

## 13. WASTE

### 13.1. Background information on the current situation in Leeds

13.2. The environmental and health impacts of improperly managed waste, including the threat of climate change, are key concerns for our society. Landfilled biodegradable waste produces carbon dioxide and methane, both greenhouse gases, as a result of aerobic and anaerobic decomposition and these emissions intensify the natural greenhouse effect. Methane emissions are over 20 times as damaging as CO<sub>2</sub> in respect of climate change. Some of the methane emissions can be captured and used as an energy source. Even though some 78% of methane emissions from landfill is now captured and used for electricity generation, or flared, landfill emissions still account for a fifth of all UK methane emissions and just over 1% of UK greenhouse gas emissions. Recycling of materials cuts methane emissions from landfill and also reduces the rate at which virgin materials are used up, helping to save energy used in the extraction and the production phases. Biodegradable waste that cannot be recycled or reused represents a renewable energy source that has the potential to be used to provide electricity, heat or other fuels.

13.3. Since the early 1990s, the Government has advocated that a waste management hierarchy be incorporated into local policy. The waste management hierarchy is set out below in order of decreasing preference:

- Waste reduction;
- Reuse;
- Recycling and composting;
- Energy recovery with heat and power;
- Landfill with energy recovery;
- Landfill without energy recovery.

13.4. A total of 30.2 million tonnes of household waste is produced annually in the UK (Department for Environment, Food and Rural Affairs 2004). Currently in the UK around 75% of total household waste is still sent to landfill, even though the vast majority is reusable. Leeds' residents produce about 375,000 tonnes of solid municipal waste every year and whilst recycling and composting levels have risen, the amount of waste sent to landfill is high at 78%. By comparison, Germany recycles 57% of its waste and the Netherlands recycles 64%. The European Community Directive 99/31 sets a target of reducing biodegradable municipal waste sent to landfill to 75% of 1995 levels by 2010 and to 35% of 1995 levels by 2020.

13.5. Policy outlined in The National Waste Strategy 2007 (Department for Environment, Food and Rural Affairs 2007) is recognised through new targets to reduce the amount of household waste not re-used, recycled or composted from over 22.2 million tonnes in 2000. The Strategy aims to reduce this figure by 29% to 15.8 million tonnes in 2010, with an aspiration to reduce it to 12.2 million tonnes by 2020 – a reduction of 45%. This is equivalent to a fall of 50% per person (from 450 kg per person in 2000 to 225 kg in 2020). Nationally, energy from waste is expected to account for 25% of municipal waste treatment by 2020, compared to 10% today, which is less than the

34% by 2015 anticipated in 2000 (Department for Environment, Food and Rural Affairs (2007)).

13.6. The 'Integrated Waste Strategy for Leeds, 2005-2035' (Leeds City Council 2005a) contains a target of 40% recycling and more importantly, a target of 0% waste growth per household by 2020. The strategy sets out a clear aspiration for Leeds' future: *"our vision is of a zero waste city, where we reduce, reuse, recycle and recover value from all waste, and where waste becomes a resource."*

13.7. The analysis of the evidence in the Natural Resources and Waste DPD Resource Flow Analysis (2008) draws the following conclusions:-

- Waste generation in Leeds is slightly less than the national average for 2004 the most recent available national data. This reflects positively upon Leeds as the national waste arising trend has been upward in recent years; hence Leeds appears to bucking the national trend.
- Relative to the national targets, Leeds generally performs well with the notable exception of MSW being sent to landfill, where action to improve performance should be considered. Utilisation of MSW waste through some form of reduction, reuse and recycling is recommended.
- Not all waste streams have targets assigned, in particular, Construction, Demolition & Excavation and Commercial & Industrial waste streams. These are the two largest single contributors to the overall waste arising in the LCC area. The lack of targets may contribute to the high arising levels in these sectors and the NRWDPD should attempt to improved performance in these two waste streams.
- In relation to overall waste arising in Leeds, an emphasis should be placed upon reduction, reuse and recycling of waste in attempt to treat waste as a by-product and the landfilling of waste should only occur as a last resort.
- Energy from waste would provide a way to address many of the issues whilst reducing reliance on fossil fuels for energy generation and reducing the potential burden of increasing landfill tax.
- Waste arising in the LCC area would be well suited for use in biomass and CHP energy production and investigation of this potential is recommended.

13.8. The CSH includes 3 issues in this category whose aims are:-

Storage of non-recyclable waste and recyclable household waste	To recognise and reward the provision of adequate indoor and outdoor storage space for non-recyclable waste and recyclable household waste
Construction site waste management	To promote reduction and effective management of construction related waste by improving on performance which meets the Site Waste Management Plan (SWMP) regulations
Composting	To encourage developers to provide the facilities to compost household waste, reducing the amount of household waste sent to landfill

### 13.9. STORAGE OF NON-RECYCLABLE WASTE AND RECYCLABLE WASTE

13.10. Possible measures that may be used to recognise and reward the provision of adequate indoor and outdoor storage space for non-recyclable waste and recyclable waste include:-

- For individual houses provide internal storage capacity appropriate for maximum use of recycling opportunities and at least 60 litres per dwelling for internal storage of recyclable materials and sufficient external storage capacity for up to three 240 litre containers (to conform with Leeds City Council's SORT and green waste recycling scheme) and a composting container (large enough to compost 25% of household waste) per dwelling;
- Ensure all storage capacity must be accessible to disabled people and wheelchair users;
- Ensure that all storage capacity must be accessible to the waste collection crew. Access routes should be direct, free from obstructions and raised thresholds to allow easy manoeuvring of wheeled bins. Where changes in level are unavoidable suitable ramps should be provided;
- For developments of more than one residential unit, external storage capacity may be reduced providing that applicants demonstrate the provision of communal external storage is large enough to cater for all dwellings. This judgement must be based on a collection timetable agreed with Leeds City Council;
- Ensure that all communal external storage facilities are easily accessible to waste collection vehicles with sufficient space to allow uplifting and emptying of the provided communal storage containers;
- Storage space for non-residential units will need to be determined through negotiation depending on specific development types. Residential recycling rates will be applied in the first instance: so provision must be made for storing a minimum of 50% of commercial waste for recycling or composting;
- Provide facilities for the collection of materials for recycling; e.g. bottle, can and paper banks.
- Waste storage arrangements should prevent excessive odour in warmer weather conditions.

### 13.11. CONSTRUCTION SITE WASTE MANAGEMENT PLANS

13.12. Possible measures that may be used to promote reduction and effective management of construction related waste by improving on performance which meets the Site Waste Management Plan (SWMP) regulations include:-

- Maximise the re-use of existing buildings and structures on site or, where existing buildings cannot be re-used, utilise the materials as part of the new development or other developments nearby. Materials such as stone, slates, tiles, timber, paving and bricks are generally suitable for re-use;
- Excess material arising from construction should not be disposed of on site;

- Minimise, monitor, measure and report non-hazardous waste production;
- Sorting and separating materials on site for re-use and recycling and aim for at least 50% by weight or volume diversion from landfill;
- Identify any hazardous materials (eg asbestos), monitor, measure and report hazardous materials and arrange for containment and disposal by a licensed operator;
- Design that makes use of prefabricated units or whole units of construction materials;
- Provide on site storage of materials to minimise losses to damp or rain and that facilitates reuse on site or recycling.

### 13.13. COMPOSTING

13.14. Possible measures that may be used to encourage developers to provide the facilities to compost waste include:-

- For individual houses provide a composting container (large enough to compost 25% of household waste) per dwelling together with an information leaflet explaining why composting is important, materials that can be composted and troubleshooting advice;
- For flats or developments where composting would be inappropriate, the requirement for a composting container may be removed. Alternatives such as macerators should be considered;
- Composting toilets and reed bed systems for the treatment of foul water should be considered.

### 13.15. Further information

- Wastewatch is an environmental charity promoting sustainable resource use [www.wastewatch.org.uk](http://www.wastewatch.org.uk)
- Envirowise offers UK businesses free, independent, confidential advice and support on practical ways to increase profits, minimise waste and reduce environmental impact. Available: [www.envirowise.gov.uk](http://www.envirowise.gov.uk)
- Building Regulations, Approved Document H provides guidance on the arrangements for separate storage of waste for recycling: [www.planningportal.gov.uk/england/professionals/en/1115314110382.htm](http://www.planningportal.gov.uk/england/professionals/en/1115314110382.htm)
- BS 5906: 2005 Waste Management in Buildings – Code of Practice: <http://www.bsi-global.com/en/Shop/Publication-Detail/?pid=00000000030050097>
- 'Non-statutory guidance for site waste management plans': [www.defra.gov.uk/environment/waste/topics/construction/pdf/swmp-guidance.pdf](http://www.defra.gov.uk/environment/waste/topics/construction/pdf/swmp-guidance.pdf)
- WRAP, guidance on site waste management and the Demolition Protocol. Available: <http://www.wrap.org.uk/construction/>