Safe, reliable water and sewerage services are not just essential for the well-being of society – they are vital for life itself.

The Defence Infrastructure Organisation (DIO) plays a key role in managing this precious resource across the Ministry of Defence (MOD) estate.

**How do we manage water?**

Water is supplied to establishments across the MOD estate via a number of commercial arrangements as follows:

**Great Britain (Aquatrine)** – the majority of sites in Great Britain get their water through one of the three Aquatrine contracts.

This Private Finance Initiative (PFI) brings together DIO and three service providers to account for some 95% by consumption.

Water is delivered by:

**Overseas (Non-Aquatrine)** – water is supplied to sites in overseas locations via a number of different arrangements.

These include: water supplied by a water company; water drawn from river sources and processed in water treatment works; and water produced by reverse osmosis processing.

Sewage disposal and other wastewater removal services are also delivered as part of these water supply arrangements.

**What are our targets and how are we doing?**

Consumption is measured in cubic metres (m³), which equates to 1,000 litres or 220 gallons (1 gallon = 8 pints).

Here are some examples:

- Toilet flush: 5-7 litres
- Washing machine: 45-65 litres
- Power shower: 65 litres

Large quantities of water are measured in megalitres (ML) or one million litres.

Under the Greening Government Commitment (GGC), the MOD is required to hit the following targets:

**Total water consumption target**: Reduce water consumption across the MOD estate by 7% between 2010/11 and the end of 2014/15 against the 2009/10 baseline. This means reducing consumption from 24.9 ML to 23.23 ML.
DIO’s HQ at Sutton Coldfield currently meets the target and we are working hard to reduce consumption across the other offices.

We do this by working out what drives these higher levels of water use, so we can effectively reduce it.

**How can we better manage water consumption?**

There are a number of current initiatives in progress to better understand, and as a result to further reduce, MOD water consumption.

In November 2013, DIO initiated a Water Consumption Reduction Programme (WCRP) on 150 high water demand Aquatrine sites.

The WCRP is scheduled to run until the end of 2016 and deliver the following key outputs:

- Site survey report for each site outlining current water performance and recommendations for implementation of water efficiency measures
- Site specific Water User Behaviours Strategy
- Monitor and demonstrate the proposed cost savings

A number of initiatives are being pursued in order to reduce consumption on the eight MOD office sites.

For example, of the Aquatrine sites listed left, those included in the WCRP (Abbey Wood and Kentigern House) are being reprioritised to take place earlier in the programme.

Three of these eight sites are ‘non-Aquatrine’. We are investigating whether their consumption is accurate and determining what is ‘driving’ consumption on these sites.

As of the end of the financial year 2013/14, consumption had reduced by 8.6% to 22,83 Ml, a saving of some 1.6% more than the target.

**Office water consumption target**: Ensure that water consumption on the eight MOD office sites included (see below) in the GGC Benchmark is less than 6m$^3$ per full-time member of staff per year.

The DIO Utilities team have now identified consumption figures as at end 2013/14. Current meter readings indicate the following:

- DIO HQ: 5.48 Ml
- Tomlinson House: 7.62 Ml
- Abbey Wood (North & Main): 8.88 Ml
- MOD Main Building: 24.96 Ml
- CPRO Cheadle Hulme: 11.80 Ml
- Kentigern House: 15.16 Ml
- Blandford House: 19.78 Ml