

Project Information:

Employer's Representative	MWH UK Ltd
Blackwell Role	Main Contractor
Form of Contract	NEC2 Eng. & Const. Contract Option A
Contract Value	£4.6M

Blackwell Site Management:

Contracts Manager:	Alan Day
Project Manager:	Justin Downer
Site Manager:	Ken Crawford



Services Include:

Civil Engineering **Earthworks** **Geotechnical** **Remediation**



Contract Summary:

The project to create reed beds to filter out sludge produced at the Hanningfield Water Treatment Works near Chelmsford in Essex was the first of its kind to be adopted in the water treatment process. The contract to construct the innovative reed beds was awarded to Blackwell by Essex and Suffolk Water Limited, who are owned by Northumbrian Water Limited.

The reed bed system created by Blackwell enables the sludge produced as a by-product during the water treatment process to be filtered and recycled with a significantly low impact on the environment. The reed beds also provide habitats for wildlife in the surrounding area.



Key Processes:

The main elements of the scheme included:

- The creation of 16 individual reed beds, each with a surface area of 2,720 m² and a depth of 2.4m.
- The diversion of an existing sludge main. Once diverted, this underground pipe would channel the sludge to each of the 16 reed beds in turn, where the sludge would be filtered out through the reed bed. Clear filtrate water would flow back to the Hanningfield Reservoir for reuse.
- The installation of butt-fused polyethylene pipe work.
- The installation of U-PVC pipe work.
- The installation of a pit and duct system.
- The construction of a site building for monitoring and telemetry equipment and operator welfare.
- The installation of mechanical, electrical, instrumentation, controls and automation systems.
- The construction of vehicular access.