



ECOHOMES ASSESSMENT: Water section

Water good idea

This issue EcoConsulting discusses the Water section of EcoHomes 2005.

In HABM's new feature, EcoConsulting will be looking at EcoHomes 2005 credit by credit, with the goal of increasing awareness and understanding, explaining the reasoning behind the BRE scheme, and facilitating the process. Ecohomes 2005 comprises of 27 credits divided into seven Best Practice groups: Water, Energy, Transport, Pollution, Materials, Ecology and Land-use, and Health and Well-being. Credits are awarded according to if and how well design specifications meet BRE requirements for each credit type, and the final credit score is translated into an EcoHomes rating, ranging from 'Pass' to 'Good' to 'Very Good' to 'Excellent'.

Water section

Water is a scarce resource in the UK. Perhaps hard to believe with the reputation of constant cloud-cover and rain, but some regions of the UK receive less rainfall than some parts of the sub-Saharan. Especially in the South-east, potable water is in short supply, coupled with the issue of increasing population and, even more problematic, increasing consumption per capita. Thus, water efficiency, collection, and 'grey water' treatment measures are rightly rewarded through EcoHomes Internal and External Water Use credits.

Wat 1: Internal Water Use

Credit Background: The average UK household consumes 102m³/person/year (*Source – The Centre for Alternative Technology*). By reducing water intake, a total of five credits can be awarded (see table). The per person water consumption is calculated using a BRE formula based on the types of washing machines, dishwashers, WCs, hand basin taps, bath size, and shower flow rates.

Credit Benefits: Reduced water bills; relieve underground aquifers.

Credit Requirements: The installation of low-flush toilets, aerated taps, and water efficient washing machines are examples of how to cut water usage, and contribute to earning credits. Additionally, gathering water from rainwater collection systems and reprocessing grey water (treating used tap and bath water for WC flushing) offset water consumption, thereby providing additional credits.

Wat 2: External Water Use

Credit Background: One credit is awarded for using collected and stored rainwater to water external landscaped areas.

Credit Benefits: Make use of free rain instead of using scarce drinking-quality water that has been treated and processed at high energy and environmental costs.

Credits	Water consumption (m ³ /bedspace/year)
1	< 50M ³
2	< 45M ³
3	< 40M ³
4	< 35M ³
5	< 30M ³

Credit Requirements: Simple water butts that collect runoff for roofs, as well as complete rainwater collection systems, comply with this easy-to-get credit provided that other simple requirements are met as well (eg. provision of a tap or other method for drawing water). Another requisite is the size of the water stores, from a minimum of 100 litres for patios to 200 litres for three+ bedrooms. In the case that there are no gardens or landscaped areas present, this credit is automatically awarded. However, if there is hard landscaping, a water storage facility is still mandatory.

Wat 1: Ease of compliance			
Urban Development	EASY ✓	MODERATE	COMPLEX
Rural Development	EASY ✓	MODERATE	COMPLEX
Wat 2: Ease of compliance			
Urban Development	EASY ✓	MODERATE	COMPLEX
Rural Development	EASY ✓	MODERATE	COMPLEX

■ EcoConsulting (UK) Ltd advises architects, developers, and housing associations on cost effective eco-building solutions to improve interior health and comfort, energy efficiency, and environmental-friendliness. As a certified EcoHomes, BREEAM Offices, BREEAM for Schools, and BREEAM Retail assessor, the company consults on achieving 'Pass' through to 'Excellent' BRE ratings.

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