Measuring to Manage Water

Bright Green Business helps Scottish businesses recruit skilled students & graduates, improve environmental practices & develop business networks. To find out more about our other services visit our website **www.brightgreenbusiness.org.uk**.

Introduction

When people consume resources – through the manufacturing of goods, driving a car or turning on a tap – there are associated impacts on the environment. As our society grows, there is a higher demand on these resources and in order to continue using water but not exceed the environmental limits, we must increase the efficiency with which natural resources are used, limit our usage and save our environment.

All businesses use water, most organisations take water for granted and few know how much water they are using on a daily basis.

The first step in reducing your resource use is to decide what measurements are required to monitor your usage and see the current situation. Your collected data will help you:

- Begin a measuring system;
- Establish a baseline;
- Highlight areas for improvement;
- Set targets for reductions.

Monitoring and measuring your organisations water usage can help identify leakages, save costs and reduce your environmental impact.

Water Framework Directive in Scotland

The Water Framework Directive was introduced in 2000 by the European Union to establish a new legal framework for the protection, improvement and sustainable use of all water bodies across Europe. This includes all rivers, estuaries, lochs, canals, wetlands and coastal waters.

What are the benefits of the Directive?

- Improved protection and enhancement of the water environment leading to a cleaner and healthier water environment
- Promotion of more efficient uses of water to reduce pressure on the water environment
- Effective and more sustainable water management

The Directive became law in Scotland during 2003 through the Water Environment and Water Services (Scotland) Act 2003 (the WEWS Act) which sets out the new arrangements for the protection of the water environment in Scotland.

To find out more, visit http://www.sepa.org.uk/water/water_regulation.aspx.

Why is Water Management Important?

- Water is a manageable resource
- Water costs are rising
- Tighter consents / New regulations
- Cost of clearing up pollution >> investment required for prevention
- Need to Protect Infrastructure

Costs associated with water & effluent

- Non-domestic water *supply* charge

  - Volume charge (cubic meters)

  - Fixed charge (diameter of connection)

- Non-domestic water *sewerage* charge

  - Volume charge (m^3, 95% of water supply)

  - Fixed charge (diameter of connection)

  - Surface water drainage (Rate-able value)

- Trade effluent

Uses of Water in the Workplace and Home

- Drinking water
- Toilets including hand washing
- Kitchen uses e.g. washing dishes
- Dishwasher
- Washing machine
- Showers and baths

Raising Awareness in your Organisation

Awareness raising campaigns in the workplace can be an effective tool for staff to understand why it is important to reduce water usage. Using posters, weekly roundups or staff training can raise awareness of minimisation measures in your workplace.

Bright
Green
Business
Network

Why should you Monitor & Measure water?

'If you don't measure it, you can't manage it!'

Measuring to manage can also help your company to improve its environmental performance and to identify opportunities to increase throughput without the need for major investment. The success of the programme depends on regular measurements and analysis of the resources (raw materials, energy, water, packaging etc.) used by your company and the wastes it produces.

Taking regular measurements and analysing your environmental and financial data will help you to:

- Reduce the true cost of water to your company;
- Identify cost-effective opportunities to prevent and reduce water
- Control your services/processes more effectively
- Set improvement objectives and targets
- Measure progress towards your targets and set new ones

There are a number of ways your company can begin auditing the water usage in your organisation:

- The first step to take is to walk around your site and draw up a site plan which takes all aspects into consideration including drainage.
- In this walk around, identify all uses of water and sources of effluent.
- Look for water meters around your office, taking direct readings from your meter will provide reliable data.
- If you cannot read the meter safely, look out current and past water bills – these can be based on consumption and are usually monthly. This will give you a baseline of costs and usage.
- Take the data and begin collating and interpreting it for the company to detail to staff.

Bright
Green
Business
Network