For most people working in hospitals, the only time water may become an issue is if it doesn't come out of a tap. While the people in the maintenance department (Building and Estates) do their best to ensure this is the case, leaks, pipe breakages, boiler issues, etc. can occur at any time and without warning.

Therefore, in order to have as effective and efficient a water service as possible, hospitals should put in place a water management programme. This has 2 goals: firstly, to provide a plan to ensure that the hospital continually improves the provision of water services in the most economic and efficient manner; and secondly, to ensure that the maintenance department has the appropriate support from all other people working in the hospital.

The following are some recommended aspects of a hospital water management programme:

1. Set up a water efficiency team: as with any good management initiative a multidisciplinary team is essential. This allows all different groups within a hospital to be involved and, if the correct people are included (finance, management, nurses, doctors, hygiene, maintenance, etc.) it will ensure all staff are on the same page. The team should meet on a regular basis and try to follow an annual continual improvement model of: plan, do, check, act.

2. Report leaks: maintenance staff cannot be everywhere so, the reporting of leaks or water issues by staff will ensure these can be identified quickly. However, it is imperative that when leaks are reported by staff (or the public) they are repaired or addressed straight away. This will build the credibility of the water management programme as well as that of the maintenance department.

3. Communicate: In order to raise the awareness of all staff it is important to communicate directly with them about issues such as water costs, on-going water initiatives, successful projects, leak repairs, benchmark values and future plans.

4. Ask for ideas: the people who work and use services on a dailybasis often have a very different perspective on issues and problems. Including all staff in the improvement of water services by asking for water efficiency ideas is a great way to identify on-going issues.

The following checklist of action items provides a summary of the main topics addressed in this booklet. It can be used as a basis for developing a hospital water management programme.

Efficiency Programme

Water Efficiency - Best practice guides for Irish Healthcare Facilities

Water efficiency action checklist

☑ Do you **monitor** your water use on a regular basis? (minimum of monthly)

Start by examining your bills. If these are only issued quarterly then read your meter manually at least monthly.

☑ Do you present water use data in a **graphical format?**

If gathering manual readings, or water consumption data (m³) from your bills, set up a spreadsheet that automatically graphs water use data as it is inputted.

☑ Have you calculated your **water use benchmark** and compared it with other similar hospitals (Acute or Community Health Hospitals)?

Calculate your benchmark by comparing your total annual water use with the number of patient bed-days provided by your hospital.

☑ Have you checked your site for **leaks?**

Even if your level of water use is consistent, or your benchmark compares favourably with others, there may still be undetected leaks in your hospital.

☑ Have you used an **online data logger** to check your daily water use profile?

Online loggers can be fitted permanently or for a short period and provide a profile of when, and how much, water is used. This can help identify background water use (leaks) or unexplained high use trends.

☑ Have you installed **sub-meters** in appropriate locations on your site?

While the data from your mains meter will give information on the total water used by your hospital, sub-meters help track the main buildings/areas within the site.

☑ Has a survey of the main **fixtures and fittings** been carried out?

These surveys will help identify any fixtures, fittings, buildings or areas where unusually high volumes of water are used. Sometimes certain taps will have high flow rates, in other cases specific floors may have consistently high flows.

☑ Have you compared your hospital with the national **best practice benchmarks** or generated specific internal indicators?

By comparing with best practice benchmarks, or continually comparing specific internal indicators, you can set improvement targets for your hospital while also ensuring high efficiency standards are maintained.

☑ Have you assessed your main fixtures and fittings relative to **best practice flow rates?**
There are established best practice flow rate for the main fixtures and fittings used in hospitals (taps, showers, toilets and urinals). If yours are higher than these then you are using, and paying for, more water than you need.

☑ Have you examined the **supply pressure** of water throughout your hospital?

A consistent supply pressure throughout your hospital ensures a consistent level of service and also ensures that water use by fixtures and fittings is relatively consistent. In-line flow restrictors are an effective way to reduce high pressure supply areas.

☑ If you have **reverse osmosis** on site have you checked it for internal recycling or external reuse (usually from dialysis only) of discharged water?

RO is a very important part of modern hospitals but RO units can waste significant volumes of good quality water. Depending on the type used there are internal and external reuse options that will reduce overall water use without impacting on the quality of ultra pure water supplied.

☑ Are there any other **large consumers** that should be examined in your hospital?

Every hospital is different so you may have other areas where large volumes of water are used (e.g. kitchens, ambulance washing, fire hydrant flushing). It is important to firstly identify these and, once quantified, identify ways to reduce the water volumes used.