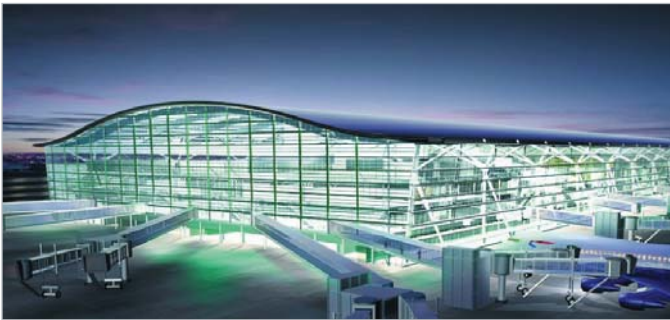


Case Study

London Heathrow Terminal 5

Water Metering Project



Designing Terminal 5

BAA is committed to building Terminal 5 in an environmentally and socially responsible way. An extensive programme of safeguards and plans has been established to protect the environment.

A specialist environmental team monitor and controls environmental impacts and work closely with the Environment Agency.

It will take an estimated 37 million manhours to construct T5 at an estimated cost of £4 billion and represents a huge programme of construction works.

To ensure integration on T5, all those working on the project are fully assimilated. Teams may be from a variety of companies but all have shared values, making for a unique T5 culture.

A team of consultants, including ADSM, was brought on board in the very early planning stages of the process. This enabled the expert teams to integrate and to work together to identify any issues and problems before designs were finalised and construction began.

It also meant the teams were in a position to add value by designing safe solutions within the time, quality, cost and safety targets and helped increase efficiency, productivity and transparency.

Objectives for a Sustainable Water Strategy

BAA has a far reaching and sustainable water strategy for Heathrow Terminal 5, including measures to minimise the use of potable water and waste water disposal.

This strategy includes the abstraction of groundwater from boreholes and the harvesting of rainwater.

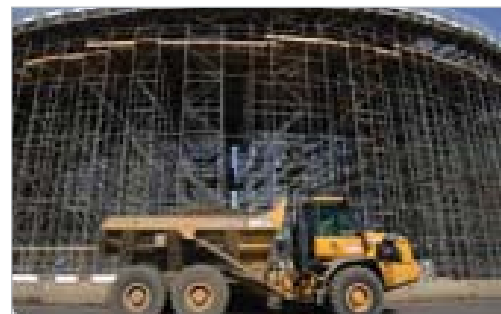
Measuring and Targeting Water Usage

As part of that strategy, BAA commissioned ADSM to undertake detailed monitoring in two existing toilet and washroom facilities at Heathrow Airport - in Terminal 1 and in Terminal 4 - in order to understand usage patterns and water consumption by visitors to the terminals.

ADSM installed numerous measurement devices in order to separately identify and quantify the water usage in all these Terminal washroom facilities - toilets, urinals and wash basins.

A technologically-advanced optical passenger counter was designed and installed at the entrance to each washroom facility.

All of the data collected was recorded and logged at one minute intervals over a period of several weeks. This data was subsequently analysed.



Water Saving Benefits for Terminal 5 and Other Terminals

Based on the analysed data, ADSM was able to provide the Terminal 5 design team with detailed information and recommendations regarding the expected water consumption and the water efficiency technologies that they should employ to minimise water consumption in the new toilet and washroom facilities and attain best practice.

As a result of the Water usage monitoring and analysis, water efficiency modifications were also made in Terminals 1 and 4 – including the installation of electronic water saving controls – making considerable savings on water consumption and helping to meet water conservation targets.

“As Terminal 5 is very much state-of-the-art, we wanted to ensure that the design is both environmentally responsible and sustainable. This extends right through to the most water-efficient devices and measures in our washrooms and toilets – and, by undertaking analysis and following recommendations from ADSM, we believe we have achieved this”.

Sustainability Manager, BAA