.

Checking for leaks

Non-apparent leaks may be identified by checking your bill and water meter against your benchmark consumption. If you have an idea of roughly how much water your machinery, equipment, or day-to-day activities generally use, you can notice unusual increases in your water bill or meter readings. High readings could indicate a leak.

If you suspect a leak is occurring on the supply pipe to your premises, turn off your water supply at your inside stop valve when your premises are not in use. If the dials are moving on your meter then it is likely that you have a leak on your supply pipe.

- If you find that you have a leak you should repair your pipes as soon as possible as otherwise you will be paying for any wasted water.

Saving water in bathrooms

Hippos

'Hippos' are used to reduce the volume of water used to flush your toilet. They consist of a bag that can be placed in the toilet cistern, displacing some of the cistern volume. If installed correctly, they should not interfere with the flushing action of your toilet.

- Suitable for old style 'single flush' toilets (These have a single flush handle, as opposed to the modern, 'dual flush' buttons, which are already efficient and do not require extra devices).
- Hippo bags should only be used in toilet cisterns with a 9 litre flush or greater (usually pre-1993).
- If you have a toilet cistern with a 7-9 litre flush (usually installed 1993-1999), you should use a Save-a-Flush bag – equivalent action but save only 1 litre per flush.
- You can pick up your free Hippo or Save-a-Flush bag from Go Green Richmond upon Thames at many of the summer fairs and business specific events (www.richmond.gov.uk/gogreen/gg_work/gg_support/gg_support_events.htm).
- Thames Water Customers can get them by calling the Thames Water Customer Centre on 0845 9200 800, or ordering online (www.thameswater.co.uk/cps/rde/xchg/corp/hs.xsl/6672.htm#arch). The first one hundred hippos are free of charge.

Spray taps/automatic shut off/electronic/low flow-screw down

Different types of tap can save your water use in different ways. When purchasing new appliances, look for those which can best meet your needs. These taps may be found at hardware stores or online.

- Aerators, or 'spray taps' can restrict the flow of water from your tap by up to 50% without altering the water pressure.
- Lever or mixer taps can save you water by letting you pick the correct water temperature quickly, without letting taps run while mixing water of different temperatures.
- Automatic shut off taps or electronic sensor taps will cease the flow of water after a predetermined time lapse/when water is no longer required. These help prevent taps being left running.
- By repairing a dripping tap you could save as much as 20 litres of water a day. In most instances all that is required is a new washer. Instructions for fitting a new washer can be found on B&Q's website:
(www.diy.com/diy/jsp/bq/templates/content_lookup.jsp?content=/content/knowledge/how_to/plumbin_problems/plumbin_problems.jsp)

Urinals

Automatic flushing in urinals wastes water since it occurs even when the urinals are not in use, e.g. out of office hours. It is more economical to install automatic flush control systems, which will allow flushing only during periods of use. Thames Water/Your water company can provide further details (www.thameswater.co.uk/cps/rde/xchg/corp/hs.xsl/9831.htm).

Awareness

Placing posters and signs above taps can remind staff and customers to turn off the taps when they're not in use. Thames Water has 'Please remember to turn off the tap' posters available to download from: www.thameswater.co.uk/cps/rde/xchg/corp/hs.xsl/8379_8494.htm

Drinking water

UK tap water is suitable for consumption, therefore having additional water coolers in your office may be unnecessary.

- Getting rid of office water coolers will save money and reduce your company's environmental impact by reducing the amount of waste you produce (plastic water bottles, packaging and cups), reducing the number of deliveries you receive (with associated transport costs) and reducing the energy use associated with abstracting water from groundwater sources and subsequent bottling processes.
- If your business still requires chilled bottled water, e.g. for client meetings, presentations etc, consider alternatives such as:
 - Get jugs or carafes for keeping tap water in the fridge
 - Get filter jugs that can purify water and be kept in the fridge, so that the only associated waste is the regular filter change
 - Invest in a central filtering and cooling system that will provide chilled water on tap as it is required. Service companies that provide this type of installation may also supply their own bottles so that chilled or carbonated water can be brought into meetings in reusable glass bottles.
- Encourage employees to reuse their water bottles by filling them with tap water. Posters and stickers may support an office-wide campaign. Employees will save money on avoiding the cost of bottled water.

Grey water usage and rain water harvesting

Grey water is the water from sinks, the washing machine etc which has been in contact with humans. Because of this contact, the water is potentially contaminated with germs and so has limited use possibilities. It must undergo treatment for disinfection before any form of reuse is possible, however once treated it may be used to flush toilets, clean outside areas, water plants, or run cooling systems etc.

To use grey water you will require a dedicated pipe system that collects the water in a storage tank for treatment before piping it to areas of need. Installation costs for such systems can be high, and maintenance systems must be robust to ensure appropriate treatment.

Rainwater collection, however, can be very economic. Water for washing, toilet flushing and plant watering does not have to be of drinking quality standard, and so collecting rainwater for these purposes avoids paying water company charges and saves on energy needed to purify water from the mains.

- A water butt is suitable for collecting and storing rainwater. These are relatively inexpensive.
- If you have a large roof area, you could consider a roof collection system. These require pumps and electronic controls, however, which could increase your electricity consumption. The financial incentives to invest in these systems will be greatest when integrated into new buildings, and can be calculated from your roof area and the annual rainfall. Details of the calculations can be found from the Centre for Alternative Technology information sheets (www.cat.org.uk/information/info_content.tpl?sku=info_is_watersanitation), or can be provided by an installer.

Correct drainage and non-contamination of waste water

Liquid waste from your business is termed “trade effluent” unless it is domestic sewage or clean, uncontaminated surface water. Examples of trade effluent include liquid wastes that contain:

- detergents
- cooling waters
- chemicals
- small amounts of oil - though if the oil level is above designated thresholds it must be disposed of as a special waste
- biodegradable liquids
- sludges
- wash waters

Many businesses produce trade effluent. Waste management legislation requires that you obtain written consent from either your environmental regulator (if discharging to land, surface or ground water) or from your local water company (to discharge to sewers) before you discharge trade effluent. Making a discharge without consent may be an offence and could lead to enforcement action.

More information on discharge fees is available from the Environment Agency, at: www.environment-agency.gov.uk/business/regulation/38807.aspx.

Actions to reduce your effluent discharge and avoid accidents:

- Store your chemicals, fuels and effluent responsibly in an area where spillage will be contained.
- Map drainage system connections to ensure discharges are made to the correct system, then clearly label them (use different colours so that it is easy to determine which drains to surface water and which to sewage e.g. blue to surface water, red to sewage).
- Train your employees in proper handling techniques and for what to do in the event of spillage.
- Provide suitable spill kits and absorbent materials.
- Use drip trays under equipment.
- Ensure your site is secure.

Water Technologies and Loans/Grants for installation

Many water saving devices qualify under the Enhanced Capital Allowances scheme. This entitles your company to claim 100% first year tax relief on all eligible capital purchases.

Technologies eligible under this scheme are listed under the 'Product search' section of the Water Technology List website, available at: www.eca-water.gov.uk/. These include:

- cleaning in place equipment
- efficient showers
- efficient taps
- efficient toilets
- efficient washing machines
- flow controllers
- leakage detection equipment
- meters and monitoring equipment
- rainwater harvesting equipment
- small scale slurry and sludge dewatering equipment
- vehicle wash water reclaim units
- water management equipment for mechanical seals
- efficient membrane filtration systems