

## Cockermouth Extra Care Home - Rainwater Harvesting

<b>Client:</b>	Priory Group
<b>Building Type:</b>	60 room extra care facility
<b>Roof:</b>	Pitch and slate with gravity drainage
<b>Catchment Area:</b>	1,050m <sup>2</sup>
<b>Rainwater Apps:</b>	34 WCs for resident and staff use
<b>Sustainability:</b>	BREEAM - Excellent
<b>Built:</b>	2010



### Rainwater Harvesting Requirements

Rainwater harvesting technology was selected to help achieve a high BREEAM rating for a new 60 room care home in Cockermouth. 50% of the buildings WCs were connected to the RHW system. This enabled maximum BREEAM points and helped keep the capital cost down.

The rainwater demand for WC flushing is very high at 7 flushes per WC per day, 7 days a week, 365 days a year. This demand puts a high load on the system performance and highlights the need of a well designed, installed and specified rainwater recovery solution.

The estimated water saving is 750m<sup>3</sup> per year and reduced water meter fees of approximately £1,550 per year.

The home was designed and built by G&J Seddon from Bolton.



A single 23,000L precast concrete tank was placed into the final position by truck mounted crane. Only a crushed base is required and no concrete backfill. The precast tank saved £3,000 on installation by eliminating a concrete base and backfill that would have been required with alternative GRP tanks. By eliminating the concrete cure time 2 days were also saved on installation time, a crane was also avoided as additional cost. The precast tanks have a standard surface load rating suitable for a 40t truck, saving additional structural design cost.

Seddon quickly recognised the whole solution proposal Ecozi put forward as they were acting as builder and M&E contractor. This enabled the true savings of the system to be seen through the project. Ecozi was employed on a supply and commission basis.



rainwater harvesting systems

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