

Waste Management Plan



Cardboard baling at Broadgate

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1 Introduction

1.1 Purpose of this Document

This Plan sets out British Land's approach to waste management from property investment, through to development (design and construction) and asset management, as a part of our Corporate Responsibility (CR) programme. It promotes an improvement in waste management across our properties and construction sites.

In time it is envisaged that this Plan will lead to:

- *Better resource efficiency and sustainable waste management practices;*
- *Best means of sharing waste management information, for example on contractors' rates and licences;*
- *A method of recording the volumes of waste going to landfill or recycled from our properties and construction sites; and*
- *The possible use of the British Land Portal for storing more detailed waste information.*

1.2 Benefits

Waste minimisation can provide competitive advantage to British Land's properties in the following ways:

- **Cost savings** through reducing waste to landfill, subsequently reducing landfill tax paid;
- **Environmental benefits** by saving on landfill space, reducing emissions through appropriate storage and minimising waste transport;
- **Reducing the space** needed at British Land properties for the storage and recycling of waste;
- **Risk reduction** both legal through duty of care compliance and financial through reducing exposure to increase in landfill tax; and
- **Improved market** positioning by promoting an organisation and properties which manage waste efficiently.

British Land recognises that the true cost of waste is:



Did you know?

- Fly-tipping - clearing it up costs landowners and the taxpayer around £100 million every year.
- One tonne of paper from recycled pulp saves 17 trees, 2.3 cubic metres of landfill space, 265,000 litres of water, 4200 kWh (enough to heat a home for half a year), 1476 litres of oil, and prevents 27 kilograms of air pollutants.
- Every tonne of glass recycled saves 1.2 tonnes of raw materials.

Good practice: Head Office at Cornwall Terrace

Approximately 14.6 tonnes of white and mixed paper were diverted during 2004 from landfill for recycling.

Outdated presentation equipment has been donated to a Leicester school and carpet removed from Cornwall Terrace given to a local project for elderly people.

2 PRINCIPLES OF WASTE MANAGEMENT

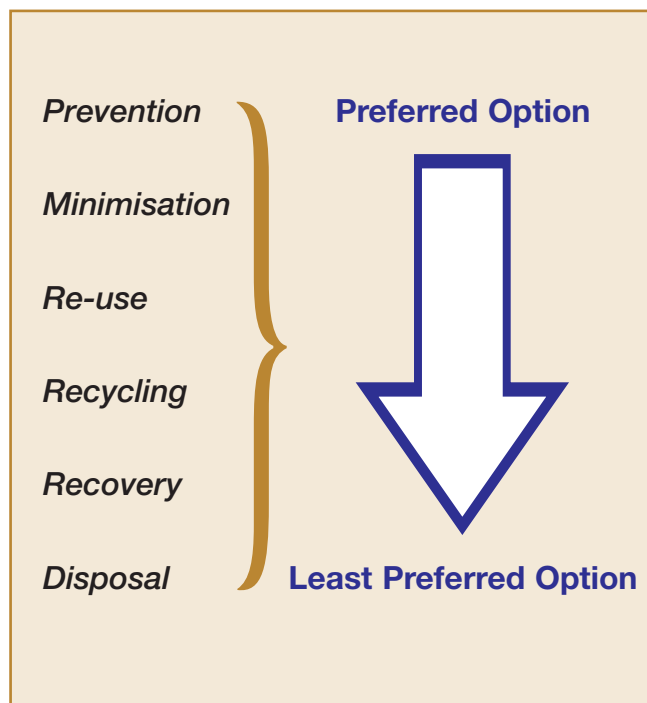
2.1 Waste Management Hierarchy

The prevention (or avoidance of production) of waste is better than the treatment and disposal of waste and is regarded as the most favourable and sustainable **'waste management'** option.

The figure opposite sets out a hierarchy of waste management options. The most preferred options represent the balance of least environmental impact and least cost.

Did you know?

The financial cost of waste management per unit of disposal is going to increase regardless of any action we take as a result of increasing landfill tax and subsequent waste contracting charges.



3 WASTE MANAGEMENT & THE PROPERTY LIFE-CYCLE

The sections below identify good practice waste management specific to each business area.

3.1 Investments

The main areas where waste management can become an issue and how they can be managed are outlined below:

WASTE ISSUE	GUIDANCE
<p>Contaminated soil generated from new build</p>	<p>For properties with contaminated soil, as part of site assessment or due diligence work:</p> <ul style="list-style-type: none"> • Identify extent of contaminated soil; • Consider option to treat in-situ; and • Consider use of surplus soil on site (depending on extent and nature of contamination) • Identify how the cost of treating or disposing of contaminated soil can be considered in transaction costs
<p>Surplus soil generated from new build</p>	<p>Recognise that where a new development requires excavations and surplus soil is generated, this may need disposal. The cost of this needs consideration in property transactions.</p> <p>Mitigation of this cost can be through identifying a use for the soils either on site or at other development sites.</p>
<p>Waste management facilities within properties</p>	<p>Recognise that appropriate facilities are required to manage waste generated from properties (including waste collection and storage areas, compactors and banded areas for storage of liquids).</p>

3.2 Development

3.2.1 Design and Planning

“Designers have a key role to play in minimising waste from construction and building occupation by virtue of being upstream in the overall project development process” - CIRIA 1998.

Through effective design it is possible to reduce waste from materials. For example, having a design, which can incorporate recycled materials or a design which can utilise existing building elements. Some good practice guidance is provided below.

WASTE ISSUE	GUIDANCE
Design parameters	<p>The designer should consider:</p> <ul style="list-style-type: none"> • Likelihood of building usage changing and design in flexibility to accommodate changes; • Not over specifying structures that support areas that require heavy loading. This will reduce concrete, timber and steel usage and wastage; • Use of existing building elements; • Incorporating during the construction process flexibility to accommodate changes in design without wastage; and • The life-cycle of the building, including deconstruction and its potential environmental impacts.
Material specification	<p>Consider the use of reclaimed materials wherever practicable, by:</p> <ul style="list-style-type: none"> • Incorporating materials from demolition; • Preparing specification such that reclaimed materials are not excluded; and • Considering reclaimed materials from other industries (e.g. industrial by-products such as metallurgical slag and pulverised fuel ash or glass in the use of ‘con-glass-crete’). <p>When sourcing reclaimed materials consider:</p> <ul style="list-style-type: none"> • Is there sufficient supply of the material from the source(s) identified? • Are the material’s engineering, chemical and structural properties known? • Is the reclaimed material a cost effective option? • The life-cycle of the material. For example will it need replacing or does it require extensive maintenance throughout its life. • Embodied energy of the material, e.g. energy required to transport and produce the material.
Component size and capacity	<p>Consider use of standardised and pre-fabricated modular building systems. Aim to avoid the use of irregular and composite forms.</p>

WASTE ISSUE	GUIDANCE
Temporary works	Consider the amount of temporary works required to construct and aim to reduce.
Surplus soil management	<p>The design of new properties should aim to minimise the amount of soil being disposed to landfill. This can be achieved through:</p> <ul style="list-style-type: none"> • Where excavation is required - aiming to realise a neutral soil (cut/fill) balance whereby fill requirements match excavation, for example topsoil storage for landscaping works. • Identifying other developments that can utilise surplus soil.
Waste management facilities	<p>Designers should consider the need for:</p> <ul style="list-style-type: none"> • Recycling bays; • Space and power for waste compactor(s) and bailers; and • Special containment for hazardous, clinical and liquid waste

Further reading:

- Office Design Brief, British Land.
- British Land Developments – Sustainability Brief, 2004
- London Mayor’s Waste Strategy – Rethinking rubbish in London. 2003.
- Waste Minimisation and Recycling in Construction – Design Manual. CIRIA SP134. 1998.
- BRE 475 – Green Guide to Composites, 2004.

3.2.2 Construction

British Land aims to reduce construction wastes; the following are some of the good practice initiatives that British Land expects contractors to consider.

Did you know?

Waste from construction sites totals approximately 90 million tonnes per annum in the UK.

WASTE ISSUE	GUIDANCE
Soil	<p>Consideration should be given to reducing the need for off-site soil removal or disposal, through:</p> <ul style="list-style-type: none"> • Re-use of soil on site as part of landscaping or as acoustic barriers (the good storage of topsoil will also allow for the greater potential for it to be reused); and • Identifying re-use opportunities on other sites. <p>Additionally to reduce soil generation it is good practice not to over excavate foundations.</p>
Aggregates and blacktop	<p>Sourcing of aggregates will aim to use reclaimed materials, depending on specification (see Design and Planning, above).</p> <p>Consideration will be given to crushing concrete (either from works or demolition) on site for use as aggregates.</p> <p>Consideration will be given to use of blacktop in road formation and where bulk fill is required.</p> <p>Further reading: www.aggregain.org.uk</p>
Timber	<p>Consideration should be given to:</p> <ul style="list-style-type: none"> • Re-use of formwork and hoarding; • Segregation of wood waste so that off site recycling (e.g. wood chipping) can occur; • Return of storage pallets where possible.
Vegetation and other organics	<p>Process through mulching or composting organic materials arising from the construction works. Such materials could include vegetation, naturally occurring peat, and food waste and could be used in landscaping.</p>
Metal	<p>Separate metals from the general waste stream and send for off-site recycling.</p> <p>Steel, stainless, aluminium and copper can often be sold on to merchants. Best practice should keep ferrous metals separate from non-ferrous metals.</p>

Further reading:

- DTi – Sustainable Construction Brief, April 2004

WASTE ISSUE	GUIDANCE
Architectural features	<p>With careful and planned demolition a number of materials can be salvaged for either re-use on site (depending on the specification) or re-use off-site. These include:</p> <ul style="list-style-type: none"> • Bricks • Bathroom fittings • Floor coverings • Window and door frames • Floorboards • Stair cases • Ductwork • Wiring and cabling
Hazardous waste	<p>Reduce production of hazardous waste in the first place. This generally entails appropriate storage and handling of hazardous materials to prevent spillage.</p> <p>Used oils, asbestos and contaminated soil; in cases where such wastes arise disposal should be by an authorised contractor to a facility authorised to receive the waste. Notably the number of facilities authorised has dropped by nearly 90% in the last year (refer Appendix A).</p>
Procurement	<p>Surplus materials are often wasted, and poorly stored materials are sometimes damaged and wasted. This can be alleviated through ordering the correct amount of materials at the right time. Additional benefits include:</p> <ul style="list-style-type: none"> • Improved cash flow; • Better use of limited storage space on site; and • Reduce piles of stored materials - and create a safer site. <p>It is good practice for the collation of waste invoices to be undertaken by the procurement team – this allows for reporting volumes of waste.</p>
Waste Management Plans	<p>Waste Management Plans for large developments may be required to ensure that off site waste disposal is reduced and regulatory controls met. The site Waste Management Plan should as a minimum identify:</p> <ul style="list-style-type: none"> • A person responsible for waste management; • The types of waste that will be generated; • Waste management options for those wastes that considers the Waste Management Hierarchy; • Appropriate waste management sites and contractors; • A plan for monitoring and reporting the quantity of waste.

Further reading:

- CIRIA - SP133 - Waste Minimisation in Construction - Site Guide
- British Land Developments – Sustainability Brief, 2004
- Dti – Site Waste Management Plans, Guidance for Construction Contractors and Clients, July 2004
- ICE – Demolition Protocol – London Remade/Enviro-Centre

3.3 Asset Management

British Land is often responsible for managing waste from its properties, in particular multi-let properties. In doing so we can identify mutually beneficial initiatives for tenants, managing agents and British Land. Some initiatives are identified below for consideration.

Good Practice: Meadowhall

A policy of zero waste to landfill was introduced in February 2004. General waste is diverted to an incinerator from which heat and power is produced for the Sheffield area saving £35k over four years and helping the environment.

WASTE ISSUE	GUIDANCE
Waste Management Facilities	<p>To improve waste management within our properties:</p> <ul style="list-style-type: none"> • Identify and provide collection and storage for separate waste streams where space is available. Typical recyclable waste streams include glass, cardboard, used oils, wood, some plastics and metals. • Provide space within tenants' areas and the central waste management areas for recycling where space is available.
Paper	<p>Work with tenants and managing agents to reduce paper waste, for example by:</p> <ul style="list-style-type: none"> • Establishing a contract with a paper recycler; • Provision of in-office recycling; • Use of duplex printing and copying; and • Use of shredders and bailers to reduce volume.
Vegetation	<p>Where vegetation has been cut or removed as part of landscaping works to re-use on site through composting or mulching.</p>
Plastic	<p>Plastic is generated through packaging, particularly in our shopping centres. Collection and storage is best managed through the use of a bailer (depending on the volume).</p>
Cardboard	<p>Cardboard can be sold on to recycling companies.</p> <p>Collection and storage is best managed through the use of a compactor or bailer (depending on the volume).</p>
Glass	<p>There are a number of contractors who will undertake collection and off-site recycling.</p> <p>Managing agents should ensure that the glass collection from tenants and subsequent storage is safe. Re-usable containers for transferring glass bottles should be considered for ease of handling.</p>

WASTE ISSUE	GUIDANCE
Used Vehicles	Abandoned cars have been a problem for some properties. Where early disposal of abandoned cars is required our agents should do so in collaboration with the local authority to an authorised facility (refer Appendix A).
<p>NOTE</p> <p>Many of our tenants may have obligations under the Packaging Regulations –Tenants can reduce packaging by:</p> <ul style="list-style-type: none"> • Eliminating unnecessary packaging; • Redesigning packaging to reduce packaging weight; • Using re-usable, multi-trip packaging; • Packaging re-use; and • Segregating from the general waste stream packaging for recycling. 	

Further reading: www.wrap.org.uk, www.envirowise.org.uk

4 APPENDIX A-WASTE MANAGEMENT REQUIREMENTS

Legal responsibilities relating to waste management (in particular storage, transporting and disposal) fall in varying degrees on the company's agents. At an operational level it is the managing agents who handle day-to-day management of waste and its legal aspects. At a higher, management level British Land have an overall duty to ensure that waste is managed effectively and legally. The following sections provide an outline of how those responsibilities can be met to reduce the risk of non-compliance.

The subsequent sections discuss the requirements of key waste management legislation as of June 2005. It is not an exhaustive commentary of all legislation with a waste management aspect. An up to date listing of key legislation (including discussion) is available at "NetRegs" on the Environmental Agency's website, www.environment-agency.gov.uk/netregs.

Duty of Care

The Environmental Protection Act 1990 places a Duty of Care on any person who produces, imports, carries, keeps, treats or disposes of controlled waste. The main requirements of the Duty of Care are as follows:

- All controlled waste is to be properly stored, managed and disposed of;
- All waste transferred and disposed of must be supported by a waste transfer note. Records must be kept for 2 years;
- Waste is to be transferred only to authorised persons; and
- 'Duty of Care' transfer notes need to identify wastes using the relevant six-digit codes from the European Waste Catalogue (EWC) in addition to providing a written description of the waste.

Where waste transfer notes and special waste consignment notes are required for waste disposal from the premises ensure the following information is provided:

- What the waste is, how much there is and its 6-digit EWC;
- What sort of containers the waste is in;
- Time date and place waste was transferred;
- Names and addresses of both persons involved in the transfer;
- Appropriate certificate and licence numbers of waste carriers and disposer; and
- Waste disposal location.

Further reading: The Duty of Care - A Code of Practice (Environmental Protection Act 1990 Section 34 - Waste Management)

Landfill Regulations

The Landfill Regulations (England and Wales) 2002 (as amended) sets out a new waste classification and treatment regime, whereby the co-disposal of inert, hazardous and non-hazardous waste is prohibited. The implication is increased disposal costs. It is therefore important to:

- Ensure waste minimisation and recycling practices are employed wherever possible; and
- Where waste is to be disposed:
 - Inert, non-hazardous and hazardous waste are segregated; and
 - Appropriate classification of waste is provided on waste transfer.

Did you know?

The number of landfills authorised to accept hazardous waste has significantly reduced since July 2004. This has therefore increased the costs of disposal.

Packaging Regulations

For those properties that provide food and retail facilities it is likely that a large number of our tenants (including clothes shops, building supplies, electrical furniture outlets, food outlets and pubs) will be subject to the Producer Responsibility, Obligations (Packaging Waste) Regulations 1997 (as amended). As such there are legal requirements on those tenants to recover, recycle and record certain amounts of packaging waste as part of their waste **'obligation'**.

Our agents should consider:

- Identifying tenants' packaging policies with respect to waste management (e.g. some clothing outlets may require packaging to be returned to their stores and not disposed of by the property management);
- Consider what facilities or resources are required to assist tenants in meeting their policies, for example extra storage for tenants to store packaging to be returned, or downsizing waste management facilities (e.g. reducing compactor capacity to cater for reduced demand if packaging is returned).

Waste Electrical and Electronic Equipment (WEEE) Directive

The European Waste Electrical and Electronic Equipment (WEEE) Directive (2002/96/EC) will be implemented on 1 January 2006, setting collection, recycling and recovery targets for all types of electrical products.

This directive affects British Land in two ways:

- Directly, where the Company's tenants wish to dispose of unwanted WEEE (this could include IT equipment, appliances, CCTV equipment, communications equipment, etc) and reuse is not practicable, this will have to be done at an approved waste management facility; and
- Indirectly, where British Land's tenants (particularly some retailers) are required to have take-back facilities managing agents need to consider space, security and logistical implications for the building.

Abandoned Cars - End-of-Life Vehicles Regulations 2003

The End-of-Life Vehicles Regulations came into force on 3rd November 2003. While the onus is largely on manufacturers and end-of-life-vehicle (ELV) treatment facilities there is also an impact on British Land.

British Land recognises the problem of car abandonment at some of its properties. A consequence of the regulations is a likely increase in treatment cost and subsequently more car abandonment.

Did you know?

It costs local authorities £360 per vehicle to arrange environmentally friendly car disposal.

Disposal of abandoned cars is generally the responsibility of the local authority – but a process of notification can mean the car remains on site for some time. Therefore:

- We encourage early identification of abandoned cars and notification to the local authorities; and
- Where early removal is required and the local authority cannot arrange it, it may become the managing agent's responsibility to dispose. In that case disposal must be to an authorised end-of-life-vehicle treatment facility (under the 2003 Regulations).

Did you know?

The British Vehicle Salvage Federation offered a "guesstimate" of an increase to about 500,000 per year because of increased disposal costs and tighter controls. The British Metals Recycling Association believed that the figure will probably quadruple.