Why think about taps?
In commercial premises around 25% of ‘domestic’ water is used when operating taps. A tap can often deliver a flow rate of up to 20 litres/min depending on pressure.

There are several water saving devices available to businesses to reduce water use substantially. This leaflet provides guidance on what you need to consider and how to evaluate the best solution to meet your needs.

Ways to reduce water use
In many cases, a reduction in water use can be achieved by installing cheap and easy-to-fit retrofit devices to taps, resulting in short paybacks. But when refurbishing washrooms, bear in mind that many water efficient taps are the same price as less efficient models.

Key considerations:
- Correct installation is important - a poorly fitted device or control system may not reduce water use - in fact, it may increase it!
- Any fittings to the mains need to comply with the Water Supply (Water Fittings) Regulations 1999.
- Is maintenance required to ensure continued success? For example, soap deposits or scale build-up can cause tap mechanisms to jam (in particular, some push-down taps), resulting in taps dripping.
- Perception is often a barrier - water efficient taps and retrofit devices can be stylish and do not compromise performance, if installed correctly.
- Are the products you are considering buying included on the Water Technology List (WTL)? The Enhanced Capital Allowance (ECA) Scheme enables businesses to claim 100% first-year capital allowances on investments in spray taps, automatic shut-off taps, electronic taps and low flow screw-down/lever taps. These can be found at www.eca-water.gov.uk/

The table overleaf summarises the common types of device and approach that are available to reduce water use through a tap. A flow rate of 5 - 6 litres/min is usually adequate for hand washing.

Further information
- Envirowise water pages www.envirowise.gov.uk/water. Use WaterNet (www.envirowise.gov.uk/waternet) to identify the most relevant publications for your requirements.

Based on a tap being used 20 times a day for 15 seconds.
### Reducing water use in washrooms: taps

<table>
<thead>
<tr>
<th>Item</th>
<th>Advantages</th>
<th>Disadvantages</th>
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</table>
| **Isolating ball valve** (screwdriver/lever actuated) | - Water savings of up to 10 litres/min  
- Retrofit available  
- Cheap and easy to install | - Orifice may block with scale build-up  
- Does not regulate pressure |
| **Flow restrictor**                        | - Water savings of up to 10 litres/min  
- Can be used as an isolating valve (a quarter turn closes the orifice)  
- Retrofit available  
- Cheap and easy to install | - Orifice may block with scale build-up  
- Does not regulate pressure |
| **Spray tap**                              | - Water savings of up to 10 litres/min  
- Retrofit spray tap nose available | - Requires maintenance to prevent blockage  
- Legionella can be a problem if used infrequently  
- Can cause splashing  
- Does not regulate pressure |
| **Tap aerator** (flow restrictor)         | - Water savings of up to 10 litres/min  
- Retrofit available  
- No splashing  
- Flow rate reduced to 2.5 - 8 litres/min  
- Pressure compensating aerator (PCA) regulates flow regardless of pressure | - Not effective at pressure < 1 bar  
- Standard aerators do not regulate pressure |
| **Self-closing taps** (percussion taps/push-down taps) | - Retrofit available  
- Automatically closes after use  
- Savings can vary | - Delay cycle needs to be set correctly  
- Mechanism can jam (hard water can be a contributor)  
- Payback period can be 2 - 3 years |
| **Electronic tap**                         | - Improved hygiene - tap does not need to be touched  
- Savings can vary | - Retrofit not applicable  
- Requires energy - mains or battery operated  
- Scalding can be an issue if the temperature control is incorrectly set  
- If sensor is fouled by soap then water flow is continuous  
- Long payback period |
| **Single lever mixer tap with water saving ceramic cartridge** | - Water savings of up to 10 litres/min  
- Retrofit available | - Temperature control needs to be clearly marked  
- Long payback period (£90 per tap) |
| **Thermostatic mixer valve (TMV)**        | - Water temperature is set - uses less water at initial draw-off  
- Only one tap may be required  
- Savings can vary | - Long payback period (£50 - £100 per unit) |
| **Point of source heater**                | - Uses less water at initial draw-off  
- Savings can vary | - Capital costs for installation of heater |
| **Foam soap**                             | - Small amount of soap required per event (water saving of up to 50%)  
- When user rubs hands together, foam/mousse reduces to small volume that requires less water to rinse off hands | - May require new soap dispenser |

2 Also referred to as “pop up waste” function