

Wider application

The provision of a centralised composting facility is increasingly being recognised as a vital component in local authorities waste disposal strategies. The operation need not be as large as MCR, though an annual intake of at least 10-15 000 tonnes of green waste would usually be required to justify the necessary investment in the hardstanding and machinery. Increasing restrictions on the use of peat, coupled with legislative pressure to increase waste recycling, both encourage the wider application of this model.

Further information

National Urban Forestry Unit

This leaflet is one of a series produced by the National Urban Forestry Unit. NUFU provides a national focus for the exchange of information and good practice in urban forestry.

If you would like further information on other case studies or their application, or if you have examples of good practice to share with others, please contact:

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Further reading

Anon (1998)

Joint project proves its worth *Wastes Management* September 1998

Buckner S C (1991)

High volume yard waste composting *Biocycle* 32(4) 48-49

Holtink H & Keener H (eds) (1992)

Science and engineering of composting *Proceedings of 1992 Composting Research Symposium Biocycle Journal of Composting & Recycling* Emmaus, Pennsylvania, USA

Kuretani, M, Umeda Y and Manabe K (1981)

Utilisation of waste organic materials as composts *Kagawa Daigaku Nogakuba Gakuzyuta Hokoku* 32 155-165

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Urban Forestry in Practice

Recycling green waste



CASE STUDY 17

Recycling green waste

Introduction

Grass cuttings, leaves and prunings from gardens, parks and street trees have traditionally been disposed of in landfill sites. This is unsustainable, expensive and wasteful. Investment in centralised collection, composting and marketing of green waste products is becoming a popular alternative.

Specific example

Project name and location

MIDLAND COMPOSTING and RECYCLING (MCR)
Shareshill, **WOLVERHAMPTON**
Grid reference SJ 965064

Project partners

- Jack Moody Ltd (one of the largest landscape contractors in the UK)
- Walsall Metropolitan Borough Council (start-up partner)

Project objectives

- To collect, compost and recycle green waste
- To reduce pressure on landfill sites
- To establish a commercially viable and environmentally sustainable business
- To provide local employment
- To provide a model initiative for other regions

Description

The introduction of Landfill Tax charges in October 1996, linked with government commitment to reduce waste has helped to create a powerful business case for green waste recycling. Midland Composting and Recycling (MCR) takes prunings and other waste materials from a range of sources across the West Midlands region and converts the waste into commercial products.

Initial discussions between Walsall MBC & Jack Moody Ltd resulted in planning permission for a composting and recycling facility at the site of Hollybush Garden Centre, near Wolverhampton. Construction started on the 10 hectare site in 1994. The development included a perimeter mound to screen the site, 3.5 hectares of concreted hardstanding for composting and a large storage shed for machinery and products. The facility is located on a former landfill site with leachate and gas problems, but the Environment Agency eventually granted a licence to operate in 1997.



Green waste received from domestic waste recycling centre



The material is shredded and left in windrows to compost - £1 million worth of capital investment in specialist machinery and hardstanding

Composting operation

Green waste is weighed and checked for glass, brick and plastic. The shredder can take logs up to 300mm in diameter and the chipped material is formed into narrow *windrows*, each approximately 100m long and 4m high. The composting process takes approximately 16 weeks and generates temperatures of around 65°C. The windrows must be kept at 40-60% moisture content throughout. Rainwater run-off and leachate are collected in a lagoon and sprayed back onto the windrows. When the process is complete the brown, friable compost is given a final milling and is allowed to stabilise for a further four weeks.

Economics

Charges to bring green waste into the MCR facility (as at February 2000) are £15/tonne with discounts for large volumes. Typically, charges at a landfill site would be £17 - £25/tonne to include site charges and a £10/tonne landfill tax. No landfill tax is paid at MCR as all the material is recycled.

The facility had a throughput of 40 000 tonnes of green waste in 1999 and is expected to process 60 000 tonnes in 2000. MCR currently has contracts to take all such material from Walsall MBC, Dudley MBC, Sandwell MBC and Birmingham City Council and half the green waste from Wolverhampton MBC. MCR also operates a kerbside collection scheme in Walsall, collecting from 23 000 homes, via a dedicated *wheelie bin* system, and the scheme also processes paper waste, manure from Dudley Zoo and green waste from commercial contractors and tree surgeons.

The initiative has created jobs for 20 people (15 operatives, 4 in sales and marketing and an overall manager). This number is expected to increase as the business expands.

Products

In addition to green waste, the facility also receives soils that contain a proportion of concrete and brick rubble, stripped from development sites. The soils are screened and resold. The concrete and brick is crushed to produce six different grades of hardcore.

The main products are sold to farmers, landscapers, local authorities and garden centres and include horticultural compost (particle size under 10mm) and soil improver (under 25mm). Other products include a turf top dressing and a mulch for suppressing weeds around newly planted trees. These products are mostly sold in bulk but the soil improver is now also sold in 40 litre bags. Tests on this product show that it is particularly high in potassium.

Future strategy

Negotiations are ongoing with a number of other local authorities to receive their green waste, and it is also hoped that the range of products can be expanded to supply additional markets.

In Walsall, green waste is collected from the kerbside

