

Wessex Water Operations Centre, Bath



Building Summary

Wessex Water's Operations Centre was completed in summer 2000. Its purpose was to improve working practices by bringing together staff from a number of locations within the Wessex Water region. The relocation of the Operations Centre also benefits from a more central location.

A notable point within the design brief was for the building to be the most sustainable office of its size in the UK. With a floor area of 10,000 m², the office accommodates around 550 staff.

Client: Wessex Water Services Ltd
Architect: Bennetts Associates
Structural engineers: Buro Happold
Contractor: Mace

Photo: Wessex Water

Climate Change Adaptation measures

The main features of relevance to climate change adaptation are those can that deal with extremes of rainfall and temperature. These have been achieved in relatively sustainable ways.

The aim regarding rainfall was to ensure that there was no net additional runoff from the site. This has been achieved through a number of means:

- Rain from the roof is collected in tanks and subsequently used to flush toilets
- Most exterior paving, including the car parks, is porous
- Vegetation, including a swale and two green roofs, helps to absorb rainfall
- Any surface runoff drains to an underground tank at the lowest point of the site. This water is then pumped to a soakaway, which allows rainwater and waste water to drain directly into the ground

Regarding internal temperature, air conditioning has been kept to a minimum to keep energy consumption down. Instead, more sustainable solutions were built-in to avoid overheating inside:

- Concrete soffits in the ceiling of office wings act as a heat sink, absorbing excess heat
- Natural ventilation is maximised through sensor operated skylights and windows that can be opened manually
- External shading reduces the heating effect of a more intense summer sun

Benefits of adapting

The main impetus was to reduce energy use, avoid building additional drainage and generally improve efficiency. The design team were keen to ensure the building functions on very hot or very wet days without resorting to extensive air conditioning and bigger drains. Recognition and benefits included:

- The building being one of very few to achieve an Excellent Environmental Assessment Award under Building Research Establishment Environmental Assessment Method (BREEAM) 98 for Offices, with an environmental performance index of 10 - the highest possible
- Building Award at the 2001 British Construction Industry awards
- Building of the Year at the Royal Institute of Chartered Surveyors 2002 awards
- Cost savings - the building uses around 30% of the energy that would be expected for an office of its size, and around one seventh of the energy per m² of a typical head office
- The pleasant 'feel' of the building which is often commented on by visitors and staff, although the quality of the working environment has not been quantified

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Relevant links:

www.wessexwater.co.uk/operationscentre