

## The Met Office

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Photo: Courtesy of the Met Office

**Client:** The Met Office  
**Architect:** Broadway Malyan  
**Contractor:** Costain-Skanska

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**Relevant links:**  
[www.metoffice.gov.uk](http://www.metoffice.gov.uk)

### Overview

The Met Office vision is “Making our forecasts essential to everyone, every day.” Through the Public Weather Service, the Met Office provides weather forecasts and warnings for the public. It employs 1,700 staff at over 40 UK locations and overseas and is one of only two World Area Forecast Centres that provide high-level weather forecasts. The Met Office prepares weather information for all international flights in the area from the eastern North Atlantic to central Australia, sends staff to support military operations abroad and maintains the National Meteorological Library and Archive, which is one of the most comprehensive collections on meteorology anywhere in the world. The Met Office Hadley Centre is a world-renowned centre for climate research. The research it does informs government on climate change to provide the basis of UK policy on the reduction of greenhouse gases under the United Nations Framework Convention on Climate Change.

When designing its headquarters in Exeter, the Met Office deemed environmental credentials, including reducing the causes and effects of climate change, vital to ensure the sustainability of the building.

### **Climate Change adaptation actions**

- Landscaping includes two balancing ponds to control the rate of surface water run-off from the site, with waterside planting to enhance the approach to the main entrance
- Parkland pasture between the building complex and the internal access road; screen planting to the car parks; and native woodland buffer planting around the perimeter of the site help to cope with run-off and provide benefits to biodiversity
- Rain water collection from the site is treated with UV light and then reused to flush the toilets
- Using the large amount of heat from the site's generators to warm or cool the rest of the building as the seasons and weather dictate
- A fully automatic lighting system that responds to occupancy and natural light levels
- Many of the construction materials came from sustainable sources and they are able to recycle energy and consumable materials, such as wastewater and rainwater
- An artesian well was drilled in 2008 to provide a sustainable source of water to top up ponds and flush toilets and cooling water for chilled water systems. This is to help cope with possible future extended dry spells
- The "TermoDeck Ventilation System" is being used to passively improve the building's energy performance whereby the mass of the building is used for heating or cooling. The incoming air passes through the concrete frame and the cool night air chills the building in summer, while the opposite applies in winter
- Video and teleconferencing means that meetings are not as affected by extreme weather as they would otherwise be

### **Benefits of adapting**

- The building achieved the highest BREEAM rating for its environmental performance
- The Met Office was awarded ISO 14001 accreditation achieved through the implementation of an Environmental Management System (EMS) – demonstrating how the Met Office manages its business activities, products, services and environmental impacts
- The Met Office achieved a rating of 'Very Good' in 2003 for the construction of its new Headquarters, and 'Excellent' in 2007/08 and preceding years for its management and operation
- The ventilation system saves electricity that would otherwise be required for active air conditioning in summer: the majority of the building is naturally ventilated
- The automatic lighting system also saves electricity when workspaces are unoccupied
- The artesian well means that the only water bought in will be for drinking purposes