

## Project Profile

**Sector:** Waste Policy

**Project:** Life Cycle Analysis in Waste Management:  
Landfill designs for the WISARD database

**Client:** Environment Agency and AEA Technology

**Period:** 1999



The WISARD (Waste Integrated Systems Assessment for Recovery and Disposal) lifecycle assessment tool has been developed by Ecobilan for the Environment Agency. This model is the first comprehensive life cycle tool specifically tailored for the UK waste management sector. Support and development of this tool has been managed by AEA Technology Environment.

LQM was asked to develop the landfill database from the generic landfill provided in the pre-production version of WISARD to include nine landfill designs representative of current landfill practice (mineral and composite liners for landfill sites of different sizes) and three monofills likely to be required for the implementation of the Landfill Directive (incinerator bottom ash, incinerator fly ash, and incinerator flue gas treatment residues).

For each landfill design considered, aspects of construction, operation, waste composition, landfill gas and leachate production and treatment had to be considered and simulated in the database.