



case study

Deerdykes Composting and Organics Recycling Facility



Development of the Deerdykes Composting and Organics Recycling facility for Scottish Water Waste Services.

Deerdykes Composting and Organics Recycling Facility is owned and operated by Scottish Water Waste Services. The site for the facility was originally designed as a Wastewater Treatment Works. The modification of the site into a composting and organic recycling facility was part funded through the Waste and Resource Action Programme (WRAP).



Enviros and Ascot Core Tasks

- Liaise closely with Scottish Water Waste Services in formulating a successful and best value design concept
- Design and build an in-vessel compost facility with 45,000 tpa capacity to process kerbside collected green waste mixed with water treatment sludges and animal by-products (e.g. kitchen waste)
- Integrate existing and new structures to fully utilise and recycle the existing infrastructure
- Work within land restrictions to provide maximum processing capacity
- Ensure strict control of odour emissions, due to nearby dwellings
- Commission the facility and provide operator training and Client aftercare
- Achieve very short time scales to meet WRAP funding deadlines



System Brief

In-vessel compost tunnels constructed with a forced-aeration system to tightly control composting temperatures for sanitisation and oxygen for stabilisation. Control provided through the supply of fresh air combined with re-circulated process air through a network of pipes cast into the concrete tunnel floor. Computer controlled aeration system uses probes placed directly in the composting mass inside the tunnel to regulate blower speeds and fresh air dampers. To save on site area used the plant and odour control system were installed on top of the tunnel roofs. Due to the sensitivity of odour emissions, water scrubbers were fitted to pre-treat exhaust air going to the biofilters. Post tunnel composting was specified as mechanically turned extended-beds using a side turner.

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