

PROTECTING YOUR WATER SUPPLY: A Guide to Water Conservation and Efficiency for Businesses

SECTION 1 Maintaining the water supply for your business

A. Provide adequate water storage

Do you know how much water your business operations require? Have you the requisite storage? There are many reasons why water supply can be disrupted i.e. a mains burst (without notice), or on a planned basis for programmed works /water restrictions. Minimum water storage for industrial or manufacturing purposes should be calculated on a 24-hour or maximum daily consumption basis as set out in the South Dublin County Council Water Section specification for the laying of water mains and drinking water.

B. Protect your premises

Damage caused by burst pipes can be expensive and costly. You can take a number of steps to protect your water supply, premises and your pocket.

- Insulate exposed pipework, tanks & cisterns

Water in exposed pipework, tanks & cisterns can easily freeze, expand and cause a burst during periods of bad weather. This can result in considerable damage and cost to your business. Accessible pipes, tanks & cisterns should be insulated taking into account the product manufacturer's instructions.

- Shut-off isolation valve at meter

If your premises are vacant over a holiday period shut off the supply at the customer side isolating valve.

- Emergency shut-off at Meter

External isolating valves in meter boundary boxes are owned by South Dublin County Council and should only be operated by Council employees. However, in case of emergency, and with the agreement of others whose water supply may also be controlled by the stop cock, you may turn off the supply. To turn off the water supply at the meter box, rotate the blue lever anti-clockwise for a quarter turn.

Pipes are frozen: What can we do?

1. Shut off the customer-side isolating valve.
2. Before you start to thaw the system, remove any furniture or equipment that may get damaged by melting ice and water.
3. Gently warm the frozen pipes – thaw the pipes using a hot water bottle placed on the exposed pipe starting from the tap-side of the frozen area. (This process may take several hours – reheat the water in the bottle hourly).



Blue Isolating Valve
within Meter Box

If a pipe or tank should burst, turn off the water at the isolating valve immediately and switch off all central heating and other water heating installations. Let water in the system drain out by turning on all the taps and then call in a professional plumber to make the repairs.

Take precautionary action now in an attempt to avoid pipes freezing again by ensuring that the water supply pipe from the mains is at 450mm (18inches) below ground and that the pipe network and water tank within the premises is insulated.

SECTION 2

Save Money: Conserve Water—Every Drop Counts!

Saving water makes good business sense. Simple changes to the way your business uses water can conserve water and save you money, so:

A. Know Your Water Consumption

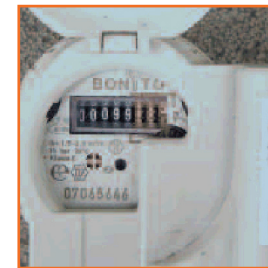
Recording your water meter readings on a regular basis (daily, weekly, monthly) will allow you to identify trends in water consumption.

You will need to:

- Find Your Meter

The water meter is generally located in the footpath outside your premises. An eight digit serial number is stamped on the meter underneath the reading digits. This serial number also appears on your bill.

The meter box contains a plastic plug (not shown) to guard against frost damage. Remove this plug to examine the meter. It is important to replace this plug when you are finished. An automatic Meter Reading device, which transmits your reading by radio signal, has been attached to your meter. DO NOT REMOVE. The digits may be viewed by lifting the flap on the top of the unit.



Meter Dial



Meter Cover

- Read Your Meter

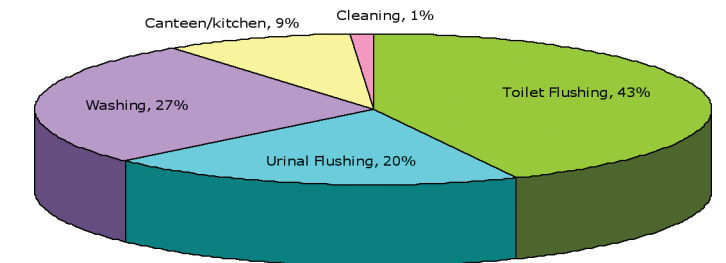
All South Dublin County Council meters are metric meters, they measure water volume in cubic meters (1 cubic meter = 1000 litres).

When water is used the red dial will rotate proportionally to the amount of water used and the reading digits will increase accordingly. The black digits record cubic meters. You will be charged on the basis of whole cubic meters used.

- Reduce Your Water Consumption

Many organisations use much more water than they actually need incurring excessive costs. Often measures can be taken that cost little or nothing to implement but can result in considerable savings in your actual water bill.

Typical Office Building Water Consumption
Source: Key Performance Indicators for water use in Offices, CIRIA 2006



Carry out a Water Audit

A simple water audit will allow you assess your plumbing appliances/fittings for water efficiencies.

The easiest way to do this is:

- List all water using items
- Review each one and assess if there is potential to improve efficiency
- Develop an Action Plan to prioritise work, responsibilities and timeframes
- Review regularly and set targets for further improvements

We recommend that specialist advice be sought on water efficiency measures for more complex water fittings, for example cooling towers.

HOW DO YOU COMPARE?

A benchmark for office employees are as follows:

Typical use	Daily use/employees = 16 litres
Best Practice	Daily use/employees = 8 litres
Excessive use	Daily use/employees = 30 litres

Note: Total employee numbers should be used.

Source: 'Key performance Indicators for water use in Offices' CIRIA 2006

SAVING WATER: MAKE IT YOUR BUSINESS



Washroom Facilities



Canteen/Kitchen

Water used in public and staff washrooms can account for up to 90% of your total water usage depending on the business activity.

POTENTIAL WATER SAVING OPPORTUNITIES

TOILETS

- Hippo Bags

Fitting a water displacement device such as a 'hippo bag' in your toilet cistern could save between 2.5 – 3.5 litres per flush. (Note: 'Hippo bags' are only to be fitted in cisterns with volumes of 9 litres or more.)

- Dual Flush

If fitting new toilets or replacing old toilets consideration should be given to dual flush toilets with a max flush volume of 6 litres.

- Leak Detection

Detection of a leaking cistern is often difficult and the best method for detection is to add a small volume of food colouring to the cistern and then check back of the pan after an hour for traces of colour. Ensure units are inspected for leaks every three months and task daily cleaners with reporting any obvious leak. The outlets from overflow pipes from cisterns and tanks should be visible so that drips/flows are noticed and repaired.

- Avoid Blockages

Avoid using the toilet as a rubbish bin. High volumes of water are often wasted when staff use toilets to dispose of general waste. This behaviour may also lead to blockages.

URINALS

- Flush Control system

Many urinals flush 24 hours a day, 7 days a week, 365 days a year. This happens even when there is nobody in the building wasting large volumes of water and money. Flushing can be more cost effective by installing flush control systems, which only flush during office hours or after use, rather than continuously.

CISTERNS /STORAGE TANKS

- Monitor overflow

Checks should be made to ensure that cisterns, whether for storage or flushing, are not overflowing and causing water to run to waste through overflow pipes.

In such instances, necessary adjustments or repairs should be made to the float-operated valve or other device, which controls the inflow of water to the cistern

TAPS

- Repair dripping taps

A single tap dripping at one drip per second can lose up to 4,500 litres of water a year. Repairing a leaking tap may be as easy as replacing a washer and may only cost a couple of cents.



- Self close taps

Taps left running can waste large volumes of water. In washrooms consider replacing a conventional screw tap with self close taps that close automatically after a preset period.

Other tap controls are an easy and cheap way of reducing water consumption and are available in both new and retrofit versions. Examples include spray taps, infra-red, flow restrictors etc...

CANTEENS/KITCHEN

The main areas of water usage in canteen/kitchens include sinks, dishwashers and garbage disposals. By adopting water conservation principles in these areas you can significantly reduce your operating costs and improve your business's water efficiency.

RATING WATER USAGE

(Litres per food item/ meal prepared)

Good:	Less than 35 litres
Fair:	35-45 litres
Poor:	More than 45 litres

(Source: Brisbane City Council Fact Sheet 2 Commercial Kitchens)

CLEANING AND GENERAL MAINTENANCE

Most businesses have a daily or weekly equipment clean requirement to maintain hygiene standards or good housekeeping practices. Many cleaning processes consume large volumes of water which with some simple changes can be made significantly more efficient.

An effective maintenance program should incorporate regular water consumption tracking and on site preventative maintenance inspections.

CONCLUSION

Water conservation and efficiency in your business can help save money and reduce the use of precious resource.

For more information on how your business can benefit by using water efficiently go to:

www.sdcc.ie or www.taptips.ie



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