

WALTERS

New Capping System for Cardiff Landfill Site



Project:

[Lamby Way Capping Works](#)

Client:

[Cardiff Council](#)

Value:

[£1.1 million](#)

At-a-glance:

- 45,000m² of capping area
- 60,000m³ of soil placed

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Walters is accredited to ISO 9001 for Quality Management, ISO 14001 for Environmental Management and OHSAS 18001 for Occupational Health & Safety.

Challenges

Lamby Way landfill site is an integral part of the waste disposal infrastructure of the Cardiff area. The client, Cardiff Council, appointed Walters to undertake a significant capping project at the site in order to open up a portion of the land for final landscaping.

Capping is a cost-effective way of remediating an existing landfill, and was selected as the desired remediation process in this instance. As part of the project the Council specifically requested the installation of a surface water drainage system and set ecological constraints on the scope of works.

Solution

Walters undertook the works to cap the 40,000m² eastern flank of the site (cells 1 and 2), including preparation in terms of site clearance, local reptile relocation and disposal of Japanese knotweed.

Constructing a barrier and drainage layer ensures the land above the landfill is suitable for reuse, with the landfill below the line remaining dry - assisting in leachate reduction. Around 12,000m³ of regulating soil layer was introduced (with full soil analysis) and a rigorously-tested geo-textile layer (over a 1mm HDPE liner) and geo-composite drainage layer was installed, with close liaison with the client's CQA team at all stages.

A further restoration soil layer was placed along with surface water drains, and the scope of the project was extended to include the capping of an additional 5,000m² and the secure decommissioning of 10 live leachate wells.